



UNITED NATIONS ENVIRONMENT PROGRAMME

REGIONAL
SEAS

directories and bibliographies

**marine
environmental
centres:**

MEDITERRANEAN



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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NOTE

This document is not an official publication but a compilation of information received from Mediterranean marine environmental centres.

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NOTE.

Le présent document n'est pas à proprement parler une publication officielle mais plutôt un recueil d'informations reçues des centres méditerranéens des sciences de l'environnement marin.

Cette publication a été préparée par la FAO et le PNUE sous les projets
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Les appellations employées dans cette publication et la présentation des données qui y figurent n'impliquent de la part du PNUE ou la FAO aucune prise de position quant au statut juridique des Etats ou Territoires, ou de leurs autorités, ni quant au tracé de leurs frontières.

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PREFACE

Since the beginning of UNEP's Regional Seas Programme in 1974, the need became obvious for more complete information on institutions which could actively participate in the Programme. Therefore UNEP, in close collaboration with a number of international, intergovernmental and non-governmental organizations, supported the preparation and publication of general, regional and specialized directories of marine research (environmental) centres.

The first (1976) and second (1977) editions of the Directory of Mediterranean Marine Research Centres were published as loose leaf volumes by UNEP. The information contained in the 1977 edition is now considerably outdated and does not conform to the format of the Institutions Register of the Aquatic Sciences and Fisheries Information System (ASFIS) nor is it in a form which can readily be accessed as a computerized data base. It was therefore decided to produce a new directory in the format now being used for other regions.

This directory was compiled under auspices of a UNEP financed project as a product of ASFIS. FAO circulated institution register forms to marine environmental centres in the region as identified by the UNEP Mediterranean Coordinating Unit (Athens). The replies were entered into the Institutions Register of ASFIS, which had been modified to conform with UNEP Regional Seas needs.

Every effort has been made by the Secretariat of UNEP and FAO to contact all institutions included in previous editions of the Directory as well as some new ones. Those institutions which completed the new questionnaire were also invited to verify the information before printing. Nevertheless, there will be some erroneous information and some institutions of relevance to the Programme may have been omitted. We apologise in advance for this and ask institutions to communicate errors or omissions as well as comments to:

The UNEP/FAO Project Coordinator
(Directories and Bibliographies)
Fisheries Department, FAO
Via delle Terme di Caracalla
00100 Roma (Italia)

PREFACE

Depuis le lancement du Programme du PNUE pour les mers régionales en 1974, la nécessité de disposer d'informations plus complètes, sur les institutions susceptibles d'y participer activement, est devenue évidente. Le PNUE a donc, en collaboration étroite avec plusieurs organismes internationaux, intergouvernementaux et non gouvernementaux, apporté son soutien à la préparation et à la publication de répertoire d'intérêt général, régional ou spécialisé des centres de recherche sur le milieu marin.

La première (1976), puis la deuxième édition (1977) du Répertoire des centres méditerranéens de recherche marine ont été publiées par le PNUE sous forme de volumes à feuillets détachables. L'édition de 1977 contient des renseignements désormais considérablement dépassés. En outre elle ne respecte pas le modèle de présentation du Registre du système d'information sur les sciences aquatiques et la pêche (ASFIS) et sa conception ne permet pas un accès informatisé commode. Il a donc été décidé de préparer un nouveau répertoire conçu sur le même modèle que ceux des autres régions.

Le présent répertoire a été compilé sous les auspices d'un projet financé par le PNUE, et a été produit par l'ASFIS. La FAO a adressé des formulaires d'enregistrement des institutions aux centres de recherche sur le milieu marin de la région que l'Unité de coordination du PNUE pour la Méditerranée (Athènes) a identifiées. Les réponses ont été introduites dans le Registre des institutions de l'ASFIS, qui a été modifié pour répondre aux besoins du Programme du PNUE pour les mers régionales.

Le Secrétariat du PNUE et la FAO ont déployé tous leurs efforts pour se mettre en relation avec toutes les institutions figurant aux éditions précédentes du Répertoire, et certaines institutions nouvelles. Les institutions qui ont répondu au nouveau questionnaire ont également été invitées à vérifier les renseignements avant impression. Des informations erronées ont néanmoins pu subsister, et des institutions dont les activités touchent au Programme avoir été omises. Nous prions par avance l'utilisateur de bien vouloir nous en excuser, et demandons aux institutions de signaler les erreurs ou omissions, et de communiquer leurs commentaires au:

Coordinateur du Projet PNUE/FAO
(Répertoires et bibliographies)
Département des pêches, FAO
Via delle Terme di Caracalla
00100 Roma (Italia)

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Centar za istraživanje mora Zagreb, Institut Rudjer Bošković (CIM ZGB-IRB), (Center for Marine Research Zagreb, Rudjer Bošković Institute), (CMR ZGB-RBI), Zagreb	300

معهد علوم البحر وتهيئة السواحل

Institut des sciences de la mer et de l'aménagement du littoral (ISMAL)

Fonctionnaire exécutif: CHOUIKHI Abdelouahab: Directeur

Adresse postale

Institut des sciences de la mer et de l'aménagement du littoral (ISMAL)
Jetée Nord, Amirauté
Boîte Postale 90
ALGER BOURSE, ALGER
ALGERIA

Telephone: 627319/626659

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Aquaculture	Océanographie
Chimie	Physique
Microbiologie	Pollution
Géographie	Géologie/sédimentologie
Education, formation ou vulgarisation	

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Crevettes	Autres invertébrés
Plancton	Benthos
Eaux marines côtières	Hydrocarbures du pétrole
Métaux (polluants)	Hydrocarbures contenant des halogènes
Eléments nutritifs	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Fondé en 1882. Avant 1962 représentait la 'station maritime' de l'Université d'Alger. De 1962 à 1974 a été nommé 'Institut océanographique' d'Alger; depuis 1975 à ce jour 'Centre de recherches océanographiques et des pêches', relevant de l'Organisme national de la recherche scientifique (ONRS); Recherches et enseignement tenant compte des priorités nationales.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Etude sur la production primaire et microbiologie des eaux; pêches (estimation des stocks), biologie des poissons (anchois, crevettes, sardines, soles), histologie, embryologie
- effets des pollutions industrielles, urbaines, agricoles
- sédimentologie marine
- écologie marine en milieux saumâtres (lac Mellah)

Principales activités de recherche et autres activités en cours
Production primaire, pollution, sédimentologie, benthologie, halieutique (anchois, sardines, crustacés, soles), histologie, écologie marine.

Les programmes futurs

Aménagement du littoral, développement de l'océanographie physique et chimique, enseignement dans les sciences de la mer:
- océanographie biologique (post-graduation)
- formation de techniciens supérieurs en biologie des pêches
- océanographie géologique (post-graduation)
- formation d'ingénieurs géologues
- formation de techniciens supérieurs en hydrographie

Programme de coopération

- sur le plan national relations avec: S.E.P.T.M. (Secrétariat à la pêche et aux transports maritimes) l'IST (Institut des sciences de la Terre), l'USTHB (Institut de biologie) et l'INC (Institut national de cartographie)
- sur le plan international relations avec: UNESCO/PNUE, FAO/PNUE (projets MED/POL), C.I.E.S.M., C.O.I., C.N.R.S.

Programme de formation

- Post-graduation en océanographie assurée à l'USTHB et à l'ISMAL

Structure de l'institution

L'ISMAL comprend 7 laboratoires:
- Production primaire
- Microbiologie
- Pollution, chimie des eaux
- Halieutique

Structure de l'institution

(Cont.)

- Algologie
- Géologie marine
- Physique

Personnel

33 Personnel scient. 24 Personnel technique 14 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Aid, Fatiha	Thèse de 3ème cycle	Production primaire
Aissi, Abdelaziz	Ingénieur/pêches	Pollution
Asso, André	Thèse de 3ème cycle	Pollution
Ait Kaci A., Dalila	D.E.A.	Géologie marine
Bakalem, Ali	Thèse de 3ème cycle	Benthologie
Belaid, Baya	Thèse de 3ème cycle	Histologie/Halieutique
Belkessa, Rabah	D.E.A.	Géomorphologie
Benachour, Fatima	D.E.A.	Aménagement du littoral
Djabali, Farid	Thèse de 3ème cycle	Halieutique
Khodja, Fatiha	Thèse de 3ème cycle	Histologie/Halieutique
Lalami, Y.	Doctorat d'Etat	Halieutique
Lalami, R. (Mme)	Doctorat d'Etat	Phytoplancton
Maouche, Samia	D.E.A.	Géologie marine
Marinero, Jean-Yves	Thèse de 3ème cycle	Halieutique
Pauc, Henri	Thèse de 3ème cycle	Géologie marine
Salman, Sultan	Ph.D.	Océanographie physique
Romano, Jean-Claude	Thèse de 3ème cycle	Benthologie
Semroud, Rachid	Thèse de 3ème cycle	Ecologie
Seridji, Rabia	Thèse de 3ème cycle	Biologie (plancton)
Yahiaoui, Mokhtar	Thèse de 3ème cycle	Halieutique
Bouchafaa, Mustapha	D.E.S.	Electronique

Locaux/installationsSuperficie construite: 525 m² Superficie des laboratoires: 280 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 20

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 2200

Les titres des monographies et des séries:

Pélagos (français, semestrielle, par échange et abonnement)

Matériel

Spectrophotomètre en absorption atomique, chromatographe à phase gazeuse, chaîne Technicon (auto-analyseur II), spectrophotomètre I.R., Coulter-counter, microscope à renversement, microscope 'Ortophan', spectrophotomètre UV visible, spectrophotomètre à fluorescences, 4 microscopes ordinaires, 3 loupes binoculaires (M8), 2 mini-ordinateurs HP 85, 2 salinomètres, 2 oxymètres, 2 pH mètres, 5 étuves, 2 chambres froides, 2 centrifugeuses, fluorimètre, micro-manipulateur, appareil pour microphotographie, treuil portatif, transmissomètre, 2 microtomes, désioniseur Millipore, courantomètre Aanderaa, courantomètre Ekman, carottier orange-peel, benne, 2 bennes Van Veen, 3 dragues, 2 filets à plancton, disque de Secchi, poulie compteuse, bi-distillateur, 20 bouteilles à renversement.

Aquarium d'experimentationSuperficie totale: 90 m² Nombre de réservoirs: 8**Bâtiments de recherche**

Nom: M.S. BENYAHIA
 Propriétaire: Min. enseignement et recherche sc.
 Longueur: 25 m.
 Type: Recherches
 Année de construction: 1982
 Equipage: 11
 Personnel scientifique: 10
 Superficie des lab.: 38 m²

Nom: IBTICEM
 Propriétaire: ISMAL
 Longueur: 12 m.
 Type: Recherches
 Equipage: 3
 Personnel scientifique: 4
 Superficie des lab.: 6 m²

Bâtiments de recherche

(Cont.)

Nom:	OSTREA
Propriétaire:	ISMAL
Longueur:	9 m.
Type:	Pêche côtière
Equipage:	3
Personnel scientifique:	4
Superficie des lab.:	6 m²

Le code de l'institution 003001

Information reçue: 01/11/84

Τμήμα Αλιείας

Department of Fisheries

Executive officer: DEMETROPOULOS Andreas: Head

Postal address

Department of Fisheries
5-7 Tagmatarchou Poulíou
NICOSIA
CYPRUS

Telephone: 40-3279

Telex: FISHERIES MINAGRI

Working languages
Greek, English

Nature of institute
Governmental

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Resources management	Fishing technology
Aquaculture	Oceanography
Chemical sciences	Physical sciences
Pollution	Policy and planning
Education, training or extension	

Areas of speciality

Marine mammals	Demersal fish
Pelagic fish	Other vertebrates
Cephalopods	Lobsters
Shrimps/prawns	Other invertebrates
Algae	Plankton
Benthos	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Department was founded in 1964 to carry out research, regulate and develop fisheries. This includes the conservation and protection of the marine and fresh water environment and endangered species.

Research, monitoring and other activities in last three years

- Research on the reproduction and larval rearing of sea bass *Dicentrarchus labrax*, sea breams, *Diplodus sargus* and *Sparus auratus* and rabbit fish *Siganus spp.*
- Fish nutrition and physiology (marine species as above)
- Studies on the biology and population dynamics of the main commercial species.
- Physical and chemical oceanographic work in Larnaca and Limassol Bays.
- Marine turtles conservation and research on nutrition and physiology.
- Studies on the biology and population dynamics of *Xiphias gladius* and other large pelagic fish.
- Sponge fisheries, stock assessment.
- The marine fauna of Cyprus (baseline work)
- Monitoring of industrial effluents discharged into the sea.
- Monitoring of pollution from petroleum hydrocarbons in sea water and on beaches.
- Shrimp cultivation research (nutrition)
- Baseline studies and monitoring of metals and halogenated hydrocarbons in marine organisms.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Continuation of current programme

- Monitoring of halogenated hydrocarbons and metals in sea water and sediments.
- Study of littoral, benthic and fish communities in the Vasilikos-Moni area in relation to the effect of pollution from thermal effluents.

These projects are within the framework of the Long Term Pollution Monitoring and Research Programme (MED POL-Phase II)

Objectives and programmes

(Cont.)

Cooperative programme

- MED-POL (MAP/UNEP)
- MEDRAP (FAO/UNDP)

Training programme

- Add-hoc courses for fishermen (navigation etc.)

Institution structure

The Department is divided into the following units:

- Demersal Resources - Assessment and Management
- Pelagic Resources - Assessment and Management
- Fish Culture and Inland Water Management
- Extension Services/Aid to Fishermen Programmes
- Marine Biological Research/Conservation
- Pollution
- Oceanography
- Fisheries Technology
- Fisheries Inspectorate
- Fishing Shelters
- Administrative Services, Statistics etc.
- Kalopanayisti Experimental Farm

Staff

12 Scientific staff 32 Technical staff 15 Other staff

Professional scientific staff

Name	Degree	Speciality
Demetropoulos, A.	M.Sc.	Fisheries management, Ecology
Livadas, R.	M.Sc.	Population dynamics, Demersal fish
Economou, E.	M.Sc.	Pelagic fish, Sponges
Stephanou, D. (Ms)	B.Sc.	Fish culture, Inland water management
Loucaides, Z.	B.Sc.	Fishing shelters
Georgiou, G.	B.Sc.	Fish culture (marine)
Loizides, I.	M.Sc.	Pollution
Anastassiades, G.	B.Sc.	Fish culture (freshwater)
Athanassiadou, I. (Ms)	B.Sc.	Oceanography, Pollution
Hadjichristophorou, M. (Ms)	M.Sc.	Marine ecology, Benthos, Turtles, Fish nutrition
Konteatis, D.	B.Sc.	Pelagic fish, Sponges
Hadjistephanou, N.	M.Sc.	Crustaceans

Premises/facilities

Building area: 940 m²

Laboratory area: 250 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 2500

Number of periodical subscriptions: 20

Monographs and serials titles:

- Annual Report of the Department, 1980: 1981: 1982 (English, free or on exchange basis)
- Fisheries Bulletin (English, occasional)

Equipment

Atomic absorption spectrophotometer, fluorescence spectrophotometer, gas chromatograph, salinometer, underwater photographic equipment, low temperature incubator (ovens etc.), temperature recorders, reversing bottles and thermometers, 2 current meters (DRCM), 3 Aanderaa recording current meters, bathythermographs, bottom samplers, corers, dredges, analytical balances, centrifuges, deep freezers, microscopes etc., pH meters, oxygen meter, Rotary evaporator, muffle furnace etc., diving equipment with compressor, farm pelleting press, grinding mill.

Aquarium facilities

Total area: 300 m² Number of tanks: 20

Organisms maintained:

Demersal fish

Other vertebrates

Crustaceans

Other invertebrates

Algae

Aquarium facilities

(Cont.)

Species maintained for experimental purposes:

Penaeus japonicus
Chelonia mydas
Diplodus sargus
Siganus luvidus
Tetraselmis suecica
Pavlova lutheri

Penaeus kerathurus
Caretta caretta
Sparus auratus
Mugil spp.
Isochrysis galbana

Artemia salina
Dicentrarchus labrax
Siganus rivulatus
Brachionus plicatilis
Dunaniella salina

Research craft

Name: R/V Triton
 Owner: Fisheries Department
 Length: 16 m.
 Type: Sterntrawler
 Date of construction: 1972
 Crew: 5
 Special facilities:
 Hydraulic winch, radar, 2 echosounders, 8 berths, 2 radiotelephones

Name: F2
 Owner: Fisheries Department
 Length: 11 m.
 Type: multi-purpose patrol
 Date of construction: 1975
 Crew: 1
 Special facilities:
 Radar, echosounder R/T, 2 berths

Name: Chrysokava
 Owner: Fisheries Department
 Length: 11 m.
 Type: multi-purpose patrol
 Date of construction: 1980
 Crew: 1
 Special facilities:
 Radar, radiotelephone, echosounder, 4 berths

Institution code: 001011

Information received: 05/11/84

Τμήμα Γεωλογικής Επισκοπήσεως
Geological Survey Department (G.S.D.)

Executive officer: CONSTANTINOU Georgios: Director

Postal address

**Geological Survey Department (G.S.D.)
NICOSIA
CYPRUS**

Telephone: 021-402338
Telex: 2283 MINCOMIN CY
Cable: GEOLOGICAL NICOSIA

Working languages

Greek. English

Nature of institute

Governmental

Main fields of activities

10. Fields of activities	
Resources management	Pollution
Engineering	Geology/sedimentology)
Mineral resources (incl. Oil)	Technology transfer

Areas of speciality

Other minerals	Brackish waters
Inland (fresh) waters	

Objectives and programmes

History of institution, its mandate and purpose

primary objective of regional geological mapping of the Island. Gradually the volume and diversity of work increased and the size of the Department expanded. With the establishment of the Republic of Cyprus (1960) new responsibilities were taken over by the Department, and a re-orientation of its activities, towards applied fields of geology, became essential. Primary objectives of the Department now are the exploration and evaluation of the mineral resources of the Island, including metallic and non-metallic minerals and water, and the distribution of geological - geotechnical information to all interested members of the public and private sectors.

Research, monitoring and other activities in last three years

The main fields of activities of the Department during the last three years have been the exploration, evaluation and methods of beneficiation of industrial minerals, groundwater exploration, exploitation and pollution problems and engineering geology work connected with structure foundations and slope stability.

Major current research and other activities

No major research programmes are presently pursued, the activities of the Department being rather applied-orientated. Apart from the above activities, officers of the Department participate in various inter-governmental committees on subjects such as government policy on mineral resources, groundwater management, preparation of standards environment, etc.

Future programmes

Programming of future activities is essentially based on the requirements of the country's economy and, for the foreseeable future such activities will be on the same lines as at present.

Cooperative programme

Local co-operating institutions:

- Department of Public Works
- Water Development
- Mines and Quarries
- Town Planning

Overseas co-operating institutions include:

- IGS of United Kingdom
- BRGM of France
- BGR of Western Germany
- IGME of Greece
- UNDP

Training programme

No training is provided by the Department. Geoscientists and students from abroad are constantly visiting the Department in connection with various geological projects.

Institution structure

Departmental Sections:

- Economic Geology
- Hydrogeology
- Engineering Geology

Institution structure

(Cont.)

- Mapping

(Each Section is headed by a Senior Geological Officer)

Staff

21 Scientific staff 33 Technical staff 112 Other staff

Professional scientific staff

Name	Degree	Speciality
Constantinou, G.	Ph.D.	Economic geology
Pantazis, Th.	Ph.D.	Geological mapping
Panayiotou, A.	Ph.D.	Economic geology
Aphrodisis, S.	B.Sc.	Hydrogeology
Zomenis, S.	Ph.D.	Hydrogeology
Constantinou, Chr.	M.Sc.	Hydrogeology
Neophytou, I.	Ph.D.	Geophysics-Seismology
Petrides, G.	M.Sc.	Engineering geology
Xenophontos, C.	Ph.D.	Engineering geology
Kramvis, S.	M.Sc.	Geophysics
Eleftheriou, S.	M.Sc.	Geophysics
Christodoulou, E.	M.Sc.	Economic geology
Michaélides, P.	Ph.D.	Engineering geology
Charalambides, A.	Ph.D.	Chemistry
Charalambous, M. (Ms)	Ph.D.	Engineering geology
Georgiou, E. (Ms)	M.Sc.	Economic geology
Kyriacou, E.	M.Sc.	Engineering geology, Photogeology
Avraamides, C.	B.Sc.	Hydrogeology
Panayides, I.	B.Sc.	General geology
Patatakis, M.	B.Sc.	Mechanical engineering
Loucaides, G.	B.Sc.	Civil engineering

Premises/facilitiesBuilding area: 2000 m²Laboratory area: 500 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 14500

Number of periodical subscriptions: 7

Monographs and serials titles:

Ophiolites: published in Proceedings of International Ophiolite Symposium (1980)

Serial Titles: Bulletins (last No. 7)

Memoirs (last No. 8)

Annual Reports (last 1983)

Equipment

Analytical Equipment:

Double beam atomic absorption spectrophotometer, single beam atomic absorption spectrophotometer, single beam UV-visible spectrophotometer, Metrohm spectrophotometer, flame photometer, automatic titrator, pH meters, conductivity meters, balances.

Drilling equipment:

5 Schramm air-percussion drills, Mayhew Rotary drill, 8 percussion (R.B.) drills, 1 Auger mobile drill.

Institution code:

001012

Information received: 05/11/84

**Department of Oceanography,
Faculty of Science,
University of Alexandria**

Executive officer: DOWIDAR, Naim M.: Head

Postal address

Department of Oceanography,
Faculty of Science,
University of Alexandria
Moharrem Bey
ALEXANDRIA
EGYPT

Telephone: 22918/22919/25879
Telex: 54467 UNIVY UN

Working languages
Arabic, English

Nature of institute
Governmental Academic

Main fields of activities	
Biological sciences	Marine fisheries
Resources management	Oceanography
Limnology	Chemical sciences
Physical sciences	Pollution
Geology/sedimentology)	Education, training or extension

Areas of speciality	
Demersal fish	Pelagic fish
Other invertebrates	Plankton
Benthos	Coastal marine waters
Brackish waters	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Department was founded, within the Faculty of Science, Alexandria University, in 1948. The aims of the Department are twofold: educational for undergraduate and graduate students, and research (oriented and unrestricted) in physical, chemical and biological oceanography.

Research, monitoring and other activities in last three years

- Chemistry and hydrography of Mediterranean coastal waters of Egypt. Primary productivity and phytoplankton biomass of the Egyptian Mediterranean waters. Primary productivity and phytoplankton biomass off the Red Sea waters.
- Chemistry, hydrography, primary productivity and fisheries of coastal delta lakes.
- Recent marine sediments off the Mediterranean coast of Egypt: coastal lake sediments.
- Plankton (taxonomy, distribution and ecology) of the Egyptian Mediterranean waters, Suez Canal and Red Sea.
- Fouling communities of harbours.
- Bottom fauna, including systematics and distribution of the main benthic animal groups.
- The fisheries biology of the commercial fishes of the Mediterranean waters of Egypt and of coastal delta lakes.

Major current research and other activities

- Hydrography and plankton production of the Mediterranean waters off the Nile Delta: biological productivity of the south-eastern Mediterranean in the post High Dam period.
- ¹⁴C primary production, chlorophyll biomass and species composition of the phytoplankton community.
- Quantitative and qualitative assessment of the zooplankton community in the south-eastern Mediterranean.
- Hydrography and nutrient chemistry of the Mediterranean waters off the Nile Delta: aquatic pollution; biological productivity of the coastal lakes; distribution and biomass of macrophytes along Alexandria coast.

Future programmes

- Biological equilibrium in the south-eastern Mediterranean in the post High Dam period; trophic relations and food chain.
- Ichthyoplankton taxonomy and distribution, feeding and growth: potential fish production and stock assessment.
- Nutrient budget and the role of nutrient point sources along the Egyptian Mediterranean coast.
- Monitoring of aquatic pollution.
- Study of the biological exchange between the Mediterranean and the Red Sea via Suez Canal.

Objectives and programmes

(Cont.)

- Management and modelling of coastal lakes.**Cooperative programme**

- UNDP/UNESCO (Aquatic Pollution Centre, Alexandria University)
- US/AID, Texas A&M University and Bigelow Laboratory of Ocean Science (Biological productivity of the south-eastern Mediterranean in the post High Dam period; fishery management of Lake Marmarah).

Training programme

All staff members lecture in graduate and post-graduate courses covering the different disciplines in oceanography at the University.

- The undergraduate curriculum of the Department now includes two specialities: General oceanography (for undergraduate students having completed the first two academic years in chemistry, geology and biology), and Physical oceanography (for undergraduate students having completed the first two academic years in physics and mathematics).
- Graduate B.Sc. students in basic sciences wishing to be trained in marine sciences are allowed to join courses for the Diploma of Higher Studies in oceanography for one academic year in one of four specialities: biological, chemical, geological or physical oceanography.
- Graduate students, either B.Sc. or Diploma (in oceanography) are allowed to proceed for M.Sc. and Ph.D. degrees in four disciplines of oceanography.

Institution structure

Six major teaching and research units:

- Physical
- Chemical
- Geological
- Biological
- Fisheries Biology
- Limnology

Staff

34 Scientific staff

3 Technical staff

8 Other staff

Professional scientific staff

Name	Degree	Speciality
Dowidar, Naim M.	Dr. (Professor)	Marine ecology, Biological productivity, Ecological systems, Pollution
Halim, Yossef	Dr. (Professor)	Plankton, Marine productivity, Estuarine productivity
Sharaf El-Din, Sayed H.	Dr. (Professor)	Physical oceanography
Ezzat, Altaf A.	Dr. (Professor)	Fishery biology, Physiology
Saad, Massoud A.	Dr. (Professor)	Limnology
El-Sabarouti, Mohamed A.	Dr. (Asst.Prof.)	Geological oceanography, Coastal geomorphology
El-Sayed, Mahmoud Kh.	Dr. (Asst.Prof.)	Geological oceanography
Khalil, Abdel-Gani N.	Dr. (Asst.Prof.)	Marine algae, Biological oceanography
Osman, Mohsen M.	Dr. (Lecturer)	Marine meteorology
El-Rayis, Osman A.	Dr. (Lecturer)	Chemical oceanography
Awad, Hassan B.	Dr. (Lecturer)	Oil pollution
Dorgham, Mohamed M.	Dr. (Lecturer)	Biological oceanography
Abdel-Aziz, El-Sayeda H. (Mrs)	Dr. (Lecturer)	Fish biology
El-Nady, Fatma S. (Mrs.)	Dr. (Lecturer)	Chemical oceanography
El-Gindy, Ahmed A.	Dr. (Lecturer)	Physical oceanography
El-Ghobary, Hassan F.	Dr. (Lecturer)	Geological oceanography
Atta, Manal M.	M.Sc.	Bottom fauna
Abdullah, Abdullah M.	M.Sc.	Physical oceanography
Eid, Fahmy M.	M.Sc.	Physical oceanography
El-Sayed, Abdel-Fattah M.	M.Sc.	Biological oceanography, Fish biology
Hosny, Shehab F.H.	M.Sc.	Biological oceanography, Fish population dynamics
Aly, Bahar M. (Miss)	M.Sc.	Geological oceanography
Abdel-Moati, Mohamed A.	M.Sc.	Chemical oceanography, Limnology
Abuldahab, Osama T.	M.Sc.	Chemical oceanography, Oil pollution
Farag, Magdi M.	M.Sc.	Physical oceanography
Hemaida, Engie I. (Mrs.)	M.Sc.	Chemical oceanography
Mattar, Amal Y. (Mrs.)	B.Sc.	Biological oceanography
Moustafa, Hesham M.	B.Sc.	Biological oceanography
El-Rashidy, Hoda H. (Miss)	B.Sc.	Biological oceanography
Hamza, Waleed R.	B.Sc.	Biological oceanography

Staff Name	Degree	Speciality
Dowidar, Naim M.	Dr. (Professor)	Marine ecology.
Brekaa, Safeya S. (Mrs.)	B.Sc.	Biological oceanography
El-Sammak, Amr A.	B.Sc.	Geological oceanography
Nour-El-Din, Nehad M. (Miss)	B.Sc.	Biological oceanography
Kassem, Tarek A.	B.Sc.	Chemical oceanography

Premises/facilities

Laboratory area: 700 m²
 With facilities for: S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 500
 Number of periodical subscriptions: 10

Monographs and serials titles:

- Bulletin of the Faculty of Science (Alexandria University).
 issued once annually, circulated on an exchange basis.
- Collected reprints (Department of Oceanography).

Equipment

Salinometer (Model RS-7C), spectrophotometer (Beckman DU),
 spectrophotometer (Spectronic 2000 Bosch & Lomb), 2 research
 microscopes, spectrophotometer (Spectronic 20 Bosch & Lomb),
 2 spectrophotometers (Spekol-Carl Zeiss), fluorescent microscope
 (Type A - Model FM 200 A), 3 stereoscopic microscopes, fluorometer
 (Turner design Model 10), carbon analyser, 6 research binocular
 microscopes (Bosch & Lomb), 3 polarising microscopes, 2 autoclaves,
 3 muffle furnaces, flame photometer (Zeiss), micro-analytical
 balance (Mettler), LiCor quantimeter, 8 electric drying ovens,
 3 deep freezers, 2 laboratory shakers, 4 document reader equipment
 (Carl Zeiss), TI-59 programmable calculator with printer,
 2 Ekman current meters, Xerox machine, bathythermograph,
 standard oceanographic samplers, plankton nets, dredges, trawls,
 bottom samplers, corers, reversing water bottles, Niskin bottles,
 protected thermometers, set of 14C and primary production equipment
 with Millipore filters - Geiger counter, on deck incubator, lab
 incubator.

Research craft

Name: ZODIAC
 Type: Outboard
 Special facilities:
 Outboard motor.

Name: ZODIAC
 Type: Outboard
 Special facilities:
 Outboard motor.

Institution code: 001016 Information received: 04/03/84

**Laboratoire de chimie appliquée à l'expertise,
Faculté de pharmacie**

Fonctionnaire exécutif: MESTRES Robert: Professeur

Adresse postale

Laboratoire de chimie appliquée à l'expertise,
Faculté de pharmacie
Avenue Charles Flahault
34060 MONTPELLIER CEDEX
FRANCE

Telephone: 67-635582

Langues de travail
Français, anglais

Catégorie de l'institution
Universitaire

Principaux domaines d'activités
Science/technologie des aliments Pollution
Education, formation ou vulgarisation

Domaines de spécialisation
Eaux marines du large Eaux marines côtières
Eaux saumâtres Eaux intérieures (douces)
Hydrocarbures du pétrole Hydrocarbures contenant des halogènes

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
- Laboratoire créé en 1962 par spécialisation d'une partie du
Laboratoire de chimie analytique et de toxicologie originel de
l'institution (Faculté de pharmacie)

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Principales activités de recherche et autres activités en cours
- Etudes de la distribution des résidus de pesticides dans les
matières alimentaires d'origine végétale et animale, ainsi que
dans les plantes médicinales.
- Etude de la persistance des matières actives nouvelles sur les
diverses cultures sur lesquelles il est prévu de les appliquer,
avec mise au point des protocoles analytiques particuliers à
chaque système plante/pesticide.
- Recherche des résidus de pesticides et micropolluants dans les
eaux de surface et les poissons
- Etude de la sécurité du travail en milieu agricole: cas de la
production en serre

Les programmes futurs

Programmes futurs sur les mêmes domaines.

Programme de coopération

- Ministère de l'environnement: Direction de la prévention des
pollutions: contrôle continu des eaux de rivière et poissons:
Bassins Adour-Garonne et Rhône-Méditerranée
- C.N.E.X.O. - R.N.O: Contrôle continu des eaux marines côtières:
Roussillon - P.N.U.E: Méditerranée

Programme de formation

- Diplôme études approfondies - Métrologie des polluants dans
l'alimentation et l'environnement (Etude 3ème cycle)
- Doctorat 3ème cycle et Etat sur des études couvrant les
pesticides.

Structure de l'institution

Le Centre dépend successivement de: Ministère de l'éducation
nationale / Université de Montpellier I / Faculté de Pharmacie.
Il comprend des sections où sont traités les problèmes suivants:
- Etude du comportement en plein champ de matières actives
- Contrôle continu des résidus de pesticides (chlorés, phosphorés,
azotés) dans les eaux et les poissons.
- Contrôle continu des résidus dans les eaux et les matières
alimentaires.
- Etude de la sécurité du travail dans les exploitations agricoles.

Personnel

5 Personnel scient. 2 Personnel technique 1 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline

Personnel

Mestres, Robert	Agrég. université	(Cont.) Médecine légale-toxicologie
Causse, Colette (Mme)	Doct. phie Etat	Hydrocarbures polluants eaux
Cooper, Jean-François	Doct. phie Etat	Eaux-poissons
Marti, Gilberte	Doct. phie Etat	Pyréthrinoïdes
François, Claude	Doct. phie Etat	Sécurité du travail

Locaux/installations

Superficie construite: 800 m² Superficie des laboratoires: 300 m²
Installations prévues pour:
Des chercheurs de l'extérieur: 1

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 300
Nombre d'abonnements périodiques: 14

Matériel

10 chromatographes en phase gazeuse avec les détecteurs suivants:
ionisation de flamme d'H₂ (Girdel), 2 ionisation de flamme
alcaline (H.P-Varian), photométrie de flamme (Tracor), 5 capture
d'électrons (Girdel-H.P), couplage S.M. (Finnigan-Ribermag),
chromatographe liquide H.P (Chromatem), 4 balances (Mettler-Sauter)
4 évaporateurs sous vide (Bucchi), 4 mixer (Baudar), étuves,
réfrigérateurs, congélateurs.

Le code de l'institution 003010

Information reçue: 06/11/84

Laboratoire central d'hygiène alimentaire (L.C.H.A.)**Fonctionnaire exécutif:** GLEDEL, Jean G.R.: Directeur**Adresse postale**

Laboratoire central d'hygiène alimentaire (L.C.H.A.)
 43, rue de Dantzig
 75015 PARIS
 FRANCE

Telephone: 5311480**Langues de travail**
Français**Catégorie de l'institution**
Gouvernementale**Principaux domaines d'activités**

Biologie	Science/technologie des aliments
Contrôle de la qualité (prod. de pêche)	Chimie
Physique	Microbiologie
Pollution	

Domaines de spécialisation

Eaux marines côtières	Eaux intérieures (douces)
Hydrocarbures du pétrole	Métaux (polluants)
Micro-organismes pathogènes	Radionucléides

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
 Fondé en 1972, opérationnel en 1973. Laboratoire national de référence pour l'Inspection sanitaire et qualitative des denrées animales et d'origine animale (Ministère de l'Agriculture - Direction de la qualité-Service vétérinaire d'hygiène alimentaire).

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années
 Contrôles microbiologiques, physiques, chimiques des denrées animales ou d'origine animale (produits carnés, produits laitiers, produits de la pêche). Recherche et dosage des contaminants (résidus). Identification et étude des Salmonella 'non humaines' (Centre national).

Principales activités de recherche et autres activités en cours
 Recherche et quantification des contaminants: (1) Biologiques: Bactéries-Toxines bactériennes-Biotoxines marines-Mycotoxines. (2) Chimiques: Résidus (métaux lourds-pesticides OC-OP-PCB anabolisants-antibiotiques-radionucléides).

Les programmes futurs

Identique aux trois dernières années
 Continuation de programme existant
 - Entérotoxines (E. coli, B. cereus, Cl. perfringens)
 - Résidus antibiotiques (électrophorèse H. T.)
 - Développement ELISA.

Programme de coopération

- Entérobactéries = Centre national des Salmonella (Institut Pasteur à Paris)
 - Institut Pasteur à Paris (ELISA/DES)
 - Conventions avec différents organismes publics français: pour l'évaluation de la contamination des eaux intérieures: pour l'étude de la contamination de la faune sauvage terrestre.

Programme de formation

- Participation à des enseignements spécialisés en hygiène alimentaire (Institut Pasteur de Lille, Ecoles Nationales vétérinaires, UER Médecine).
 - Stages spécialisés pour directeurs de laboratoire et techniciens de laboratoire.
 - Formation des chercheurs du LCHA par séjours à l'étranger
 - (actuellement 2 chercheurs aux U.S.A.: Mycotoxines et entérotoxines staphylococciques).

Structure de l'institution

2 Départements + Services techniques et administratifs.
 Département biologie
 - Section microbiologie générale
 - Section entérobactéries
 - Section bactériologie produits laitiers
 - Section radiobiologie
 Département physico-chimie
 - Section PC.I: Métaux lourds - Thyrostatiques
 - Section PC.II: Hormones - Pesticides - PCB - Lipochimie
 - Section: Chimie produits laitiers
 - Section: Mycotoxines.

Personnel

19 Personnel scient.

69 Personnel technique

28 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Gledel, J.	Dr. vétérinaire	Microbiologie. Hygiène
Cumont, G.	Dr. vétérinaire	Physico-Chimie (métaux lourds)
Richou-Bac, L.	Dr. vétérinaire	Physico-Chimie (toxicologie-résidus)
Poumeyrol, M. (Mme)	Dr. vétérinaire	Microbiologie générale
De Buyser, M.L. (Mme)	Maître ès sc. DEA	Bactériologie (staphylocoques)
Corbion, B. (Mme)	Dr.ès sc.3ème cycle	Bactériologie-entérobactéries
Petransxiene, D. (Melle)	Bactériologie	Bactériologie (produits laitiers)
Bohnert, M. (Mme)	Dr. vétérinaire	Bactériologie (produits laitiers)
Janin, F. (Mme)	Dr.ès sc.3ème cycle	Radiobiologie.
Pochard, M.F. (Mme)	Dr.ès sc.3ème cycle	Biochimie Physico-chimie (chimie organique)
Boursier, B. (Mme)	Dr.ès sc.3ème cycle	Hormones
Venant, A. (Mme)	Maître ès sc. DEA	Pesticides - PCB
Lelievre, H. (Mlle)	Maître ès sc. DEA	Hormones - Lipides
Amariglio, S. (Mme)	Ingénieur	Chimie produits laitiers
Imbert, A. (Mme)	Ingénieur	Chimie produits laitiers
Fremy, J.M.	Dr.ès sc.3ème cycle	Mycotoxines
Tao, S.H.	Dr.ès sc.3ème cycle	Biochimie

Locaux/installationsSuperficie construite: 2400 m² Superficie des laboratoires: 1700 m²**Services d'information**

Les titres des monographies et des séries:

- Rapports annuels d'activité
- Monographie sur techniques physico-chimiques et méthodologiques appliquées à l'analyse en hygiène alimentaire
- Rapport bisannuel sur souches de Salmonella d'origine 'non humaine' isolées en France

Matériel

Compteurs à scintillation liquide (2), spectrophotomètres d'absorption atomique (3), chromatographes en phase gazeuse (avec et sans capture d'électrons) (13), chromatographes en phase liquide (3), spectromètres gamma (400 canaux-1024 canaux) (2), compteurs bêta, chambre à grille pour particules gamma, photodensitomètres (2), autoprep, matériels pour électrophorèse-centrifugeuses réfrigérées grande vitesse (3), électrofocalisateurs-fours-etc.

Tout matériel pour bactériologie y compris 2 Spiral Plate Maker.

Le code de l'institution 003011

Information reçue: 09/08/83

**Laboratoire d'océanographie physique,
Muséum national d'histoire naturelle (L.O.P. MNHM)**

Fonctionnaire exécutif: GONELLA, Joseph A.: Professeur

Adresse postale

Laboratoire d'océanographie physique,
Muséum national d'histoire naturelle (L.O.P. MNHM)
43-45 rue Cuvier
75005 PARIS
FRANCE

Telephone: 1-7078544

Telex: 270686 F LOPMNH

Langues de travail
Français

Catégorie de l'institution
Universitaire

Principaux domaines d'activités

Océanographie	Physique
Météorologie/climatologie	Education, formation ou vulgarisation

Domaines de spécialisation

Eaux marines du large

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Créé en 1955, le Laboratoire a eu pour objectifs:

- d'effectuer des études physiques et dynamiques sur les océans et les mers
- de constituer un centre de documentation océanographique générale

Il s'est développé à partir de 1956 à l'occasion de l'effort national effectué au cours de l'Année géophysique internationale (1957-1958). Depuis 1972, le Laboratoire est associé au CNRS.

Principales activités de recherche et autres activités en cours

Il exécute des campagnes de mesures en mer et s'intéresse surtout à l'étude de l'évolution des caractères physiques et dynamiques des eaux marines sous l'effet des actions atmosphériques. D'importants travaux étaient effectués en Méditerranée est depuis 1978 aussi dans les zones équatoriales des océans Indien et Atlantique.

Les programmes futurs

- Dynamique océanique équatoriale dans le cadre de T.O.G.A.
- Climatologie générale actuelle et passée
- Interactions dynamique marine - sédimentologie

Programme de coopération

Le Laboratoire travaille en association avec le C.N.R.S., le C.N.E.X.O., l'O.R.S.T.O.M., les T.A.A.F. et les Services de la météorologie au niveau national.

Les campagnes à la mer sont conduites dans le cadre des grands programmes internationaux: P.E.M.G. en 1979, Climat (T.O.G.A.; Interaction Océan-Glace)

Programme de formation

Le Laboratoire assure l'encadrement des étudiants s'orientant vers des études de dynamique des fluides géophysiques (jusqu'aux thèses de doctorat). Les chercheurs du Laboratoire participent à l'enseignement de l'Océanographie physique à l'Université et dans les grandes écoles (ENSTA).

Structure de l'institution

Le Laboratoire comprend:

- des services communs: Secrétariat, Bibliothèque, Bureau d'art graphique, Centre d'informatique, Equipe d'électronique et techniques marines.
- des équipes de recherche: (1) Dynamique équatoriale (Océans: Atlantique et Indien); (2) Interaction Océan-Glace-Atmosphère

Personnel

23 Personnel scient.	24 Personnel technique	5 Autre personnel
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Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Gonella, Joseph (Prof.)	Doc. ès sciences	Circulation océanique liée au vent
Lacombe, Henry	Prof. honoraire	Dynamique des océans
Tchernia, Paul	Prof. honoraire	Analyse des masses d'eaux.

Personnel Nom	Diplôme Universitaire	(Cont.)	
		Principale Discipline	
Saint-Guilly, Bernard	Doc. ès sciences	Circulation peri-antarctique	
Revault D'Alionnes, Maxence	Doc. ès sciences	Dynamique théorique	
Hua, Lien	Doc. ès sciences	Turbulence à petite échelle	
		Modélisation,	
		Turbulence geostrophique	
Crepon, Michel	Doc. ès sciences	Modèles de circulation	
Gascard, Jean-Claude	Doc. ès sciences	Dynamique des masses d'eaux,	
		Interaction ocean-glace	
Millot, Claude	Doc. ès sciences	Dynamique marine (site côtier)	
Delecluse-Roy, Pascale	Thèse d'Etat	Modélisation,	
		Dynamique équatoriale	
Reverdin, Gilles	Thèse d'Etat (cours)	Dynamique équatoriale	
Richez, Claude	Maître-assistant	Etude du détroit de Gibraltar	
Gamberoni, Lucien	Assistant	Analyse des masses d'eau	
Fieux, Michèle	Doc. 3ème cycle	Analyse (données historiques),	
		Océan Indien	

Locaux/installations

Superficie construite: 600 m² Superficie des laboratoires: 400 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 2 D

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 4480

Nombre d'abonnements périodiques: 18

Les titres des monographies et des séries:

- Recueil des travaux du Laboratoire (annuel)

- Rapports internes (6 à 7 par an)

Matériel

Ordinateurs: HP 21 MX (accès au Centre informatique du Muséum, au CIRCE et à l'ordinateur du CNEXO à Brest). Courantomètres: bathy-sonde: salinomètre, vélocimètre laser avec centrale d'acquisition de données.

Bâtiments de recherche

Nom: MARION DUFRESNE

Propriétaire: TAAF

Type: Navire

Aménagements spéciaux:

Navire assurant la logistique des terres australes françaises (CROZET, KERGUELEN, St. PAUL-AMSTERDAM)

Nom: NOROIT

Propriétaire: CNEXO

Type: Navire

Nom: SUROIT

Propriétaire: CNEXO

Type: Navire

Nom: CAPRICORNE

Propriétaire: CNEXO

Type: Navire

Nom: J. CHARCOT

Propriétaire: CNEXO

Type: Navire

Nom: C. LAURENCE

Propriétaire: CNRS

Type: Navire

Aménagements spéciaux:

Navire côtier.

Nom: KOROTNEFF

Propriétaire: CNRS

Aménagements spéciaux:

Navire côtier.

Nom: ARGOS

Type: Bouées dérivantes

Aménagements spéciaux:

Dix bouées

Le code de l'institution 003012

Information reçue: 12/11/84

**Laboratoire de physique et chimie marines,
Université Pierre et Marie Curie (L.P.C.M.)**

Fonctionnaire exécutif: IVANOFF Alexandre: Professeur

Adresse postale

Laboratoire de physique et chimie marines,
Université Pierre et Marie Curie (L.P.C.M.)
4, place Jussieu (tours 24-25)
F 75230 PARIS CEDEX 05
FRANCE

Telephone: 1-3362525/3291221

Telex: UPMCSIX 200-145

Langues de travail

Français, anglais

Catégorie de l'institution

Gouvernementale Universitaire

Principaux domaines d'activités

Océanographie	Limnologie
Chimie	Physique
Pollution	Météorologie/climatologie
Géologie/sédimentologie	Education, formation ou vulgarisation

Domaines de spécialisation

Plancton	Thermiques
Eaux marines du large	Eaux marines côtières
Eaux intérieures (douces)	Hydrocarbures du pétrole
Métaux (polluants)	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Maîtrise de Conférence fondée en 1962 à la Faculté des sciences de Paris, Laboratoire d'Océanographie Physique créé en 1967 et devenu en 1976 le Laboratoire de physique et chimie marines de l'Université Pierre et Marie Curie (Paris VI).

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Principales activités de recherche et autres activités en cours

Les programmes futurs

- Dynamique et interactions à grande échelle
- Structures et circulation à moyenne échelle
- Rayonnement et océan
- Cycle du CO₂ dans l'océan
- Chimie organique marine
- Transit et bilans des éléments-traces

Programme de coopération

- Laboratoire de météorologie dynamique du CNRS (Ecole normale supérieure, Paris et Ecole polytechnique, Palaiseau, France). Modélisation des ondes planétaires
- Institute of Oceanographic Sciences (Wormley, U.K.) Relation salinité-conductivité de l'eau de mer, sédimentation de grosses particules organiques
- Université du Québec à Rimouski (Canada) Système CO₂-carbonate du Saint-Laurent
- Massachusetts Institute of Technology (Cambridge, U.S.A.) Role de l'océan dans le climat
- Rosenstiel School of Marine and Atmospheric Sciences (Miami, U.S.A.) Equation d'état de l'eau de mer
- Oregon State University, School of Oceanography (Corvallis, U.S.A.) Pénétration du CO₂ anthropogénique dans l'océan
- GLAS/NASA Goddard Center for Space Studies (Greenbelt MD, U.S.A.) Couplage entre l'océan et l'atmosphère
- Lamont-Doherty Geological Observatory, Columbia University Palisades NY, U.S.A.) Transport solide au large
- Max-Planck Institute für Meteorologie (Hamburg, R.F.A.) Analyse multivariée de données climatiques
- Rudjer Boskovic Institut (Zagreb et Rovinj, Yougoslavie) Chimie organique à l'interface air-mer

Programme de formation

- Enseignements de second cycle: deux modules de la Maîtrise ès Sciences: module d'océanographie générale, module d'océanographie physique et chimique
- Enseignements de troisième cycle: Diplôme d'Etudes Approfondies (D.E.A.) en océanologie et météorologie avec deux options: Dynamique des écoulements atmosphériques et océaniques; Chimie marine. Doctorat de troisième cycle en océanologie et météorologie; Diplôme de Docteur-Ingénieur en océanologie et météorologie.

Structure de l'institution

Le Laboratoire est organisé en équipes travaillant sur les thèmes de recherche indiqués au 'objectifs'

Personnel

13 Personnel scient. 3 Personnel technique 1 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Ivanoff, Alexandre	Docteur d'Etat	Optique
Frankignoul, Claude	Ph.D.	Dynamique
Boutler, Jacques	Docteur 3ème cycle	Optique
Brun-Cottan, Jean-Claude	Docteur d'Etat	Granulométrie des particules
Poisson, Alain	Docteur d'Etat	Physico-chimie
Marty, Jean-Claude	Docteur d'Etat	Chimie organique
Saliot, Alain	Docteur d'Etat	Chimie organique
Scribe, Pierre	Docteur d'Etat	Chimie organique
Brunet, Christian	Docteur 3ème cycle	Physico-chimie

Locaux/installations

Superficie des laboratoires: 300 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 5

Matériel

Spectrographe de masse (Nerhag) couplé avec chromatographe en phase gazeuse et ordinateur, 4 chromatographes en phase gazeuse (3 Girdel 1 Varian) + intégrateur (Varian Vista), appareil de chromatographie liquide haute performance (HPLC), compteur de particules avec analyseur multicanaux (Particule Data), compteur à scintillation liquide (Intertechnique), pont de Jones pour mesure de la résistivité (Leeds et Northrup), microdensimètre (Sodev), chaîne automatique de titrage (Radiometer), potentiomètre pour mesure de l'alcalinité et CO₂ total, chromatographe en phase gazeuse pour mesure de la pression partielle de CO₂, chromatographe en phase gazeuse pour mesure des fréons, bassin d'essai pour le matériel, ordinateurs CII 10070, IBM 370-30 et CDC 6600 (en commun avec l'université PM Curie).

Le code de l'institution 003013

Information reçue: 25/10/84

Laboratoire de biologie et d'écologie marines

Fonctionnaire exécutif: VAISSIERE Raymond: Professeur

Adresse postale

Laboratoire de biologie et d'écologie marines
28, avenue de Valrose
06034 NICE CEDEX
FRANCE

Telephone: 93-519100

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités
Biologie Ecologie
Océanographie Ingénierie
Education, formation ou vulgarisation

Domaines de spécialisation
Autres invertébrés Algues
Plancton Benthos
Eaux marines du large Eaux marines côtières
Ecosystèmes coralliens

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Laboratoire créé en 1966 dans le cadre de l'Université de Nice.
Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années
Etude des structures et de la dynamique des systèmes benthiques et
pélagiques en Méditerranée et en mers tropicales.
Principales activités de recherche et autres activités en cours
Identique aux trois dernières années
Tyrrhénienne, en mer Rouge et en Océanie. Développement de
technologies avancées de mesures et d'enregistrements de données
du milieu marin. Expérimentation de techniques d'analyses
numériques de photographie de répartition des peuplements.

Les programmes futurs

Continuation de programme existant
Avec un développement des études en milieu récifal corallien, et
recherches sur la dynamique des traceurs de pollution.

Programme de coopération

- Universités d'Amman et de Yarmouk (Jordanie)-études coopératives de la côte d'Aqaba.
- Université de Djedda (Arabie saoudite)-études coopératives en mer Rouge.
- Université de Liège, Station océanographique de Calvi (Corse)-systèmes méditerranéens.
- Centre scientifique de Monaco-océanologie côtière et pollutions.
- Institut océanographique, Musée de Monaco-techniques océanographiques.
- Ecole des hautes études (Muséum d'histoire naturelle)-systèmes coralliens.

Programme de formation

- Maîtrises de sciences délivrées par l'Université de Nice.
- Stages et directions de recherches conduisant au Doctorat de spécialité (océanographie) et au Doctorat d'Etat.

Structure de l'institution

Le Laboratoire appartient au sein de l'Université de Nice à un
Groupe de recherche marine formé par 4 laboratoires:
- Laboratoire de biologie et d'écologie marines
- Laboratoire d'océanographie biologique
- Laboratoire de protistologie marine
- Laboratoire de biologie animale

Personnel

13 Personnel scient. 2 Personnel technique 0 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Falconetti, C.	Thèse d'Etat	Systemes benthiques
Seguin, G.	Thèse d'Etat	Systemes pélagiques, copépodes

Personnel	(Cont.)	
Nom	Diplôme Universitaire	Principale Discipline
Meincsz, A.	Thèse d'Etat	Algues, phanérogames
Poulicek, M.	Thèse d'Etat	Recyclage des nutriments
Caye, G. (Melle)	Thèse 3ème cycle	Phanérogames marines
Colocoloff, M.	Thèse 3ème cycle	Microphytobenthos
Jaubert, J.	Thèse 3ème cycle	Récifs coralliens, technologie
Bodoy, A.	Thèse 3ème cycle	Récifs coralliens
Bouchon, C.	Thèse 3ème cycle	Récifs coralliens
De Vaugelas	Thèse 3ème cycle	Récifs coralliens
Febvre, M. (Melle)		Protistes marins
Frasson, M.F. (Mme)		Mollusques

Aquarium d'experimentation

Organismes entretenus:

Mollusques

Crustacés

Autres invertébrés

Algues

Le code de l'institution 003014

Information reçue: 03/08/83

**Centre d'études et de recherches de biologie et
d'océanographie médicale (CERBOM)**

Fonctionnaire exécutif: AUBERT Maurice: Directeur de recherches

Adresse postale

Centre d'études et de recherches de biologie et
d'océanographie médicale (CERBOM)
1, avenue Jean Lorrain
Boite Postale 102
06300 NICE
FRANCE

Telephone: 93-897249/893292

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Privée(sans but luc)

Principaux domaines d'activités

Aménagement des ressources	Océanographie
Chimie	Microbiologie
Pollution	Médecine

Domaines de spécialisation

Micro-organismes	Plancton
Benthos	Eaux marines du large
Eaux marines côtières	Métaux (polluants)
Micro-organismes pathogènes	Éléments nutritifs

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Le CERBOM a été fondé en 1960 avec le concours de la Ville de Nice et de l'INSERM. Les travaux du CERBOM sont orientés vers l'étude des problèmes d'hygiène marine, des pollutions bactériologiques, chimiques ou physiques de l'océan, et vers des possibilités d'exploitation pharmacologiques et nutritionnelles de substances issues des êtres marins.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Principales activités de recherche et autres activités en cours
Diffusion des micro-organismes en mer; Toxicité directe ou indirecte des polluants chimiques rejetés en milieu marin; Influence des bactéries marines dans la dynamique biochimique des métaux; Isolement de substances antibiotiques issues du phyto-plancton ou des bactéries marines; Modalités rejets en mer des eaux résiduaires urbaines et industrielles pour en diminuer les effets polluants.

Les programmes futurs

Les programmes futurs sont les mêmes.

Programme de coopération

- Ministère de l'environnement (Etude toxicologique de produits chimiques)
- Ministère de la mer (Etude des 'eaux rouges')

Programme de formation

- Cours de biologie marine pour étudiants universitaires.

Structure de l'institution

Le CERBOM comprend:

- L'Unité de recherches de l'INSERM No. 40, effectuant des recherches fondamentales en océanographie.
- Un Service commun de l'INSERM pour le contrôle et l'information sur la pollution marine.
- Un Laboratoire municipal d'écotoxicologie marine.
- Une Unité associée à l'Université de Nice pour les études économiques et juridiques en matière d'utilisation des ressources de la mer et d'aménagement du littoral.
- Un Département des campagnes océanographiques réalisant des missions en mer pour des études et des travaux océanographiques.

Personnel

11 Personnel scient. 8 Personnel technique 6 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
M.A.	Dr.	Biologie marine

Personnel		(Cont.)
J. A. (Mme)	Dr.	Microbiologie marine
Ch. P. (Mme)	Dr.	Virologie
M. G.	Dr.	Microbiologie marine
J. Ph. B.	Dr.	Informatique
G. F.	Dr.	Chimie
M.-F. de la C. (Mme)	Dr.	Microbiologie marine
P. R.	Ing.	Océanographie physique
H. A.	Dr.	Biologie marine
S. L. (Mme)	Dr.	Ecotoxicologie
C. G.	Maitrise sciences	Biologie marine

Locaux/installations

Superficie construite: 1200 m² Superficie des laboratoires: 1000 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 5

Services d'information

Bibliothèque:

Nombre d'abonnements périodiques: 142

Les titres des monographies et des séries:

- Métaux lourds en Méditerranée (3 tomes)

- Les Systèmes d'information des micro-organismes marins.

Matériel

2 spectrophotomètres d'absorption atomique, 2 chromatographes en phase gazeuse, 4 microscopes, appareil de chromatographie en couche mince, auto-analyseur Technicon, compteur de particules, respiromètre de Warburg, 3 centrifugeuses, équipement micro-photographique, photomètre enzymatique, 2 fluorimètres, ordinateur Goupil II.

Aquarium d'experimentation

Superficie totale: 25 m² Nombre de réservoirs: 24

Organismes entretenus:

Poissons démersaux

Mollusques

Algues

Micro-organismes

Bâtiments de recherche

Nom: NOERIC II

Propriétaire: CERBOM

Longueur: 15 m.

Type: Navire

Année de construction: 1978

Equipage: 2

Personnel scientifique: 4

Superficie des lab.: 6 m²

Aménagements spéciaux:

Sondeur, treuil hydraulique, matériel radio-électrique de positionnement, radar et navigation par satellite, annexe gonflable avec moteur hors-bord.

Le code de l'institution 003015

Information reçue: 14/12/83

Station zoologique de Villefranche-sur-Mer (SZV)

Fonctionnaire exécutif: BOUGIS, Paul P.: Directeur

Adresse postale

Station zoologique de Villefranche-sur-Mer (SZV)
La Darse
Boite Postale 28
06230 VILLEFRANCHE-SUR-MER
FRANCE

Telephone: 93-555656

Langues de travail

Français

Catégorie de l'institution

Gouvernementale Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Océanographie	Ordinateurs/systèmes informatiques
Education, formation ou vulgarisation	

Domaines de spécialisation

Plancton	Eaux marines du large
Eaux marines côtières	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Fondée en 1884 sous le titre de Station zoologique russe, prise en charge par l'Université de Paris en 1932 puis rattachée en tant que Station zoologique de Villefranche-sur-Mer à la Faculté des sciences de Paris en 1952.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Recherche sur la distribution spatiale du plancton en relation avec une structure de front hydrologique dans la mer Ligure.
Ecophysiologie des groupes dominants du plancton (microzooplancton, copépodes, appendiculaires, salpes, etc.). Modélisation d'écosystèmes artificiels ou naturels. Etude des processus d'activation des gamètes, des mécanismes moléculaires de la fécondation et des supports du déterminisme des oeufs. Etude des phénomènes de motilité cellulaire dépendant de structures hautement spécialisées, qui contribuent aux déplacements ou à la réorganisation des protistes.

Principales activités de recherche et autres activités en cours

Identique aux trois dernières années

Les programmes futurs

Analyse du rôle des composants principaux du plancton dans le cycle biogéochimique. Etude de l'impact des méduses sur l'écosystème.
Biologie du développement (fécondation), motilité intracellulaire chez les protistes.

Programme de coopération

- Bedford Institute of Oceanography (Microzooplancton)
- Rudjer Boskovic Institute (Modélisation de l'écosystème pélagique)
- Museum national d'histoire naturelle, Paris (Physique, plancton)
- Université d'Aix-Marseille, Centre de Luminy (Océanographie dans les systèmes d'enrichissement)
- Université de Nice
- Université de Stanford (USA)
- EMBL Heidelberg (RFA)
- Université de Bristol (Angleterre)

Programme de formation

- Enseignement de la biologie du plancton et de l'océanographie biologique au niveau maîtrise
- Cours pour des étudiants en 1ère année de 3ème cycle océanographie et de biologie cellulaire (DEA)
- Stages individuels offerts à des étudiants étrangers au niveau post-doctoral

Structure de l'institution

Le Centre Station zoologique comprend deux groupes:

- Ecologie du plancton marin
- Biologie cellulaire marine (biologie du développement, motilité cellulaire)

Bâtiments de recherche

Nom: SAGITTA
Longueur: 7 m.
Type: Pointu
Année de construction: 1920
Equipage: 1
Aménagements spéciaux:
Treuil.

Nom: VELELLA
Longueur: 7 m.
Type: Pointu
Année de construction: 1983
Equipage: 1
Aménagements spéciaux:
Treuil.

Nom: KOROTNEFF
Propriétaire: C.N.R.S.
Longueur: 20 m.
Type: Navire océan.
Année de construction: 1967
Equipage: 6
Personnel scientifique: 4
Superficie des lab.: 10 m²
Aménagements spéciaux:
Treuil hydrologique, treuil de chalutage, échosondeur, radar,
LORAN, VHF.

Le code de l'institution 003016

Information reçue: 20/03/84

**Laboratoire de physique et chimie marines,
Université Pierre et Marie Curie (LPCM)**

Fonctionnaire exécutif: MOREL, André Y.; Professeur

Adresse postale

Laboratoire de physique et chimie marines,
Université Pierre et Marie Curie (LPCM)
Boite Postale 8
F06230 VILLEFRANCHE SUR MER
FRANCE

Telephone: 93-555656

Langues de travail
Français; anglais

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités

Biologie	Océanographie
Chimie	Physique
Pollution	Météorologie/climatologie
Education, formation ou vulgarisation	

Domaines de spécialisation

Plancton	Thermiques
Eaux marines du large	Eaux marines côtières
Métaux (polluants)	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Laboratoire fondé en 1961 à Paris et en 1967 à Villefranche-sur-Mer
sous le même nom. A Villefranche, laboratoire est lié au sein du
CEROV (Centre d'études et recherches océanographiques de
Villefranche) à d'autres laboratoires dépendant de l'Université

l'écologie et la géodynamique.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Principales activités de recherche et autres activités en cours
Les programmes futurs

- Structures et circulation à moyenne échelle; hydrologie, bilans;
- Rayonnement et océan; télédétection, biophysique de la photo-synthèse (phytoplancton);
- Cycle du CO2 dans l'océan; relations avec les paramètres physiques et biologiques;
- Transit et bilans des éléments métalliques lourds traces; géochimie et impact sur la biosphère;
- Biochimie marine et écotoxicologie

Programme de coopération

- Laboratoire ARAGO (Banyuls), Station marine d'Endoume (Marseille)
- Laboratoire d'océanographie de Luminy (Production pélagique et phénomènes physiques).
- Centre national d'études spatiales (CNES); Institut français de recherche pour l'exploitation de la mer (IFREMER); Agence spatiale européenne (ESA) (Couleur de l'océan, télédétection, optique du phytoplancton), NASA
- University of Miami, Applied Physics Department (Optique marine, télédétection visible-satellite).
- University of California, Santa Barbara, et Scripps Institution of Oceanography, San Diego (Bio-optique, télédétection, photo-synthèse).
- Institute of Ocean Sciences, Sidney, B.C., Canada (Télédétection, spectrophotométrie aéroportée).
- Bedford Institute of Oceanography, Dartmouth, N.S., Canada (Production primaire, bio-physique de la photosynthèse).

Programme de formation

- Enseignements de second cycle: deux modules de la Maîtrise ès sciences: module d'océanographie générale; module d'océanographie physique et chimique
- Enseignements de troisième cycle: Diplôme d'études approfondies (D.E.A.) en océanologie et météorologie avec deux options: Dynamique des écoulements atmosphériques et océaniques; Chimie marine. Doctorat en océanologie et météorologie; Diplôme de Docteur-Ingénieur en océanologie et météorologie.

Structure de l'institution

Le Laboratoire comporte des équipes dont les thèmes de recherches sont indiqués dans le paragraphe 'Objectifs'

Personnel**Personnel scientifique**

Nom	Diplôme Universitaire	Principale Discipline
Morel, André	Docteur ès sciences	Physique
Copin, Gérard	Docteur ès sciences	Chimie
Bethoux, J.P.	Docteur ès sciences	Physique
Bricaud, A.	Docteur 3ème cycle	Physique
Copin, C.	Docteur ès sciences	Chimie
Gnassia, M.	Docteur 3ème cycle	Biochimie
Pesando, D.	Docteur 3ème cycle	Ecotoxicologie
Prieur, L.	Docteur ès sciences	Physique
Romeo, M.	Docteur 3ème cycle	Biochimie
Courau, Ph.	Ing. ESPCI	Chimie
Nicolas, E.	Docteur 3ème cycle	Chimie
Tailliez, D.	DEA océanologie	Physique

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 200
 Nombre d'abonnements périodiques: 12

Bâtiments de recherche

Nom: KOROTNEFF
 Propriétaire: CNRS/PIROCEAN
 Longueur: 18 m.
 Type: Océanographique
 Année de construction: 1966
 Superficie des lab.: 10 m²
 Aménagements spéciaux:
 Treuils, sonde CTD, treuils de dragage, sondeurs, Pinger.

Nom: CATHERINE LAURENCE
 Longueur: 20 m.
 Type: Océanographique
 Année de construction: 1965
 Superficie des lab.: 10 m²
 Aménagements spéciaux:
 Treuils, sonde CTD, treuils de dragage, sondeurs, Pinger.

Le code de l'institution 003017

Information reçue: 01/11/84

**Département de chimie analytique et toxicologie,
Faculté de pharmacie,
Université de Montpellier I**

Fonctionnaire exécutif: BRUN Suzanne: Professeur

Adresse postale

Département de chimie analytique et toxicologie,
Faculté de pharmacie,
Université de Montpellier I
Avenue Charles Flahault
Boite Postale 1103
34060 MONTPELLIER CEDEX
FRANCE

Telephone: 67-635432

Langues de travail
Français

Catégorie de l'institution
Universitaire

Principaux domaines d'activités

Biologie	Science/technologie des aliments
Contrôle de la qualité (prod. de pêche)	Chimie
Pollution	Education, formation ou vulgarisation

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Crevettes	Eaux marines côtières
Eaux saumâtres	Eaux intérieures (douces)
Métaux (polluants)	Eléments nutritifs

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Laboratoire créé en 1837 à l'Ecole de Pharmacie de Montpellier.

Les activités de recherche, de contrôle continu & autres menées

au cours des trois dernières années

- Etude de matières plastiques - génie médical ou agro-alimentaire.
- Méthodes analytiques appliquées aux substances d'origine végétale et aux aliments. Recherche et dosage des polluants.
- Recherche et dosage d'éléments traces: Environnement - Pollution - Toxicologie- Hydrologie.
- Dosages de médicaments dans les milieux biologiques.
- Identification et dosage des métabolites.

Principales activités de recherche et autres activités en cours

Identique aux trois dernières années

Les programmes futurs

Identique aux trois dernières années

Programme de coopération

- Laboratoire de chimie analytique et toxicologie (Métaux lourds, oligo-éléments, polluants organiques)
- Laboratoire de chimie analytique appliquée à l'expertise (Pesticides, hydrocarbures)
- Laboratoire d'hydrologie et d'hygiène (Sédiment, boues, écotoxicologie)
- Divers laboratoires des sciences et techniques de l'eau rattachés à l'Université des sciences et techniques du Languedoc

Programme de formation

- Etudes en Pharmacie (6 années)
- Diplôme national d'oenologie (4 années)
- Diplôme d'études approfondies: Métrologie des polluants dans l'alimentation et l'environnement
- Enseignement aux étudiants en sciences et techniques de l'alimentation (2ème année)
- Enseignement du module de toxicologie aux étudiants en sciences et techniques de l'eau (3ème année)

Structure de l'institution

Le Laboratoire de chimie analytique et toxicologie rentre dans le cadre suivant:

Université de Montpellier I.. Section pharmacie, Unité d'enseignement et de recherche en matières alimentaires et biologie.

Le Laboratoire se divise en quatre sections:

- Section agro-alimentaire
- Section toxicologie
- Section contrôle des médicaments
- Section pharmacocinétique

Personnel

16 Personnel scient. 1 Personnel technique 6 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Cabanis, J.C.	Professeur	Chimie analytique
Charlot, C. (Mme)	Maître assistant	Chimie analytique
Tep, Y.	Maître assistant	Chimie analytique
Cabanis, M.T. (Mme)	Assistante	Chimie analytique
Blaise, A.	Assistant	Chimie analytique
Mestres, J.P.	Assistant	Chimie analytique
Hancille, G. (Mlle)	Professeur	Toxicologie
Tep, A. (Mme)	Maître assistant	Toxicologie
Prom, T.	Maître assistant	Toxicologie
Vian, L. (Mlle)	Assistante	Toxicologie
Marion, S. (Mme)	Assistante	Toxicologie
Mandrou, B. (Mlle)	Professeur	Chimie analytique
Fabre, H. (Mlle)	Maître assistant	Chimie analytique
Blanchin, M.D. (Mlle)	Assistante	Chimie analytique
Bres, J. (Mme)	Maître assistant	Chimie analytique
Bressolle, F. (Mlle)	Maître assistant	Chimie analytique

Locaux/installations

Superficie des laboratoires: 900 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 600

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 600

Nombre d'abonnements périodiques: 15

Matériel

Spectrophotomètre d'absorption atomique (Varian 1275 et GTA) flamme et four, chromatographes en phase vapeur (2 Girdel-4 Varian-1 Dani équipé en colonne capillaire), chromatographes HPLC (2 Varian), spectrophotomètre chromatographique (PMQ 2 Zeiss) équipé pour les mesures par réflexion-transmission et fluorescence, spectrophotomètre (U.V. visible), spectrofluorimètre (Kontron).

Aquarium d'experimentation

Les espèces entretenues à des fins expérimentales:

Mullus barbatus
Sardina pilchardus

Mytilus galloprovincialis *Ostrea edulis*
Thunnus thynnus

Le code de l'institution 003018

Information reçue: 06/11/84

Commissariat à l'énergie atomique (C.E.A.)

Fonctionnaire exécutif: TINTURIER Bernard: Directeur

Adresse postale

Commissariat à l'énergie atomique (C.E.A.)
 31 rue de la Fédération
 Boite Postale 510
 75752 PARIS CEDEX 15
 FRANCE

Telephone: 2736000

Telex: ENERGAT PARIS 200671

Langues de travail
 Français

Catégorie de l'institution
 Gouvernementale

Principaux domaines d'activités

Science/technologie des aliments
 Physique
 Ingénierie

Chimie
 Technologie d'exploitation au large

Domaines de spécialisation

Nodules des fonds marins
 Vent

Thermiques
 Radionucléides

Les objectifs et les programmes

Organisme public de caractère scientifique, technique et industriel créé en 1945 pour le développement des applications de l'énergie nucléaire, et, à partir de 1970, mandaté pour valoriser ses connaissances techniques dans les domaines autres que l'industrie nucléaire. Les activités non nucléaires du CEA sont orientées suivant les thèmes: Technologie biomédicale - Energies autres que nucléaire - Robotique - Nodules et dessalement - Electronique et informatique - Métallurgie et matériaux - Agro-industrie et bio-technologie.

Programme de coopération

Le CEA participe à de nombreuses coopérations nationales et internationales, et notamment pour l'exploitation de la mer, avec le CNEXO.

Programme de formation

Pour mémoire, programme de formation sur l'utilisation et les applications des techniques nucléaires.

Structure de l'institution

Le CEA est organisé en quatre grandes missions et instituts (applications militaires - recherche fondamentale - protection et sûreté nucléaire - recherche et développement industriel), un Office des rayonnements ionisants, l'Institut national des sciences et techniques nucléaires et l'Agence nationale pour la gestion des déchets radioactifs. Outre le siège à Paris, les activités civiles sont réparties sur 5 centres nucléaires (Fontenay-aux-Roses - Saclay - Grenoble - Cadarache - Vallée du Rhône). L'Institut de recherche et développement industriel assure les missions 'Applications énergétiques nucléaires' et 'Innovation et valorisation industrielle'. Cette dernière mission coordonne les activités non nucléaires du CEA et en particulier, celles touchant à l'environnement marin (dessalement - nodules).

Le code de l'institution 003019

Information reçue: 25/10/84

Institut français du pétrole (I.F.P.)**Fonctionnaire exécutif:** BALACEANU Jean-Claude: Directeur général**Adresse postale**

Institut français du pétrole (I.F.P.)
 1 et 4 avenue de Bois Préau
 Boite Postale 311
 92506 RUEIL MALMAISON CEDEX
 FRANCE

Telephone: 7490214
Telex: A 203050 F
Télégramme: I.F.P.

Langues de travail
 Français

Catégorie de l'institution
 Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Science/technologie des aliments	Chimie
Physique	Technologie d'exploitation au large
Microbiologie	Pollution
Ingénierie	Géologie/sédimentologie
Ressources minérales/pétrole	Politique et planification
Transfert de technologie	Ordinateurs/systèmes informatiques
Education, formation ou vulgarisation	

Domaines de spécialisation

Huile minérale	Hydrocarbures du pétrole
Hydrocarbures contenant des halogènes	

Les objectifs et les programmes

Créé en 1944, l'Institut français du pétrole a été chargé d'une triple mission: recherche - développement, documentation - information, formation. Il réalise un programme de recherches couvrant l'ensemble du secteur pétrolier de l'exploration géologique et géophysique jusqu'à l'utilisation des produits pétroliers (moteur et combustion). Il a développé et poursuit des recherches importantes en matière de génie maritime pétrolier et de lutte contre la pollution par les hydrocarbures.

Programme de coopération

- Formation de spécialistes étrangers ressortissants de plus de 70 pays (plus de 1200 diplômes ont été délivrés à des élèves étrangers)
- Coopération multilatérale, avec de multiples institutions de l'ONU, la Banque mondiale, OPEP, OAPEP, etc.
- Coopération bilatérale - plus de 110 pays depuis la fondation de l'IFP

Programme de formation

L'IFP dispose d'une école de spécialisation - l'Ecole nationale supérieure du pétrole et des moteurs qui regroupe 5 Centres d'études supérieures: Géologie et géophysique, Forage et exploitation des gisements, Raffinage et génie chimique, Moteurs et applications, Economie, et d'études universitaires spécialisées (doctorat sciences ou économie)

Personnel

576 Personnel scient.	828 Personnel technique	371 Autre personnel
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Locaux/installations

Installations prévues pour:
 Des chercheurs de l'extérieur: 300

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 192000
 Nombre d'abonnements périodiques: 1940

Bâtiments de recherche

Nom: RESOLUTION

Le code de l'institution 003020

Information reçue: 26/07/83

**Service d'hygiène industrielle,
Commissariat à l'énergie atomique**

Fonctionnaire exécutif: CHALABREYSSE J.: Chef

Adresse postale

Service d'hygiène industrielle,
Commissariat à l'énergie atomique
Boîte Postale 38
26701 PIERRELATTE CEDEX
FRANCE

Telephone: 75-504380

Telex: 345087 ENERGAT PIERL

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Chimie
Physique	Géologie/sédimentologie

Domaines de spécialisation

Hydrocarbures du pétrole	Métaux (polluants)
Hydrocarbures contenant des halogènes	Micro-organismes pathogènes
Éléments nutritifs	Radionucléides

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Le laboratoire, créé pour la surveillance des agents et de l'environnement du Centre de Pierrelatte, s'est très rapidement tourné vers l'extérieur notamment dans le domaine de la pollution. Recherche fondamentale et appliquée principalement dans le domaine non nucléaire. D'une façon générale, le laboratoire effectue couramment et sur toutes sortes de matières notamment eau, sédiments, végétaux, animaux, etc., les analyses dont voici une liste incomplète: caractères physico-chimiques, éléments nutritifs dissous, métaux, pesticides organo-chlorés, hydrocarbures, détergents, phénol, cyanures, bactériologie, caractère mutagène.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Depuis leur création, les divers centres ont mis au point un programme de contrôle de leur environnement (pollution radioactive et pollution chimique) et assurent ce contrôle.

Principales activités de recherche et autres activités en cours

- Etude de la toxicité de nouveaux produits chimiques
- Etude de diffusion atmosphérique
- Mesure de l'activité biologique
- Etude de métabolisme
- Etude de pouvoir mutagène
- Etude de transfert à travers la barrière sol.

Programme de coopération

- C.E.E.

Programme de formation

Occasionnellement conférences spécialisées dans les Universités ou IUT locaux (Montpellier en particulier) pour la région méditerranéenne.

Personnel

20 Personnel scient. 50 Personnel technique 0 Autre personnel

Locaux/installations

Superficie des laboratoires: 3000 m²
Installations prévues pour:
Des chercheurs de l'extérieur: 2

Services d'information

Les titres des monographies et des séries:
- Lettre du service d'hygiène industrielle

Matériel

Spectrophotomètre à fluorescence moléculaire, 2 spectrophotomètres IR, 3 spectrophotomètres par absorption atomique (vapeur froide) pour le mercure, 4 spectrophotomètres par absorption atomique (flamme et four), 4 spectrophotomètres UV - visible, 8 chromatographes en phase gazeuse avec intégrateur, chromatographe liquide haute pression, compteur de bactéries. Le laboratoire possède un équipement adapté: pour les prélèvements en mer et pour

Matériel

(Cont.)

les analyses sur le terrain, en plus, il y a un camion-laboratoire équipé de 12 mètres de pailleasse, climatisé autonome pour l'eau et l'électricité; ce camion laboratoire peut être installé à proximité des points de prélèvements.

Le code de l'institution 003021

Information reçue: 06/11/84

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**Laboratoire Arago,
Université Pierre et Marie Curie (Paris VI)**

Fonctionnaire exécutif: SOYER Jacques: Directeur

Adresse postale

Laboratoire Arago,
Université Pierre et Marie Curie (Paris VI)
66650 BANYULS-SUR-MER
FRANCE

Telephone: 68-880040

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Océanographie	Microbiologie
Pollution	Education, formation ou vulgarisation

Domaines de spécialisation

Céphalopodes	Crevettes
Autres invertébrés	Algues
Micro-organismes	Plancton
Benthos	Eaux marines du large
Eaux marines côtières	Eaux saumâtres
Eaux intérieures (douces)	

Les objectifs et les programmes

Le Laboratoire Arago a été fondé en 1881 par l'illustre zoologiste Henri de Lacaze-Duthiers. Dès sa création, le Laboratoire Arago s'est consacré à la recherche biologique fondamentale et à l'enseignement spécialisé destiné aux étudiants des Universités. D'autre part, sa situation privilégiée du point de vue de la faune et de la flore marines et terrestres et ses moyens d'action importants en font un laboratoire de chercheurs permanents aussi bien que de passage. Cinq principaux thèmes de recherche sont développés: Production pélagique - Structure et fonctionnement de l'écosystème benthique - Biologie cellulaire - Biologie du développement et reproduction (céphalopodes) - Structure et fonctionnement des écosystèmes terrestres. Sont aussi étudiés: Phytobenthos - Biologie lagunaire - Système sétifère des crustacés - Ascidies Didemnidae - Amphibiens et reptiles.

Programme de coopération

- Laboratoire de sédimentologie - Perpignan
- Muséum national d'histoire naturelle - Paris
- Université de Luminy - Marseille
- Station zoologique de Villefranche

Programme de formation

- Une quarantaine de stages par an dont la durée varie de une à quatre semaines
- Stages interuniversitaires (trois) destinés aux étudiants de toutes les universités
- Module optionnel 'Biologie des organismes marins' pour les étudiants de l'Université P. et M. Curie
- D.E.A. d'océanographie biologique de l'Université P. et M. Curie
- Stages de recyclage des professeurs du secondaire
- Stages de haut niveau (techniques avancées de la recherche) organisés sans périodicité fixe.

Structure de l'institution

- Équipes (Thèmes):**
- Production pélagique
 - Zooplancton
 - Structure et fonctionnement de l'écosystème benthique
 - Biologie cellulaire
 - Biologie de la reproduction et du développement des céphalopodes
 - Structure et fonctionnement des écosystèmes terrestres.
- Services:** Administration; Accueil; Atelier et entretien; Construction; Verrerie et produits chimiques; Bateaux et plongée; Aquarium; Bibliothèque; Dessin, photo et offset; Vie milieu; Culture d'algues; Microscopie électronique et photonique; Centre d'Ecologie terrestre.

Personnel

35 Personnel scient. 0 Personnel technique 60 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Amouroux, Jean-Michel	Dr. Etat	Nutrition (Invert. filtreurs)
Bhaud, Michel	Dr. Etat	Annélides polychètes
Bhaud-Couturier, Yvonne	Dr. Etat	Chronobiologie cellulaire, Synchronisation cellulaire
Binche-Athias, Françoise	Dr. Etat	Uropodes
Bodiou, Jean-Yves		Copépodes benthiques
Boletzky, Sigurd (von)	Dr. Etat	Céphalopodes (ontogénèse)
Boutière, Henri		Biologie lagunaire
Bovée, F. de	Dr. Etat	Nématodes
Cahet, Guy	Dr. Etat	Communauté hétérotrophe
Coineau, Nicole	Dr. Etat	Amphipodes interstitiels, Isopodes interstitiels
Duchêne, Jean-Claude	Dr. Etat	Reproduction d'annélides
Fiala, Michel	Dr. Etat	Eléments traces, Phytoplancton
Fiala-Medioni, Aline	Dr. Etat	Bilan énergétique (invertébrés filtreurs)
Pons, Roger	Dr. université	Micromammifères méditerranéens
Gros-Descolas, Chantal	Dr. Etat	Production primaire
Guidi, Laurence	Dr. 3ème cycle	Amphipodes mangeurs de dépôts
Herzog, Michel	Dr. Etat	Biochimie de l'ADN (protistes)
Hoefner, Nicolas	Dr. 3ème cycle	Production antarctique, Production primaire
Jacques, Guy	Dr. Etat	Ecosystème pélagique
Knoepffler, Louis-Philippe	Dr. université	Amphibiens et reptiles
Knoepffler-Peguy, Michèle	Dr. Etat	Phytobenthos
Labat, Jean-Philippe	Dr. 3ème cycle	Dynamique de population (Crangonidae)
Lafargue, Françoise	Dr. Etat	Ascidies, Didemnidae
Mangold, Katherine	Dr. Etat	Ecophysiologie d'Octopus
Marthy, Jurg	Dr. Etat	Morphogénèse des céphalopodes
Neveux, Jacques	Dr. Etat	Production primaire
Prodon, Roger	Dr. 3ème cycle	Dynamique des systèmes (avifaune-vegetation)
Razouls, Claude	Dr. Etat	Zooplancton
Razouls, Suzanne	Dr. Etat	Ecosystème mésozooplanctonique
Soyer-Gobillard, Marie-Odile	Dr. Etat	Biologie cellulaire
Soyer, Jacques	Dr. Etat	Copépodes harpacticoides
Tito de Moraes, Anne	Dr. 3ème cycle	Invertébrés filtreurs
Tito de Moraes, Luis	Dr. 3ème cycle	Pleuronectiformes
Travé, Joseph	Dr. Etat	Acariens oribates
Maroteaux, Luc		Biochimie

Locaux/installations

Superficie construite: 4065 m² Superficie des laboratoires: 800 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 100

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 62000

Nombre d'abonnements périodiques: 1000

Les titres des monographies et des séries:

'Vie et milieu' périodique d'écologie générale (4 fascicules/an)

Matériel

- Matériel de prélèvement en mer: bennes, chaluts, carottiers,
- Océanographie: Bouteilles d'hydrologie NIO et Niskin, thermo-
mètres à renversement, sac de prélèvement de 200 l, filets à
plancton divers avec accessoires, salinomètre Beckman RS7B, quanta-
mètre sous-marin Li-cor, 2 fluorimètres, centrale de mesure autour
d'un Apple II.

- Chimie: 4 analyseurs automatiques Technicon, spectrophotomètre
Perkin-Elmer 592, spectrofluorimètre Aminco-Bowman, chromatographe
phase gazeuse Packard 5880 A, appareil dosage Coleman, compteur à
particules.

- Microscopie électronique: microscope électronique Hitachi H 600,
ultramicrotomes Sorvall Porter et LKB, appareil point critique

Balzer, évaporateur Hitachi, métalliseur Semcoat, knifemaker LKB.

- Centrifugeuses: ultracentrifugeuse Kontron TGA 50 (50 000 rpm),

centrifugeuse 21 000 tours MSE 21, centrifugeuse de paillasser
réfrigérée MSE Chilspin, centrifugeuse de paillasser non réfrigérée
MSE.

- Isotopes radioactifs: compteur automatique de particules sur
coupelles Nuclear Chicago, scintillateur liquide Beckman 7000,
oxydizer Packard, compteur coulter.

Matériel (Cont.)

- Calculs: terminal intelligent, microordinateurs 3 Apple II, Sykes, Sirius, tables à tracer et à digitaliser.
- Microscopie photonique: 2 microscopes à fluorescence Leitz Orthomat et Zeiss, 2 microscopes inversés à plancton Olympus et Zeiss.
- Divers: lyophilisateur, 2 balances électromagnétiques Cahn Gram, 2 microbombes calorimétriques Philippon, sonde 02 polarographique Radiometer, 4 sondes polarographiques 02, To Orbisphère, ATPmètre.
- Salles spécialisées: salle de culture d'algues unicellulaires, 3 salles d'expérimentation à température de l'air réglable, salle de microscopie électronique, salle histologie, biochimie, service informatique, tireuse automatique; Ateliers: dessin, photo, offset, fer, bois mécanique.
- Audiovisuel: caméra magnétoscope, projecteur 16 mm, 2 projecteurs diapos.

Aquarium d'expérimentation

Superficie totale: 628 m² Nombre de réservoirs: 77

Organismes entretenus:

Poissons pélagiques	Autres vertébrés	Mollusques
Crustacés	Autres invertébrés	Algues

Les espèces entretenues à des fins expérimentales:

<i>Octopus vulgaris</i>	<i>Eledone moschata</i>	<i>Eledone cirrosa</i>
<i>Sepia officinalis</i>	<i>Loligo vulgaris</i>	<i>Sepietta obscura</i>
<i>Sepiella robusta</i>	<i>Crassostrea gigas</i>	<i>Asterionella japonica</i>
<i>Chaetoceros affinis</i>	<i>Navicula incerta</i>	<i>Nitzschia ascicularis</i>
<i>Phaeodactylum tricornutum</i>	<i>Skeletonema costatum</i>	<i>Chlamydomonas magnusii</i>
<i>Dunaliella marina</i>	<i>Chlorella salina</i>	<i>Prorocentrum micans</i>

Bâtiments de recherche

Nom: PR. GEORGES PETIT
 Propriétaire: CNRS
 Longueur: 21 m.
 Type: Pêche au large
 Année de construction: 1981
 Equipage: 6
 Personnel scientifique: 6
 Superficie des lab.: 14 m²
 Aménagements spéciaux:
 Navire océanographique basé à Banyuls

Nom: NEREIS
 Propriétaire: CNRS
 Longueur: 13 m.
 Type: Petite pêche
 Année de construction: 1960
 Equipage: 4
 Personnel scientifique: 16
 Aménagements spéciaux:
 Vedette basée à Banyuls.

Nom: RUFFI
 Propriétaire: CNRS
 Longueur: 7 m.
 Type: Pêche
 Année de construction: 1965
 Equipage: 2
 Personnel scientifique: 8
 Aménagements spéciaux:
 Embarcation basée à Banyuls.

Nom: ZODIACK
 Propriétaire: Laboratoire Arago
 Type: Mark V
 Aménagements spéciaux:
 Basé à Banyuls.

Le code de l'institution 003023

Information reçue: 06/11/84

**Laboratoire d'épidémiologie vétérinaire et d'hygiène
alimentaire**

Fonctionnaire exécutif: RAMONDA Giovanni: Directeur adjoint

Adresse postale

Laboratoire d'épidémiologie vétérinaire et d'hygiène
alimentaire
66A, rue Saint-Sébastien
13259 MARSEILLE CEDEX 6
FRANCE

Telephone: 91-372170

Langues de travail
Français

Principaux domaines d'activités

Biologie	Pêche maritime
Science/technologie des aliments	Contrôle de la qualité (prod. de pêche)
Chimie	Microbiologie
Pollution	Médecine vétérinaire

Domaines de spécialisation

Poissons pélagiques	Céphalopodes
Homards/langoustes	Crevettes
Algues	Benthos
Métaux (polluants)	Radionucléides

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Historique succinct du Laboratoire: Créé en 1938. Agrandi et
réinstallé dans les nouveaux locaux en 1965.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Il y a deux orientations distinctes: une section épidémiologie
vétérinaire chargée du diagnostic des maladies animales (analyses
médicales); une section hygiène alimentaire chargée de la
surveillance hygiénique des denrées d'origine animale au stade de
la production et de la commercialisation (contrôles bactériolo-
giques et chimiques).

Principales activités de recherche et autres activités en cours
Pollution par les métaux lourds. Contamination du milieu et des
organismes.

Programme de coopération

- B.E.N.G.O. - Laboratoire de biologie végétale marine. Faculté des
sciences de Marseille-Luminy.

Structure de l'institution

Le laboratoire comprend 3 sections ci-après détaillées: une section
analyses médicales (bactériologie, sériologie, parasitologie,
chimie biologique); une section bactériologie alimentaire
(contrôles de divers aliments: viandes, poissons, coquillages,
laites et dérivés, etc.); une section chimie alimentaire avec une
division radioactivité, une division métaux lourds.

Personnel

2 Personnel scient. 0 Personnel technique 0 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
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Gilles, Georges	Docteur vétérinaire	
Ramonda, Giovanni	Docteur 3ème cycle	

Locaux/installations

Superficie des laboratoires: 500 m²

Services d'information

Les titres des monographies et des séries:
- Recherche sur la pollution mercurielle en rade d'Hyères et dans
l'archipel des Staechades (Méditerranée, France): Série.

Matériel

Spectrophotomètre d'absorption atomique (IL 457), compteur Bêta
totaux avec passeur automatique (Nuclear Chicago), spectrophoto-
mètre Gamma avec analyseur multicanaux (Intertechnique SA 41-800
canaux)

Le code de l'institution 003024

Information reçue: 02/12/83

Centre des faibles radioactivités**Fonctionnaire exécutif:** LABEYRIE Jacques: Directeur**Adresse postale**

Centre des faibles radioactivités
 Domaine du CNRS-Avenue de la Terrasse
 Boite Postale 1
 91190 GIF-SUR-YVETTE
 FRANCE

Telephone: 9077828**Telex:** CNRS GIF 691137 F**Langues de travail**
Français**Catégorie de l'institution**
Gouvernementale**Principaux domaines d'activités**

Océanographie	Chimie
Physique	Géologie/sédimentologie
Ressources minérales/pétrole	

Domaines de spécialisation

Nodules des fonds marins	Eaux marines du large
Eaux marines côtières	Radionucléides

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Fondé en 1962 par accord entre le CEA et le CNRS pour développer
 les applications des sciences nucléaires aux sciences de la Terre,
 y compris l'océanographie.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Paléoclimatologie marine. Interactions chimiques océan-continent-
 atmosphère. Hydro-thermalisme et nodules de manganèse. Impact des
 volcans sur la chimie de l'atmosphère et de l'océan. Grands cycles.
 Géophysique: chronologie du volcanisme, prévision des risques
 volcaniques. Paléomagnétisme, chronologie et archéologie. Datation
 par les cosmonucléides.

Principales activités de recherche et autres activités en cours

Les programmes futurs

Identique aux trois dernières années

Programme de coopération

- Programme interdisciplinaire recherches océaniques (CNRS) (tous programmes océans)
- Programme interdisciplinaire recherches environnement (CNRS) (chimie, océan, atmosphère)
- Programme interdisciplinaire prévision risques volcaniques (CNRS) (chronologie, gaz volcaniques)
- NASA: radon dans l'atmosphère
- Terres australes et antarctiques françaises (paléoclimatologie, CO2 atmosphérique)
- CNEXO (sédimentologie, hydrothermalisme, nodule)
- DSDP (NSF-USA) (paléoclimatologie, hydrothermalisme).

Programme de formation

Cours et conférences dans diverses institutions françaises.

Structure de l'institution

Le Laboratoire est divisé en équipes scientifiques:

- Géochimie du système atmosphérique et du système océanique, leurs interactions.
- Evolution des climats, impact sur la circulation océanique.
- Volcanologie
- Géologie et géophysique
- Archéologie
- Recherche appliquée à la volcanologie du quaternaire.

Personnel

37 Personnel scient. 31 Personnel technique 12 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Labeyrie, J.	Directeur	Volcanisme
Lalou, C.	Dir. recherche-CNRS	Hydrothermalisme, Nodules

Personnel Nom	Diplôme Universitaire	(Cont.)	
		Principale Discipline	
Buat-Menard, P.	Chargé recherche	Particules marines. Particules atmosphériques. Echanges continent-atmosphère-océan	
Duplessy, J.C.	Maître recherche	Paléoclimatologie	
Yokoyama, Y.	Maître recherche	Datations archéologiques par radionucléides naturels	
Gillot, P.Y.	Ingénieur-physicien	Datations K-A	
Delibrias, G.	Ingénieur-physicien	Datations C-14	
Lambert, G.	Prof. Univ. Picardie	Chimie de l'atmosphère	
Laj, C.	Ingénieur-physicien	Paléomagnétisme	
Valladas, G.	Ingénieur-physicien	Thermoluminescence	
Nguyen, Ba Cuong	Maître recherche	Cycle naturel du soufre	

Locaux/installations

Superficie construite: 2200 m² Superficie des laboratoires: 1500 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 10

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 2000

Nombre d'abonnements périodiques: 75

Les titres des monographies et des séries:

Un rapport d'activité tous les 2 ans (diffusion restreinte)

Matériel

Chaines datation 14C: installation datation K/A; spectromètres de masse 0.C; chaines de détection alpha, gamma, bêta; superspectromètre de masse pour datation 14C, 10Be, 36Cl; spectrophotomètre d'absorption avec et sans flamme; appareil mesure de thermoluminescence; magnétomètres; laboratoire sans poussière; microscope électronique à balayage et analyse X associée; diffraction X; microscopes, centrifugeuses, étuves, chambres froides; mini-ordinateurs.

Bâtiments de recherche

Nom: JEAN CHARCOT
Propriétaire: CNEXO
Longueur: 76 m.
Année de construction: 1965
Equipage: 48
Personnel scientifique: 22
Superficie des lab.: 90 m²
Aménagements spéciaux:
Sea Beam-Echosondeur-Treuil

Nom: MARION DUFRESNE
Propriétaire: TAAP
Longueur: 112 m.
Type: E.V.
Année de construction: 1973
Equipage: 42
Personnel scientifique: 40
Superficie des lab.: 27 m²
Aménagements spéciaux:
Echosondeur-Treuil

Nom: NOROIT
Propriétaire: CNEXO
Longueur: 50 m.
Type: E.V.
Année de construction: 1972
Equipage: 20
Personnel scientifique: 10
Aménagements spéciaux:
Treuil-Echosondeur

Nom: SUROIT
Propriétaire: CNEXO
Longueur: 56 m.
Type: E.V.
Année de construction: 1975
Equipage: 2
Personnel scientifique: 10
Aménagements spéciaux:
Container Laboratoire

Bâtiments de recherche

(Cont.)

Nom: CYANA
Propriétaire: CNEO
Aménagements spéciaux:
Soucoupe plongeante

Le code de l'institution 003025

Information reçue: 16/11/84

**Station de recherches sous-marines et océanographiques
de l'Université de Liège à Calvi (Corse) (STARESO)**

Fonctionnaire exécutif: DISTECHE, Albert E.H.J.: Prof. ordinaire, Université de Liège

Adresse postale

**Station de recherches sous-marines et océanographiques
de l'Université de Liège à Calvi (Corse) (STARESO)
Boite Postale 33
20260 CALVI, CORSE
FRANCE**

Telephone: 3395650618

Telex: 41897 LIEGE

Langues de travail

Français, anglais

Catégorie de l'institution

Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Aménagement des ressources	Océanographie
Chimie	Physique
Microbiologie	Pollution
Géographie	Géologie/sédimentologie
Education, formation ou vulgarisation	

Domaines de spécialisation

Poissons démersaux	Embryophytes
Algues	Micro-organismes
Plancton	Benthos
Eaux marines du large	Eaux marines côtières
Métaux (polluants)	Eléments nutritifs

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

La création de STARESO a été décidée en 1964 sur proposition de feu Monsieur le Recteur M. DUBUISSON; elle est opérationnelle depuis 1971. Ses objectifs sont: recherche, stages, travaux pratiques au niveau marin et terrestre. STARESO a été conçue et équipée de façon à fournir une base logistique et des moyens à la mer à des équipes multidisciplinaires et est ouverte aux chercheurs de l'Université de Liège, des autres universités belges et étrangères.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Principales activités de recherche et autres activités en cours

Les programmes futurs

Programme interdisciplinaire, physique, chimie, biologie, sédimentologie.

- Courantométrie, structure des eaux, dynamique des échanges air-mer.
- Etude écohydrodynamique des fronts
- Analyse quantitative et qualitative des communautés biocénétiques littorales et infra-littorales.
- Phénomènes biogéochimiques. Cycle de l'azote, chimie du CO₂.
- Sédimentologie et diagenèse. Chimie des carbonates, faciès sédimentaires, rapports ¹³C/¹²C.

Contribution à l'étude de la mer de Ligurie, programmes Alpex, Medalpex, en collaboration avec la France et l'Italie.

Etudes générales de floristique et faunistique terrestre et aquatique.

Etudes d'éthologie marine

Programme de coopération

- Etude des fronts en Méditerranée (exp. Trophos): laboratoire de Villefranche (France)
- Prolongation d'Alpex, Medalpex en mer de Ligurie (France, Italie, Belgique)
- Programme permanent Université de Nice - Université de Liège (benthos, plancton)

Programme de formation

- Stages et travaux pratiques annuels de l'Université de Liège, en océanologie.
- Formation de plongeurs scientifiques (C.U.I.P.S. - Centre universitaire international de plongée sous-marine).

Structure de l'institution

Direction: A. DISTECHE, Professeur ordinaire, Université de Liège
 Comité de gestion: A. DISTECHE (Président)
 J. GODEAUX (Professeur, Université de Liège)
 D. HONORE (Professeur, Université de Liège)
 Ch. JEUNIAUX (Professeur, Université de Liège)
 J. LAMBINON (Professeur, Université de Liège)
 C. MONTY (Chef de travaux, Université de Liège)
 J.C.J. NIHOUL (Professeur, Université de Liège)
 Commission scientifique: Président: Professeur J.C.J. NIHOUL
 Directeur adjoint: Dr. D. BAY (affaires et gestion locales)
 Commandant du navire: X. BRUNAU, affaires maritimes-moyens à la mer
 Econome: Mme F. BAY-LIEGEOIS (intendance locale)

Personnel

1 Personnel scient. 2 Personnel technique 5 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Disteche, A.	Dr.sc.chimiques	Chimie, Océanologie générale
Godeaux, J.	Dr.sc.zoologiques	Biologie marine, Plancton, necton
Honoré, D.	Dr.médecine	Chirurgie, plongée sous-marine
Jeuniaux, Ch.	Dr.sc.zoologiques	Biologie marine, benthos
Monty, C.	Dr.sc.géologiques	Sédimentologie récente
Nihoul, J.C.J.	Ing.-phys. Ph.D.	Dynamique (fluides geophys.)
Bay, D.	Dr.sc.océanol.	Biologie marine

Locaux/installations

Superficie construite: 2956 m² Superficie des laboratoires: 860 m²

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 450
 Nombre d'abonnements périodiques: 11

Matériel

2 balances, pH mètre, centrifugeuse, spectrophotomètre (Beckman),
 3 microscopes -stéréoscopique (Nikon) -inversé (Leitz) -binoculaire
 (Leitz), sonde pour profil de salinité-température avec
 enregistreur analogique (Plessey), 2 courantomètres (Aanderaa),
 salinomètre (Industria), ordinateur PDP 5, quantamètre,
 fluorimètre, 2 grappins (Van Veen et Shipek).

Aquarium d'experimentation

Superficie totale: 25 m² Nombre de réservoirs: 5

Organismes entretenus:		
Poissons démersaux	Mollusques	Crustacés
Autres invertébrés	Embryophytes	Algues
Micro-organismes		

Les espèces entretenues à des fins expérimentales:

Selon la demande**Bâtiments de recherche**

Nom: RECTEUR DUBUISSON
 Propriétaire: STARESO
 Longueur: 21 m.
 Type: Catamaran
 Année de construction: 1971
 Équipage: 3
 Personnel scientifique: 5
 Superficie des lab.: 26 m²
 Aménagements spéciaux:
 Générateur électrique (27 KVA, 220V-380V, triphasé); treuil océano-
 graphique (2800m de câble inox); treuil pour chalutage (800 m de
 câble nylon); derrick de lavage; compresseur pour plongée sous-
 marine; 2 embarcations auxiliaires; échosondeur Simrad EK 12; radar
 Decca 101; Loran C; pilote automatique.

Le code de l'institution 003028

Information reçue: 15/11/84

**Service contrôle et qualité des eaux,
Société des eaux de Marseille (S.E.M./C.Q.E.)**

Fonctionnaire exécutif: BOUDOURESQUE Pierre: Chef

Adresse postale

Service contrôle et qualité des eaux,
Société des eaux de Marseille (S.E.M./C.Q.E.)
25, rue Edouard Delanglade
Boite Postale 29
13006 MARSEILLE
FRANCE

Telephone: 91-799057

Telex: SEMARSL 44884 F

Langues de travail

Français

Catégorie de l'institution

Privée (commerciale)

Principaux domaines d'activités

Biologie	Chimie
Microbiologie	Pollution

Domaines de spécialisation

Algues	Micro-organismes
Plancton	Eaux intérieures (douces)
Hydrocarbures du pétrole	Métaux (polluants)
Hydrocarbures contenant des halogènes	Micro-organismes pathogènes
Eléments nutritifs	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Créé en 1943, pour le contrôle des eaux de distribution de la Ville de Marseille, le laboratoire a étendu ses activités au domaine de l'épuration des eaux résiduaires et de l'élimination des déchets.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Contrôle des eaux de consommation, de l'épuration des eaux usées, Mise au point de techniques d'analyse, optimisation de traitements, recherche de micropolluants dans les eaux.

Principales activités de recherche et autres activités en cours

Mise en place d'une unité de virologie des eaux. Etude de la qualité biologique et bactériologique des eaux naturelles et des eaux de distribution. Optimisation des procédés physico-chimiques d'épuration des eaux usées.

Les programmes futurs

Recherche et identification des micropolluants organiques dans les eaux superficielles alimentant la Ville de Marseille.

Programme de coopération

- Station marine d'Endoume (Marseille) - état des peuplements benthiques dans les parages du débouché en mer des rejets de la station d'épuration de Cassis.
- Faculté de pharmacie de Marseille - mise en évidence des virus hydriques dans les eaux de surface et les eaux de distribution publique.
- Faculté des Sciences de Saint-Jérôme - recherche et identification de micropolluants organiques dans les eaux de surface par chromatographie et spectrométrie de masse.

Structure de l'institution

Le service comporte deux subdivisions:

- Contrôle du traitement des eaux potables avec recherches appliquées.
- Contrôle des procédés d'épuration des eaux usées avec recherches appliquées.

Personnel

2 Personnel scient. 19 Personnel technique 3 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Boudouresque, Pierre	Ing. ESCM et ENSIC	Chimie
Léger, Gérard	D.E.A.	Biologie, Biochimie

Locaux/installations

Superficie construite: 700 m² Superficie des laboratoires: 600 m²
Installations prévues pour:
Des chercheurs de l'extérieur: 2 D

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 5000
Nombre d'abonnements périodiques: 150

Matériel

Spectrophotomètre U.V. visible (Jobin Yvon), spectrophotomètre AA flamme (Perkin Elmer 373), spectrophotomètre AA four (Perkin Elmer 2380 + HGA 2200), spectrophotomètre IR (Perkin Elmer), chromatographe PG équipé capillaire (Varian 3700), chromatographe PL (Spectra Physics 8000 B), titrateur potentiométrique (Mettler), respiromètre automatique (Voight 6 postes), analyseur de carbone - filière HT (Beckmann 915 A), analyseur de carbone - filière U.V./Persulfate (Dohrman DC 80), microscope équipé microphoto (Reichert) microscope inverse (Olympus), analyseur en flux continu (Technicon) hotte à flux laminaire-virologie (ESI)

Aquarium d'experimentation

Nombre de réservoirs: 8

Organismes entretenus:
Crustacés

Les espèces entretenues à des fins expérimentales:

Daphnia magna Straus

Le code de l'institution 003029

Information reçue: 08/08/83

Centre d'océanologie de Marseille

Fonctionnaire exécutif: BLANC François: Professeur-Directeur

Adresse postale

Centre d'océanologie de Marseille
Station marine D'Endoume, rue Batterie des Lions
13007 MARSEILLE
FRANCE

Telephone: 91 529194/520848

Langues de travail

Français, anglais

Catégorie de l'institution

Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Aquaculture
Océanographie	Chimie
Physique	Microbiologie
Pollution	Géologie/sédimentologie
Ordinateurs/systèmes informatiques	Education, formation ou vulgarisation

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Crevettes	Autres invertébrés
Algues	Micro-organismes
Plancton	Benthos
Eaux marines du large	Eaux marines côtières
Eaux saumâtres	Ecosystèmes coralliens
Hydrocarbures du pétrole	Métaux (polluants)
Hydrocarbures contenant des halogènes	Éléments nutritifs

Les objectifs et les programmes

Centre d'océanographie fondé en 1889 par A. Marion; 1948 J.-M. Pérès
1969 association avec le C.N.R.S.; 1983 renouvellement du
Laboratoire associé, nouvelle structure - Centre d'océanologie de
Marseille.

Se consacre principalement à l'étude de la structure et du
fonctionnement des écosystèmes marins: écosystèmes benthiques et
pélagiques sur l'Océan Mondial; au niveau méditerranéen plus
régional: pollution urbaine, industrielle, thermique. Biotechno-
logies marines: algues, exploitations d'espèces d'intérêt commer-
cial. Biotechnologies de lutte contre les pollutions.
Travaux sur l'émissaire de Cortiou, la région Fos-Berre, les
upwellings, les récifs artificiels. L'aquaculture poissons,
crustacés. Recherches sur l'interface océan/atmosphère, les stocks
ichtyologiques en région PAGA (poissons démersaux) etc.

Programme de coopération

- Algérie: Faculté Houari Boumédiène (pollution)
- Brésil: I.R.M. Rio de Janeiro (upwellings, bio-écologie)
- Cuba: PNCD La Havana, UNESCO (pollution, mer des Caraïbes)
- Portugal: Université de Lisbonne, CNEXO (upwellings)

Programme de formation

- Maîtrise d'océanographie
- D.E.A. d'océanologie
- Préparation aux thèses de 3ème cycle (en océanographie); thèses
d'Etat (en océanographie)

Structure de l'institution

Le personnel se répartit dans quatre divisions scientifiques
et des services communs (scientifique et administratif, ITA/ATOS).
Les divisions sont des structures verticales et jouissent d'une
autonomie de gestion d'organisation interne et, en matière de
perspectives de recherche, font des propositions au Conseil
Scientifique du Laboratoire qui est chargé de la coordination et
de l'harmonisation des recherches.

Divisions scientifiques:

Benthos
Réseaux trophiques et ressources biologiques
Pélagos
Ecophysiologie

L'élément moteur de cette structure est constitué par la mise en
place de thèmes horizontaux interdisciplinaires. Ces thèmes ont
pour but de regrouper chercheurs et enseignants et les inciter à
collaborer sur des programmes interdisciplinaires.

Thèmes à caractère pluridisciplinaire:

- Biosédimentologie, paléocéologie et environnement sédimentaires;

Structure de l'institution (Cont.)

- Dynamique des peuplements benthiques, colonisation des biotopes artificiels;
- Biosystématique et écosystématique;
- Ecosystèmes coralliens et milieux périrécifaux;
- Production océanique;
- Interface océan/atmosphère;
- Approche physique et modélisation des écosystèmes côtiers pélagiques;
- Fluctuation temporelle des écosystèmes marins
- Etude expérimentale chaînes trophiques courtes (physiol., biochim., cytol.);
- Réseau trophique et production;
- Ecotoxicologie bioaccumulation et biodégradation, systèmes marins perturbés;
- Etude intégrée des écosystèmes côtiers.

Personnel

62 Personnel scient. 31 Personnel technique 10 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Arnaud, P.	Thèse d'Etat	
Alliot, E.	Thèse d'Etat	
Bellan, D.	Thèse d'Etat	
Bellan, G.	Thèse d'Etat	
Berland, B.	Thèse d'Etat	
Bourcier, M.	Thèse d'Etat	
El Kaïm, R.	Thèse d'Etat	
Enig, C.	Thèse d'Etat	
Harmelin, J.G.	Thèse d'Etat	
Harmelin, M.	Thèse d'Etat	
Hipcau, R.	Thèse d'Etat	
Le Campion, T.	Thèse d'Etat	
Masse, H.	Thèse d'Etat	
Peyrot, M.	Thèse d'Etat	
Plante, M.R.	Thèse d'Etat	
Picard, J.	Thèse d'Etat	
Romano, J.C.	Thèse d'Etat	
Salen, C.	Thèse d'Etat	
Stora, G.	Thèse d'Etat	
Thomassin, B.	Thèse d'Etat	
Vacclet, E.	Thèse d'Etat	
Vacclet, J.	Thèse d'Etat	
Zibrowius, H.	Thèse d'Etat	
Blanc, F.	Thèse d'Etat	
Ceccaldi, H.	Thèse d'Etat	
Blanc, J.J.	Thèse d'Etat	
Champalbert, G.	Thèse d'Etat	
Coste, B.	Thèse d'Etat	
Gaudy, R.	Thèse d'Etat	
Macquart Moulin, C.	Thèse d'Etat	
Masse, J.P.	Thèse d'Etat	
Minas, H.J.	Thèse d'Etat	
Minas, M.	Thèse d'Etat	
Patriti, G.	Thèse d'Etat	
Robert, C.	Thèse d'Etat	
Slawyck, G.	Thèse d'Etat	
Aboussouan, A.	Doc. 3ème cycle	
Donadey, C.	Doc. 3ème cycle	
Gallissian, M.F.	Thèse d'Etat	
Laborde, P.	Doc. 3ème cycle	
Le Campion, J.	Doc. 3ème cycle	
Ledoyer, M.	Thèse d'Etat	
Plante, R.	Doc. 3ème cycle	
Travers, M.	Thèse d'Etat	
Vasseur, P.	Doc. 3ème cycle	
Bertrand, J.C.	Thèse d'Etat	
Blanc, L.	Thèse d'Etat	
Bonin, D.	Thèse d'Etat	
Bourdillon, A.	Thèse d'Etat	
Castelbon, C.	Doc. 3ème cycle	
Froget, C.	Doc. 3ème cycle	
Guilevitch, M.	Doc. 3ème cycle	
Giusti, G.	Thèse d'Etat	
Guerin, J.P.	Thèse d'Etat	
Kerambrun, P.	Thèse d'Etat	
Laborel, J.	Thèse d'Etat	
Leveau, M.	Thèse d'Etat	
Roux, M.	Doc. 3ème cycle	
Arfi, R.	Thèse d'Etat	

Locaux/installations

Superficie construite: 6000 m² Superficie des laboratoires: 5000 m²
 Installations prévues pour:
 Des chercheurs de l'extérieur: 200

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 4500
 Nombre d'abonnements périodiques: 1000

Les titres des monographies et des séries:
 - Revue 'Téthys' (trimestrielle)

Matériel

Fluorimètres, spectrophotomètres, distillateurs, déminéralisateurs, spectro d'absorption atomique, coulter counter, polarographes, chromatographes en phase gazeuse, salinomètres, auto-analyseur CHN, balances et microbalances, microscopie électronique (appareils de point critique, de minéralisation, ultramicrotondes, microtondes), diffractomètre aux rayons X, analyseur thermique pondéral, analyseur thermique différentiel, colonnes de tamis, analyseur d'acides aminés, spectromètre à scintillation liquide, photomètre intégrateur, pico ATP, HPLC, lyophilisateur, centrifugeuse réfrigérée, chaîne d'analyse Technicon (échantillonneurs, pompes, colorimètres, enregistreurs), compteur de radioactivité, microtome étuves, matériel d'optique et reprographie (microscopes inversés, labos, appareils photo, matériel dessin, photocopieurs), compresseurs, bouteilles de plongée, bennes, groupes électrogènes, pompes à plancton, bouteilles et thermomètres à renversement, dragues, filets divers, zodiacs, monteurs HB, gros matériel informatique (HP 85, HP 1B, HP 2647 A HP 1000), Goupil 2 et 3, machines à écrire (à boule IBM, électronique Olivetti), calepnettes perfectionnées, autoclaves, congélateurs.

Aquarium d'experimentation

Superficie totale: 30 m² Nombre de réservoirs: 51

Organismes entretenus:		
Poissons démersaux	Poissons pélagiques	Mollusques
Crustacés	Algues	Micro-organismes

Les espèces entretenues à des fins expérimentales:

<i>Penaeus japonicus</i>	<i>Penaeus kerathurus</i>	<i>Palaemon serratus</i>
<i>Palaemon elegans</i>	<i>Mugil capito</i>	<i>Mugil auratus</i>
<i>Dicentrarchus labrax</i>	<i>Sparus aurata</i>	<i>Solea solea</i>
<i>Dunaliella sp.</i>	<i>Scolecopsis fuliginosa</i>	<i>Capitella capitata</i>
<i>Tisbe holothuriae</i>		

Bâtiments de recherche

Nom: JEAN CHARCOT
 Propriétaire: CNEXO
 Longueur: 75 m.
 Année de construction: 1964
 Equipage: 48
 Personnel scientifique: 22
 Superficie des lab.: 365 m²
 Aménagements spéciaux:
 2 centrales d'acquisition des données, treuils chalutage, dragage, hydrologie sondeurs, thermosalinographe.

Nom: NOROIT
 Propriétaire: CNEXO
 Longueur: 51 m.
 Année de construction: 1971
 Equipage: 20
 Personnel scientifique: 10
 Superficie des lab.: 65 m²
 Aménagements spéciaux:
 treuils, bathysonde, sondeur thermosalinographe.

Nom: SUROIT
 Propriétaire: CNEXO
 Longueur: 51 m.
 Année de construction: 1971
 Equipage: 20
 Personnel scientifique: 10
 Superficie des lab.: 65 m²
 Aménagements spéciaux:
 Treuils, bathysonde, sondeur thermosalinographe.

Nom: MARTON DUFRESNE

Bâtiments de recherche

(Cont.)

Nom: KOROTNEFF
Propriétaire: CNRS PIRO
Longueur: 20 m.
Equipage: 6
Superficie des lab.: 9 m²
Aménagements spéciaux:
Treuils, laboratoire, chambre froide.

Nom: GEORGE PETIT
Propriétaire: CNRS PIRO
Longueur: 20 m.
Equipage: 6
Personnel scientifique: 6
Superficie des lab.: 14 m²
Aménagements spéciaux:
Treuils, laboratoires, chambre froide, viviers.

Nom: ANTEDON
Propriétaire: CNRS PIRO
Longueur: 16 m.
Année de construction: 1958
Equipage: 3
Superficie des lab.: 2 m²
Aménagements spéciaux:
Treuils, laboratoire, chambre froide.

Nom: CATHERINE LAURENCE
Propriétaire: CNRS PIRO
Longueur: 21 m.
Equipage: 7
Aménagements spéciaux:
Treuils, chambre froide.

Le code de l'institution 003031

Information reçue: 31/10/84

FRANKARST

Fonctionnaire exécutif: POTIE Louis: Directeur technique

Adresse postale

FRANKARST
S.E.M. 25 rue E. Delanglade
Boîte Postale 642
13006 MARSEILLE
FRANCE

Telephone: 91-379230

Telex: SEMARSL 440884 F.

Langues de travail

Français. anglais

Catégorie de l'institution

Privée (commerciale)

Principaux domaines d'activités

Aménagement des ressources
Ingénierie
Commercialisation/economie

Océanographie
Transfert de technologie

Domaines de spécialisation

Eaux marines côtières
Eaux intérieures (douces)

Eaux saumâtres

Les objectifs et les programmes

FRANKARST, S.A.R.L. constituée afin de développer et d'appliquer sur d'autres sites les techniques élaborées pendant l'étude du projet de captage de la rivière souterraine de Port-Miou (B. du RH).
But: faire connaître en France et à l'étranger la méthodologie qu'il est susceptible de mettre en oeuvre ainsi que les compétences techniques. Groupes de travail pour études ponctuelles.

Expériences:

- Etude de la rivière souterraine de Port-Miou
- Etudes et exploration des réseaux karstiques de la région de Benghazi (Libie)
- Inventaire des résurgences d'eau douce le long des côtes de Sicile (Italie)
- Inventaire et exploration des résurgences d'eau douce dans le golfe de Corinthe (Grèce)

Les programmes futurs

- Etudes sur d'autres réseaux karstiques
- Recherche et captage de résurgences sous-marines d'eau douce
- Exploration de la résurgence de la Fontaine-de-Vaucluse.

Programme de coopération

- Société des eaux de Marseille (Marseille)
- Bureau de recherches géologiques et minières (Orléans)

Programme de formation

- Service technique pouvant recevoir des stagiaires hydrogéologues
- Conférences données par le personnel technique

Structure de l'institution

- 1 Gérant
- 1 Directeur technique

Personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Ricour, J.	Docteur ès sciences	Géologie
Potie, L.	Ingénieur géologue	Géologie
Tardie, B.	Ingénieur	Mécanique des sols

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 500
Nombre d'abonnements périodiques: 130

Matériel

14 courantomètres (C.E.M.A.), préleveur automatique d'échantillons (ISCO), 2 limnigraphes pneumatiques (AIKON), sonde de prélèvement (TAMAN), sonde de mesures instantanées de température et résistivité (TAMAN), salinomètre (SOLF)

Le code de l'institution 003034

Information reçue: 22/10/83

**Laboratoire d'hydrologie et molysmologie aquatique,
Faculté de pharmacie, Université d'Aix-Marseille**

Fonctionnaire exécutif: ARNOUX, André J.A.: Professeur

Adresse postale

Laboratoire d'hydrologie et molysmologie aquatique,
Faculté de pharmacie, Université d'Aix-Marseille
27 boulevard Jean Moulin
13385 MARSEILLE CEDEX 5
FRANCE

Telephone: 91-792156

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités

Ecologie	Océanographie
Limnologie	Chimie
Pollution	Education, formation ou vulgarisation

Domaines de spécialisation

Algues	Benthos
Eaux marines côtières	Eaux saumâtres
Eaux intérieures (douces)	Ecosystèmes coralliens
Hydrocarbures du pétrole	Métaux (polluants)
Hydrocarbures contenant des halogènes	Eléments nutritifs

Les objectifs et les programmes

- Pollution chimique des milieux aquatiques littoraux (principalement méditerranéens) (Etat-Evolution-Transferts).
- Relation entre les écosystèmes et la qualité chimique des milieux aquatiques.
- Evolution des sédiments pollués et leur capacité de régénération et de repeuplement.
- Phénomènes en relation avec l'hypersédimentation en milieu littoral méditerranéen et en milieu récifal tropical.

Programme de coopération

- Station marine d'Endoume (Etude d'écosystèmes marins)

Programme de formation

- Diplôme d'Etat de pharmacien.
- Direction de thèses de pharmacie (option hygiène des eaux) ou de thèses de 3ème cycle (océanographie)

Structure de l'institution

- Le Laboratoire comprend trois sections:
- Recherche et analyse des polluants organiques
 - Recherche et analyse des polluants minéraux
 - Synthèse des résultats et relation avec les travaux d'équipes associées

Personnel

4 Personnel scient. 2 Personnel technique 3 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Arnoux, André	Prof.	Hydrologie, Molysmologie generale
Tatossian, Jeanne	Dr.	Pollution minérale
Blanc, Alain	Dr. 3ème cycle	Pollution minérale
Diana, Catherine	Dr.	Molysmologie generale
Monod, J.L.	Maitrise des science	Pollution organique
Schembri, Thérèse	D.U.T.Chimie	Pollution organique

Locaux/installations

Superficie construite: 624 m² Superficie des laboratoires: 288 m²
Installations prévues pour:
Des chercheurs de l'extérieur: 3

Matériel

Camionnette laboratoire-Zodiac-remorque, 5 appareils à prélèvement automatique, 5 pH mètre, 2 conductimètres, salinomètre Beckman, oxymètre Beckman, turbidimètre Fischer, 5 congélateurs, lyophilisateur (Virtis), broyeur Agate, tamis, desintegrateur ultra-sons.

Matériel (Cont.)

matériels de filtration, 5 centrifugeuses, ultracentrifugeuse réfrigérée (NSE), 6 balances analytiques, balance à sédimentation (Prolabo), auto-analyseur Technicon-spectrophotomètre UV visible (UNICAM), spectrophotomètre IR (Beckman), 2 spectrophotomètres d'absorption atomique avec four (26-Philips), 2 analyseurs de mercure (Perkin Coleman-Data Control), 2 polarographes (Tacussel), 2 chromatographes en phase gazeuse (Tracor), chromatographe en phase gazeuse couplé à un spectromètre de masse (Finnigan) avec traitement de données (SIDAR), chromatographe en phase liquide sous haute pression (Varian), équipement photographique (Nikon).
Matériels communs avec d'autres laboratoires: porosimètre (Coulter) compteur de particules (Coulter), RMN spectrofluorimètre (Aminco)

Bâtiments de recherche

Nom: ANTEDON
Propriétaire: PIRO
Longueur: 15 m.
Type: chalutier
Année de construction: 1959
Equipage: 3
Personnel scientifique: 4
Aménagements spéciaux:
Sondeur, radar, treuils, bennes, draques.

Nom: CATHERINE-LAURENCE
Propriétaire: PIRO
Longueur: 22 m.
Type: chalutier
Année de construction: 1962
Equipage: 6
Personnel scientifique: 7
Aménagements spéciaux:
Sondeur, radar, Loran, treuils, portiques, bennes, draques, carottiers.

Nom: ZODIAC
Propriétaire: Laboratoire hydrologie
Longueur: 5 m.
Type: pneumatique
Année de construction: 1976
Personnel scientifique: 4

Le code de l'institution 003035

Information reçue: 29/11/83

**Laboratoire de physiologie générale et comparée du
Muséum national d'histoire naturelle**

Fonctionnaire exécutif: FONTAINE Yves-Alain: Directeur

Adresse postale

Laboratoire de physiologie générale et comparée du
Muséum national d'histoire naturelle
7, rue Cuvier
PARIS F-75231
FRANCE

Telephone: 3360072

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Aquaculture	Pollution
Education, formation ou vulgarisation	

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Autres invertébrés	Eaux marines côtières
Eaux intérieures (douces)	Hydrocarbures du pétrole
Métaux (polluants)	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Créé en 1837, le Laboratoire a pris le nom de Physiologie générale
et comparée en 1868 (Claude Bernard). Sa mission est donc d'étudier
le fonctionnement des êtres vivants d'un point de vue comparatif.
Depuis 1943, sous la direction du Prof. M. Fontaine, puis du Prof.

de recherche.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Endocrinologie des poissons dans ses rapports avec la reproduction,
l'adaptation aux facteurs du milieu (température, salinité,
pression) et application à l'aquaculture. Influence de la pollution
(hydrocarbure, fluor, phosphogypse) sur la physiologie des poissons

Principales activités de recherche et autres activités en cours

Identique aux trois dernières années

Les programmes futurs

Identique aux trois dernières années
- étude d'endocrinologie chez les Tuniciers

Programme de coopération

- C.N.E.X.O. (fluor, phosphogypse comme polluants chez les
poissons)
- Communauté européenne (hydrocarbures comme polluants chez les
poissons)
- C.N.E.X.O., C.N.R.S. (bases biologiques de l'aquaculture)

Programme de formation

- Formation d'étudiants de 3ème cycle (post-maîtrise) conduisant à
des thèses de 3ème cycle et de Doctorat d'Etat.

Structure de l'institution

Le laboratoire comprend quatre équipes:

- Métabolisme de l'iode et fonction thyroïdienne au cours du
développement et d'adaptations.
- Hormones stéroïdes: métabolisme et mode d'action; rythmes et
adaptations.
- Hormones glycoprotéiques hypophysaires: biochimie, physiologie et
mécanisme d'action.
- Régulation endocrinienne du métabolisme phosphocalcique et du
fonctionnement des tissus squelettiques.

Personnel

14 Personnel scient. 18 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Burzawa-Gerard, Elisabeth (Mm de Luze, Amaury	Dr. sciences Dr. 3ème cycle	Physiologie des poissons Physiologie des poissons

Personnel

(Cont.)

Nom	Diplôme Universitaire	Principale Discipline
Dufour, Sylvie (Mlle)	Dr. 3ème cycle	Physiologie des poissons
Fontaine, Maurice	Dr. sciences	Physiologie des poissons
Fontaine, Yves-Alain	Dr. sciences	Physiologie des poissons
Fontaine-Bertrand, Elisabeth	Maître ès sciences	Physiologie des poissons
Leloup, Jacques	Dr. sciences	Physiologie des poissons
Leloup-Hatey, Jeanine (Mme)	Dr. sciences	Physiologie des poissons
Lopez, Evelyn (Mme)	Dr. sciences	Physiologie des poissons
Milet, Christian	Maître ès sciences	Physiologie des poissons
Peignoux-Deville, Jacqueline	Dr. sciences	Physiologie des poissons
Querat, Bruno	Dr. 3ème cycle	Physiologie des poissons
Salmon, Christian	Dipl.d'études appr.	Physiologie des poissons

Locaux/installations

Superficie construite: 1300 m² Superficie des laboratoires: 850 m²
 Installations prévues pour:
 Des chercheurs de l'extérieur: 4 D

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 12000
 Nombre d'abonnements périodiques: 30

Matériel

Microscope électronique (Hitachi), 8 microscopes photoniques ou loupes binoculaires (Zeiss, Olympus, etc.), spectrophotomètre d'absorption atomique, photomètre de flamme (Eppendorf), spectrofluoromètre (Perkin Elmer), compteur à scintillation gamma et bêta (Intertechnique), spectrophotomètre (Beckman), ultracentrifugeuse (Beckman), 5 centrifugeuses (Jouan), auto-analyseur (Technicon), miniordinateur (Apple), chromatographe en phase gazeuse (Tracor), lyophilisateur (F.T.S.), 4 balances analytiques (Mettler), équipement photographique (divers types), osmomètre (Roebbing), 4 chambres froides, 3 pièces climatisées, 3 collecteurs de fractions, 2 paillasses réfrigérées.

Aquarium d'experimentation

Superficie totale: 100 m² Nombre de réservoirs: 90

Organismes entretenus:
 Poissons démersaux Poissons pélagiques

Les espèces entretenues à des fins expérimentales:

Phallusia spp.
Cyprinus carpio
Lamprisma planeri

Anguilla anguilla
Carassius auratus
Petromyzon marinus

Salmo gairdneri
Scylliorhinus canicula

Le code de l'institution 003037

Information reçue: 01/11/84

**Section d'application des traceurs,
Centre d'études nucléaires de Grenoble**

Fonctionnaire exécutif: MARGRITA Robert: Chef de Section

Adresse postale

Section d'application des traceurs,
Centre d'études nucléaires de Grenoble
Avenue des Martyrs
Boite Postale 85X
38041 GRENOBLE CEDEX
FRANCE

Telephone: 76-884400

Telex: ENERGAT GRENO 320 323 F

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie
Aménagement des ressources
Limnologie
Pollution

Ecologie
Océanographie
Physique
Géologie/sédimentologie

Domaines de spécialisation

Eaux marines du large
Eaux saumâtres
Radionucléides

Eaux marines côtières
Eaux intérieures (douces)

Les objectifs et les programmes

La Section d'application des traceurs a été créée en 1979 suite à une restructuration du Service d'application des radioéléments dont l'origine et les objectifs remontent à 1957. La Section d'application des traceurs est spécialisée dans le développement et la mise en oeuvre de méthodes de traceurs, aussi bien radioactifs, radioactivables ou isotopiques, que chimiques ou fluorescents. Les principales et permanentes activités de recherche de la Section d'application des traceurs sont consacrées à l'étude des transferts de masse dans l'environnement hydrologique. Dans ce domaine, les secteurs d'activités de la Section d'Application des Traceurs se répartissent de la manière suivante:

- Hydrologie de surface: mesures de débits, caractérisation d'écoulement, vitesses, coefficients de dispersion, calage de modèles dispersifs
- Hydrogéologie: détermination des paramètres hydrodynamiques, vitesses réelles, perméabilité, porosité cinématique, coefficients de dispersion, calage de modèles dispersifs
- Génie civil: recherche et localisation de fuites sur barrages et canaux, contrôle d'étanchéité
- Etude de pollution: dispersion chimique biologique, thermique, des nappes souterraines, cours d'eau, lacs et mers
- Contrôle sanitaire: mesures de débits d'effluents, contrôle de fonctionnement de stations d'épuration
- Contrôle continu: dosage du tritium dans les eaux météorites provenant de stations météorologiques appartenant au réseau international de l'Agence internationale de l'énergie atomique.

Programme de formation

- Formation permanente aux méthodes de traceurs: stages universitaires - doctorats.
- Accueil chaque année d'au moins deux stagiaires universitaires français et 2 à 4 stagiaires étrangers dans le cadre de la coopération avec l'Agence internationale de l'énergie atomique.

Structure de l'institution

La Section d'application des traceurs est formée de trois laboratoires:

- Laboratoire d'applications des traceurs à l'industrie
- Laboratoire d'applications des traceurs en hydrologie
- Laboratoire d'applications des traceurs à l'environnement et au développement des techniques nouvelles

Personnel

7 Personnel scient. 6 Personnel technique 2 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Margrita, Robert	Doctorat 3ème cycle	Physique nucléaire
Andre, Catherine	Dip. sup. spéc.	Bromatologie
Beaudoing, Georges	Doctorat 3ème cycle	Hydrodynamique
Corompt, Paul	Doctorat 3ème cycle	Physique nucléaire
Gaillard, Bernard	Doctorat université	Sciences de la terre, Hydrologie, Hydrogéologie
Santos-Cottin, Henri	Doctorat université	Mécanique des fluides
Calmels, Pierre	Doctorat université	Sciences de la terre, Hydrologie, Hydrogéologie

Matériel

3 spectromètres à scintillation liquide (Packard), 2 ensembles d'enrichissement isotopique par électrolyse, analyseur multicanaux (Silena), cellule de comptage à bas bruit de fond, 20 ensembles de détection à scintillation de terrain, 2 enregistreurs magnétiques 14 voies (Ampex), ensemble d'acquisition de données 10 voies, informatisé (HP), ensemble de traitement de données (HP 9000), spectrocolorimètre (Jobin Yvon), spectrofluorimètre (Jobin Yvon 3), 6 fluorimètres (Turner mod 111), 4 fluorimètres de terrain (Turner Designs mod 10.005) circulation, 20 échantillonneurs automatiques autonomes (Isco mod 1860), échantillonneur automatique grande profondeur, 3 collecteurs de fraction (Pharmacia mod Frac 300), 2 centrifugeuses (Jouan), tous types de matériels annexes nécessaires aux essais de terrain.

Bâtiments de recherche

Nom: GAMMA 1
Longueur: 5 m.
Type: Pneumatique Zodiac
Année de construction: 1976
Aménagements spéciaux:
Plate-forme treuils.

Nom: GAMMA 2
Longueur: 5 m.
Type: Pneumatique Zodiac
Année de construction: 1981
Aménagements spéciaux:
Plate-forme treuils.

Nom: GAMMA 3
Longueur: 5 m.
Type: Pneumatique Zodiac
Année de construction: 1982
Aménagements spéciaux:
Plate-forme treuils.

Le code de l'institution 003038

Information reçue: 26/10/84

**Laboratoire de biologie marine,
Centre d'études des ressources animales marines (CERAM)**

Fonctionnaire exécutif: VICENTE Nardo: Professeur-Directeur

Adresse postale

Laboratoire de biologie marine,
Centre d'études des ressources animales marines (CERAM)
Rue Henri Poincaré
ST.-JEROME, 13013 MARSEILLE
FRANCE

Telephone: 91-989010

Telex: 402876 F

Langues de travail

Français, anglais, espagnol

Catégorie de l'institution

Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Aménagement des ressources	Aquaculture
Océanographie	Chimie
Pollution	Education, formation ou vulgarisation

Domaines de spécialisation

Mammifères marins	Poissons démersaux
Autres invertébrés	Benthos
Eaux marines côtières	Eaux saumâtres
Métaux (polluants)	Hydrocarbures contenant des halogènes

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Le Laboratoire de biologie marine a été créé en octobre 1968 et il vient de fusionner avec le Laboratoire de zoologie marine sous l'appellation de CERAM. Ce Centre a des préoccupations de recherches fondamentales et appliquées dans le domaine marin.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années
Recherches sur la biologie et l'écologie des mollusques gastéropodes et bivalves. Problèmes de pollutions littorales par les micropolluants (métaux lourds, organochlorés). Ecotoxicologie par le cadmium.

Principales activités de recherche et autres activités en cours
Indiqués ci-dessus + Toxicité chronique du Cd sur larves des bivalves. Métabolisme de bivalves (*Pinna nobilis*) in situ (Parc de Port-Cros).

Les programmes futurs
Identique aux trois dernières années
Continuation de programme existant

Programme de coopération

- Fondation océanographique Ricard (Ile des Embiez - Var - France):
Prégrossissement d'alevins de poissons (@Chrysophrys aurata) -
Ecophysiologie de bivalves.
- Ministère de l'environnement et (CNEXO): Effets de la pollution par le cadmium sur les invertébrés marins. Ecotoxicologie.

Programme de formation

- Cours de biologie générale en 1ère et 2ème année de faculté
- Cours sur les chaînes alimentaires et l'aquaculture en 4ème année
- Cours sur l'aquaculture, les pollutions littorales et l'écotoxicologie au D.E.A. (3ème cycle).

Structure de l'institution

Le CERAM comprend deux laboratoires:

- Laboratoire de zoologie marine:
 - Parasitologie
 - Ecophysiologie de crustacés
- Laboratoire de biologie marine:
 - Biologie et écologie des mollusques benthiques et méiobenthiques
 - Aquaculture expérimentale
 - Ecotoxicologie
 - Ecologie, biologie des mammifères marins

Personnel

16 Personnel scient. 2 Personnel technique 1 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Poizat, Claude	Docteur ès sciences	Biologie gastéropodes, Méiobenthiques
Henry, Monique	Docteur 3ème cycle	Ecotoxicologie bivalves
Bartoli, Pierre	Docteur ès sciences	Parasitologie (trématodes)
Chaix, J. Claude	Docteur ès sciences	Ecophysiologie crustacés
Riva, Alain	Docteur 3ème cycle	Ecophysiologie mollusques
Donadey, Claude	Docteur ès sciences	Microscopie électronique
Santimone, Marius	Docteur ès sciences	Biochimie
Teleng, Patrick	Docteur 3ème cycle	Biologie phytoplancton
Chabert, Denise	Docteur 3ème cycle	Chimie analytique
Regis, Marie-Bertha	Docteur ès sciences	Ecophysiologie échinidés

Locaux/installations

Superficie construite: 1000 m² Superficie des laboratoires: 800 m²
Installations prévues pour:
Des chercheurs de l'extérieur: 35

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 1200
Nombre d'abonnements périodiques: 10

Les titres des monographies et des séries:

- 1980 - Rapports annuels (CNEXO - Ministère de l'environnement).
- 1981 - Rapports annuels (CNEXO - Ministère de l'environnement).
- 1982 - Rapports annuels (CNEXO - Ministère de l'environnement).
- Edition de la revue annuelle Haliotis (Société française de malacologie)
- Participation à la rédaction de la revue 'VIE MARINE' (Revue scientifique de la Fondation océanographique RICARD)

Matériel

Microscope électronique (service commun), ultramicrotome LKB,
élutriateur pour sables, équipements de plongée sous-marine (3),
spectrophotométrie d'absorption atomique (IL 251), chromatographe
en phase gazeuse (TRACOR 550), photographie sous-marine,
équipement pour photographie.

Aquarium d'experimentation

Superficie totale: 50 m² Nombre de réservoirs: 50

Organismes entretenus:

Poissons démersaux	Mollusques	Crustacés
Autres invertébrés	Algues	

Les espèces entretenues à des fins expérimentales:

<i>Pavlova lutheri</i>	<i>Skeletonema costatum</i>	<i>Cerastoderma glaucum</i>
<i>Ruditapes decussatus</i>	<i>Mytilus galloprovincialis</i>	<i>Chrysophrys aurata</i>
<i>Diplodus sargus</i>	<i>Tetraselmis suecica</i>	

Le code de l'institution 003039

Information reçue: 06/11/84

**Laboratoire d'hydrobiologie marine (CNRS - ERA 467),
Université des sciences et techniques du Languedoc**

Fonctionnaire exécutif: AMANIEU Michel: Directeur

Adresse postale

Laboratoire d'hydrobiologie marine (CNRS - ERA 467),
Université des sciences et techniques du Languedoc
Place Eugène Bataillon
34060 MONTPELLIER CEDEX
FRANCE

Telephone: 67-639144

Telex: USTMONT 490 944 F

Langues de travail
Français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités
Ecologie Pêche maritime
Microbiologie Pollution
Education, formation ou vulgarisation

Domaines de spécialisation
Poissons démersaux Autres invertébrés
Micro-organismes Plancton
Benthos Eaux marines côtières
Eaux saumâtres Eaux intérieures (douces)
Ecosystèmes de mangroves Micro-organismes pathogènes

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Le laboratoire a été créé pour assurer une formation d'ingénieur en sciences et techniques de l'eau et conduire des recherches fondamentales et appliquées dans le domaine de la connaissance du fonctionnement des écosystèmes aquatiques lagunaires et littoraux en vue de leur gestion rationnelle.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Principales activités de recherche et autres activités en cours
Dynamique des populations et biologie des pêches - Ecologie des communautés (benthiques, planctoniques et ichthyologiques) - Ecologie bactérienne.

Les programmes futurs

Continuité des programmes actuels.

Programme de coopération

- Autres institutions universitaires (Ecole normale supérieure de Paris, Marseille, Bordeaux) et Groupement d'intérêt scientifique (GIS)
- Institut français de recherche pour l'exploitation de la mer (IFREMER)
- Ministère de l'environnement
- Office de la recherche scientifique et technique outre-mer (ORSTOM)

Programme de formation

- Maîtrise et Ingénieur en sciences et techniques de l'eau
- Maîtrise biologie (des organismes et des populations)
- 3ème cycle sciences et technologies de l'eau

Structure de l'institution

Le laboratoire est divisé en deux sections:

- Ecologie bactérienne
- Ecologie des communautés et dynamique des populations

Personnel

7 Personnel scient. 5 Personnel technique 0 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Amanieu, M.	Docteur d'Etat	Ecologie des communautés benthiques lagunaires
Baleux, B.	Docteur d'Etat	Ecologie bactérienne
Lasserre, G.	Docteur d'Etat	Dynamique des populations de poissons
Derijard, R.	Docteur 3ème cycle	Aquaculture

Personnel		(Cont.)
Nom	Diplôme Universitaire	Principale Discipline
Guelorget, O.	Docteur 3ème cycle	Ecologie des milieux lagunaires et littoraux
Lam Hoai, T.	Docteur 3ème cycle	Ecologie des communautés planctoniques
Troussellier, M.	Docteur 3ème cycle	Ecologie bactérienne

Locaux/installations

Installations prévues pour:
Des chercheurs de l'extérieur: 5

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 500
Nombre d'abonnements périodiques: 15

Les titres des monographies et des séries:

- Bi-annuel Report, 1981 (CNR, ERA 467)
- Bi-annuel Report, 1983 (CNRS ERA 467)

Matériel

Terminal ordinateur du CNUSC (3033 et 3081 IBM U8), microordinateur HP 9825 B, sonde multiparamètres, lecteur d'échelle, filets de pêche, matériel de prélèvement (bennes carottiers), blocs de stérilisation automate de bactériologie, microscopes (différents types), étuves, cryothermostat.

Aquarium d'experimentation

Superficie totale: 300 m² Nombre de réservoirs: 10

Organismes entretenus:
Poissons démersaux Crustacés

Bâtiments de recherche

Nom: OPHELIE
Propriétaire: Lab. hydrob. marine
Longueur: 7 m.
Type: barque
Année de construction: 1981
Personnel scientifique: 2

Nom: CHROMATICUM
Propriétaire: Lab. hydrob. marine
Longueur: 8 m.
Type: barque
Année de construction: 1975
Personnel scientifique: 2

Nom: REGANFOUS
Propriétaire: Lab. hydrob. marine
Longueur: 6 m.
Type: Dons
Année de construction: 1972
Personnel scientifique: 2

Le code de l'institution 003040

Information reçue: 12/11/84

**Centre national du machinisme agricole, du génie
rural, des eaux et des forêts,
Division aménagements littoraux et aquiculture (CEMAGREF)**

Fonctionnaire exécutif: GAULT, Jean H.A.: Ing. du génie rural, des eaux et des forêts

Adresse postale

Centre national du machinisme agricole, du génie
rural, des eaux et des forêts,
Division aménagements littoraux et aquiculture (CEMAGREF)
Avenue du Val Montferrand
Boîte Postale 5095
34033 MONTPELLIER CEDEX
FRANCE

Telephone: 67-524343
Telex: 490990

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Ecologie	Pêche maritime
Pêche dans les eaux intérieures	Aquaculture
Ingénierie	Transfert de technologie
Ordinateurs/systèmes informatiques	Education, formation ou vulgarisation

Domaines de spécialisation

Autres vertébrés	Algues
Plancton	Benthos
Eaux saumâtres	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Le Centre national du mécanisme agricole du génie rural, des eaux et des forêts (CEMAGREF) a été créé par le décret No 81-38 du 21 janvier 1981 modifiant le code rural, livre VII, titre III. Le centre est placé sous la tutelle du Ministre chargé de l'agriculture. Le CEMAGREF est chargé d'une mission générale de recherche technologique appliquée, d'appui technique au développement et d'information pour ce qui concerne l'agriculture et les industries qui lui sont liées.

Principales activités de recherche et autres activités en cours

Les activités de la section aménagements littoraux et aquiculture (A.L.A.):

- Etude des écosystèmes lagunaires saumâtres: essai de classification écologique; études de mise en valeur, aquicole ou halieutique; étude d'impact.
- Développement de l'aquiculture d'eau douce: étangs piscicoles, assistance technique aux professionnels; recherche appliquée; étude économique et technique; valorisation et récupération de déchets agricoles ou urbains.

Les programmes futurs

- Intégration d'un programme d'étude des salmonicultures intensives et du traitement de leurs effluents.
- Développement éventuel de programme de mise au point de technologies aquicoles; développement d'une coopération technique en région chaude.

Programme de coopération

- Institut national de recherche agronomique. Laboratoire de physiologie des poissons (Jouy-en-Josas)
- Université des sciences et techniques du Languedoc (Montpellier)
- Ecole normale supérieure. Laboratoire de géologie (Paris)
- C.N.R.S.

Programme de formation

La section A.L.A. intervient comme un laboratoire associé à des établissements à vocation d'enseignement: Universités (U.S.T.L.), Ecoles d'ingénieur (ENGREF en particulier).

Structure de l'institution

- Deux équipes:
- Aquiculture d'étangs
 - Milieux lagunaires saumâtres

Personnel

7 Personnel scient. 2 Personnel technique 1 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Frisoni, Guy-François	Ingénieur	Ecologie du phytoplancton
Gault, Jean	Ingénieur	Aquiculture d'étang
Guerrin, François	D.E.A.	Aquiculture d'étang
Ximenes, Marie-Claude	Ingénieur	Dynamique (popul.piscicoles)
Proteau, J.P.	Ingénieur	Aquiculture d'étang
Lanoislée, B.	Ingénieur	Aquiculture d'étang
Saggiocco, M.	Techn.	Physico-chimie

Locaux/installations

Superficie construite: 200 m² Superficie des laboratoires: 200 m²
 Installations prévues pour:
 Des chercheurs de l'extérieur: 5

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 2000
 Nombre d'abonnements périodiques: 15

Matériel

Spectrophotomètre, fluorimètre, oxymètre, pH mètre,
 thermosalinomètre, préleveurs automatiques d'échantillons d'eau,
 ion-analyseur par microprocesseur, loupe binoculaire, microscope
 inverseur, frigorifique, congélateur, balances de précision,
 centrifugeuse, étuves, équipement et laboratoire photographique.

Aquarium d'experimentation

Superficie totale: 250 m² Nombre de réservoirs: 20

Les espèces entretenues à des fins expérimentales:

Cyprinus carpio
Anguilla anguilla

Carassius auratus
Mugil sp.

Esox lucius

Bâtiments de recherche

Nom: C.T.G.R.E.F.
 Longueur: 6 m.
 Type: barge-hors bord
 Année de construction: 1975

Nom: C.T.G.R.E.F.
 Longueur: 4 m.
 Type: canot hors-bord
 Année de construction: 1980

Le code de l'institution 003041

Information reçue: 14/11/84

**Station de l'institut français de recherche pour
l'exploitation de la mer (IFREMER)**

Fonctionnaire exécutif:CAMPILLO Albert: Chef de Station

Adresse postale

Station de l'institut français de recherche pour
l'exploitation de la mer (IFREMER)
1, rue Jean Vilar
34200 SETE
FRANCE

Telephone: 67-747767

Telex: IPM SETE 490503 F

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Aménagement des ressources
Technologie halieutique	Contrôle de la qualité (prod. de pêche)
Aquaculture	Océanographie
Microbiologie	Pollution

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Autres invertébrés	Micro-organismes
Plancton	Benthos
Eaux marines côtières	Eaux saumâtres
Micro-organismes pathogènes	Éléments nutritifs

Les objectifs et les programmes

Implanté à Sète depuis 1952, l'IFREMER a vu son importance s'accroître sur le plan de recherches axées sur la pêche et les cultures marines. En fonction des besoins qui sont apparus, les recherches se sont orientées vers la technologie des engins de pêche et leur mise en oeuvre, la pathologie et l'épidémiologie des mollusques ainsi que sur la génétique biochimique. Un autre champ d'action qui concerne la conservation et le traitement des animaux marins est en cours de développement.

Programme de formation

L'ISTPM n'est pas un organisme d'enseignement. Cependant, devant assumer un rôle de conseiller technique permanent dans le domaine des pêches maritimes, il participe à la formation des professionnels et dispense un enseignement à des stagiaires, étrangers en particulier.

Structure de l'institution

Services

- Contrôles sanitaires et techniques (salubrité des coquillages, contrôle de la fabrication des conserves, etc.)
- Récifs artificiels (technologie des immersions et de la construction des récifs)
- Cultures marines (biologie, pathologie, biochimie)

Recherche

- Pêches (statistique, évaluation des stocks, etc.)

Personnel

13 Personnel scient. 15 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Aldebert, Yvonne	Maîtrise sciences	Biologie des pêches
Angeli, Jean-Pierre	Ingénieur chimiste	Contrôle sanitaire
Campillo, Albert	Doc. d'Etat science	Biologie des pêches
Comps, Michel	Doc. d'Etat science	Conchyliculture-pathologie
Duclerc, Jean	Licencié en science	Récifs artificiels
Farrugio, Henri	Doctorat d'Etat	Pêches
Fauvel, Yves	Doctorat université	Contrôle sanitaire
Hamon, Pierre-Yves	Doc. d'Etat science	Ecobiologie conchylicole
Liorzou, Bernard	DES océanogr.biol.	Dynamique des populations.
		Informatique
Landrein, Sonia	Doctorat université	Conchyliculture
Pichot, Paul	Maîtrise sciences	Biochimie

Personnel Nom	Diplôme Universitaire	Principale Discipline	(Cont.)
Raimbault, René	Maîtrise sciences	Ecobiologie conchylicole	
Tournier, Henri	Maîtrise sciences	Conchyliculture, Planctonologie	
Paquotté, Philippe	Ing. agronome	Conchyliculture	

Locaux/installations

Superficie construite: 1290 m² Superficie des laboratoires: 1046 m²

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 300
Nombre d'abonnements périodiques: 50

Les titres des monographies et des séries:
Revue ou périodiques publiés par le Siège central: Revue des
travaux de l'ISTPM (trimestriel); Sciences et pêche (mensuel)

Matériel

Auto-analyseur (Technicon), 2 spectrophotomètres (Vitatron), matériel pour électrophorèse (redresseur de courant, cuves), micro-collecteur de fractions pour chromatographie, salinomètre (Meci), dix loupes binoculaires (BBT Krauss, Zeiss, et Wild) avec équipement pour microphotographie, microscope ordinaire et inversé, matériel usuel de contrôle bactériologique, thermosalinosonde (Beckman), thermosonde (Tsurumi), deux time depth-recorders (Benthos), bouteilles à renversement avec thermomètre, compteur de colonies bactériennes, appareil BUCHI pour dosage d'azote organique, micro-ordinateur Alcyon/imprimante/disquette, micro ordinateur HP 9825/imprimante/traceur de courbes/microordinateur Goupil 3, spectrophotomètre Perkin Elmer (visible U.V.), courantomètre, microscope à fluorescence, microtome, ultra-microtome Knife maker hotte, étuves à culture, étuves à CO₂.

Bâtiments de recherche

Nom: ICHTHYS
Propriétaire: IFREMER
Longueur: 20 m.
Type: chalutier
Année de construction: 1964
Equipage: 5
Personnel scientifique: 2
Superficie des lab.: 4 m²
Aménagements spéciaux:
2 potences de chalutage à l'arrière et portique avec grue hydraulique, treuil de pêche hydraulique (2x2000 m avec enrouleur de chalut), roues remonte filets hydrauliques, chaluts, cales à poissons, vivres, compas Navis Plath, radio SAILOR, radar DECCA, radio téléphone, sondeur Simrad EQ, sondeur Atlas Echolot, indicatif radio TMDP.

Nom: OSTREA
Propriétaire: IFREMER
Longueur: 8 m.
Type: vedette
Année de construction: 1972
Aménagements spéciaux:
Utilisation en lagunes.

Le code de l'institution 003042

Information reçue: 27/11/84

**Groupeement d'études et de recherches de biologie,
écologie, Nuisances et gestion océaniques,
Laboratoire de biologie végétale marine,
Faculté des sciences de Marseille-Luminy (B.E.N.G.O.)**

Fonctionnaire exécutif:AUGIER Henry: Directeur

Adresse postale

Groupeement d'études et de recherches de biologie,
écologie, Nuisances et gestion océaniques,
Laboratoire de biologie végétale marine,
Faculté des sciences de Marseille-Luminy (B.E.N.G.O.)
70 route Léon Lachamps
Boite Postale 901
13288 MARSEILLE CEDEX 9
FRANCE

Telephone: 410140

Langues de travail
Français

Catégorie de l'institution
Universitaire Privée(sans but luc)

Principaux domaines d'activités

Biologie	Ecologie
Aménagement des ressources	Science/technologie des aliments
Contrôle de la qualité (prod. de pêche)	Océanographie
Chimie	Pollution
Politique et planification	Education, formation ou vulgarisation

Domaines de spécialisation

Autres invertébrés	Embryophytes
Algues	Benthos
Eaux marines côtières	Métaux (polluants)

Les objectifs et les programmes

Groupeement régi par la loi de 1901.
Composition chimique des algues et phanérogames marines.
Biologie et écologie des peuplements benthiques littoraux (bio-cénotique)
Dynamique et productivité des peuplements benthiques
Cartographie des biocénoses marines benthiques
Indicateurs biologiques (facteurs naturels et nuisances)
Pollution générale, matières organiques (C.O.T.), métaux lourds, détergent.
Contamination du milieu et des organismes
Planification écologique, études d'impacts, bilans écologiques régionaux, aménagements littoraux.
Protection de la nature

Programme de coopération

- Laboratoire vétérinaire, 66 A rue S. Sébastien, 13006 Marseille
- C.E.R.B.O.M., Parc de la côte, Av. Jean Lorrain, 06 Nice
- SOMI (Société méditerranéenne d'ingénierie), Le Tholonet, Aix-en-Provence
- BETEREM, Parc du Roy d'Espagne, Av. Cervantes, Marseille
- Parc national de Port-Cros
- Laboratoire de biologie marine, Faculté de St. Jérôme, Marseille
- Proambio, Lisbonne, Portugal

Programme de formation

- Programme de formation de la Faculté des sciences (DEUG, D.E.A., Thèses)
- Recyclage des professeurs de secondaire en écologie et biologie marines

Personnel

1 Personnel scient. 0 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Augier, Henry	Docteur d'Etat	Biologie, Ecologie marines
Monnier-Bezombes, Gérard	Doc. 3ème cycle	Biologie, Ecologie marines
Valere, Richard	Doc. 3ème cycle	Biologie, Ecologie marines
Nieri, Michel	Dipl. d'études	Biologie,

Personnel		(Cont.)
Nom	Diplôme Universitaire	Principale Discipline
Sesnac, Marjorie	Dipl. d'études	Ecologie marines Biologie, Ecologie marines

Locaux/installationsSuperficie des laboratoires: 120 m²**Services d'information**

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 10000

Nombre d'abonnements périodiques: 4

Les titres des monographies et des séries:

- Inventaire et classification des biocénoses marines benthiques de la Méditerranée (Conseil de l'Europe Edit., 1982)
- La vie sur les fonds marins (C.N.D.P. Edit., Paris, 1983)
- Premier essai de planification écologique en milieu marin (Fond. Ocean. Ricard Edit., 1979)
- Etude et cartographie des peuplements benthiques des îles d'Hyères (Méditerranée, France): Série
- Recherche sur la pollution mercurielle en rade d'Hyères et dans l'archipel des Staechades (Méditerranée, France): Série

Matériel

- Matériel de plongée en scaphandre autonome et de cartographie sous-marine
- Appareillage de culture: chambres climatiques pour algues, phanérogames marines, animaux marins
- Appareils de laboratoire et d'analyse: lyophilisateurs, distillateurs, évaporateurs, fours, étuves, autoclaves, centrifugeuses, pH-mètres, chromatographie C. P. CCM, perméation sur gel, collecteurs de fractions, spectrophotomètre, colorimètre, etc.

Aquarium d'experimentationSuperficie totale: 20 m² Nombre de réservoirs: 20

Organismes entretenus:

Autres invertébrés

Embryophytes

Algues

Le code de l'institution 003043

Information reçue: 02/12/83

**Centre national du machinisme agricole, du génie rural
des eaux et des forêts - Groupement de Bordeaux -
Division aménagements littoraux et aquaculture (CEMAGREF)**

Fonctionnaire exécutif: BORIES, Jacques J.J.: Ing. du génie rural, eaux et forêts

Adresse postale

Centre national du machinisme agricole, du génie rural
des eaux et des forêts - Groupement de Bordeaux -
Division aménagements littoraux et aquaculture (CEMAGREF)
50, avenue de Verdun
Boîte Postale 3
GAZINET - 33610 CESTAS, GIRONDE
FRANCE

Telephone: 56-360940

Telex: 540003

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Pêche dans les eaux intérieures
Aménagement des ressources	Technologie halieutique
Science/technologie des aliments	Aquaculture
Ingénierie	Transfert de technologie
Ordinateurs/systèmes informatiques	Education, formation ou vulgarisation

Domaines de spécialisation

Algues	Plancton
Benthos	Eaux saumâtres
Eaux intérieures (douces)	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Le Centre national du machinisme agricole, du génie rural, des eaux et des forêts (CEMAGREF) a été créé par le décret No. 81-38 du 21 janvier 1981, modifiant le code rural, livre VIII, Titre III. Le Centre est placé sous la tutelle du Ministre chargé de l'agriculture. Le CEMAGREF est chargé d'une mission générale de recherche technologique appliquée d'appui technique au développement et d'information pour ce qui concerne l'agriculture et les industries qui lui sont liées, ainsi que de contrôle de la qualité des eaux et de la qualité des produits industriels utilisés en agriculture et dans les industries agricoles.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Elles sont réalisées par les équipes de chercheurs avec inter-pénétration plus ou moins importante selon le programme de recherche.

- Equipe Salmoniculture et élevages intensifs: Depuis 5 ans Etude de la gestion de l'eau en salmoniculture intensive.
- Equipe Estuaires: Etudes d'impact; Dynamique des populations de migrateurs amphibiotes; Gestion des pêcheries estuariennes
- Equipe Esturgeon: Recherche sur les techniques de reproduction artificielle des *Acipenseridés* afin de restaurer les stocks de *Acipenser sturio* en Gironde puis au niveau national et de mettre à disposition ultérieure des aquacultures une espèce d'élevage à forte valeur ajoutée. (Sterlet ou baeri)
- Equipe Marais: Gestion et aménagement de l'espace (zones humides) Technologie aquacole en marais saumâtres

Principales activités de recherche et autres activités en cours identiques aux trois dernières années

à l'exception de l'Equipe Salmoniculture et processus d'intensification qui après achèvement du programme évoqué ci-dessous envisage de nouvelles activités.

Les programmes futurs

Equipe Salmoniculture et élevages intensifs: nouveau programme relatif à la diversification en salmoniculture intensive et à la mise au point de techniques adaptées aux piscicultures familiales. Il est à noter que la Division aménagements littoraux et aquaculture, Groupement de Bordeaux, n'intervient qu'en soutien à la Section aménagements littoraux et aquaculture de Montpellier plus centrée sur le littoral méditerranéen.

Les objectifs et les programmes

(Cont.)

Programme de coopération

- I.N.R.A. Laboratoire de physiologie des poissons et de nutrition des poissons (Saint Pée-sur-Nivelle 64310 ASCAIN)
- Universités notamment Nantes et Bordeaux
- IFREMER
- Structures et groupements professionnels

Programme de formation

- Encadrement d'étudiants inscrits dans un cursus universitaire (DEA, DDI, Thèse de 3ème cycle, Ingénieurs grandes écoles)
- Conférences et participation à divers colloques
- Enseignement dispensé de façon épisodique od aquaculture dans des écoles d'ingénieurs ou à l'Université

Structure de l'institution

- Equipe Salmoniculture et élevages intensifs
- Equipe Marais Saumâtres
- Equipe Estuaires
- Equipe Esturgeon

Personnel

10 Personnel scient. 5 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Rouault, Thierry	Ingénieur	Physiologie (reproduction), Technologie aquicole
Brun, Remy	Ingénieur	Physiologie (reproduction), Technologie aquicole
Williot, Patrick	Ingénieur	Physiologie (reproduction), Technologie aquicole
Masse, Jacques	Ingénieur	Aménagements aquicoles, Technologie aquicole, Gestion de l'espace, Planification
Clement, Olivier	Ingénieur	Aménagements aquicoles, Technologie aquicole, Gestion de l'espace, Planification
Castelnaud, Gérard	Thèse de Doctorat	Etude d'impact, Gestion des pecheries, Analyse socio-economique
Elie, Pierre	Thèse de Doctorat	Gestion de stocks, Dynamique des populations, Ecologie de l'anguille, Etude d'impact, Etude écologique
Buchet, Vincent	DEA	Gestion de l'eau, Technologie (salmoniculture)
Duret, Jean	Ingénieur	Gestion de l'eau, Technologie (salmoniculture)
Albiges, Christian	Ingénieur	Estuaires

Locaux/installations

Superficie construite: 250 m² Superficie des laboratoires: 40 m²
 Installations prévues pour:
 Des chercheurs de l'extérieur: 4 D

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 12000
 Nombre d'abonnements périodiques: 60

Matériel

Matériel de laboratoire classique: microscopes, binoculaires,
 balances de précision, tamis, pH mètre, etc.
 Matériel de mesure adapté aux travaux de terrain: courantmètre,
 bouteilles de prélèvements, maréographe, filet à plancton, etc.

Aquarium d'experimentation

Superficie totale: 200 m² Nombre de réservoirs: 21

Organismes entretenus:
 Autres vertébrés

Les espèces entretenues à des fins expérimentales:

*Acipenser sturio**Acipenser ruthenus**Acipenser baeri*

Bâtiments de recherche

Nom: CTGREF II
Longueur: 6 m.
Type: Yole
Année de construction: 1974
Equipage: 2
Personnel scientifique: 3
Aménagements spéciaux:
Pêche au filet maillant, dispositif de pêche scientifique pour
prélèvement de fond et de surface disposant de plus de
l'appareillage classique destiné à la récolte d'échantillons (eau-
sédiment - plancton, etc.) et aux analyses sommaires pH,
conductivité, oxymètre.

Nom: CTGREF III
Longueur: 9 m.
Type: chalutier (estuaire)
Année de construction: 1973
Equipage: 2
Personnel scientifique: 3
Aménagements spéciaux:
Pêche au filet maillant, dispositif de pêche scientifique pour
prélèvement de fond et de surface disposant de plus de
l'appareillage classique destiné à la récolte d'échantillons (eau-
sédiment - plancton, etc.) et aux analyses sommaires pH,
conductivité, oxymètre.

Nom: VAHINE
Longueur: 14 m.
Type: vedette (chalutier)
Année de construction: 1965
Aménagements spéciaux:
Pêche au filet maillant et chalut, dispositif de pêche scientifique
pour prélèvement de fond et de surface disposant de plus de
l'appareillage classique destiné à la récolte d'échantillons (eau-
sédiment - plancton, etc.) et aux analyses sommaires pH,
conductivité, oxymètre.

Le code de l'institution 003044

Information reçue: 04/12/84

**Service d'études et de recherches sur l'environnement,
Département d'études et de recherches en sécurité,
Institut de protection et sûreté nucléaires,
Commissariat à l'énergie atomique (SERE-DERS)**

Fonctionnaire exécutif: GRAUBY André: Chef de Service

Adresse postale

Service d'études et de recherches sur l'environnement,
Département d'études et de recherches en sécurité,
Institut de protection et sûreté nucléaires,
Commissariat à l'énergie atomique (SERE-DERS)
CEN Cadarache
Boîte Postale 1
13115 ST.-PAUL-LEZ DURANCE
FRANCE

Telephone: 42-253430
Telex: CEACA 440678F

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Aquaculture	Océanographie
Limnologie	Chimie
Physique	Pollution
Ingénierie	Transfert de technologie

Domaines de spécialisation

Thermiques	Eaux marines du large
Eaux marines côtières	Eaux intérieures (douces)
Métaux (polluants)	Radionucléides

Les objectifs et les programmes

La radioécologie a pris corps en France en 1957 avec la nécessité de mieux connaître les conséquences éventuelles pour l'homme et son environnement de l'énergie nucléaire. Parmi les apports de la radioécologie on peut citer:

- Une méthodologie des études d'impact;
- Une expérience des méthodes d'investigation des paramètres écologiques;
- Une expérience des méthodes de simulation en laboratoire et 'in situ';
- Une connaissance des voies d'atteinte;
- Une connaissance des coefficients de transfert.

Programme de coopération

C.E.E. et A.I.E.A.

Programme de formation

Enseignement Universitaire.

Structure de l'institution

Le Service comprends 3 sections:

Section de recherches sur les transferts continentaux et marins (S.R.T.C.M.):

- Laboratoire de radioécologie marine;
- Laboratoire d'études de pollution atmosphérique;
- Laboratoire de radioécologie des eaux continentales;
- Station marine de Toulon;

Section de radioécologie physique (S.R.P.):

- Groupe d'études de dispersion des effluents;
- Groupe d'études physico-chimique des effluents;
- Laboratoire de métrologie de l'environnement et d'intervention;

Section de Radioécologie Appliquée (S.R.A.):

- Laboratoire d'études d'impact;
- Groupe d'études des transferts dans les sols;
- Groupe de sûreté des stockages.

Personnel

42 Personnel scient. 45 Personnel technique 5 Autre personnel

Aquarium d'experimentation

Superficie totale: 250 m²

Organismes entretenus:

Mollusques	Crustacés	Algues
Micro-organismes		

Le code de l'institution 003045

Information reçue: 24/02/84

Ινστιτούτο Ωκεανογραφικών και Αλιευτικών Ερευνών

Institute of Oceanographic and Fisheries Research,
Ministry of Research and Technology (IOFR)

Executive officer: BOUSOULENGAS., Alexandros V.: Director

Postal address

Institute of Oceanographic and Fisheries Research,
Ministry of Research and Technology (IOFR)
AGHIOS KOSMAS-ATHENS GR 166 04
GREECE

Telephone: 9820214

Cable: IOKAE, AGHIOS KOSMAS, ATHENS

Working languages
Greek, English

Nature of institute
Governmental

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Fishing technology	Aquaculture
Oceanography	Limnology
Chemical sciences	Physical sciences
Pollution	Geology/sedimentology)
Technology transfer	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Algae
Plankton	Benthos
Other minerals	Sea-bed nodules
Offshore marine waters	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Institute was founded in 1965 by law 4482/65 (following a merge of the Hellenic Hydrobiological Institute of the Academy of Athens and the Fisheries Research Laboratory of the Ministry of Industry) to carry out scientific research related to the seas and inland waters including the study of aquatic organisms.

Research, monitoring and other activities in last three years

Oceanographic surveys in coastal areas, pollution studies fisheries research, inland water ecology, fish nutrition, aquaculture and toxicology. Participation in MED POL activities.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Nuclear Research Centre 'Demokritos' (primary productivity)
- Department of Zoology, University of Athens (benthos)
- Hydrographic Service of the Navy (general oceanography)
- Universities of Patras and Thessaloniki (physical oceanography)
- Institute of Geological and Mineralogical Research (marine geology)

Training programme

No formal courses are offered but laboratory technicians and graduates use the facilities for training purposes.

Institution structure

The Institute is divided into the following sections:

- Physical oceanography
- Chemical oceanography
- Biological oceanography
- Marine geology and geophysics
- Fisheries research
- Inland waters
- Aquaculture

Staff

33 Scientific staff

12 Technical staff

25 Other staff

Professional scientific staff

Name	Degree	Speciality
Alexi, Maria (Ms)	Ph.D.	Fish nutrition
Anagnostaki, Kalliopi (Ms)	B.Sc.	Zooplankton
Anagnostou, Christos	B.Sc.	Sedimentology
Balopoulos, Efsthathios	Ph.D.	Numerical modelling
Barbetsea, Helen (Ms)	B.Sc.	Seismic reflection
Barbetseas, Stavros	B.Sc.	Water masses
Bogdanos, Costas	B.Sc.	Macrobenthos
Chronis, Georges	D.E.S.	Sedimentology
Daoulas, Charalambos	Ph.D.	Freshwater fish biology
Diapoulos, Aristidis	B.Sc.	Phytoplankton
Friligos, Nikolaos	Ph.D.	Eutrophication
Gabrielides, Gabriel	M.Sc.	Organic micropollutants
Georgopoulos, Dimitris	D.E.A.	Remote sensing
Gotsi-Skreta, Olympia (Ms)	Ph.D.	Toxicology, Phytoplankton ecology
Karagitsou, Electra (Ms)	M.Sc.	Fish biology
Karydis, Michael	Ph.D.	Phytoplankton ecology
Katsiki, Angeliki (Ms)	Dr. de 3eme cycle	Zoobenthos
Klaoudatos, Spyros	B.Sc.	Aquaculture
Koussouris, Theodoros	M.Sc.	Freshwater ecology
Panayotidis, Panayotis	Dr. de 3eme cycle	Phytoplankton
Papaconstantinou, Costas	Ph.D.	Fish population dynamics
Papageorgiou, Manolis	M.Sc.	Dynamical oceanography
Papathanassiou, Evangelos	Ph.D.	Toxicology
Papoutsoglou, Elli (Ms)		Fish nutrition
Satsmadjis, John	B.Sc.	Nutrients, Chlorinated hydrocarbons
Siokou-Frangou, Ioanna (Ms)	D.E.A.	Zooplankton
Stavarakakis, Spyros	B.Sc.	Coastal geomorphology
Theocharis, Alexandros	B.Sc.	Water masses transport
Tsimenidis, Nikolaos	Ph.D.	Fish population dynamics
Tziavos, Christos	M.Sc.	Coastal geomorphology
Verykokakis, Manolis	B.Sc.	Petroleum hydrocarbons
Voutsinou, Fanny (Ms)	B.Sc.	Heavy metals
Apostolopoulos, J.	M.Sc.	Aquaculture
Florou, E.	B.Sc.	Radioecology
Haloulou, C.	B.Sc.	Mathematics
Karanikolas, K.	M.Sc.	Fish pathology
Korsini-Foka, S.	B.Sc.	Aquaculture
Kondylakis, J.	M.Sc.	Computer science
Mitilinaiou, C.	B.Sc.	Fish population dynamics
Nakapoulou, C.	M.Sc.	Heavy metals
Petrakis, G.	B.Sc.	Fish population dynamics
Sionlas, A.	Ph.D.	Sedimentology, Geochemistry
Souvermazoglou, C.	DEA	Carbon dioxide cycle
Vassilopoulou, V.	B.Sc.	Fish population dynamics

Premises/facilitiesBuilding area: 2020 m²Laboratory area: 1150 m²

With facilities for:

Visiting scientists: 2

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 4000

Number of periodical subscriptions: 500

Monographs and serials titles:

- Thalassographica (Periodic bulletin 1-2 times a year, articles in English, French or Greek, on exchange or purchase, last issue Vol.5 no.2, December 1982)

Equipment

Atomic absorption spectrophotometers (Perkin Elmer and Varian), gas chromatographs (Tracor and Varian), C.H.N. analyser (Perkin Elmer), fluorometers (Perkin Elmer and Turner), UV and visible spectrophotometers (Hitachi and Beckmann), nutrient autoanalyser (Technicon CSM6), infra-red spectrophotometer (Perkin Elmer), salinometers (various types), pH meters, analytical balances, microscopes (different), recording current meters (Aanderaa and EG and G), acoustic releasers, hydrophone, tape reader and field calibration unit, printer and puncher, calculator with printer and plotter, mini-ranger positioning system (Motorola), tide gauges (Stevenson), lyophiliser (Virtis), NIO bottles, reversing thermometers, bathythermographs, grabs, plankton nets, geometer, bottom profiling system, topographic and geological field instruments, computer DEC PDP 11.

Aquarium facilities

Total area: 150 m² Number of tanks: 20

Organisms maintained:

Demersal fish

Other invertebrates

Algae

Species maintained for experimental purposes:

Monochrysis lutheri

Tetraselmis tetrathele

Nitzschia closterium

Dunaliella minuta

Skeletonema costatum

Chaetoceros sp.

Brachionus plicatilis

Sparus auratus

Dicentrarchus labrax

Mugil spp.

Research craft

Name: AEGEON
Owner: IOKAE (IOFR)
Length: 46 m.
Type: Bottom trawler
Date of construction: 1965
Crew: 11
Scientists: 12

Institution code:

001036

Information received: 01/11/84

Εργαστήριο και Μουσείο Ζωολογίας

Zoological Laboratory and Museum

Executive officer: KIORTSIS Vassili: Director

Postal address

Zoological Laboratory and Museum
Panepistimiopolis
ATHENS GR15771
GREECE

Telephone: 7243244

Working languages
Greek

Nature of institute
Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Aquaculture	Oceanography
Pollution	Education, training or extension

Areas of speciality

Shrimps/prawns	Plankton
Benthos	Coastal marine waters
Brackish waters	Petroleum hydrocarbons
Metals (pollutants)	

Objectives and programmes

There are two activities: Research and Teaching
- Research Unit: Marine Biology (Systematics-ecology of plankton and benthos), Aquaculture, Pollution, Developmental Biology and Regeneration, Physical Anthropology and Systematic Zoology.
- Teaching: see under Training Programme

Cooperative programme

- Nuclear Research Centre 'Democritos', Athens
- Institute of Oceanographic and Fisheries Research, Athens

Training programme

Lecturing and Laboratory courses at the University at undergraduate level on general zoology, systematic zoology and evolution (vertebrates, invertebrates), embryology, histology, physical anthropology, ecology, hydro-biology, animal physiology; graduate courses in biological oceanography (2 years). Work in the different research units for graduating biology students (e.g. zooplankton, etc.)

Institution structure

The Zoological Laboratory belongs to the Section of Botany-Zoology, Department of Biology, Faculty of Sciences of the University of Athens.

Staff

15 Scientific staff 3 Technical staff 3 Other staff

Professional scientific staff

Name	Degree	Speciality
Kiortsis, V.	Dr. Prof.	Embryology, Marine biology
Moraitou-Apostolopoulou, M.	Dr. Prof.	Marine biology, Plankton
Zafiratos, C.	Dr. Prof.	Regeneration, Plankton
Veini-Hartou, M.	Dr.	Embryology, Plankton
Yannopoulos, C.	Dr.	Ichthyoplankton
Stogiannou-Yannopoulou, A.	Dr.	Plankton
Hatzakis, N.	Dr.	Plankton
Haritos, A.	Dr.	Immunology
Nikolaïdou, A.	Dr.	Benthos
Malouchou-Grimba, V.	M.Sc.	Plankton
Thessalou-Legaki, M.	M.Sc.	Decapods
Verriopoulos, G.	Dr.	Marine biology
Xyda, A.	M.Sc.	Immunology, Ecology
Koussoulakos, S.	Dr.	Physiology
Castritsi-Catharios, J.	Dr.	Applied zoology

Premises/facilities

Building area: 2000 m²
With facilities for:
Visiting scientists: 20

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 6000
Number of periodical subscriptions: 110

Equipment

Polarograph, oceanographic instruments, salinometer, pH meter, microscopes, stereomicroscopes, spectrophotometer, freeze-drier Virtis, 10 constant temperature rooms, slide-microtome, ultra-microtome, centrifuge, chromoscan, Halbimicro-osmometer, Amicon dialysis and concentration system M.T.2, marine aquaria, photographic equipment, bathythermograph, omni-mixer homogenizer (Sorvall), Halbimicro-osmometer (Knauer)

Aquarium facilities

Organisms maintained:
Crustaceans Algae

Species maintained for experimental purposes:

Acartia clausi *Penaeus kerathurus* *Tisbe holothuriae*,
Artemia salina

Research craft

Search Craft
Name: NONE
Owner: Zool. Lab.
Length: 5 m.
Type: Zodiac Mark IV

Institution code: 001037 Information received: 05/11/84

Εργαστήριο Υδραυλικής και Υδραυλικών Έργων
Laboratory of Hydraulics and Hydraulic Works, School
of Technology, Aristotelian University of Thessaloniki

Executive officer: GANOULIS Iakovos

Postal address

Laboratory of Hydraulics and Hydraulic Works, School
of Technology, Aristotelian University of Thessaloniki
THESSALONIKI
GREECE

Telephone: 031-992697

Working languages

Greek, French, English

Nature of institute

Governmental Academic

Main fields of activities

Ecological sciences	Resources management
Oceanography	Physical sciences
Pollution	Engineering
Computers/information systems	Education, training or extension

Areas of speciality

Thermal	Tides/waves
Wind	Coastal marine waters
Brackish waters	Inland (fresh) waters

Objectives and programmes

History of institution, its mandate and purpose
Established in 1960 and attached to the School of Technology,
Aristotelian University of Thessaloniki. The Laboratory is
oriented to fundamental and applied research and education in water
resources and environmental engineering.

Research, monitoring and other activities in last three years
Research on physical oceanography, coastal hydrodynamics and water
pollution.

Major current research and other activities

Same as in the last three years
- mathematical and numerical modelling of coastal transport and
pollution. Oceanographic study of the Bay of Thessaloniki.

Future programmes

Same as in the last three years
Continuation of current programme
- hydrodynamics of jelly-fish blooms.

Cooperative programme

- Institute of Fluid Mechanics, Toulouse, France (Mathematical
modelling)
- Institute for Oceanography and Fisheries, Split, Yugoslavia
(Physical oceanography, modelling - starting in 1984)
- Laboratory of Fluid Mechanics, Paris, France (Wind energy)

Training programme

- Graduate courses in water resources and environmental engineering
for national university students
- Post-graduate research leading to Ph.D.

Institution structure

The Laboratory is divided into following research groups:
- Coastal Hydrodynamics and Marine Pollution
- Hydrology, Water Resources and River Pollution
- Groundwater Flow
- Sanitary Engineering and Water Chemistry

Staff

18 Scientific staff 5 Technical staff 6 Other staff

Professional scientific staff

Name	Degree	Speciality
Ganoulis, J.	Doc.d'Etat	Hydrodynamics
Tolikas, D.	Ph.D.Eng.	Water resources
Komis, D.	Ph.D.Eng.	Hydraulics
Hadjiangelou, H.	Ph.D.Eng.	Sanitary engineering
Latinopoulos, P.	Ph.D.Eng.	Hydrodynamics
Balafoutas, G.	Ph.D.Eng.	Sanitary engineering
Tsakoyiannis, J.	Ph.D.Eng.	Water quality
Dermisis, V.	Ph.D.Eng.	Coastal engineering
Papachristou, E.	Ph.D.Eng.	Chemical engineering

Staff Name	Degree	Speciality	(Cont.)
Dermissi, N.	Dipl. Eng.	Water quality	
Zorba, A.	Dipl. Eng.	Hydraulics	
Pantekis, L.	M.Sc.	River engineering	
Krestenitis, J.	M.Sc.	Coastal hydrodynamics	
Stefanou, D.	M.Sc.	Marine pollution	
Anagnostopoulos, P.	M.Sc.	Fluid mechanics	
Vafiadis, M.	D.E.A.	Hydrology	
Katsifarakis, K.	M.Sc.	Water resources	
Faka, A.	Dipl. Eng.	Hydraulics	

Premises/facilities

Building area: 3000 m² Laboratory area: 1800 m²
 With facilities for:
 Visiting scientists: 200

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 2000
 Number of periodical subscriptions: 25

Monographs and serials titles:
 - Annual report 1981

Equipment

2 current-meters, 3 water level-meters, L-D-A anemometer, hot-wire anemometers, pH meter, salinometer, oxygen meter, atomic absorption spectrophotometer, nitrogen analyser, 2 micro-computers, video and photographic equipment, 2 open channels, wind tunnel, wave generator, electric equipment.

Research craft

Name: THETIS
 Owner: Aristotelian University
 Length: 14 m.
 Type: vessel
 Date of construction: 1983
 Crew: 3
 Scientists: 4
 Laboratory space: 4 m²
 Special facilities:
 radar, satellite navigator, VHF, hydraulic winch, echo-sounder, fishing gear

Institution code: 001040 Information received: 21/12/83

General Chemical State Laboratory
Division of Environmental Pollution Control (G.C.S.L.)

Postal address

Chemical sciences

Coastal marine waters
Inland (fresh) waters
Metals (pollutants)

UNEP research programme for the pollution of the Saronikos Bay coordinated by the Ministry of Physical Planning, Housing and Environment.

5 Scientific staff	1 Technical staff	1 Other staff
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Name	Degree	Speciality
Xenaki-Varla, Zoe (Mrs)	Post-graduate	Analytical chemistry (food, waters)
Daratsianos, I.	DES	Oenology, Analytical chemistry (food, waters)
Mayricos, P.	M.Sc.	Physical chemistry, Analytical chemistry (food, waters)
Botsivali, M.	Ph.D.	Pollution (food and waters), Photochemical oxydation
Tsani-Bazaka, E.	Ph.D.	Pollution (air, food, waters)

Laboratory area: 120 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 2300

Number of periodical subscriptions: 38

Equipment

Mass spectrometer, atomic absorption spectrophotometer, mercury analyser, UV spectrophotometer, IR spectrophotometer, 2 gas chromatographs, high pressure liquid chromatograph, thermal energy analyser, polarograph, TOC analyser, BOD equipment, COD equipment, oil analyser, turbidometer, air pollution control station.

Institution code: 001041

Information received: 07/11/84

Εργαστήριο Βοτανικής, Πανεπιστήμιο Θεσσαλονίκης

Botanical Institute,
University of Thessaloniki

Executive officer: TSEKOS Ioannes: Director

Postal address

Botanical Institute,
University of Thessaloniki
THESSALONIKI 54006
GREECE

Telephone: 31-991402

Working languages

Greek, English, German

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Limnology	Microbiology
Pollution	Education, training or extension

Areas of speciality

Algae	Micro-organisms
Plankton	Benthos
Coastal marine waters	Metals (pollutants)
Pathogenic micro-organisms	Nutrients

Objectives and programmes

As a University laboratory the Botanical Institute has a twofold purpose: scientific and teaching in several disciplines of general botany (cytology, morphology, anatomy and physiology). The scientific research of the members of our Institute extends to several fields of general botany (cytology, cytophysiology, cytogenetics, ecophysiology). Regarding the marine ecosystems, members of the Institute are working on systematic phytosociology, physiology, ecophysiology as well as cytology (structure and function) mostly of the benthic macrophyceae.

Cooperative programme

- Lehrstuhl für Zellenlehre, University of Heidelberg (Studies on the fine structure in marine algae)
- Institut für Produktions und Ökotoxikologie, Braunschweig, West Germany (Accumulation of heavy metals in marine algae. Heavy metals as pollutants).

Training programme

- Graduate courses in marine botany (phycology) for university students.

Staff

12 Scientific staff 6 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Tsekos, Ioannes	Ph.D. (Professor)	Biology of marine algae, Cytology of marine algae, Ecophysiology of benthos, Ecology of benthos.
Coucolis, Helli	Ph.D. (Assoc. Prof.)	Cytogenetics
Karataglis, S.	Ph.D. (Assoc. Prof.)	Cytogenetics, Chemotaxonomy, Physiology of grasses
Haritonidis, S.	Ph.D. (Assist. Prof.)	Biology of benthos, Ecophysiology of benthos
Eleftheriou, E.	Ph.D.	Cytology
Symeonidis, L.	Ph.D.	Cytogenetics, Chemotaxonomie, Ecophysiology of grasses
Bosabalidis, A.	Ph.D.	Cytology
Delivopoulos, S.	Ph.D.	Biology of marine algae, Cytology of marine algae
Diannelidou, B.	Ph.D.	Cytology of marine algae

Premises/facilities

Laboratory area: 400 m²
With facilities for:
Visiting scientists: 2

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 15000

Number of periodical subscriptions: 25

Equipment

Atomic absorption spectrophotometer (Perkin Elmer), chamber for plant growth, spectrophotometer (Zeiss PMQ II.), micro-spectrophotometer, apparatus for the measurement of diluted O₂, salinity, temperature and pH of sea-water; electron microscope, ultramicrotome.

Aquarium facilities

Species maintained for experimental purposes:

Gigartina teedii
Polysiphonia deusta
Enteromorpha linza

Gracilaria verrucosa
Halophila stipulacea
Enteromorpha compressa

Hypnaea musciformis
Ulva lactuca
Chondria tenuissima

Institution code:

001042

Information received: 13/11/84

Τομέας Υγιεινής καί Τεχνολογίας Τροφίμων Ζωικής
Προελεύσεως
Εργαστήριο Υγιεινής Τροφίμων Ζωικής Προελεύσεως
Laboratory of Food Hygiene,
Department of Food Hygiene and Technology,
Aristotelian University of Thessaloniki

Executive officer: PANETSOS, Achilles G.: Director

Postal address

Laboratory of Food Hygiene,
Department of Food Hygiene and Technology,
Aristotelian University of Thessaloniki
THESSALONIKI 54006
GREECE

Telephone: 991314/991305/992762/992749

Telex: 412181 AUTH GR.

Working languages

Greek. English

Nature of institute

Governmental Academic

Main fields of activities

Food science/technology Quality control (fishery products)
Microbiology Veterinary medicine

Areas of speciality

Coastal marine waters Petroleum hydrocarbons
Metals (pollutants) Halogenated hydrocarbons
Pathogenic micro-organisms Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Laboratory of Food Hygiene was established in 1960 in the School of Veterinary Medicine of the Aristotelian University of Thessaloniki to offer under and postgraduate education on food hygiene, as well as to carry out research on food hygiene.

Research, monitoring and other activities in last three years

Research on chlorinated hydrocarbons (DDT, PCB's), heavy metals, microorganisms in foods of animal origin, waters and marine organisms.

Major current research and other activities

Programme as mandated
Same as in the last three years

Future programmes

Same as in the last three years

Training programme

- Undergraduate courses in food hygiene and technology
- Postgraduate level courses in food hygiene leading to M.Sc. and Ph.D.

Institution structure

The Department is divided into the following sections:

- Food hygiene
- Food technology
- Dairy science

Staff

11 Scientific staff 4 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Panetsos, A.G.	DVM (Dr.Vet.Med.)	Food hygiene, Microbiology
Georgakis, S.A.	DVM (Dr.Vet.Med.)	Food technology
Mantis, A.I.	DVM (Dr.Vet.Med.)	Dairy hygiene, Technology
Karaioannoglou, P.G.	DVM (Dr.Vet.Med.)	Food hygiene, Microbiology
Psomas, J.E.	M.Sc.(Dr.Vet.Med.)	Food hygiene
Koidis, P.R.A.	DVM (Dr.Vet.Med.)	Food hygiene, Microbiology
Andrikopoulou-Chimona, D.C.	DVM (Dr.Vet.Med.)	Food technology
Vareltzis, K.P.	DVM (Dr.Vet.Med.)	Food technology
Papageorgiou, D.K.	M.Sc.(Dr.Vet.Med.)	Food hygiene, Microbiology
Agakidou, E.C.	DVM (Dr.Vet.Med.)	Food technology
Papavergou, E.I.	Dipl. Chemistry	Food chemistry

Premises/facilitiesBuilding area: 600 m²Laboratory area: 300 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 1200

Number of periodical subscriptions: 75

Monographs and serials titles:

- 30 research papers
- 5 text books for students
- 5 doctorate thesis
- 6 master degree thesis

Equipment

Flameless atomic absorption spectrophotometer (Perkin-Elmer), mercury analyzer (Coleman), polarograph (Radiometer P04), spectrophotometer (Zeiss P.M.Q.II) with thin layer chromatography densitometer, photomicroscopes with UV source (Zeiss), fraction collector LKB, freeze-dryer (Christ), refrigerated ultracentrifuge (Christ), all necessary equipment for microbiological research, basic equipment for research on food technology.

Institution code:

001043

Information received: 13/03/84

ΜΠΕΝΑΚΕΙΟ ΦΥΤΟΠΑΘΟΛΟΓΙΚΟ ΙΝΣΤΙΤΟΥΤΟ

Benaki Phytopathological Institute

Executive officer: MOURIKIS, Panagiotis A.: Director

Postal address

Benaki Phytopathological Institute
8, Delta Street
KIPHISSIA, ATHENS
GREECE

Telephone: 8019861/8012376

Working languages
Greek

Nature of institute
Private (non-profit)

Main fields of activities
Biological sciences Ecological sciences
Microbiology Pollution

Areas of speciality
Metals (pollutants) Halogenated hydrocarbons
Pathogenic micro-organisms Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Institute was founded in 1929, through the donation of Emmanuel Benakis. Purpose: Research on plant protection problems (fungi, viruses, bacteria, non-parasitic diseases, insects and animal pests, weeds, biological control, pesticides and control measures).

Research, monitoring and other activities in last three years

Major current research and other activities

Determinations of pesticide residues in plant and animal tissues and toxicological studies to evaluate their significance as pollutants for plant and animal life. Research work aiming at reducing environmental pollution caused by pesticide residues resulting from agricultural activities. Preparation of technical reports on related subjects.

Future programmes

Same as in the last three years

Continuation of current programme

Cooperative programme

- International Laboratory of Marine Radioactivity, Monaco.
- Laboratories of Chemical Analysis and Toxicology of our Institute (chemical and biological oceanography)

Training programme

- The Institute receives during summer one or two foreign students of the IAESTE Programme. Also, Greek students of agriculture specialize for three to four months in its laboratories. The equipment and the library are at their disposal, but no living facilities are provided.
- Seminars are organized in the Institute on plant protection problems and side-effects of pesticides. These are conducted by the scientific personnel of the Institute and attended by agriculturists from all over Greece.

Institution structure

The Institute is divided into the following sections:

- Department of Entomology and Agricultural Zoology (6 Laboratories: Agricultural Entomology, Biological Control, Insect Microbiology and Pathology, Insect Physiology and Agricultural Zoology, Nematology and Acarology)
- Department of Plant Pathology (4 Laboratories: Mycology, Bacteriology, Virology, Non-parasitic Diseases)
- Department of Pesticide Control and Phytopharmacy (7 Laboratories: Efficacy evaluation of Pesticides, Pesticide Residues, Fungicides, Physical and Chemical Examination of Pesticides, Pesticide Toxicology, Insecticides of Public Health Importance, Control of Environmental Pollution caused by Pesticides).
- Department of Weeds (3 Laboratories: Weed Biology and Taxonomy, Herbicides, Integrated Weed Control).
- Administrative Department (Secretariat, Library, Accountancy)

Staff

49 Scientific staff 45 Technical staff 25 Other staff

Professional scientific staff

Name	Degree	Speciality
Danielidou-Fytizas, R.	Ph.D.	Toxicology of pesticides (on marine organisms)

Premises/facilities

Building area: 3234 m² Laboratory area: 2700 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 55000

Number of periodical subscriptions: 750

Monographs and serials titles:

- Annales de l'Institut Phytopathologique Benaki (N.S.) - Foreign
and Greek editions: Vol.12 (2) 1980, Vol. 13 (1) 1981 (only
foreign edition)

Equipment

Two spectrophotometers (UV Beckman DK-24; IR Beckman 4220). 5 gas
chromatographs (Varian 3700, Hewlett Packard 5750G), mass
spectrometer (Varian MAT CH 7), pH meter (Radiometer), Warburg
apparatus, microscopes.

Aquarium facilities

Number of tanks: 10

Organisms maintained:

Demersal fish Crustaceans

Species maintained for experimental purposes:

Mugil cephalus

Gambusia sp.

Palaemon sp.

Institution code: 001047

Information received: 14/11/84

Hydrobiology Laboratory,
Nuclear Research Center 'Demokritos',
Greek Atomic Energy Commission

Postal address

Aghia Paraskevi

Cable: GREEKATOM

Greek. English

Governmental

Ecological sciences

Pollution

Algae

Offshore marine waters

Plankton

Coastal marine waters

History of institution, its mandate and purpose

The Hydrobiology Laboratory belongs to the Biology Department of the G.A.E.C. It was established in 1963. It carries out research on phytoplankton ecology.

Research, monitoring and other activities in last three years

In the last three years a research program dealing with the eutrophication problems in the sewage outfall area of Athens was performed. A part of the research has been published.

Major current research and other activities

- Biological productivity of inshore marine ecosystems
- Phytoplankton population ecology
- Algal physiology

Continuation of

Continuation of current programme

Cooperation with t

Cooperation with the Public Aquarium of Rhodes for the investigation on phytoplankton distribution in the S.E. Aegean Sea.

The Hydrobiologist

The Hydrobiology laboratory has three graduate students working for the Ph.D. degree.

2

2 Scientific staff	1 Technical staff	0 Other staff
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Professional scientific staff

mat iades. Lydia

Ph D

Phytonlan

acos-Kontos-Theano

Primary production

emises/facilitiesLaboratory area: 100 m²

With facilities for:

Visiting scientists: 2 S

Library holdings:

Library holdings:

Number of books, journals, manuscripts, etc.: 251168

Number of periodical subscriptions: 1434

Invert

Inverted microscope (Zeiss), spectrophotometer (Varian), centrifuge (Gallenkamp), salinometer (CSIRO), pH meter (Metrohm), plankton incubators, oxygen titrator (Metrohm); other necessary equipments for laboratory work (high precision spectrophotometers, centrifuges, NMR etc.) are available at the Biology Department of the GAEC. The Hydrobiology laboratory is well equipped with all

Equipment (Cont.)
necessary instruments for field work (water bottles, thermometers,
complete set of glass-ware for primary productivity in situ),
computer facilities are also available.

Aquarium facilities

Number of tanks: 1

Organisms maintained:
Algae

Species maintained for experimental purposes:

Skeletonema costatum
Nannochloris sp.

Chaetoceros socialis
Tetraselmis sp.

Pavlova lutheri

Institution code: 001050

Information received: 11/06/84

University of Athens,
Department of Chemistry,
Division of Inorganic and Environmental Chemistry

Postal address

University of Athens.
Department of Chemistry,
Division of Inorganic and Environmental Chemistry
13 A, Navarinou St.
ATHENS 10680
GREECE

Working languages
Greek, English

Main fields of activities

Ecological sciences	Oceanography
Chemical sciences	Pollution
Education, training or extension	

Coastal marine waters	Brackish waters
Metals (pollutants)	Nutrients

History of institution, its mandate and purpose

The University was founded in 1837; the Inorganic Chemistry Lab in the early twenties. Since 1972 there has been a research interest on marine environment topics. In 1974 a Presidential decree established a post-graduate course in marine sciences (oceanography) in the Faculty of Sciences. This Laboratory became responsible for the teaching of marine chemistry. In 1983 the Chemistry Department was restructured and all the laboratories were grouped in three divisions. The third one is that of Inorganic Chemistry and Environmental Chemistry. Its mandate is to teach environmental and marine chemistry, and to conduct research.

Research, monitoring and other activities in last three years
Research and monitoring of trace metals and nutrients in coastal
waters and marine sediments of Greece as well as on pure inorganic
chemistry, bioinorganic and soil chemistry.

Major current research and other activities

- transport of pollutants in dissolved and particulate form.
- Magnetic properties of particles
- Pollution loads from land based sources (estimates)
- Studies of estuaries
- Pyrite marine nodules

Future programmes

Same as in the last three years
Continuation of current programme
- sediment traps and enclosures

Cooperative programme

- NRC 'Democritos', Greece: Analytical work, mainly on petroleum hydrocarbons.
- University of Liverpool, U.K., Departments of Oceanography and Geography: Studies of the Gulf of Elefsis etc., magnetic studies.
- Moss Landing Marine Laboratories, USA: sediment traps.

Training programme

- Graduate courses on: General and Inorganic Chemistry, Mechanisms, etc. (several courses); Environmental Chemistry; Chemical Oceanography.
- Post-graduate level course on: Chemical Oceanography and Marine Pollution, leading to the Oceanography diploma (M.Sc. level).
- Supervision of several Ph.D. students working either at the University of Athens or other institutes.

The Faculty of Sciences of the University of Athens has the following departments:

- Chemistry
- Physics
- Biology
- Mathematics

Institution structure

(Cont.)

- Geology

About the structure of this unit see under objectives.

In all these Departments there are laboratories working on topics related directly or indirectly to marine sciences. The Division is further subdivided into the following sections:

- Inorganic, Pure, Applied and Bioinorganic Chemistry and Marine, Environmental Pollution and Chemical Oceanography.

Staff

20 Scientific staff

3 Technical staff

4 Other staff

Professional scientific staff

Name	Degree	Speciality
Katakis, D.	Ph.D. (Director)	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Pneumatikakis, G.	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Mertis, C.	Ph.D.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Tsatsas, A.	Ph.D.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Giannopoulos, A.	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Petrou, A. (Ms.)	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Markopoulos, J.	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Papargopoulou, M. (Ms.)	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Karaliota, A. (Ms.)	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Stampaki, D. (Ms.)	D.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Pappa, C. (Ms.)	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Koinis, S.	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Kalatzis, G.	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Mitsopoulou, C. (Ms.)	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Cravaritou, M. (Ms.)	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Shehadeh, A.	B.Sc.	Inorganic chemistry, Organometalics, Catalysis, Bioinorganic chemistry
Hasapis, C.	B.Sc.	Chemistry (soil, plant)
Angelopoulos, C.	B.Sc.	Chemistry (soil, plant)
Scoullou, M.	D.Sc.	Trace metals, Nutrients
Dassenakis, M.	M.Sc.	Trace metals.

Staff			(Cont.)
Name	Degree	Speciality	
Papageorgiou, C. (Ms.)	B.Sc.	Nutrients Trace metals. Nutrients Trace metals. Nutrients	
Rapti, M. (Ms.)	M.Sc.		

Premises/facilitiesBuilding area: 1000 m²Laboratory area: 400 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 1500

Number of periodical subscriptions: 35

Equipment

Cary-17, UV, VIS computerized spectrophotometer, atomic absorption spectrophotometer, pH meters, refrigerators, dissolved oxygen meter, BOD, portable salinometer, complete diving sediment corer with compressor (Mackereth), analytical balances, plastic sampling bottles, centrifuges, magnets, vacuum pumps, heating plates, thin film evaporator, furnaces, etc.

Institution code:

001054

Information received: 22/03/84

Information facilities

Monographs and serials titles:

- Concentration of heavy metals in seawater and sediments from the N. Aegen Sea (Greece Chemosphere, 12, 83-91, 1983)
- Heavy metals in Marine Organisms of the North Aegean Sea. (Chemosphere 12, 75-81, 1983)
- Identification and determination of some trace organic compounds in N. Greece coastal seawater by GS/MS (II. Inter. Congress for Environmental Pollution, Greece 1983)

Equipment

Atomic absorption spectrometer (AAS) Perkin-Elmer 403, graphite furnace 76B (Perkin-Elmer), gas-chromatograph 7620 A (Hewlett-Packard), spectrophotometer UV-VIS (Zeiss), data system Sigma 10 (Perkin-Elmer).

Research craft

Name:	THETIS
Owner:	University of Thessaloniki
Length:	14 m.
Date of construction:	1982
Crew:	4
Scientists:	3
Laboratory space:	50 m ²
Special facilities:	Measurements of pH, O ₂ , conductivity, depth, salinity etc.

Institution code: 001055 Information received: 12/11/84

מקד ימים ואגמים לישראל בע"מ

ח.י.א.ל

Israel Oceanographic and Limnological Research Ltd. (IOLR)

Executive officer: SERRUYA Colette (Mrs): Director General

Postal address

Israel Oceanographic and Limnological Research Ltd. (IOLR)
Tel-Shikmona
P.O. Box 8030
HAIFA 31080
ISRAEL

Telephone: 04-515202/511911
Telex: 46400 BXHA IL/CODE 8848
Cable: RESOC HAIFA

Working languages
Hebrew, English

Nature of institute
Governmental

Main fields of activities

Aquaculture	Oceanography
Limnology	Microbiology
Pollution	Geology/sedimentology)
Education, training or extension	

Areas of speciality

Demersal fish	Shrimps/prawns
Other invertebrates	Algac
Micro-organisms	Plankton
Offshore marine waters	Coastal marine waters
Inland (fresh) waters	Metals (pollutants)
Pathogenic micro-organisms	Nutrients

Objectives and programmes

History of institution, its mandate and purpose
Founded in 1967 as the Administration for Oceanography and Limnology. Between 1967 and 1972, the name was changed several times. In 1972, it merged with the Sea Fisheries Research Station and adopted its present name. Mission and purpose: oriented research in the field of protection and better utilization of the marine and lacustrine environment.

Research, monitoring and other activities in last three years
Research in physical, chemical, geological and biological oceanography, in limnology and in mariculture; monitoring of Lake of Tiberias; marine coastal processes; metal pollution in coastal waters.

Major current research and other activities
Same as in the last three years

Future programmes
Physics: heat storage of the sea. Chemistry: the chemistry of Dead Sea brines. Biology: the picoplankton of the Mediterranean Sea.

Cooperative programme

Projects with:
BMFT - Bundesministerium für Forschung und Technologie
MINERVA, Gesellschaft für die Forschung m.b.H.
BARD - Binational Agriculture Research and Development
BSF - Binational Scientific Foundation
AID - U.S. Agency for International Development
1) New Jersey Marine Sciences Consortium
2) Scripps Institution of Oceanography
3) Texas A and M University
4) ICLARM, Philippines
5) TCU - Texas Christian University
Rijksuniversiteit Utrecht Zoologisch Laboratorium
ONR - Office of Naval Research
Louisiana State University
UNEP

Scientific contacts with:
CIESM; CNEXO; SCOR; SIL.

Training programme

IOLR has graduate students working for M.Sc. and Ph.D. degrees from Israeli and foreign universities.

Institution structure

IOLR is composed of 3 main units:
- The National Institute of Oceanography, Haifa (with 5 departments: Physical Oceanography, Chemical Oceanography, Marine Geology, Marine Biology, Hyperbaric Physiology).

Institution structure (Cont.)

- The National Center of Mariculture, Elat (working on fish reproduction, larval rearing, fish nutrition, fish endocrinology, fish diseases).
- The Kinneret Limnological Laboratory, Tabgha, near Tiberias working on meteorology, physical, chemical and biological limnology, mathematical lake modelling, and lake food chain and fisheries).

Staff

47 Scientific staff 50 Technical staff 49 Other staff

Professional scientific staff

Name	Degree	Speciality
Baumel, J.	B.Sc.	Waves
Bishop, Y.	M.Sc.	Air-sea interaction, General circulation
Ezer, T.	B.Sc.	Currents
Hecht, A.	Ph.D. Head of Dept.	Currents, Waves, Air-sea interaction, General circulation
Fleisher, Z.	Ph.D.	Marine pollution problems
Krumgalz, B.	Ph.D. Head of Dept.	Chemical oceanography, Physical chemistry, Marine pollution problems
Hornung, H.		Marine pollution problems
Ben-Avraham, Z.	Ph.D.	Marine geophysics
Carmel, Z.	Ph.D.	Physical oceanography, Coastal processes
Goldsmith, V.	Ph.D.	Marine geology, Coastal processes
Golik, A.	Ph.D. Head of Dept.	Marine geology, Coastal processes
Mart, Y.	M.Sc.	Marine geophysics
Sofer, S.	M.Sc.	Sedimentology
Azov, Y.	Ph.D.	Primary production
Ben-Amotz, A.	Ph.D.	Prod. chem. by micro-algae
Kimor, B.	Ph.D.	Taxonomy of zooplankton, Taxonomy of phytoplankton
Lubzens, E.	Ph.D. Head of Dept.	Use of rotifers and eggs
Seligman, M.	Ph.D.	Biological fouling
Zismann, L.	M.Sc.	Charact. marine fish larvae
Coloni, A.	M.Sc.	Fish diseases
Gordin, H.	M.Sc. Director	Marine fish reproduction, Integr. seawater fish ponds
Holtkamp, E.	M.Sc.	Fish pond water ecology
Hughes-Games, A.	B.Sc.	Shellfish biology
Kissil, G.	Ph.D.	Fish + shrimp nutrition, Fish + shrimp growth
Krom, M.	Ph.D.	Geochemistry, Fish pond sediment
Popper, D.	Ph.D.	Fish rearing, Fish development
Porter, C.	M.Sc.	Cage culture of fish, Pond culture of fish
Samocha, M.	Ph.D.	Reproduction of shrimp, Rearing of shrimp
Tandler, A.	Ph.D.	Bioenergetics + growth
Zmora, O.		Food chain, Mass culture, Biology
Zohar, Y.	Ph.D.	Fish reproduction
Abraham, E.	B.Sc.	Physical limnology, Instrumentation
Azulay, B.	B.Sc.	Zoology
Bergstein, T.	Ph.D.	Microbiology
Berman, T.	Ph.D.	Phytoplankton + bacteria, Ecology
Cavari, B.	Ph.D.	Microbiology, Ecology, Pollution
Gophen, M.	Ph.D. Director	Zooplankton, Fish ecology
Hadas, O.	Ph.D.	Microbiology
Kaplan, B.	M.Sc.	Phytoplankton
Landau, R.	M.Sc.	Fish population dynamics
Pinkas, R.	M.Sc.	Fish physiology
Roshanski, N.	M.Sc.	Microbiology
Serruya, S.	Ph.D.	Physical limnology + models
Volohonsky, H.	M.Sc.	Ecological modelling
Wynne, D.	Ph.D.	Biochemistry, Phytoplankton physiology

Staff Name	Degree	Speciality	(Cont.)
Rosentraub, Z.	M.Sc.	Air-sea interaction. General circulation	
Pollingher, U.	Ph.D.	Taxonomy/ecology phytoplankton	

Premises/facilities

Building area: 6172 m² Laboratory area: 3344 m²
 With facilities for:
 Visiting scientists: 10 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 4000
 Number of periodical subscriptions: 1000

Monographs and serials titles:

- Triennial/Biennial Report
- IOLR Collected Reprints.
- Electrolyte Solutions, Sea and Natural Water Current Literature.
- Serruya, C., ed. 1978. Lake Kinneret. (Monographiae Biologicae, vol. 32). The Hague, Junk, 501 pp.
- Oren, O.H., ed. Aquaculture of Grey Mulletts. Cambridge, Cambridge University Press, 507 pp. (International Biological Programme, 26)
- Rosenthal, H.; Oren, O.H. 1981. Intensive Aquaculture. Spec. Publ., Eur. Maricult. Soc., 6. Bredene, Belgium, 276 pp.
- Goldsmith, V.; Sofer, S. 1983. Wave climatology of the south-eastern Mediterranean: an integrated approach. Israel, J. Earth-Sco. 32: 1-51.
- Serruya, C.; Pollingher, U. 1983. Lakes of the Warm Belt. Cambridge, Cambridge University Press, 569 pp.

Equipment

2 atomic absorption spectrophotometers, 2 gas chromatographs, digital titration system, densitometer, heat capacity calorimeter, flame photometer, polarograph, 2 autoanalyzers, CTD, 2 directional wave measurement systems, channel seismic equipment, magnetometer, 3 liquid scintillation counters, refrigerated centrifuges, lyophilizers, 3 computers, experimental diving pressure chambers, experimental fish hatchery.

Aquarium facilities

Number of tanks: 10

Organisms maintained:

Demersal fish	Molluscs	Crustaceans
Other invertebrates	Algae	Micro-organisms

Species maintained for experimental purposes:

<i>Sparus aurata</i>	<i>Mugil cephalus</i>	<i>Dicentrarchus labrax</i>
<i>Sarotherodon mossambicus</i>	<i>Penaeus semisulcatus</i>	<i>Ostrea edulis</i>
<i>Crassostrea gigas</i>	<i>Crassostrea virginica</i>	<i>Artemia salina</i>
<i>Brachionus plicatilis</i>	<i>Isochrysis</i> sp.	<i>Chlorella</i> sp.
<i>Dunaliella</i> spp.	<i>Dunaliella bardawil</i>	<i>Nitzschia</i> sp.
<i>Navicula</i> sp.	<i>Asteromonas gracilis</i>	<i>Peridinium cinctum</i>
<i>Pediastrum simplex</i>	<i>Pediastrum duplex</i>	<i>Scenedesmus</i> spp.
<i>Selenastrum</i> sp.	<i>Chlorella</i> sp.	<i>Chlamydomonas</i> sp.

Research craft

Name: SHIKMONA
 Owner: IOLR
 Length: 29 m.
 Type: Supply Boat
 Date of construction: 1963
 Crew: 6
 Scientists: 12
 Laboratory space: 31 m²
 Special facilities:
 Air conditioning, hydrographic winch, C.T.D. winch, hydraulic power, aft crane

Name: HERMONA
 Owner: IOLR
 Length: 10 m.
 Type: Sport fishing boat
 Date of construction: 1970
 Crew: 2
 Scientists: 4
 Laboratory space: 6 m²

Research craft

(Cont.)

Name: ETZIONA
Owner: IOLR
Length: 11 m.
Type: Fishing boat
Date of construction: 1978
Crew: 2
Scientists: 4
Laboratory space: 4 m²
Special facilities:
Hydrographic winch, hydraulic power

Institution code: 001061

Information received: 02/11/84

Ha Universita HaIvrit Be Yerushalayim**(Environmental Health Laboratory
Hebrew University of Jerusalem)****Executive officer:** SHUVAL Hillel: Director**Postal address**

Ha Universita HaIvrit Be Yerushalayim
c/o B.Fattal, Dep.Director, Hadassah Med Sch., Givat Ram
P.O. Box 1172
JERUSALEM 91010
ISRAEL

Telephone: 02-247414**Telex:** 26132-NULMD-IL**Cable:** SCOPUS - JERUSALEM**Working languages**

Hebrew, English

Nature of institute

Academic

Main fields of activities

Biological sciences

Microbiology

Education, training or extension

Resources management

Pollution

Areas of speciality

Algae

Coastal marine waters

Inland (fresh) waters

Pathogenic micro-organisms

Micro-organisms

Brackish waters

Halogenated hydrocarbons

Objectives and programmes**History of institution, its mandate and purpose**

The Environmental Health Laboratory of the Hebrew University was established in 1965. Up until that time it was a part of the Department of Medical Ecology in the Hebrew University-Hadassah Medical School. The Department was founded to deal with problems of environmental quality and health and to organize courses in environmental health to medical students, students in the School of Public Health and Community Medicine and in the School of Applied Science and Technology.

Research, monitoring and other activities in last three years

Research activities in the last three years have been concerned with the environmental health sciences with emphasis on water quality management; detection of water borne pathogenic bacteria and viruses; microbiological and epidemiological aspects of marine pollution; microbiology and epidemiology of water renovation and reuse; dispersion and die-away kinetics of aerosolized pathogens from wastewater sprinkler irrigation, water disinfection methods; health benefits of water supply and sanitation programs in developing countries; reactions of organics in water with chlorine dioxide used as a disinfectant and associated health problems; epidemiology of Legionnaire's disease associated with aerosolized sprinkler irrigation; wastewater technology; rapid detection and identification of enteroviruses.

Major current research and other activities

Current research includes retrospective and prospective epidemiological studies of the health aspects of wastewater utilization in agriculture in Israel; formation of toxic compounds in water as by-products of disinfection with chlorine dioxide; development of methods for the detection of viruses in water; relative die-away rates of enteric viruses and bacteria indicators in seawater; epidemiological study of the relation between microbial quality of marine waters and the health of swimmers; environmental epidemiological aspects of the transmission of Legionnaires disease associated with sprinkler irrigation; analysis of the health effects of wastewater reuse in agriculture and remedial measures for their control; occupational health risk associated with Legionnaires disease and land application of wastewater; studies on the concentration of enteroviruses and rotavirus from water; precursors for trihalomethanes (THM's) and their removal; and wastewater technologies. Our current activities include also teaching programs in environmental health as well as environmental sciences in the School of Applied Science and Technology, the Faculty of Mathematics and Natural Science.

Future programmes

Our future programmes will include continuation of the current research and teaching activities with emphasis on Legionnaires disease research, a prospective epidemiological study on wastewater reuse, concentration of enteroviruses and rotaviruses in water,

Objectives and programmes (Cont.)

reactions of chlorine dioxide with aquatic organic materials and their effects and studies on marine pollution.

Cooperative programme

- Cooperation with the U.S. Environmental Protection Agency, Cincinnati, Ohio (Epidemiological study of wastewater reuse).
- Cooperation with the WHO and UNEP (Epidemiological study of the relationship between morbidity and quality of coastal water).
- Institute for Water, Soil and Air Hygiene, Ministry of Health, Berlin, FDR (Legionella).

Training programme

Courses are taught by members of the Laboratory in environmental Health:

- in the framework of the program for Master's Degree studies in public health (12 students per year)
- in the framework of medical studies (30 students per year)
- in the framework of Master's Degree studies in human environmental sciences, the School of Applied Science and Technology (20 students per year)

Institution structure

The Laboratory is connected to two branches of the Hebrew University:

- The School of Public Health and Community Medicine, Hebrew University-Hadassah Medical School, Jerusalem.
- Faculty of Mathematics and Natural Sciences, School of Applied Sciences and Technology, Division of Human Environmental Sciences.

Staff

5 Scientific staff 4 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Shuval, Hillel	M.P.H. (Professor)	Water quality, Epidemiology
Fattal, Badri	Ph.D.	Water reuse, Epidemiology
Guttman-Bass, Naomi (Ms.)	Ph.D.	Environmental microbiology
Rav-Acha, Chaim	Ph.D.	Environmental chemistry
Yekutieli, Perez	M.D. (Professor)	Epidemiologist
Agurski, Tatyana (Ms.)	M.Sc.	Data management
Choshen, Ehud	M.Sc.	Water chemistry

Premises/facilities

Building area: 900 m² Laboratory area: 500 m²
 With facilities for:
 Visiting scientists: 1 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 6000
 Number of periodical subscriptions: 60

Equipment

3 high speed centrifuges, gas chromatograph, 4 laminar flow hoods,
 6 incubators, autoclaves, spectrophotometers, virus concentrator,
 2 mini computers.

Aquarium facilities

Total area: 60 m²

Organisms maintained:

Algae Micro-organisms

Species maintained for experimental purposes:

Dunaliella
BGM

Aphanothece

Navicula

Institution code:

001063

Information received: 01/11/84

המסניין - מכון טכנולוגי לישראל

המחלקה להנדסת מזון וביו - טכנולוגיה

Department of Food Engineering and Biotechnology,
Technion - Israel Institute of Technology (IIT)

Executive officer: BERK Zeki: Head

Postal address

Department of Food Engineering and Biotechnology,
Technion - Israel Institute of Technology (IIT)
I.I.T - Technion City
32000 HAIFA
ISRAEL

Telephone: 04-229576
Telex: 46406
Cable: TECHNION-HAIFA

Working languages
Hebrew, English

Nature of institute
Academic

Main fields of activities
Food science/technology Microbiology
Pollution Engineering
Education, training or extension

Areas of speciality
Shrimps/prawns Algae
Metals (pollutants)

Objectives and programmes

The Department was founded in 1954; The Institute in 1924. The Department trains engineers for various food industries, and provides laboratory facilities and pilot plant for industrial research and development projects. Faculty members also offer assistance to the food industries in trouble-shooting and consultations on engineering, technological, microbiological, analytical, nutritional and toxicological problems, and carry out numerous research projects in all the above fields.

Cooperative programme
Industry sponsored research

Training programme
- B.Sc.; M.Sc. and Ph.D. program in Food Engineering and Biotechnology
- Special training programs and diploma courses according to demand

Institution structure

The Department has twelve regular senior staff members. Currently four staff members are engaged in research on subjects related to aquaculture, fisheries and foods of marine origins.

Staff

12 Scientific staff 16 Technical staff 6 Other staff

Professional scientific staff

Name	Degree	Speciality
Zeki Berk	Ph.D.	Food technology
Chaim H. Mannheim	Ph.D.	Food technology
Shimon Mizrahi	D.Sc.	Food physical chemistry
Jack Ziffer	Ph.D.	Industrial microbiology
Uri Cogan	Ph.D.	Food chemistry
Isaiah Kopelman	Ph.D.	Food engineering
Pinhas Margalith	Ph.D.	Microbiology
Joseph Miltz	D.Sc.	Packaging
Shoshana Mokady	Ph.D.	Nutrition-proteins
Shimon Ulitzur	Ph.D.	Aquatic microbiology
Shmuel Yannai	D.Sc.	Food toxicology
Itzhak Neeman	D.Sc.	Biochemistry, Toxicology

Premises/facilities

Building area: 4000 m² Laboratory area: 3000 m²
With facilities for:
Visiting scientists: 100

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 3900

Number of periodical subscriptions: 165

EquipmentChemical, analytical, biochemical laboratories; microbiological
laboratories; food technology pilot plant; packaging laboratories;
animal rooms (mutation and toxicology)

Institution code: 001064

Information received: 07/12/83

מכון ויצמן למדע

Makhon Weizmann Le'mada

(Weizmann Institute of Science)

Executive officer: SELA Michael: President

Postal address

Makhon Weizmann Le'mada
P.O. Box 26
REHEVOT, 76100
ISRAEL

Telephone: 08-482111/483111
Telex: 361900
Cable: WEIZINST (ISRAEL)

Working languages
Hebrew, English

Nature of institute
Academic Private (non-profit)

Main fields of activities
Chemical sciences Physical sciences
Meteorology/climatology

Areas of speciality
Mineral oil Thermal
Inland (fresh) waters

Objectives and programmes

History of institution, its mandate and purpose
Started in 1934 as a chemical research institute (Daniel Sieff Institute). Established in 1948 in present form. Graduate school added in 1958.

Research, monitoring and other activities in last three years
The WIS is devoted to research in the natural and exact sciences, ranging from mathematics, through physics to chemistry and biology.

Cooperative programme
Joint research projects with the Oceanographic and Limnological Research Company, Geological Survey of Israel, International Atomic Agency and the Mediterranean-Dead Sea Company

Training programme
Occasional graduate courses in geochemistry

Institution structure

Five research facilities, each subdivided into departments, with interdisciplinary research encouraged by means of interdepartmental centers and joint projects. The professional scientific staff specialized in marine sciences are listed below.

Staff

400 Scientific staff 1000 Technical staff 1000 Other staff

Professional scientific staff

Name	Degree	Speciality
Gat, J.R.	Ph.D.	Isotope geochemistry
Stiller, M.	Ph.D.	Limnology
Nissenbaum, A.	Ph.D.	Biogeochemistry
Margaritz, M.	Ph.D.	Carbonate geochemistry
Ben Menahem, A.	Ph.D.	Geophysics
Carmi, I.	M.Sc.	Radioactive tracers
Mazor, E.	Ph.D.	Noble gas geochemistry

Institution code: 001066 Information received: 01/11/84

המכון הגיאולוגי

אגף לגיאולוגיה ימית ומתמטיקה

**Marine Geology and Geomathematics Division,
Geological Survey of Israel (GSI-MGGD)****Executive officer:** HALL, John K.: Head**Postal address**

Marine Geology and Geomathematics Division,
Geological Survey of Israel (GSI-MGGD)
30, Malkhe Yisrael Street
95 501 JERUSALEM
ISRAEL

Telephone: 02-286121**Telex:** 26362 MINISTRY OF ENERGY**Working languages**

Hebrew, English

Nature of institute

Governmental Academic

Main fields of activities

Oceanography	Geology/sedimentology)
Mineral resources (incl. Oil)	Policy and planning
Computers/information systems	

Areas of speciality

Mineral oil	Other minerals
Thermal	Tides/waves

Objectives and programmes**History of institution, its mandate and purpose**

The Geological Survey is a governmental academic research institution belonging to the Israel Ministry of Energy and Infrastructure. Its mandate is to carry out basic and applied geological research for the State of Israel, and to act as a depository for all geological data gathered in Israel. Its mission is to investigate all geological and earth-science related problems having a bearing on the future and welfare of the country, and its purpose is to provide the capability for these investigations. (Item 2 through 4 apply only to the Marine Geology and Geomathematics Division).

Research, monitoring and other activities in last three years

- Geophysics of the Levantine Basin (D. Neev, J.K. Hall and G. Almador)
- Sedimentological features of the eastern parts of the Levantine Basin (Y. Nir and G. Almador)
- Regional problems in geotechnique (G. Almador)
- Stratigraphy of the quaternary sediments in the coastal plain and the shallow Mediterranean shelf (N. Bakler and Y. Nir)
- Shore protection and coastal geology (Y. Nir)
- Limnological and stratigraphic studies of the Red Sea, Arava, Dead Sea, Jordan Rift Valley (D. Neev)
- Geochemistry of the Dead Sea (Y. Levy and M. Beyth)
- Shallow geophysical study of the Dead Sea (Y. Levy, J.K. Hall and D. Neev)
- Geophysics of the Northern Red Sea (J.K. Hall)
- Precision tide measurement network for detecting tectonic movements (J.K. Hall)
- MEDMAP, REDMAP and DEADMAP - Marine geophysical mappings in the seas adjacent to Israel (J.K. Hall)
- Computer methods in marine geology and geophysics and navigation (J.K. Hall)
- Development of worldwide and regional tectonic models (D. Neev and J.K. Hall)
- Recent tectonic movements (D. Neev)

Major current research and other activities

Same as in the last three years

- Computerization of these activities and their analysis. Digital data acquisition at sea.

Future programmes

Continuation of most of the activities listed above. Compilation of research results to date, and publication of numerous maps and charts summarizing these works.

Cooperative programme

We conduct cooperative investigations with the following institutions: The Weizmann Institute of Science, Rehovot, Israel; Department of Maritime Civilization, Haifa University; Department of Archeology, Ben Gurion University, Beer Sheva; The Technion, Haifa; Israel Oceanographic and Limnological Research Ltd., Haifa; The Israel Navy; The Institute for Petroleum Research and Geophysics, Holon; Tel Aviv University, Tel Aviv; Coastal Research

Objectives and programmes (Cont.)

Division of the Ports Authority, Ashdod; Hebrew University, Jerusalem; and various marine institutions in Europe and the USA.

Training programme

There is no formal training program. Numerous students have taken advantage of our research projects and results to advance their studies.

Institution structure

The Geological Survey of Israel now consists of five research divisions and one Administration and Scientific Services Division.

The research divisions are:

- Environmental Geology
- Mapping, Stratigraphy and Oil
- Marine Geology and Geomathematics
- Geochemistry
- Mineral and Energy Resources

The Marine Geology and Geomathematics Division is responsible for marine research and for operation of the GSI computer facilities, which consist of one HP-85 and VAX-11/750 computer.

Staff

6 Scientific staff 4 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Almagor, Gideon	Ph.D.	Marine geotechnique, Marine geology, Geophysics
Bakler, Natan	M.Sc.	Geology-stratigraphy/dredging
Hall, John K.	Ph.D.	Marine geophysics, Computers, Dynamical oceanography
Levy, Yitzhak	Ph.D.	Marine geochemistry
Neev, David	Ph.D.	Marine geology, Limnology, Tectonics
Nir, Ya'acov	Ph.D.	Shore protection, Shore processes, Marine geology

Premises/facilities

Building area: 200 m² Laboratory area: 50 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 5200

Number of periodical subscriptions: 1500

Monographs and serials titles:

- Current Research 1980; 1981; 1982
- Collected reprints - Sinai (2 vols.)
- Bibliography - Sinai (1 vol.)
- Geological and Geophysical Maps
- Bathymetric charts of the MGGD (5)
- Occasional divisional reports (in English, but also in Hebrew)
- Israel Geological Survey Bulletins
- Israel Geological Survey Special Publications
- Current Bibliography of Middle East Geology

Equipment

Echosounders (5), geophysical systems (40cv in airgun, Sparker, Boomer, Uniboom, subbottom profiles), magnetometer Mod. G-866, sidescan sonar, coring equipment, wave/tide gauges, marine computers with interfaces to miniranger, magnetometer, echosounder, microscopes, sediment traps, geochemical equipment, geotechnical equipment.

Institution code: 001067 Information received: 27/11/84

The Dr. A. Felix Public Health Laboratory
Ministry of Health

Postal address

**The Dr. A. Felix Public Health Laboratory
Ministry of Health
68 Ben-Zvi Boulevard
P.O. Box 8255
TEL-AVIV 61082
ISRAEL**

Working languages
Hebrew, English

Main fields of activities
Microbiology
Medicine

Pollution

Areas of speciality
Coastal marine waters

Inland (fresh) waters

The laboratory was established shortly after the State of Israel was founded with the mission of supplying public health services in bacteriology and serology. We examine clinical specimens, for aid in diagnosis as well as epidemiological studies, and food and water from various sources to assess their bacteriological quality and investigate outbreak. We also have a department for chemistry of water and sewage.

Major current research projects:

- Bacterial marine pollution
- Occurrence of *Leptospira* serotypes in various regions of Israel
- Atypical *Mycobacteria* as aetiological agents of disease in our country.
- Chlamydia as cause of NGU and other ailments.
- Development of selective media for isolation of coagulase positive staphylococci from food and water.
- Effect of long-term intake of low graded amounts of cadmium and other trace elements on their level in organs of mice.

- District Health Offices and hospitals
- Food control administration
- Environmental Health Laboratory of the University of Jerusalem

The Laboratory is divided into the following sections:

- National Center for Treponematoses
- National Center for Toxoplasmosis
- National Center for Shigellae
- General Microbiology
- Microbiology of Food and Water
- Tuberculosis and other Mycobacteria
- Leptospirosis
- Chemistry of Water and Sewage

19 Scientific staff	6 Technical staff	15 Other staff
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Professional scientific staff

Name	Degree	Speciality
Yoshpe-Purer, Yona (Ms)	Ph.D.	Clinical food microbiology, Microbial water pollution
Minzer-Morgenstern, Leonie (M	Ph.D.	Food microbiology
Golderman, Sicilia (Ms)	Ph.D.	Microbial adherence, Water pollution
Lindenbaum, Itzhak	Ph.D.	Leptospira
Cohen, Israel	Ph.D.	Chemistry of water and sewage
Lavi, Anita (Ms)	M.Sc.	Tuberculosis, Mycobacteria
Rusu, Ruth (Ms)	M.D.	Tuberculosis, Mycobacteria
Ginsberg, Raul	M.Sc.	Treponemes.

Staff Name	Degree	Speciality	(Cont.)
Nashri, Zipora (Ms)	M.Sc.	Chlamydia	
Tristman, Yehudith (Ms)	M.Sc.	Toxoplasmosis	
		Shigellae,	
		Salmonellae	
Sklut, Ofra (Ms)	M.Sc.	Clinical microbiology,	
		Serology	

Premises/facilitiesBuilding area: 1200 m²Laboratory area: 800 m²**Information facilities**

Library holdings:

Number of periodical subscriptions: 10

Monographs and serials titles:

- Annual Report, 1981; 1982 (Hebrew)
- Final report of our work on MED POL VII (English)
- Twelve papers in medical journals

Equipment

Ten microscopes (including one darkfield and 2 fluorescent Leitz, Zeiss, Reichert), inverted microscope (Olympic), 12 incubators for various temperatures (Tuttenhauer, Israel), 3 analytical and 4 semi-analytical balances (Sartorius), 11 centrifuges (Sorvall, International and others), 6 deep freezers (Amor, Israel; Revco), 10 refrigerators (Amor, Israel), 3 autoclaves and 4 dry ovens (Tuttenhauer), 2 muffle furnaces (Bifa, Israel), Vortex mixers, pH meters, water membrane filtration apparatus etc.; Atomic absorption spectrophotometer including carbon rod atomizer-CRA 90 (Varian), spectrophotometer (Spectronix 200 BL), 2 autoburettes, electrometer and conductivity meter (Radiometer, Copenhagen), oxygen meter (YSI, USA), chloride titrator (Amico, USA), heating isomantles (H.I. England), table computer (TI 59).

Institution code:

001069

Information received: 18/07/83

מ ע ב ר ה ל ב ר י א ו ת ה צ י כ ו ר ה י פ ה

Public Health Laboratory, Ministry of Health

Executive officer: MATES Abraham: Director

Postal address

Public Health Laboratory, Ministry of Health
P.O. Box 9526
HAIFA 31095
ISRAEL

Telephone: 04-510172

Working languages
Hebrew, English

Nature of institute
Governmental

Main fields of activities
Biological sciences Ecological sciences
Food science/technology Microbiology
Pollution

Areas of speciality
Micro-organisms

Objectives and programmes

History of institution, its mandate and purpose

The laboratory was founded in 1935 as part of the general
'Government Hospital' in Haifa. Enlarged and reorganized in 1951,
it was transferred to the premises of the District Public Health
Department.

Research, monitoring and other activities in last three years

Regular examinations for the presence of total and faecal coliforms
in coastal waters of 20 recognized bathing sites along the northern
shore of Israel. Other programmes are indicated below.

Major current research and other activities

Problems connected with water sampling:

- optimal distance from the shore-line for the collection of samples
- nature of sample: beachsand or coastal water, the latter considered a 'grade sample', the former a filter for a 'composite sample'.
- Evaluation of various indicators for measuring fecal contamination of coastal water, recovery of faecal coliforms from marine waters.

Cooperative programme

The Laboratory co-operates with the Israel Institute of Technology,
Haifa and other institutes engaged in research dealing with
environmental health in Israel.

Training programme

Could be done on request.

Institution structure

The laboratory is divided into six divisions:

- National Centre for Staphylococcal Enterotoxins
- Medical Microbiology and Epidemiology
- Serology
- Microbiology of Food
- Microbiology of Environment Including Recreational Waters
- Chemistry of Food, Water and Sewage

Staff

Professional scientific staff

Name	Degree	Speciality
Mates, A.	Ph.D.	Microbiology
Harel, G.	M.Sc.	Environmental chemistry, Algology
Shaffer, M.	M.Sc.	Microbiology

Premises/facilities

Laboratory area: 400 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 400

Number of periodical subscriptions: 10

Institution code:

001070

Information received: 07/09/83

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**Fishing Technology Unit,
Department of Fisheries,
Ministry of Agriculture (FTU)**

Executive officer: GROFIT Eliezer: Chief

Postal address

**Fishing Technology Unit,
Department of Fisheries,
Ministry of Agriculture (FTU)
Kishon Fishing Harbour
P.O. Box 1036
HAIFA 31009
ISRAEL**

Telephone: 04-668332/668333
Cable: MEMISRAEL FISH

Working languages
Hebrew, English

Nature of institute
Governmental

Main fields of activities	
Marine fisheries	Inland fisheries
Resources management	Fishing technology

Areas of speciality	
Demersal fish	Pelagic fish
Shrimps/prawns	Offshore marine waters
Coastal marine waters	Inland (fresh) waters

Objectives and programmes

History of institution, its mandate and purpose

Established as Fisheries Technology Unit (FTU) in 1971, as a result of merging the newly founded Israeli Oceanographic and Limnological Research Ltd. with the former Sea Fisheries Research Station (SFRS). The FTU took over part of the functions and equipment of the SFRS. In 1981 the FTU was divided into two coordinated units: Fishing Technology and Fishery Products Laboratory.

Research, monitoring and other activities in last three years

Development of gear handling machinery for the inshore fishery (net and line haulers). Comparative fishing with different types of trawls and improvements in trawl design. Survey of partly obstructed trawl grounds and their opening to the commercial fishery in connection with the introduction of the use of colour echo-sounders, sonars and radar. Study of the dynamics of the *Parapenaeus longirostris* population and their eventual commercial exploitation. Study of the biology of grey mullets stocked in Lake Kinneret. Monitoring of fishing effort, with special stress on the trawl and purse seine fishery.

Major current research and other activities

- Pilot project for the establishment of artificial reefs.
- Mechanized handlining experiments in deep waters.
- Study of the behaviour of fish in electric fields.
- Population dynamics of *Merluccius merluccius*.
- Experimental fishing with high opening trawls.

Future programmes

Continuation of current programme

Cooperative programme

Establishing artificial reef - a pilot project in cooperation with, Department of Maritime Civilizations and Center for Maritime Studies, University of Haifa, Mount Carmel, Haifa 31999, Israel.

Training programme

Training for individuals or small groups can be provided after coordination with the Department for International Cooperation, Ministry of Foreign Affairs, Jerusalem. Subjects: small scale purse seining, trawling, general fishing gear technology. (on the job training, English language).

Institution structure

The Fishing Technology Unit (FTU), is a part of the Fisheries Technology Division (Director: M. Ben-Yami) of the Department of Fisheries in the Ministry of Agriculture.

Staff

5 Scientific staff

0 Technical staff

1 Other staff

Professional scientific staff

Name	Degree	Speciality
Groffit, E.	Captain	Fishing technology
Pisanty, S.	M.Sc. (Biology)	Pelagic population. Fishery electronics
Tom, M.	M.Sc. (Biology)	Demersal fish monitoring of fishing effort
Chanin, J.	M.Sc. (Bio-physics)	Fishing technology
Chervinski, J.	Ph.D.	Ichthyology

Premises/facilitiesBuilding area: 160 m²Laboratory area: 200 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 200

Number of periodical subscriptions: 8

Monographs and serials titles:

- Papers reporting on the activities of the FTU are published in 'Fish and Fishbreeding in Israel' (3-4 issues per year, in Hebrew with English abstracts).

Equipment

Sonar (Simrad), echosounder (Simrad scientific and others), bathykymographs, bathythermometer with recorder, instrumentation for measurement of bollard pull and gear drag, plankton and benthos sampling gear.

Aquarium facilities

Total area:

30 m²

Number of tanks:

5

Organisms maintained:

Demersal fish

Species maintained for experimental purposes:

*Anguila anguila**Sparus auratus**Mugil cephalus**Liza ramada*

Institution code:

001071

Information received: 20/11/83

מכון המחקר והחינוך
לביולוגיה

Institute of Evolution, University of Haifa

Executive officer: NEVO Eviatar: Director

Postal address

Institute of Evolution, University of Haifa
HAIFA 31999
ISRAEL

Telephone: 04-246554

Telex: 2099

Working languages

Hebrew, English

Nature of institute

Academic

Main fields of activities

Biological sciences
Pollution

Ecological sciences
Education, training or extension

Areas of speciality

Petroleum hydrocarbons

Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose

The Institute was established in 1973 as a combined research and teaching Institute. It is the only research Institute in Northern Israel studying population genetic structure of both terrestrial and marine organisms. The main topics of research include: genetic structure of natural populations and speciation.

Research, monitoring and other activities in last three years

Field and laboratory research in metal and organic marine pollution. Experiments include shrimps and marine snails.

Major current research and other activities

Ecological genetics studied by electrophoresis.

Future programmes

Extension of electrophoretic and DNA studies of genetic diversity.

Cooperative programme

The Institute collaborates on a variety of problems with about 40 Universities in Europe and America. The main applied research fields include:

- The effects of pollution on marine organisms: the quality of the marine environment (also with the National Shikmona Research Institute)
- Use of genetic resources of the progenitors of wheat and barley for breeding programs
- Medical plants and their exploitation in natural populations.
- The control of weedy flora by biological control.

Training programme

- The Institute provides 12 interdisciplinary courses to non-biologists in evolutionary biology in the University of Haifa.
- The Institute also trains students for M.Sc. and Ph.D. diplomas in collaboration with other universities.
- The Institute accommodates postdoctors for research work.

Institution structure

The Institute comprises the following research laboratories:

- Population Biology
- Marine Biology and Pollution
- Animal Behavior
- Molecular Evolution
- Human Genetics
- Plant Population Ecology

Staff

6 Scientific staff

6 Technical staff

3 Other staff

Professional scientific staff

Name	Degree	Speciality
Nevo, Eviatar	Professor	Genetics, Ecology, Behavior, Evol. Biology
Nevo, Sara	Senior Lecturer	Human genetics
Dafni, Amotz	Senior Lecturer	Plant population ecology
Beiles, Avigdor	Lecturer	Population genetics, Biostatistics

Staff		(Cont.)
Name	Degree	Speciality
Meth, Giora	Lecturer	Animal behavior
Lavie, Batia	Ph.D.	Genetics
Golenberg, Edward	Ph.D.(student)	Population genetics.
		Ecology
Ben Shlomo, Rachel (Ms)	M.Sc.	Population genetics.
		Ecology
Krogman, Tamar (Ms)	M.Sc.	Agricultural science
Noy, Ruth (Ms)	M.Sc.	Population genetics.
		Ecology
Adler-Kaplan, Diane (Ms)	B.Sc.	Biology
Simson, Shimeon	B.Sc.	Biology
Premises/facilities		
Building area: 500 m ²		Laboratory area: 300 m ²
With facilities for:		
Visiting scientists: 4	S	
Equipment		
Cold rooms, deep freezers, balances, electrophoretic equipment, field vehicle etc.		
Aquarium facilities		
Total area:	50 m ²	Number of tanks: 20
Organisms maintained:		
Molluscs	Crustaceans	
Species maintained for experimental purposes:		
<i>Spalax ehrenbergi</i>	<i>Palaemon elegans</i>	<i>Cerithium scabridum</i>
<i>Cerithium rupestre</i>	<i>Littorina punctata</i>	<i>Littorina neritoides</i>
<i>Monodonta turbinata</i>	<i>Monodonta turbiformis</i>	<i>Hordeum spontaneum</i>
<i>Triticum dicoccoides</i>		
Institution code:	001073	Information received: 31/10/84

**The H. Steinitz Marine Biology Laboratory of the
Hebrew University (MBLE)**

Executive officer: BARANES Albert: Resident Director

Postal address

The H. Steinitz Marine Biology Laboratory of the
Hebrew University (MBLE)
P.O. Box 469
EILAT, 88103
ISRAEL

Telephone: 059-76181-3

Working languages
English. Hebrew

Nature of institute
Academic

Main fields of activities	
Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Limnology
Microbiology	Geology/sedimentology)
Education, training or extension	

Areas of speciality	
Demersal fish	Pelagic fish
Lobsters	Other invertebrates
Algae	Micro-organisms
Plankton	Benthos
Coral ecosystems	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The H. Steinitz Marine Biology Laboratory (founded in 1968) provides the necessary facilities required to accommodate research and education on the unique oceanographic environment of the Gulf of Eilat. The laboratory serves the study and teaching of the various disciplines of oceanography and their students, either as part of the resident staff or as visiting scientists from Israel and the entire world. Five Israeli academic institutions and the National Council for Research and Development participate in the activity of the laboratory.

Major current research and other activities

A comprehensive, multidisciplinary research project on physical, chemical and biological water mass properties and geological features of the Gulf of Eilat, employing the r.v. Armona and in cooperation with Institute for Oceanography and Limnological Research, Haifa (IOLR) and the Weizmann Institute of Science, Rehovot. The microbiology and microbiogeochemistry of the hypersaline Solar Lake near Eilat is now a major research project. Fish parasitology in cooperation with the aquaculture project of the IOLR. Calcium carbonate production and dissolution mainly by planktonic and benthonic foraminifera. Over 30 research projects of Hebrew University scientists of various disciplines are currently in progress at the MBL including systematics and ecology of fishes, crustaceans, benthic sea urchins, microplankton and algae; marine animal behaviour; reproduction, biology of fishes; and biology and ecology of benthic foraminiferids, and natural history of the Red Sea sharks. Moreover, Hebrew University scientists have been participating in certain aspects of IOLR culture, which have developed considerably during the period under review with the addition of fish ponds and hatchery laboratories.

Cooperative programme

- Tel Aviv University in Tel Aviv,
- Ben Gurion University in Beer-Sheva
- Bar Ilan University in Tel Aviv
- University of Haifa in Haifa
- Israel Oceanography and limnological Research Haifa and Eilat
- Weizmann Institute in Rehovot

Training programme

- Graduate and post-graduate courses in marine geology, biology and ecology for students of Israeli Universities.
- Field and laboratory work for Ph.D. and M.Sc. students

Institution structure

- Managing Board (Hebrew University of Jerusalem)
 - Chairman, Prof. M. Spira, Scientific Director
 - Mr. A. Baranes, Resident Director
 - Prof. I. Parnas, Dean of the Faculty (or his representatives)
 - A representative of the National Council for Research
 - A representative of each cooperating Institution
 - The head of the Department of Oceanography of the Hebrew University
- Executive Board
 - Prof. M. Spira, Scientific Director
 - Mr. A. Baranes, Resident Director
 - Dr. J. Erez, Head of Resident Scientific Staff

Staff

9 Scientific staff 14 Technical staff 5 Other staff

Professional scientific staff

Name	Degree	Speciality
Jonathen Erez	Ph.D.	Marine chemistry, Calcification in corals, Calcification in foraminifera
Ilan Paperna	Ph.D.	Fish parasitology
Yehuda Cohen	Ph.D.	Microbiology of algal mat., Geochemistry of algal mat.
Albert Baranes	Ph.D. student	Shark taxonomy and biology
Ilan Cohen	Ph.D. student	Neuro-physiology
Osnat Shaharabani-Baranes	Ph.D. student	Neuro-physiology
Ariel Diamant	Ph.D. student	Ecology of fish parasites
Jacob Dafni	Ph.D. student	Calcifications in echinoids
Benno ter Kohle	Ph.D. student	Calcifications in foraminifera

Premises/facilities

Building area: 650 m² Laboratory area: 300 m²
 With facilities for:
 Visiting scientists: 30

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 500
 Number of periodical subscriptions: 30

Monographs and serials titles:

- Proceedings of the 8th scientific meeting (Eilat, May 22-23, 1980
 25pp., English, on exchange)

Equipment

Dissecting microscope (Nikon, Wild), slide projector Braun, under-water camera (Nikon F), semianalytical balance (Sartorius), analytical balance (Sartorius), spectrophotometer (PMQ 11 and accessories (Zeiss), pH meter and accessories (Beckman), oxygen analyzer (Beckman), sonifer B-124 (Bronson), magnetic stirrer (Cenco), polyplastic pump (Braun), vacuum pump (Leybold-Heraeus), water distiller, centrifuge RC-2B (Sorvall), incubator (Tuttenauer), autoclave (Tuttenauer), drying oven (Tuttenauer), deep freezer 'Sub Zero', liquid scintillation spectrometer (Packard, Model 3325), Warburg apparatus (Braun), thermostatic water baths (Tuttenauer), darkroom facilities-including: enlarger Durst 60 per 60, Focomat enlarger, copying stand + accessories (Pentax), portable pH-meter (Knick), standard luxmeter, plankton sample splitter (Rigsha), Nansen and Niskin bottles, plankton nets, sediment grabs.

Aquarium facilities

Total area: 75 m² Number of tanks: 15

Organisms maintained:

Pelagic fish Crustaceans Other invertebrates
 Micro-organisms

Species maintained for experimental purposes:

<i>Panulirus penicillatus</i>	<i>Tripneustes gratilla elate</i>	<i>Globigerinoides sacculifer</i>
<i>Globigerinoides ruber</i>	<i>Globigerina aequilateralis</i>	<i>Amphistegina lessoni</i>
<i>Amphistegina lobifera</i>	<i>Heterostigina depressa</i>	<i>Siganus luridus</i>
<i>S. argenteus</i>	<i>S. rivulatus</i>	<i>Iago omanensis</i>
<i>Sparus aurata</i>	<i>Dicentrarchus labrax</i>	

Research craft

Name: GEO (SUBMARINE)
Owner: Dr. H. Fricke
Length: 5 m.
Type: Submersible
Date of construction: 1981
Crew: 2
Scientists: 2

Name: NERITICA
Length: 10 m.
Type: Underwater habitat
Date of construction: 1975
Crew: 4
Scientists: 4
Laboratory space: 10 m²
Special facilities:
Laboratory equipment and underwater television.

Name: MABELA
Length: 5 m.
Type: Wood boat
Date of construction: 1983
Crew: 6
Scientists: 6
Special facilities:
Fishing equipment.

Name: ZODIAC
Length: 5 m.
Type: Rubber Boat
Date of construction: 1973
Crew: 6
Special facilities:
Outboard motor.

Name: ZODIAC
Length: 5 m.
Type: Rubber Boat
Date of construction: 1973
Crew: 6
Special facilities:
Outboard motor.

Institution code: 001074

Information received: 01/11/84

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משרד ההקלאות - המגף לדיג

המעבדה לסיכ דגים ומוצרי דיג

Fishery Products Laboratory**Executive officer:** HERZBERG, Abraham M.: Chief**Postal address**

Fishery Products Laboratory
21 Golani str.
P.O. Box 699
HAIFA 31000
ISRAEL

Telephone: 04-642345/642346**Working languages**
Hebrew, English**Nature of institute**
Governmental**Main fields of activities**

Ecological sciences	Marine fisheries
Inland fisheries	Food science/technology
Quality control (fishery products)	Technology transfer

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Offshore marine waters
Coastal marine waters	Inland (fresh) waters

Objectives and programmes**History of institution, its mandate and purpose**

Established in 1971, as a result of merging the newly founded Israeli Oceanographic and Limnological Research Ltd. with the former Sea Fisheries Research Station (SFRS). The Laboratory was then part of the Fisheries Technology Unit, who took over part of the functions of the SFRS. Since 1981, the Laboratory became independent from the FTU and is now under the direction of the Fisheries Technology Division. The Laboratory is concerned with: quality and freshness control of local and imported fishery products; development of commercial products from underutilized fish species; technology transfer to industry.

Research, monitoring and other activities in last three years

Development of a cold smoking process for silver carp; development of new receipts for the processing and canning of Galilea bleak (*Mirogrex terrasanae*); experimental semi-processing of small red shrimp (*Parapenaeus longirostris*); preparation of fish protein from small Galilea bleak as raw material for the fish processing industry.

Major current research and other activities

Location of pesticide residues in fish; development of a process for the production of high grade squalene from the liver of

Cooperative programme

- Enzymological research in fish - in cooperation with Israel Institute of Technology, Food Sciences Department, Haifa.

Institution structure

The Fishery Products Laboratory is part of the Fisheries Technology Division (Director: M. Ben-Yami), which in turn is a division in the frame of the Department of Fisheries in the Ministry of Agriculture.

Staff

5 Scientific staff	3 Technical staff	1 Other staff
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Professional scientific staff

Name	Degree	Speciality
Herzberg, Abraham	M.Sc. (Chief)	Animal husbandry
Gelman, Alexander	Ph.D. (Dep. Chief)	Ichthyology
Benjamin, Genia	Eng.	Food technology
Pasteur, Rachel	M.Sc.	Bio-chemistry, Bacteriology

Premises/facilities

Laboratory area: 220 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 300

Number of periodical subscriptions: 5

Monographs and serials titles:

- Papers reporting on the activities of the Laboratory are published in 'Fish and Fishbreeding in Israel'. (3-4 issues per year, in Hebrew with English abstracts).

Equipment

Ultra centrifuge, gaschromatograph, chilling and freezing equipment, flake icemaker, semi-commercial smoking kiln, canning facilities, autoclave, incubators, microfractionator, spectrophotometer, research microscopes, electrophoresis equipment, electrobalance.

Institution code:

001075

Information received: 16/11/84

Dipartimento di Biologia Animale ed Ecologia Marina (DBAEM)**(Department of Animal Biology and Marine Ecology (DABME))****Executive officer:** FARANDA, Francesco M.: Director**Postal address**

Dipartimento di Biologia Animale ed Ecologia Marina (DBAEM)
 Via Dei Verdi, 75
 MESSINA 98100
 ITALY

Telephone: 090-710617/719966**Telex:** 980075 UNIMEI**Working languages**

Italian, French, English, Spanish

Nature of institute

Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Limnology
Chemical sciences	Microbiology
Pollution	Meteorology/climatology
Geology/sedimentology)	Education, training or extension

Areas of speciality

Marine mammals	Demersal fish
Pelagic fish	Other vertebrates
Cephalopods	Shrimps/prawns
Other invertebrates	Algae
Micro-organisms	Plankton
Benthos	Offshore marine waters
Coastal marine waters	Brackish waters
Inland (fresh) waters	Petroleum hydrocarbons
Metals (pollutants)	Pathogenic micro-organisms
Nutrients	

Objectives and programmes

Established in 1982, the Department has merged together with the Institutes of Hydrobiology and Fishculture, Zoology, Comparative Anatomy and the Marine Biological Station. Its mandate is to teach and perform research in many fields such as aquaculture, marine biology, ecology, oceanography, zoology, embryology and histology, applied to marine organisms. The Department is involved in several national research programmes concerning the above mentioned fields and will continue these programmes that are usually lasting several years.

Cooperative programme

- Ministry of Education (Studies on chemical oceanography and marine biology in the southern Italian Seas)
- Forest and Agriculture Ministry (Development of the Italian aquaculture)
- National Research Council (CNR): (Environmental conditions in the southern Italian Seas)

Training programme

- Teaching programmes for visiting scientists are available on request.

Institution structure

The Department is divided in four research units:

- Marine Biology
- Aquaculture
- Zoology
- Comparative Anatomy and Histology

Each unit may be divided in groups for particular research programmes.

Staff

35 Scientific staff 45 Technical staff 8 Other staff

Professional scientific staff

Name	Degree	Speciality
Ainis, G.	Dr.	Histology
Albanese, M.P.	Ph.D.	Zoology
Bruni, V.	Ph.D.	Marine microbiology
Calabro, C.	Dr.	Histology
Calafiore, N.	Techn.	Zooplankton
Cannata, F.	Dr.	Histology

Staff Name	Degree	Speciality	(Cont.)
Cavallaro, G.	Dr.	Fishery	
Cefali, A.	Dr.	Fishery	
Contini, A.	Dr.	Histology	
Cortese, G.	Dr.	Chemistry	
Costanzo, G.	Ph.D.	Zooplankton	
Crescenti, N.	Techn.	Heavy metals	
De Domenico, E.	Ph.D.	Oceanography (pollution)	
De Domenico, M.	Dr.	Microbiology	
Donato, A.	Ph.D.	Histology	
Faranda, F.	Ph.D.	Ecology	
		Aquaculture	
Fasulo, S.	Techn.	Histology	
Gangemi, G.	Ph.D.	Phytoplankton	
Giacobbe, S.	Dr.	Benthos	
Giuffrè, G.	Dr.	Phytoplankton	
Grasso, S.	Dr.	Marine fungi	
Guglielmo, L.	Ph.D.	Zooplankton	
Licata, A.	Techn.	Histology	
Lo Faro, G.	Dr.	Aquaculture	
Magazzù, G.	Ph.D.	Chemical oceanography	
Manganaro, A.	Techn.	Aquaculture	
Martella, S.	Dr.	Heavy metals	
Maugeri, T.	Ph.D.	Microbiology	
Minniti, F.	Dr.	Histology	
Mojo, L.	Ph.D.	Heavy metals	
Potoschi, A.	Dr.	Fishery	
Pulicano, G.	Dr.	Chemistry of waters	
Ricca, B.	Dr.	Histology	
Sippelli, G.	Dr.	Haematology	
Zacccone, G.	Ph.D.	Histology	
Buta, G.	Cap.	Captain of the vessel	

Premises/facilitiesBuilding area: 1000 m²Laboratory area: 600 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 1900

Monographs and serials titles:

- 'Memorie di Biologia Marina e di Oceanographia' (periodical)

Equipment

Atomic absorption spectrophotometer, spectrophotometers UV-VIS, spectrofluorometers, luminometers, microscopes, gas-chromatograph, calorimetric bombs, salinometers, ultratomes, criotomes, fluorescent apparatus for histofluorescence procedure, oceanographic equipment, Niskin bottles, thermometers etc.

Aquarium facilitiesTotal area: 400 m²

Number of tanks: 32

Organisms maintained:

Demersal fish

Pelagic fish

Crustaceans

Algae

Species maintained for experimental purposes:

*Diplodus sargus**Diplodus vulgaris**Puntazzo puntazzo**Spondyllosoma cantharus**Pagellus acarne**Seriola dumerilii**Penaeus kerathurus**Penaeus japonicus**Brachionus plicatilis**Chlamydomonas* sp.*Dunaliella* sp.**Research craft**

Name:

MATTEO ALGESIRO

Length:

27 m.

Type:

Wooden structure

Date of construction:

1970

Crew:

5

Scientists:

8

Laboratory space:

25 m²

Institution code:

001081

Information received: 08/03/84

**Dipartimento di Biologia Ambientale,
Università di Siena**

**(Department of Environmental Biology,
University of Siena)**

Executive officer: RENZONI, Aristeo C.: Director

Postal address

**Dipartimento di Biologia Ambientale,
Università di Siena
3, Via delle Cerchia
SIENA 53100
ITALY**

Telephone: 0577-288428
Telex: 572459UNIVST I

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities	
Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Limnology
Chemical sciences	Pollution
Education, training or extension	

Areas of speciality	
Demersal fish	Pelagic fish
Other vertebrates	Lobsters
Shrimps/prawns	Other invertebrates
Benthos	Offshore marine waters
Coastal marine waters	Metals (pollutants)
Halogenated hydrocarbons	

Objectives and programmes

The Institution was started in 1968 as Institute of Comparative Anatomy. Later, in 1970, with the arrival of Prof. Renzoni, the major research activities were oriented towards marine ecology, pollution, aquaculture and wildlife management. In 1982 the Institute changed its name to Institute for Environmental Biology and in 1984, with the incorporation of the Institute of Botany, to Department of Environmental Biology, University of Siena. The scope of the research activities is to evaluate the levels of pollutants in marine sediments and animals. Recently the study has been expanded to include shore-birds depending for their food on the marine environment. Air, water, sediments and organisms will give us the opportunity of evaluating the biogeochemistry of some pollutants, their fate and the model of the cycle.

Cooperative programme

In the field of benthos research the Institution is connected with the Institute of Biology of Pisa with a programme of research in the Tyrrhenian Sea. In the field of pollution there is a project with the ENEA Laboratory in La Spezia, to study the biogeochemical cycle of mercury and with the Institute of Physiology of Padova to evaluate the defense mechanisms of organisms towards pollutants. In the field of aquaculture with the Laboratory COSPAV (Chioggia) to study biology and marketing of various bivalves in the Adriatic.

Training programme

There is not an active programme in providing training. However, during the last seven years various scientists participating in the UNEP project for monitoring heavy metals and chlorinated hydrocarbons in the Mediterranean Sea (MED POL), have spent several weeks in the Institute. Laboratory space and modest living accommodation are available.

Institution structure

The organizational structure could be subdivided into:

- a group of people working in the field of pollution to study the levels of pollutants in marine organisms (fish, molluscs, crustaceans, shore-birds, etc.), in the water and in the air;
 - a group of people working on the distribution of pollutants in sediments and studying the transfer of the most common pollutants from the sediments to the biota;
 - a group of people working on benthic organisms: marine (molluscs, crustaceans, echinoderms, foraminifera) and freshwater (molluscs).
- Procedures have been initiated to form a Department of Environmental Biology together with the Institute of Botany.

Staff

7 Scientific staff

1 Technical staff

2 Other staff

Professional scientific staff

Name	Degree	Speciality
Renzoni, Aristeo	Professor	Hydrobiology, Fish culture
Focardi, Silvano	Associate professor	Pollutants(marine organisms), Benthos
Zampi, Maritza	Associate professor	Foraminifera
Bacci, Eros	Research assistant	Pollutants in air/water, Pollutants in organisms
Leonzio, Claudio	Research assistant	Pollutants in air/water, Pollutants in organisms
Castagnolo, Lucio	Research assistant	Molluscs
Falciai, Lucia	Research assistant	Crustaceans
Baldi, Franco	Research assistant	Pollutants in sediments, Geochemical cycles

Premises/facilitiesBuilding area: 400 m²Laboratory area: 200 m²

With facilities for:

Visiting scientists: 2

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Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 2000

Number of periodical subscriptions: 80

Equipment

Gas chromatographs: (Perkin Elmer F 22) with electron capture detector (ECD), Perkin Elmer Sigma 3 with FID and NPD; Perkin Elmer Sigma 3 with ECD and fused-silica capillary column. Accessories: Sigma 10B Data Station. Atomic absorption spectrophotometer: Perkin Elmer 300S. Accessories: Graphite furnace, HGA 500 programmer, MHD/1 mercury hydride system. Additional equipment: LKB 2211 super Rac fraction collector, minicomputer Enterprise (Data General), scanning photosedimentometer Fritsch, vacuum freeze dryer Edwards, Sorvall RC-5B automatic superspeed refrigerated centrifuge, electrophoresis equipment.

Institution code:

001082

Information received: 14/11/84

Osservatorio Geofisico Sperimentale (OGS)
(Observatory for Experimental Geophysics (OGS))

Executive officer: RODA Cesare: President

Postal address

Osservatorio Geofisico Sperimentale (OGS)
P.O. Box 2011
TRIESTE 34016
ITALY

Telephone: 39-4021401
Telex: 460329 OGS I
Cable: OGS TRIESTE

Working languages
 Italian, English

Nature of institute
 Governmental

Main fields of activities	
Oceanography	Physical sciences
Offshore technology	Pollution
Computers/information systems	Education, training or extension

Areas of speciality	
Offshore marine waters	Coastal marine waters

Objectives and programmes

History of institution, its mandate and purpose
 The Institution was founded in 1949. Before 1949 OGS was a section of the old and well-known Istituto Talassografico di Trieste. Research in the fields are summarized under major current research both as pure and applied studies and also as services.

Research, monitoring and other activities in last three years

Taking into account only the field of oceanography, the main research activities carried out in 1980, 1981 and 1982 were:

- research in the Adriatic Sea to define the hydrodynamics and water characteristics related to pollution problems (3 years, sponsored by CNR);
- currentometric research in Messina Strait to define its environmental conditions for the construction of a bridge across it (1 year, sponsored by Italian Government);
- project for forecasting the storm surges in the Venetian Lagoon: the data acquisition was made by 2 meteo-oceanographic buoys and 7 coastal stations, while the forecasting was performed by means of statistical models developed by OGS (2 years, sponsored by Public Work Ministry);
- research in the Sicily Channel to define its meteo-oceanographic features (currents, waves, meteorology) for the deployment of an underwater pipeline (1 year, sponsored by AGIP).

Major current research and other activities

Circulation studies (both on the shelf and at open sea); wind wave motion; bi-and tridimensional hydrodynamical numerical models; stochastic models of meteo-oceanographic parameters; modelling of diffusion and advection processes related to pollution problems; air-sea interaction; coastal zone management; tides and seiches; development of oceanographic instrumentation; oceanographic data bank.

Future programmes

Continuation of current programme

Cooperative programme

A program of research for the study of the Adriatic Sea is presently developed in connection with several Italian and Yugoslavian institutions:

- Istituto Talassografico (CNR) - Trieste
- Istituto di Botanica - University of Trieste
- Istituto di Zoologia - University of Trieste
- Istituto di Microbiologia - University of Trieste
- Istituto di Biologia del Mare (CNR) - Venezia
- Istituto per lo Studio della Dinamica delle Grandi Masse (CNR) - Venezia
- Facoltà di Chimica Industriale - University of Venezia
- Istituto di Geologia Marina (CNR) - Bologna
- Istituto di Biochimica Veterinaria - University of Bologna
- Istituto di Zoologia - University of Parma
- Centro di Radiochimica - Pavia
- Istituto di Ricerche sulla Pesca Marittima (CNR) - Ancona
- Center for Marine Research - Rovinj (YU)
- Institute for Oceanography and Fisheries - Split (YU)

Institution structure

The structure of O.G.S. is as follows:

- General Direction
- Administration
- Scientific Laboratories (gravity and geoelectrics, oceanography, seismics, seismology)
- Services (computer center, electronic laboratory, workshop)

Staff

34 Scientific staff 41 Technical staff 53 Other staff

Professional scientific staff

Name	Degree	Speciality
Accerboni, Ezio	Ph.D. (Physics)	Physical oceanography
Michelato, Antonio	Ph.D. (Physics)	Physical oceanography
Cavallini, Fabio	Ph.D. (Physics)	Physical oceanography
Mosetti, Renzo	Ph.D. (Physics)	Physical oceanography
Viezzoli, Dino	Ph.D. (Engineering)	Physical oceanography
Scarazzato, Paolo	Ph.D. (Chemistry)	Chemical oceanography
Berger, Paolo	Ph.D. (Geology)	Sea operations, Data collection
Jungwirth, Riccardo	B.Sc.	Sea operations, Data collection
Zennaro, Paolo	Ph.D. (Geology)	Calibration center for oceanographic instrum.
Cecco, Roberto	B.Sc.	
Medeot, Nevio	B.Sc.	Calibration center for oceanographic instrum.
Manca, Beniamino	Ph.D. (Physics)	Data bank
Milillo, Matteo	B.Sc.	Data processing
Perini, Luciano	B.Sc.	Data processing
Laterza, Roberto	B.Sc.	Data processing
Grossi, Maurizio	B.Sc.	Data processing
Crise, Alessandro	Ph.D. (Physics)	Data processing

Premises/facilities

Building area: 5160 m² Laboratory area: 4000 m²
 With facilities for: 5

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 500
 Number of periodical subscriptions: 50

Monographs and serials titles:

- Bollettino di Geofisica Teorica ed Applicata, (4 issues per year, available on an exchange or on a purchase basis).
- Bollettino di Oceanologia Teorica ed Applicata, (4 issues per year, available on an exchange or on a purchase basis).

Equipment

55 current meters (NBA DNC 2), current meter (NBA DNC 3), current vertical profiler (Neil Brown), 2 acoustic current meters (Neil Brown), 19 acoustic releasers (EG & G), CTD (Neil Brown Mark III B), underwater camera (EG & G), pinger (Benthos), 2 pingers (Thomson), 6 pingers (Edo Western), sonar (Edo Western), 200 ft. thermistor chain (Boston), 6 waveriders (Datawell), 5 tide and wave meters (Sea Data), 4 recorders (Sea Data), 2 meteorological stations (Teledyne), meteo-oceanographic buoy (Hermes), 4 meteo-oceanographic buoys (General Dynamics ODS/20), 7 tide recorders (NBA), 2 wheatstone bridge, (Rosemount; Leeds & Northrup), Kohlrausch bridge (Beckman), thermostatic bath (Neslab), salinometer (Beckman), salinometer (Guildline), manometric balance (Desgranges & Huot), manometric balance (Bell & Howell).

Institution code: 001084 Information received: 07/12/84

**Istituto di Biologia del Mare,
Consiglio Nazionale delle Ricerche (IBM (CNR))**

(Institute of Marine Biology, National Research Council)

Executive officer: BATTAGLIA Bruno; Director

Postal address

Istituto di Biologia del Mare,
Consiglio Nazionale delle Ricerche (IBM (CNR))
1364/A Riva Sette Martiri
30122 VENEZIA
ITALY

Telephone: 041-707622/707928/707835

Cable: CORICERCHE VENEZIA

Working languages

Italian

Nature of institute

Governmental

Main fields of activities

Biological sciences	Ecological sciences
Aquaculture	Oceanography
Microbiology	Pollution
Geology/sedimentology)	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose

The institution was founded in 1946 under the name 'Centro Nazionale di Studi Talassografici'. In 1968, the name was changed to 'Istituto di Biologia del Mare' with the mandate:

- to carry out research in biological oceanography and marine biology, including the biology of lagoons, in fundamental aspects as well as with a view to a more rational exploitation of the biological resources of the sea
- to train graduates
- to collaborate with other Italian and foreign institutions

Research, monitoring and other activities in last three years

The institute participated in the following national and international programmes:

- National Project 'Oceanografia e Fondi Marini'. Research on oceanography, primary productivity, marine pollution and continental shelf of the Adriatic Sea.
- National Project 'Promozione della Qualità dell'Ambiente'. Research on biological indicators of pollution in lagoon and coastal waters; nutrients load in coastal waters.
- FAO/UNEP Joint Coordinated Projects on Pollution in the Mediterranean. Chlorinated hydrocarbons in organisms from the Italian coast of the northern Adriatic Sea. Effects of PCBs on copepods of genus *Tisbe*.
- Cooperative Italian-Yugoslav Program for the Protection of the Adriatic Sea. Monitoring of basic oceanographic properties and of pollution in international waters of the Adriatic Sea.

Major current research and other activities

- Oceanography and primary productivity in the northern Adriatic Sea.
- Hydrological, planktological and bacteriological investigations in the Lagoon of Venice and adjacent coastal area.
- Investigation of bottom sediment and suspended particulate matter in the Lagoon of Venice and the Adriatic Sea.
- Physiological and biochemical response of some marine organisms under polluted conditions. Laboratory and field observations.
- Feeding habits of *Sparus auratus* in brackish waters.
- Genetics and evolution of the genus *Tisbe*.
- Environmental genetics: polymorphism of enzymatic systems in marine invertebrates and teleosts.

Future programmes

Continuation of current programme

Cooperative programme

- Italian-Yugoslav program for the protection of the Adriatic Sea. The program consists of the following components: (i) monitoring of basic oceanographic properties and of pollution in

Objectives and programmes

(Cont.)

- international waters of the Adriatic; (ii) data bank;
- (iii) ecophysiological investigations; (iiii) modelling.
- Department of electronics of J.R.C., Ispra, of the Commission of the European Communities. Monitoring of coastal transport of suspended matter and pollutants using remote sensing.
- CNR Istituto di Geologia Marina, Bologna, and Istituto di Geologia, Università di Urbino. Erosion and sedimentation in some areas of the Middle Adriatic.
- Dipartimento di Scienze Ambientali, Università di Venezia. Mineralogy and geochemistry of marine sediments.
- Centro Ittiologico Valli Venete (CIVV), Rovigo; Società Industriale per la Riproduzione Artificiale del Pesce (SIRAP), Venezia; Istituto di Zoologia e Anatomia Comparata, Università di Genova. Genetics and feeding habits of teleosts, in the framework of the National Project I.P.R.A.
- Istituto di Biologia Animale, Università di Padova. Genetic variability in different groups of brackish and marine organisms.
- Biologische Anstalt Helgoland, Hamburg (FRG). Genetics and evolution of genus *Tisbe*.

Training programme

No special training programme is foreseen, but a limited number of scientists may be accepted for an 'on-job-training' in the framework of the institute programmes.

Institution structure

The Institute is divided into the following sections and services:

- Section of Plankton Ecology and Productivity
- Section of Benthos Ecology and Sedimentology
- Section of Genetics and Dynamics of Marine Populations
- Section of Environmental Biochemistry
- Section of Faunistics
- Secretariat, Administration, Library
- Mechanical workshop and electronic services
- Ship and boat services

Staff

18 Scientific staff 13 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Battaglia, Bruno	Prof. Dr. Biology	Genetics
Barbaro, Alvise	Dr. Biology	Benthos ecology
Barillari, Alfredo	Dr. Geology	Sedimentology
Bianchi, Franco	Dr. Biology	Phytoplanktonology
Boldrin, Alfredo	Dr. Natural Science	Benthos ecology
Campan, Giancarlo	Dr. Chemistry	Pollution
Cervelli, Massimo	Dr. Biology	Ecological genetics
Comaschi, Alessandra (Ms)	Dr. Biology	Zooplanktonology
Dalla Venezia, Luisa (Ms)	Dr. Biology	Ecophysiology
Fava, Giancarlo	Dr. Biology	Ecological genetics
Fossato, Valentino U.	Dr. Chemistry	Pollution
Francescon, Antonia (Ms)	Dr. Biology	Benthos ecology
Franco, Paolo	Dr. Biology	Physical oceanography, Biological oceanography
Lombardo, Anna (Ms)	Dr. Biology	Marine microbiology
Nasci, Cristina (Ms)	Dr. Biology	Ecophysiology
Rabitti, Sandro	Dr. Geology	Sedimentology
Socal, Giorgio	Dr. Biology	Phytoplanktonology
Stefanon, Antonio	Dr. Geology	Marine geology

Premises/facilities

Building area: 1200 m² Laboratory area: 267 m²
 With facilities for:
 Visiting scientists: 2 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 3000
 Number of periodical subscriptions: 750

Monographs and serials titles:

Periodical publication:

- Archivio di Oceanografia e Limnologia (Italian, 2 issues/year)

Equipment

- Oceanographic equipment:
 STD-Probe (Bisset-Berman 9006) with transducers for salinity, temperature and depth; apparatus for measuring dissolved oxygen, turbidity, incident radiation; solarimeter; 2 portable 'in situ' salinometers; 3 marine adviser current-meters; Elac Castor LAZ-17 portable ecograph; Ocean Sonics graphic recorder; EG + G UNIBOOM system; EG + G side scan sonar; standard oceanographic sampling

Equipment

(Cont.)

- gear.
- Diving equipment:
Underwater TV system; 2 decompression chambers; open- and closed-cycle underwater breathing apparatus with ultrasonic communication system.
- Laboratory equipment:
Two double-beam spectrophotometers (Optica; Perkin-Elmer), 2 spectrofluorometers (Optica, Turner); 2 autoanalysers (Technicon) CHN analyser (Hewlett-Packard); 2 gas chromatographs (Hewlett-Packard, Carlo Erba); Atomic absorption spectrophotometer with carbon furnace (Perkin-Elmer); Van Slyke apparatus for volumetric analysis; Warburg respirometer; 2 Beckman salinometers; 4 analytical balances; Coulter counter mod. 1-B industrial (Coulter Electronics); 14C beta-counting system (Packard TriCarb 300 C); various research microscopes including photomicrography equipment 2 environmental chambers (light, temperature, humidity; one programmable).
- Computing facilities:
4 electronic desk calculators (P 602 and P6040 Olivetti; HP 85 Hewlett-Packard; Apple 2 Apple Computers); HP 2100-A computer system equipped with peripherals (Hewlett-Packard).

Aquarium facilities

Total area:	3 m ²	Number of tanks:	10
Organisms maintained:			
Demersal fish	Molluscs		Crustaceans
Algae			

Species maintained for experimental purposes:

<i>Dunaliella parva</i>	<i>Mytilus galloprovincialis</i>	<i>Tisbe sp.</i>
<i>Idotea baltica</i>	<i>Leander squila</i>	<i>Atherina sp.</i>
<i>Blennius sanguinolentus</i>	<i>Gobius ophiocephalus</i>	

Research craft

Name:	UMBERTO D'ANCONA
Owner:	CNR
Length:	24 m.
Type:	vessel
Date of construction:	1967
Crew:	5
Scientists:	7
Laboratory space:	14 m ²
Special facilities:	Oceanographic winch (500m. 4mm cable), double-drum deck winch, stabilized current, echosounder, radar, VHF radio and SSB radio-telephone.

Name:	MYSIS
Owner:	CNR
Length:	9 m.
Type:	Boat
Date of construction:	1970
Crew:	1
Scientists:	3
Special facilities:	Radar, VHF radio.

Name:	ORATA
Owner:	CNR
Length:	8 m.
Type:	Boat
Date of construction:	1963
Crew:	1
Scientists:	3
Laboratory space:	2 m ²
Special facilities:	Portable VHF radio.

Name:	CYPRIS
Owner:	CNR
Length:	5 m.
Type:	Boat
Date of construction:	1975
Crew:	1
Scientists:	2
Special facilities:	Portable VHF radio.

Research craft

(Cont.)

Name: NAUPLIUS
Owner: CNR
Length: 6 m.
Type: Boat
Date of construction: 1970
Crew: 1
Scientists: 2
Special facilities:
 Portable VHF radio.

Institution code: 001086

Information received: 17/08/83

ENEA - Centro Studi Ambiente Marino
(ENEA - Marine Environment Research Centre)

Executive officer: DAMIANI Vincenzo: Director

Postal address

ENEA - Centro Studi Ambiente Marino
Forte di S. Teresa
P.O. Box 316
I 19100 LA SPEZIA
ITALY

Telephone: 0187-536111/971454

Telex: 222861 ENEAST I

Cable: ENEA SANTATERESA-LA SPEZIA

Working languages

Italian, English, French, German

Nature of institute

Governmental

Main fields of activities

Ecological sciences
Chemical sciences
Pollution

Oceanography
Physical sciences
Geology/sedimentology)

Areas of speciality

Demersal fish
Algae
Benthos
Metals (pollutants)

Other invertebrates
Micro-organisms
Coastal marine waters
Radionuclides

Objectives and programmes

History of institution, its mandate and purpose

Formerly established as 'Fiascherino Laboratory' in 1958 by the CNEN) the Centre moved to the new headquarter in 1982.

Research, monitoring and other activities in last three years

Classification of the Italian coasts according to their geomorphological and biological features; radioecological studies on sites related to nuclear plants (Garigliano, Puglia).

Major current research and other activities

Same as in the last three years

and research on the behaviour of radionuclides in marine organisms.

Future programmes

Same as in the last three years

Continuation of current programme

Cooperative programme

- IAEA - International Laboratory of Marine Radioactivity, Monaco (Long lived radionuclides)
- EEC

Training programme

- Doctoral thesis for students in physics, chemistry and biology.

Institution structure

The Centre is divided into the following sections:

- Laboratory Oceanography and Marine Physics
- Laboratory for Chemistry and Marine Biology
- Common Facilities, Maintenance and Administration

Staff

14 Scientific staff

13 Technical staff

7 Other staff

Professional scientific staff

Name	Degree	Speciality
Bernhard, Michael	Dr. (biology)	Marine biology
Boniforti, Roberto F.	Dr. (physics)	Physical chemistry
Buffoni, Giuseppe	Dr. (physics)	Applied mathematics
Cannarsa, Sigfrido A.	Dr. (chemistry)	Organic chemistry
Cigna, Arrigo A.	Dr. (physics)	Radioactive pollution
Marri, Pietro	Ing. (nuclear)	Modelling
Niccolai, Maria	Dr. (chemistry)	Chemistry
Peroni, Corrado	Dr. (biology)	Microbiology
Zattera, Antonio	Dr. (biology)	Phytoplankton
Zurlini, Giovanni	Ph.D. (pop.biol.)	Population ecology
Griffa, Annalisa	Dr. (physics)	Physical oceanography
Bianchi, Carlo N.	Dr. (biology)	Biology
Delfanti, Roberta	Dr. (chemistry)	Chemistry
Scoppa, Pietro	Prof. (biochem.)	Metabolism
Schulte, Ernst	Dr. (biology)	Radioecology
Artali, Vincenzo	Dr. (physics)	Physical oceanography

Staff Name	Degree	Speciality	(Cont.)
Damiani, Vincenzo	Dr. (geology)	Sedimentology, Geochemistry	

Premises/facilities

Facilities for:

Visiting scientists: 3 S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 5000

Number of periodical subscriptions: 230

Equipment

Atomic absorption spectrometers (Perkin-Elmer 5000 - Varian), CHN analyzers (Carlo Erba - Hewlett Packard), clean room equipped with class 100 cabinets (Gelman), instrumentation for determination of temperature, conductivity, O₂, pH and Eh in seawater (Idronaut), gas chromatograph (Perkin-Elmer), HPLC-instrumentation with high-speed absorbance detector (Hewlett Packard), preparative ultracentrifuge (Beckman), cryomicrotome (LKB), bipotentiostat (Tacussel), spectrophotofluorimeter (Aminco-Bowman), spectrophotometers (Perkin Elmer 350 and Cary 219), instrumentation for spectrometry, electrochemical detectors for HPLC (Dionex and Esa), electrochemical instrumentation for polarography and anodic/stripping (Amel), computer (Digital VAX 11/750 with 2 Mbyte memory; connection with IBM 370/168 in batch mode).

Aquarium facilitiesTotal area: 100 m² Number of tanks: 50

Organisms maintained:

Demersal fish	Molluscs	Crustaceans
Algae		

Species maintained for experimental purposes:

<i>Pachigrapsus marmoratus</i>	<i>Palaemon elegans</i>	<i>Mullus barbatus</i>
<i>Mytilus edulis</i>	<i>Artemia salina</i>	<i>Dicentrarchus labrax</i>
<i>Eledone moschata</i>	<i>Phaeodactylum tricornutum</i>	<i>Dunaliella sp.</i>
<i>Ulva lactuca</i>	<i>Enteromorpha intestinalis</i>	

Institution code: 001087

Information received: 27/11/84

Centro Studi e Ricerche di Ingegneria Sanitaria
(Centre for Study and Research in Sanitary Engineering)

Executive officer: MENDIA Luigi: Director

Postal address

Centro Studi e Ricerche di Ingegneria Sanitaria
Via Claudio 21
NAPOLI 80121
ITALY

Telephone: 620344

Working languages
Italian

Nature of institute
Governmental Academic

Main fields of activities
Microbiology Pollution
Engineering Policy and planning

Areas of speciality
Coastal marine waters Pathogenic micro-organisms
Nutrients

Objectives and programmes

The Centre has been created in 1960 and operates in the context of the Faculty of Engineering, University of Naples. It performs the following work:

- Sewage treatment: Marine pollution control strategies.
- Microbiological monitoring of Bay of Naples: Urban storm drainage systems and sea overflows.
- Guidelines for sewage disposal into the sea.
- Waste water treatment and disposal for small communities.

Cooperative programme

- Waste water treatment and disposal for small communities (in co-operation with Cassa per il Mezzogiorno).
- Monitoring of quality control of Bay of Naples (in cooperation with Stazione Zoologica, Napoli)

Training programme

Continuing Education on Sanitary Engineering.

Institution structure

According to the new Italian law regulating the University's activities the Centre will have an interdepartmental structure operating in the context of the University of Naples and other research institutes.

Staff

17 Scientific staff 1 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Mendia, Luigi	Full professor	Sanitary engineering
D'Elia, Ettore	Associate professor	Water supply, waste disposal
D'Antonio, Giuseppe	Associate professor	Design water treatment plant
Pesce, Luigi	Assistant-professor	Water supply, waste disposal
Rotondo, Gianpaolo	Researcher	Sanitary engineering
Carrada, Giancarlo	Associate professor	Ecology
Morgantini, Marcello	Contract professor	Industrial hygiene
Rizzo, Giuseppe	Contract professor	Design water treatment plant
Rigillo Troncone, Maria	Associate professor	Water chemistry
Biggieri, Vittorio	Full professor	Hydraulic construction
Caniglia, Costanza	Associate professor	Territorial planning
Penta, Pasquale	Full professor	Hydrology

Premises/facilities

Building area: 300 m²

Laboratory area: 410 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 500

Number of periodical subscriptions: 8

Institution code:

001088

Information received: 24/10/83

**Centro di Radiochimica e Analisi per Attivazione del
Consiglio Nazionale delle Ricerche (CNR)**

**(Centre for Radiochemistry and Activation Analysis
(CNR))**

Executive officer: ORVINI Edoardo: Director

Postal address

Centro di Radiochimica e Analisi per Attivazione del
Consiglio Nazionale delle Ricerche (CNR)
Viale Taramelli, 12
PAVIA 27100
ITALY

Telephone: 0382-23775

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities
Biological sciences Ecological sciences
Oceanography Chemical sciences
Physical sciences

Areas of speciality
Algae Micro-organisms
Plankton Sea-bed nodules
Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose

The institution is operating from 1962 under CNR research grants with the University of Pavia. In 1968 an official contract between the University of Pavia and the National Research Council led to the actual name and structure. The purpose of the Centre is to carry out research in trace evaluation using neutron activation analysis mainly applied to environmental problems; to train graduates in nuclear techniques and to collaborate with other Italian and foreign institutions.

Research, monitoring and other activities in last three years

Continuation of current programme

Major current research and other activities

- Determination of trace elements in environmental matrices (e.g. Hg in fish).
- Study and certification of trace elements in fly ashes, coals, city waste incenerator, in cooperation with the European Community.
- Monitoring of heavy metals contamination in the Mediterranean Sea, in co-operation with IAEA and FAO.
- Heavy metals contamination in surface waters.

Future programmes

A development of the previous described research is foreseen.

Cooperative programme

- National Bureau of Standards, Washington DC, USA (trace certifications in new reference materials relevant to pollution studies).
- Commission of the European Community, Brussels, Belgium, Bureau Commun de References (heavy metals trace content in atmospheric dust).
- FAO - IAEA (heavy metals pollution in the Mediterranean Sea).

Training programme

- Graduate training in heavy metals determinations for environmental studies.

Institution structure

The Centre operates in the framework of the General and Inorganic Chemistry Institute of the University of Pavia and of the Laboratory for Applied Nuclear Energy (LENA).

Staff

10 Scientific staff 2 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Orvini, E.	Ph.D. (Chemistry)	Activation analysis
Crespi - Caramella, V.	Ph.D. (Chemistry)	Activation analysis
Gallorini, M.	Ph.D. (Chemistry)	Activation analysis
Speziali, M.	Ph.D. (Biology)	Metals metabolism

Premises/facilities

Facilities for:

Visiting scientists: 2

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 5000

Number of periodical subscriptions: 150

Equipment

Nuclear reactor (Triga type 250 Kw) pulsable, Ge(Li) detectors for gamma spectroscopy (ORTEC and Gamma Tec.), low energy photon detector, four multichannels analysers (LABEN and Nuclear Data), small computer 32 K bit (Laben 701), UV visible spectrophotometer, two scintillation detectors.

Institution code:

001089

Information received: 06/02/84

Centro Comune di Ricerca,
Commissione delle Comunità Europee,
Stabilimento di Ispra (Italia) (CCR/CCE)

(Commission of the European Communities,
Joint Research Centre
Ispra Establishment (Italy) (CEC/JRC))

Executive officer: DINKESPILER J.A.: Director General

Postal address

Centro Comune di Ricerca,
Commissione delle Comunità Europee,
Stabilimento di Ispra (Italia) (CCR/CCE)
ISPRA 21020, VARESE
ITALY

Telephone: 00332-780131/780374
Telex: EURATOM 380042/380058
Cable: EURATOM-ISPRA

Working languages

English, French, German, Italian

Nature of institute

Inter-governmental

Main fields of activities

Ecological sciences	Oceanography
Limnology	Physical sciences
Pollution	Technology transfer
Computers/information systems	Education, training or extension

Areas of speciality

Algae	Plankton
Benthos	Coastal marine waters
Petroleum hydrocarbons	Metals (pollutants)
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose

Established in 1960 in the framework of the Euratom Treaty (6 countries). Became Directorate General in 1968 when EEC Euratom, Coal and Steel authorities were put under the responsibility of a common commission. The scope of the ISPRA Establishment in the European Commission's environmental research action programme is protection of the environment and sea productivity. Research concerning pollution, water pollution studies from 1972 to 1976 was extended to marine pollution in the pluriannual research programmes 1977-1980.

Research, monitoring and other activities in last three years
Water quality determination by airborne or satellite remote sensing. Coastal transport of pollution, oil slick detection and measurement.

Major current research and other activities

- Coastal transport of pollution: use of CZCS-Nimbus G remotely sensed data for the development of a 3 D - hydrodynamics models in Northern Adriatic;
- Sea productivity: study of the correlation chlorophyll-a/surface temperature/fish catches along the Senegal coast. Chlorophyll and surface temperature are derived from satellite data.
- Detection of oil slicks: organization of large airborne multisensor exercises (Mediterranean and North Sea) for the measurement of simulated oil slick accidents.
- Characterization of oils: development of a new advanced method of laser-induced fluorescence for the identification of oil fingerprints.

Future programmes

Examination of the research on coastal transport of pollution, laser-induced fluorescence of oils and oil slicks detection.

Cooperative programme

All projects: co-operation with 30 national institutes of the EEC countries.

Training programme

Nuclear reactor safety, new energies, environment and resources, engineering science and technology, information science, health physics. It is possible to organize highly specialized courses in marine pollution and remote sensing techniques applied to oceanography.

Institution structure

Headquarters in Brussels - Four Establishments

At Ispra Establishment:

- 1 Establishment Directorate
 - 3 Executive Departments
 - 1 Directorate for Projects
 - 1 Directorate for General Site and Staff Management
- (laboratories in many disciplines, computer centre, image processing laboratory).

Staff

13 Scientific staff 13 Technical staff 0 Other staff

Professional scientific staff

Name	Degree	Speciality
Helms, H.J.	Director	Joint Research Center Programme
Bourdeau, P.	Director	Environmental Research Action Programme
Klersy, R.	Director	Projects
Frayssé, G.	Manager	Remote Sensing Project

Premises/facilities

Laboratory area: 750 m²

Information facilities

Monographs and serials titles:

- Euratom Reports
- Special Reports

Equipment

Fluorometer, radiometers, spectrophotometers, laser facilities, optical multichannel analyzer, detection systems and recorders, computers, image processing equipment.

Institution code: 001090 Information received: 23/11/84

Istituto per lo Sfruttamento Biologico delle Lagune (ISBL)

(Institute for the Biological Exploitation of Lagoons)

Executive officer: LUMARE Febo: Director**Postal address**

Istituto per lo Sfruttamento Biologico delle Lagune (ISBL)
 Via Fraccacreta 1
 LESINA 71010, FOGGIA 71100
 ITALY

Telephone: 0882-91166**Working languages**
Italian**Nature of institute**
Governmental**Main fields of activities**
Resources management

Aquaculture

Areas of speciality

Demersal fish
 Shrimps/prawns
 Algae
 Brackish waters

Cephalopods
 Other invertebrates
 Plankton

Objectives and programmes

History of institution, its mandate and purpose

With the Research Ministerial decree of 1 May 1968 the Institute was established to carry out fundamental and applied research on aquaculture.

Research, monitoring and other activities in last three years

Controlled reproduction and larval rearing of fish and shellfish;
 Phyto-zooplankton production; Sea-water chemistry; Thermal waste-water use in aquaculture.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

- brackishwater ecology.

Cooperative programme

- TROUW ITALIA Spa (shrimp feeding)
- Laboratorio Centrale di Idrobiologia-Ministry of Agriculture and Forestry (cuttlefish and shrimp rearing)
- ENEL CRTN-National Electricity Board (thermal aquaculture)
- Artemia Reference Center -University of Ghent (brine shrimp use in mariculture and its role in the saltcrusts)

Institution structure

The Institute is divided into following sections:

- Fishculture
- Shrimpculture
- Molluscs culture
- Culture of phyto- and zooplankton
- Thermal mariculture

Staff

6 Scientific staff

4 Technical staff

15 Other staff

Professional scientific staff

Name	Degree	Speciality
Breber, P.	Ph.D.	Clamculture
Lumare, F.	Ph.D.	Shrimpculture
Palmeiano, G.B.	Ph.D.	Shellfish culture.
		Shellfish feeding
Scarano, G.	Ph.D.	Ecotoxicology
Trotta, P.	Ph.D.	Primary production
Villani, P.	Ph.D.	Fish culture.
		Population dynamics

Premises/facilitiesLaboratory area: 500 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 1200

Number of periodical subscriptions: 50

Equipment

Autoclave, 4 thermostatic chambers, centrifuge, compressor, HP 85 computer system, Coulter counter, drier, gas chromatographs, geothermograph, freeze drier, 6 microscopes (different types), multipolarograph, ball mill, Lilliput press, pH meter, salinometer, oxygen meter, 2 spectrophotometer, titroprocessor metrom, polarograph, pellet-making machine, muffle, cryothermostat, aminoacid analyzer.

Aquarium facilities

Total area: 500 m² Number of tanks: 33

Organisms maintained:

Demersal fish Molluscs Crustaceans
Algae

Species maintained for experimental purposes:

<i>Penaeus japonicus</i>	<i>Artemia salina</i>	<i>Sepia officinalis</i>
<i>Venerupis decussata</i>	<i>Tapes semidecussatus</i>	<i>Dicentrarchus labrax</i>
<i>Anguilla anguilla</i>	<i>Skeletonema costatum</i>	<i>Chaetoceros calcitrans</i>
<i>Chaetoceros simplex</i>	<i>Thalassiosira</i> sp	<i>Melosira</i> sp
<i>Dunaliella tertiolecta</i>	<i>Dunaliella viridis</i>	<i>Dunaliella salina</i>
<i>Chlamidomonas</i> sp	<i>Chlorella saccaphyla</i>	<i>Chlorella marina</i>
<i>Nannochloris</i> sp	<i>Tetraselmis suecica</i>	<i>Isochrysis galbana</i>
<i>Monochrysis lutheri</i>	<i>Gracilaria confervoides</i>	

Research craft

Name: NONE
Length: 4 m.
Type: Outboard motor
Date of construction: 1980
Crew: 1
Scientists: 1

Name: NONE
Length: 4 m.
Type: Outboard motor
Date of construction: 1980
Crew: 1
Scientists: 1

Institution code: 001091 Information received: 22/11/83

Gruppo Ricerca Oceanologica - Genova (G.R.O.-G)
(Oceanological Research Group - Genoa (G.R.O.-G.))

Executive officer: DELLA CROCE, Norberto F.R.: Chairman

Postal address

Gruppo Ricerca Oceanologica - Genova (G.R.O.-G)
 c/o Via Balbi 5
 GENOVA 16126
 ITALY

Telephone: 010-280955

Telex: 28114 UNISTUGE I

Working languages

Italian, English, French, Spanish

Nature of institute

Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Oceanography
Chemical sciences	Physical sciences
Pollution	Meteorology/climatology
Geology/sedimentology	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Algae	Plankton
Benthos	Thermal
Tides/waves	Wind
Offshore marine waters	Coastal marine waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

Established in 1972 by the Hydrographic Institute of the Navy and the University of Genoa to promote the study of the sea on an interdisciplinary basis.

Research, monitoring and other activities in last three years

During the last three years the Group has worked in the Ligurian and Tyrrhenian seas to ascertain the seasonal trends of physical and chemical basic parameters and to evaluate pollution in coastal and offshore waters, and in marine sediments. In this framework, plankton and benthos studies have been carried out.

Major current research and other activities

Levels of metals in sediments, sea-water and marine organisms of harbours and of the continental shelf; physical oceanography of the coastal waters; effect of pollutants including petroleum hydrocarbons on marine organisms and ecosystems such as bays and harbours; texture of sediments, distribution and bionomy of benthic organisms on the continental shelf; seismic survey of the Ligurian continental shelf.

Future programmes

Baseline studies and monitoring of oil, petroleum hydrocarbons and heavy metals in marine waters, sediments and their organisms; coastal transport problems of pollutants; coastal water quality control and beach pollution; evaluation of primary and secondary productivity in the Ligurian waters.

Cooperative programme

Mexico Oceanic Sorting Centre, Universidad Nacional Autonoma de Mexico; Laboratoire de Géologie Dynamique, Université de Paris, Paris VI; Station de Géodynamique sous-marine, Université de Paris, Villefranche-sur-Mer (France); Institut de Géologie et Géographie Physique, Université de Liège (Belgique); Station Marine d'Endoume, Marseille (France); Italian Institute of Hydrobiology CNR, Pailanza (Italy).

Training programme

On-job training possible.

Institution structure

The Group is divided into the following four research units related to marine environment:

- Biology
- Chemistry
- Geology
- Physics

Staff

48 Scientific staff

5 Technical staff

2 Other staff

Professional scientific staff

Name	Degree	Speciality
Alberta, A.	Ing.	Computer programs
Albertelli, G.	Dr.	Marine benthos
Angelino, M.	Dr.	Zooplankton (Cladocera)
Baffi, F.	Ph.D.	Analytical chemistry (waters)
Baracco, C.	Dr.	Sediments (geology)
Capelli, R.	Ph.D.	Chemistry (organisms)
Cattaneo, M.R.	Dr.	Marine benthos
Cevasco, M.G.	Dr.	Zooplankton
Cicconi, G.	Ph.D.	Waves and instrumentation
Contardi, V.	Ph.D.	Chemistry (organisms)
Corradi, N.	Dr.	Geophysics
Cortemiglia, G.	Dr.	Coastal dynamics
Cosma, B.	Ph.D.	Chemistry (sediments)
Dadone, A.	Ph.D.	Analytical chemistry (waters)
Dagnino, I.	Ph.D.	Hydrodynamics and waves
Della Croce, N.	Ph.D.	Biological oceanography
Drago, M.	Ph.D.	Chemistry (sediments)
Drago, N.	Tecn.	Zoobenthos (systematics)
Fabiano, M.	Ph.D.	Biological oceanography
Fanucci, F.	Ph.D.	Marine geology
Farnetti, F.	C.C.	Hydrography
Felletti, A.	Dr.	Chemistry (sediments)
Ferro, R.	Ph.D.	Chemistry
Fierro, G.	Ph.D.	Marine geology
Firpo, M.	Dr.	Geophysics
Frache, R.	Ph.D.	Analytical chemistry (waters)
Franchi, A.	Dr.	Chemistry (organisms)
Frignocca, F.	T. Col.	Meteorology
Gabetta, M.	Dr.	Sediments (pollution)
Lusetti, C.	Dr.	Physical oceanography
Mancinelli, G.	Dr.	Physiology (molluscs)
Orunesu, M.	Ph.D.	Physiology (molluscs)
Palau, C.	Ph.D.	Geophysics (heat budgets)
Palmero, S.	Dr.	Physiology (molluscs)
Pennacchio, D.	PTIT	Instrumentation
Pertica, M.	Dr.	Physiology (molluscs)
Piccazzo, M.	Dr.	Sediments (pollution)
Salcmi Picone, P.	Dr.	Zooplankton
Scala, C.	C.Icl.	Instrumentation
Scarponi, G.	Prof.	Analytical chemistry (waters)
Strocchino, C.	Prof.	Geophysics
Ronca, A.	C.V.	Hydrography
Traverso, M.	Dr.	Chemistry (sediments)
Tucci, S.	Dr.	Sediments (pollution)
Vlarenco, A.	Dr.	Physiology (molluscs)
Voci, A.	Dr.	Physiology (molluscs)
Zanicchi, G.	Ph.D.	Chemistry (organisms)
Zunini Sertorio, T.	Ph.D.	Biological oceanography

Premises/facilitiesLaboratory area: 400 m²**Information facilities**

Monographs and serials titles:

Monograph: Seminari internazionali sull'inquinamento marino, (1980) pp. 1-152

Equipment

Gas-chromatograph, atomic absorption spectrophotometer with electrothermic atomization, chromatographic columns, fraction collectors, peristaltic pumps, electrophoresis accessories, computer HP 85, digital voltmeter HP 2337 A with interface HP-IBVHN analyzer Carlo Erba, liophilizer FTS, liquid scintillation counter Packard tri-carb, spectrophotofluorimeter Perkin Elmer, photographic equipment for microscopy, camera lucida, thermostatic aquaria, salinometer digital Ph CG 81T Schott/Gerate, transmissometer T2, reversing thermometer, Niskin bottles (30-5 l), filtering equipment, hyponeustonic sampler, dredge Charcot, trawls Prince Albert, diving equipment, box-corer.

Aquarium facilities

Species maintained for experimental purposes:

Mytilus galloprovincialis

Institution code:

001092

Information received: 11/07/83

**Istituto di Biochimica,
Facoltà di Medicina Veterinaria,
Università di Bologna**

**(Institute of Biochemistry,
Faculty of Veterinary Medicine,
University of Bologna)**

Executive officer: VIVIANI Romano: Director

Postal address

Istituto di Biochimica,
Facoltà di Medicina Veterinaria,
Università di Bologna
8 Belmeloro
BOLOGNA 40126
ITALY

Telephone: 232486/221487

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Aquaculture	Chemical sciences
Pollution	Veterinary medicine

Areas of speciality

Demersal fish	Pelagic fish
Other invertebrates	Plankton
Offshore marine waters	Coastal marine waters
Brackish waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose
Date of foundation 1966. Since 1978 organizes the specialization school in Marine Biochemistry. In the field of biological oceanography: research on residues of pollutants in marine organisms and their metabolic aspects; biochemistry of lipids in marine organisms.

Research, monitoring and other activities in last three years

- Research on chlorinated hydrocarbons (DDT, PCB) and heavy metals residues in marine organisms of Italian seas.
- Investigation of the constituent sterols of *Venus gallina*.
- Anaerobic metabolism in molluscs
- Fish myosins

Major current research and other activities

- Metabolic aspects of chlorinated hydrocarbons in marine organisms of the Adriatic Sea and other Italian seas (G. Crisetti)
- Investigations on accumulation of heavy metals in different tissues of marine invertebrates and fishes (P. Cortesi, E. Carpena)

Future programmes

Continuation of current programme

Cooperative programme

- CNR (Consiglio Nazionale delle Ricerche): programme on pollution of the Italian seas
- Health Ministry
- Laboratorio Centrale di Idrobiologia di Roma: chemical marine pollution
- Ministero dell'Agricoltura e Foreste
- Ministero della Marina Mercantile

Training programme

- Scuola Biennale di Specializzazione in Biochimica Marina (D.P.R. 22/2/1974, 585). (2 years)
- Dottorato di ricerca in Biochimica (3 years)

Staff

9 Scientific staff 6 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Viviani, R.	Prof. ordinario	Biochemistry
Borgatti Mavruilis, A.R.	Prof. straord.	Biochemistry
Cortesi, P.	Prof. associato	Biochemistry
Crisetig, G.	Prof. associato	Biochemistry
Piretti, M.V.	Prof. associato	Biochemistry

Staff (Cont.)
 Name Degree Speciality

Carpene, E.	Ricercatore	Biochemistry
Cattani, O.	Ricercatore	Biochemistry
Serrazanetti, G.P.	Ricercatore	Biochemistry
Trigari, G.	Ricercatore	Biochemistry
Pogliarani, A.	Tecnico esecutivo	Biochemistry
Selli, A.	Funzionario tecnico	Biochemistry
Ventrella, V.	Funzionario tecnico	Biochemistry

Premises/facilities

Building area: 500 m² Laboratory area: 300 m²
 With facilities for:
 Visiting scientists: 1 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 1500
 Number of periodical subscriptions: 17

Equipment

3 gas chromatographs, 2 spectrophotometers (UV-V), centrifuge (SPINCO L50), centrifuge (Sorvall), ultraviolet analyser (ISCO Mod UA), 2 fraction collectors, autoclave, 3 analytical balances, atomic absorption spectrophotometer, 2 chambers with temperature regulation (+30C to 3C).

Aquarium facilities

Total area: 20 m² Number of tanks: 4

Organisms maintained:

Pelagic fish Molluscs Crustaceans

Species maintained for experimental purposes:

<i>Venus gallina</i>	<i>Scapharca inaequivalvis</i>	<i>Mytilus galloprovincialis</i>
<i>Paeneus japonicus</i>	<i>Paeneus kerathurus</i>	<i>Mugil spp.</i>
<i>Dicentrarchus labrax</i>	<i>Sparus aurata</i>	

Institution code: 001094

Information received: 09/03/84

(Institute of Geology and Paleontology,
University of Trieste)

Postal address

Telephone: 040-571015/53014

Nature of institute
Academic

Areas of speciality
Offshore marine waters
Brackish waters

Coastal marine waters

History of institution, its mandate and purpose

The Institute founded in 1962 performs research in the main fields of geology, in particular geological research on beach and sea bottom sediments.

Research, monitoring and other activities in last three years. During the last three years the sedimentology unit has carried out morphological and sedimentological research on the beaches of the Northern Adriatic Sea from Chioggia (Venice) to Trieste and marine geology cruises to study the sediments of the deep sea zones in the Southern Aegean Sea and the Cyprian sector of the Eastern Mediterranean Sea.

Major current research and other activities

- Study of the data and cores collected during the 1983 marine geology cruise to the west and south Cyprus.

Future programmes

- Research on sedimentological and morphological data of beaches in relation to the characteristics of wind, waves, currents for shore protection studies.
- the institute will continue research in marine geology with cruises in the Eastern Mediterranean Sea.

Cooperative programme

- Research on shore protection is carried out (with the support of the Italian MPI) in collaboration with many Italian institutions.
- The marine geology programme is carried out in collaboration with the University of Perpignan.

Training programme

Lecturing at the University on: general geology, sedimentology, micropaleontology, paleoecology, paleontology, geography, field geology, petroleum geology, stratigraphy, rock mechanics, etc.

Institution structure

The Institute is divided into various research units:

- Sedimentology
- Geology
- Marine Geology
- Chemistry of Sediments and Waters
- Geology of Karst
- Geomorphology

Staff

18 Scientific staff

3 Technical staff

3 Other staff

Professional scientific staff

Name	Degree	Speciality
Brambati, A.	Professor	Sedimentology, Director of research
Fauzutti, G.P.	Lecturer	Marine geotechnics
Lenardon, G.	Lecturer	Heavy minerals
Catani, g.	Lecturer	Sedimentology
Marocco, R.	Graduate	Sedimentology
Masoli, M.	Professor	Micropaleontology

Staff Name	Degree	Speciality	(Cont.)
Zucchi Stolfi, M.L.	Professor	Paleontology	
Pugliese, M.L.	Graduate	Micropaleontology	
Tunis, N.	Graduate	Sedimentology	
Venzo, G.A.	Professor	Applied geology	
Carulli, G.B.	Professor	Field geology	
Giorgetti, F.	Professor	Geophysics	
Vaia, F.	Professor	Geomorphology	
Cucchi, F.	Graduate	Field geology	
Largaiolli, T.	Professor	Applied geology	
Onofri, R.	Professor	Applied geology	
Stefanini, S.	Professor	Hydrogeology	
Ucigrati, P.	Professor	Stratigraphy	

Premises/facilities

Building area: 712 m² Laboratory area: 100 m²
 With facilities for:

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Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 5000
 Number of periodical subscriptions: 109

Equipment

2 grab samplers, piston corer (Kullenberg), current meter (Ekman and Merz), 2 hydrographic echosounders (Raytheon Surveyor), recording wave gauge (Bass Engineering), atomic absorption spectrophotometer (Unicam SP90), anemograph (Siap), autoset level (Kern), mirror stereoscope (Topcon), 2 theodolites (Zeiss), plastic pump for sea-water sampling, 3 analytical balances (Mettler), 12 water samplers (from 2 to 100 litres), Coulter counter, scanning electron microscope, 14 microscopes (for mineralogy and micropaleontology), Visopan, sedimentation balance for grain size analysis, 2 sieve shakers, Ro-tap, sieves, splitters, water-baths, balances etc.

Research craft

Name: BANNOCK
 Owner: CNR
 Length: 62 m.
 Type: Tug research vessel
 Date of construction: 1941
 Crew: 32
 Scientists: 16
 Laboratory space: 163 m²
 Special facilities:
 Normal equipment for all oceanographic research.

Institution code: 001095 Information received: 06/11/84

Istituto Superiore di Sanità (ISS, ISTISAN)

(Superior Institute of Health (ISS, ISTISAN))

Executive officer: POCCHIARI Francesco: Director General

Postal address

Istituto Superiore di Sanità (ISS, ISTISAN)
299, Viale Regina Elena
00161 ROMA
ITALY

Telephone: 06-4990

Telex: 610071 I (ISTISAN)

Cable: ISTISAN

Working languages

Italian

Nature of institute

Governmental

Main fields of activities

Biological sciences	Ecological sciences
Food science/technology	Chemical sciences
Physical sciences	Microbiology
Pollution	Engineering
Medicine	Veterinary medicine
Computers/information systems	Education, training or extension

Areas of speciality

Shrimps/prawns	Algae
Micro-organisms	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Nutrients	Radionuclides

Objectives and programmes

History of institution, its mandate and purpose

Established in 1934 as Institute of Public Health, took its present name in 1941. A new Act of 1973 has modified its tasks and its structure. The Istituto Superiore di Sanità (ISS) (comparable to a National Institute of Health) is the central scientific branch of the National Health Service. It is autonomous and has its own regulations. The Institute depends directly from the Minister of Health and collaborates with the local centers through the Regions and with the regions themselves, when requested, to provide advice and consultations within their scientific sphere. Its responsibility in health-related matters covers the following areas:

- Communicable and non-communicable diseases
- Food and animal feed
- Drugs and cosmetics
- Production and use of chemicals and energy sources
- Environmental hygiene
- Health education

The ISS activity consists basically of scientific research and technical development; some routine work (e.g. hygienic control of food and drugs) is also carried out. For most health related problems the ISS acts as an advisory body. The ISS has recently been given new duties, including the establishment of The National Inventory of Chemical Compounds, which will contain the chemical, physical and toxicological properties necessary to assess the risk of chemical compounds in the environment.

Research, monitoring and other activities in last three years

Hygienic conditions of beaches in a sample zone related to density of pathogens.

Major current research and other activities

Research on the toxicity of algae along the coast of the Emilia-Romagna region.

Future programmes

Evaluation of the existence of significant relationships between the hygienic conditions of coastal bathing waters and public health and well-being in order to determine risk levels related to bathing considering also the need of utilizing methodologies of simple application by local sanitary authorities.

Cooperative programme

Some studies and research have been developed jointly with other Italian institutions, in the framework of the European Communities, and of the World Health Organization.

Training programme

The Institute organizes regular courses (for professional, scientific and technical personnel of the regional health services) conferences, seminars, etc., on problems connected with public

Objectives and programmes (Cont.)
 health; gives fellowships to Italian and foreign research workers and technicians and hospitality to 350 research workers and/or technicians. No living accommodations. No fees charged.

Institution structure

The Institute presently consists of 21 laboratories (divided into ten scientific fields):

- Clinical Chemistry
 - Physics
 - Biomedical Engineering
 - Ultrastructure (scientific field-biotechnology)
 - Epidemiology and Biostatistics (scientific field-epidemiology)
 - General Toxicology; Applied Toxicology (Scientific field-toxicology)
 - Foods (scientific field-foods)
 - Environmental Health
 - Indoor Environmental Hygiene (scientific field-environment)
 - Pharmacological Chemistry; Pharmacology (scientific field-drugs)
 - Medical Bacteriology and Mycology
 - Parasitology
 - Virology (scientific field-communicable diseases)
 - Cellular Biology; Physiopathology (scientific field-biological models)
 - Haematology
 - Metabolism and Endocrine Biochemistry
 - Immunology (scientific field-pathology of host factor systems)
 - Veterinary Medicine (scientific field-veterinary sciences)
- 22 professionals are involved in the water pollution monitoring and research activities. There are also 7 technical and 2 general services.

Staff

270 Scientific staff	750 Technical staff	251 Other staff
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Premises/facilities

Building area: 54000 m ²	Laboratory area: 21000 m ²
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Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 130000

Number of periodical subscriptions: 3200

Monographs and serials titles:

- Annali dell'Istituto Superiore di Sanità (quarterly)
- Rapporti ISTISAN (irregular - about 50 per year)
- Rapporti ISS (irregular - about 20 per year)
- BEN (Bollettino Epidemiologico Nazionale, weekly with monthly supplements)
- Aggiornamento Bibliografico in Igiene del Lavoro (quarterly)

Aquarium facilities

Organisms maintained:

Other vertebrates

Micro-organisms

Other invertebrates

Algae

Institution code:

001097

Information received: 24/12/83

Istituto di Igiene, Università di Genova
(Institute of Hygiene of the University of Genoa)

Executive officer: PETRILLI Fernando Luigi: Director

Postal address

Istituto di Igiene, Università di Genova
 Via Pastore, 1
 16132 GENOVA
 ITALY

Telephone: 010-515013/515052

Working languages

Italian, French, English

Nature of institute

Academic

Main fields of activities

Biological sciences	Food science/technology
Microbiology	Medicine
Education, training or extension	

Areas of speciality

Coastal marine waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Radionuclides	

Objectives and programmes

History of institution, its mandate and purpose

The Institute of Hygiene is a governmental institution with the following mandates: a) teaching in various faculties (Medicine, Biological Sciences, Natural Sciences, Pharmacy, 'Magistero', Engineering, Architecture) and postgraduate courses; b) research in the area of Preventive Medicine and c) various organizational academic activities.

Research, monitoring and other activities in last three years

Research activities in the last three years have been carried out on the following subjects:

- Epidemiology and prevention of infectious diseases (e.g.: Viral hepatitis, Rubella, Influenza, Toxoplasmosis, Salmonellosis, Tetanus, Poliomyelitis etc.);
- Environmental Monitoring (e.g.: Viruses, Bacteria, Microelements, Pesticides, Air pollutants, Radioactivity etc.);
- Health effects of environmental pollutants (e.g.: Mutagenesis, Carcinogenesis, Metabolism etc.);
- Ultrastructural studies (Mainly viruses).

Major current research and other activities

Research activities on all above listed subjects are currently in progress. With reference to the aquatic environment, current studies include bacteriological and virological monitoring of water, detection of trihalomethanes in inland waters, genotoxicity studies on oil dispersants (in the framework of WHO/UNEP MED POL program), metabolism of carcinogens in marine organisms, formation of mutagenic and DNA-damaging nitrosoderivatives in fish, epidemiologic studies on relationships between bathing and various diseases, evaluation of radioactivity in fishes etc.

Future programmes

Continuation of current programme

Cooperative programme

- Cattedra di Chimica Propedeutica alla Biochimica, Facoltà di Medicina e Chirurgia dell'Università di Genova;
- Istituto di Chimica Biologica dell'Università di Genova;
- Istituto di Farmacologia, Facoltà di Medicina dell'Università di Genova;
- Istituto Scientifico di Medicina Interna (Cattedra di Gastroenterologia), Facoltà di Medicina e Chirurgia dell'Università di Genova;
- Istituto di Oncologia, Facoltà di Medicina e Chirurgia della Università di Genova;
- Istituto di Patologia Generale dell'Università di Genova;
- Istituto di Statistica e Biometria Medica dell'Università di Genova;
- Istituto di Fisica-Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali dell'Università di Genova;
- Istituto di Zoologia dell'Università di Genova;
- Istituto di Biologia Animale, Facoltà di Scienze Matematiche, Fisiche e Naturali dell'Università di Padova;
- Istituto di Clinica Medica II, Facoltà di Medicina e Chirurgia dell'Università di Pisa;
- Istituto di Fisiologia Clinica del CNR, Facoltà di Medicina e

Objectives and programmes

(Cont.)

Chirurgia dell'Università di Pisa:

- Institute for Cancer Research (Philadelphia, PA, USA);
- International Agency for Research on Cancer (Lyon, Francia);
- Istituto Superiore di Sanità, Roma, Italia;
- Ministero della Sanità, Roma, Italia;
- Consiglio Nazionale delle Ricerche (CNR), Roma, Italia);
- Istituto di Puericoltura, Facoltà di Medicina e Chirurgia della Università di Verona;
- Istituto di Igiene, Facoltà di Medicina e Chirurgia della Università di Padova;
- Istituto di Igiene, Facoltà di Medicina e Chirurgia della Università di Palermo;
- Istituto di Malattie Infettive dell'Università di Bari;
- Clinica delle Malattie Infettive, Facoltà di Medicina e Chirurgia dell'Università di Napoli;
- Istituto di Igiene, Facoltà di Medicina e Chirurgia dell'Università di Trieste;
- Istituto di Medicina Clinica, Facoltà di Medicina e Chirurgia dell'Università di Padova;
- Istituto di Virologia, Facoltà di Medicina e Chirurgia della Università di Milano;
- Clinica delle Malattie Infettive e Tropicali, Facoltà di Medicina e Chirurgia dell'Università di Roma;
- Clinica Medica I, Facoltà di Medicina e Chirurgia dell'Università di Padova;
- Clinica delle Malattie Infettive, II Facoltà di Medicina e Chirurgia dell'Università di Napoli;
- Istituto di Malattie Infettive, Facoltà di Medicina e Chirurgia

Training programme

- Scuola di Specializzazione in Igiene e Medicina Preventiva (4 year course for MD, with five different sub-specializations)
- Scuola di Specializzazione in Igiene (2 year course for graduates in biological disciplines)

Institution structure

The Institute is part of the Faculty of Medicine. Within the Institute there is a subdivision into departments: Microbiology, Virology, Electronmicroscopy, Physics and Chemistry applied to hygiene, environmental mutagenesis and carcinogenesis.

Staff

21 Scientific staff 5 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Petrili, F.L.	M.D. (Chief)	Hygiene
Crovari, P.	M.D. (Full Prof.)	Applied microbiology
Cuneo, P.	M.D. (Full Prof.)	Electronmicroscopy
Kanitz, S.	M.D. (Full Prof.)	Environmental monitoring
De Flora, S.	M.D. (Full Prof.)	Mutagenesis, Carcinogenesis
Vannucci, A.	M.D. (Full Prof.)	Epidemiology
Radolati, G.	M.D. (Full Prof.)	Education, Carcinogenesis
Coppola, R.	M.D. (Assoc. Prof.)	Applied microbiology
Gasparini, R.	M.D. (Assoc. Prof.)	Applied microbiology
Perdelli, F.	Sc.D. (Assoc. Prof.)	Epidemiology
La Rocca, C.	F.D. (Assoc. Prof.)	Environmental monitoring
Rizzetto, R.	Sc.D. (Assoc. Prof.)	Applied microbiology
Durazzo, M.	Ch.D. (Assoc. Prof.)	Environmental monitoring
Gallelli, G.	Sc.D. (Assoc. Prof.)	Environmental radioactivity
Franco, J.	Sc.D. (Univ. Res.)	Environmental monitoring
Zanacchi, P.	Sc.D. (Univ. Res.)	Mutagenesis, Carcinogenesis
Bennicelli, C.	Sc.D.	Mutagenesis, Carcinogenesis
Bono, A.	Sc.D.	Applied microbiology
Patrone, V.	Sc.D.	Environmental monitoring
Scarvaglieri, R.	Sc.D.	Electronmicroscopy
Sigari, G.	Sc.D. (Assoc. Prof.)	Electronmicroscopy
Nante, N.	M.D.	Applied microbiology

Premises/facilities

Building area: 2000 m² Laboratory area: 1200 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 1200

Number of periodical subscriptions: 200

Information facilities

(Cont.)

Monographs and serials titles:

- Giornale di Igiene e Medicina Preventiva (periodic journal)

Equipment

Electronmicroscope, light and UV spectrophotometers, atomic absorption spectrophotometer, high-speed centrifuges, gas chromatographs, gamma irradiator, freezers (-80C), electronic colony counters, etc.

Institution code:

001099

Information received: 01/11/84

Istituto Sperimentale Talassografico 'A.Cerruti'
C.N.R.

(Oceanographic Experimental Institute 'A. CERRUTI',
National Research Council)

Executive officer: STRUSI Angelo: Director

Postal address

Istituto Sperimentale Talassografico 'A.Cerruti'
C.N.R.
3, Via Roma
TARANTO 74100
ITALY

Telephone: 099-25434

Working languages

Italian, English, French

Nature of institute

Governmental

Main fields of activities

Biological sciences
Marine fisheries
Oceanography
Pollution

Ecological sciences
Aquaculture
Microbiology

Areas of speciality

Demersal fish
Other vertebrates
Algae
Coastal marine waters
Metals (pollutants)
Pathogenic micro-organisms

Pelagic fish
Other invertebrates
Benthos
Petroleum hydrocarbons
Halogenated hydrocarbons
Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The 'Laboratory of Marine Biology' in Taranto was founded on 8 June 1913 and set up during December 1914, with Professor Attilio Cerruti as Director. In 1954, the Institute became a state institution under the Ministry of Agriculture and Forestry, assuming the name of 'Oceanographic Experimental Institute'. The Institute's legally stated purpose is to 'carry out physical, chemical and biological research in the sea to contribute to a better knowledge of the problems concerning the development of fisheries having in view the economic and alimentary needs of the country'.

Research, monitoring and other activities in last three years

- Survey of hydrochemical data in Mar Piccolo and in Mar Grande in Taranto
- Biological research on benthos
- Study of the biocenosis in the Gulf of Taranto
- Studies on annual growth of *Mytilus galloprovincialis* Lam. in mussel beds in artificial cultivations
- Study and monitoring of industrial and domestic pollution (hydrocarbons, metals, pathogenic microorganisms)

Major current research and other activities

- Research on industrial and domestic wastes, occurrence of heavy metals in cultivated bivalves
- Studies on littoral fauna in the Gulf of Taranto, especially on some invertebrates (decapod crustaceans, ascidians, bryozoans, annelids)
- Fisheries research in the Gulf of Taranto
- Study on fouling communities

Future programmes

- Oceanographic research in the Gulf of Taranto, with a view to extending the knowledge of the hydrological characteristics of the sea
- Evaluation of fish-stocks in the Gulf of Taranto
- Biocenotic studies with other institutions

Cooperative programme

- Istituto di Zoologia ed Anatomia Comparata - Università degli Studi di Bari (Italy), (Reproduction of mussels)
- Centre Océanologique de Bretagne - C.N.E.X.O. - Brest, France (Study of sea-currents)

Training programme

- Graduation thesis for students of biology at the University of Bari

Institution structure

The Centre is divided into the following sections:

- Marine Biology and Ecology
- Fisheries
- Marine Pollution
- Physical and Chemical Oceanography

Staff

8 Scientific staff 10 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Strusi, Angelo	Grad.Org.Chem.	Director
Tursi, Angelo	Grad.Biol.Science	Benthic biology
Pastore, Michele	Grad.Biol.Science	Benthic biology
Cardellicchio, Nicola	Grad.Chemistry	Pollution chemistry
Cavallo, Rosanna	Grad.Biol.Science	Microbiologist
Cecere, Ester	Grad.Biol.Science	Benthic biology.
		Benthic fishery
Montanaro, Carmela	Grad.Biol.Science	Microbiologist.
		Benthic biology
Orlandini, Enrico	B.A.	Librarian

Premises/facilities

Building area: 900 m² Laboratory area: 360 m²
 With facilities for:
 Visiting scientists: 2 8

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 10966
 Number of periodical subscriptions: 600

Monographs and serials titles:

- OEBAIA (the scientific journal of the Institute, edited in English and French; published twice a year, available on an exchange basis or by subscription; circulation 1000 copies).

Aquarium facilities

Organisms maintained:
 Demersal fish Molluscs Crustaceans
 Other invertebrates

Species maintained for experimental purposes:

Mytilus galloprovincialis

Research craft

Name: R/V A.CERRUTI
 Length: 14 m.
 Type: Boat (263 hp)
 Date of construction: 1974
 Crew: 2
 Scientists: 10
 Laboratory space: 12 m²
 Special facilities:
 Fishing winch double barrel with 500 mt wire rope diameter 10 mm.
 A-frame for oceanographic works (capacity load 1500 kg).
 echosounder (3000 m). radar, Loran, radio, three trawl nets small
 size for fishing research, plankton landing nets, salinity and
 temperature probe, oxygen and temperature probe, various types of
 dredges.

Institution code: 001100 Information received: 07/02/84

**Laboratorio Centrale di Idrobiologia,
Ministero Agricoltura e Foreste (LCI)**

**(Central Laboratory of Hydrobiology,
Ministry of Agriculture and Forestry (CLH))**

Executive officer: PANELLA Sergio: Director

Postal address

Laboratorio Centrale di Idrobiologia,
Ministero Agricoltura e Foreste (LCI)
Via L. Roncinotto, 1
ROMA 00154
ITALY

Telephone: 06-572151/571390

Working languages

Italian, English, French

Nature of institute

Governmental

Main fields of activities

Biological sciences
Marine fisheries
Oceanography
Chemical sciences

Ecological sciences
Aquaculture
Limnology
Pollution

Areas of speciality

Demersal fish
Lobsters
Other invertebrates
Offshore marine waters
Brackish waters
Nutrients

Cephalopods
Shrimps/prawns
Benthos
Coastal marine waters
Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose

Founded in 1921 under the Ministry of Agriculture and Forestry for scientific research applied to fishery.

Research, monitoring and other activities in last three years

Coordination of the 'Project of scientific and technical research for the development of national aquaculture' financed by the Ministry of Agriculture. The 'Project' is subdivided in five sections: 1)mariculture; 2)shellfish aquaculture; 3)freshwater aquaculture; 4)ecology and fish production in aquatic environments; 5)shrimpculture. The CLH is engaged in the first section with the study of cephalopoda aquaculture, in the second section with the study of two saltmarshes in Sardinia and in the fourth section with the study of the natural beds of oysters in Marano-Grado lagoon.

- Interdisciplinary research on 'dumping' effects on offshore marine environments
- Environmental study of the Sabaudia lake
- Research on heavy metals accumulation in marine organisms
- Research on marine water pollution by heavy metals
- Research on coastal marine fishery

Major current research and other activities

Study of coastal lagoons ecology in order to improve the fish production.

- Aquaculture (fish nutrition)
- Heavy metals in the environment
- Eutrophication's effects on productivity

Future programmes

Same as in the last three years

Continuation of current programme

Cooperative programme

- University of Roma, Cagliari, Bologna, Messina, Trieste and Udine.
- Tecneco (SNAM projects - ENI)
- CNR - IRSA
- Zoological Station, Napoli

Institution structure

The CLH is divided in:

- Chemical laboratories
- Biological laboratories
- Computer section
- Library
- Administrative offices

Staff

7 Scientific staff

3 Technical staff

6 Other staff

Professional scientific staff

Name	Degree	Speciality
Panella, S.	Chemistry degree	Marine ecology (pollution), Marine ecology (aquaculture)
Magliocchetti Lombi, P.	Biology degree	Biology (brackish waters), Benthos (brackish waters)
Perdicaro, R.	Chemistry degree	Chemistry of brackish waters, Heavy metals in marine environment
Della Seta, G.	Biology degree	Marine fishery, Benthos
La Posta, A.	Biology degree	Marine fishery, Biology of crustaceans
Sequi, R.	Biology degree	Marine fishery, Biology of cephalopoda
Mariani, A.	Biology degree	Marine fishery, Aquaculture

Premises/facilitiesBuilding area: 800 m²Laboratory area: 200 m²

With facilities for:

Visiting scientists: 3

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 5000

Number of periodical subscriptions: 1800

Monographs and serials titles:

- Bollettino di pesca piscicoltura e idrobiologia. (First issue in 1924; published in Italian, English and French; half-yearly; latest bulletin published: No. 31, 1976; other bulletins are in press; the bulletins are available either on exchange or subscription)

Equipment

2 atomic absorption spectrophotometers (Perkin Elmer and Beckman) with graphite furnace (P. Elmer), automatic sampler (P. Elmer), recorder (P. Elmer), printer (P. Elmer), 2 visible and UV spectrophotometers (P. Elmer), autoanalyzer (Technicon), some microscopes (different types), carbon hydrogen and nitrogen analyzer (Carlo Erba), 2 computers (Hewlett-Packard), Coulter counter (Kontron), 2 centrifuges (various types), photographic equipment (Pentax), salinometer (Beckman), 3 multiparametric probes (different types automatic and manual).

Research craft

Name: NONE
Length: 7 m.
Type: Inboard 145 HP
Date of construction: 1983
Crew: 1
Scientists: 2

Name: NONE
Length: 7 m.
Type: Outboard 7.5 HP
Date of construction: 1981
Crew: 1
Scientists: 2

Institution code: 001101

Information received: 14/02/84

Laboratorio di Biologia Marina e Pesca di Fano
(Laboratoire de biologie marine et pêche de Fano)

Fonctionnaire exécutif: PICCINETTI Corrado: Directeur

Adresse postale

Laboratorio di Biologia Marina e Pesca di Fano
 Viale Adriatico 52
 61032 FANO, PESARO
 ITALY

Telephone: 0721-83689

Télégramme: BIOLOGIA MARINA, FANO, ITALIA

Langues de travail
 Italiano

Catégorie de l'institution
 Universitaire

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Aménagement des ressources
Aquaculture	Océanographie
Pollution	Education, formation ou vulgarisation

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Céphalopodes	Homards/langoustes
Grevettes	Autres invertébrés
Algues	Plancton
Benthos	Eaux marines côtières
Eléments nutritifs	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
 Le Laboratoire a été fondé en 1939 sous le nom de 'Osservatorio di Biologia Marina' de l'Université de Bologne à Fano. En 1966, le nom est devenu 'Laboratorio di Biologia Marina e Pesca'. Buts et objectifs: études et recherches de biologie appliquée à la pêche et des problèmes concernant la production de la mer. Collaboration scientifique avec d'autres pays, de la région méditerranéenne en particulier.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années
 Recherches sur les thonidés, anchois, sardines (évaluation des stocks); évaluation des ressources démersales de l'Adriatique; surveillance continue dans une station fixe côtière pour le dosage de la salinité, des sels nutritifs et campagne sur toute l'Adriatique: mariculture

Principales activités de recherche et autres activités en cours
 Recherches sur les problèmes d'évaluation des ressources, sur les oeufs et larves de poisson et sur les méduses, sur l'océanographie chimique et sur l'élevage des poissons en cage.

Les programmes futurs

Identique aux trois dernières années
 Continuation de programme existant

Programme de coopération

- Institut d'océanographie et pêche de Split (évaluation des ressources démersales de l'Adriatique; évaluation du stock des anchois et sardines de l'Adriatique)
- Institut de zoologie de l'Université de Trieste (évaluation du stock des anchois et sardines de l'Adriatique; recherches sur Pelagia noctiluca)

Structure de l'institution

Le Laboratoire de biologie marine et pêche appartient à l'Université de Bologne et est détaché à Fano, bien que l'administration, la bibliothèque, les cours restent à Bologne. Il existe une convention avec le 'Consorzio per il Laboratorio di Biologia Marina e Pesca di Fano' pour permettre une recherche liée aussi aux problèmes qui se posent dans la région. Le 'Consorzio' finance aussi la recherche et le fonctionnement du Laboratoire.

Personnel

10 Personnel scient. 4 Personnel technique 2 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Piccinetti, Corrado	Dipl. en sc. biol.	Biologie des peches

Personnel

(Cont.)

Piccinetti Manfrin, Gabriella	Dipl.en sc. natur.	Ichtyoplancton
Scaccini Cicatelli, Marta	Dipl.sc.nat.chim.	Océanographie chimique
Giovanardi, Otello	Dipl. en sc. biol.	Biologie pleuronectiformes
Casali, Patrizia	Dipl. en sc. biol.	Benthos
Principi, Fulvia	Dipl. en sc. biol.	Aquaculture
Tegaccia, Nadia	Dipl. en chimie	Océanographie chimique
Arneri, Enrico	Dipl. en sc. biol.	Evaluation ressources
Guescini, Anna	Dipl. en sc. biol.	Ichtyoplancton
Tegaccia, Tiziana	Dipl. en sc. biol.	Productivité primaire

Locaux/installations

Superficie construite: 600 m² Superficie des laboratoires: 350 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 1 D

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 500

Nombre d'abonnements périodiques: 150

Les titres des monographies et des séries:

'Note del Laboratorio di Biologia Marina e Pesca di Fano' (Serie)

Matériel

Equipement complet du Laboratoire d'océanographie chimique et des autres laboratoires pour les recherches en cours. sondes pour température, salinité, profondeur, oxygène, pH avec enregistreur, computer Apple IIe, laboratoire mobile sur camion.

Bâtiments de recherche

Nom: MAROTTA II

Longueur: 14 m.

Type: bois

Année de construction: 1981

Équipage: 2

Nom: GIANNETO

Longueur: 20 m.

Type: bois

Année de construction: 1951

Équipage: 5

Superficie des lab.: 12 m²

Le code de l'institution 001102

Information reçue: 30/10/84

**ESPI - Sezione di Ricerca per la Pesca ed i Prodotti
del Mare**

**(ESPI - Research Section for Fisheries and Marine
Resources)**

Executive officer: ARENA Pasquale: Director

Postal address

**ESPI - Sezione di Ricerca per la Pesca ed i Prodotti
del Mare**
Via Garibaldi, 136
MESSINA 98100, SICILY
ITALY

Telephone: 090-42031

Cable: ESPI RICERCA PESCA MESSINA

Working languages

Italian, French, English

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Resources management
Fishing technology	Aquaculture
Oceanography	Marketing/economics
Education, training or extension	

Areas of speciality

Demersal fish	Pelagic fish
Other vertebrates	Cephalopods
Shrimps/prawns	Other invertebrates
Algae	Plankton
Benthos	Offshore marine waters
Coastal marine waters	Brackish waters
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose
With the Sicilian regional decree of 3 June 1955, the Experimental Center for Fisheries and Sea Resources Industry was established, in order to carry out fundamental and applied research on marine living resources and education in marine sciences and technology in fisheries. With the regional law of March 8th, 1971 the above was absorbed by ESPI (Sicilian Agency for Industrial Promotion) which created the Research Section on Fisheries.

Research, monitoring and other activities in last three years
Research on Mediterranean tuna and tunalike fish biology, ecology, fisheries and attempts on massive artificial breeding. Bottom fisheries, biomasses and stock evaluations by trawling surveys in central southern Mediterranean. Research on other specific biological arguments (otoliths and feeding habits of fishes).

Major current research and other activities

Same as in the last three years

Future programmes

Research on Thunidae, Xiphidae and Istiophoridae distribution, biology and fisheries. Research on Tyrrhenian trawl fisheries.

Cooperative programme

- Central Laboratory of Hydrobiology in Rome (Trawling research)
- Institute of Fisheries Technology of CNR at Mazara del Vallo (Same as above)
- Marine Ecology Department of Messina University (Research on swordfish)
- Tokyo University of Fisheries (Scombroid artificial breeding: terminated in 1981)
- 'Pelagos' Research Cooperative Agency in Messina (Tuna and tuna-like fishes and fisheries: trawling surveys)

Staff

2 Scientific staff 0 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Arena, Pasquale	Dr. Natural Science	Scombroid ecology, Scombroid biology, Scombroid fisheries, Surface-bottom resources, Fisheries technology
Li Greci, Francesco	Dr. Biology	Fish otoliths, Stomach content, Scombroid biology, Scombroid physiology, Fish teratology

Premises/facilities

Building area: 450 m² Laboratory area: 300 m²
With facilities for:
Visiting scientists: 2

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 5400
Number of periodical subscriptions: 11

Equipment

4 reversing bottles with thermometers, current meter Ekman-Merz,
2 analytical balances, centrifuge Martin-Christ, 2 electrothermo-
meters with 120 m cable, 'In situ' inductive thermo-salinometer
Beckman with 50 m cable, laboratory inductive salinometer Brown +
Hamon, buckets and dredges, plankton nets, trawl-nets, spectro-
photometer Lange, pH-meter WTW (for field purposes), pH-meter
Jonosis (for laboratory purposes), 4 microscopes, 2 photographic
equipment (Zenza Bronica and Practika), microphotographic equip-
ment (Olympus), 2 refrigerator and freezers.

Research craft

Name: CENTRO PESCA 1
Owner: ESPI-Palermo
Length: 14 m.
Type: Multipurpose vessel
Date of construction: 1963
Crew: 3
Scientists: 2
Laboratory space: 6 m²
Special facilities:
Echosounder, scanning sonar, radar, Loran-C, generator 3.5 kW,
hydraulic winch for dredging, hydraulic winch for long-lines, VHF
radio equipment, automatic pilot, oceanographic instruments and
different fishing gears.

Institution code: 001103 Information received: 23/11/83

**Stazione Idrobiologica di Chioggia,
Dipartimento di Biologia, Università di Padova**

**(Hydrobiological Station Chioggia,
Department of Biology, University of Padua)**

Executive officer: LEVIS Angelo Gino: Director of the Department

Postal address

Stazione Idrobiologica di Chioggia,
Dipartimento di Biologia, Università di Padova
Via Canali, 3
P.O. Box 101
30015 CHIOGGIA, VENEZIA
ITALY

Telephone: 041-400051

Working languages
Italian, English

Nature of institute
Academic

Main fields of activities

Biological sciences	Ecological sciences
Oceanography	Chemical sciences
Pollution	

Areas of speciality

Plankton	Benthos
Brackish waters	Nutrients

Objectives and programmes

History of institution, its mandate and purpose
Founded as a division of the Faculty of Sciences in 1942 to perform applied and basic research in all aspects of marine research with emphasis on estuarine and coastal systems (especially Lagoon of Venice)

Research, monitoring and other activities in last three years

Major current research and other activities

Hydrographic characteristics of the Venetian Lagoon; systematics ecology of Tunicata; genetics of marine invertebrates.

Future programmes

Plankton: physiology.

Cooperative programme

Istituto di Biologia del Mare, CNR (Venezia)

Training programme

- University lecturing at the University of Padua
- Summer courses at the undergraduate level

Institution structure

The Station is divided in:

- Laboratory for Zoology
- Laboratory for Ecology
- Laboratory for Genetics
- Laboratory for Chemistry

Staff

5 Scientific staff	2 Technical staff	2 Other staff
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Professional scientific staff

Name	Degree	Speciality
Bressan, M.	Assoc. researcher	Plankton
Brunetti, R.	Assoc. professor	Ecology
Cervelli, M.	CNR researcher	Genetics
Fava, G.	CNR researcher	Genetics
Marin, M.	Assoc. researcher	Physiology

Premises/facilities

Building area: 244 m ²	Laboratory area: 132 m ²
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With facilities for:

Visiting scientists: 20

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 200

Number of periodical subscriptions: 40

Equipment

Standard equipment for chemistry laboratory, analytical balances, dissecting and compound microscopes, controlled environment room, equipment for starch electrophoresis, deep freezer.

Aquarium facilities

Total area: 20 m² Number of tanks: 15

Organisms maintained:

Other invertebrates Algae

Species maintained for experimental purposes:

Isochrysis galbana

Botryllus schlosseri

Perophora viridis

Molgula socialis

Diplosoma listerianum

Lissoclinum perforatum

Research craft

Name: NONE
Owner: Hidrob. Station
Length: 4 m.
Type: outboard motor
Date of construction: 1975
Crew: 1
Scientists: 3

Name: NONE
Owner: Hidrob. Station
Length: 4 m.
Type: outboard motor
Date of construction: 1960
Crew: 1
Scientists: 3

Institution code: 001105 Information received: 01/12/83

Stazione Zoologica di Napoli (Antonio Dohrn) (SZN)**(Naples Zoological Station 'Anton Dohrn')****Executive officer:** MIRALTO Antonio: Director**Postal address**

Stazione Zoologica di Napoli (Antonio Dohrn) (SZN)
 Aquarium - Villa Comunale
 NAPOLI 80121
 ITALY

Telephone: 406222**Cable:** AQUARIUM NAPOLI**Working languages**

Italian, English

Main fields of activities

Biological sciences	Ecological sciences
Aquaculture	Oceanography
Chemical sciences	Microbiology
Pollution	Geology/sedimentology
Education, training or extension	

Areas of speciality

Cephalopods	Lobsters
Shrimps/prawns	Other invertebrates
Algae	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	Pathogenic micro-organisms
Nutrients	

Objectives and programmes**History of institution, its mandate and purpose**

Founded in 1873 by Anton Dohrn and rapidly developed and enlarged, the Stazione Zoologica is one of the oldest, continuously operating, marine biological laboratories in the world maintaining activities from the various disciplines in marine biology and oceanology.

Research, monitoring and other activities in last three years

Benthic and plankton ecology: Biological control of shelf waters for the southern Tyrrhenian Sea. Pelagic ecosystem of the Gulf of Naples. Artificial reproduction and rearing of sea breams. Molecular mechanisms of gamete recognition and binding. Neurobiology of marine invertebrates and lower vertebrates. DNA methylation on early sea urchin embryogenesis. Active substances from spongia. Melanogenesis in cephalopods. Opioid peptides in marine organisms. Biological role of D-aspartic acid in cephalopods.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

Consiglio Nazionale delle Ricerche, Roma; Casa per il Mezzogiorno, Roma; Ministero della Pubblica Istruzione, Roma; University of Naples; Deutsche Forschungsgemeinschaft, Bonn; Royal Society, London; Japan Society for the Promotion of Science, Tokyo; Ministère de l'Education nationale, Bruxelles; Schweizerische Naturforschende Gesellschaft, Zurich; UNESCO, Paris.

Training programme

- Summer School on the History of the Life Sciences
- Post-graduate courses on various subjects of marine biology
- Graduate and post-graduate research
- Fellowships for research trainees

Institution structure

The Station's activity is divided into the following research laboratories:

- Benthic Ecology
- Biochemistry
- Biological Oceanography
- Cell Biology
- Marine Botany
- Neurobiology

Other:

- Library/Archives
- History and Philosophy of the Life Sciences
- Public Aquarium - Museum
- Technical facilities including: Electron microscopy, specimen collecting service, research aquaria, photography - optics, maintenance.

Staff

25 Scientific staff

32 Technical staff

19 Other staff

Professional scientific staff

Name	Degree	Speciality
Bentivegna, Flegra (Ms.)	Laurea Sci. Biol.	Ichthyology
Bonaduce, Gioacchino	Laurea Sci. Biol.	Benthic ostracods
Branno, Margherita (Ms.)	Laurea Sci. Biol.	Biochemistry(nuclear proteins)
Cariello, Lucio	Laurea Sci. Biol.	Biochemistry (active peptides)
Casazza, Gianna (Ms.)	Laurea Sci. Biol.	Developmental biology
Dale, Brian	Ph.D.	Developmental biology
D'Aniello, Antimo	Laurea Sci. Biol.	Biochemistry of amino acids
De Santis, Amedeo	Laurea Sci. Biol.	Neurophysiology
De Santis, Rosaria (Ms.)	Laurea Sci. Biol.	Developmental biology
Fiorito, Graziano	Laurea Sci. Biol.	Opioid peptides
Fresi, Eugenio	Laurea Sci. Biol.	Benthic ecology
Gambi, Maria Cristina (Ms.)	Laurea Sci. Biol.	Benthic ecology
Ianora, Adrianna (Ms.)	Laurea Sci. Biol.	Zooplankton
Marino, Donato	Laurea Sci. Biol.	Phytoplankton
Mazzella, Lucia (Ms.)	Laurea Sci. Biol.	Ecology of polychaets. Systematics of polychaets
Miralto, Antonio	Laurea Sci. Biol.	Opioid peptides
Modigh, Monica (Ms.)	Laurea Sci. Biol.	Phytoplankton
Muzii, Erminio	Laurea Sci. Biol.	Cytology
Nardi, Giovanna (Ms.)	Laurea Sci. Biol.	Biochemistry(natural products)
Palumbo, Anna (Ms.)	Laurea Sci. Biol.	Biochemistry(natural products)
Ribera D'Alcala, Maurizio	Laurea Sci. Biol.	Chemical oceanography
Scipione, Beatrice (Ms.)	Laurea Sci. Biol.	Zoobenthos
Scotto di Carlo, Bruno	Laurea Sci. Biol.	Zooplankton ecology
Tomas, Carmelo R.	Ph.D.	Phytoplankton ecology
Tosi, Luisa (Ms.)	Laurea Sci. Biol.	Biochemistry of DNA
Zanetti, Laura (Ms.)	Laurea Sci. Biol.	Biochemistry (active peptides)

Premises/facilities

Building area: 3000 m² Laboratory area: 7500 m²
 With facilities for:
 Visiting scientists: 100 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 80000
 Number of periodical subscriptions: 800

Monographs and serials titles:

- Pubblicazioni della Stazione Zoologica di Napoli - I. Marine Ecology (R.Riedl, Editor), published by P. Parcy, Berlin.
- Pubblicazioni della Stazione Zoologica - II. History and Philosophy of the Life Sciences (M.D.Grmek, Editor), published by L.S. Olschki, France.
- Fauna and Flora of the Gulf of Naples - Monograph 40: Opisthobranchia des Mittelmeeres; Nudibranchia und Saccoglossa, by L. Schmekel and A. Portmann, published by Springer Verlag, Berlin.
- Activity reports of the Stazione Zoologica di Napoli 1981, 1982, 1983.

Equipment

Two transmission electron microscopes, scanning electron microscope, climate controlled growth chambers, amino acids and peptides analyzer, Technicon Autoanalyzer II, various light - fluorescence and photo-microscopes, oceanographic sampling equipment (Niskin bottles-reversal thermometers-etc.), various nets for phyto- and zooplankton, underwater light measurement device, various oscilloscopes, micromanipulators, FM recorders, nuclear magnetic resonance spectrometer, ultracentrifuge, Cahn microbalances, pH meters, spectrophotometers.

Aquarium facilities

Total area: 150 m² Number of tanks: 140

Organisms maintained:

Demersal fish	Pelagic fish	Other vertebrates
Molluscs	Crustaceans	Other invertebrates
Algae	Micro-organisms	

Research craft

Name: R. DOHRN
 Length: 14 m.
 Type: Cabin cruiser HP-155
 Date of construction: 1960
 Crew: 3
 Scientists: 3
 Special facilities:
 Echosounder, hydraulic winch, oceanographic instruments, different
 fishing gears.

Name: F. RAFFAELE
 Length: 10 m.
 Type: Cabin cruiser HP-70
 Date of construction: 1955
 Crew: 3
 Scientists: 6
 Special facilities:
 Echosounder, hydraulic winch, oceanographic instruments, different
 fishing gear.

Name: S. LO BIANCO
 Length: 8 m.
 Type: Motor launch HP-11
 Date of construction: 1949
 Crew: 2
 Special facilities:
 Winch.

Name: SAN GENNARO
 Length: 5 m.
 Type: Motor boat HP-4.5
 Date of construction: 1959
 Crew: 1

Name: POSIDONIA
 Length: 5 m.
 Type: Outboard HP-11
 Date of construction: 1978

Name: ROWBOAT
 Length: 4 m.
 Crew: 1

Name: ROWBOAT
 Length: 4 m.
 Crew: 1

Name: LORAN
 Owner: Istituto Universitario Navale (Na)
 Length: 12 m.
 Type: C. cruiser 2 HP-250
 Date of construction: 1963
 Crew: 2
 Scientists: 18
 Laboratory space: 3 m²
 Special facilities:
 Echosounder, hydraulic winch, radar, Loran C, VHF, Log speedometer,
 meteo station, refrigerator, 3 Kw generator.

Institution code: 001106 Information received: 12/03/84

Stazione Marina KFA
c/o ENEA, Centro Studi Ambiente Marino (KFA)

(Marine Station KFA (KFA))

Executive officer: NUERNBERG Hans-Wolfgang: Director

Postal address

Stazione Marina KFA
 c/o ENEA, Centro Studi Ambiente Marino (KFA)
 P.O. Box 316
 19100 LA SPEZIA
 ITALY

Telephone: 0187-536200

Telex: 833 556 KFA D

Working languages

Italian, English, German

Nature of institute

Governmental

Main fields of activities

Oceanography
 Pollution
 Chemical sciences

Areas of speciality

Demersal fish	Pelagic fish
Cephalopods	Algae
Plankton	Coastal marine waters
Brackish waters	Inland (fresh) waters
Metals (pollutants)	

Objectives and programmes

History of institution, its mandate and purpose

The Marine Station was established to facilitate coastal and estuarine sampling, field measurements and well-timed analysis.

The Station was partly operated from time to time, partly

permanently by 1 scientist and 1 technician.

Research, monitoring and other activities in last three years

Research on heavy metals in water, sediment, air, rain, plankton, algae, fish cephalopods and human blood.

Major current research and other activities

Heavy metal distribution and speciation in estuarine water, rain- and sea water; mercury in air.

Cooperative programme

- ENEA, La Spezia (Heavy metals in marine and estuarine sediment)
- CNR, Pisa (Mercury in air and rainwater - deposition studies -, river, estuarine and sea water)

Institution structure

The Marine Station of KFA is operated by the Institute of Applied Physical Chemistry, Research Centre KFA Juelich. Since March 1983 the Marine Station is guest in the new ENEA-Institute (Centro Studi Ambiente Marino) in La Spezia.

Staff

3 Scientific staff 1 Technical staff 0 Other staff

Professional scientific staff

Name	Degree	Speciality
Bröder, Rainer	Dr.	Environmental trace metal chemistry
Gibelli, Enzo	Dr.	Environmental trace metal chemistry

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 1500

Number of periodical subscriptions: 50

Equipment

Atomic absorption spectrometer (Perkin-Elmer), polarograph (Princeton Applied Research), 2 analytical balances (Mettler), deep freezer (Engel), 2 automatic rain samplers (KFA), 2 lysimeters (KFA). Possibility to use further KFA equipment from Juelich and ENFA equipment in La Spezia.

Research craft

Name: THALASSIA II
Owner: KFA
Length: 4 m.
Type: boat
Date of construction: 1979
Crew: 1
Scientists: 1
Special facilities:

Salinometer, pH-meter, oxygen meter, sampling gear

Institution code: 001107

Information received: 30/11/83

**Istituto di Zoologia,
Università di Parma**

**(Institute of Zoology,
University of Parma)**

Executive officer: MAINARDI Danilo: Director

Postal address

Istituto di Zoologia,
Università di Parma
Via dell'Università, 12
PARMA 43100
ITALY

Telephone: 0521-36519/24390

Working languages

Italian, English

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Oceanography	Pollution
Geology/sedimentology)	Education, training or extension

Areas of speciality

Other invertebrates	Plankton
Brackish waters	Radionuclides

Objectives and programmes

History of institution, its mandate and purpose

The Institute was founded in 1854. Its mission and purpose are fundamental and applied research and teaching.

Research, monitoring and other activities in last three years

Taking into account only the field of marine environment and brackish water, the main research activities carried out in 1981, 1982 and 1983 were:

- Radioecological research in the Adriatic Sea
- Occurrence and distribution of plankton in some Italian Seas in relation to thermal pollution; systematics and ecology of Acantharia
- Biology of brackish water species

Major current research and other activities

- Distribution of gamma and alpha-emitters in water, organisms and sediments of some areas in the Adriatic Sea
- Plankton biomass and frequency of principal taxonomical groups
- Behaviour of catadromous species

Future programmes

Continuation of current programme

Cooperative programme

Dipartimento di Scienze Ambientali (Venezia), Laboratorio di Geologia Marina (Bologna), Istituto di Biologia del Mare (Venezia) and with other Italian Institutions engaged in Italian-Yugoslav program for the protection of the Adriatic Sea and with the Rudjer Boskovic Institute (Yugoslavia). With the CRTN-ENEL (Milano) and DCO-ENEL (Piacenza) for the study of the effects of thermal pollution on the marine and brackish environments. With the Woods Hole Oceanographic Institution, Massachusetts (USA) for the Acantharia (Protozoa) systematics.

Training programme

- Courses in: comparative anatomy, ethology, general biology, histology, marine biology, zoology, systematic zoology, radioactivity, vertebrate zoology (total 11 courses)
- Graduate training

Institution structure

The Institute is divided in the following research units:

- Ethology
- Biological oceanography and Marine biology
- Biosystematics
- Histology
- Embriology and Theratology
- Physiology and Bird orientation
- Radioecology
- Vertebrate census work

Staff

18 Scientific staff 3 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Massera Bottazzi, E.	Ph.D.	Plankton, Acantharia (syst.)
Triulzi, C.	Ph.D.	Radiochemistry, Radioecology
Tassi Pelati, L.	Ph.D.	Marine biology, Radioecology
Gandolfi, G.	Ph.D.	Ichthyology
Andreoli, G.	Ph.D.	Plankton
Alessio, G.	Ph.D.	Ichthyology
Torricelli, D.	Ph.D.	Ichthyology

Premises/facilities

Laboratory area: 850 m²
 With facilities for: S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 4000

Number of periodical subscriptions: 70

Equipment

Research microscopes with photographic attachment, inverted phase contrast microscope, micro research balance, deep freeze, centrifuges, ovens, muffle furnaces, Ge-Li detectors, Si detectors, multichannel analyzers for gamma and alpha spectrometry, low-background beta detectors, microcomputers.

Institution code:

001108

Information received: 22/05/84

Dipartimento di Biologia Animale e dell'Uomo,
Università di Roma (DIP.B.A.U.)

(Department of Animal and Human Biology,
University of Rome (DEP. A.H.B.))

Executive officer: TARAMELLI RIVOSECCHI Ester: Associate Professor

Postal address

Dipartimento di Biologia Animale e dell'Uomo,
Università di Roma (DIP.B.A.U.)
Viale dell'Università, 32
00161 ROMA
ITALY

Telephone: 4958254

Working languages

Italian, English, French

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Oceanography	Limnology
Education, training or extension	

Areas of speciality

Demersal fish	Shrimps/prawns
Other invertebrates	Algae
Benthos	Coastal marine waters
Brackish waters	Inland (fresh) waters

Objectives and programmes

History of institution, its mandate and purpose

The Department (ex Istituto di Zoologia 'Federico Raffaele') was founded in 1882 with the purpose to educate and study biological oceanography (zoology and ecology).

Research, monitoring and other activities in last three years

Occurrence and biology of benthic populations and wood-boring organisms.

Major current research and other activities

Variation in benthic populations under the influence of thermal pollution; ecology of *Posidonia* meadows; fish coastal population

Future programmes

Biological indicators; ecology of meadows

Cooperative programme

Ecology of *Posidonia* meadows (in collaboration with the Institute of Zoology of Genova and Institute of Zoology of Sassari)

Training programme

Courses in Biological Oceanography, Marine Biology, Hydrobiology, Zoology (for students in natural and biological sciences)

Institution structure

The Department is divided into the following laboratories:

- General Zoology (ecology, fauna including entomology)
- Experimental Morphology and Comparative Anatomy (differentiation and reproduction biology)
- Hydrobiology
- Biological Oceanography (fouling and wood-boring organisms of Civitavecchia harbour, benthic communities, fisheries)

Staff

31 Scientific staff 5 Technical staff 6 Other staff

Professional scientific staff

Name	Degree	Speciality
Taramelli Rivosecchi, E.	Ph.D.Prof.	Benthos
Chimenez Gusso, C.	Ph.D.Prof.	Benthos, fouling
Ardizzone, G.	Ph.D.	Zoobenthos (brackish waters), Fish population

Premises/facilities

Building area: 1000 m² Laboratory area: 1500 m²
With facilities for:
Visiting scientists: 2200

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 35000

Number of periodical subscriptions: 180

Equipment

Conventional equipment for benthos research

Aquarium facilitiesTotal area: 25 m² Number of tanks: 13

Organisms maintained:

Molluscs

Crustaceans

Other invertebrates

Algae

Research craft

Name:

NONE

Owner:

Department

Length:

5 m.

Type:

boat

Institution code:

001109

Information received: 12/11/84

Istituto per la Geologia Marina, C.N.R. (IGM)

(Institut pour la géologie marine, C.N.R.)

Fonctionnaire exécutif:FABBRI Augusto: Directeur**Adresse postale**

Istituto per la Geologia Marina, C.N.R. (IGM)
 Via Zamboni, 65
 40127 BOLOGNA
 ITALY

Telephone: 225444**Telex:** 511350 CNR - BO**Langues de travail**

Italien, anglais, français

Catégorie de l'institution

Gouvernementale

Principaux domaines d'activités

Océanographie

Géologie/sédimentologie

Pollution

Ressources minérales/pétrole

Domaines de spécialisation

Eaux marines côtières

Radionucléides

Eléments nutritifs

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

L'Institut a été créé en 1968 par le Conseil National de la recherche pour développer les études sur la géologie et les ressources minières des fonds de la mer Méditerranée et en particulier des mers italiennes.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Recherches sur les caractères géologiques et l'évolution des mers italiennes et de la mer Rouge; recherches sédimentologiques et géochimiques surtout en mer Adriatique; étude paléomagnétique du domaine méditerranéen central.

Principales activités de recherche et autres activités en cours

Identique aux trois dernières années

Les programmes futurs

Identique aux trois dernières années

Programme de coopération

- Laboratoire de géodynamique sous-marine, Villefranche-sur-Mer (Géologie des Mers Tyrrhénienne et Ionienne).
- Lamont-Doherty Geological Observatory, Palisades, N.Y. (Géologie et géophysique des mers italiennes et de la mer Rouge; rôle des sédiments dans les phénomènes de pollution).
- Région Emilia-Romagna (Eléments nutritifs; aménagement du plateau continental de la mer Adriatique septentrionale).

Structure de l'institution

L'activité de l'Institut est subdivisée en plusieurs groupes d'étude qui se forment selon les programmes de recherche. Les principaux secteurs d'activité sont:

- Géologie et géophysique
- Stratigraphie
- Sédimentologie
- Géochimie
- Géotechnique
- Paléomagnétisme

Personnel

20 Personnel scient.

16 Personnel technique

2 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Borsetti, A.M.	Docteur en géologie	Biostratigraphie
Colantoni, P.	Docteur en géologie	Géologie (plateau continental)
Fabbri, A.	Docteur en géologie	Sismostratigraphie
Fabbri, A.G.	Docteur en géologie	Géologie mathématique
Frascari, F.	Docteur en géologie	Pollution (rôle des sédiments)
Manzoni, M.	Docteur en géologie	Paléomagnétisme
Sartori, R.	Docteur en géologie	Sédimentologie des carbonates
Savelli, C.	Docteur en géologie	Âges absolus des roches

Locaux/installationsSuperficie construite: 2200 m² Superficie des laboratoires: 1500 m²

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 1200

Nombre d'abonnements périodiques: 130

Les titres des monographies et des séries:

- Pubblicazioni dell'I.G.M., vol. 9, Bologna 1980

- Pubblicazioni dell'I.G.M., vol. 10, Bologna 1981

- Pubblicazioni dell'I.G.M., vol. 11, Bologna 1983

Matériel

2 diffractomètres, 2 spectrophotomètres, spectromètre, pH mètre, ligne complète pour datation K/Ar, microscope électronique, sédimètre à photoextinction, sédigraphe, balance à sédimentation, 2 magnétomètres, bobine démagnétiseuse, démagnétiseur thermique, minicomputers, échosondeurs, différents équipements (à étincelle et à air comprimé) pour réflexion sismique, différents carottiers à gravité et à piston, etc.

Bâtiments de recherche

Nom: N/O BANNOCK

Propriétaire: C.N.R.

Longueur: 63 m.

Type: Bateau océanograph.

Année de construction: 1941

Equipage: 32

Personnel scientifique: 16

Superficie des lab.: 163 m²

Aménagements spéciaux:

Complètement équipé pour levés géologiques, géophysiques, biologiques, etc.

Nom: C/O MARSILI

Propriétaire: C.N.R.

Longueur: 55 m.

Type: Bateau océanograph.

Année de construction: 1944

Equipage: 31

Personnel scientifique: 16

Superficie des lab.: 95 m²

Aménagements spéciaux:

Complètement équipé pour levés géologiques, géophysiques, biologiques, etc.

Nom: M/B DAFNE

Propriétaire: Regione Emilia-Romagna

Longueur: 12 m.

Type: Chalutier

Année de construction: 1977

Equipage: 2

Personnel scientifique: 10

Superficie des lab.: 4 m²

Aménagements spéciaux:

Système automatique pour le prélèvement, l'analyse et l'élaboration des données en continu pour l'eau de mer.

Le code de l'institution 001110

Information reçue: 07/12/83

Centro Internazionale Mediterraneo Ambiente Meduse.
(Sezione del Lab. Biol. Mar.) (CIMAM-LBM)

(Centre international méditerranéen environnement
méduses,
(Section du lab. biol. mar.) (CIMEM-LBM))

Fonctionnaire exécutif: ROTTINI-SANDRINI Laura: Docente Universitario (Zoologia)

Adresse postale

Centro Internazionale Mediterraneo Ambiente Meduse,
(Sezione del Lab. Biol. Mar.) (CIMAM-LBM)
Strada Costiera, 336
AURISINA, TRIESTE 34100
ITALY

Telephone: 40-224400/224464

Langues de travail

Italien, français, allemand

Catégorie de l'institution

Gouvernementale Universitaire Privée(sans but luc)

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Océanographie
Chimie	Physique
Pollution	Médecine
Météorologie/climatologie	Ordinateurs/systèmes informatiques
Education, formation ou vulgarisation	

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Autres invertébrés	Plancton
Eaux marines du large	Eaux marines côtières
Éléments nutritifs	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Avec délibération du Conseil scientifique du Laboratorio de
biologie marine (Consortium Univer sité-Mairie-Province) à partir
du 21/2/84, le CIMAM est constitué comme section du Laboratorio
pour l'étude de recherche de base et l'application sur le problème
des essaimages des méduses dans la Méditerranée.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années

Etudes de réactivité des méduses à substances significatives et
corrélation avec l'environnement naturel.

Principales activités de recherche et autres activités en cours

Recherches sur les dommages causés à la pêche du fait de
l'essaimage des méduses, dommage au tourisme, et l'étude de la
toxicité du principe urticant.

Les programmes futurs

Identique aux trois dernières années

Continuation de programme existant

Programme de coopération

- Institut thalassographique CNR Trieste (Analyse météo-climatique et caractéristiques hydrologiques).
- Laboratorio de biologie marine et pêche, Fano, Université de Bologna (Monitoring méduses).
- Cooperative des pêcheurs S.Vito, Marano Lagunare (Dommages à la pêche).
- Laboratorio provincial de biologie marine, Bari (Monitoring méduses).

Programme de formation

OCEANEST, séminaire pratique pour étudiant en licence et licenciés de biologie marine et d'océanographie biologique.

Structure de l'institution

Le CIMAM s'articule comme suit:

- Institut de thalassographie, CNR de Trieste (Océanographie physique, pollution)
- Laboratorio de biologie marine (Elevage, aquarium)

Université de Trieste:

- Institut d'anatomie humaine (Histologie et pathologie)
- Clinique dermatologique (Dommages causés à l'homme)
- Institut de pharmacologie (Toxicologie)
- Institut de physiologie (Physiologie et comportement)
- Département de biologie (Biologie, développement, comportement, histologie- M.E. -, dommages causés à la pêche)

Personnel

7 Personnel scient. 1 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Avian, Massimo	Chercheur	Biologie de coelenterata
Catalano, Giulio	Chercheur CNR	Chimie et pollution
Della Loggia, Roberto	Ass.	Toxicologie
Rottini-Sandrini, Laura	Prof. ass.	Biologie de coelenterata
Scarpa, Carmelo	Méd.	Dermatologie
Stravisi, Franco	Inc. est.	Océanographie physique
Tubaro, Aurelia	Chercheur	Toxicologie

Locaux/installations

Superficie construite: 1120 m² Superficie des laboratoires: 600 m²
 Installations prévues pour:
 Des chercheurs de l'extérieur: 3 D

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 10000

Les titres des monographies et des séries:
 - Nova Thalassia

Matériel

Ordinateur Apple II Europlus 64, 4 microscopes de différents types,
 pH mètre, salinomètre, oxymètre, analyseur pour l'azote,
 lyophilisateur, 2 balances techniques, balance analytique,
 2 thermostats, centrifugeuse, 2 ultramicrotomes, 3 microtomes,
 équipement photographique, 2 équipements sous-marins avec
 compresseur.

Aquarium d'experimentation

Superficie totale: 6 m² Nombre de réservoirs: 6

Organismes entretenus:		
Poissons d'eau douce	Poissons pélagiques	Mollusques
Crustacés	Autres invertébrés	Algues

Les espèces entretenues à des fins expérimentales:

<i>Pelagia noctiluca</i>	<i>Discomedusa lobata</i>	<i>Rhizostoma pulmo</i>
<i>Cotylorhiza tuberculata</i>		

Bâtiments de recherche

Nom:	TAMARA
Propriétaire:	Buttazzoni Albano
Longueur:	7 m.
Type:	Bateau de pêche 80CV
Année de construction:	1979
Équipage:	2
Personnel scientifique:	1
Nom:	ANGELO
Propriétaire:	Troian Albino e Aldo
Longueur:	15 m.
Type:	Bateau de pêche
Année de construction:	1938
Équipage:	3
Personnel scientifique:	1
Nom:	SCOUT 480
Propriétaire:	Lab. biol. mar.
Longueur:	5 m.
Type:	Motocraft hydrog.
Année de construction:	1983
Équipage:	1
Personnel scientifique:	2
Aménagements spéciaux:	Sonar à un écho, sonar à plusieurs échos avec vidéo à couleurs, chambre froide.

Le code de l'institution 001111

Information reçue: 19/03/84

**Istituto per lo Studio della Dinamica delle Grandi
Masse, Stazione Oceanografica,
Consiglio Nazionale delle Ricerche**

**(Institute for the Study of Large Masses Dynamics,
Oceanographic Station, National Research Council)**

Executive officer: SANTANGELO Renato: Director

Postal address

**Istituto per lo Studio della Dinamica delle Grandi
Masse, Stazione Oceanografica,
Consiglio Nazionale delle Ricerche
Centro S. Teresa
S. TERENCE 19036, LA SPEZIA
ITALY**

Telephone: 0187-536301

Telex: 271268 CNRSP I

Working languages

Italian, English, French

Nature of institute

Governmental

Main fields of activities

Oceanography	Physical sciences
Offshore technology	Pollution

Areas of speciality

Offshore marine waters	Coastal marine waters
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Objectives and programmes

The Oceanographic Station is a separate section of the Istituto per lo Studio della Dinamica delle Grandi Masse di Venezia, even though it develops a completely self governing activity. It is composed of 15 technicians (5 researchers) mainly devoted to data acquisition analysis and interpretation of the physical properties of the marine environment, with particular regard to the coastal dynamic processes and the related boundary conditions. This includes the development of hydrodynamical and numerical models. During the last three years, it was mainly concerned with an experimental program approaching the general characteristics of the coastal circulation of the East Ligurian Sea (Mediterranean Sea). It also participated in the international program MEDALPEX with a series of oceanographic investigations in the Ligurian and Tyrrhenian Seas. Future programs are connected with the development of research carried out up to now and will be devoted to the study of the principal aspects of the Mediterranean Sea dynamics.

Cooperative programme

Environmental investigations along particularly polluted Italian coastal areas (in collaboration with Research Centre for Nuclear Energy, ENSA)
Participation in the POEM (Physical Oceanography of the Eastern Mediterranean Sea)

Institution structure

The Station is divided into a technical section (data acquisition and processing) and into a theoretical section (data analysis and interpretation).

Staff

5 Scientific staff	8 Technical staff	2 Other staff
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Professional scientific staff

Name	Degree	Speciality
Astralardi, Mario	B.Sc.	Physical oceanography
Gasparini, Gian Pietro	B.Sc.	Physical oceanography
Manzella, Giuscpe	B.Sc.	Physical oceanography
Meloni, Roberto	B.Sc.	Marine technology
Laudanna, Mario	B.Sc.	Coastal transport

Premises/facilities

Building area: 500 m ²	Laboratory area: 250 m ²
With facilities for:	
visiting scientists: 3	S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 400

Number of periodical subscriptions: 20

Equipment

Data Center (VAX 11/750), CTD (Neil Brown) with PD 11/23 data acquisition computer, 8 currentmeters (Aanderaa), 6 currentmeters (General Oceanics), acoustic currentmeter (Neil Brown), 3 acoustic releasers (EG + G), 3 water tide recorders (Aanderaa), positioning system (Motorola Mini Ranger III)

Institution code: 001114

Information received: 25/10/84

**Istituto per lo Studio della Dinamica delle Grandi
Masse del Consiglio Nazionale delle Ricerche**

**(Institute for the Study of the Dynamics of Large
Masses of the National Research Council)**

Executive officer: SANTANGELO Renato: Director

Postal address

**Istituto per lo Studio della Dinamica delle Grandi
Masse del Consiglio Nazionale delle Ricerche
1364 San Polo
30125 VENEZIA
ITALY**

Telephone: 041-705060/705696
Telex: 410095
Cable: SANPOLOLAB (VENICE)

Working languages

Italian, English, French

Nature of institute

Governmental

Main fields of activities

Resources management	Oceanography
Limnology	Pollution
Meteorology/climatology	Geology/sedimentology)

Areas of speciality

Algae	Plankton
Thermal	Tides/waves
Wind	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose
With the decree of CNR president (No.2170, 1 May 1969) a CNR laboratory was founded. The present institute was established with the CNR president decrees No.6241 of 7 September 1979 and No.6299 of 19 December 1979. Oceanographical geological research activities were directed towards studying the phenomenon of flooding in Venice.

Research, monitoring and other activities in last three years
Short and long term evolution of the morphology of landforms and subsoil (subsidence, hydrogeology of fresh and brackish waters, bottom sedimentation and erosion, evolution of the littorals and coastal erosion, geodetic levellings). Marine and lagoon dynamics (flood and tides, air-sea and sea bottom interactions, models, thermohaline currents, pollution, remote sensing, etc.). Transfer of methodologies and prototypes for environmental control and planning.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- ENEA-CNR (marine environment)
- Int. Programs: Italy-U.S.A.; Italy-Yugoslavia (Adriatic Sea)
- Local Authorities (Venice, Ravenna, Region of Emilia-Romagna, Region of Veneto)

Institution structure

The Institute is divided into the following groups:

- Physical Oceanography
- Geology
- Environmental Studies, Measurements and Instrumentation
- Oceanographic Station*
- Technical Organization

*Annex to institute:

Address: Stazione Oceanografica dell'ISDGM-CNR
c/o ENEA
Forte Santa Teresa Alta
19036 Pozzuolo di Lerici (SP)
Italy

Staff

24 Scientific staff

29 Technical staff

11 Other staff

Professional scientific staff

Name	Degree	Speciality
Alberotanza, Luigi	Laurea (geology)	Remote sensing. Oceanography
Astraldi, Mario	Laurea (geology)	Collection of oceanogr. data
Serandrei Barbero, Rossana	Laurea (geology)	Micropaleontology, Quaternary ecology
Battiston, Libero	Laurea (physics)	Lagoon physics
Bergamasco, Andrea	Laurea (physics)	Oceanographic modelling
Carbognin, Laura	Laurea (statistics)	Geostatistical analysis, Subsidence, littorals
Cavaleri, Luigi	M.Sc. (aeronautics)	Instruments, Modelling, Wind waves
Dallaporta, Franco	Laurea (physics)	Electrical instruments, Environmental instruments
Dazzi, Renzo	Laurea (hyd. eng.)	River modelling, Lagoon modelling
Favero, Vito	Laurea (geology)	Quaternary geology
Gasparini, Giampietro	Laurea (math.)	Oceanographic modelling
Giommoni, Aldo	Laurea (physics)	Lagoon physics
Laudanna, Mario	Laurea (acr. eng.)	Fluid dynamics
Manzella, Giuseppe	Laurea (physics)	Oceanographical modelling
Mazzoldi, Andrea	Laurea (elec. eng.)	Electrical instruments, Environmental instruments
Meloni, Roberto	Laurea (elec. eng.)	Oceanographic instruments, Oceanographic data
Mozzi, Giuseppe	Laurea (geology)	Subsidence, Hydrogeology
Pianetti, Franco	Laurea (geology)	Soil pollution
Malanotte Rizzoli, Paola	Ph.D. (oceanogr.)	Oceanographic modelling
Tomasin, Alberto	Laurea (physics)	Tides and storm surges
Vazzoler, Sergio	Laurea (elec. eng.)	Pollution, Lagoon management
Vincenzi, Sergio	Laurea (physics)	Lagoon physics
Barale, Vittorio	M.Sc.	Remote sensing

Premises/facilitiesBuilding area: 1729 m²

with facilities for:

Visiting scientists: 1 S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 9000

Number of periodical subscriptions: 65

Monographs and serials titles:

Technical Reports (occasionally, last TR 122)

Equipment

Electronic Laboratory Instruments:

Tecronics oscilloscope mod. R556, Schlumberger digital multimeter 4440, HP3450 A digital multimeter, Tecronics oscilloscope mod. 326, storage oscilloscope HP181/A, pulse generator HP1900/A, electronic counter HP5248 L, standard 18 stativ microscope, HP2115 calculator with 2754/B teletype and tape reader, high speed data punch, HP3480/3485 A digital voltmeter with a 20 channel scanner, 'Krohn-Hite' filter mod. 3340, 20 channel minilogger MB Metalabs.

Analogue and Digital Recorders:

2 Speidomax analogue recorders (Leeds and Northrop), 3 HP7100 B analogue recorders, 1 MDS keyed data magnetic recorder 1101/M, 2 HP5050 B digital recorders, Rikandenki analogue recorder model 1136135, 2 HP3489/A tape puncher, HP digital magnetic tape recorder, Kompensograph 111 table recorder, oscillatory recorder, type M02014, X-Y recorder HP7044/A, 7 to 9 channel controller, 800 BPI magnetic tape, 1600/360 Kennedy incremental recorder, HP7155/B portable chart reader.

Instruments for Measuring the Quality of Water:

Teclec mini-logger, Mark 111 probe (C/S/T/D/O.D/pH) with analogic reader, electrical tide gauge - OGS Consyst, InterOcean bathysonde mod. 513D (C/S/T/D/O.D/pH/Tur.), InterOcean data logger mod. 590, InterOcean readout mod. 514D 10 channel scanner, Beckman portable salinometer, 2 Swihgear MC 5 electronic portable salinometer, Quartz thermometer HP2801/A with oceanographic sonde HP28833/B.

Marine Level Sensors:

SIAP ED 5692 tide gauge (6), portable pneumatic pressure recorder N.I.O. 4808.

Current meters:

2 Aanderaa Model RMC 4 current meters, DNC3/NBA current meter with

Equipment

(Cont.)

analogic reader, 7 General Oceanics current meters mod. 6011T with cassette reader mod. 6000.
 Other Instruments:
 D 649 Type Mufax with VBS filter, PRT 5 radiometer, Variosens fluorimeter, Krupp echosounder, acquisition system and computer HP 3054 DL, Digital computer - VAX-11/780, CTD Neill-Brown, Elac Lazer 72 with 38 element transducers mud penetrator.

Research craft

Name: ACQUA ALTA
 Owner: ISDGM-CNR
 Type: Platform laboratory
 Date of construction: 1969
 Scientists: 4
 Laboratory space: 25 m²
 Special facilities:

The platform is a three floor structure which can comfortably house 4 people for short periods. Living quarters include bathroom, kitchen, sleeping facilities, air conditioning etc. The laboratory is equipped with sensors and basic instrumentations such as tide gauge, wavemeter, barograph, anemometer, thermometer etc. for continuous measurement of phenomena which effect the Venetian lagoon, technical tests can also be performed at sea. Two 11 kw generator sets deliver power necessary to all services while a set of battery assures the work in emergencies. The platform is widely equipped with safety devices and materials as VHF radio, liferaft, lifobelt, fire extinguishers, optical and acoustic signalling devices.

Name: RIVO ALTO
 Owner: ISDGM-CNR
 Length: 7 m.
 Type: Houseboat laboratory
 Date of construction: 1978
 Crew: 1
 Scientists: 3
 Special facilities:

The 'Rivo Alto' is used in carrying out environmental controls in the Lagoon of Venice. Its 1.85 m internal height comfortably houses personnel, scientific instruments and a small lab where the required maintenance, calibration, and check of instruments used in field operations can be made. Scientific instruments continually on board: CTD probe, direct read out current meter, automatic sampler, meteorological sensors, spectrophotometer, data acquisition system and computer HP 3054 DL.

Name: HENETUS
 Owner: ISDGM-CNR
 Length: 7 m.
 Type: Motor boat
 Date of construction: 1970
 Crew: 1
 Scientists: 8
 Special facilities:
 Radar, 1 VHF.

Name: LITUS
 Owner: ISDGM-CNR
 Length: 10 m.
 Type: Pilotboat
 Date of construction: 1982
 Crew: 3
 Scientists: 4
 Special facilities:

5 kw power supply; radar; 1 VHF; 3 convertible couches (6 berths or laboratory work table); also equipped with echosounder (Elac Laz 72 for bottom stratigraphy) and Loran C navigation system (used mainly as a transport vessel for the platform and to carry out coastal marine research).

Institution code: 001115

Information received: 13/11/84

**Cattedra di Programmazione e Organizzazione dei
Servizi Sanitari, Università degli Studi di Roma
'La Sapienza', Gruppo Interdisciplinare di Studi
Ambientali (G.I.S.A.)**

**(Planning and Organization of Public Health Service
Department, Faculty of Medicine, University of Rome
'La Sapienza', Interdisciplinary Group of Environmen-
tal Study (G.I.S.A.))**

Executive officer: DE RENZI, Giuseppe P.: Director

Postal address

Cattedra di Programmazione e Organizzazione dei
Servizi Sanitari, Università degli Studi di Roma
'La Sapienza', Gruppo Interdisciplinare di Studi
Ambientali (G.I.S.A.)
Viale Regina Elena, 336
ROMA 00161
ITALY

Telephone: 4952941

Working languages
Italiano, English

Nature of institute
Governmental Academic

Main fields of activities

Ecological sciences	Resources management
Food science/technology	Quality control (fishery products)
Offshore technology	Microbiology
Pollution	Engineering
Medicine	Meteorology/climatology
Mineral resources (incl. Oil)	Policy and planning
Computers/information systems	Education, training or extension

Areas of speciality

Marine mammals	Lobsters
Shrimps/prawns	Micro-organisms
Mineral oil	Other minerals
Sea bed nodules	Thermal
Tides/waves	Wind
Offshore marine waters	Coastal marine waters
Coral ecosystems	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	

Objectives and programmes

History of institution, its mandate and purpose
The Department is part of the University of Rome 'La Sapienza'.

Department, in 1982. Its purpose is to study the health impact of the environment with emphasis of degenerative disease.

Research, monitoring and other activities in last three years

Research of the toxicity, persistence, bio-accumulation and mutagenicity of hydrocarbons, detergents and some heavy metals in the sea (Tyrrhenian and Adriatic areas).

Major current research and other activities

Same as in the last three years

- medical hazards of oil and coal pollution (exploration and production).

Future programmes

Same as in the last three years

Continuation of current programme

Cooperative programme

- Institute of Ecology of the Private University of Urbino.
- Institute of Hygiene, Universities of Florence and Genova.
- Istituto Centrale per la Ricerca Scientifica e Tecnologia Applicata alla Pesca, Roma

Training programme

- Graduate courses for students of the last year of the Medicine School of the University of Rome and the Biology School of the University of Urbino.
- Post graduate level courses in Oncology and Occupational Safety and Health.

Institution structure

- Environmental Pollution
- Prevention
- Monitoring
- Liability and Compensation

Staff

11 Scientific staff 11 Technical staff 6 Other staff

Professional scientific staff

Name	Degree	Speciality
De Zorzi, Claudio	Prof. (Chem. D.)	Toxicology
Castelani, Riccardo	Prof. (Lawyer D.)	Organization
Castellari, Mario	Expert	Liability and compensation
Arata, Paolo	Biologist	
Orlando, Paolo	Professor	Hygiene
Perdelli, Fernanda	Professor	Statistics
Rallo, G.	M.D.	Public health
Allegro, A.	M.D.	Public health
Angioni, G.	M.D.	Public health
Marsella, L.	M.D.	Public health
Valdinucci, F.M.	M.D.	Public health

Premises/facilities

Building area: 3900 m² Laboratory area: 1000 m²
 With facilities for:
 Visiting scientists: 20

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 23000
 Number of periodical subscriptions: 145

Monographs and serials titles:

- Mutagenicity assays of oil dispersants and of hydrocarbons dispersants mixtures (3rd International Congress on Industrial Waste Water and Wastes, Stockholm, February 1980)
- 'First International Training Course in Controlling and Combating Pollution in Oil Exploration and Production' (Urbino 1981)
- Monitoraggio virologico e batteriologico dell'ambiente marino (Genova 1981)
- Genotoxicity of oil dispersants and interaction assays with hexavalent chromium (UNEP 1983)

Equipment

Gas-chromatographs P.H., atomic absorption spectrophotometer P.H., trace metals analyzer 3010ESA, pH meters, salinometer, freeze drying equipment, 5 microscopes (different types), 10 complete diving equipment with compressor, computer (manufacturer University of Rome), colorimeter, photographic equipment (Nikonos 4), oxygen meter, electric temperature tester, scanner air system, portable spectrophotometer etc.

Research craft

Name: FIORE
 Owner: Agreement with Coast Guard
 Length: 9 m.
 Crew: 11
 Scientists: 8
 Laboratory space: 20 m²
 Special facilities:
 Echosounder, radar, VHF radio equipment, oceanographic and laboratory instruments.

Name: RANDO
 Owner: Agreement with Coast Guard
 Length: 9 m.
 Crew: 11
 Scientists: 8
 Laboratory space: 20 m²
 Special facilities:
 Echosounder, radar VHF radio equipment, oceanographic and laboratory instruments.

Name: BIMBO 2
 Length: 7 m.
 Date of construction: 1983

Name: AQUAZEPP
 Length: 2 m.
 Type: submersible
 Date of construction: 1980
 Crew: 1
 Scientists: 1

Institution code: 001117 Information received: 26/10/84

**Istituto di Biofisica,
Consiglio Nazionale delle Ricerche (I.B.(C.N.R.))**

(Biophysics Institute,
Italian National Research Council (B.I.))

Executive officer: FELICOLI, Romano A.: Director

Postal address

Istituto di Biofisica,
Consiglio Nazionale delle Ricerche (I.B.(C.N.R.))
26, Via S. Lorenzo
PISA 56100
ITALY

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities
Ecological sciences Oceanography
Chemical sciences Physical sciences
Pollution Education, training or extension

Areas of speciality
Algae Micro-organisms
Plankton Offshore marine waters
Coastal marine waters Inland (fresh) waters
Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose
With the Ministerial decree of 26 January 1967, the Institute was established to carry out fundamental and applied research in Biophysics. In 1976 a group of 'Environmental Biophysics' was established to carry out research on biogeochemical cycles of heavy metals in the environment.

Research, monitoring and other activities in last three years
Research on heavy metals in sea water, atmosphere, sediments and phytoplankton.

Major current research and other activities
Same as in the last three years
- photobehaviour of aneural organisms, molecular spectroscopy, biochemistry.

Future programmes
Same as in the last three years
Continuation of current programme
Furthermore research will be carried out on interactions, both heavy metals/organic matter and heavy metals/organisms, in the aquatic and terrestrial environment.

Cooperative programme
- Center for Marine Research, Rudjer Boskovic Institute, Zagreb, (Yugoslavia)
- Applied Physical Chemistry Institute, Nuclear Research Center Jülich (Germany)
- Marine Biology Institute, University of Pisa (Italy)

Training programme
- Ph.D. Thesis
- Post-doctoral level courses

Institution structure

The Institute is divided into the following sections:
- Molecular and Cellular Biophysics
- Environmental Biophysics
- Molecular Spectroscopy
- Biocybernetics
- Bioelectronics

Staff
25 Scientific staff 15 Technical staff 5 Other staff

Professional scientific staff

Name	Degree	Speciality
Barghigiani, C.	Biol. Univ. Degree	Interaction heavy metals/organisms (marine env.)
Ferrara, R.	Phys. Univ. Degree	Mercury in the environment/air/ sea water/ rain water
Scritti, A.	Chem. Univ. Degree	Heavy metals(marine environ.), Chemical speciation

Staff Name	Degree	Speciality (Cont.)
Maserti, B.E.	Biology Degree	Distribution of mercury (food chain)
Morelli, E.	Biology Degree	Interaction heavy metals/ organic matter

Premises/facilities

Building area: 2000 m² Laboratory area: 1500 m²
 With facilities for:
 Visiting scientists: 15

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 12000
 Number of periodical subscriptions: 102

Monographs and serials titles:
 - Annual report, 1981 (Italian)
 - Annual report, 1982 (Italian)

Equipment

5 UV-VIS spectrophotometers, fluorimeter, 2 circular diagraphs, aminoacid-analyzer, ATP-meter, 2 polarographic analyzers, 2 mercury analyzers, 5 microscopes, 4 pH meters, salinometer, oxygen-meter, turbidimeter, 4 analytical balances, 5 centrifuges (various types), sterilizer, steril room, 4 minicomputers, 4 microcomputers, 3 cold rooms, thermostatic room, phosphorimeter, high performance liquid chromatography system (L.K.B.).

Aquarium facilities

Total area: 300 m² Number of tanks: 10

 Organisms maintained:
 Pelagic fish Molluscs Crustaceans
 Algae

Species maintained for experimental purposes:

Dunaliella salina *Phaeodactylum tricornutum* *Monochrysis lutherii*
Platymonas sp. *Porphyridium cruentum*

Research craft

Name: MARSILI
 Owner: Italian National Research Council
 Length: 55 m.
 Type: ship
 Date of construction: 1966
 Crew: 31
 Scientists: 16
 Laboratory space: 55 m²
 Special facilities:
 Echosounders, salinometers, computers, system to record the sea temperature down to 750 m, 7 current-meters depth 600 m, 6 current meters depth 6000 m, hydraulic winches, hydraulic telescopic cranes

Name: BANNOCK
 Owner: Italian National Research Council
 Length: 63 m.
 Type: ship
 Date of construction: 1963
 Crew: 32
 Scientists: 16
 Laboratory space: 163 m²
 Special facilities:
 Echosounders, salinometers, computers, system to record the sea temperature down to 750 m, 7 current meters depth 600 m, 6 current meters depth 6000 m, hydraulic winches, hydraulic telescopic cranes

Name: MINERVA
 Owner: SO.PRO.MAR S.p.A.
 Length: 59 m.
 Type: Ship
 Date of construction: 1956
 Crew: 14
 Scientists: 16
 Laboratory space: 90 m²
 Special facilities:
 Echosounders, 2 hydraulic cranes, hydrologic winch 700 kg x 1500 conductor wire, Dredging and carrying winch 7 metric tons.

Institution code: 001118 Information received: 01/11/84

**Dipartimento di Mutagenesi,
Istituto di Mutagenesi e Differenziamento del
C.N.R.**

(Mutagenesis Department,
Institute of Mutagenesis and Differentiation of
National Research Council (CNR))

Executive officer: BRONZETTI, Giorgio L.: Responsible for Department

Postal address

Dipartimento di Mutagenesi,
Istituto di Mutagenesi e Differenziamento del
C.N.R.
Via Svezia, 10
PISA 56100
ITALY

Telephone: 050-574161
Telex: 500241
Cable: MUTAGENESI-PISA

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Microbiology	Pollution
Medicine	Education, training or extension

Areas of speciality

Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	

Objectives and programmes

History of institution, its mandate and purpose
With the ministerial decree of 16 May 1968 the Centre was established to carry out fundamental and applied research on mutagenesis and cancerogenesis.
Research, monitoring and other activities in last three years
Research in chlorinated hydrocarbons (TCDD, DCE, TCE, VCM etc.).
Major current research and other activities
Studies on environmental pollutants and cell differentiation.
Future programmes
Studies on marine pollution to detect mutagenesis and cancerogenesis of contaminants.
Cooperative programme
- World Health Organization (WHO)
Training programme
- Studies to detect mutagenesis and cancerogenesis compounds in polluted marine waters
- Graduate courses for foreign and national university students
- Post-graduate level courses leading to Ph.D.

Institution structure

The centre is divided into the following sections:

- Genetic
- Biochemistry
- Marine Pollution
- Cell Differentiation
- Analytical Studies

Staff

9 Scientific staff 3 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Bronzetti, Giorgio	Ph.D.	Genetist
Bauer, Carlo	Professor	Biochemistry
Del Carratore, Renata	Ph.D.	Biology of <i>S. cerevisiae</i>
Cundari, Enrico	Ph.D.	Biology of yeast
Corsi, Claudio	Tech.	Short term tests
Nieri, Riccardo	Tech.	Short term tests

Premises/facilities

Building area: 1400 m ²	Laboratory area: 300 m ²
With facilities for:	
Visiting scientists: 5	S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 300

Number of periodical subscriptions: 12

Aquarium facilities

Species maintained for experimental purposes:

Saccharomyces cerevisiae *Schizosaccharomyces p.* *Salmonella t.**Mytilus galloprovincialis*

Institution code: 001119

Information received: 29/11/84

Osservatorio Geofisico dell'Università di Modena (O.G.)
(Geophysical Observatory, University of Modena)

Executive officer: SANTANGELO Renato: Director

Postal address

Osservatorio Geofisico dell'Università di Modena (O.G.)
 213/A, Via Campi, (Pzsa. Roma 22)
 MODENA 41100
 ITALY

Telephone: 059-370703/222239

Working languages
 Italiano, English

Nature of institute
 Governmental Academic

Main fields of activities
 Oceanography Limnology
 Pollution Meteorology/climatology
 Geology/sedimentology)

Areas of speciality
 Coastal marine waters Brackish waters
 Inland (fresh) waters Metals (pollutants)
 Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Institution was established in 1872 as Astronomical Observatory and afterwards transformed in Geophysical Observatory to carry out collection and elaboration of meteorological data.

Research, monitoring and other activities in last three years

Meteorological monitoring, cloud microphysics, vertical sounding of atmosphere, statistical models for time series of daily temperature, pressure and hydric precipitations. Automatic equipment in oceanography. Transfer in fresh and marine waters in Northern Italy. Mathematical model for ground water at a regional scale in the Po plain.

Major current research and other activities

Same as in the last three years

- surface temperature measurements by remote sensing, atmospheric
- radioactivity.

Future programmes

Same as in the last three years

- Continuation of current programme
- with extension to geodesy by satellites

Cooperative programme

- Dipartimento di Fisica - Università di Modena
- Istituto C.N.R. (Metodologie ambientali) Modena
- Istituto C.N.R. (Dinamica delle grandi masse) Venezia
- Laboratorio I.N.F.N. di Legnaro (Padova)

Training programme

Under-graduate and postgraduate courses in geophysics.

Staff

Professional scientific staff

Name	Degree	Speciality
Balestri, Lorenzo	L.Phys.(Researcher)	Remote sensing (meteorology)
Cecchi, Rodolfo	L.Phys.(Professor)	Metal transfer/PIXE analysis
Magnoni, Gaetano	L.Phys.(Professor)	Climatology (Pollution)
Menziari, Marilena	L.Phys.(Researcher)	Mathem. models (hydrology)
Morelli, Sandra	L.Phys.(Professor)	Statistical climatology
Pugnaghi, Sergio	L.Phys.(Researcher)	Remote sensing (satellites)
Rivasi, Maria Rosa	L.Phys.(Researcher)	Mathem. models (hydrology)
Santangelo, Renato	L.Phys.(Professor)	Oceanography, Climatology/Geodesy
Ghermandi, Grazia	L.Geol.(Researcher)	Metals transfer/PIXE analysis
Prodi, Franco	L.Phys.(Professor)	Meteorology

Premises/facilities

Building area: 1100 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 760

Number of periodical subscriptions: 26

Institution code:

001120

Information received: 30/10/84

Istituto di Scienze della Terra, Università di Catania

(Institute of Earth Science, University of Catania)

Executive officer: DI GERONIMO, Sebastiano I.: Director**Postal address**

Istituto di Scienze della Terra, Università di Catania
55, Corso Italia
CATANIA 95129
ITALY

Telephone: 095-381346/383730/381566**Working languages**

Italian, English, French

Nature of institute

Governmental Academic

Main fields of activities

Ecological sciences	Oceanography
Pollution	Geology/sedimentology)
Mineral resources (incl. Oil)	

Areas of speciality

Other invertebrates	Benthos
Other minerals	Offshore marine waters
Coastal marine waters	Brackish waters

Objectives and programmes**History of institution, its mandate and purpose**

Founded in 1981 by the union of former Institute of Geology,
Institute of Paleontology, Institute of Mineralogy and Institute of
Volcanology.

Research, monitoring and other activities in last three years

Research in structural geology, petrography, volcanology,
seismicity, stratigraphy, paleoecology, sedimentology, hydrology,
marine benthos and plancton of Southern Italy and Mediterranean Sea

Major current research and other activities

Same as in the last three years
- Biocoenotic mapping of continental shelf of Sicily;
- Relation between benthic community and pollution, sedimentation
and tectonic events;
- Coastal dynamic of Southern Italy sand-beaches.

Future programmes

Same as in the last three years
Continuation of current programme
- freshwater springs on the continental shelf of Sicily.

Cooperative programme

- Institute of General Biology, University of Catania (Heavy metals
as pollutants).
- Institute of Animal Biology, University of Catania (Marine
benthos).
- Institute of Botany, University of Catania (Studies of marine
benthos).

Training programme

- Graduate courses in geology for national university students.

Institution structure**The Institute is divided into following sections:**

- Paleontology and oceanology
- Geology and geophysics
- Mineralogy and petrography
- Volcanology

Staff

39 Scientific staff	8 Technical staff	7 Other staff
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Professional scientific staff

Name	Degree	Speciality
Di Geronimo, Sebastiano I.	Professor	Ecology of benthos, Paleoecology of benthos
Amore, Concetto	M.Sc.	Sedimentology
Giuffrida, Eugenio	Ph.D.	Sedimentology
Montanari, Loris	Professor	Geology
Romeo, Maria	M.Sc.	Foraminifera
Casale, Vera	Ph.D.	Foraminifera
Costa, Barbara	Ph.D.	Mollusca
Ferrara, Enzo	M.Sc.	Hydrogeology
Aureli, Aurelio	M.Sc.	Hydrogeology
Lentini, Fabio	Professor	Geology
Puglisi, Diego	M.Sc.	Sedimentary petrography

Premises/facilities

Building area: 3018 m² Laboratory area: 650 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 3500

Number of periodical subscriptions: 300

Equipment

2 Atomic absorption spectrophotometers (Varian AA/475; EE240 Mark2), 2 X RD (Siemens mod U13 Kristalloflex 4; Phillips PW-1730/10), X RF (Siemens F), 2 spectrophotometers (Zeiss ELKO 11 35571; UNICAM), OTS-Sonde (Meerestechnik), 3 echosounders (Krupp Atlas Deso 611; Rex FF 800; Rex FF 205 A), portable water analysis instrumentation for conductivity, pH meter (CG 810), determination cations and anions, underwater photographic equipment (Nikon), 25 microscopes (binoculars stereo Zeiss and Leitz), 4 analytical balances (Mettler), 2 complete diving equipments, 2 benthos dredgers, grab-sampler, computer.

Research craft

Name: LACHEA
 Owner: Istituto di Scienze della Terra
 Length: 17 m.
 Type: Fishing trawler
 Date of construction: 1969
 Crew: 2
 Scientists: 6
 Laboratory space: 6 m²
 Special facilities:

Echosounder, mechanic winch, radar, VHF radio equipment, oceanographic instruments and different gears

Name: None
 Owner: Istituto di Scienze della Terra
 Length: 4 m.
 Type: Boat
 Date of construction: 1981
 Crew: 1
 Scientists: 2
 Special facilities:
 Echosounder

Institution code: 001122

Information received: 09/07/83

**Sezione Mineralogica, Dipartimento Scienze Ambientali,
Facoltà Chimica Industriale, Università Venezia**

(Mineralogical Section,
Environmental Sciences Department,
Faculty of Industrial Chemistry, University of Venice)

Executive officer: HIRKE MERLIN Oplina: Director

Postal address

Sezione Mineralogica, Dipartimento Scienze Ambientali,
Facoltà Chimica Industriale, Università Venezia
2137, Calle Larga S. Marta
VENEZIA 30123
ITALY

Telephone: 041-27554

Telex: UNIV VE 1 410638

Working languages

Italian

Nature of institute

Governmental Academic

Main fields of activities

Ecological sciences	Oceanography
Limnology	Chemical sciences
Pollution	Geology/sedimentology)

Areas of speciality

Other minerals	Offshore marine waters
Coastal marine waters	Brackish waters
Metals (pollutants)	Halogenated hydrocarbons

Objectives and programmes

History of institution, its mandate and purpose

In 1973 the Mineralogical Section of Facoltà Chimica Industriale, Venice, Italy, was established to carry out fundamental and applied research on environmental sciences and courses in mineralogy and geochemistry.

Research, monitoring and other activities in last three years

Research on mineralogical, physical and geochemical properties of marine and lagoon sediments.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Istituto di Biologia del Mare, CNR - Venezia (Italy)
- Istituto di Zoologia Marina, CNR - Bologna (Italy)
- Istituto di Zoologia - Gruppo Radioecologia - University of Parma (Italy)
- Institut 'Rudjer Boskovic' - Zagreb (Yugoslavia)

Training programme

- Course in Mineralogy for Facoltà Chimica Industriale students.
- Course in Geochemistry for Facoltà Chimica Industriale students.

Staff

4 Scientific staff 2 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Hirke Merlin, Oplina	Professore	Mineralogy
Mencagazzo Vitturi, Laura	Professore	Geochemistry
Rampazzo, Giancarlo	Ricercatore	Geochemistry
Molinarioli, Emanuela	Borsista	Sedimentology

Premises/facilities

Building area: 250 m² Laboratory area: 180 m²
With facilities for:
visiting scientists: 1 S

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 900
Number of periodical subscriptions: 30

Equipment

Atomic absorption spectrophotometer, spectrophotometer (different types), gas-chromatograph, differential thermal analysis, specific surface area analyzer, autosieve, sedigraph, diffractometer, microscopes (different types), photographic equipment.

Research craft

Name:	Boston Whaler
Owner:	Dept. of Environmental Sciences
Length:	5 m.
Type:	Vessel
Date of construction:	1971
Crew:	1
Scientists:	3

Institution code:

001123

Information received: 04/07/83

**Dipartimento di Geofisica e Vulcanologia
dell'Università degli Studi di Napoli**

**(Department of Geophysics and Vulcanology of the
University of Naples)**

Executive officer: PALUMBO Antonino: Director. W.G. Meteorology and Oceanography

Postal address

Dipartimento di Geofisica e Vulcanologia
dell'Università degli Studi di Napoli
Largo S. Marcellino, 10
NAPOLI 80138
ITALY

Telephone: 081-204442

Working languages
Italian, English

Nature of institute
Governmental Academic

Main fields of activities
Marine fisheries Aquaculture
Oceanography Pollution
Meteorology/climatology Computers/information systems

Areas of speciality
Demersal fish Pelagic fish
Offshore marine waters Coastal marine waters
Brackish waters Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose
The Meteorological Observatory was founded in 1866 to provide
information for agricultural development.
Research, monitoring and other activities in last three years
Daily recording of meteorological parameters (winds, temperature,
rain, etc.).

Major current research and other activities
- Mean sea-level as a steady datum level for controlling earth's
crust movements (bradyseismic movements).
- Atmospheric pollution: mathematical models of diffusion;
numerical simulations, etc. (All referring to the atmosphere of
Naples).
- Contribution of the atmospheric pollution on sea pollution.
- Effects of urbanization on micro-climate.

Future programmes
Relations between meteorological and oceanographical parameters and
fishery production. Studies on deterioration of coastal lakes in
Campania and its effects on fishery production. Possibility of
increasing fishery production by current methods in aquaculture.

Cooperative programme
- C.N.R.-Istituto per le Applicazioni della Matematica (Napoli):
Electronic elaboration of data.
- World Meteorological Organization: Research on all kinds of
meteorological and atmospheric problems.
- C.N.R.-Istituto di Tecnologia della Pesca e del Pescato (Mazara
del Vallo): Studies on marine fisheries.

Training programme
- Courses in meteorology and oceanography for students of physics,
mathematics, natural, biological and geological sciences.
- Post-graduate level courses leading to Ph.D. for environmental
geology and geophysics.
- Specialization courses for physicians specializing in hygiene.

Institution structure

- Meteorological Observatory
- Working Center (for checking and elaborating current data,
findings, reports, etc.)
- Computer Center

Staff

6 Scientific staff 2 Technical staff 0 Other staff

Professional scientific staff

Name	Degree	Speciality
Palumbo, Antonino	Professor	Oceanography
Mazzarella, Adriano	Professor	Meteorology, Computer
Mezzacapo, Vincenzo	Doctor	Pollution

Staff		(Cont.)
Name	Degree	
Jannibelli, Michele	Doctor	Biology of fishery, Ichthyology
Cecere, Anna	Professor	Computer
Izzo, Nicola	Student	Meteorology

Premises/facilities

Building area: 1200 m² Laboratory area: 200 m²
 With facilities for:
 Visiting scientists: 2 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 90000
 Number of periodical subscriptions: 100

Monographs and serials titles:
 - Annuali dell'Osservatorio Vesuviano

Equipment

Equipment for meteorological observations, tide gauge station (mean sea-level recorder), levelling equipment, computer center (UNIVAC 1100/80), mini-computer (Sharp), stereo photographic equipment, 2 microscopes (different types), SEM electronic microscope, underwater photographic equipment, chemical stock for identification of larval, postlarval, juvenile and adult stages of Teleosteans, different fishing gears.

Research craft

Name: POLCIGNAC
 Owner: M. Carotenuto
 Length: 11 m.
 Type: Vessel HP-90
 Date of construction: 1968
 Crew: 2
 Scientists: 3
 Laboratory space: 5 m²
 Special facilities:
 Echosounder, compass, Motorola Ranger III (valuation of position), stream recorders (different types), pH meter, salinometer, electric thermometer, oxygen recorder, NIO and Nansen bottles, meteorological equipment, VHF radio equipment, electric winch, 2 underwater telecameras (different types).

Name: CORMORAN II
 Owner: Research Society
 Length: 25 m.
 Type: Tug-boat HP-270
 Date of construction: 1944
 Crew: 4
 Scientists: 4
 Laboratory space: 16 m²
 Special facilities:
 Echosounder, compass, Motorola Ranger III (valuation of position), stream recorders (different types), pH meter, salinometer, electric thermometer, oxygen recorder, NIO and Nansen bottles, meteorological equipment, VHF radio equipment, electric winch, 2 underwater telecameras (different types).

Institution code: 001124 Information received: 05/11/84

**Istituto di Zoologia
dell'Università degli Studi di Genova
(Institute of Zoology - Genoa University)**

Executive officer: SARA' Michele: Director

Postal address

Istituto di Zoologia
dell'Università degli Studi di Genova
5, Via Balbi
GENOVA 16126
ITALY

Telephone: 010-282587/204658

Working languages

Italian

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Resources management	Oceanography
Limnology	Pollution
Education, training or extension	

Areas of speciality

Other invertebrates	Benthos
Coastal marine waters	Inland (fresh) waters
Metals (pollutants)	Nutrients

Objectives and programmes

History of institution, its mandate and purpose
Academic education in zoological sciences and studies on several aspects of biological interest.
Research, monitoring and other activities in last three years
Research on rocky communities along Tyrrhenian Sea, evaluation of the conditions of some *Posidonia* meadows, studies of dark caves communities and artificial reefs, research on insect populations of some Italian streams. Physiology of aquatic vertebrates under pollution conditions and protozoological researches under laboratory conditions.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Stazione Zoologica di Napoli
- Università di Pisa
- Università di Sassari
- ENEA (Comitato Nazionale per la Ricerca e per lo Sviluppo dell'Energia Nucleare e delle Energie Alternative)
- CNR (Consiglio Nazionale delle Ricerche)
- Association Monegasque pour la Protection de la Nature, Monaco
- Università di Catania
- Università di Torino
- Istituto Centrale di Ricerca sulla Pesca, Roma
- Istituto di Idrobiologia, Pallanza

Training programme

- Graduate courses in zoology for foreign and national university students
- Post graduate courses in marine sciences

Institution structure

The Institute is divided into following sections:

- Marine Biology
- Inland Ecology
- Entomology
- Ornithology
- Ultrastructure Cell Research
- Animal Physiology
- Protozoology

Staff

20 Scientific staff 4 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Sara', Michele	Prof. Ord.	Sponges
Cherchi, Adelaide	Prof. Ord.	Reptiles

Staff

Franceschi, Tina	Prof. Ord.	Protozoology
Balletto, Emilio	Prof. Ass.	Entomology
Arillo, Attilio	Prof. Ass.	Physiology
Spanò, Silvio	Prof. Ass.	Birds
Gaino, Elda	Prof. Ass.	Ultrastructure cell research
Salamanna, Giovanni	Prof. Ass.	Entomology
Lattes, Aldo	Prof. Ass.	Dynamic of populations
Fava, Attilia	Prof. Inc.	Entomology
Chessa, Giovanna	Assistente	Protozoology
Troiano, Giorgio	Assistente	Caryology
Melodia, Federico	Ric. Conf.	Vertebrates
Corrado, Umberto	Ric. Conf.	Protozoology
Ramolino, Paola	Ric. Conf.	Protozoology
Pansini, Maurizio	Ric. Conf.	Sponges
Pronzato, Roberto	Ric. Conf.	Sponges
Mensi, Paola	Ric. Conf.	Physiology
Balduzzi, Andrea	Ric. Conf.	Bryozoa
Boero, Ferdinando	Ric. Conf.	Hydroids
Cattaneo, Riccardo	Ric. Conf.	Malacology

(Cont.)

Premises/facilities

Building area: 1148 m ²	Laboratory area: 400 m ²
With facilities for:	
Visiting scientists: 10	5

Information facilities

Library holdings:	
Number of books, journals, manuscripts, etc.: 30000	
Number of periodical subscriptions: 200	

Monographs and serials titles:

- Bollettino degli Istituti Biologici dell'Università, 1980; 1981; 1982.
- Atti del XIV Congresso della Società Italiana di Biologia Marina, 1982. - (all on exchange)

Equipment

Spectrophotometer, gas-chromatograph, auto-analyzer, ultra-centrifuge, time-lapse micro-cinematography, pH meters (4), mini-computer, photographic equipment, 20 microscopes for research, 5 complete diving equipments with compressor.

Aquarium facilities

Total area:	40 m ²	Number of tanks:	9
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Organisms maintained:

Crustaceans Other invertebrates

Species maintained for experimental purposes:*Paramecium sp.**Colpoda sp.**Clathrina clathrus***Research craft**

Name:	NONE
Owner:	CNR
Length:	5 m.
Type:	gozzo
Date of construction:	1958
Crew:	1
Scientists:	4
Name:	NONE
Owner:	CNR
Length:	3 m.
Type:	Rubber boat
Date of construction:	1974
Crew:	1
Scientists:	2

Institution code:

001125

Information received: 25/07/83

Istituto Talassografico di Trieste, C.N.R. (ITT)

(Talassographic Institute of Trieste,
(National Research Council))

Executive officer: BREGANT Davide: Director

Postal address

Istituto Talassografico di Trieste, C.N.R. (ITT)
2, Viale R. Gessi
TRIESTE 34123
ITALY

Telephone: 040-733681-4

Working languages

Italian

Nature of institute

Governmental

Main fields of activities

Oceanography

Meteorology/climatology

Areas of speciality

Thermal

Tides/waves

Wind

Offshore marine waters

Coastal marine waters

Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Institution dated back to 1841, as 'Maritime Observatory' of

Italian Thalassographic Committee (R.C.T.I.). From august 1977 till now known as Istituto Talassografico of the National Research Council (C.N.R.)

Its mandates are:

- Physical/chemical oceanography of the sea influenced by river inputs
- Dynamics and productivity of waters related to distribution of nutrients, organic matters, heavy metals and other pollutants
- Mareography and variations of sea level in connection with meteorological effects

Research, monitoring and other activities in last three years

Major current research and other activities

- a) Hydrology of Trieste Gulf
- b) Mareography and meteorology
- c) Solar radiation
- d) Nutrients distribution in Northern Adriatic Sea
- e) Carbon cycle in the sea

Future programmes

Future programme will continue as above in c and e.

Institution structure

The Centre is divided into following sections:

- Physical Oceanography
- Chemical Oceanography
- Library
- Administration

Staff

4 Scientific staff

4 Technical staff

4 Other staff

Professional scientific staff

Name	Degree	Speciality
Bregant, Davide	Dottore	Chemical oceanography
Catalano, Giulio	Dottore	Chemical oceanography
Ferrero, Salvatore	Dottore	Tides
Stravisi, Franco	Dottore	Physical oceanography, Meteorology

Premises/facilities

Laboratory area: 400 m²

With facilities for:

Visiting scientists: 1

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 9719

Number of periodical subscriptions: 47

Information facilities**(Cont.)****Monographs and serials titles:**

- Annuario 1979. Istituto Talassografico Trieste 1980. Pubblicazione No. 550
- Previsioni di marea per il 1981 (Pubblicazione No. 553. 1980)
- Previsioni di marea per il 1982
- Previsioni di marea per il 1983 (Nuova Thalassia. 1982)

Equipment

Water samplers (Ekman, Nansen, Niskin), reversing thermometers (Richter und Wiese, Negretti-Zambra), Rosetti multi-bottle array system (General Oceanic), Bathythermograph (Wallace Tierman), prediction tide machine Doodson-Lege, salinometer (Autolab), CT profiler (Martek), current meters, spectrophotometers (Zeiss, Beckman, Perkin-Elmer), flow analytical system (Technicon-Auto-analyzer), analytical balances (Sartorius, Mettler), pH meter (Orion), potentiograph (Metrohm), titroprocessor (Metrohm), polarograph (Metrohm), mineralogical microscope (Leitz), meteorological instruments (different types), tide gauge (Seibt Fuess, Busum Ott), underwater photometer, personal computer (H.P. 9821), minicomputer (Digital Minc 11)

Research craft

Name:	THALASSIA
Owner:	ITT
Length:	5 m.
Type:	Plastic boat
Date of construction:	1978
Crew:	1
Scientists:	1

Institution code:

001126

Information received: 19/07/83

**Dipartimento di Fisica,
Università degli Studi di Roma 'La Sapienza' (IFU)**

**(Physics Department,
Rome University (IFU))**

Executive officer: SALUSTI, Salustio E.: R 3 INFN

Postal address

Dipartimento di Fisica,
Università degli Studi di Roma 'La Sapienza' (IFU)
Piazza A. Moro, 2
ROMA 00185
ITALY

Telephone: 4976291

Telex: 613255

Working languages

Italian

Nature of institute

Academic

Main fields of activities

Oceanography	Physical sciences
Computers/information systems	Education, training or extension

Areas of speciality

Tides/waves	Offshore marine waters
Coastal marine waters	

Objectives and programmes

The Department's work is focused in theoretic and experimental nuclear physics, solid state physics and astrophysics. Research is also performed in geophysics and oceanography mainly concerned with theoretical studies and problems of the Mediterranean Sea. There is also a few research in geophysics and oceanography concerned with theoretical studies and problems of the Mediterranean Sea.

Cooperative programme

In oceanographic studies there are relations with:

- IFA (Mediterranean Sea)
- PSN (satellite data)

Training programme

- Course in geophysics
- Lessons in physical oceanography
- Thesis (laurea)

Staff

1 Scientific staff	0 Technical staff	0 Other staff
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Professional scientific staff

Name	Degree	Speciality
Salusti, Sallustio Ettore	R 3 INFN	Theoretical physics problems, Phenomena of Mediterranean Sea

Premises/facilities

Building area: 20 m²

Information facilities

Library holdings:
Number of periodical subscriptions: 12

Research craft

Name: BANNOCK
Owner: CNR

Institution code: 001127 **Information received:** 30/03/84

Osservatorio Meteorologico di Brera
(Meteorological Observatory of Brera)

Executive officer: SANTOMAURO, Guglielmo P.: Director

Postal address

Osservatorio Meteorologico di Brera
28 Via Brera
MILANO 20121
ITALY

Telephone: 02-8050439/8691413

Working languages
Italian, English

Nature of institute
Private (non-profit)

Main fields of activities
Meteorology/climatology

Areas of speciality
Petroleum hydrocarbons Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose

From 1763 to 1972 meteorological observations were performed by a branch of the Brera Astronomical Observatory. Since 1972, the Institution is autonomous, and its purposes spread mainly in the domains of the applied meteorology and micrometeorology.

Research, monitoring and other activities in last three years

Transport, diffusion and impact of atmospheric pollutants. Dynamic climatology of the Po Valley. Automotive lead dispersion into the environment. Meteorological station at the Observatory.

Major current research and other activities

The transport of heavy metals into the Mediterranean Sea (MEDPOL Programme-WMO). Climatological studies of extreme meteorological phenomena. Meteorological survey of particular areas.

Characterization of the 'Kinds of Weather' over (NW Italy) to determine preferential air mass trajectories.

Future programmes

Same as in the last three years

Continuation of current programme

Cooperative programme

- WMO and Italian Air Forces (MEDPOL Programme)
- ENEL - Italian Electrical Energy Service (Meteorological and climatological characterization of sites)
- NATO-CCMS (Diffusion of air pollutants)
- Piemonte NW Italy Regional Government (Characterization of local 'Kinds of Weather')
- Milan city administration (Meteorological survey of discharge areas)

Institution structure

The Institution has the following sections:

- Climatology
- Applied Meteorology and Micrometeorology
- Observations

Staff

5 Scientific staff 3 Technical staff 0 Other staff

Professional scientific staff

Name	Degree	Speciality
Borghi, Sergio	Ph.D. (Physics)	Physics of the atmosphere
Clerici, Giancarlo	Grad. (Physics)	Fluid dynamics
Giuliaci, Mario	Grad. (Physics)	Micrometeorology
Maestro, Vittorio	Grad. (Physics)	Atmospheric optics
Latini, Alberto	Grad. (Physics)	Remote sensing

Premises/facilities

Building area: 150 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 3000

Number of periodical subscriptions: 10

Information facilities**(Cont.)****Monographs and serials titles:**

- G. Clerici, L. Santomauro 'Fluid dynamic model for the transport of sulphur pollutants in the Po Valley'
- The Brera Meteorological Observatory's Bulletin (Yearly)

Equipment

Complete meteorological station.

Institution code:

001129

Information received: 02/03/84

**Istituto Guido Donegani S.p.A.,
Dipartimento Studi Ambientali, Napoli (I.G.D.)**

(G. Donegani Institute,
Department of Environmental Study, Naples (G.D.I.))

Executive officer: TOMANELLI Raffaello: Director

Postal address

Istituto Guido Donegani S.p.A.,
Dipartimento Studi Ambientali, Napoli (I.G.D.)
Via Nuova delle Brecce, 150
80147 NAPOLI-BARRA
ITALY

Telephone: 081-7523822
Telex: 310679
Cable: MONTEDIS NAPOLI

Working languages
Italian

Nature of institute
Private (commercial)

Main fields of activities

Biological sciences	Ecological sciences
Resources management	Quality control (fishery products)
Oceanography	Limnology
Chemical sciences	Physical sciences
Microbiology	Pollution
Geology/sedimentology)	Computers/information systems

Areas of speciality

Micro-organisms	Plankton
Benthos	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose

The Department was founded in 1978 to carry out fundamental and applied research in environmental sciences.

Research, monitoring and other activities in last three years

Research on chlorinated hydrocarbons (DDT, PCB's), PAH, heavy metal residues and nutrients in marine sediments. Study on ecological indicators in coastal areas polluted by heavy metals and chlorinated hydrocarbons.

Major current research and other activities

Same as in the last three years
- bio-geochemical characterization of Italian marine coasts.

Future programmes

Same as in the last three years
Continuation of current programme
- extended to the study of humic substances.

Cooperative programme

- Stazione Zoologica (Napoli)
- Istituto di Biochimica (Università di Napoli)
- Istituto di Chimica Agraria (Università di Napoli)

Institution structure

The Department is divided into following sections:

- Geochemistry and Sedimentology
- Biology and Microbiology
- Physical and Chemical Oceanography
- Marine Pollution

Staff

5 Scientific staff 5 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Ambrosano, Emo	Laurea	Sedimentology
Damiani, Vincenzo	Laurea	Geology
De Rosa, Salvatore	Laurea	Inorganic chemistry
De Simone, Renato	Laurea	Organic chemistry
Izzo, Giulio	Laurea	Biology

Premises/facilities

Building area: 6000 m² Laboratory area: 300 m²
 With facilities for:
 Visiting scientists: 3

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 1000
 Number of periodical subscriptions: 15

Equipment

Atomic absorption spectrophotometer (P.E.), 2 gas-chromatographs (G.E. and DAN), pH meter, oxygen meter, freeze drying equipment, 3 microscopes (different types), Kjeldhal, 2 complete diving equipment, deep freezer, 4 analytical balances, centrifuge, photographic equipment.

Aquarium facilities

Total area: 10 m² Number of tanks: 6

Organisms maintained:

Demersal fish	Molluscs	Crustaceans
Other invertebrates	Micro-organisms	

Species maintained for experimental purposes:

<i>Tapes decussata</i>	<i>Mytilus gallprovincialis</i>	<i>Ostrea edulis</i>
<i>Artemia salina</i>	<i>Mugil spp.</i>	<i>Desulphovibrio desulfurica</i>
<i>Holocintha papillosa</i>	<i>Phallusia mamillata</i>	

Research craft

Name: CALYPSO
 Owner: Mangari Michele di Crotone
 Length: 15 m.
 Type: Fishing trawler
 Date of construction: 1969
 Crew: 10
 Scientists: 6
 Laboratory space: 6 m²
 Special facilities:
 Echosounder, VHF radio equipment and different fishing gears.

Name: GIOVANNI E PATRIZIA
 Owner: Cormio Paolo di Molfetta
 Length: 27 m.
 Type: Fishing trawler
 Date of construction: 1968
 Crew: 12
 Scientists: 6
 Laboratory space: 10 m²
 Special facilities:
 Radar, echosounder, hydraulic winch, VHF radio equipment, oceanographic instruments.

Name: S. ARTURO
 Owner: Bianco Salvatore di Schiavonca
 Length: 19 m.
 Type: Fishing trawler
 Date of construction: 1979
 Crew: 4
 Scientists: 3
 Laboratory space: 20 m²
 Special facilities:
 Radar, echosounder, VHF radio equipment, hydraulic winch and different fishing gears.

Institution code: 001130 Information received: 12/12/83

Istituto Policattedra di Scienze Ambientali Marine (I.S.A.M.)**(Institute of Marine Environmental Sciences (I.S.A.M.))****Executive officer:** DELLA CROCE, Norberto F.R.: Director**Postal address**

Istituto Policattedra di Scienze Ambientali Marine (I.S.A.M.)
Via Balbi 5
GENOVA 16126
ITALY

Telephone: 010-280955**Telex:** 28114 UNISTUGE I**Working languages**

Italian, English, French, Spanish

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Oceanography
Limnology	Physical sciences
Pollution	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Other invertebrates
Algae	Plankton
Benthos	Thermal
Tides/waves	Wind
Offshore marine waters	Coastal marine waters
Inland (fresh) waters	Nutrients

Objectives and programmes**History of institution, its mandate and purpose**

The Institute was founded in November 1982.

Research, monitoring and other activities in last three years

The team of the new Institute collaborated in the program of the 'Gruppo Ricerca Oceanologica-Genova' (G.R.O.-G.) which during the last three years has worked in the Ligurian and Tyrrhenian Seas to ascertain the seasonal trends of physical and chemical basic parameters and to evaluate pollution in coastal and offshore waters and in marine sediments. In this framework plankton and benthos studies have been carried out.

Major current research and other activities

Research on particulate matter, plankton, benthos, waves, divergence phenomena.

Cooperative programme

- Institute of General Chemistry, University of Genoa (heavy metals as pollutants)
- Italian Institute of Hydrobiology, C.N.R., Pallanza (particulate matter)
- Station Marine d'Endoume, Marseille (marine benthos)

Training programme

- Graduate courses in plankton, physical and biological oceanography, hydrobiology
- Post-graduate training leading to Ph.D. in Marine Sciences

Institution structure

The Institute is divided into following sections:

- Marine Biology and Ecology
- Physical and Chemical Oceanography
- Biological Oceanography
- Planktonology
- Marine Station (Santa Margherita Ligure, Genova)

Staff

11 Scientific staff 3 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Della Croce, Norberto	Ph.D.	General oceanography
Albertelli, Giancarlo	Dr.	Marine benthos
Cattaneo, Maria	Dr.	Marine benthos
Fabiano, Mauro	Dr.	Biological oceanography
Carli, Annamaria	Ph.D.	Planktonology
Dagnino, Igrazio	Ph.D.	Physical oceanography
Picone, Paola	Dr.	Zooplankton
Zunini Sertorio, Tecla	Dr.	Biological oceanography

Staff Name	Degree	(Cont.) Speciality
Bruzzone, Carlo Lorenzo	Dr.	Plankton parasitology
Sciarrone, Vittorio	Dr.	Physical oceanography
Albert, Alberto	Dr. Ing.	Data processing

Premises/facilities

Building area: 1100 m² Laboratory area: 800 m²
 With facilities for:
 Visiting scientists: 5 8

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 3500
 Number of periodical subscriptions: 4

Monographs and serials titles:

- Technical Report 1982 (no.1), 1981 (no.4), 1980 (no.4)
- Monograph 'Seminari Internazionali sull'Inquinamento Marino' (1982) pp. 1-151
- Monograph 'Il mare e la pesca' (1982), pp.1-160

Equipment

Spectrophotometer (Varian 635), pH meter, salinometer, oxygen meter
 microscopes (Invertoscope D, Camera lucida, Glarex), complete
 diving equipment without compressor, analytical balance (Mettler
 H54R), photographic equipment (Zeiss), different gears for plankton
 and benthos sampling, reversing bottle and thermometers, waves
 recorder, solar radiometer, computer (H.P. 85), thermostatic stove.

Institution code: 001131 Information received: 11/07/83

**Istituto Centrale per la Ricerca Scientifica e
Tecnologica Applicata alla Pesca Marittima (ICRAP)**

(Central Institute for Scientific and Technological
Research Applied to Sea Fishing)

Executive officer: ARATA Paolo: Director

Postal address

Istituto Centrale per la Ricerca Scientifica e
Tecnologica Applicata alla Pesca Marittima (ICRAP)
P.le Di Porta Pia, 121
ROMA 00198
ITALY

Telephone: 06-862828/8448452

Working languages

Italian, English, Spanish, French

Nature of institute

Governmental

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Fishing technology	Food science/technology
Aquaculture	Pollution
Veterinary medicine	Marketing/economics
Computers/information systems	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Mineral oil	Offshore marine waters
Coastal marine waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Institute was established by the national law dated 17.2.1982
No. 41 items 8 and 9, with the following tasks:

- Evaluation of the entity and productivity of marine biological resources
- Characterization and testing of appropriate technical interventions which should protect, develop and improve the fishery resources (fishing and aquaculture)
- Study and control of marine pollution in relation to marine fishery and aquaculture
- Publication of scientific and technological results with general and applied interest by promoting national and international initiatives such as specialized courses, scholarships etc. A following law gave to the Institute further competences concerning the monitoring of marine waters and the establishment of marine parks.

Research, monitoring and other activities in last three years

The first programme will be the creation of a data bank at Mediterranean level, and electronic data processing center and establishment of scientific co-operation with similar institutions abroad.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Torre di Cerrano Laboratory (Laboratory of Marine Biology)

Training programme

- Marine Environmental Pollution (Societa Italiana Ecologia Costiera)
- Ministero della Marina Mercantile

Staff

31 Scientific staff 10 Technical staff 10 Other staff

Professional scientific staff

Name	Degree	Speciality
Arata, Paolo	Degree	Biology, Marine Pollution
Caloprisco, Alessandro	Degree	Jurisprudence
Cimmino, Claudio	Degree	Economy, Acquaculture

Premises/facilitiesLaboratory area: 600 m²**Information facilities**

Library holdings:

Number of periodical subscriptions: 25

Institution code: 001132

Information received: 09/02/84

**Consorzio per la Gestione del Laboratorio di Biologia
Marina (LBM)**

**(Consortium for the Management of the Marine Biology
Laboratory)**

Executive officer: BRESSAN Guido; Director

Postal address

**Consorzio per la Gestione del Laboratorio di Biologia
Marina (LBM)
336, Strada Costiera
TRIESTE 34010
ITALY**

Telephone: 40-224400/224464

Working languages

Italian, French, English

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Food science/technology
Quality control (fishery products)	Aquaculture
Pollution	Veterinary medicine
Policy and planning	Technology transfer
Computers/information systems	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Cephalopods	Shrimps/prawns
Algae	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	

Objectives and programmes

History of institution, its mandate and purpose

The purpose of the Consortium is to manage MBL in exercising and promoting scientific activity both at national and international levels, and in constituting a centre for pure and applied research.

Research, monitoring and other activities in last three years

- Research and morphogenetic studies of algal cultures, to establish form and time of development, intended both for increasing cellular differentiation in the sphere of the different productive cycles: determination of the marine fouling, as term of a comparison with other stations exclusively in salt water: study of the flora dynamics and submersed vegetation in the Gulf of Trieste.
- Studies on systematics and morphology of ichthyoid coastal species, particularly on genus *Blennius*.
- Research on the differentiation of the sea-urchin's fertilized eggs and biochemistry of the fertilization and embryonic development of the sea-urchin.
- Research on the zoo- and phytoplankton community in the Gulf of Trieste
- Research on the distribution and biological cycle of *Pelagia noctiluca*.
- Research on molluscs of the biocenosis of photophilic algae.
- Karyological research on some marine invertebrates.
- Research and comparison between recent and fossil trace of Crustacea Decapoda and Stomatopoda.
- Research on antifouling and anti-slime paints for the preparation of these paints. The specific selective biocidal activity of a paint is analysed on the basis of both biological and chemical components.
- Neurophysiological modification induced by pollutants on monosynaptic preparations of *Loligo vulgaris*.
- Toxicity tests on eggs, sperm and larvae of *Mytilus galloprovincialis* of the product PRODESLIME 140.
- Research on molecular aspects of genetic system of *Ensis minor*.
- Research on biology and fishing of *Ensis minor* in the Gulf of Trieste.
- Fish discarding quantitative assessment utilizable for aquaculture in the Friuli-Venezia Giulia Region.

Major current research and other activities

Same as in the last three years

Future programmes

Project Jelly-fish in Mediterranean Sea (UNEP-CIMAM).

Objectives and programmes**(Cont.)****Cooperative programme**

- Institute of Genetics, University of Salzburg, Austria
- Institute of Zoology, University of Salzburg, Austria
- Institute of Zoology, University of Salzburg and Vienna, Austria
- University of Trieste
- Italian Society for the International Organization, Roma
- Experimental Geophysical Observatory, Marine Laboratories, Trieste
- Thalassographic Institute, C.N.R., Trieste
- University of Udine
- Unità Sanitaria Locale No. 1, 'Triestina', Trieste.

Training programme

- Summer course in oceanology for national and foreign students in natural, biological and geological sciences of the University of Trieste and other Italian and foreign Universities.
- Marine biology courses for all Italian and foreign schools.
- Training program and cooperation with United World College of the Adriatic and with World Wildlife Fund - Marine Park of Miramare.
- Specialization courses (CIMAM) and courses for bailiff.

Staff

0 Scientific staff 1 Technical staff 4 Other staff

Premises/facilities

Building area: 1120 m² Laboratory area: 600 m²
 With facilities for:
 Visiting scientists: 3 5

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 10000
 Number of periodical subscriptions: 30

Monographs and serials titles:
 - Nova Thalassia

Equipment

Basins and aquarium of different sizes: boat with echosounder and VHF radio equipment; thermostatic cell - phytotrone, microscopes (different types), photographic equipment, room for skin-divers and diving equipment with compressor, spectrophotometer, pH meter, balances.

Aquarium facilities

Total area: 240 m²
 Organisms maintained:
 Demersal fish Pelagic fish Molluscs
 Crustaceans Algae

Research craft

Name: SCOUT 480
 Length: 5 m.
 Type: Motocraft Hydrog.
 Date of construction: 1983
 Name: TAMARA
 Owner: Buttazzoni Albano
 Length: 7 m.
 Type: Trawlboat 80 CV
 Date of construction: 1979
 Name: ANGELO
 Owner: Trojan Albino
 Length: 15 m.
 Type: Trawlboat 200 CV
 Date of construction: 1938

Institution code: 001133 Information received: 31/05/84

مركز علوم البحار
المجلس الوطني للبحوث العلمية

Marine Research Centre,
National Council for Scientific Research (MRC-NCSR)

Executive officer: KOUYOUMJIAN, Hrach H.: Director

Postal address

Marine Research Centre,
National Council for Scientific Research (MRC-NCSR)
P.O. Box 123
JOUNIEH
LEBANON

Telephone: 934763

Cable: CENERES-BEIRUT

Working languages

Arabic, English, French

Nature of institute

Governmental

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Microbiology
Pollution	Technology transfer
Education, training or extension	

Areas of speciality

Pelagic fish	Shrimps/prawns
Other invertebrates	Plankton
Benthos	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose

Founded in 1978 to promote better understanding of Lebanese coastal waters and resources. To initiate and co-ordinate marine activities in Lebanon.

Research, monitoring and other activities in last three years

Continuous monitoring of heavy metals and pesticides in local marine organisms. Water quality control.

Major current research and other activities

Primary and secondary productivity, fish parasitology, hydrography, biology of shrimps, study of benthic organisms, bottom sediments etc.

Future programmes

Aquaculture and fisheries development.

Cooperative programme

- MED POL Phase II, Activity I (Ecosystem modifications by pollution)

- MED POL Phase II, National monitoring programme

Training programme

- Some training could be supplied in microbiology and chemical analytical techniques. Training in planctonology.

- Guidance in aspects of marine science technology transfer to developing countries.

Institution structure

The Director of the Centre initiates and co-ordinates activities in marine sciences through the offices of the NCSR Secretariat.

Staff

10 Scientific staff 9 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Kouyoumjian, H.	Ph.D.	Environmental pollution
Lakkis, S.	Doct. Etat	Zooplankton
Mneimne, N.	Doct. Etat	Fishery sciences
Khairallah, N.	Ph.D.	Benthology
Fadlallah, Y.	Ph.D.	Invertebrates
Abboud, M.	Doct. 3 cycle	Phytoplankton
Hajenian, H.	Ph.D.	Microbiology
Nouayhed, M.	Ph.D.	Invertebrate physiology
Kibar, N.	Ph.D.	Theoretical oceanography
Haber, R.	M.Sc.	Meiofauna

Premises/facilities

Building area: 250 m² Laboratory area: 225 m²
With facilities for:
Visiting scientists: 3

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 500
Number of periodical subscriptions: 15

Equipment

Gas chromatographs, atomic absorption spectrophotometer coupled with graphite furnace, spectrofluorometer, spectrophotometers, analytical balances, microbiological equipment, lyophiliser, research microscopes with photomicrography attachment, temperature and light controlled chambers for experimentation, dark room, sampling equipment for classical hydrographic work including STD probe, self-recording current meters and decoding facilities, classical field equipment for benthology, Scuba diving gear.

Aquarium facilities

Species maintained for experimental purposes:

Dugesia spp.

Research craft

Name: SITA III
Owner: NCSR
Length: 12 m.
Type: vessel
Date of construction: 1965
Crew: 2
Scientists: 3
Laboratory space: 8 m²
Special facilities:
Equipment for basic field work and sampling.

Name: INFLATABLE
Length: 4 m.
Type: boat
Date of construction: 1980
Scientists: 3
Special facilities:
Available for shore work.

Institution code: 001142

Information received: 31/12/83

مركز البحوث البحرية

Marine Research Centre

Executive officer: EL-TAWIL, Mohamed Y.: Director

Postal address

Marine Research Centre
Bab El-Bahr
P.O. Box 315
TRIPOLI
LIBYA

Telephone: 45260

Cable: M.R.C. P.O. BOX 315

Working languages

Arabic, English

Nature of institute

Governmental

Main fields of activities

Biological sciences
Fishing technology
Oceanography
Pollution

Ecological sciences
Aquaculture
Chemical sciences

Areas of speciality

Demersal fish
Algae
Benthos
Petroleum hydrocarbons
Halogenated hydrocarbons

Shrimps/prawns
Plankton
Coastal marine waters
Metals (pollutants)

Objectives and programmes

History of institution, its mandate and purpose

The Marine Research Centre was established in 1969 as a small research unit and in 1972 it has been enlarged to cover most of basic marine sciences. The main purpose is to carry out applied research in the field of marine science especially fisheries along the Libyan coast.

Research, monitoring and other activities in last three years

Several research studies have been completed of which, oil pollution, tuna fisheries, coastal lagoons in Farwa, plankton distribution as well as ecological studies were carried out along the Libyan coast.

Major current research and other activities

Atlas of the Libyan fisheries, comparative electrophoretic observations along the Libyan coast, monitoring of oil pollution, detection of trace metals in the Mugil species collected from the Western Libyan waters and other's.

Future programmes

Continuation of current programme
- studies on the Gulf of Sirte.

Cooperative programme

- Marine Biological Research Institute in Tajoura which belongs to the University of AL-FATEH.

Training programme

- Upgrading course in marine science of the new graduates from AL-FATEH University.

Institution structure

The Marine Research Centre includes:

- Fisheries Laboratory
- Chemical Oceanography and Pollution Laboratory
- Plankton (phyto + zooplankton) Laboratory
- Physical Oceanography Laboratory

Staff

15 Scientific staff

5 Technical staff

25 Other staff

Professional scientific staff

Name	Degree	Speciality
El-Tawil, Mohamed Y.	Ph.D.	Fisheries (Biochemistry)
Mugahid, Ali Ramadan	B.Sc.	Fisheries (Classification)
Kasim, Ahmed Sanusi	B.Sc.	Fisheries (Biology)
Gashout, Salaheddin	Ph.D.	Marine biology (Benthos)
Ramadan, Zenuba (Miss)	B.Sc.	Marine chemistry
Taleb, Kherya Ben (Miss)	B.Sc.	Marine chemistry (Pollution)
Zurgani, Mohamed	B.Sc.	Plankton

Premises/facilities

Building area: 1500 m² Laboratory area: 1000 m²
 With facilities for:
 Visiting scientists: 5 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 2000
 Number of periodical subscriptions: 60

Monographs and serials titles:

- Bulletin of Marine Research Centre, Tripoli, Libya (English, once a year, at the present time on exchange, last issue Vol.4, 1983)

Equipment

UV spectrophotometer, flourometer, gas chromatograph, liquid scintillation equipment, two pH meters, 20 microscopes different sizes, 2 inverted microscopes, Coulter counter, auto analyser, 10 balances different types, centrifuge, 2 ovens, two salinometers (one digital), some photographic equipment, diving equipment, sea level recorders, wave recorders, other educational equipment, electrophoretic equipment.

Research craft

Name: EL-BAHETH
 Length: 27 m.
 Type: Research vessel
 Date of construction: 1966
 Crew: 12
 Scientists: 5
 Laboratory space: 20 m²
 Special facilities:
 Facilities for oceanography.

Name: EL-MOKTASHIF
 Length: 27 m.
 Type: Research vessel
 Date of construction: 1966
 Crew: 12
 Scientists: 5
 Laboratory space: 20 m²
 Special facilities:
 Facilities for fisheries.

Institution code: 001150

Information received: 29/02/84

مركز بحوث الأحياء البحرية

Marine Biology Research Centre,
University of Al-Fateh (MBRC)

Executive officer: HUNI, Atig A.: Director General

Postal address

Marine Biology Research Centre,
University of Al-Fateh (MBRC)
Tajura
P.O. Box 30830
TAJURA, S.P.L.A.J.
LIBYA

Telephone: 690003

Telex: 20183 TRIPUNIV

Working languages

Arabic, English

Nature of institute

Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Microbiology
Pollution	Education, training or extension

Areas of speciality

Pelagic fish	Shrimps/prawns
Other invertebrates	Algae
Micro-organisms	Plankton
Benthos	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Nutrients	

Objectives and programmes

History of institution, its mandate and purpose

With the General People's Committee decree No. 1582 (1981) the Centre was established to stimulate and promote research activities on marine living resources and training in marine sciences.

Research, monitoring and other activities in last three years

- Preliminary ecological survey of selected rocky and sandy shore areas
- Physiological experimentation on Palaemon and other species
- Survey of Farwa Lagoon to assess its suitability for fish culture
- Research on heavy metal residues in pelagic fish
- Fisheries biology of selected highly esteemed commercial species of the family Sparidae and others.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

- research on oil pollution.

Cooperative programme

- Marine Research Centre, Fisheries Department, Secretariat of Light Industry
- Zoology Department, Faculty of Science (Benthic, invertebrates and fish studies)
- Nuclear Research Centre, Tripoli (Training in radiochemistry)
- National Academy for Scientific Research (Joint research activities)

Training programme

- Post-graduate training in co-operation with Glasgow University Scotland in the fields of marine algae, phytoplankton, microbiology and marine chemistry.
- Providing facilities for training of Zoology Department fourth year B.Sc. projects.

Institution structure

The Centre is divided in two divisions and the following sections:

- Research and Survey Division
 - Plankton and Benthos
 - Fisheries and Fish-culture
 - Oceanography and Pollution
 - Library and Documentation
- General Services Division
 - Maintenance
 - Finance
 - Administration

Staff

19 Scientific staff

9 Technical staff

7 Other staff

Professional scientific staff

Name	Degree	Speciality
Ghannudi, S.	Ph.D.	Marine pollution, Heavy metal residues
Botros, G.	Ph.D.	Fisheries biology
Aravindan, C.M.	Ph.D.	Marine biology
Ruagh, A.	Ph.D.	Ecology of benthos
Ghashut, S.	Ph.D.	Invertebrate biology
Hewag, H.	M.Sc.	Infauna (Polychaetes)
Nizamuddin, M.	Ph.D.	Marine algae
Dawd, D.	Ph.D.	Embryology
Abdulla, A.	M.Sc.	Fish biology

Premises/facilitiesBuilding area: 51300 m²Laboratory area: 1560 m²

With facilities for:

Visiting scientists: 10

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 802

Number of periodical subscriptions: 90

Equipment

pH and EH meters, salinometer, oxygen meter, freezing and drying equipments, microscopes, complete diving equipment with compressors, analytical balances, mini-computer, spectrophotometer, bomb calorimeter, ultrasonic disintegrator, centrifuges, autoclaves, muffle furnace, experimental fiberglass tanks and aquaria, photographic dark room, running sea water (hot-cold and freshwater), gas and compressed air, suction taps and fume cabinets, cold rooms, photocopying facilities.

Aquarium facilities

Total area:

1562 m²

Number of tanks:

50

Organisms maintained:

Pelagic fish

Algae

Crustaceans

Micro-organisms

Other invertebrates

Species maintained for experimental purposes:

*Anemonia sulcata**Patella vulgata**Artemia salina**Eriphia spinifrons**Diplodus mormyrus**Crenilabrus sp.**Mugil auratus**Actina equina**Monodonta turbinata**Palaemon elegans**Xantho hydrophilus**Diplodus sargus**Gobius cobitis**Scorpaena scrofa**Patella coerulea**Littorina neritoides**Pachygrapsus marmoratus**Lithognathus mormyrus**Diplodus vulgaris**Gobius paganellus**Atherina sp.***Research craft**

Type:

Rubber inflatable

Special facilities:

Boat house with slip-way.

Institution code:

001151

Information received: 12/04/84

Public Health Laboratory

Executive officer: GRECH Alfred: Chief Government Medical Officer

Postal address

Public Health Laboratory
(Health Department)
VALLETTA
MALTA

Telephone: 24071
Telex: 1100 MOD MT
Cable: HEALTH MALTA

Working languages

Maltese, English

Nature of institute

Governmental

Main fields of activities

in fields of activities	
Microbiology	Pollution
Medicine	

Areas of speciality

Coastal marine waters	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms

Objectives and programmes

The Laboratories were commissioned in 1904 to study the causative microorganism of undulant fever and is currently the Public Health Laboratory of the Department of Health and Environment. Its main functions are the routine preventive and hygienic, chemical and microbiological examination of foodstuff, water and the environment. There is close cooperation with the Toxicology Unit of St. Luke's Hospital which is involved in clinical and environmental toxicology including monitoring of pollutants such as heavy metals and halogenated hydrocarbons in coastal waters and land based sources.

Cooperative programme

- MED POL Pollution control in the Mediterranean (UNEP)
- European cooperation on environmental health aspects of the control of chemicals (WHO)

Training programme

Training for health inspectors and medical laboratory technicians

Institution structure

Basic structure of the Laboratory:

- Bacteriology (foodstuff, water)
- Chemistry (water, foodstuff)
- Toxicology (environmental, clinical, occupational health)

Staff

3 Scientific staff	7 Technical staff	0 Other staff
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Professional scientific staff

Name	Degree	Speciality
Portelli, F.	M.Sc. Dip.Bact.	Food, drugs chemistry
Schembri, R.	M.Sc.	Chemistry
Sammut, M.	Ph.D.	Environmental chemistry. Analytical chemistry

Premises/facilities

Laboratory area: 350 m²

Equipment

Gas chromatographs, atomic absorption spectrophotometer, spectrophotometers, analytical balances, routine equipment for chemical and microbiological assays.

Institution code: 001159 Information received: 19/12/83

Institution code: 001160 Information received: 30/10/84

**Dipartiment tal-Matematika u Xjenza,
L-Universita' ta' Malta**

**(Department of Mathematics and Science,
The University of Malta)**

Executive officer: CAMILLERI, Charles J.: Head

Postal address

**Dipartiment tal-Matematika u Xjenza,
L-Universita' ta' Malta
MSIDA
MALTA**

Telephone: 33908/36451

Cable: UNIVERSITY MALTA

Working languages

Maltese, English

Nature of institute

Academic

Main fields of activities

Biological sciences	Ecological sciences
Food science/technology	Chemical sciences
Physical sciences	Microbiology
Pollution	Computers/information systems
Education, training or extension	

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Other invertebrates
Algae	Micro-organisms
Plankton	Benthos
Coastal marine waters	Petroleum hydrocarbons
Metals (pollutants)	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The origins of Malta's University date back to the 16th Century. The Department of Mathematics and Science was set up as a result of major changes in the organisation of the University, in 1978. This department is responsible for the teaching of mathematics, physics, chemistry and biology and is also responsible for research of applied nature.

Research, monitoring and other activities in last three years

Research on effects of heavy metals, hydrocarbons, oil dispersants on marine invertebrates. Monitoring of levels of heavy metals and hydrocarbons in selected marine organisms and environment. Monitoring of global, diffuse and spectral distribution of solar radiation.

Major current research and other activities

To assess possible environmental impact under local conditions of oil pollution, use of oil dispersants, heavy metal pollution:
- Effects of oil dispersants on marine organisms (MED POL Phase II)
- Effects of oiled sediments on selected benthic organisms.

Future programmes

Programme as mandated
Continuation of current programme

Cooperative programme

The very nature of the department ensures a multidisciplinary approach to our teaching and research programmes. Besides, there is extensive cooperation with Government Departments and Parastatal Bodies as well as foreign Universities.

Training programme

Several degree courses: B.Pharm/B.Ph.Tech.; B.Educ.; B.Mech.Eng.; B.Elec.Eng. etc.

Institution structure

The Department forms part of the Faculty of Engineering and Architecture which is composed of four departments. The Department of Mathematics and Science is further subdivided into four sections

- Mathematics
- Physics
- Chemistry
- Biology

Staff

15 Scientific staff 7 Technical staff 1 Other staff

Professional scientific staff

Name	Degree	Speciality
Axiak, V.	M.Sc.	Pollution effects (marine organisms)
Scerri, E.	M.Sc.	Solar radiation
Peplow, G.	B.Sc.	Instrumentation
Schembri, P.J.	Ph.D.	Marine ecology

Premises/facilities

Building area: 400 m² Laboratory area: 200 m²
 With facilities for:
 Visiting scientists: 2 5

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 4400
 Number of periodical subscriptions: 13

Equipment

Atomic absorption spectrophotometer (Perkin Elmer 303), 2 UV-Vis. spectrophotometers (Pye Unicam SP800 + Cecil CE292), fluorescence spectrophotometer (Turner 430), 2 IR spectrophotometers (Perkin Elmer 137 + 157), 2 gas liquid chromatographs (Perkin Elmer F11 + Hewlett-Packard 5750G), Coulter counter, 2 liquid scintillation counters (Nuclear Enterprises), research microscope (Zeiss WL), minicomputer (Digital MINC II), photographic equipment (various), digestion system (Tecator D5-40), electronic balance (Sartorius 1265MP), microbalance (Mettler), cryostat (Slee), algal culture room, actinometer, pyranometers.

Aquarium facilities

Total area: 30 m² Number of tanks: 9

Organisms maintained:

Demersal fish	Pelagic fish	Molluscs
Crustaceans	Other invertebrates	Algae

Species maintained for experimental purposes:

<i>Skeletonema costatum</i>	<i>Tetraselmis sp.</i>	<i>Venus verrucosa</i>
<i>Patella lusitanica</i>	<i>Patella vulgata</i>	<i>Artemia salina</i>
<i>Palaemon sp.</i>	<i>Monodonta turbinata</i>	<i>Monodonta articulata</i>
<i>Pelagia noctiluca</i>	<i>Boops boops</i>	

Research craft

Name: NONE
 Owner: M.S./U.M.
 Length: 5 m.
 Type: Fibreglass boat
 Date of construction: 1972
 Crew: 1
 Scientists: 2

Institution code: 001162 Information received: 31/10/84

International Laboratory of Marine Radioactivity, IAEA (ILMR)

Executive officer: FUKAI Rinnosuke: Director

Postal address

International Laboratory of Marine Radioactivity, IAEA (ILMR)
c/o Musée océanographique, Monaco
MONACO VILLE
MONACO

Telephone: 93-301514

Telex: REMONA 469037

Working languages

English, French

Nature of institute

International (UN)

Main fields of activities

Biological sciences
Chemical sciences
Geology/sedimentology)

Oceanography
Pollution

Areas of speciality

Shrimps/prawns
Micro-organisms
Benthos
Coastal marine waters
Metals (pollutants)
Radionuclides

Other invertebrates
Plankton
Offshore marine waters
Petroleum hydrocarbons
Halogenated hydrocarbons

Objectives and programmes**History of institution, its mandate and purpose**

The Laboratory was established in 1961 under a tripartite agreement between the IAEA, the Government of Monaco and the Oceanographic Institute, France, in order to study the behaviour of radioactive substances in the marine environment in relation to disposal of radioactive wastes into the sea. In addition, the Laboratory is expected to play a supporting role for the Member States of the IAEA by developing measuring methods, serving in analytical quality control of radionuclide measurements and training technical staff from developing countries.

Research, monitoring and other activities in last three years

Since 1976, the above objectives were expanded to include non-nuclear pollutants, such as heavy metals, hydrocarbons, etc. The Laboratory has been involved in various regional pollution research and monitoring programmes, mainly coordinated by the UNEP, in addition to pursuing activities along the original objectives set forth in the field of marine radioactivity studies.

Major current research and other activities

The research and supporting activities described above are currently continuing. Since the laboratory space was expanded by approximately 50 percent from April 1983, the Laboratory is now able to accept an increased number of trainees than in the past.

Future programmes

The research activities on the behaviour of radioactive and other pollutants in the marine environment will continue with a view to increasing the utility of the results obtained for the international control of marine pollution. Supporting activities for national, regional and international pollution research and monitoring programmes will be further strengthened in the future.

Cooperative programme

- Coordinated Research Programme on the Behaviour of Long-lived Radionuclides released from deep-ocean dumping activities (with national institutions from about 15 countries)
- UNEP's Regional Seas Programmes (in Mediterranean Region, Kuwait Region, West Central African Region and other regions)
- Several national multidisciplinary projects such as the VERTEX (USA), PHYCEMED (France), ECOMARGE (France), etc.

Training programme

- IAEA Fellowships for environmental radioactivity studies
- Joint IAEA/IOC Fellowship for advanced marine science
- Training within the framework of UNEP's Regional Seas Programmes

Institution structure

The Laboratory is organizationally divided into:

- Administration (including Administration, Secretariat and Maintenance Unit)
- Chemistry Group (including Radiochemistry and Organic Chemistry Units)

Institution structure (Cont.)

- Biology Group (including Vertical Transport, Phytoplankton and Ecological Studies Unit)
- Geochemistry Group (including Sediment Studies and Trace Element Units)

Staff

17 Scientific staff 9 Technical staff 5 Other staff

Professional scientific staff

Name	Degree	Speciality
Ballestra, S.	Dr.d'Etat	Marine radiochemistry
Barisic, T.	B.Eng.	Electronics
Bojanowski, R.	Ph.D.	Marine radiochemistry
Brown, S. (Ms)	Ph.D.	Marine biology
Burns, K. (Ms)	Ph.D.	Marine organic chemistry
Derenbach, J.	Ph.D.	Marine organic chemistry
Fisher, N.	Ph.D.	Marine biology
Fowler, S.	Ph.D.	Marine biology
Fukai, R.	Dr.Sc.	Marine radiochemistry
Gastaud, J. (Ms)	Dr.3e cycle	Marine geochemistry
Heussner, S.	Dr.3e cycle	Marine biology
Heyraud, M.	Dr.d'Etat	Marine biology
Holm, E.	Ph.D.	Radiochemistry, Radiation
Huynh-Ngoc, L.	Dr.d'université	Physics
Oregioni, B.	Dr.3e cycle	Marine chemistry
Villeneuve, J.P.	Eng.Chemist	Marine geochemistry
Whitehead, N.	Ph.D.	Radiogeochemistry

Premises/facilities

Building area: 1100 m² Laboratory area: 800 m²

With facilities for:

Visiting scientists: 5

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 1000

Number of periodical subscriptions: 40

Monographs and serials titles:

- Biennial Report 1979-80 (English, on exchange)
- Biennial Report 1981-82 (English, on exchange)
- Fukai, R. Scientific publications of the International Laboratory of Marine Radioactivity (1962-1982), RITS No. 73, IAEA, Vienna (1983) 24 p.

Equipment

4 alpha-spectrometer systems (Ortec, Nuclear Data, Camberra) with 38 Si-barrier detectors; 2 total alpha-counters; 2 low-background beta-counters (Hasl, Roso) with 6 detectors; Ge(Li) gamma spectrometer system (Mikras); 4 gamma spectrometer systems (Nuclear Data, Camberra) with 6 NaI crystals; gamma spectrometer systems (Hewlett-Packard) with NaI crystal and automatic sample charger; liquid-scintillation counter (Hewlett-Packard) with automatic sample charger; 2 atomic absorption spectrometer (Perkin-Elmer); mercury analyser (Perkin-Elmer); 2 pulse polarograph systems (Tacussel, EG + G); 5 gas chromatographs (Varian, Perkin-Elmer, Carlo-Erba, Hewlett-Packard); high performance liquid chromatography system (Varian); spectrophotometer (Varian); fluorometer (Perkin-Elmer); 1 micro-computer system with word processor (Wang); other usual laboratory equipment such as high precision balances, microscopes, centrifuges, etc.; oceanographic gear like numerous Niskin bottles, GO-FLO bottles, Bodmann bottles, etc.

Aquarium facilities

Total area: 5 m² Number of tanks: 8

Organisms maintained:

Molluscs

Crustaceans

Other invertebrates

Micro-organisms

Species maintained for experimental purposes:

Thalassiosira pseudonana

Dunaliella tertiolecta

Oscillatoria woronichinii

Emiliania huxleyi

Tetraselmis chuii

Heterocapsa pygmaea

Synechococcus sp.

Meganectiphanes norvegica

Mytilus galloprovincialis

Aporrhais pespelicani

Institution code: 003060

Information received: 13/01/84

Centre scientifique de Monaco (C.S.M.)**Fonctionnaire exécutif:** S.E.M. SOLAMITO, César C.: Président**Adresse postale**

Centre scientifique de Monaco (C.S.M.)
16, boulevard de Suisse, Monte Carlo
MONACO MC 98030
MONACO

Telephone: 93-303371**Langues de travail**
Français**Principaux domaines d'activités**

Ecologie	Océanographie
Chimie	Microbiologie
Pollution	Météorologie/climatologie

Domaines de spécialisation

Eaux marines du large	Eaux marines côtières
Métaux (polluants)	Micro-organismes pathogènes
Éléments nutritifs	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Fondé le 23 mai 1960; Recherche fondamentale et orientée en océanographie et en protection de l'environnement.

Principales activités de recherche et autres activités en cours

- Recherche sur la dynamique des éléments polluants dans des systèmes marins caractéristiques de la Méditerranée avec application et analyse d'une méthodologie d'une portée générale.
- Surveillance des eaux marines, analyses bactériologiques hebdomadaires de la zone côtière, étude préalable à l'implantation d'émissaires, étude des tensio-actifs et de leurs dérivés.
- Surveillance physique, chimique et biologique de la zone littorale dans le cadre du Projet Ramoge.
- Enregistrements systématiques des données sismologiques et météorologiques, étude des microséismes, sismotectonique du sud des Alpes et du nord de la Méditerranée occidentale.

Programme de coopération

Coopération avec la Commission des communautés européennes, (Direction générale de la science de la recherche et du développement), le Commissariat à l'énergie atomique (CEA), le Centre national pour l'exploitation des océans (CNEXO), le Centre national français de la recherche scientifique (CNRS), l'Office national français de la recherche scientifique et technique outre mer (ORSTOM), l'Institut et le Musée océanographique de Monaco, le Laboratoire international de radioactivité marine de l'Agence internationale à l'énergie atomique (AIEA), l'UNESCO le Plan d'action pour la Méditerranée (PNUE).

Programme de formation

Dans le cadre des recherches orientées vers l'océanographie et la protection de l'environnement, le CSM a la possibilité d'accueillir des stagiaires et de faciliter leur initiation aux techniques de prélèvement et d'analyse correspondantes.

Structure de l'institution

Etablissement public autonome géré par un Conseil d'administration (Président: S.E.M. C.C. Solamito), Secrétaire général: M.A. Vatrican. Un Comité de perfectionnement (Président: Monsieur B. Goldschmidt) est consulté sur les questions scientifiques.

Personnel

10 Personnel scient.	4 Personnel technique	5 Autre personnel
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Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Bethoux, N.	Dr. 3ème cycle	Météorologie.
Boisson, M.	Dr. 3ème cycle	Séismologie
Marmenteau, C.	Maîtrise ès science	Océanographie biologique.
Pucci, R.	Dipl. études approf.	Pollutions marines
Rapaire, J.L.	Docteur d'univ.	Océanologie
Schommers, E.	Maîtrise ès science	Chimie
		Radioactivité appliquée.
		Informatique
		Microbiologie

(Cont.)		
Personnel Nom	Diplôme Universitaire	Principale Discipline
Semeria, J.	Maitrise ès science	Microbiologie
Thommeret, Y.	Docteur d'univ.	Chimie
Veglia, A.	Docteur d'univ.	Chimie
Chalazonitis, N.	Docteur vétérinaire	Neurobiologie moléculaire
Galliot, J.	Electronicien	Electronique
Vaissiere, R.	Docteur ès sciences	Océanologie, Biologie marine, Environnement

Locaux/installations

Superficie construite: 600 m² Superficie des laboratoires: 600 m²

Matériel

Ensemble de spectrométrie gamma, 7 séismographes (courtes et longues périodes), équipement météo, équipement electrophysiologique, 5 courantomètres (Plessey-Aanderaa), analyseur d'oxygène (Beckman), salinomètre (Beckman), pH mètre (Tacussel), 2 fluoromètres (Turner-Impulsphysik), 2 spectrophotomètres absorption atomique (Beckman, IL Delhomme), chaines d'autoanalyse (Technicon), autoanalyseur II pour sels nutritifs et détergents, sonde CTD (Guildline).

Bâtiments de recherche

Nom: RAMOGE MO 3344
 Propriétaire: C.S.M. (Resp.)
 Longueur: 15 m.
 Type: Vedette
 Année de construction: 1974
 Equipage: 3
 Personnel scientifique: 6
 Superficie des lab.: 12 m²
 Aménagements spéciaux:
 Treuils et zodiac MK II GT, courant stabilisé indépendant, radar et système Loran. Sondeur, récepteur météo satellite (Furono), installation pour sonde CTD et fluoromètre embarqué.

Nom: BOUEES SADO (2)
 Propriétaire: C.S.M.
 Type: Bouées
 Année de construction: 1980
 Aménagements spéciaux:
 Pour mesures courantométriques.

Nom: WINNARETTA SINGER
 Propriétaire: Musée océanographique
 Longueur: 19 m.
 Année de construction: 1957

Le code de l'institution 003061

Information reçue: 05/11/84

Musée océanographique de Monaco**Fonctionnaire exécutif:** COUSTEAU Jacques-Yves: Directeur**Adresse postale**

Musée océanographique de Monaco
Avenue Saint-Martin
MC 98000 MONACO
MONACO

Telephone: 93-301514**Telex:** 469037**Langues de travail**

Français

Catégorie de l'institution

Privée(sans but luc)

Principaux domaines d'activités

Océanographie

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

Musée océanographique inauguré le 29 mars 1910 pour étudier et enseigner la science océanographique au public par le Musée. L'Aquarium et les moyens audio-visuels. Centre de recherche ouvert aux océanographes de tous les pays pour leur permettre d'effectuer toutes les recherches sur la mer.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Recherche sur l'acclimatation des poissons en aquarium et leur protection contre la pollution.

Principales activités de recherche et autres activités en cours

Séismologie; protection de l'environnement marin.

Les programmes futurs

Continuation de programme existant

Programme de coopération

- Protection de l'environnement marin (Laboratoire international de radioactivité marine de l'AIEA et le Centre scientifique de Monaco)

Structure de l'institution

- Musée
- Aquarium
- Collections
- Bibliothèque

Personnel**Personnel scientifique**

Nom	Diplôme Universitaire	Principale Discipline
Maigret, J.	Docteur ès sciences	Biologie marine
Vaissière, R.	Docteur ès sciences	Biologie marine
Carpine, C.	Docteur ès sciences	Biologie marine
Leger, G.	Docteur ès sciences	Biologie marine
Hignette, M.	Maître ès sciences	Biologie marine

Locaux/installationsSuperficie des laboratoires: 1500 m²**Services d'information**

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 75000

Nombre d'abonnements périodiques: 1200

Les titres des monographies et des séries:

- Bulletin de l'Institut océanographique (non régulière, en français, en anglais, résumé en français et anglais, premier numéro publié en 1904)
 - Mémoires de l'Institut océanographique (mêmes caractéristiques que le Bulletin, premier numéro 1970)
- Les deux publications sont disponibles sous forme d'achat ou d'échanges.

Matériel

Sismographes, spectrophotomètre de masse à absorption atomique, analyseur (Beckman), sondeur (EPC Labs).

Aquarium d'experimentation

Nombre de réservoirs: 122

Bâtiments de recherche

Nom: WINNARETTA-SINGER
Propriétaire: Musée océanographique
Longueur: 18 m.
Année de construction: 1957
Equipage: 5
Personnel scientifique: 4
Aménagements spéciaux:
Compresseur de plongée, radar, sondeur, treuil de pêche et d'hydrologie.

Le code de l'institution 003062

Information reçue: 12/11/84

المعهد العلمي للصيد البحري

Institut scientifique des pêches maritimes (ISPM)

Fonctionnaire exécutif: LAHLOU Abdelali: Directeur

Adresse postale

Institut scientifique des pêches maritimes (ISPM)
Rue de Tiznit
Boîte Postale 21
CASABLANCA 01
MOROCCO

Telephone: 222090/276088/267811

Telex: 23823 M

Langues de travail

Français, anglais, arabe

Catégorie de l'institution

Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Aménagement des ressources
Technologie halieutique	Aquaculture
Océanographie	Pollution
Ordinateurs/systèmes informatiques	

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Céphalopodes	Homards/langoustes
Crévettes	Autres invertébrés
Eaux marines côtières	Hydrocarbures du pétrole
Métaux (polluants)	Hydrocarbures contenant des halogènes

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs

L'ISPM est fondé en 1948. Les buts et objectifs sont la recherche appliquée et orientée vers les problèmes de pêche.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

- Evaluation et contrôle des ressources halieutiques.
- Développement de l'aquaculture.
- Biologie des espèces (des poissons et des invertébrés marins)
- Etude et surveillance des pollutions marines d'origine industrielle (métaux lourds), agricole (pesticides) ou accidentelle (hydrocarbures).
- Etude et développement de nouvelles techniques de conservation et de manutention du poisson.

Principales activités de recherche et autres activités en cours

- Développement de la technologie des engins de pêche.
- Prospection acoustique des ressources pélagiques.
- Océanographie physique appliquée à la pêche.

Programme de coopération

- Laboratoire central et de recherche vétérinaire de Casablanca (contrôle chimique et bactériologique)
- Institut agronomique et vétérinaire Hassan II, Rabat (biologie halieutique).
- Ecole normale supérieure Casablanca (écologie lagunaire)
- ISTEP, France (technologie des engins de pêche)
- Programme MED POL (surveillance de la pollution en Méditerranée)
- Projet PNUD/FAO (développement des pêcheries et évaluation des ressources)
- Faculté des sciences, Rabat (étude de milieux lagunaires)
- Autres organisations COPACE, CGPM, ICCAT, PNUE, COI.

Programme de formation

Accueil d'étudiants préparant des thèses de fin d'étude en rapport avec l'activité de l'ISPM.

Structure de l'institution

Institut comprend les unités suivantes:

- Evaluation des ressources pélagiques et démersales
- Technologie des engins de pêche
- Océanographie physique appliquée à la pêche
- Aquaculture
- Biochimie et pollution
- Prospection acoustique des ressources pélagiques
- Statistiques et centre de calcul

Personnel

0 Personnel scient. 90 Personnel technique 0 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Berraho, Abdellatif	DEA	Biologie halieutique
Chbani, Mostafa	Ing. d'application	Technologie generale
Idelhaj, Abdelouahed	Ing. agronome	Biologie halieutique
Idrissi, Halima	License ès science	Chimie-physique
El Quairi, Mehdi	Ing. d'application	Technologie generale
Belkhaouad, Abdellah	Ing. d'application	Technologie generale
Fahfouhi, Abdesslam	Ing. d'application	Technologie generale
Assabir, Abdelfattah	Ing. d'application	Technologie generale
Bencherifi, Salah	Ing. d'application	Technologie generale
Atmane, Hmad	Ing. agronome	Aquaculture
Refk. Raja	Ing. océanographe	Océanographie
El Ahdal, M'hamed	Tech.en statistique	Statistique. Informatique
Rami, Mohamed	Dipl.univ.(Master)	Biologie marine

Locaux/installations

Superficie construite: 1000 m²

Services d'information

Les titres des monographies et des séries:

- Bulletins de l'ISPM
- Série travaux et documents
- Série notes d'information
- Bulletins des statistiques

Matériel

Mini ordinateur (Hewlet Packard, HP 86 A. HP 9845B), spectrophotomètre d'absorption atomique (Varian), chromatographe en phase gazeuse (Varian), spectrophotomètre UV visible (Gilford), matériel de microbiologie (étuves, autoclave, microscopes), matériel biochimique (unité de minéralisation, unité de distillation, four), balance de précision.

Bâtiments de recherche

Nom: IBN SINA
 Propriétaire: O.N.P.
 Longueur: 39 m.
 Type: chalutier acier
 Année de construction: 1974
 Equipage: 15
 Personnel scientifique: 5
 Aménagements spéciaux:
 Sonar, navigation par satellite, laboratoires, radar, echosondeur.

Nom: EL MOUNIR
 Longueur: 18 m.
 Type: chalutier acier

Le code de l'institution 003046

Information reçue: 15/12/83

قسم علوم الأرض ، كلية العلوم ، جامعة محمد الخامس

Département des sciences de la Terre,
Faculté des sciences, Université Mohammed V

Fonctionnaire exécutif: CHALOUAN Ahmed: Directeur

Adresse postale

Département des sciences de la Terre,
Faculté des sciences, Université Mohammed V
Avenue Ibn Batouta
Boite Postale 1014
RABAT
MOROCCO

Telephone: 71834

Langues de travail
Arabe, françaisCatégorie de l'institution
Universitaire

Principaux domaines d'activités

Océanographie Chimie
Géologie/sédimentologie

Domaines de spécialisation

Eaux marines côtières Eaux saumâtres

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Institution fondée en 1959. Les buts et les objectifs de
l'institution sont les recherches géologiques, minières, formations
géologiques continentales et sous-marines.Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières annéesTravaux sur les lagunes du littoral atlantique et méditerranéen.
Etude de la sédimentologie et de la géochimie du système côtier,
notamment dans la zone des estuaires des principales vallées
marocaines. Projet d'études sur le plateau continental marocain
et dans le littoral méditerranéen.

Principales activités de recherche et autres activités en cours

Etude de la lagune de Nador (Méditerranée) et du littoral
méditerranéen. Etude du littoral atlantique.

Les programmes futurs

Recherches géologiques dans le plateau continental atlantique et
dans la Méditerranée.

Programme de coopération

Collaboration avec l'Office national des pêches et avec l'Institut
du bassin d'Aquitaine, Université de Bordeaux I (France)

Programme de formation

Cours de géologie en général et d'océanographie en particulier au
niveau de 4 années de Licence et du Doctorat de spécialité du 3ème
cycle.

Structure de l'institution

- Géologie
- Sédimentologie
- Géochimie
- Océanographie

Personnel

11 Personnel scient. 4 Personnel technique 1 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Aberkane, M.	Docteur 3ème cycle	Sédimentologie
Akil, M.	Docteur 3ème cycle	Sédimentologie
El Azzouzi, M.	Docteur 3ème cycle	Pétrologie
Hajfani, M.	Docteur 3ème cycle	Sédimentologie
Hamoumi, N. (Melle)	Docteur 3ème cycle	Sédimentologie
Jaaïdi, El Bachir	Docteur 3ème cycle	Sédimentologie
Zougary, Rabia (Mme)	Docteur 3ème cycle	Micropaléontologie
Tejera, J.	Docteur 3ème cycle	Sédimentologie
Ahmanou, M.	Dipl.d'étude approf	Sédimentologie
Belmkadem, M.	Dipl.d'étude approf	Sédimentologie
Bouedina, A.	Dipl.d'étude approf	Sédimentologie

Locaux/installationsSuperficie des laboratoires: 2000 m²**Services d'information**

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 3000

Nombre d'abonnements périodiques: 26

Matériel

Courantomètre, salinomètre-température, benne, carottage, matériel de plongée etc. Salles de travaux pratiques, matériel et produits pour analyses, microscopes et loupes, ateliers de lames minces, etc.

Bâtiments de recherche

Nom: IBN MAJID

Propriétaire: dep. des sciences

Longueur: 7 m.

Type: vedette

Nom: EL AMAL

Propriétaire: dep. des sciences

Type: zodiac

Le code de l'institution 003047

Information reçue: 12/11/84

معهد الحسن الثاني للزراعة والسيطرة

شعبة علوم الأسماك

Institut agronomique et vétérinaire Hassan II,
Section halieutique (IAV HASSAN II)

Fonctionnaire exécutif: BEKKALI Abdellah: Directeur

Adresse postale

Institut agronomique et vétérinaire Hassan II,
Section halieutique (IAV HASSAN II)
Boite Postale 6202
RABAT-INSTITUT, RABAT
MOROCCO

Telephone: 71758/74351/71759

Telex: AGROVET 31873 M

Langues de travail

Français

Catégorie de l'institution

Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Pêche dans les eaux intérieures
Aménagement des ressources	Technologie halieutique
Science/technologie des aliments	Contrôle de la qualité (prod. de pêche)
Aquaculture	Océanographie
Chimie	Physique
Microbiologie	Pollution
Médecine vétérinaire	Météorologie/climatologie
Géographie	Politique et planification
Commercialisation/economie	Ordinateurs/systèmes informatiques
Education, formation ou vulgarisation	

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Autres invertébrés	Algues
Micro-organismes	Plancton
Benthos	Eaux marines côtières
Eaux saumâtres	Eaux intérieures (douces)
Hydrocarbures du pétrole	Métaux (polluants)
Hydrocarbures contenant des halogènes	Micro-organismes pathogènes
Eléments nutritifs	

Les objectifs et les programmes

L'IAV Hassan II, créé en 1966, a pour mission l'enseignement et la recherche sur les sciences biologiques, physiques, économiques et humaines qui s'appliquent à l'agriculture, englobant toutes les activités impliquées directement ou indirectement dans la nutrition humaine y compris les sciences aquatiques et la pêche. A partir de 1975, l'IAV Hassan II s'est engagé, en accord avec l'Office national des pêches, à former des ingénieurs en halieutique, afin de répondre aux besoins nationaux dans le secteur des pêches maritimes dont le développement est prioritaire jusqu'en 1985. A partir de 1979, pour asseoir davantage, cet objectif et pour contribuer aux études et recherches que nécessite l'enseignement sur les sciences biologiques de la mer, l'IAV Hassan II a mis en place une section spécialisée en halieutique, section qui va être transférée prochainement dans son annexe d'Agadir. Les activités de recherche entamées depuis 1980 sont toujours en cours de réalisation, elles sont basées sur les études et la gestion de certaines ressources biologiques des milieux aquatiques marins et continentaux. Les principaux domaines touchés sont les suivants:

- Biologie et écologie des Sparidae des côtes marocaines
- Biologie et écologie de l'espadon traversant le détroit de Gibraltar
- Suivi des stocks d'aloses sur le littoral atlantique
- Biologie et dynamique des invertébrés (moules et huîtres) du littoral et des lagunes
- Impact des pollutions sur le peuplement benthique de quelques secteurs de la côte atlantique

Programme de coopération

- Coopération culturelle et technique française avec les Universités de: Bretagne occidentale, Caen, Paris VII, les Ecoles: ENSAR et ENSAT et certains organismes: ISTPM de Nantes, CERS de Biarritz et CNEXO
- Coopération américaine: dans le cadre de l'USAID, les Universités de l'Oregon, Texas, Minnesota et d'Auburn en Alabama reçoivent des étudiants pour préparer le Master of Sciences et des enseignants pour préparer leur PhD.
- Il est prévu d'élargir cette ouverture à d'autres coopérations en

Les objectifs et les programmes

(Cont.)

particulier Espagne, Norvège et Japon.

Programme de formation

- Formation d'ingénieurs d'application de 4 ans comportant des sciences fondamentales de base et des enseignements spécifiques. Le programme est axé sur la méthodologie et les techniques de travail en valorisant particulièrement les travaux pratiques et les stages en mer.
- Formation longue de 6 ans: certains étudiants ayant effectué 4 années d'études dans d'autres sections peuvent être admis à passer un 3ème cycle de spécialisation en halicutique en France ou aux USA.

Structure de l'institution

L'IAV Hassan II est composé des sections suivantes: Agronomie, Vétérinaire, Travaux ruraux, Topographie, Technologie alimentaire, Halieutique, Horticulture, Phytrie, Aménagement des espaces verts. La Section halieutique est composée des départements suivants:

- Oceanographie et ressources halieutiques
- Nutrition humaine et économie alimentaire
- Hygiène et industrie des denrées animales et d'origine animale
- Ecologie végétale
- Physiologie-Thérapeutique
- Sciences humaines
- Sciences fondamentales
- Mathématiques appliquées
- Langues
- Sports
- Microbiologie alimentaire

Le 1er département est spécifique à la Section halieutique, les autres en commun avec d'autres sections de l'IAV.

Personnel

9 Personnel scient. 2 Personnel technique 4 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Lamrini	Doct. de 3e cycle	Biologie marine
El Hannach	Ingénieur agronome	Technologie des pêches
Baddy	Ingénieur agronome	Biologie des pêches
Chair	Ingénieur agronome	Biologie, Economie des peches
Shafee	Doct. D'Etat	Aquaculture
Bitar	Doct. de 3e cycle	Benthos
Sabatie	Doct. de 3e cycle	Zoologie
Marfin	Doct. de 3e cycle	Ichtyoplanctonologie
Beslicr	Doct. de 3e cycle	Planctonologie

Locaux/installations

Installations prévues pour: Superficie des laboratoires: 1000 m²
D

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 400
Nombre d'abonnements périodiques: 12

Les titres des monographies et des séries:

- Thetys-Cybiun (ex Actes de l'Institut agronomique Hassan II)

Matériel

Oxymètre de terrain (avec 2 sondes), 3 thermomètres à renversement, 4 volucompteurs, microprojecteur marque GORKO (pour lecture d'écailles), ordinateur (HP 85), 2 équipements complets de plongée, 2 sennes de plage et 3 filets à plancton dont 1 de type Bongo, vedette plastique (moteur hors-bord), microchalut à larves de poissons.

Bâtiments de recherche

Nom: IBNSINA
Propriétaire: ISPM (Casablanca)
Longueur: 31 m.
Année de construction: 1974
Superficie des lab.: 20 m²
Aménagements spéciaux:
Equipement scientifique de recherche.

Le code de l'institution 003048

Information reçue: 07/12/83

المختبر المركزي للأبحاث البيطرية

Laboratoire central de recherches vétérinaire

Fonctionnaire exécutif: TBER Abdelhaq: Chef de Service

Adresse postale

Laboratoire central de recherches vétérinaire
43 rue de Tours
Boîte Postale 719
01 CASA-PRIN, CASABLANCA
MOROCCO

Telephone: 305766/308045

Langues de travail
Français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Science/technologie des aliments
Chimie
Médecine vétérinaire

Contrôle de la qualité (prod. de pêche)
Physique

Domaines de spécialisation

Céphalopodes
Métaux (polluants)

Homards/langoustes
Micro-organismes pathogènes

Les objectifs et les programmes

- Recherches de micro-organismes pathogènes
- Recherches de toxines (notamment Mytilustoxines), (fruits de mer)
- Contrôle de qualité des produits de la pêche (poissons frais et conserves de poissons)
- Etude et recherches des métaux dans les produits de la pêche.

Programme de coopération

Les laboratoires de contrôle de la qualité alimentaire (notamment en France)

Programme de formation

- Stages des Docteurs vétérinaires marocains dans les laboratoires de diagnostic de la médecine vétérinaire (France-Grande Bretagne)

Structure de l'institution

- Section de chimie-toxicologie
- Section de diagnostic bactériologique
- Section de sérologie
- Section de bactériologie alimentaire
- Service administratif

Personnel

6 Personnel scient. 32 Personnel technique 12 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Tber, Abdelhaq	C.E.S. bactériologie	Bactériologie
Zerouali, Abdelhak	Pasteurien	Bactériologie
Alaoui, Mohamed	D.E.A. toxicologie	Toxicologie
Touti, Jamal		Bactériologie alimentaire
Bouayoune, Hassan	Docteur vétérinaire	Sérologie (Pathologie aviaire)
Bennani, Mohamed	Docteur vétérinaire	Parasitologie

Locaux/installations

Superficie construite: 1200 m² Superficie des laboratoires: 5000 m²

Services d'information

Bibliothèque:
Nombre de livres, revues, manuscrits, etc.: 300

Matériel

Spectrophotomètre d'absorption atomique, spectrofluoromètre,
chromatographe en phase gazeuse, chromatographe en phase liquide.

Le code de l'institution 003049

Information reçue: 13/08/83

المعهد الوطني للصحة

Institut national d'hygiène

Fonctionnaire exécutif: BEN MANSOUR Noureddine: Professeur

Adresse postale

Institut national d'hygiène
Rue Ibn Batouta
Boîte Postale 769
AGDAL-RABAT
MOROCCO

Telephone: 71902/71965/72162

Langues de travail
Arabe, français

Catégorie de l'institution
Gouvernementale Universitaire

Principaux domaines d'activités

Biologie	Contrôle de la qualité (prod. de pêche)
Chimie	Physique
Microbiologie	Pollution
Médecine	Education, formation ou vulgarisation

Domaines de spécialisation

Micro-organismes	Eaux marines côtières
Eaux saumâtres	Eaux intérieures (douces)
Micro-organismes pathogènes	

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Créé en 1930, était dépendant étroitement de la Direction de la santé et hygiène publique existante à cette date. Actuellement dépend de la Direction des affaires techniques du Ministère de la santé publique. Sa mission:

- Support logistique du Ministère de la santé publique dans le domaine de la biologie appliquée
- Rôle d'expert dans les programmes interministériels
- Rôle dans la formation professionnelle-techniciens de laboratoire
- Etudes pratiques de différents problèmes d'hygiène et d'épidémiologie

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Microbiologie, parasitologie, toxicologie, chimie-physique, anatomie pathologique, centre anti-poisons.

Principales activités de recherche et autres activités en cours

Identique aux trois dernières années

- développer l'hygiène du travail, réaliser le fichier marocain du centre anti-poisons

Les programmes futurs

Elargir le domaine d'action.

Programme de coopération

- Institut Pasteur de Paris (France)
- O.M.S. (paludisme, bilharziose, tuberculose).

Programme de formation

- Formation des techniciens de laboratoire
- formation des techniciens d'hygiène et assainissement
- Stages universitaires des étudiants en médecine
- Recyclage des techniciens des différents laboratoires du Ministère de la santé publique.

Structure de l'institution

Service administratif
Bibliothèque-documentation
Direction
Département de toxicologie, chimie, physique, centre anti-poison

- Laboratoire toxicologie
- Centre anti-poisons
- Laboratoire de chimie-physique

Département de parasitologie
Département de microbiologie
Laboratoire d'anatomie-pathologique
Laboratoire de référence

Personnel

6 Personnel scient. 90 Personnel technique 24 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Benmansour, Noureddine	Professeur	Parasitologie
Thomar, S.	Doc.med.specialiste	Biologie
Chaoui, Salaheddine	Doc.med.	Medecine Generale
Driss, Larbi	Doc.d'Etat ès sc.	Microbiologie
Bouziiane, Elhila	Doc.en pharmacie	Pharmacologie

Locaux/installations

Superficie construite: 4500 m² Superficie des laboratoires: 1500 m²
 installations prévues pour: 0

Services d'information

Bibliothèque:
 Nombre de livres, revues, manuscrits, etc.: 3013
 Nombre d'abonnements périodiques: 2

Les titres des monographies et des séries:
 - Bilan annuel

Matériel

Microscopes, centrifugeuses, photomètres, incubateurs, étuves,
 coagulateurs, appareil à absorption atomique, spectrophotomètres,
 lampes U.V., chromatographie en phase liquide, loupes, appareils
 stérilisateurs-autoclaves popinels, chambres froides, congélateurs,
 frigidaires, appareils lyophilisateurs, piège de captation des
 moustiques-mollusques.

Aquarium d'experimentation

Superficie totale: 3 m² Nombre de réservoirs: 4

Organismes entretenus:
 Mollusques

Le code de l'institution 003050

Information reçue: 08/02/84

المكتب الوطني للماء الصالح للشرب
قسم مراقبة جودة المياه

Office national de l'eau potable,
Division de contrôle de qualité des eaux (ONEP)

Fonctionnaire exécutif: ABOUZAID Houssaine: Chef de Division

Adresse postale

Office national de l'eau potable,
Division de contrôle de qualité des eaux (ONEP)
6 rue Patrice Lumumba
RABAT
MOROCCO

Telephone: 51119/51247/54179
Telex: 32061 M

Langues de travail
Arabe, français, anglais

Principaux domaines d'activités

Ecologie	Pêche dans les eaux intérieures
Contrôle de la qualité (prod. de pêche)	Aquaculture
Limnologie	Chimie
Physique	Microbiologie
Pollution	Ingénierie
Transfert de technologie	Ordinateurs/systèmes informatiques
Education, formation ou vulgarisation	

Domaines de spécialisation

Algues	Micro-organismes
Plancton	Eaux saumâtres
Eaux intérieures (douces)	Métaux (polluants)
Eléments nutritifs	Radionucléides

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
Créé en 1969, le laboratoire de l'ONEP surveille et contrôle d'une part la qualité des eaux produites et distribuées par l'ONEP, contrôle la pollution des eaux susceptibles d'être utilisées pour l'alimentation humaine, fournit une assistance technique dans ces domaines aux établissements publics qui le souhaitent et participe à la formation du personnel technique.

Les activités de recherche, de contrôle continu & autres menées au cours des trois dernières années

Etude du phénomène d'eutrophisation des lacs réservoirs dans les pays chauds et tests de certaines solutions écologiques. Pollution des oueds par les rejets des sucreries et par les métaux lourds. Contrôle de la qualité chimique, bactériologique et biologique des eaux produites par l'ONEP.

Principales activités de recherche et autres activités en cours

Tests de moyens de lutte contre l'eutrophisation et de lutte contre la pollution des eaux souterraines par les nitrates. Epuration des eaux usées par la jacinthe d'eau. Déminéralisation des eaux saumâtres. Tests de toxicité.

Les programmes futurs

Continuation de programme existant

Programme de coopération

- IVL (Suède)
- Ecole Mohammedia d'ingénieur (Maroc)

Programme de formation

- Centre de formation des techniciens de l'eau
- Stages de formation continue dans le traitement, la désinfection et le contrôle de qualité des eaux

Structure de l'institution

Le laboratoire est une division composée de 3 services:

- Service de surveillance et traitement
- Service de contrôle de pollution et étude des retenues
- Service de gestion

Chaque service est composé de 3 à 4 bureaux par type de discipline.

Personnel

10 Personnel scient.	26 Personnel technique	24 Autre personnel
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Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
Abouzaid, Houssain	Docteur ès science	Génie de l'environnement
Echihabi, Lahoucine	Ingénieur chimiste	Traitement des eaux
Foutlane, Ali	Docteur 3ème cycle	Dosage des métaux lourds

Personnel

Nom	Diplôme	Principale Discipline
Outair, Abdelouahed	Universitaire	Traitement des eaux
El Maghari-Tabib, Mohammed	Ingénieur chimiste	Chimie des eaux,
	Docteur 3ème cycle	Chimie de l'environnement
Tousi, Mohammed	D.E.A.	Microbiologie
Bourchich, Lahoucine	D.E.S.S.	Hydrobiologie
El Abbassi, Hmida	Ing. sanitaire	Génie de l'environnement
Ezzabouri, Rokia	Maître ès sciences	Chimie
Jabri, Mohamed	Ing. technicien	Chimie industrielle
Oukili, Boucif	Ing. pétrochimiste	Traitement des eaux

(Cont.)

Locaux/installationsSuperficie construite: 1125 m² Superficie des laboratoires: 675 m²

Installations prévues pour:

Des chercheurs de l'extérieur: 10

Services d'information

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 1500

Nombre d'abonnements périodiques: 15

Les titres des monographies et des séries:

- Qualité des eaux dans les circuits de sucreries au cours de la campagne sucrière, (Rapport de synthèse, 36 p., avril 1981)
- L'eutrophisation du lac-reservoir Sidi Mohammed Ben Abdellah pres de Rabat, Maroc. (Aqua. No. 6 p. 0345-7, 1981)
- Dessalement de l'eau de mer pour l'alimentation en eau potable au Maroc. (Colloque sur la mer au service du développement national, Rabat, Maroc, oct. 1981, 10 p.)
- Eutrophication and its effects upon the production of potable water (2nd meeting of the union african water suppliers, Rabat, Maroc 1982)
- The water supply of Morocco (Aqua. No. 6, 1982)
- Résultats de l'étude du processus d'eutrophisation dans le cas du lac artificiel formé par le barrage sur le fleuve Bou Regreg (Séminaire OMS/ONEP sur la lutte contre l'eutrophisation des lacs réservoirs en climat chaud, Rabat du 13 au 17 décembre 1982)

Matériel

3 spectrophotomètres d'absorption atomique, 2 spectrophotomètres UV visible, appareils pour mesurer radioactivité, polarographe impulsif.

Le code de l'institution 003051

Information reçue: 17/10/84

Instituto de Investigaciones Pesqueras de Barcelona (IIPB)

Funcionario ejecutivo: BAS PEIRET Carlos: Director

Dirección postal

Instituto de Investigaciones Pesqueras de Barcelona (IIPB)
Paseo Nacional s/n
BARCELONA 3
SPAIN

Teléfono: 3106450/3194328

Telex: 59367 INPB E

Catalán, Castellano, Francés, Inglés

Idiomas de trabajo

Gubernamental

Principales esferas de actividad

Ciencias biológicas	Ciencias ecológicas
Pesquerías en aguas marinas	Gestión de los recursos
Tecnología pesquera	Oceanografía
Ciencias químicas	Ciencias físicas
Microbiología	Contaminación
Meteorología/climatología	Geología/sedimentología
Computadoras/sistemas de información	Educación, capacitación o divulgación

Áreas de especialización

Peces demersales	Peces pelágicos
Cefalópodos	Otros invertebrados
Plancton	Bentos
Aguas marinas costeras	Aguas salobres
Hidrocarburos del petróleo	Metales (polución)
Hidrocarburos halogenados	Nutrientes

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos

Fue creado en 1949 como sección de Biología Marina dentro del Instituto de biología aplicada. Se independiza al poco tiempo, debido al gran volumen de sus actividades. Su misión es el estudio del mar en sentido amplio: oceanografía, biología marina, recursos naturales. Su labor principal es la investigación aunque hay acciones de asesoramiento.

Investigación, monitoreo y otras actividades efectuados en los últimos tres años

Cabe destacar los siguientes programas: Estudio de la plataforma continental española; Degradación de comunidades explotadas; Ciclo de zooplancton; Estudios en el Delta del Ebro; Reclutamiento y ambiente; Dinámica fitoplanctónica. Recursos pesqueros en el Atlántico S.E. (Namibia).

Investigaciones principales en curso y otras actividades

Igual que los últimos tres años

Programas futuros

Igual que los últimos tres años

Programa de cooperación

El principal programa cooperativo ha sido el Programa Plataforma. En la actualidad se está gestando un nuevo programa en colaboración con la Universidad de Palma de Mallorca.

Programa de capacitación

El Instituto no desarrolla habitualmente cursos de formación pero si acepta normalmente un cierto número de becarios que preparan en general su formación doctoral y postdoctoral.

Estructura de la institución

El IIP de Barcelona está constituido por tres Unidades Estructurales de Investigación (Oceanografía, Biología Marina y Recursos) y varios equipos de Investigación que son los que desarrollan los programas de investigación en curso. En muchos casos estos programas científicos son multidisciplinarios. Administrativamente el IIP de Barcelona está dirigido por una Junta de Gobierno que preside el Director y apoyado por el personal de la Secretaría cuyo responsable es el Secretario del Instituto. Existen además los siguientes servicios: Biblioteca, Publicaciones y el Acuario.

Personal

29 Profesional cient.

4 Técnico

24 Otros

Personal científico

Nombre	Título Académico	Especialización
Andreu Morera, B.	Doctorado	Biología marina
Ballester Nolla, A.	Doctorado	Oceanografía
Bas Peired, C.	Doctorado	Pesquerías
Vives Galmes, F.	Doctorado	Biología marina
Arias Serrano, E.	Doctorado	Biología marina
Arte Gratacos, P.	Doctorado	Biología marina
Castellvi Puilachs, J.	Doctorado	Bacteriología
Lopez Gomez, J.J.	Doctorado	Biología marina
Morales Seguí, E.	Doctorado	Biología marina
Rubio Lois, M.	Doctorado	Biología marina
Suau Abraham, P.	Doctorado	Biología marina
Alcaraz Medrano, M.	Doctorado	Zooplankton
Camp Sancho, J.	Licenciado	Bentos
Estrada Miyares, M.	Doctorado	Fitoplancton
Macpherson Mayol, E.	Doctorado	Pesquerías
Rucabado Aguilar, J.	Licenciado	Pesquerías
Vallespinos Riera, F.	Doctorado	Biología marina
Rubies Guardiola, P.	Licenciado	Pesquerías
Salat Umbert, J.	Licenciado	Oceanografía
Lleonart Aliberas, J.	Doctorado	Pesquerías
Sarda Amils, F.	Doctorado	Pesquerías
Uriz Lespe, M.J.	Doctorado	Biología marina
Sanchez Pardo, J.	Doctorado	Oceanografía
Sanchez Zalacain, P.	Doctorado	Pesquerías
Andreu Puyal, M.P.	Licenciado	Zooplankton
Manriquez Landoff, M.	Licenciado	Oceanografía
Palomera Laforga, M.I.	Licenciado	Pesquerías
Trepal Felip, M.I.	Licenciado	Zooplankton
Modamio Civit, X.	Licenciado	Oceanografía
Gros Miguel, M.L.	Titulado técnico	Bentos
Julia Bragues, A.	Titulado técnico	Oceanografía
Sousa Alvarez, J.M.	Titulado técnico	Análisis
Fauquet Andreu, A.	Titulado técnico	Microscopía electrónica

Locales/instalacionesSuperficie del edificio: 5300 m²**Servicio de información**

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 700

Número de suscripciones a publicaciones periódicas: 563

Los títulos de las monografías y las series:

- Investigación Pesqueras

- Resultados Expediciones Científicas (Suplemento Inv. Pesq.)

- Informes Técnicos del I.I.P.

Acuario para experimentosSuperficie total: 25 m² Tanques (No.): 15

Organismos mantenidos:

Peces demersales

Otros vertebrados

Moluscos

Crustáceos

Las especies mantenidas con fines experimentales:

*Torpedo torpedo**Torpedo marmorata**Scyllium canicula**Caretta caretta**Murex brandaris**Murex erinaceus**Nephrops norvegicus***Embarcaciones para investigación**

Nombre:

GARCIA DEL CID

Proprietario:

C.E.N.I.P. (CSIC)

Eslora:

37 m.

Tipo:

Oceanográfica

Año de construcción:

1978

Tripulación:

13

Científicos:

7

Equipos y arreglos especiales:

Equipo de navegación, equipo de radiocomunicaciones, equipo de pesca.

Codigo de la institución:002001

Información recibida: 12/11/84

**Centro Oceanográfico Mar Menor.
Instituto Español de Oceanografía (IEOM)**

Funcionario ejecutivo: DE LEON, Argeo R.: Director

Dirección postal

Centro Oceanográfico Mar Menor,
Instituto Español de Oceanografía (IEOM)
Magallanes 2
Casilla Postale 22
SAN PEDRO DEL PINATAR, MURCIA
SPAIN

Teléfono: 180500/180511
Telex: 67745

Español

Idiomas de trabajo
Gubernamental

Principales esferas de actividad

Acuicultura	Oceanografía
Contaminación	

Áreas de especialización

Peces demersales	Camerones
Aguas marinas de alta mar	Aguas marinas costeras
Hidrocarburos del petróleo	Metales (polución)
Hidrocarburos halogenados	Nutrientes

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
El centro fue creado en 1966 para llevar a cabo investigaciones aplicadas a recursos vivos marinos y a contaminación del medio marino.

Investigación, monitoreo y otras actividades efectuados en los últimos tres años

Investigaciones sobre contenido y toxicidad de metales pesados en el medio y organismos marinos. Experiencias sobre cultivos de larvas de *Palaemon serratus*, *Panaeus kerathurus*, *Sparus auratus* y *Dicentrarchus labrax*. Productividad primaria y química de nutrientes de la laguna litoral Mar Menor.

Programas futuros

Igual que los últimos tres años

Programa de cooperación

- Instituto Químico de Sarrià, Barcelona (Programa Nacional de Vigilancia de la Contaminación del Mediterráneo).
- Colegio Universitario de Castellón, Valencia (Programa Nacional de Vigilancia de la Contaminación del Mediterráneo).

Estructura de la institución

El Centro está dividido en las siguientes secciones:

- Acuicultura
- Contaminación

Personal

4 Profesional cient.	3 Técnico	7 Otros
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Personal científico

Nombre	Título Académico	Especialización
De León, A.R.	Doctor en Ciencias	Contaminación
Ortega, A.	Licenciado	Acuicultura
García, A. (Srta.)	Licenciada	Acuicultura
Abellán, E. (Srta.)	Licenciada	Acuicultura

Locales/instalaciones

Superficie del edificio: 200 m² Superficie de laboratorio: 500 m²
Con instalaciones para:
Científicos visitantes: 2

Servicio de información

Biblioteca:
Número de libros, revistas, manuscritos, etc.: 500
Número de suscripciones a publicaciones periódicas: 40

Servicio de información

(Cont.)

Los títulos de las monografías y las series:

- Boletín
- Informes Técnicos

Equipo

2 espectrofotómetros de absorción atómica, cromatógrafo de gases, espectrofluorímetro, 1 espectrofotómetro UV-VIS, pH metros, microscopios, salinómetro, micrófono crioscópico, contador de partículas.

Acuario para experimentos

Superficie total: 250 m²

Organismos mantenidos:
Peces demersales

Las especies mantenidas con fines experimentales:

Skeletonema costatum
Dicentrarchus labrax

Tetrastelmis sp.
Mugil sp.

Sparus aurata

Embarcaciones para investigación

Nombre: JAFUDA CRESQUES
Proprietario: Instituto Español de Oceanografía
Eslora: 17 m.
Tipo: Barco, motor
Año de construcción: 1973
Tripulación: 4
Científicos: 4
Espacio para lab.: 20 m²
Equipos y arreglos especiales:
Ecosondador, torno, radar, diferente equipo oceanográfico.

Nombre: SAGITTA
Proprietario: Instituto Español de Oceanografía
Eslora: 7 m.
Tipo: Bote, motor
Año de construcción: 1977
Tripulación: 1
Científicos: 2
Equipos y arreglos especiales:
Ecosondador, torno.

Código de la institución: 002002

Información recibida: 17/10/83

**Instituto Español de Oceanografía,
Centro Oceanográfico de Fuengirola (I.E.O./C.O.F.)**

Funcionario ejecutivo: CANO LUCAYA Natalio: Director

Dirección postal

Instituto Español de Oceanografía,
Centro Oceanográfico de Fuengirola (I.E.O./C.O.F.)
Puerto Pesquero
FUENGIROLA, MALAGA
SPAIN

Español

Principales esferas de actividad

Ciencias biológicas	Ciencias ecológicas
Pesquerías en aguas marinas	Tecnología pesquera
Oceanografía	Contaminación
Geología/sedimentología	

Áreas de especialización

Peces demersales	Peces pelágicos
Otros invertebrados	Plancton
Bentos	Aguas marinas de alta mar
Aguas marinas costeras	Hidrocarburos del petróleo
Nutrientes	

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
Fundado el 17 de abril de 1914 como apoyo a las investigaciones del
Instituto Español de Oceanografía en la zona del Estrecho de
Gibraltar.

Investigación, monitoreo y otras actividades efectuados en los
últimos tres años

Hidrología en mar de Alborán, corrientes en el litoral, pesquerías,
plancton, bancos de moluscos, geología de la plataforma.

Investigaciones principales en curso y otras actividades

Demersales en mar de Alborán; túnidos, sardina, boquerón, ictio-
plancton, mareas y niveles medios; estudio geológico del Estrecho
de Gibraltar.

Programas futuros

Igual que los últimos tres años

Continuación del programa actual

- estudio de ordenación del litoral y prospección de áridos.

Programa de cooperación

- I.E.O. y S.E.C.E.G. (Sociedad Española de Estudios para la
Comunicación a través del Estrecho de Gibraltar) - Mareas en el
Estrecho de Gibraltar.

- I.E.O. y I.G.M.E. (Instituto Geológico y Minero de España) - Mapa
geológico de la plataforma continental de la provincia de Murcia.

Estructura de la institución

El Centro se divide en las siguientes secciones:

- Biología Pesquera
- Biología Marina
- Contaminación
- Física
- Geología

Personal

13 Profesional cient.	3 Técnico	4 Otros
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Personal científico

Nombre	Título Académico	Especialización
Arevali, Luis	Oceanógrafo	Física
Cano, Natalio	Oceanógrafo	Física
De Castillejo, Federico	Doctor	Física
Rey, Jorge	Oceanógrafo	Geología
Rey, Juan Carlos	Oceanógrafo	Biología

Locales/instalaciones

Superficie del edificio: 2000 m² Superficie de laboratorio: 600 m²

Servicio de información

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 350

Número de suscripciones a publicaciones periódicas: 15

Servicio de información

(Cont.)

Los títulos de las monografías y las series:

- Trabajos incluidos en el Boletín del I.E.O.
- Trabajos incluidos en el Informe Técnico del I.E.O.

Equipo

C.T.C. Neil Brown, Rosseta G.O. + 5 botellas Niskin, salinómetro Guidline, salinómetro Beckman, 2 registradores analógicos XBT con 2 lanzaderas manuales, 2 mareógrafos Aanderaa, estación meteorológica Aanderaa, cadena de termistores Aanderaa de 100m., 8 correntómetros Aanderaa, boya tipo Selco, mufla, espectrofotómetro, 2 balanzas de precisión, microscopio Nikon, 6 lupas Nikon, proyector de perfiles Nikon, 4 dragas Shipex, 4 Sacatestigos, 2 Uniboom, 2 Sparquer, 2 Subbhotton profiler, 2 slide scan sonar, air gun, 2 equipos de posicionamiento, cámara submarina.

Embarcaciones para investigación

Nombre: NAUCRATES
Eslora: 25 m.
Tipo: Buque oceanográfico
Año de construcción: 1975
Tripulación: 5
Científicos: 6
Espacio para lab.: 24 m²
Equipos y arreglos especiales:
Ecosondador, torno hidráulico, radar, navegación por satélite,
radio onda media y PR27, sonar direccional, facsímil, giroscópica.

Codigo de la institución:002003

Información recibida: 13/09/83

**Instituto de Química Orgánica Aplicada,
Consejo Superior de Investigaciones Científicas (IQOA)**

Funcionario ejecutivo: BALLESTER Manuel: Director

Dirección postal

Instituto de Química Orgánica Aplicada,
Consejo Superior de Investigaciones Científicas (IQOA)
Jorge Girona Salgado, 18-26
BARCELONA 34
SPAIN

Teléfono: 2040666/2037338/2050063/2048617
Telex: 97977 IDEB E

Castellano, Inglés

Principales esferas de actividad
Ciencias químicas

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
Este Instituto tuvo su origen en el antiguo 'Departamento de Química Orgánica de Barcelona del Consejo Superior de Investigaciones Científicas' el cual estaba integrado en la Facultad de Ciencias de Barcelona. Pasando en 1967 a constituirse en Instituto de Investigación independiente de la Universidad. Investigación, monitoreo y otras actividades efectuados en los últimos tres años
La investigación realizada durante los tres últimos años ha seguido principalmente en las líneas de trabajo en las que el Instituto está especializado: Química percloroorgánica; Radicales libres; Polímeros; Conductores orgánicos; Trazadores de spin; Mecanismos de Reacción; Espectrometrías, etc.

Programa de cooperación

- Departamentos de Hidrología - Universidad de Arizona (Tucson, Arizona, U.S.A.)
- Universidad Autónoma de Madrid (España)
- Departamento de Química, Universidad John Hopkins (Baltimore, Maryland U.S.A.)
- Departamento de Química, Universidad de Salford (Salford, U.K.)
- Instituto de Química, Universidad Louis Pasteur (Strasbourg, Francia)

Estructura de la institución

Depende del Consejo Superior de Investigaciones Científicas y posee la estructura general de sus centros.

Personal

6 Profesional cient. 4 Técnico 4 Otros

Personal científico

Nombre	Título Académico	Especialización
Ballester, Manuel	Dr. Ciencias Químicas	Química orgánica
Castañer, Juan	Dr. Ciencias Químicas	Química orgánica
Riera, Juan	Dr. Ciencias Químicas	Química orgánica

Locales/instalaciones

Superficie del edificio: 1200 m²
Con instalaciones para:
Científicos visitantes: 1 E

Servicio de información

Biblioteca:
Número de libros, revistas, manuscritos, etc.: 5000

Código de la institución: 002004

Información recibida: 12/12/83

**Instituto Español de Oceanografía,
Centro Oceanográfico de Baleares**

Funcionario ejecutivo: DURAN Miquel: Director de Laboratorio

Dirección postal

Instituto Español de Oceanografía,
Centro Oceanográfico de Baleares
Muelle de Pelaires s/n
Casilla Postale 291
07080 PALMA DE MALLORCA, BALEARES
SPAIN

Teléfono: 971-401877/401561

Español. Francès

Idiomas de trabajo
Gubernamental

Principales esferas de actividad

Pesquerías en aguas marinas	Oceanografía
Contaminación	Geología/sedimentología

Áreas de especialización

Peces demersales	Peces pelágicos
Camerones	Plancton
Aguas marinas costeras	Hidrocarburos del petróleo
Nutrientes	

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
Fundado en 1908 como Laboratorio Biológico Marino dependiente de la Universidad de Barcelona. Incorporado en 1914 al Instituto Español de Oceanografía.

Investigación, monitoreo y otras actividades efectuados en los últimos tres años

- Monitoreo de pesquerías demersales y pelágicas
- Dinámica de poblaciones de peces sometidas a explotación
- Evaluación de stocks de peces pelágicos
- Prospección de nuevos caladeros
- Estudio del impacto de aguas residuales en el Puerto de Mahón y Bahía de Palma
- Sedimentología de la plataforma continental Mediterránea Ibérica.

Investigaciones principales en curso y otras actividades

Igual que los últimos tres años

Programas futuros

Igual que los últimos tres años

Estructura de la institución

El Centro Oceanográfico de Baleares está integrado en el Instituto Español de Oceanografía que tiene su sede central en Madrid, y Laboratorios en Santander, Coruña, Vigo, Palma de Mallorca, Mar Menor, Málaga y Santa Cruz de Tenerife. Las estructuras económico-administrativa y de planificación están centralizadas en Madrid.

Operativamente el Centro Oceanográfico de Baleares está organizado en tres equipos de trabajo:

- Pesquerías (con 4 investigadores)
- Medio Ambiente Marino (con 4 investigadores)
- Sedimentología (con 2 investigadores)

Personal

11 Profesional cient.	3 Técnico	10 Otros
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Personal científico

Nombre	Título Académico	Especialización
Balle, Pedro	Dr.Cienc.Geológicas	Sedimentología
Chacáartegui, Guillermo	Ldo.Ciencias Quím.	Hidrocarburos
Ma Deyá, Miguel	Ldo.Ciencias Quím.	Nutrientes
Duran, Miquel	Ldo.Cienc.Naturales	Zooplankton
Jansá, Javier	Ldo.Ciencias Biol.	Zooplankton
Massutí, Miguel	Ldo.Cienc.Naturales	Pesquerías de crustáceos
Mateu, Guillermo	Dr.Cienc.Biológicas	Foraminíferos
Oliver, Pedro A.	Ldo.Ciencias Biol.	Biología pesquera
Pastor, Javier	Ldo.Ciencias Biol.	Evaluación acústica stocks
Miquel, Juan	Ing. Electrónico	Evaluación acústica stocks
López-Jurado, José L.	Ldo.Cienc.Físicas	Oceanografía física

Locales/instalaciones

Superficie del edificio: 1000 m² Superficie de laboratorio: 700 m²

Servicio de información

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 20000

Embarcaciones para investigación

Nombre: ODON DE BUEN

Eslora: 23 m.

Tipo: Pesq. oceanográfico

Año de construcción: 1974

Tripulación: 5

Científicos: 7

Espacio para lab.: 1 m²

Equipos y arreglos especiales:

Equipo de pesca para arrastre demersal y pelágico, maquinilla hidrográfica hidráulica con 2000 m de cable de 6 mm, equipo de integración de ecos para evaluación de stocks de peces pelágicos.

Código de la institución: 002005

Información recibida: 01/11/84

**Servei Territorial de Promocio de la Salut de
Tarragona (STPST)**

**(Servicio Territorial de Promoción de la Salud de
Tarragona (STPST))**

Funcionario ejecutivo: BARDAJI GIMENEZ Alfredo: Jefe de Servicio

Dirección postal

**Servei Territorial de Promocio de la Salut de
Tarragona (STPST)
Avenida Ma. Cristina s/n
TERRAGONA
SPAIN**

Teléfono: 977-224151/222620

Español, Catalán

Idiomas de trabajo
Gubernamental

Principales esferas de actividad

Ciencias biológicas
ciencias/tecnología de alimentos
Microbiología
Medicina

Ciencias ecológicas
Ciencias químicas
Contaminación
Educación, capacitación o divulgación

Areas de especialización

Microorganismos
Aguas dulces
Metales (polución)

Aguas marinas costeras
Hidrocarburos del petroleo
Nutrientes

Los objetivos y los programas

Creada (1979) a raíz de las transferencias del Gobierno del Estado Español a la Generalitat de Catalunya, que es la administración autónoma dentro de esta región de España asumió casi la totalidad de las funciones propias de la antigua Jefatura Provincial de Sanidad. Sus objetivos son los propios de un organismo dedicado a la promoción de la salud pública. En el campo de la sanidad ambiental se desarrollan programas de vigilancia permanente de: calidad sanitaria de las aguas de las playas, de las aguas destinadas al consumo humano, de la contaminación atmosférica, de radiaciones ionizantes en los alrededores de las centrales nucleares, de las aguas de los ríos, de las piscinas públicas y semipúblicas. Se realiza también un programa de vigilancia de los vertidos industriales de la zona petroquímica de Tarragona, en la Bahía de la Pineda. Eventualmente se desarrollan estudios de investigación aplicada.

Programa de cooperación

- Se coopera con el PNUMA en el Programa de vigilancia sanitaria de la aguas de las playas y en la vigilancia de los vertidos industriales de la industria petroquímica de Tarragona.
- Se ha participado en el ejercicio de intercalibración que se realizó en el Instituto de Sanidad de Roma, en noviembre de 1982.
- Anteriormente se ha intervenido en el proyecto MED-VII como zona piloto.

Programa de capacitación

Se han realizado 4 cursillos, destinados a Sanitarios municipales, sobre análisis microbiológicos de aguas, siguiendo los métodos del número más probable y de filtración con membrana.

Estructura de la institución

- Sección de Higiene Alimentaria
- Sección de Sanidad Ambiental
- Sección de Epidemiología
- Sección de Laboratorio
- Negociado de Inspecciones
- Negociado de Secretaría y Tasas
- Sanitarios Locales
- Médicos Titulares
- Inspectores Farmacéuticos
- Inspectores Veterinarios
- Practicante Titular
- Comadrona

Personal

7 Profesional cient.

11 Técnico

42 Otros

Personal científico

Nombre	Título Académico	Especialización
Bardaji Giménez, Alfredo	Doctor en Medicina	Salud pública
Galan Torres, Rosa	Licenciada	Química
Feliu Mendez, Ma. Teresa	Licenciada	Microbiología
Grane Terradas, Salvador	Ingeniero de Camino	Saneamiento ambiental
Hernández Higuera, Ascención	Licenciada	Microbiología
Coll Auxó, Ma. Carmen	Licenciada	Química
García Moya, Sergio	Licenciada	Higiene alimentaria

Locales/instalacionesSuperficie del edificio: 3848 m² Superficie de laboratorio: 360 m²**Servicio de información**

Los títulos de las monografías y las series:
- Inscritos a 'Cuadernos de Salud Pública'

Equipo

Espectrofotómetro de absorción, pH metro, conductivímetro, corrientímetro, turbidímetro, 4 microscopios, 3 centrifugas, estufas varias, 2 espectrofotómetros, rampas filtración para análisis microbiológicos, balanzas analíticas, aparato automático para la recogida de muestras de aguas.

Acuario para experimentos

Las especies mantenidas con fines experimentales:

Mus muris**Embarcaciones para investigación**

Nombre: MEDPOL.
Eslora: 5 m.
Tipo: Pesca
Año de construcción: 1976

Equipos y arreglos especiales:

Material móvil para determinaciones in situ.

Código de la institución: 002006

Información recibida: 08/08/83

Dirección Provincial de Salud**Funcionario ejecutivo:** ARCE AVIÑO Marcelo: Director**Dirección postal**

Dirección Provincial de Salud
Avenida Muelle Heredia, 34
MALAGA
SPAIN

Teléfono: 224900/228352

Español

Idiomas de trabajo
Gubernamental

Principales esferas de actividad

ciencias/tecnología de alimentos
Microbiología
Medicina

Control de calidad (prod. pesqueros)
Contaminación
Educación, capacitación o divulgación

Áreas de especialización

Aguas marinas costeras
Hidrocarburos del petróleo

Aguas dulces

Los objetivos y los programas

- Vigilancia del medio ambiente
- Control de agresiones ambientales sobre la persona
- Epidemiología
- Educación sanitaria
- Estudio de aguas costeras
- Sanidad en las playas
- Salubridad del medio ambiente
- Salud y turismo (2.500.000 turistas por año)
- Estudio sobre la contaminación de plaguicidas en aguas dulces.

Programa de cooperación

- Centro piloto de la O.M.S. (PNUMA/OMS; MED POL-Phase Ia. Med VII)

Programa de capacitación

- Escuela Nacional de Sanidad (Centro regional)
- Formación de sanitarios diplomados

Estructura de la institución

La Dirección Provincial de Salud depende de la Consejería de Salud y Consumo de la Junta de Andalucía. Está formada de:

- Sección Programas de Salud
- Sección Sanidad Veterinaria
- Sección Farmacéutica y siguientes laboratorios:
- Salud pública
- Epidemiología
- Protección Maternal e Infantil
- Inmunizaciones Infancia
- Educación Sanitaria

Personal

3 Profesional cient. 12 Técnico 43 Otros

Personal científico

Nombre	Título Académico	Especialización
Arce Aviño, Marcelo	Médico	Salud pública
Cabrero Portero, Juan	Médico	Salud pública
Rodríguez Cabezas, Angel	Médico	Salud pública
Calbo Torrecillas, Francisco	Catedrático	Microbiología, Medicina preventiva

Locales/instalaciones

Superficie del edificio: 2000 m² Superficie de laboratorio: 480 m²

Servicio de información

Biblioteca:

Número de suscripciones a publicaciones periódicas: 6

Los títulos de las monografías y las series:

- Sanidad ante Catástrofes Públicas
- Sanidad y Turismo
- Tesis Doctoral Sobre Litoral
- Centros de Salud (ordenación)
- Dermatología Social
- Boletín Epidemiológico (semanalmente)

Codigo de la institución:002007

Información recibida: 16/03/84

Instituto de Investigacions pesqueiras-Vigo (I.I.P. VIGO)**(Instituto de Investigaciones Pesqueras-Vigo (I.I.P. VIGO))****Funcionario ejecutivo:** MURADO GARCIA Miguel Anxo: Director**Dirección postal**

Instituto de Investigacions pesqueiras-Vigo (I.I.P. VIGO)
Muelle de Bouzas s/n
VIGO 8, PONTEVEDRA
SPAIN

Teléfono: 231930

Español, Gallego, Inglés

Idiomas de trabajo

Gobernamental

Principales esferas de actividad

Ciencias biológicas	Ciencias ecológicas
Pesquerías en aguas marinas	ciencias/tecnología de alimentos
Control de calidad (prod. pesqueros)	Acuicultura
Oceanografía	Ciencias químicas
Microbiología	Contaminación
Educación, capacitación o divulgación	

Areas de especialización

Peces demersales	Peces pelágicos
Cefalópodos	Camarones
Otros invertebrados	Algas
Microorganismos	Plancton
Bentos	Aguas marinas de alta mar
Aguas marinas costeras	Hidrocarburos halogenados
Nutrientes	

Los objetivos y los programas**Historia de la institución, mandato, misión y objetivos**

Este Instituto fue, durante el periodo inicial (1952-1978), un departamento del Instituto del mismo nombre situado en Barcelona, perteneciendo anterior y actualmente al Consejo Superior de Investigaciones Científicas (C.S.I.C.) del Ministerio de Educación y Ciencia. Hoy día y junto con los Institutos de Investigaciones Pesqueras de Barcelona y Cádiz y el Instituto de Acuicultura de Torre de la Sal (Castellón de la Plana) nos encontramos coordinados en el Centro Nacional de Investigación Pesquera (C.E.N.I.P.)

Investigación, monitoreo y otras actividades efectuados en los últimos tres años

Estudios sobre biología pesquera (Bacalao, pulpos, camarón, faneca y mejillón fundamentalmente). Oceanografía química de la plata-forma gallega (Afloramiento). Estudio bioeconómico de la pesca en la ría de Vigo. Estudios sobre los efectos de los vertidos de una papelera en la ría de Pontevedra. Toxicología de PCBs en diatomeas. Sobre tecnología y control de calidad en la industria conservera. Aprovechamiento por microorganismos de residuos de industrias alimentarias. Efectos de los tratamientos térmicos a la calidad de productos pesqueros.

Investigaciones principales en curso y otras actividades

Se encuentra englobado en el apartado anterior.

Programas futuros

Se esperan iniciar temas relacionados con aspectos fisiológicos y de selección de especies de interés económico susceptibles de ser cultivados. Aprovechamiento integral de macrofitos.

Programa de cooperación

- Ministerio de Agricultura, Pesca y Alimentación (Sobre Pesquería de Bacalao en el Atlántico Norte)

Programa de capacitación

La mayoría de los temas descritos en investigaciones han dado lugar darán lugar a Tesis Doctorales. Cursos de aprendizaje de técnicas específicas a graduados hispanoamericanos.

Estructura de la institución

El Instituto está dividido en tres unidades:

- Unidad de Recursos Naturales y Ecología (con dos equipos: Biología Pesquera y Oceanología).
- Unidad de Tecnología de Productos Alimentarios Marinos (con dos equipos: Química de Productos Marinos y Tecnología de Productos Pesqueros).
- Unidad de Servicios Generales

Personal

13 Profesional cient.

3 Técnico

34 Otros

Personal científico

Nombre	Título Académico	Especialización
Alonso Allende J.M.	Dr. C. Biológicas	Biología crustáceos
Fernández Reiriz Ma. J.	Dr. C. Biológicas	Microbiología
Fernández F.	Grad. C. Químicas	Oceanografía
Ferreiro Esteban Ma. J.	Grad. C. Biológicas	Ictioplancton
Figueras Monfort A.	Dr. C. Biológicas	Biología moluscos
Figueras A.	Grad. C. Biológicas	Biología crustáceos
Fraga F.	Dr. C. Químicas	Oceanografía
Franco J.M.	Dr. C. Biológicas	Análisis químico
Gallardo Abuin J.M.	Dr. C. Químicas	Tecnología
Gómez Figueiras F.	Grad. C. Biológicas	Fitoplancton
Gómez Larrañeta	Dr. C. Biológicas	Dinámica poblaciones
González Fernández P.	Grad. C. Químicas	Tecnología
Guerra Sierra A.	Dr. C. Biológicas	Biología cefalópodos
Labarta U.	Grad. C. Biológicas	Biología pesquera
López Benito M.	Dr. C. Químicas	Tecnología
Murado García M.A.	Dr. C. Biológicas	Microbiología
Pastoriza L.	Dr. C. Químicas	Tecnología
Pérez Gándaras G.	Dr. C. Biológicas	Biología cefalópodos
Pérez Martín R.	Grad. C. Químicas	Tecnología
Vázquez A.	Dr. C. Biológicas	Dinámica poblaciones
Zapata Gago M.	Grad. C. Biológicas	Bentos

Locales/instalacionesSuperficie del edificio: 3500 m² Superficie de laboratorio: 2000 m²

Con instalaciones para:

Científicos visitantes: 10

Servicio de información

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 6000

Número de suscripciones a publicaciones periódicas: 34

Los títulos de las monografías y las series:

El C.E.N.I.P. publica dos revistas:

- 'Investigación Pesquera' (de tres a cuatro números anuales, el último 47 (2) Sept. 83, intercambio o suscripción).

- 'Informes Técnicos del IIP' (aperiódico, el último es el no. 107, Julio 83).

Equipo

2 cromatógrafos de gases (Hewlett Packard y Varian), cromatógrafo líquido-líquido (Varian), 3 espectrófotómetros UV-Vis. (Varian y Beckmann), analizador CHN (Perkin Elmer), contador de centelleo (Intertechnique), 2 salinómetros y 2 batitermógrafos así como botellas y termómetros de inversión para oceanografía, 3 balanzas precisión (Mettler y Sartorius), 3 centrifugas, analizador de N total (Tecator), fermentador (New Brunswick), 2 miniordenadoras (Hewlett Packard), sala isoterma (4 grados C; -15 grados C) y pequeña planta piloto de tecnología de conservas, varios microscopios y lupas binoculares, así como material fotográfico diverso.

Embarcaciones para investigación

Nombre: CORNIDE DE SAAVEDRA
 Proprietario: Ministerio de Agricultura
 Eslora: 60 m.

Tipo: Arrastrero por popa

Año de construcción: 1970

Tripulación: 25

Científicos: 12

Espacio para lab.: 50 m²

Equipos y arreglos especiales:

Ecosondador, navegación por satélite, torno hidráulico, radio en UHF y VHF y diferentes artes de pesca.

Nombre: GARCIA DEL CID

Proprietario: C.S.I.C.

Eslora: 30 m.

Tipo: Arrastrero por popa

Año de construcción: 1975

Tripulación: 9

Científicos: 6

Espacio para lab.: 10 m²

Equipos y arreglos especiales:

Ecosondador, navegación por satélite, torno hidráulico, radio en UHF y VHF y diferentes artes de pesca.

Embarcaciones para investigación

(Cont.)

Nombre: LAMPADENA
Proprietario: I.I.P. Vigo
Eslora: 12 m.
Tripulación: 2
Científicos: 3
Espacio para lab.: 5 m²

Nombre: ZOE
Proprietario: I.I.P. Vigo
Eslora: 6 m.
Tipo: Fuera borda
Año de construcción: 1981

Codigo de la institución:002008

Información recibida: 05/11/84

Funcionario ejecutivo: OBIOLS SALVAT José; Profesor Numerario

Instituto Quimico de Sarrià (I.Q.S.)
08017 BARCELONA, CATALUNYA
SPAIN

Castellano. Catalán

Prívada (no lucrat.)

Principales esferas de actividad
 Ciencias químicas
 Educación, capacitación o divulgación

Computadoras/sistemas de información

Aguas marinas costeras
 Metales (polución)
 Nutrientes

Aguas dulces
Hidrocarburos halogenados

Historia de la institución, mandato, misión y objetivos

El objetivo fundamental del IQS, es la formación de químicos a través de un plan de estudios de cinco cursos. Los recursos humanos e instrumentales se aplican a investigaciones, entre otras, sobre temas de medio ambiente.

Investigación, monitoreo y otros actividades efectuados en los últimos tres años

Determinación de hidrocarburos clorados de alto peso molecular, metales pesados y características generales de sedimentos, agua y partículas en suspensión en aire. Puesta a punto de metodicas analiticas.

Investigaciones principales en curso y otras actividades

Obtención de datos sobre el nivel de contaminación química en la costa frente a Barcelona. Puesta a punto de técnicas de análisis para la especiación de metales. Aplicación de técnicas estadísticas e informáticas para el tratamiento de datos y presentación de resultados.

Programas futuros

Continuar los programas de monitoreo, en medio marino y en aire.
Puesta a punto de técnicas de laboratorio para estudio de la
dinámica de metales en el medio marino.

Programa de cooperación

- 'Estudio de contaminantes en el mar catalán', en cooperación con la Comisión Asesora de Investigación Científica y Técnica del Ministerio de Educación y Ciencia.
- 'Programas MED POL', en cooperación con el Instituto Español de Oceanografía del Ministerio de Agricultura, Pesca y Alimentación.

Programa de capacitación

- Cursos para graduados sobre 'Cromatografía' y 'Absorción Atómica'
- Master en Tecnología Química para estudiantes iberoamericanos

Estructura de la institución

La docencia e investigación en el IQS, se realiza a través de los siguientes Departamentos:

- Física
- Ingeniería Química
- Química Analítica
- Química Orgánica

Los estudios sobre medio ambiente se llevan a cabo en el Departamento de Química Analítica.

Personal

22 Profesional client.

4 Técnico

11 Otros

Personal científico

Nombre	Título Académico	Especialización
Barberá Moral, Eduardo	Doctor(Ing. Químico)	Ingeniería Química
Barrera Berro, Alberto	Doctor(Ing. Químico)	Ingeniería Química
Bek Knoller, Werner	Doctor(Ing. Químico)	Física
Bonet Sugrañes, Juan-Julio	Dr.(Ciencias Téc.)	Química orgánica
Carbó Carré, Ramón	Doctor(Ing. Químico)	Química orgánica
Celma Serra, Pedro Juan	Doctor(Ing. Químico)	Ingeniería química

Personal		(Cont.)
Nombre	Título Académico	Especialización
Comellas Riera, Luis	Doctor(Ing. Químico)	Química analítica
Condal Bosch, Luis	Doctor(Química)	Física
Espasa Sempere, Marisa	Dra.(Ing. Químico)	Ingeniería química
García Espeso, Vicente	Doctor(Ing. Químico)	Física
Gassiot Matas, Miguel	Doctor(Química)	Química analítica
Irurre Pérez, José	Doctor(Ing. Químico)	Química orgánica
Julia Arechaga, Sebastián	Doctor(Ing. Químico)	Química orgánica
Montagut Buscás, Miguel	Doctor(Químicas)	Química analítica
Nomen Ribé, Rosa	Dra.(Ing. Químico)	Ingeniería química
Obiols Salvat, José	Doctor(Ing. Químico)	Química analítica
Queralt Teixidó, Rafael	Ingeniero Químico	Servicio teledocumentación
Riera Anquera, Josep Ma.	Doctor(Ing. Químico)	Centro de cálculo
Sempere Cebrián, Julia	Doctor(Ing. Químico)	Ingeniería química
Tomás Morer, Xavier	Doctor(Ing. Químico)	Química analítica
Victori Companys, Lluís	Doctor(Ing. Químico)	Química analítica
Victory Arnal, Pedro	Doctor(Ing. Químico)	Química orgánica

Locales/instalaciones

Superficie del edificio: 5774 m² Superficie de laboratorio: 800 m²
 Con instalaciones para:
 Científicos visitantes: 3 E

Servicio de información

Biblioteca:
 Número de libros, revistas, manuscritos, etc.: 30129
 Número de suscripciones a publicaciones periódicas: 96

Los títulos de las monografías y las series:

- 'AFINIDAS' (bi-mensual)
- 'I.Q.S.' (anual)
- 'Boletín Académico' (bi-anual)
- 'Memoria Académica' (anual)

Equipo

Se citan aquí solamente los destinados a estudios ambientales:
 3 cromatógrafos de gases, cromatógrafo HLPT, espectrómetro de masas, espectrofotómetro de absorción atómica, valorador, ión scanning, 2 balanzas analíticas, centrifuga, microprocesador, instalaciones generales de laboratorio.

Código de la institución: 002009

Información recibida: 14/11/84

Laboratorio Municipal de Badalona (LMBH)

Funcionario ejecutivo: SERRA I DUCH Albert: Coordinador

Dirección postal

Laboratorio Municipal de Badalona (LMBH)
Avda. Martín Pujol, 86
BADALONA, BARCELONA
SPAIN

Teléfono: 93-3892316

Español, Catalán, Francés, Inglés

Idiomas de trabajo
Gubernamental

Principales esferas de actividad

Ciencias biológicas	Ciencias ecológicas
Ciencias/tecnología de alimentos	Microbiología
Contaminación	Meteorología/climatología
Educación, capacitación o divulgación	

Áreas de especialización

Microorganismos	Aguas marinas costeras
Aguas dulces	Hidrocarburos del petróleo
Metales (polución)	Microorganismos patógenicos

Los objetivos y los programas

En 1972 nace el Departamento de Control de la Contaminación Atmosférica. En 1979 se crea el Departamento de Hidrología con intención de estudiar el estado de la zona costera, ampliándose al estudio de aguas potables de distribución, superficiales de riego y lúdicas, así como residuales. En 1983 se crea el Departamento de Bromatología. Es un objetivo primordial de evaluar el cambio producido por la construcción de un colector transversal que transportará todas las aguas del municipio a una planta depuradora.

Programa de cooperación

- 'Xarxa de vigilància' Generalitat de Catalunya
- OMS, PNUMA MED POL-Phase II
- Facultades de Farmàcia y Biología, Departamentos de Edafología y Microbiología.

Estructura de la institución

Es un Laboratorio Municipal con una cierta autonomía. Coordina su labor dentro de las áreas con que tiene una relación: Sanidad, Defensa del Consumidor, Medio Ambiente y Sociales. Tiene un Coordinador General con tres departamentos (unidades operativas) Inmisiones de Aire, Hidrología, Bromatología y Microbiología.

Personal

3 Profesional cient.	5 Técnico	3 Otros
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Personal científico

Nombre	Título Académico	Especialización
Felix Grifols Tramuns	Ldo. (Medicina)	Contaminación atmosférica, Estudios epidemiológicos
Joan Izquierdo Isern	Ldo. (Biología)	Bromatología, Microbiología
Francisco Lucena Gutierrez	Dr. (Biología)	Hidrología, Microbiología

Locales/instalaciones

Superficie del edificio: 400 m² Superficie de laboratorio: 200 m²

Servicio de información

- Los títulos de las monografías y las series:
- Memorias anuales de actividades del laboratorio
 - Informes de la 'Xarxa de vigilància' Generalitat de Catalunya 1979-1983.
 - La qualitat de les aigües litorals (Serie Sanejament Ambiental, Barcelona 1983).

Equipo

Analizador de partículas en suspensión (Beta); analizador de NOx; analizador de SO₂, CO; microscopio; estufas y baños termostáticos de cultivo; campana bacteriológica; espectrofotómetro; material de campo para análisis de aguas; cromatógrafo de gases; valorador

Equipo (Cont.)
automático; autoclaves; balanzas de precisión; reflectómetros;
neveras, Arcón congelador; destilador; columna desmineralizadora;
pH metro, triturador-homogeneizador

Código de la institución: 002011

Información recibida: 14/09/83

**Escuela Universitaria Politécnica de Girona,
Universidad Politécnica de Barcelona (E.U.P.(UPB))**

Funcionario ejecutivo: ARNAU FIGUEROLA José: Director

Dirección postal

Escuela Universitaria Politécnica de Girona,
Universidad Politécnica de Barcelona (E.U.P.(UPB))
Av. Luis Santaló s/n
Casilla Postale 0000000469
17002 GIRONA
SPAIN

Teléfono: 206770/210262

Español

Idiomas de trabajo

Gubernamental Académica

Principales esferas de actividad

ciencias/tecnología de alimentos Ciencias químicas
Contaminación Meteorología/climatología
Educación, capacitación o divulgación

Áreas de especialización

Viento Aguas marinas costeras
Aguas salobres Aguas dulces
Hidrocarburos del petróleo Metales (polución)
Hidrocarburos halogenados Microorganismos patogenicos
Nutrientes

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
Por Decreto 854/1968 del 4 de abril, se creó en Gerona, la Escuela Universitaria de Ingeniería Técnica Agrícola que más adelante 10 de mayo de 1972 (Decreto 1377) quedó integrada en la UPB (Universidad Politécnica de Barcelona). Por Decreto 337/1977 se convirtió en Escuela Universitaria Politécnica.

Investigaciones principales en curso y otras actividades

- Adecuación de aguas para regadíos
- Modelos matemáticos de contaminación de cuencas fluviales
- Contaminación telúrica del Mediterráneo

Programas futuros

- Profundización en modelos matemáticos
- Mejora y automatización de técnicas analíticas
- Contraste depuración de aguas
- Seguimiento de plantas depuradoras Consorcio Costa Brava
- Contaminación del Lago de Bañolas

Programa de cooperación

- MEDPOL - Instituto Español de Oceanografía
- DARP-Generalitat Conselleria Agricultura
- D.E.P.T.-Generalitat Conselleria de Política Territorial
- The International Mussel Watch (Laboratorio Colaborador)

Programa de capacitación

- Cursos monográficos sobre contaminación
- Cursos sobre instrumentación
- Conferencias

Estructura de la institución

- Servicios auxiliares (Centro de Cálculo, medios audiovisuales, oficina técnica, mantenimiento)
- Docentes (Electrónica, Mecánica, Química, Agrícola, Arquitectura técnica)
- Cooperación exterior y Convenios (Medio ambiente, ensayos tecnológicos, Energía)

Personal

6 Profesional cient. 3 Técnico 2 Otros

Personal científico

Nombre	Título Académico	Especialización
José Arnau Figuerola	Dr. Ingeniero	Mecánica de fluidos
M.A. Sainz Sanchez	Dr. Ciencias Exacta	Modelos matemáticos
Concepción Hosta Rebes	Perito Químico	Técnicas analíticas
Joaquín Velayos Solé	Ingeniero Técnico	Foronomía
J. Puig	Ingeniero Industria	Contaminación aguas
Pere Mutje Pujol	Ingeniero Industria	Sistemas depuración

Locales/instalaciones

Superficie del edificio: 8000 m² Superficie de laboratorio: 700 m²
 Con instalaciones para:
 Científicos visitantes: 600

Servicio de información

Biblioteca:
 Número de libros, revistas, manuscritos, etc.: 2500
 Número de suscripciones a publicaciones periódicas: 42

Los títulos de las monografías y las series:

- Contaminación Integral del TER
- Estudio de la Contaminación integral del TER
- Clasificación de las aguas del TER para fines agrícolas
- Optimización de rendimientos de la planta depuradora de aguas de Gerona
- Aplicación de modelos matemáticos a la contaminación del bajo TER

Equipo

Fotocolorímetro (Varian), pH metro (Radiometer), conductímetro (YSI), espectrofotómetro UV-V (Varian), espectrofotómetro AA (Varian), medidor de potencial Z, molinetes y vertederos (Hott), cromatógrafo de gases (Konick), medidor automático de OD/T (YSI), medidores de caudal (Struers), muestreadores automáticos (Struers), planta depuradora piloto (Attis Holtz), DBO meters (Hott), instrumental de medida y registros de flujos, limnigrafos Kent, ordenador VAX-730 PC-350, pantallas gráficas Digital.

Embarcaciones para investigación

Nombre: SQUITX
 Proprietario: José Arnau
 Eslora: 6 m.
 Tipo: bote M-7Cv
 Año de construcción: 1982
 Tripulación: 1
 Científicos: 3
 Equipos y arreglos especiales:
 Equipos portátiles de control de OD, pH, To, conductividad.

Nombre: MAZATLAN
 Proprietario: G. Portas
 Eslora: 12 m.
 Tipo: Mallorquina M-60Cv
 Año de construcción: 1980
 Tripulación: 2
 Científicos: 5
 Espacio para lab.: 6 m²
 Equipos y arreglos especiales:
 Ecosonda, VHH radio, instrumentos de navegación.

Nombre: RIOJA
 Proprietario: M.A. Sainz
 Eslora: 5 m.
 Tipo: Motor-Velero M-10Cv
 Año de construcción: 1973
 Tripulación: 2
 Científicos: 4
 Equipos y arreglos especiales:
 Equipos portátiles de control de OD, pH, To, conductividad.

Código de la institución: 002012

Información recibida: 26/11/84

Colegio Universitario de Castellón,
Universidad de Valencia (CUC)

Funcionario ejecutivo: MEDINA ESCRICHE Julio: Profesor Titular Univ.

Dirección postal

Colegio Universitario de Castellón,
Universidad de Valencia (CUC)
Carretera Borriol s/n
Casilla Postale 224
CASTELLON
SPAIN

Teléfono: 204598/204599

Español 1

Principales esferas de actividad

Principales esferas de actividad	Contaminación
Ciencias químicas	
Transferencia de tecnología	

Áreas de especialización

Aguas de especialización	Aguas marinas costeras
Aguas marinas de alta mar	Aguas dulces
Aguas salobres	Metales (polución)
Hidrocarburos del petróleo	
Hidrocarburos halogenados	

Los objetivos y los programas

Programa de cooperación

Programa de Cooperación
Proyecto Investigación sobre Vigilancia de la Contaminación en el
mar Mediterráneo. Convenio entre el Instituto Español de
Oceanografía y la Universidad de Valencia (Colegio Universitario de
Castellón).

Proyecto Investigación sobre Vigilancia de la Contaminación en el mar Mediterráneo. Convenio entre la Dirección General de Medio Ambiente (MOPU) y la Universidad de Valencia (Colegio Universitario de Castellón).

Estudio sobre la contaminación de las aguas litorales del término municipal de Castellón de la Plana. Convenio entre la Dirección General de Medio Ambiente (MOPU) y la Universidad de Valencia (Colegio Universitario de Castellón).

Programa de capacitación

Determinación de metales (Hg,Pb,Cr,Cd) e hidrocarburos halogenados de elevado peso molecular en sedimentos y organismos marinos.

Estructura de la institución

El C.C.C. es un centro integrado en la Universidad de Valencia.

Se divide en dos Divisiones: División de ciencias y división de letras. La división de ciencias se compone de dos secciones:

Sección de Químicas y Sección de Matemáticas.

Sección de Química:

- Departamento de Química Analítica
- Departamento de Química Física
- Departamento de Química Inorgánica
- Departamento de Química Orgánica
- Departamento de Química Técnica
- Departamento de Medio Ambiente
- Departamento de Tecnología Cerámica

Personal

6 Profesional cient.	0 Técnico	1 Otros
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Personal científico

Nombre	Título Académico	Especialización
Escardino Benlloc, Agustín	Dr. Químicas	Química técnica
Medina Escribhe, Julio	Dr. Químicas	Química analítica
Hernández Hernandez, Felix	Ldo. Químicas	Química analítica
Barbera Ubeda, Juan Carlos	Ldo. Químicas	Química analítica
Marín Saez, Rosa	Lda. Químicas	Química analítica
Conesa Casanova, Miquela	Lda. Químicas	Química analítica

Locales/instalaciones

Superficie del edificio: 3000 m² Superficie de laboratorio: 2100 m²

Con instalaciones para:
Científicos visitantes: 6

Servicio de información

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 1000

Equipo

Cromatógrafo de gases (con detectores captura electrones - conductividad térmica- ionización llama, espectrofotometro de absorción atómica (llama y cámara de grafito), espectrofluorimetro, espectrofotometro UV/V, IR, pH metro, potenciómetros, conductímetros, balanzas analíticas, etc.

Acuario para experimentos

Las especies mantenidas con fines experimentales:

<i>Mytilus galloprovincialis</i>	<i>Aristeomorpha foliacea</i>	<i>Penaeus kerathurus</i>
<i>Mullus barbatus</i>	<i>Mullus surmuletus</i>	<i>Parapenaeus longirostris</i>
<i>Sardina pilchardus</i>		

Embarcaciones para investigación

Nombre: NONE

Tripulación: 6

Científicos: 4

Espacio para lab.: 9 m²

Equipos y arreglos especiales:

Sonda, radar, radio, instrumentos oceanográficos, pH, temp(C), UV/V, fluorimetro, etc.

Codigo de la institución: 002013

Información recibida: 05/11/84

**Departamento de Química Técnica,
Facultad de Ciencias, Universidad de Alicante (QTA)**

Funcionario ejecutivo: RUIZ BEVIA Francisco: Director

Dirección postal

Departamento de Química Técnica,
Facultad de Ciencias, Universidad de Alicante (QTA)
Campus Universitario de Alicante
Casilla Postale 99
ALICANTE
SPAIN

Teléfono: 965-661200
Telex: 66616 UDEA E

Español

Idiomas de trabajo

Gubernamental Académica

Principales esferas de actividad

Ciencias ecológicas Ciencias químicas
Contaminación Ingeniería
Educación, capacitación o divulgación

Áreas de especialización

Aguas marinas costeras Aguas dulces
Metales (polución) Hidrocarburos halogenados
Nutrientes

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
La Facultad de Ciencias de Alicante se creó por Decreto Ministerial de 23 de Agosto, 1975. El Departamento de Química Técnica, de dicha Facultad, desarrolla actividades docentes e investigadoras en química aplicada.
Investigación, monitoreo y otras actividades efectuados en los últimos tres años
Investigación fundamental y aplicada en extracción líquido-líquido.
Estudios sobre contaminación de aguas (marinas, dulces, residuales)
Investigaciones principales en curso y otras actividades
Igual que los últimos tres años
- estudios sobre hidrocarburos halogenados (PCB's, DDT) y metales pesados en sedimentos de lechos de río, lodos de aguas residuales, peces e invertebrados marinos.
Programas futuros
Igual que los últimos tres años
Continuación del programa actual
Programa de cooperación
- Programa MEDPOL II (hidrocarburos halogenados y metales en sedimentos y organismos marinos). Ministerio de Obras Públicas.

Estructura de la institución

La Universidad de Alicante está constituida por las Facultades de:
- Filosofía y Letras
- Ciencias
- Derecho
- Medicina
- Económicas
El Departamento de Química Técnica pertenece a la Facultad de Ciencias

Personal

8 Profesional cient. 0 Técnico 1 Otros

Personal científico

Nombre	Título Académico	Especialización
Ruiz Beviá, Francisco	Doctor	Ingeniería química
Font Montesinos, Rafael	Doctor	Ingeniería química
Prats Rico, Daniel	Doctor	Extracción, Contaminación
Fernández Sempere, Julio	Doctor	Interferometría holográfica
Marcilla Gomis, Antonio	Doctor	Ingeniería química
Gomis Yagües, Vicente	Doctor	Extracción, Contaminación

Locales/instalaciones

Superficie del edificio: 1100 m² Superficie de laboratorio: 800 m²
Con instalaciones para:
Científicos visitantes: 1

Servicio de información

Biblioteca:
Número de libros, revistas, manuscritos, etc.: 1500
Número de suscripciones a publicaciones periódicas: 10

Equipo

Espectrofotómetro de absorción atómica (PYE UNICAM SP9, con cámara de grafito), cromatógrafo de gases (Shimadzu GC R1A, con TCD, FID, EDC), espectrofotómetro de fluorescencia (Perkin Elmer 650-10S), analizador de áreas (Micromeritics), espectrofotómetro UV (Shimadzu U.V. 120-02), currentímetro (Kahl Scientific Instrument Corp., 231WA550), anemómetro, sextante, conductímetro, 3 pH metros, 2 medidores oxígeno, Rotavapor, 3 balanzas analíticas, 3 estufas, mufla, nevera, Arcón congelador,

Código de la institución: 002014

Información recibida: 07/11/84

Secretariat per la Proteccio de la mediterrania
(Secretariado para la Protección del Mediterráneo)

Funcionario ejecutivo: MARTI VALLS Josep; Director

Dirección postal

Secretariat per la Proteccio de la mediterrania
Paseo de Circunvallacio, 1
08003 BARCELONA
SPAIN

Telefóno: 91-3194350
Telex: 54519 LAYE

Castellano, Catalán, Francés, Inglés

Principales esferas de actividad

Transferencia de tecnología	Transferencia de tecnología
Contaminación	Contaminación
Educación, capacitación o divulgación	Educación, capacitación o divulgación

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos
Constituido a raíz de la Conferencia Intermunicipal contra la Contaminación del Mediterráneo.
Investigación, monitoreo y otros actividades efectuados en los últimos tres años
Toma de muestras de agua de mar para el Programa MED POL-Phase II.

Programas futuros

Protección del Mediterráneo desde la óptica de la Administración Local. Información sistemática entre los municipios de la cuenca mediterránea sobre temas de mejora, prevención, control y lucha contra la contaminación. Conocimiento y encuesta sobre el estado de contaminación de las costas mediterráneas y las medidas adoptadas para la prevención y control. Gestionar ayudas documentales técnicas, financieras y de formación y sobre problema de contaminación, para los municipios que lo soliciten.

Programa de cooperación

Programa MED POL-Phase II (PNUMA-ONC) con la participación de los laboratorios del Instituto Químico de Sarriá, Consejo Superior de Investigaciones Científicas, Laboratorio Municipal y Facultad de Farmacia.

- Federación Mundial de Ciudades Hermanadas
- Consejo de Comunas de Europa

Servicio de información

Biblioteca:
Número de libros, revistas, manuscritos, etc.: 550
Número de suscripciones a publicaciones periódicas: 20

Los títulos de las monografías y las series:

- Proceedings de la Conferencia Intermunicipal contra la Contaminación del Mediterráneo. (Barcelona, noviembre de 1981)
- Revista 'Mediterranea' (3 números/año)
- Encuesta sobre de la gestión las aguas residuales en los municipios mediterráneos

Código de la institución: 002015

Información recibida: 16/11/84

**Instituto de Química Bio-orgánica,
Unidad de Química Ambiental (IQBO)**

Funcionario ejecutivo: ALBAIGES Juan: Investigador-Jefe

Dirección postal

**Instituto de Química Bio-orgánica,
Unidad de Química Ambiental (IQBO)
Jorge Girona Salgado
BARCELONA 34
SPAIN**

Teléfono: 2050063/2038412
Telex: 97977

Catalán, Castellano, Francés, Inglés

Idiomas de trabajo

Gubernamental Académica

Principales esferas de actividad

Control de calidad (prod. pesqueros) Ciencias químicas
Contaminación Recursos minerales/petróleo

Áreas de especialización

Petróleo	Aguas marinas de alta mar
Aguas marinas costeras	Aguas salobres
Aguas dulces	Hidrocarburos del petróleo
Hidrocarburos halogenados	

Los objetivos y los programas

Historia de la institución, mandato, misión y objetivos

El Instituto fue creado en 1979 con el fin de llevar a cabo investigaciones interdisciplinarias en los campos de la química orgánica y la biología.

Investigación, monitoreo y otras actividades efectuados en los últimos tres años

Investigaciones principales en curso y otras actividades

La Unidad realiza investigaciones sobre: Indicadores de calidad de aguas continentales y marinas, a partir, fundamentalmente, de organismos y sedimentos como agentes de acumulación. Biogeoquímica de la materia orgánica (autóctona y alóctona, natural y contaminante) en el medio marino. Hidrocarburos, pesticidas, lípidos....

Programas futuros

Igual que los últimos tres años

Continuación del programa actual

- Estudio de procesos de transferencia de aportes continentales (ríos y atmósfera) al mar.

Programa de cooperación

- Instituto de Geología 'Jaime Almera' (Geoquímica Orgánica de sedimentos marinos)
- Estación Biológica de Doñana (Contaminación de lagunas y cursos de aguas del Parque Nacional de Doñana)
- Instituto de Investigaciones Pesqueras (Contaminación de especies marinas)
- Bodega Marine Laboratory, California (Indicadores químicos en aguas costeras)

Programa de capacitación

Cursos de postgrado, en colaboración con la Universidad de Barcelona, sobre:
- Geoquímica Orgánica
- Química del Petróleo

Estructura de la institución

La Unidad de Química Ambiental forma parte del Instituto de Química Bio-Organica, perteneciente al CSIC (Consejo Superior de Investigaciones Científicas).

Personal

8 Profesional cient.	2 Técnico	2 Otros
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Personal científico

Nombre	Título Académico	Especialización
Albaiges, Juan	Dr.	Geoquímica orgánica
Rivera, José	Dr.	Espectrometría de masas
Grimalt, Juan	Dr.	Geoquímica orgánica
Bayona, José Ma.	Dr.	Cromatografía de gases

Locales/instalaciones

Superficie del edificio: 1400 m² Superficie de laboratorio: 200 m²
Con instalaciones para:
Científicos visitantes: 4

Servicio de información

Biblioteca:
Número de libros, revistas, manuscritos, etc.: 5000
Número de suscripciones a publicaciones periódicas: 15

Equipo

5 Cromatógrafos de gases con detectores FID, FPD, NPD, ECD (Carlo Erba, Perkin Elmer), 2 espectrómetros de masas con tratamiento de datos (VG, HP), cromatógrafo líquido-líquido (Varian),
2 congeladores, minicomputer (HP 86)

Embarcaciones para investigación

Nombre: GARCIA DEL CID
Proprietario: CSIC
Eslora: 36 m.
Año de construcción: 1978

Código de la institución: 002016

Información recibida: 29/09/83

**Departamento Química Analítica
Facultad de Ciencias Químicas (FQ)**

Funcionario ejecutivo: MEDINA ESCRICHE Julio: Profesor Titular Universidad

Dirección postal

**Departamento Química Analítica
Facultad de Ciencias Químicas (FQ)
Dr. Moliner, 50
BURJASOT, VALENCIA
SPAIN**

Teléfono: 3630011

Español

Idiomas de trabajo
Académica

Principales esferas de actividad
Ciencias químicas
Transferencia de tecnología

Contaminación

Áreas de especialización

Aguas marinas de alta mar
Aguas salobres
Hidrocarburos del petróleo
Hidrocarburos halogenados

Aguas marinas costeras
Aguas dulces
Metales (polución)

Los objetivos y los programas

Programa de cooperación

Programa de Vigilancia de la Contaminación del Mediterráneo.
Convenio entre Instituto Español de Oceanografía y la Universidad de Valencia (Departamento de Química Analítica).
Convenio entre la Dirección General del Medio Ambiente del Ministerio de Obras Públicas y Urbanismo y la Universidad de Valencia (Departamento de Química Analítica).

Programa de capacitación

Determinación de metales (Hg, Pb, Cd, Cr...) e hidrocarburos halogenados de elevado peso molecular en organismos y sedimentos marinos.

Estructura de la institución

- Departamento de Química Analítica
- Departamento de Química Física
- Departamento de Química Inorgánica
- Departamento de Química Orgánica
- Departamento de Química Técnica
- Departamento de Bioquímica
- Departamento de Cristalografía
- Departamento de Química General

Personal

13 Profesional cient.

0 Técnico

2 Otros

Personal científico

Nombre	Título Académico	Especialización
Bosch Reig, Francisco	Doctor químicas	Métodos ópticos de análisis
Medina Escribano, Julio	Doctor químicas	Métodos ópticos de análisis
Pastor García, Agustín	Licenciado químicas	Cromatografía, Polarografía
Beferull Blasco, J. Bautista	Licenciado químicas	Absorción atómica

Locales/instalaciones

Superficie del edificio: 1500 m² Superficie de laboratorio: 1200 m²

Con instalaciones para:

Científicos visitantes: 8 E

Servicio de información

Biblioteca:

Número de libros, revistas, manuscritos, etc.: 3500

Número de suscripciones a publicaciones periódicas: 10

Equipo

Cromatografía gases (detector captura electrónica - conductividad térmica ionización llama), absorción atómica (llama y cámara de grafito), espectrofotómetros UV-V IR, rayos X, RMN, electrodos selectivos, pH metros, conductímetros, balanzas analíticas, espectrofluorímetro polarógrafo.

Acuario para experimentos

Las especies mantenidas con fines experimentales:

<i>Mytilus galloprovincialis</i>	<i>Aristeomorpha foliacea</i>	<i>Penaeus longirostris</i>
<i>Mullus barbatus</i>	<i>Mullus surmuletus</i>	<i>Sardina pilchardus</i>

Embarcaciones para investigación

Nombre: NONE
Proprietario: Instituto Español Ocenografia
Tripulación: 6
Científicos: 4
Espacio para lab.: 9 m²
Equipos y arreglos especiales:
Sonda, radar, radio instrumentos oceanográficos, medidores pH.
temperatura, UV-V, fluorímetro, etc.

Código de la institución: 002017

Información recibida: 05/11/84

Escuela Nacional de Sanidad (E.N.S.)

Funcionario ejecutivo: RUIZ-FALCO Fernando: Director

Dirección postal

Escuela Nacional de Sanidad (E.N.S.)
 Pabellón No. 1-Facultad de Medicina, Ciudad Universitaria
 MADRID 28040
 SPAIN

Teléfono: 2431467/2438400

Español

Idiomas de trabajo

Gubernamental Académica

Principales esferas de actividad

Ciencias biológicas	Ciencias ecológicas
Ciencias/tecnología de alimentos	Control de calidad (prod. pesqueros)
Ciencias químicas	Microbiología
Contaminación	Medicina
Veterinaria	Ciencias sociales
Educación, capacitación o divulgación	

Áreas de especialización

Aguas marinas de alta mar	Aguas marinas costeras
Aguas dulces	Hidrocarburos del petróleo
Metales (polución)	Hidrocarburos halogenados
Microorganismos patógenos	Nutrientes
Radionucleidos	

Los objetivos y los programas

La Escuela Nacional de Sanidad fue fundada en 1924 y reformada en 1944. La misión de la Escuela Nacional de Sanidad es la docente a nivel de post-graduados, incluido Cursos Generales y Monográficos. La Escuela participa en programas de investigación aplicada, tanto nacionales como internacionales con el doble fin de preparar al profesorado y participar en la propia investigación. De estos programas, y específicamente los en relación con las ciencias acuáticas y la pesca, algunos se mencionan a continuación:

- Nivel de contaminación abiótica en las aguas costeras de Galicia
- Metales pesados en organismos marinos del Delta del Ebro
- Evaluación de los niveles de microcontaminantes abióticos del Delta del Ebro
- Hidrocarburos clorados del grupo DDT y PCB's en organismos marinos del Delta del Ebro
- Microcontaminantes en aguas superficiales españolas
- Influencia de los embalses en el contenido de macro y micro-componentes a lo largo de la cuenca del río Miño y su repercusión sanitaria
- Presencia de mercurio en pescado
- Investigación de la D.S.P. en moluscos
- Estudio comparativo de la acción bacteriostática del ácido bórico como conservador de mariscos

La mayoría de estos estudios siguen en curso.

Programa de cooperación

- MEDPOL - Instituto Español de Oceanografía (metales pesados e hidrocarburos halogenados)
- GEMS-AIRE - O.M.S. (SO₂, partículas en aire)
- COST-61 A-BIS - C.E.E. (contaminantes atmosféricos)
- BAPMON (lluvias ácidas)
- EMEP

Programa de capacitación

- Diplomados de Sanidad
- Oficiales Sanitarios (Equivalente al Master en Salud Pública)
- Cursos especiales para postgraduados

Estructura de la institución

La Institución está compuesta por:

- Dirección
- Subdirección y Jefatura de Estudios
- Secretaría de Estudios
- Secretaría de Investigación
- Secretaría Técnica y los siguientes Departamentos
- Físico-Química Sanitaria
- Sanidad Ambiental
- Microbiología
- Higiene de los Alimentos
- Estadística y Epidemiología

Estructura de la institución
Parasitología
Zoonosis
Inmunología y Virus

(Cont.)

Personal

30 Profesional cient. 70 Técnico 30 Otros

Personal científico

Nombre	Título Académico	Especialización
Julia Santamaría Ballesteros	Farmacéutica	Microcontaminantes inorgánicos
Javier Méndez González	Químico	Microcontaminantes orgánicos
Carmen Bueno Gastón	Farmacéutica	Microcontaminantes orgánicos
Ma. Teresa Bomboi Mingarro	Farmacéutica	Microcontaminantes orgánicos
Pilar Aragón Santamaría	Química	Radionúclidos en pescados.
		Radionúclidos en aguas marinas
Fernando Pérez Flórez	Veterinario	Radionúclidos en pescados.
		Radionúclidos en aguas marinas
Manuel G. Manóo	Ingeniero	Ingeniería sanitaria y ambiental

Locales/instalacionesSuperficie del edificio: 5000 m² Superficie de laboratorio: 3000 m²**Equipo**

2 Espectrofotómetros de absorción atómica (Perkin Elmer y I.L.).
 5 cromatógrafos de gases (Perkin Elmer, H. Packard), equipo de liofilización, pH metro, 5 espectrofotómetros UV y visible, 5 balanzas analíticas, analizador iónico, microcomputador, microscopio con equipo fotográfico. (En la Institución existen otros equipos que no se mencionan, destinados a otras actividades)

Codigo de la institución:002018

Información recibida: 13/12/84

مركز الأبحاث البحرية

Marine Research Centre (Latakia) (MRC)

Executive officer: The Minister of Higher Education

Postal address

Marine Research Centre (Latakia) (MRC)
c/o Supreme Council of Sciences
P.O. Box 4762
DAMASCUS
SYRIA

Telephone: 339754/337877

Working languages

Arabic

Nature of institute

Governmental

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Microbiology
Pollution	Geology/sedimentology)
Education, training or extension	

Areas of speciality

Pelagic fish	Cephalopods
Lobsters	Shrimps/prawns
Other invertebrates	Algae
Micro-organisms	Plankton
Benthos	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients

Objectives and programmes

The MRC was founded in 1974 and officially opened in 1981 but due to several reasons active research has not been started yet. It is hoped that during 1984 some of the fields of activities indicated above will be investigated. Active preparations for full operation of the MRC are now under way.

Cooperative programme

The following projects of cooperation are planned:

- Station Marine d'Endoume
- Etudes avances en oceanographie-Université du Québec à Rimonski
- Laboratorio di Biologia Marina - Università di Genova

Staff

26 Scientific staff 17 Technical staff 50 Other staff

Professional scientific staff

Name	Degree	Speciality
Nahhas, R.	Ph.D.	Experimental marine biology.
Sagre, F.	Ph.D.	Aquaculture Invertebrates

Premises/facilities

Laboratory area: 520 m²

With facilities for:

Visiting scientists: 8

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 3000

Equipment

Gas chromatograph, mass spectrophotometer, spectrophotometers (2), microscopes, CHN analyzer, current meter, pH meters, salinity meters, dark room equipment, cameras, piloting echo sounder, oxygen meter, oscillograph, instrumentation for chromatography, plankton and other nets, Niskin bottles, TSO probe.

Aquarium facilities

Total area: 12 m² Number of tanks: 40

Organisms maintained:

Pelagic fish	Molluscs	Crustaceans
Other invertebrates	Algae	Micro-organisms

Aquarium facilities

(Cont.)

Species maintained for experimental purposes:

Paracentrotus lividus *Arbacia lixula* *Chthamalus sp.*
Balanus sp.

Research craft

Name: NONE
Owner: MRC
Type: working boat

Name: NONE
Owner: MRC
Type: working boat

Institution code: 001166 Information received: 02/11/84

المعهد القومي للفن والتقى للأقيانوس والميد البحري

Institut national scientifique et technique
d'océanographie et de pêche (I.N.S.T.O.P.)

Fonctionnaire exécutif: HADJ ALI SALEM Mohamed: Directeur

Adresse postale

Institut national scientifique et technique
d'océanographie et de pêche (I.N.S.T.O.P.)
28, rue de 2 mars 1934
SALAMBO 2025, TUNIS
TUNISIA

Telephone: 01-075632/276364

Langues de travail
Arabe, français

Catégorie de l'institution
Gouvernementale

Principaux domaines d'activités

Biologie	Ecologie
Pêche maritime	Pêche dans les eaux intérieures
Aménagement des ressources	Technologie halieutique
Aquaculture	Océanographie
Chimie	Pollution

Domaines de spécialisation

Poissons démersaux	Poissons pélagiques
Autres vertébrés	Céphalopodes
Crevettes	Plancton
Benthos	Métaux (polluants)
Hydrocarbures contenant des halogènes	Eléments nutritifs

Les objectifs et les programmes

L'histoire de l'institution, son mandat et ses objectifs
L'institut a été créé en 1924 sous le nom de Station
océanographique de Salammbô (SOS), pris son appellation actuelle en
1964, a pour mission les recherches dans le domaine des sciences de
la mer et la pêche.

Les activités de recherche, de contrôle continu & autres menées
au cours des trois dernières années
Etudes et recherches des métaux lourds, des pesticides et sur
l'eutrophisation.

Principales activités de recherche et autres activités en cours
Biologie des espèces de poissons et crustacés d'importance
commerciale, étude des stocks, engins de pêche, aquaculture,
pollution marine.

Les programmes futurs

Identique aux trois dernières années
Continuation de programme existant.

Programme de coopération

- Faculté des sciences de Tunisie (biologie marine)
- Institut Pasteur de Tunis (microbiologie)
- Institut national agronomique de Tunisie (sciences halieutiques)

Structure de l'institution

L'Institut comporte les sections suivantes:

- Ressources halieutiques
- Aquaculture
- Technologie des engins de pêche
- Océanographie et pollution

Personnel

20 Personnel scient. 25 Personnel technique 20 Autre personnel

Personnel scientifique

Nom	Diplôme Universitaire	Principale Discipline
M. Hadj Ali Salem	Prof.ès sciences	Pollution, Océanographie chimique
M. Belkhir	Dr.sc.	Ecologie marine, Pollution
H. Gharbi	Dr.sc.	Dynamique des populations
L. Khemis	M.sc.	Dynamique des populations
A. Abdelmoula	M.sc.	Technologie (produits pêche)
A. Hattour	M.sc.	Dynamique des populations
S. Najai	Dr.sc.	Ressources halieutiques
M. Mhitli	Ingénieur halieut.	Technologie des pêches

Personnel

(Cont.)

Nom	Diplôme	Principale Discipline
B. Turki	M.sc.	Ressources halieutiques
S. Turki	M.sc.	Ressources halieutiques
N. Zammouri	Ingénieur halieut.	Ressources halieutiques
B. Abdelkader	M.sc.	Ressources halieutiques
M. Zouari	Ingénieur halieut.	Pêche côtière
M. Ghorbel	Ingénieur halieut.	Dynamique des populations
N. Bradat	Ingénieur halieut.	Dynamique des populations
O. Beji	Ingénieur halieut.	Aquaculture
Ch. Rais	Ingénieur halieut.	Aquaculture
J. Ksouri	Ingénieur halieut.	Aquaculture
N. Ben Abdelkader	Ingénieur halieut.	Aquaculture
A. El Ouaer	Ingénieur halieut.	Aquaculture

Locaux/installationsSuperficie construite: 1950 m²**Services d'information**

Bibliothèque:

Nombre de livres, revues, manuscrits, etc.: 30000

Nombre d'abonnements périodiques: 35

Les titres des monographies et des séries:

- Bulletin INSTOP, 1980, Vol. 7 en français (échange)
- Bulletin INSTOP, 1981, Vol. 8 en français (échange)
- Bulletin INSTOP, 1982, Vol. 9 en français (échange)
- Rapports et Documents INSTOP, 1980, 1, 2, 3, et 4
- Rapports et Documents INSTOP, 1981, 1, 2, 3, et 4
- Rapports et Documents INSTOP, 1982, 1, 2, 3, et 4

Matériel

Salinomètre, spectrophotomètre, pH mètre, oxygène mètre, divers microscopes et loupes.

Aquarium d'experimentationSuperficie totale: 30 m² Nombre de réservoirs: 20

Organismes entretenus:

Poissons démersaux Poissons pélagiques Crustacés

Les espèces entretenues à des fins expérimentales:

*Mullus barbatus**Dicentrarchus labrax**Mullus surmuletus**Sepia officinalis**Sardina pilchardus**Penaeus kerathurus***Bâtiments de recherche**

Nom: HANNOUN
 Propriétaire: CGP, INSTOP
 Longueur: 21 m.
 Type: Coque en acier
 Equipage: 11
 Personnel scientifique: 2
 Superficie des lab.: 4 m²
 Aménagements spéciaux:
 Radar, radio, échosondeur

Nom: MIMOUN
 Longueur: 12 m.
 Type: en bois
 Equipage: 8
 Aménagements spéciaux:
 Radio

Le code de l'institution 003066

Information reçue: 09/09/83

معهد باسٲور

Institut Pasteur de Tunis (IPT)

Executive officer: CHADLI Amor: Directeur

Postal address

Institut Pasteur de Tunis (IPT)
13, place Pasteur
P.O. Box 74
1002 TUNIS-BELVEDERE
TUNISIA

Telephone: 283022/283023/283024

Working languages

Arabe, français, anglais

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Fishing technology	Food science/technology
Quality control (fishery products)	Aquaculture
Oceanography	Chemical sciences
Physical sciences	Microbiology
Pollution	Medicine
Veterinary medicine	

Areas of speciality

Marine mammals	Demersal fish
Pelagic fish	Other vertebrates
Other invertebrates	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Nutrients	

Objectives and programmes

Institution gouvernementale et universitaire ayant pour objet:
diagnostics biologiques, production de sérums, vaccins et produits
biologiques, centre de formation post-universitaire et centre de
recherches fondamentale et appliquée.

Recherche sur la pollution bactérienne et organique du milieu marin

Cooperative programme

Institut scientifique et technique d'océanographie et de pêche de
Salammbô-Département de biologie marine de la Faculté des sciences
de Tunis-Office national des pêches, Faculté de Méd. de Tunis, etc.

Training programme

En cours de programmation dans le domaine de la biologie marine.

Institution structure

L'Institut est divisé en plusieurs Services: Anatomie et cytologie
pathologiques, Parasitologie - Mycologie, Microbiologie,
Bactériologie, Hématologie, Immunologie, Biochimie, Biologie
marine, Microbiologie animale, Entomologie, Hygiène.

Staff

18 Scientific staff	96 Technical staff	85 Other staff
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Professional scientific staff

Name	Degree	Speciality
Chadli, A.	Professeur	Cyto-histologie, Bactériologie
Jekov, S.	Professeur	Microbiologie
Capape, C.	Docteur	Biologie marine

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 5000

Number of periodical subscriptions: 300

Monographs and serials titles:

'Archives de l'Institut Pasteur de Tunis' (français, anglais 4 fois
par an, sur échange, dernier fascicule: Vol. 60, No. 1-2, 1983).

Equipment

pH mètres, salinomètre, oxymètre, plusieurs microscopes et loupes binoculaires, balances analytiques, colorimètres, centrifugeuses, analyseurs d'eau (Technicon), spectrophotomètre d'absorption atomique, équipements photographiques hôts à flux laminaires.

Aquarium facilities

Number of tanks: 2

Institution code: 003067

Information received: 05/11/84

**Orta Dogu Teknik Üniversitesi,
Deniz Bilimleri Enstitüsü (ODTÜ-DBE)**

(Middle East Technical University,
Institute of Marine Sciences (METU-IMS))

Executive officer: ÜNLÜATA ümit: Director

Postal address

Orta Dogu Teknik Üniversitesi,
Deniz Bilimleri Enstitüsü (ODTÜ-DBE)
Deniz Bilimleri Enstitüsü
P.O. Box 28
ERDEMLİ, İCEL
TURKEY

Telephone: 7585-1842

Telex: DMS TR 67208

Cable: P.K. 28 ERDEMLİ İCEL TURKEY

Working languages

English, Turkish

Nature of institute

Academic

Main fields of activities

Ecological sciences	Marine fisheries
Oceanography	Microbiology
Pollution	Meteorology/climatology
Geology/sedimentology)	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Plankton	Offshore marine waters
Coastal marine waters	Brackish waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Nutrients

Objectives and programmes

History of institution, its mandate and purpose

The Middle East Technical University, as state-owned institution was established in 1956 to provide scientific and technical training to students from a wide area of the world. The Institute of Marine Sciences was established in 1975 and became operational in 1977. The main objectives of the Institute are to improve the development and management of Turkey's marine resources and coastal environment. With this aim in mind education and training has been set as a primary goal of the Institution.

Research, monitoring and other activities in last three years

- Assimilative capacity of Iskenderun Bay (Present level of pollution, sources of pollution, their field of influence and the types of pollutant substances are monitored for the determination of present water quality).
- The fisheries research programme. (Fisheries potential of southern coastal waters of Turkey)
- SEKA Paper Plant Oceanographic Studies
- Meso-Scale Oceanographic study for Akkuyu Nuclear Power Plant
- Biochemical distribution of mercury in the northeastern Mediterranean
- Physical oceanography of the Cilician Basin and the southern Turkish continental shelf.

Major current research and other activities

- MED POL. PHASE II
- Physical Oceanography of the Cilician basin
- Hydrography and pollution studies in the Gulf of Iskenderun
- Physical and chemical oceanographic studies in the Bosphorus, the Sea of Marmara and the Dardanelles system
- Sedimentology and some geophysical aspects of the Cilician basin
- Turkish/UK Marine Science Cooperation on teaching and joint British-Turkish marine research projects.

Future programmes

- Meso-scale oceanographic studies for the SINOP Nuclear Power Plant
- Pollution monitoring on the southern Turkish coastal waters and the Gulf of Iskenderun
- Fishery studies on the northeastern Mediterranean Sea
- Sedimentation studies in the Cilician basin

Cooperative programme

- Long term pollution of the Mediterranean (MED POL. Phase II)
- Sedimentology of Cilician basin (NATO)
- Biochemical distribution of mercury in the northeastern Mediterranean (UN-FAO)
- Turkish/UK marine science cooperation

Objectives and programmes (Cont.)**- Oceanographic processes in the North Levantine waters (IOC)****Training programme**

The institution offers the graduate level (M.S. and Ph.D.) training programs in physical, chemical oceanography, marine biology and fisheries, marine geology and geophysics. The basic training of graduate students are supported by their participation in the active research programs in the field.

Institution structure

The Institute has the following four main divisions:

- Physical and chemical oceanography
- Geological and geophysical oceanography
- Biological oceanography and fisheries

Additionally; administrative staff, technicians, crew members, librarian and general workers are employed. There are also 25 M.S. and 2 Ph.D. students.

Staff

9 Scientific staff 25 Technical staff 75 Other staff

Professional scientific staff

Name	Degree	Speciality
Ünlüata, Ümit	Ph.D.	Physical oceanography
Salihoglu, İlkay	Ph.D.	Chemical oceanography
Özsoy, Emin	Ph.D.	Physical oceanography
Latif, Mohammed A.	Ph.D.	Physical oceanography
Oguz, Temel	Ph.D.	Physical oceanography
Saydam, Cemal	Ph.D.	Chemical oceanography
Bingel, Ferit	Ph.D.	Marine biology
Ünsal, Mustafa	Ph.D.	Marine biology
Alavi, Nouri	Ph.D.	Marine geology

Premises/facilities

With facilities for:

Laboratory area: 2960 m²

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 4600

Number of periodical subscriptions: 32

Equipment

Atomic absorption spectrophotometer (Varian AA-6), gas chromatography (Packard-721), radio gaschromatography (Packard), echosounder (Kelvin-Hughes), side scan sonar (EC&G), sediment analyser (Coulter counter), UV-Vis spectrophotometer (Varian-635), pH meters (Orion 801-A), printer (Orion 751), DO meter, bottom samplers (Hydro-Bios), core samplers, bottom samplers (Interocean), grab samplers, Van Veen samplers, laboratory recorders (Nippon), microscope (Hydro-Bios), plankton counter (Hydro-Bios), Nansen bottles (Hydro-Bios), CSTD 500 insitu monitoring system (Interocean), current meters (Kahlsico, EG&G, Aanderaa), submersible tide recorder (Interocean), Uniboom (Shallow seismic system), (EG&G), precision depth recorder (Raytheon), trisponder navigation system (Decca), portable salinometer, diving equipments, Guildline salinometer (bench type), Navalec VHF ship to shore radio, Data General Micronova computer system with MP 200 processor, magnetic tape, disks, digital and analog interfaces, ZETA 1453 plotter.

Research craft

Name:	R/V BİLİM
Length:	42 m.
Type:	Research
Date of construction:	1982
Crew:	11
Scientists:	17
Name:	R/V ERDEMLİ
Length:	17 m.
Type:	Research vessel
Date of construction:	1979
Crew:	4
Scientists:	5
Name:	R/V LAMAS
Length:	16 m.
Type:	Trawler
Date of construction:	1981
Crew:	4
Scientists:	4

Research craft

(Cont.)

Name:

MARTI

Type:

Fishing boat

Institution code:

001172

Information received: 29/10/84

**EGE Üniversitesi Hidrobiyoloji, Su Ürünleri
Araştırma Ve Uygulama Merkezi**

**(EGE University, Hydrobiology, Water Resources
Research Center)**

Executive officer: UYSAL Hüseyin: Director

Postal address

**EGE Üniversitesi Hidrobiyoloji, Su ürünleri
Araştırma Ve Uygulama Merkezi
Urla Iskele
İZMİR
TURKEY**

Telephone: 180110-2417

Working languages

Turkish, English, French

Nature of institute

Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Resources management	Fishing technology
Food science/technology	Quality control (fishery products)
Aquaculture	Oceanography
Limnology	Chemical sciences
Physical sciences	Offshore technology
Microbiology	Pollution
Meteorology/climatology	Geography
Mineral resources (incl. Oil)	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Other vertebrates	Cephalopods
Lobsters	Shrimps/prawns
Other invertebrates	Algae
Micro-organisms	Plankton
Benthos	Mineral oil
Other minerals	Offshore marine waters
Coastal marine waters	Brackish waters
Inland (fresh) waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Radionuclides

Objectives and programmes

History of institution, its mandate and purpose

The Center was first founded in 1965 at Mektupçu. Later on in 1980 a new building covering a very large area was constructed at Urla. This Center is well suited for carrying on research in the laboratories of the above stated disciplines and has a staff working in the field and at sea through our research vessels.

Research, monitoring and other activities in last three years

Major current research and other activities

Future programmes

The Center is involved in the following research activities:

- Effects of pollution on the eggs of some fish
- Effects of heavy metals on mussel and polychaets
- Effects of petroleum hydrocarbons and detergents on crustaceans, seastars, mussels, grassshrimps etc.
- Investigations on plankton
- Levels of trace elements in some food chain organisms
- Biogeographic investigation of some marine species
- Culture of selected marine organisms
- Ecological studies in relation to pollution

Cooperative programme

- TÜBİTAK, TÜRK
- Station Marine d'Endoume
- Centre Océanologique Bretagne
- C.E.R.B.O.M.
- Laboratoire Arago
- UNEP, FAO, WHO, IAEA

Training programme

Biology, Physics, Chemistry, Geology, Invertebrate Zoology, Marine Chemistry, Marine Biology, Ichthyology, Marine Fish in Turkey, Fisheries Biology, Pollution, Aquaculture, Fish Pathology, Fisheries Technology, Planktonology, Algology, Benthology. (Education of students, M.Sc., Ph.D. and post doctoral level) Educational and academic activities have been held in EGE University, Science Faculty, Department of Biology, Hydrobiology Section (Bornova/Izmir).

Institution structure

The Institute consists of the following laboratories:

- Fisheries Biology
- Benthology
- Planktonology
- Marine Chemistry
- Pollution
- Limnology
- Aquaculture

Staff**Professional scientific staff**

Name	Degree	Speciality
Cysal, Hüseyin	Prof.Dr.	Pollution, Marine biology
Geldiay, Remzi	Prof.Dr.	Aquaculture, Limnology,
Kocatas, Ahmet	Prof.Dr.	Benthology, Pollution
Alpbaz, Atilla	Prof. Dr.	Aquaculture, Marine ecology
Ergen, Zeki	Ass. Prof.	Benthology, Pollution
Mater, Savas	Ass. Prof.	Ichthyoplankton, Fishery biology
Balik, Süleyman	Ass. Prof.	Limnology, Fish pathology
Altunel, Naci	Ass. Prof.	
Hossucu, Hikmet	Ass. Prof.	Aquaculture
Özel, İsmet	Dr.	Planktonology
Özelsel, Sevin	Dr.	Planktonology
Katagan, Tuncar	Dr.	Benthology
Togulga, Melahat	Dr.	Pollution
Ucal, Oguz	M.Sc.	Aquaculture
Ustaoglu, Rusen	M.Sc.	Limnology
Büyükkisik, Baha	M.Sc.	Marine chemistry
Tuncer, Sezginer	M.Sc.	Pollution
Koray, Tufan	M.Sc.	Planktonology
Yaramaz, Özdemir	M.Sc.	Marine chemistry
Çakar, Hatice	M.Sc.	Pollution
Gökpinar, Sevket	M.Sc.	Algology
Önen, Mesut	M.Sc.	Benthology
Öztürkoglu, Belgin	B.Sc.	Aquaculture
Kaya, Murat	B.Sc.	Fisheries biology

Premises/facilities

Building area: 1500 m²

Laboratory area: 1000 m²

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 2500

Number of periodical subscriptions: 1600

Equipment

Geiger-Müller counter, Rotary evaporator, echosounder Mod. Es 2F (Simrad), echosounder Mod. BG 82 (Simrad), electron microscope (Jeo 1), pH meter (Mod. 23A direct reading), 3 salinometer (Beckman), salinometer kit, bathythermographs, microscope, oxygen and temperature probe (Grasshaft Hydro-bios), underwater film camera (Bauer), plankton nets (Hydro-bios), diving equipment (Scuba), high voltage electrophoresis (Camag), constant temperature room, ultramicrotome (Reichert), photographic equipment, deep freezer (-60 grade C) (Kötterman), oxygen meter (Trotech), spectro-photometer (Varian Techtron AA6 DAB)

Aquarium facilities

Total area:

200 m²

Number of tanks:

30

Organisms maintained:

Demersal fish

Molluscs

Embryophytes

Pelagic fish

Crustaceans

Algae

Other vertebrates

Other invertebrates

Micro-organisms

Species maintained for experimental purposes:

Mugil spp.

Mytilus galloprovincialis

Monodonta spp.

Penaeus kerathurus

Caretta caretta

Nereis diversicolor

Diplodus annularis

Paracentrotus lividus

Patella vulgata

Sparus aurata

Chelonia mydas

Salmo trutta

Artemia sp.

Palaemon elegans

Idotea baltica

Dicentrarchus labrax

Sphaeroma serratum

Cyprinus carpio

Research craft

Name: HIPPOCAMPUS
Owner: Ege University
Length: 17 m.
Type: Fish trawler
Date of construction: 1969
Crew: 4
Scientists: 8
Laboratory space: 5 m²
Special facilities:
Echosounder, hydrographical equipment, hydrographic trawling winch,
3 m3 ice-room.

Name: NEREIS
Owner: Ege University
Length: 9 m.
Type: Boat
Date of construction: 1969
Crew: 1
Scientists: 4

Name: ZODIAC
Owner: Ege University
Length: 6 m.
Type: Hydrographic inv.
Date of construction: 1982
Crew: 1
Scientists: 2

Name: POLYESTER BOAT
Owner: Ege University
Length: 4 m.
Type: Inland water inv.
Date of construction: 1982
Crew: 1
Scientists: 2

Institution code:

001173

Information received: 14/11/84

**Cevre Mühendisligi Bölümü Mühendislik Fakültesi
Dekanligi (ODTÜ)**

**(Environmental Engineering Department, Faculty of
Engineering, Middle East Technical University (METU))**

Executive officer: SÜRÜCÜ Gülerman: Chairman

Postal address

**Cevre Mühendisligi Bölümü Mühendislik Fakültesi
Dekanligi (ODTÜ)
ANKARA
TURKEY**

Telephone: 237100
Telex: 42761
Cable: ODTÜ/CEVRE

Working languages
Turkish, English

Nature of institute
Governmental Academic

Main fields of activities
Biological sciences Chemical sciences
Physical sciences Pollution

Objectives and programmes

History of institution, its mandate and purpose

The Environmental Engineering Department evolved for the sanitary engineering option of the Civil Engineering Department which had been offering graduate courses in this field since 1967. The scope of the Department is research on physical, chemical, biological aspects of marine pollution and outfall design.

Research, monitoring and other activities in last three years

- MED-POL II studies (in cooperation with the Department of Marine Sciences of METU)
- Water and wastewater treatment studies for various industrial and urban locations-inland and coastal facilities.
- Environmental inventory and environmental impact assessment studies of major development projects located in inland and on the coast.

Major current research and other activities

- MED-POL II studies (in cooperation with the Department of Marine Sciences of METU).
- Studies of marine pollution resulting from industrial activities and urban areas.
- Environmental impact assessment of a coastal nuclear power plant on the marine ecosystem.

Future programmes

- MED-POL II studies (in cooperation with the Department of Marine Sciences of METU).
- Environmental impact assessment for a second coastal nuclear power plant planned for the future
- Coastal water pollution resulting from industrial activities and urban areas

Cooperative programme

Cooperation with other departments of the University

Training programme

Undergraduate, graduate and postgraduate education and research programs mainly on environmental sciences and engineering (some of them related to marine pollution). In addition some specific topics can be taught upon request.

Institution structure

The Department has the following units (laboratories).

- Operations
- Chemical analysis
- Microbiology
- Air pollution control
- Instrumental analysis
- Biochemistry

Staff

14 Scientific staff 5 Technical staff 4 Other staff

Professional scientific staff

Name	Degree	Speciality
Gülerman Sürücü	Assoc.Prof.Dr.	
S. Erol Ulug	Assoc.Prof.Dr.	
Celal F. Gokcay	Assoc.Prof.Dr.	

Staff Name	Degree	Speciality	(Cont.)
Mustafa Oguz	Assist.Prof.Dr.		
Selcuk Soyupak	Assist.Prof.Dr.		
Ali Basaran	Assist.Prof.Dr.		
Mete Enuysal	Assist.Prof.Dr.		
Yasar F. Öztürk	Instructor		
Filiz B. Dilek	Research Assistant		
Buket Uzuner	Research Assistant		
Meral Oguz	Research Assistant		
Ülkü Yetis	Research Assistant		
Coskun Yurteri	Research Assistant		

Premises/facilitiesLaboratory area: 2500 m²**Information facilities**

Monographs and serials titles:
- Applied Research Journal

Equipment

Scientific equipment for marine pollution research

Institution code:

001174

Information received: 05/11/84

**Farmakoloji-Toksikoloji Bilimdali,
Veteriner Fakultesi,
Ankara Universitesi (ANK.UNIV.VET.)**

(Department of Pharmacology and Toxicology,
Faculty of Veterinary Medicine,
University of Ankara (UNIV.ANK.FAC.))

Executive officer: OZKAZANC, Ahmet N.: Head

Postal address

Farmakoloji-Toksikoloji Bilimdali,
Veteriner Fakultesi,
Ankara Universitesi (ANK.UNIV.VET.)
ANKARA
TURKEY

Telephone: 161155-71

Cable: ANK. UNIV. VET. FAKUL. ANKARA-TURKEY

Working languages

Turkish, English

Nature of institute

Governmental Academic

Main fields of activities

Pollution Veterinary medicine
Education, training or extension

Areas of speciality

Petroleum hydrocarbons Metals (pollutants)
Halogenated hydrocarbons Nutrients

Objectives and programmes

History of institution, its mandate and purpose
Department of pharmacology and toxicology was established to carry out fundamental and applied research on veterinary pharmacology and toxicology.

Research, monitoring and other activities in last three years
Research on chlorinated hydrocarbons (DDT and analogs), organophosphoro-compounds, heavy metals, alkaloidal compounds, toxicological analysis on poisoned animal samples.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years
Continuation of current programme

Cooperative programme

- Ministry of Agriculture (General director of veterinary section).
- Faculty of Pharmacy, University of Ankara (Department of Pharmaceutical Toxicology).
- Others from Faculty of Veterinary Medicine.

Training programme

- Graduate course in pharmacology and toxicology for foreign and national faculty students.
- Post-graduate level courses leading to M.Sc. and Ph.D. for veterinarians.

Institution structure

The Department is divided into the following sections:

- Pharmacology (Veterinary)
- Toxicology (Veterinary and Environmental).

Staff

6 Scientific staff 3 Technical staff 2 Other staff

Professional scientific staff

Name	Degree	Speciality
Özkanaz, A. Nazim	M.V. Ph.D. (Prof.)	Pharmacology, Toxicology
Gürtunca, Sükrü	M.V. Ph.D. (Prof.)	Pharmacology, Toxicology
Sanlı, Yusuf	M.V. Ph.D. (Assoc.)	Pharmacology, Toxicology
Kaya, Sezai	M.V. Ph.D. (Assist.)	Pharmacology, Toxicology
Özata, İlyas	M.V. Ph.D. (Res.w.)	Pharmacology, Toxicology
Evci, Emine	M.V. (Res. worker)	Pharmacology, Toxicology

Premises/facilities

Building area: 2500 m² Laboratory area: 390 m²
With facilities for:
Visiting scientists: 3 S

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 16648
Number of periodical subscriptions: 125

Equipment

Gas-chromatograph (Pye Unicam series 104), spectrophotometer (Beckman Model B7), mercury analyser (Coleman 50, Perkin-Elmer), pH-meter (Model pH-390), thin-layer chromatograph (Desaga), colorimeter (Coleman Model 13), centrifuge, poligraph (Nihon-Kohden), Rotavapor (R-110 Buchi), blender (Virtis '23'), mechanical shaker (Bilser), electrical heater (Labor chemical), distillation apparatus (Kottermann), other laboratory equipment.

Institution code: 001175 Information received: 06/11/84

**Tarım Orman ve Köyisleri Bakanlığı
Su ürünleri Dairesi Başkanlığı**

(Ministry of Agriculture, Forestry and Rural Affairs,
Department of Fisheries)

Executive officer: SAHİN İrfan; Chairman

Postal address

Tarım Orman ve Köyisleri Bakanlığı
Su ürünleri Dairesi Başkanlığı
Olgunlar Sokak No:10
BAKANLIKLAR, ANKARA
TURKEY

Telephone: 254353

Working languages
Turkish

Nature of institute
Governmental

Main fields of activities

Marine fisheries	Inland fisheries
Resources management	Fishing technology
Food science/technology	Quality control (fishery products)
Aquaculture	Oceanography
Limnology	Pollution
Policy and planning	Technology transfer
Marketing/economics	

Areas of speciality

Marine mammals	Demersal fish
Pelagic fish	Other vertebrates
Lobsters	Shrimps/prawns
Other invertebrates	Embryophytes
Algae	Micro-organisms
Plankton	Benthos
Sea-bed nodules	Coastal marine waters
Brackish waters	Inland (fresh) waters
Mangroves ecosystems	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients

Objectives and programmes

With Law No. 1380, the Department was established as the main authority to coordinate, cooperate and implement all kinds of subjects related with water products. Application of research results and implementation of legal issues are also within the Department's work. It controls fish migration, water pollution, protection of species etc. The Department is the main authority related with all kinds of fisheries.

Cooperative programme

With all universities, scientific institutions, government institutions, fishermen and fisheries cooperatives.

Training programme

Training is provided under bilateral and multilateral agreements as in-service training.

Institution structure

The Department is divided into:

- Marine Fisheries Division
- Inland Fisheries Division
- Economic Planning Division
- Research Division
- Water Pollution Control Division

In addition there are regional directorates and Research institutes

Staff

13 Scientific staff 350 Technical staff 360 Other staff

Professional scientific staff

Name	Degree	Speciality
Ölkü Merter (Ms)	Ph.D.	Water pollution control
İsmail Mert	Ph.D.	Inland fisheries
Lugal Goksu	M.Sc.	Water pollution
S. Vahdet Yerli	M.Sc.	Water pollution
Sükrü Genc	B.Sc.	Water pollution
Mustafa Cetiner	Ph.D.	Inland fisheries
Gülgönül Büyükdora (Ms)	B.Sc.	International projects
Ahmet Cansiz	B.Sc.	Marine fisheries

Staff		(Cont.)	
Name	Degree	Speciality	
Erdener Cerig	M.Sc.	Sponges	
Inci Sarikaya (Ms)	M.Sc.	Freshwater crayfish	
Sengül Tunali	M.Sc.	Freshwater crayfish	
Süleyman Demir	M.Sc.	Coastal fisheries	
Osman Tatar	Ph.D.	Aquaculture	
Erol Ücyıldız	Ph.D.	Inland fisheries	

Aquarium facilities

Organisms maintained:		
Marine mammals	Demersal fish	Pelagic fish
Other vertebrates	Molluscs	Crustaceans
Other invertebrates	Embryophytes	Algae
Micro-organisms		

Institution code:

001176

Information received: 22/02/84

**Deniz Bilimleri ve Teknolojisi Enstitüsü,
Dokuz Eylül Üniversitesi (DBTE)**

**(Institute of Marine Science and Technology
Dokuz Eylül University)**

Executive officer: IZDAR Erol: Director

Postal address

**Deniz Bilimleri ve Teknolojisi Enstitüsü,
Dokuz Eylül Üniversitesi (DBTE)
SSK Tesisleri D Blok Kat 2 Konak
P.O. Box 478
İZMİR
TURKEY**

Telephone: 254328/254958/254338/254098

Telex: 52889 DBTE TR

Working languages

Turkish, English, German

Nature of institute

Academic

Main fields of activities

Biological sciences	Marine fisheries
Fishing technology	Aquaculture
Oceanography	Offshore technology
Pollution	Engineering
Geology/sedimentology)	Mineral resources (incl. Oil)
Education, training or extension	

Areas of speciality

Demersal fish	Pelagic fish
Other invertebrates	Algae
Plankton	Benthos
Other minerals	Offshore marine waters
Coastal marine waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients
Radionuclides	

Objectives and programmes

History of institution, its mandate and purpose

The Institute was established in 1975 attached to the Ege University. During the reorganization of high education institutions in 1982, incorporated in the Dokuz Eylül University, to carry out fundamental and applied research and post-graduate education in marine sciences and technology.

Research, monitoring and other activities in last three years

- Basic oceanographic and hydrographic research in the onshore and off-shore regions.
- Geological and geophysical research and studies in the onshore and off-shore regions.
- All kinds of geotechnical, bathymetric and similar technical studies and research concerning harbours and coastal structures.
- Research on marine pollution, marine disposal of wastes and related areas.
- Coordination and cooperation with institutions engaged in the management of marine sources and law of the sea, and establishment of research groups.
- Organisation of postgraduate courses, seminars and conferences on topics covered within the fields of interest of the institute.
- Collaborate in research with national and international public and private organisations for the attainment of the stated goals.

Major current research and other activities

- Bathymetric and engineering seismic surveys and wave climate study of Turkish Petroleum Corporation, Izmir Refinery's new crude unloading pier.
- Cooling system investigations of the Beysehir 2x150 MW thermic power plant.
- UNEP Med.-Pol II, National Mediterranean Pollution monitoring project in Aegean Sea.
- Elemental transfer process and eutrophication in Büyük Menderes Delta (Great Meander Delta) and their off-shore distribution.
- Pollutant transfer process and biogeochemical cycles of specific pollutants at the selected locations of Candarli Gulf, Turkey.
- Cooling system investigations of Mugla, Ören-Kemerköy 3x210 MW thermic power plant; project of the pier to be constructed at the site and research on thermal pollution of Gökova Bay.
- Research on shellfish aquaculture in the Aegean Sea.
- Research on the sedimentology of the Black Sea.
- Research on the improvement of living marine resources of

Objectives and programmes

(Cont.)

Gökçeada-Saroz region (Northern Aegean).

- Research on the improvement of lagoon fisheries.
- Marine Surveys of the natural gas pipeline crossing Marmara Sea.

Future programmes

Same as in the last three years

will also include the below mentioned subjects:

- Research and studies on exploration and exploitation of economical marine mineral resources.
- Model studies on and the design of off-shore platforms and deep sea structures.

Cooperative programme

- University of Hamburg, SCOPE/UNEP International Carbon Unit at the Geological and Paleontological Institute (Sedimentology of the Black Sea)
- Woods Hole Oceanographic Institution, Department of Geology and Geophysics (Sedimentology of the Black Sea)
- Netherland's Institute of Sea Research (Sedimentology of the Black Sea)
- University of Hamburg, Institut für Hydrobiologie und Fischereiwissenschaften (Shellfish aquaculture in the Aegean Sea)
- Bundesforschungsanstalt für Fischerei, Hamburg (Shellfish aquaculture in the Aegean Sea)

Training programme

Post graduate level courses leading to M.Sc. and Ph.D. in Marine Geology and Geophysics, Living Marine Resources and Marine Technology.

Institution structure

The Institute is divided into following sections:

- Marine Sciences (covering Marine Geology and Geophysics, Living Marine Resources, Physical and Chemical Oceanography)
- Marine Technology (covering Ship Construction and Marine Structures branches)
- The Management of the research vessel and technical services
- Administrative offices

Staff

22 Scientific staff

28 Technical staff

21 Other staff

Professional scientific staff

Name	Degree	Speciality
Izdar, Erol	Ph.D.(Prof.)	Engineering geology.
Akyarlı, Adnan	Ph.D.(Assoc.Prof.)	Coastal engineering. Harbour engineering
Taspinar, Nihat	Ph.D.(Assoc.Prof.)	Ship hydrodynamics
Konuk, Tosun	Ph.D.(Assoc.Prof.)	Engineering geology. Marine surveys
Düzbastılar, Musa K.	Ph.D.(Assoc.Prof.)	Engineering geology. Marine surveys
Ünsal, Sumsu	Ph.D.(Assoc.Prof.)	Marine biology
Cirik, Sükran	Ph.D.(Asst.Prof.)	Marine biology
Ergün, Mustafa	Ph.D.(Asst.Prof.)	Applied geophysics
Ulug, Atilla	Ph.D.(Res.Asst.)	Applied geophysics
Benli, Hüseyin A.	M.Sc.(Res.Asst.)	Marine biology
Kuntal, Ender	M.Sc.(Res.Asst.)	Underwater acoustics
Senöz, Mehmet	M.Sc.(Res.Asst.)	Applied geophysics
Eftelioglu, Mustafa	M.Sc.(Res.Asst.)	Engineering geology. Marine surveys
Küçüksezgin, Filiz	M.Sc.(Res.Asst.)	Chemical oceanography
Durma, Hikmet	B.Sc.(Res.Asst.)	Electronics
Duman, Muhammet	B.Sc.(Res.Asst.)	Geotechnics. Marine surveys
Samsunlu, Ahmet	Ph.D.(Prof.)	Marine pollution
Gülgeze, Ertan	Ph.D.(Asst.Prof.)	Law of the Sea
Tüzmen, Sevil	B.Sc.(Lecturer)	Documentation
Muradoglu, Semra	B.A.(Lecturer)	Teaching English
Yasav, Dogan	B.Sc.(Res.Asst.)	Engineering geology. Marine surveys
Balci, Ahmet	B.Sc.(Res.Asst.)	Chemical oceanography

Premises/facilitiesBuilding area: 950 m²Laboratory area: 2000 m²

With facilities for:

Visiting scientists: 32

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 2500

Number of periodical subscriptions: 20

Equipment

Trisponder system (Decca), echosounders (Atlas Deso 10, Edig 10 and Simrad), magnetometer and proton gradiometer (Geometrics G 801 G.), engineering seismic system (O.R.E. 140), side scan sonar (E.G. and G.), buoy refraction system (Telescis), airgun facility, water analyzer-continuous data acquisition down to 500 m. water depth (Interocean-Oseas), digital water analyzer (Martek), water quality monitoring unit (Martek), oil pollution measuring unit (Horiba 200) spectrophotometer (Beckman 26 UV/VIS B-12), water filtration unit (Millipore), microbiological research unit (Millipore), 11 current meters (Endeco), 2 tide gauges (Endeco), 2 Datawell wave-rider buoys with analog and digital recording type land stations, 4 current meters (Interocean), 5 acoustic releases (Endeco), acoustic command unit (Endeco), acoustic release (Interocean), acoustic command unit (Interocean), recording type wave gauge (Interocean), Alpine Ocean Vibracore, 3 different dredges, Van-Veen grab, Orange-Pell bucket, piston and gravity corers, boomerang corers, water and sediment analyzer (Hach), Nansen bottles, beam-trawl, otter-trawl, Scuba-diving unit (in a container), various microscopes, 2 computers (PDP 11/05) and 2 terminals (TI 700 ASR), complot (Houston instruments), computer for data decoding of Endeco instruments (Otrono-Attache).

Aquarium facilities**Organisms maintained:**

Demersal fish	Pelagic fish	Molluscs
Crustaceans	Other invertebrates	

Species maintained for experimental purposes:

<i>Coscinodiscus excentricus</i>	<i>Ceratium tripos</i>	<i>Noctiluca miliaris</i>
<i>Peridinium granii</i>	<i>Calanus sp.</i>	<i>Mytilus galloprovincialis</i>
<i>Ostrea edulis</i>	<i>Penaeus kerathurus</i>	<i>Spongia officinalis</i>
<i>Chrysophrys aurata</i>	<i>Anguilla anguilla</i>	

Research craft

Name:	K. PIRI REIS
Owner:	Inst. of Marine Science and Tech.
Length:	36 m.
Type:	research vessel
Date of construction:	1978
Crew:	10
Scientists:	10
Laboratory space:	38 m ²
Special facilities:	

Bathymetric surveying system, engineering seismic system, environmental data measuring system, fishery and biological gears, trawl and deep sea winches

Name:	ÖLCEN I
Owner:	Inst. of Marine Science and Tech.
Length:	8 m.
Type:	motor boat
Date of construction:	1983
Crew:	2
Scientists:	2
Special facilities:	

Bathymetric surveying system, environmental data measuring system.

Name:	ÖLCEN II
Owner:	Inst. of Marine Science and Tech.
Length:	8 m.
Type:	motor boat
Date of construction:	1975
Crew:	2
Scientists:	3
Special facilities:	

Fishery and biological gears.

Institution code: 001177 Information received: 07/11/84

EGE Üniversitesi su ürünleri Yüksek Okulu
(EGE University Fisheries College)

Executive officer: ALPBAZ Attila; Director

Postal address

EGE Üniversitesi su ürünleri Yüksek Okulu
BORNOVA-İZMİR
TURKEY

Telephone: 180110-2988

Working languages
Turkish, English

Nature of institute
Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Resources management	Fishing technology
Food science/technology	Quality control (fishery products)
Aquaculture	Oceanography
Limnology	Chemical sciences
Physical sciences	Offshore technology
Microbiology	Pollution
Veterinary medicine	Meteorology/climatology
Policy and planning	Marketing/economics
Education, training or extension	

Areas of speciality

Demersal fish	Pelagic fish
Other vertebrates	Shrimps/prawns
Algae	Micro-organisms
Plankton	Benthos
Tides/waves	Wind
Offshore marine waters	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Pathogenic micro-organisms
Nutrients	Radionuclides

Objectives and programmes

Founded on September 1982. The main aims of Fisheries College are education and research on fish farming and fisheries.

Training programme

Educational programme of Fisheries College consists of 8 semesters with courses in biology, chemistry, physics, mathematics, oceanography, fisheries, aquaculture, ecology, navigations, computer programming, fisheries science, languages, history etc.

Staff

3 Scientific staff 5 Technical staff 10 Other staff

Professional scientific staff

Name	Degree	Speciality
Alpbaz, Atilla	Prof. Dr.	Fish farming
Hossucu, Hikmet	Yrd. Doc. Dr.	Fish farming.
		Fisheries
Elbek, Ahmet	Dr.	Fisheries economy

Premises/facilities

Building area: 1000 m² Laboratory area: 100 m²
with facilities for:
Visiting scientists: 3

Information facilities

Library holdings:
Number of books, journals, manuscripts, etc.: 500
Number of periodical subscriptions: 5

Equipment

A closed system for carp breeding, different field apparatus for water quality control, laboratory equipment.

Aquarium facilities

Total area: 500 m² Number of tanks: 45

Aquarium facilities

(Cont.)

Organisms maintained:

Marine mammals
Other vertebrates
AlgaeDemersal fish
Molluscs
Micro-organismsPelagic fish
Other invertebrates

Species maintained for experimental purposes:

*Cyprinus carpio**Sparus aurata**Mugil cephalus**Anguilla anguilla**Mytilus galloprovincialis**Salmo gairdneri**Dicentrarchus labrax**Mugil spp.**Daphnia sp.**Penaeus kerathurus**Mugil chela**Tapes decussatus**Artemia sp.*

Institution code:

001178

Information received: 30/03/84

Institut za oceanografiju i ribarstvo (IOR)**(Institute of Oceanography and Fisheries)****Executive officer:** STIJELJA, Rade M.: Director**Postal address**

Institut za oceanografiju i ribarstvo (IOR)
Mose Pijade 63
P.O. Box 114
58000 SPLIT, S.R. HRVATSKA (CROATIA)
YUGOSLAVIA

Telephone: 46682/46688**Working languages**

Croatian, English, French

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Aquaculture
Oceanography	Chemical sciences
Microbiology	Pollution
Geology/sedimentology	Education, training or extension

Areas of speciality

Demersal fish	Pelagic fish
Shrimps/prawns	Other invertebrates
Algae	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients

Objectives and programmes**History of institution, its mandate and purpose**

The Institute was founded in 1930 to carry out fundamental and applied research in physical, chemical and biological oceanography of the Adriatic Sea as well as education in marine sciences.

Research, monitoring and other activities in last three years

Physical and geological properties of phenomena in the sea; Basic chemical processes, content and cycles of elements and compounds in the sea; Process and dynamics within and between trophic levels; Flora, fauna and life communities; Ecological, physiological and genetic studies of marine organisms; Investigations-explorations of the Adriatic Sea as food source; Information system and models of marine research; Effects of pollutants on marine organisms and their communities; Control and protection of the coastal waters of the Adriatic Sea.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Cooperation with other national institutions in the framework of the UNEP-coordinated Mediterranean Pollution Monitoring and Research Programme (MED POL-Phase II).
- Joint programmes with the Laboratorio di Biologia Marina e Pesca, Fano (ITALY).

Training programme

- Graduate courses in marine biology for national university students
- Post-graduate level courses leading to M.Sc. and Ph.D.
- Training of fishery personnel from the developing countries (International centre in the Institute of Oceanography and Fisheries).

Institution structure

The Institute is divided into following Departments:

- Physiographic Department
- Biological Department
- Fisheries Department
- Pollution Research Group
- Mariculture Group
- Living Resources Group

Staff

36 Scientific staff

10 Technical staff

27 Other staff

Professional scientific staff

Name	Degree	Speciality
Alfirevic, S.	Ph.D.	Marine geology
Vucetic, T.	Ph.D.	Zooplankton ecology
Pucher-Petkovic, T.	Ph.D.	Phytoplankton ecology
Zore-Armanda, M.	Ph.D.	Open-sea dynamics
Span, A.	Ph.D.	Ecology of phytobenthos
Jukic, S.	Ph.D.	Demersal fish ecology
Regner, D.	Ph.D.	Copepods ecology
Regner, S.	Ph.D.	Ichthyoplankton
Jardas, I.	Ph.D.	Demersal fish
Hernandez-Dragiccevic, V.	Ph.D.	Fish population dynamics
Gacic, M.	Ph.D.	Coastal oceanography
Muzinic, R. (Part-time)	Ph.D.	Pelagic fish
Gamulin-Brida, H. (Part-time)	Ph.D.	Zoobenthos
Stegnar, P. (Part-time)	Ph.D.	Heavy metals
Kacic, I.	M.Sc.	Echo-survey
Simunovic, A.	M.Sc.	Zoobenthos
Stojanoski, L.	M.Sc.	Hydrographical properties
Vukadin, I.	M.Sc.	Nutrients
Bone, M.	M.Sc.	Diffusion processes
Sinovic, G.	M.Sc.	Pelagic fish
Dujmov, J.	M.Sc.	Hydrocarbons, mineral oils
Marasovic, M.	M.Sc.	Phytoplankton
Tudor, M.	M.Sc.	Phenols
Katavic, I.	M.Sc.	Mariculture
Zvonaric, T.	M.Sc.	Heavy metals
Krstulovic, N.	M.Sc.	Bacterial pollution
Antolic, B.	M.Sc.	Marine algae
Kraljevic, M.	M.Sc.	Mariculture
Tonkovic, M.	B.Sc.	Mariculture
Dadic, V.	B.Sc.	Electronics
Puskaric, A.	B.Sc.	Electronics
Majic, A.	M.Sc.	Phytoplankton, Mariculture
Morovic, M.	M.Sc.	Transparency
Grubelic, I.	M.Sc.	Zoobenthos
Jukic, I.	M.Sc.	Mariculture
Solic, M.	M.Sc.	Bacteriology

Premises/facilitiesBuilding area: 1123 m²Laboratory area: 500 m²

With facilities for:

Visiting scientists: 5

S

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 4000

Number of periodical subscriptions: 400

Monographs and serials titles:

Monographs:

- Regner, S., 1980. Ekologija planktonskih stadija brgljuna

Engraulis encrasicolus (Linnaeus, 1758) u srednjem Jadranu

(Doctor Thesis)

- Regner, D., 1980. Sezonska i visegodisnja dinamika populacija

kopepoda srednjeg Jadrana. (Doctor Thesis)

- Gacic, M., 1983. Dugoperiodicne oscilacije u strujnom polju u

Jadranu. (Doctor Thesis)

- Majic, A., 1982. Karakteristike fitoplanktona istočne obale

Jadrana (M.Sc. Thesis)

Current Serial Titles:

'Acta Adriatica'

'Notes'

Equipment

Fluorometer (Turner), autoanalyser (Technicon), spectrophotometer (UNICAM), polarograph (Radiometer), net-recorder FNR-2, box sampler (Reineck), under-water TV camera (Furuna), 4 RCM Aanderaa current meters (Bergen, Norway), CTD-probe (Inter Ocean), freeze-drying equipment, analytical balance (Mettler), ATP-photometer, thermo-static room, computer.

Aquarium facilities

Total area:

50 m²

Number of tanks:

20

Organisms maintained:

Demersal fish

Crustaceans

Other invertebrates

Algae

Aquarium facilities

(Cont.)

Species maintained for experimental purposes:

<i>Phaeodactylum tricornutum</i>	<i>Isochrysis galbana</i>	<i>Pseudoisochrysis virginica</i>
<i>Pavlova lutheri</i>	<i>Platymonas selcila</i>	<i>Tetraselmis striata</i>
<i>Dunaliella tertiolecta</i>	<i>Skeletonema costatum</i>	<i>Leptocylindrus minimus</i>
<i>Artemia salina</i>	<i>Brachionus plicatilis</i>	<i>Sparus aurata</i>
<i>Dicentrarchus labrax</i>	<i>Puntazzo puntazzo</i>	<i>Mugil sp.</i>

Research craft

Name: BIOS
 Length: 28 m.
 Type: Research vessel
 Date of construction: 1953
 Crew: 9
 Scientists: 8
 Laboratory space: 40 m²
 Special facilities:
 Echo-integrator (SIMRAD), echo-sounder, hydraulic winch, radar,
 satellite navigation system, VHF radio equipment, oceanographic
 instruments (Beckman photometer, salinometer, pH meter ect.)

Name: GIRA
 Length: 6 m.
 Type: Motor boat

Institution code: 001187 Information received: 08/07/83

Bioloski Zavod (BZ)**(Biological Institute (BI))****Executive officer:** BENOVIC Adam: Director**Postal address**

Bioloski Zavod (BZ)
 12, Damjana Jude
 P.O. Box 39
 DUBROVNIK 50000
 YUGOSLAVIA

Telephone: 50-27937**Working languages**

Croatian, English

Nature of institute

Academic

Main fields of activities

Biological sciences
 Marine fisheries
 Oceanography

Ecological sciences
 Aquaculture

Areas of speciality

Other invertebrates
 Benthos
 Coastal marine waters
 Metals (pollutants)

Micro-organisms
 Offshore marine waters
 Petroleum hydrocarbons
 Nutrients

Objectives and programmes**History of institution, its mandate and purpose**

Founded in 1951 to investigate biota of the southern Adriatic region: fundamental and applied research on marine living resources, terrestrial botany and ornithology.

Research, monitoring and other activities in last three years

Research on plankton communities in coastal and offshore waters, monitoring of DDT, PCBs in plankton and *Mytilus galloprovincialis*; experiments with phytoplankton species as potential surfactant producers; hatching and rearing experiments with *Dicentrarchus labrax*, *Puntazzo puntazzo*, *Boops salpa*; improvement of shellfish cultures. Ecology and systematics of different plankton groups (inshore and offshore waters). Changes in avifauna under the impact of urban activities. Floristic and other terrestrial botanic research of the islands.

Major current research and other activities

Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Center for Marine Research, Institute 'Rudjer Boskovic' Zagreb (heavy metals, DDT, PCB's, surfactants as pollutants).

Training programme

- Graduate courses in marine biology and terrestrial botany for national university centers

Institution structure

The Institute is connected to the Institute for Oceanography and Fisheries, Split and is subdivided into:

- Marine Biology (including public aquarium)
- Terrestrial Botany (including botanical garden)
- Ornithology (including natural museum)

Staff

15 Scientific staff

18 Technical staff

10 Other staff

Professional scientific staff

Name	Degree	Speciality
Bender, Ankica	M.Sc.	Zooplankton, Cladocera
Benovic, Adam	Ph.D.	Zooplankton, Biomass
Bolotin, Jaksa	B.Sc.	Aquaculture, Mussels and oysters
Hecimovic, Marija	M.Sc.	Terrestrial botany
Hecimovic, Stipe	M.Sc.	Terrestrial botany
Hure, Jure	Ph.D.	Zooplankton, Copepoda
Krsinic, Frano	Ph.D.	Microzooplankton, Ciliata

		(Cont.)
Staff Name	Degree	Speciality
Lucic, Davor	M.Sc.	Zooplankton, Neuston
Musin, Damir	M.Sc.	Microzooplankton, Crustacea
Onofri, Vladimir	M.Sc.	Zooplankton (general)
Prtenjaca, Ivica	B.Sc.	Aquaculture, Fishes
Rudenjak, Marina	M.Sc.	Microzooplankton
Skaramuca, Bosko	Ph.D.	Zooplankton, Aquaculture
Tutman, Ivan	Ph.D.	Ornithology
Vilicic, Damir	Ph.D.	Phytoplankton, Biomass
Nenad, Jasprica	B.Sc.	Phytoplankton

Premises/facilities

Building area: 2500 m² Laboratory area: 350 m²
 With facilities for:
 Visiting scientists: 2 5

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 1000
 Number of periodical subscriptions: 10

Equipment

Light binocular microscope (different magnification), inverted binocular microscope, microbalance Mettler H 10 p. calorimeter, deep freezer, constant temperature chambers, plankton nets (different types), centrifuge, salinometer, diving equipment, pH meter, microcomputer (Apple IIe), Niskin water bottles, reversing thermometers, multi-water checker.

Aquarium facilities

Total area: 600 m² Number of tanks: 47

Organisms maintained:

Demersal fish	Other vertebrates	Molluscs
Crustaceans	Other invertebrates	Embryophytes
Algae		

Species maintained for experimental purposes:

<i>Skeletonema costatum</i>	<i>Dunaliella tetriolecta</i>	<i>Prorocentrum micans</i>
<i>Artemia salina</i>	<i>Copepoda spp.</i>	<i>Brachionus spp.</i>
<i>Dicentrarchus labrax</i>	<i>Boops salpa</i>	<i>Puntazzo puntazzo</i>
<i>Seriola dumerili</i>		

Research craft

Name: BALDO KOSIC
 Length: 14 m.
 Type: Trawler, 160 HP
 Date of construction: 1983
 Crew: 3
 Scientists: 6
 Laboratory space: 6 m²
 Special facilities:
 Echosounder, hydraulic winch, VHF radio equipment, different fishing gears, Scuba diving equipment.

Name: MRKAN
 Length: 6 m.
 Type: Vessel, 16 HP
 Date of construction: 1964
 Crew: 1
 Scientists: 3

Name: NONE
 Length: 4 m.
 Type: Overboard engine
 Date of construction: 1960
 Crew: 1
 Scientists: 2

Institution code: 001188 Information received: 01/11/84

Centar za istraživanje mora Rovinj,
Institut 'Rudjer Boskovic' Zagreb (CIM/IRB)

(Center for Marine Research Rovinj,
'Rudjer Boskovic' Institute Zagreb (CMR))

Executive officer: BAZULIC Davorin; Acting Director

Postal address

Centar za istraživanje mora Rovinj,
Institut 'Rudjer Boskovic' Zagreb (CIM/IRB)
Giordano Paliaga 5
P.O. Box 150
ROVINJ 52210, CROATIA
YUGOSLAVIA

Telephone: 052-811544/811567

Cable: AQUARIUM ROVINJ

Working languages

Croatian, English

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Aquaculture	Oceanography
Chemical sciences	Physical sciences
Microbiology	Pollution
Education, training or extension	

Areas of speciality

Marine mammals	Demersal fish
Pelagic fish	Other invertebrates
Algae	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Metals (pollutants)	Halogenated hydrocarbons
Pathogenic micro-organisms	Nutrients
Radionuclides	

Objectives and programmes

History of institution, its mandate and purpose

Founded in 1891 as the field station of the Berlin Aquarium. Later it was sponsored by German and Italian bodies. After World War II it has operated as the Institute for Marine Biology of the Yugoslav Academy of Sciences and Arts. In 1969 the Center for Marine Research was organized by joining the Rudjer Boskovic Institute's marine science laboratories and the Institute for Marine Biology. From 1980 the Rovinj's station is a special department of the Rudjer Boskovic Institute.

Research, monitoring and other activities in last three years

Monitoring of selected physical, chemical and biological oceanographic parameters, current measurements, study of nutrients cycle and primary production processes, baseline studies of chlorinated hydrocarbons in water, sediments and organisms, biological role and toxicological aspects of trace elements (Zn, Cd, Hg, Se), effects of phenols and oil fraction to marine organisms, monitoring of marine radioactivity, ecophysiological aspects of osmoregulation (Na, Cl) in marine organisms, chemical composition of marine organisms, molecular biology of DNA, RNA and proteins, primary productivity of phytoplankton, taxonomy and biogeography of marine flora and fauna, benthic communities with special regard to effects of pollution, sanitary control of coastal waters, complex environmental pollution studies, feasibility studies for location of outfalls, mariculture of fish and shellfish.

Major current research and other activities

CMR Rovinj is a marine station specialized in research of the Adriatic Sea. It covers a wide range and includes studies of hydrography of the Adriatic, marine flora and fauna, ecology with special references to benthic communities, primary productivity, phytoplankton variations in time and space, specific pollution studies, sanitary aspects of marine microbiology, ecophysiology, biochemistry and molecular biology of coastal organisms, and basic and applied research in fish and shellfish culture. Most of the research is encompassed by a national program 'Research, Exploitation, Protection and Development of the Adriatic Sea', and the FAO (GFCM)/UNEP programs MED POL-Phase II.

Cooperative programme

International cooperation in the frame of the Italian-Yugoslav Cooperative Program for the Protection of the Adriatic Sea and Coastal Zones from Pollution, which is coordinated by the Center for Marine Research, 'Rudjer Boskovic' Institute Zagreb, and the

Objectives and programmes

(Cont.)

Progetto Finalizzato Oceanografia e Fondi Marini del CNR, Rome. Co-operating institutions are: Center for Marine Research Rovinj, Center for Marine Research Zagreb, Institute for Oceanography and Fisheries Split, Biological Institute Dubrovnik, Marine Research and Training Center Piran, Istituto di Biologia del Mare Venice, Istituto Talassografico Trieste, Osservatorio Geofisico Sperimentale Trieste, Istituto di Geologia Marina Bologna, Universities of Parma, Venice and Trieste and others. Long experience in cooperation with IAEA, FAO, WHO, UNEP, Environmental Protection Agency (USA), National Science Foundation (USA), Smithsonian Institution (USA), University of Mainz (FRG), University of Maine at Orono (USA), and others.

Training programme

- Training courses in marine biology for Yugoslav and foreign undergraduate students. About 20 courses (total 500 participants) of 7-15 days each are held per year.
- Lectures at Zagreb University at graduate and postgraduate levels leading to M.Sc. and Ph.D.

Institution structure

The 'Rudjer Boskovic' Institute Zagreb (750 employees) is divided in 10 departments. The Center for Marine Research Rovinj is one of the Institute's department. It has the following units:

- Laboratory for Ecology, Systematics and Mariculture (Head-Zdravko Stevcic, 5 Ph.D., 2 M.Sc., 1 B.Sc., 2 technicians)
- Laboratory for Ecophysiology and Toxicology (Head-Cedomil Lucu, 3 Ph.D., 6 M.Sc., 1 B.Sc., 3 technicians)
- Laboratory for Organic Production, Chemistry and Physics of the Sea (Head-Nenad Smodlaka, 5 M.Sc., 4 B.Sc., 4 technicians)
- Secretariat and services (2 administrators, 4 ship's crew, 6 auxiliary personnel)

Staff

27 Scientific staff

9 Technical staff

13 Other staff

Professional scientific staff

Name	Degree	Speciality
Batel, Renato M.	M.Sc.(Oceanography)	Molecular biology
Bazulić, Davorin	M.Sc.(Med.Sciences)	Chlorinated hydrocarbons
Bihari, Nevenka	M.Sc.(Oceanography)	Molecular biology
Bobac, Milan	M.Sc.(Oceanography)	Mariculture
Brenko, Mirjana	Ph.D.(Biology)	Taxonomy of bivalvia, Larval ecology
Degobbiš, Danilo	M.Sc.(Oceanography)	Biogeochemical cycling
Devescovi, Massimo	B.Sc.(Biotechnol.)	Microbiology
Filipic, Branka	M.Sc.(Oceanography)	Biological oceanography, Phytoplankton
Fuks, Dragica	M.Sc.(Oceanography)	Microbiology
Ijic, Ljubinka	Ph.D.(Biology)	Fouling communities
Ivancic, Ingrid	B.Sc.(Biotechnol.)	Chemical oceanography, Nutrients
Jelisavcic, Olga	M.Sc.(Biology)	Radioecology
Kuzmanovic, Nika	B.Sc.(Physics)	Physical oceanography, Computing
Labura, Zeljka	B.Sc.(Veterinary)	Diseases of cultured organisms
Lucu, Cedomil	Ph.D.(Biology)	Ecophysiology, Toxicology
Najdek, Mirjana	B.Sc.(Biotechnol.)	Chlorinated hydrocarbons
Ozretic, Bartolo	Ph.D.(Biology)	Experimental physiology, Toxicology
Ozretic, Mirjana	Ph.D.(Med.Sciences)	Experimental physiology, Toxicology
Pavicic, Jasenka	M.Sc.(Biology)	Environmental toxicology
Precali, Robert	M.Sc.(Oceanography)	Biological oceanography, Phytoplankton production
Smodlaka, Nenad	M.Sc.(Oceanography)	Biological oceanography, Phytoplankton production
Skreblin, Mirjana	M.Sc.(Oceanography)	Environmental toxicology
Stevcic, Zdravko	Ph.D.(Biology)	Taxonomy of crustacea
Ukmar, Nikolaj	B.Sc.(Technology)	Physical oceanography, Currents
Vidakovic, Jasna	M.Sc.(Oceanography)	Meiofauna
Zavodnik, Dusan	Ph.D.(Biology)	Benthic communities, Taxonomy of invertebrata
Zavodnik, Nevenka	Ph.D.(Biology)	Taxonomy, Physiology of seaweeds, Biochemistry of seaweeds

Premises/facilities

Building area: 1330 m²
 With facilities for:
 Visiting scientists: 7

Laboratory area: 720 m²
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Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 14000
 Number of periodical subscriptions: 380

Monographs and serials titles:

The Center for Marine Research Rovinj and the Center for Marine Research Zagreb publish in collaboration the journal 'Thalassia Jugoslavica'. In the past three years the following numbers appeared:

1979: vol. 15, Nos. 1/2, 3/4
 1980: vol. 16, Nos. 1, 2/4
 1981: vol. 17, Nos. 1, 2, 3/4

Equipment

Liquid scintillation counter (2 channels, Tri-Carb), 400 channel analyzer (Nuclear Chicago), channel analyzer, low level anticoincidence beta counter (Nuclear Chicago), 2 gas chromatographs (Hewlett Packard, Varian), 3 spectrophotometers (Beckman, Gilford), 2 fluorimeters (Turner, Farran), centrifuges (Sorvall RC-2, with continuous flow system and others), electrophoretic and chromatographic equipment, muffle furnaces, freeze-drying equipment, standard optical equipment, inverse microscopes, Doty type plankton incubators, bacteriological incubators, 4 pH meters, nitrogen analyzer (Van Slyke), atomic absorption spectrophotometer (Varian), total organic carbon analyzer (Beckman), transmissometer (Hydro Products), 2 underwater irradiometers (Kahlsico), laboratory salinometer (Kahlsico), 2 bathythermographs, 6 current meters (Aanderaa), S-T probe (Beckman), T-O2 probe (Kahlsico), 10 complete diving equipments, 3 high pressure compressors, under-water cameras (Rollei Marin, Hasselblad), portable echo-sounder (Furuno).

Aquarium facilities

Total area: 135 m² Number of tanks: 14

Organisms maintained:

Demersal fish	Molluscs	Crustaceans
Other invertebrates		

Species maintained for experimental purposes:

<i>Dunaliella tertiolecta</i>	<i>Cymodocea nodosa</i>	<i>Geodia cydonium</i>
<i>Tethya lyncurium</i>	<i>Mytilus galloprovincialis</i>	<i>Ostrea edulis</i>
<i>Crassostrea gigas</i>	<i>Ceratonereis costae</i>	<i>Brachionus plicatilis</i>
<i>Palaemon elegans</i>	<i>Maja verrucosa</i>	<i>Pilumnus spinifer</i>
<i>Leptomysis mediterranea</i>	<i>Sphaerechinus granularis</i>	<i>Mugil auratus</i>
<i>Dicentrarchus labrax</i>		

Research craft

Name: VILA VELEBITA
 Owner: CIM
 Length: 25 m.
 Type: research vessel
 Date of construction: 1972
 Crew: 5
 Scientists: 8
 Laboratory space: 31 m²

Special facilities:

380 V/220 V AC (stabilized) 12+24 V DC, sea water circulation, central heating, hydraulic winches, deep freezers, echosounder system (Elac), radar (Kelvin Hughes). Facilities for analyses of selected chemical and physical parameters, studies of primary production and microbiological research.

Name: BURIN
 Owner: CIM
 Length: 10 m.
 Type: motor boat
 Date of construction: 1975
 Crew: 1
 Special facilities:
 For coastal work: hydraulic winch

Institution code: 001189 Information received: 01/11/84

Institut za biologijo Univerze E. Kardelja v Ljubljani,
Morski raziskovalni in izobraževalni center Piran (MRIC)

(Institute of Biology, University E. Kardelj, Ljubljana
Marine Research and Training Centre Piran (MARETRAC))

Executive officer: GROSMAN Mitja: Director

Postal address

Institut za biologijo Univerze E. Kardelja v Ljubljani,
Morski raziskovalni in izobraževalni center Piran (MRIC)
65, JLA Street
P.O. Box 22
PIRAN 66330, SLOVENIA
YUGOSLAVIA

Telephone: 066-73740/73073

Working languages
Slovenian, English

Nature of institute
Academic

Main fields of activities

Biological sciences	Ecological sciences
Pollution	Education, training or extension

Areas of speciality

Other invertebrates	Algae
Micro-organisms	Plankton
Benthos	Coastal marine waters
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Nutrients

Objectives and programmes

History of institution, its mandate and purpose
With the University E. Kardelj of Ljubljana and Institute of Biology decree of 1 May 1969 the Centre was established to carry out monitoring of pollution and fundamental research on marine ecosystems of Northern Adriatic.

Research, monitoring and other activities in last three years
Research on sources of marine pollution and their effects on coastal ecosystem using integrated studies of chemistry and responses of biota. Systematic monitoring of faecal pollution and heavy metal residues in sediments and selected organisms.

Major current research and other activities

Same as in the last three years
and monitoring of pollution by petroleum hydrocarbons and chlorinated hydrocarbons. Research on the transformations of suspended organic matter of different origin (autochthonous and land-derived). Phytoplankton blooms and unusual swarming of jellyfish.

Future programmes

Continuation of current programme

Cooperative programme

- Jozef Stefan Institute (Biochemical and isotopic composition of suspended organic matter)
- Geological survey, Ljubljana (Research in sedimentology and mineralogy)
- University of Trieste (Unusual swarming of medusae)

Training programme

Graduate courses in marine biology for national university students
Possible 'on-job' training

Staff

10 Scientific staff 4 Technical staff 3 Other staff

Professional scientific staff

Name	Degree	Speciality
Avcin, A.	M.Sc.	Ecology of benthos
Faganeli, J.	M.Sc.	Organic chemistry, Chemical oceanography
Fanuko, N.	M.Sc.	Primary productivity, Bioassays
Malej, A.	M.Sc.	Secondary productivity, Zooplankton
Planinc, R.	B.Sc.	Inorganic pollution
Stirn, J.	Ph.D.	Oceanography, Organic pollution, Waste recycling methods
Turk, V.	B.Sc.	Microbiology

Staff		(Cont.)
Name	Degree	Speciality
Tusnik, P.	M.Sc.	Metabolism-polluted ecosystem
Vrizer, B.	Ph.D.	Ecology of benthos (meiofauna)
Vukovic, A.	M.Sc.	Ecology of algae. Algology

Premises/facilities

Building area: 980 m² Laboratory area: 347 m²
 With facilities for:
 Visiting scientists: 3 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 43100
 Number of periodical subscriptions: 136

Monographs and serials titles:

- Annual Report, 1981 : 1982 (Slovenian)
- Bioloski Vestnik (Slovenian, abstracts in English, twice a year, on exchange and purchase, last issue vol. 31 No. 2, 1983)

Equipment

Titrimeter - Dosimat (Metrohm), polarographic respirometer, 2 spectrophotometers (Specol 20 - Zeiss, Beckman B), atomic absorption spectrophotometer (Varian), gas-chromatograph (Varian aerograph), nitrogen analyzer (Coleman), carbon-hydrogen analyzer (Coleman), luminescence biometer (Du Pont), high UV energy fractionator, freeze dryer (New Brunswick Scientific), freeze centrifuge (MLW), 2 pH meters, salinometer (Beckman), standard equipment for bacteriology, 2 incubators vol. 540 l (LTH), sampling gear for sedimentology, water samplers, plankton nets, complete diving equipment, 3 microscopes (Reichert, Wild M8, Wild M40) 2 deep freezers, 3 analytical balances (Sauter, Mettler H 20T, Sartorius), spectrofluorometer (Turner Mod. 430).

Aquarium facilities

Total area: 30 m² Number of tanks: 11

Organisms maintained:
 Molluscs Algae

Species maintained for experimental purposes:

<i>Chlorella autotrophyca</i>	<i>Tetraselmis suecica</i>	<i>Dunaliella tertiolecta</i>
<i>Chaetoceros affinis</i>	<i>Nitzschia closterium</i>	<i>Navicula sp.</i>
<i>Mytilus galloprovincialis</i>	<i>Crassostrea gigas</i>	

Research craft

Name: PI-50
 Owner: Inst. of Biol.
 Length: 7 m.
 Type: Fishing boat
 Date of construction: 1969
 Crew: 1
 Scientists: 3

Name: NONE
 Owner: Inst. of Biol.
 Length: 4 m.
 Type: Plastic boat
 Date of construction: 1973
 Crew: 1
 Scientists: 2

Institution code: 001190 Information received: 31/10/84

Djelatnost za zarazne bolesti, Medicinski Centar, Pula**(Department for Communicable Diseases,
Medical Center Pula)****Executive officer:** MARETIC Zvonimir: Head**Postal address****Djelatnost za zarazne bolesti, Medicinski Centar, Pula
Medicinski Centar
52000 PULA
YUGOSLAVIA****Telephone:** 052-33433-110**Working languages**

Croatian, English

Nature of institute

Governmental

Main fields of activities

Microbiology

Pollution

Medicine

Areas of speciality

Demersal fish

Other vertebrates

Coastal marine waters

Pathogenic micro-organisms

Objectives and programmes

History of institution, its mandate and purpose

This Department of the Medical Center, Pula has the task to treat and combat infectious diseases. Together with the epidemiological research and the work on touristic medicine the activities started also on diseases due to pollution of the sea, as well as on venomous and poisonous animals (especially marine) on which extensive studies had already been done. Studies on typhoid, other salmonellosis, hepatitis transmitted through blue mussels, mycetism as well as findings of *Vibrio parahaemolyticus* and NA_g vibrios in mussels and other material from the sea, should also be mentioned. Some research on scombrottoxins was also performed.

Cooperative programme

- Hygienic Institute, Pula (microbiology, heavy metals)
- Immunological Institute, Zagreb (weever fish and scorpion fish - antivenins)

Staff

5 Scientific staff 2 Technical staff 33 Other staff

Professional scientific staff

Name	Degree	Speciality
Zvonimir Maretic	M.D., Sc.D., DTM.	Venomous/poisonous animals, Touristic medicine, Pollution, Epidemiology of the sea, Int. diseases, Int. medicine

Premises/facilitiesBuilding area: 800 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 5000

Number of periodical subscriptions: 14

Monographs and serials titles:

- Zbornik zdravstva u Istri (Almanach of Health Service in Istria)
1947-1977, 1980.Zbornik zdravstva u Istri (Almanach of Health Services in Istria)
1947-1982, 1982.

Institution code:

001191

Information received: 01/11/84

Institut Jozef Stefan
(Jozef Stefan Institute)

Executive officer: STEGNAR Peter: Head, Nuclear Chemistry Department

Postal address

Institut Jozef Stefan
Jamova ulica 39
P.O. Box 61111
LJUBLJANA 61000, SLOVENIJA
YUGOSLAVIA

Telephone: 061-263261

Telex: 31-296 YU JOSTIN

Working languages
Slovene

Main fields of activities

Biological sciences	Ecological sciences
Chemical sciences	Physical sciences
Microbiology	Pollution
Medicine	Meteorology/climatology
Mineral resources (incl. Oil)	Technology transfer
Computers/information systems	Education, training or extension

Areas of speciality

Marine mammals	Benthos
Other minerals	Thermal
Offshore marine waters	Coastal marine waters
Brackish waters	Inland (fresh) waters
Mangroves ecosystems	Coral ecosystems
Petroleum hydrocarbons	Metals (pollutants)
Halogenated hydrocarbons	Radionuclides

Objectives and programmes

History of institution, its mandate and purpose
The J. Stefan Institute started as the Institute of Physics founded in 1949 by the Slovenian Academy of Science and Arts. From 1955 the Institute was under the supervision of the Federal Nuclear Energy Commission until 1962, when it became an independent research institution.

Research, monitoring and other activities in last three years
Research in some fields of physics, chemistry, biochemistry, reactor engineering, electronics, applied mathematics and environmental research.

Major current research and other activities
Same as in the last three years

Future programmes

Same as in the last three years

Cooperative programme

- Mining Institute (Ljubljana)
- Administration for Occupational Health and Safety (Ljubljana)
- Institute Rudjer Boskovic (Zagreb)
- Institute Boris Kidric (Vinca, Beograd)
- Institute for Technology of Nuclear and Other Mineral Raw Materials
- Mining Institute (Beograd)

Training programme

- Post-graduate work leading to M.Sc. and Ph.D.
- Graduated courses in the field of nuclear energy, computer programming, use of microprocessors, etc.

Institution structure

The Centre is divided into following sections:

- Theoretical Physics
- Nuclear Physics
- Solid State Physics
- Electro Microscopy
- Plasma Physics
- Fluorine Chemistry
- Ceramics
- Spectroscopy
- Physical Chemistry
- Biochemistry
- Automatics and Biocybernetics
- Computer Science and Informatics
- Professional Electronics
- Reactor Physics
- Reactor Engineering and Process Control
- Radiological Protection
- Applied Mathematics
- Assessment of environmental impact

Staff

250 Scientific staff

150 Technical staff

370 Other staff

Professional scientific staff

Name	Degree	Speciality
Mihailovic, M.	Ph.D.	Nuclear physics
Kernel, G.	Ph.D.	Nuclear physics
Navinsek, B.	Ph.D.	Physics of ionized gases
Poberaj, S.	Ph.D.	Plasma physics
Blinc, R.	Ph.D.	Solid state physics
Zemva, B.	Ph.D.	Fluorine chemistry
Kramer, V.	Ph.D.	Analytical chemistry
Senegacnik, M.	Ph.D.	Physical chemistry
Kolar, D.	Ph.D.	High temperature chemistry
Turk, V.	Ph.D.	Biochemistry
Stanic, U.	Ph.D.	Robotics
Spegel, M.	Ph.D.	Informatics
Najzer, M.	Ph.D.	Reactor physics
Tomsic, M.	Ph.D.	Automatization in industry
Ribaric, M.	Ph.D.	Applied mathematics
Kosta, L.	Prof. Ph.D. Chemistry	Analytical chemistry, Ecology
Stegnar, P.	Ph.D. Biology	Radioecology
Kobal, I.	Ph.D. Chemistry	Physical chemistry, Radioecology
Byrne, T.	Ph.D. Chemistry	Analytical chemistry, Ecology
Dermelj, M.	Ph.D. Chemistry	Analytical chemistry, Ecology
Mihailovic, M.	M.S. Physics	Radioecology, Radiation Protection
Fajgelj, A.	M.S. Chemistry	Analytical chemistry, Ecology
Smolis, B.	M.S. Chemistry	Analytical chemistry, Ecology
Franko, M.	M.S. Chemistry	Analytical chemistry, Ecology
Jeran, Z.	M.S. Biology	Ecology, Radioecology
Tusek-Znidaric, M.	M.S. Biology	Ecology, Radioecology

Premises/facilitiesBuilding area: 15000 m²Laboratory area: 10000 m²**Information facilities**

Library holdings:

Number of books, journals, manuscripts, etc.: 53000

Number of periodical subscriptions: 277

Monographs and serials titles:

- Annual Report (in Slovene)

- Working Reports (in English or in Slovene)

Equipment

On-line and off-line computer (PDP, CDC, WAX), research reactor TRIGA (250kW), Van de Graaf accelerator, betatron, electron microscope, mass spectrometers, neutron diffractometer, neutron time-of-flight spectrometer, high frequency NMR spectrometer, electron microanalyzer, liquid scintillation counter, several gamma-ray spectrometer devices Canberra, Ortec, Rn/Ra counters, alpha spectrometric (Pn) devices.

Institution code:

001193

Information received: 08/12/83

**Institut za bioloska i medicinska istrazivanja
Univerziteta 'Veljko Vlahovic', Titograd (IBMI)**

(Institute for Biological and Medical Research of
University 'Veljko Vlahovic', Titograd)

Executive officer: KAZIC, Danilo M.: Director

Postal address

Institut za bioloska i medicinska istrazivanja
Univerziteta 'Veljko Vlahovic', Titograd (IBMI)
Ul. Vaka Djurovica br. 7
P.O. Box 104
TITOGRAĐ 81000, MONTENEGRO
YUGOSLAVIA

Telephone: 081-44391

Cable: INSTITUT ZA BIOLOSKA I MEDICINSKA ISTRAZIVANJA TITOGRAĐ

Working languages

Serbocroatian, English, Russian

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Aquaculture	Oceanography
Limnology	Chemical sciences
Microbiology	Pollution
Medicine	Veterinary medicine
Policy and planning	Education, training or extension

Areas of speciality

Pelagic fish	Cephalopods
Lobsters	Shrimps/prawns
Other invertebrates	Embryophytes
Algae	Micro-organisms
Plankton	Benthos
Offshore marine waters	Coastal marine waters
Brackish waters	Inland (fresh) waters
Petroleum hydrocarbons	Metals (pollutants)
Pathogenic micro-organisms	

Objectives and programmes

Founded by the decision of Assembly of Montenegro. Its mandate is scientific work in the field of biology and medicine. It deals with complete investigations in fresh and marine waters. Investigations of Lake Skadar and Adriatic Sea, with emphasis on fish population. Investigation of neural processes and pharmacodynamic features of marine organisms. Ecology of Mugilidae of Adriatic Sea, possibilities of improvement of fishery of Lake Skadar, limnological investigations of mountainous lakes, neural correlates of behaviour of marine organisms, rheumatological diseases, aquaculture and environmental protection. The institute will continue with the investigations in the area of molecular biology, genetics and anthropology.

Cooperative programme

- Academy of Sciences USSR (neural processes)
- University of Auburn, Center for Fisheries and Aquaculture, USA
- Federal Institute for Fishery of Federal Republic Germany (hematology of fish and poisoning)
- Institute for Fishery, Olsztyn, Poland (improvement of freshwater fishery)
- University in Montpellier, France (parasites and diseases of marine fish)
- University in Bari (molecular biology)
- Smithsonian Institution etc.

Training programme

- postgraduate studies of rheumatology in Igalo
- summer courses in field of experimental biology and medicine
- summer courses in fishery
- individual specializations of candidates from other institutions

Institution structure

Our Institute is working organization of associated labour - IBMI. It consists of the following basic organizations:

- Biological Institute - Titograd (investigations of fresh waters, human genetics and anthropology)
- Institute for Marine Biology and Oceanography - Kotor (investigations in field of marine biology, molecular biology, experimental medicine)
- Institute for physical medicine and rehabilitation with advanced school for physiotherapists and postgraduate studies of physicians

Staff
 34 Scientific staff 20 Technical staff 30 Other staff

Professional scientific staff

Name	Degree	Speciality
Karaman, Gordan	Ph.D. (Sc. adviser)	Biology of amphipods
Petkovic, Smiljka	Sc. collaborator	Phytoplankton
Kazic, Danilo	Ph.D. (Sr. Sc. coll.)	Fish parasitology
Petkovic, Stevan	Sc. collaborator	Zooplankton
Kovacevic, Nikola	Ph.D. (Sr. Sc. coll.)	Neurobiology
Konjevic, Djordje	Ph.D. (Sc. collab.)	Neurobiology
Stjepcevic, Jovan	Ph.D. (Sr. Sc. coll.)	Malacology
Mandic, Sreten	Ph.D. (Sc. collab.)	Cephalopods
Zivkovic, Milutin	Ph.D. (Professor)	Allergology, Rheumatology

Premises/facilities

Building area: 3000 m² Laboratory area: 1000 m²
 With facilities for:
 Visiting scientists: 20 S

Information facilities

Library holdings:
 Number of books, journals, manuscripts, etc.: 15000
 Number of periodical subscriptions: 50

Monographs and serials titles:

- Monography 'Biota of Lake Skadar'
- 'Studia Marina' (serial)

Equipment

Equipment for investigations of fresh waters.

Aquarium facilities

Total area: 100 m² Number of tanks: 50

Organisms maintained:

Pelagic fish Other invertebrates Micro-organisms

Species maintained for experimental purposes:

Mytilus galloprovincialis *Ostrea edulis* *Mugil spp.*
Anguilla anguilla *Pachychilon pictum* *Salmo irideus*

Research craft

Name: ISTRAZIVAC
 Owner: Marine Biology Institute
 Length: 14 m.
 Date of construction: 1965
 Crew: 3
 Scientists: 8

Name: BIOS
 Owner: Inst. for Oceanography and Fishery
 Length: 30 m.
 Date of construction: 1960
 Crew: 5
 Scientists: 10
 Special facilities:
 Space for research work.

Name: GORICA
 Owner: Industriaimport OOUR Juzni Jadran
 Length: 25 m.
 Date of construction: 1974
 Crew: 8
 Special facilities:
 Space for research work.

Name: LEUT
 Owner: Industriaimport OOUR Ribarstvo
 Length: 11 m.
 Date of construction: 1960
 Crew: 2
 Scientists: 10

Name: NONE
 Owner: Biological Institute
 Type: Several wooden boats
 Scientists: 4

Institution code: 001194 Information received: 13/03/84

Centar za istraživanje mora Zagreb,
Institut Rudjer Boskovic (CIM ZGB-IRB)

(Center for Marine Research Zagreb,
Rudjer Boskovic Institute (CMR ZGB-RBI))

Executive officer: BRANICA, Marko M.: Director

Postal address

Centar za istraživanje mora Zagreb,
Institut Rudjer Boskovic (CIM ZGB-IRB)
Bijenicka cesta 54
P.O. Box 1016
ZAGREB 41001, CROATIA
YUGOSLAVIA

Telephone: 041-435111/435015

Telex: 21383 YU IRB ZG

Cable: INSTRUBO, ZAGREB

Working languages

Croatian, English

Nature of institute

Governmental Academic

Main fields of activities

Biological sciences	Ecological sciences
Marine fisheries	Inland fisheries
Aquaculture	Oceanography
Limnology	Chemical sciences
Physical sciences	Microbiology
Pollution	Veterinary medicine
Geology/sedimentology)	Policy and planning
Technology transfer	Computers/information systems
Education, training or extension	

Areas of speciality

Pelagic fish	Micro-organisms
Plankton	Thermal
Coastal marine waters	Brackish waters
Inland (fresh) waters	Petroleum hydrocarbons
Metals (pollutants)	Halogenated hydrocarbons
Nutrients	Radionuclides

Objectives and programmes

History of institution, its mandate and purpose

The Rudjer Boskovic Institute was established in 1950 as a national center for fundamental and mission oriented research in natural sciences and as the graduate school for the University of Zagreb. The Center for Marine Research is operational from January 1, 1969 as a new unit formed out of previous departments of the Institute, and incorporating the unit of the Yugoslav Academy of Sciences and Arts in Rovinj. Since 1980 both units with the same name (Zagreb and Rovinj) operate as two separate administrative units, retaining common research interests and programmes.

Research, monitoring and other activities in last three years

Research in marine physics, chemistry and biology. Computational methods and modelling. Analytical chemistry and biogeochemical cycles of heavy metals, radionuclides, organics (petroleum hydrocarbons and chlorinated organics). Monitoring of coastal waters. Research and data collection aimed at environmental impact assessment studies.

Major current research and other activities

Speciation of dissolved trace of heavy metals; radioecology, sedimentation and adsorption properties of sediments; surface active substances in natural waters; toxicology and carcinogenicity of organics and of industrial waste products; mariculture experiments of indigenous and extraneous species of fish. Estuarine ecology. Modelling of ecosystems.

Future programmes

Mostly continuation of current research of natural and polluted aquatic system. Application of advanced systems analysis methodology to coastal and estuarine research. Economy of mariculture experiments. Use of heated effluents for various applications. Ecological aspects of siting of power plants, specially nuclear.

Cooperative programme

As member of the Association of Yugoslav Marine Research Centers, the Center participates in common programmes with the Institute of Oceanography and Fisheries, Split, the Hydrographic Institute of the Yugoslav Navy, the Biological Institute in Dubrovnik and others. Internationally the Center has cooperative programmes with KFA Jülich (FR Germany), University of Mainz (FR Germany), EAWAG-ETH (Dübendorf, Switzerland), Université de Perpignan (France).

Objectives and programmes

(Cont.)

Ecole Normale Supérieure (Paris, France), University of Wageningen (The Netherlands), and research agreements with several institutions in Italy, Poland and Czechoslovakia. The Center is the beneficiary of research grants and contracts with several specialized agencies of the UN system (UNEP, FAO, WHO, IOC), with agencies participating in the bilateral governmental programmes between Yugoslavia and the USA (NSF, NRS, NIH) and with the FR of Germany.

Training programme

The Centre, as a graduate school for the University of Zagreb, conducts studies in oceanology, leading towards M.Sc. and Ph.D. degrees. Similar activities exist in courses of the physical and analytical chemistry and fisheries biology of the same University.

Institution structure

The Center is divided into the following units:

- Laboratory of Physical and Chemical Separations
- Laboratory for Nuclear Chemistry and Radioecology
- Laboratory for Electrochemistry and Surface Phenomena
- Laboratory for Marine Molecular Biology
- Group for Electrophoresis
- Group for Migration Processes
- Group for Aquaculture
- Group for Organic Pollutants
- Group for Ecology and Coastal Systems
- Secretariat

Laboratory facilities in Zagreb and marine station in Sibenik.

Staff

70 Scientific staff

19 Technical staff

7 Other staff

Professional scientific staff

Name	Degree	Speciality
Branica, Marko	Ph.D.	Marine chemistry, (physical chemistry), (Analytical chemistry)
Kurelec, Branko	Ph.D.	Marine molecular biology
Pravdic, Velimir	Ph.D.	Interfacial chemistry
Pucar, Zvonimir	Ph.D.	Physical biochemistry
Cosovic, Bozena	Ph.D.	Analytical chemistry
Ruzic, Ivica	Ph.D.	Electrochemistry
Zutic, Vera	Ph.D.	Electrochemistry
Al-Sabti, Kabil	Ph.D.	Chromosome aberrations
Biscan, Jasenka	Ph.D.	Interfacial chemistry
Cukman, Dunja	Ph.D.	Electrochemistry
Dragcevic, Djurdjica	Ph.D.	Interfacial chemistry
Hrsak, Dubravka	Ph.D.	Analytical chemistry
Kezic, Nikola	Ph.D.	Mixed function oxidases
Konrad, Zdenka	Ph.D.	Analytical chemistry
Kozarac, Zlatica	Ph.D.	Physical chemistry, Analytical chemistry
Krznaric, Damir	Ph.D.	Physical chemistry, Analytical chemistry
Kvastek, Kresimir	Ph.D.	Environmental radioactivity
Legovic, Tarzan	Ph.D.	Ecological modelling
Lulic, Stjepan	Ph.D.	Environmental radioactivity
Musani, Ljerka	Ph.D.	Analytical chemistry
Obradovic, Jasna	Ph.D.	Fisheries, histology
Picer, Mladen	Ph.D.	Analytical chemistry
Pokric, Biserka	Ph.D.	Physical biochemistry
Protic-Sabljić, Miroslava	Ph.D.	DNA repair
Raspor, Biserka	Ph.D.	Analytical chemistry
Sekulic, Bogdan	Ph.D.	Environmental ecology
Teskeredzic, Emin	Ph.D.	Fisheries
Vukovic, Marijan	Ph.D.	Electrochemistry

Premises/facilitiesBuilding area: 2100 m²Laboratory area: 1400 m²

With facilities for:

Visiting scientists: 2

5

Information facilities

Library holdings:

Number of books, journals, manuscripts, etc.: 15000

Number of periodical subscriptions: 300

Monographs and serials titles:

The Center issues the scientific periodical 'Thalassia Jugoslavica'

Equipment

Atomic absorption spectrophotometers; electrochemical instrumentation; computer system PDP-11/34; potentiostat-galvanostat PAR 173; oscilloscope Tektronix 7704; rotating disc electrode, PINE Instr. Co.; Oriel power source and monochromator; Wawetek Mod. 164 function generator; coulter counter, Mod. TA II Harpender, England; Batch microcalorimeter; specific surface analyzer, BET; Analysette, sieving machine, Fritsch, Ider, BRD; flow microcalorimeter, Microscal, England; Cahn electromicrobalance; particle micro-electrophoresis apparatus, Rank Brothers, England; alpha-spectrometer, beta-spectrometer, gamma-spectrometer, system for 3H analysis in water (system IAEA); microscopes; analytical balances; centrifuges; thermostat.

Aquarium facilities

Species maintained for experimental purposes:

Mytilus galloprovincialis *Onchorhynchus kisutch* *Salmo gairdneri*

Research craft

Name: VILA VELEBITA
 Owner: Rudjer Boskovic Institute
 Length: 26 m.
 Type: vessel
 Date of construction: 1960
 Crew: 5
 Scientists: 8
 Laboratory space: 26 m²
 Special facilities:
 Beckman photometer, fluorimeter, echo-sounder, radionavigation equipment, radar, depth indicator, turbidimeter, salinometer, pH meter

Name: MEDITERAN
 Owner: CMR Zgb
 Length: 7 m.
 Type: Fiberglass boat
 Date of construction: 1982
 Crew: 1
 Special facilities:
 Diving equipment

Name: ISTRANKA
 Owner: CMR Zgb
 Length: 5 m.
 Type: Fiberglass boat
 Date of construction: 1981
 Crew: 1
 Special facilities:
 Diving equipment

Name: KEPOL
 Owner: CMR Zgb
 Length: 4 m.
 Type: Fiberglass boat
 Date of construction: 1983
 Crew: 1
 Special facilities:
 Diving equipment

Institution code: 001195

Information received: 12/09/83

UNEP REGIONAL SEAS DIRECTORIES AND BIBLIOGRAPHIES

- UNEP, Directory of Mediterranean marine research centres. UNEP Regional Seas
1976 Directories and Bibliographies. Geneva, UNEP, 280 p., 1st ed. (out of print)
- UNEP, Directory of Mediterranean marine research centres. UNEP Regional Seas
1977 Directories and Bibliographies. Geneva, UNEP, 622 p., 2nd ed. (out of print)
- NIO/UNEP, Directory of Indian Ocean marine research centres. UNEP Regional Seas
1978 Directories and Bibliographies. Goa, NIO, 360 p. (out of print)
- UNEP/IOC, Directory of Caribbean marine research centres. UNEP Regional Seas
1980 Directories and Bibliographies. Geneva, UNEP, 500 p. (out of print)
- IAEA/UNEP, Directory of Kuwait Action Plan marine science centres. UNEP Regional
1981 Seas Directories and Bibliographies. Geneva, UNEP, 110 p. (out of print)
- UNEP/CCPS, Directory of the South East Pacific marine science research centres.
1981 UNEP Regional Seas Directories and Bibliographies. Geneva, UNEP, 120 p. (out of print)
- UNEP/FAO/Unesco/WHO/WMO/IOC/IAEA, Selected bibliography on the pollution of the
1981 Mediterranean Sea. UNEP Regional Seas Directories and Bibliographies. Geneva, UNEP, 130 p. (out of print)
- UNEP/UN/ECA/Unesco, Directory of marine research centres in Africa. UNEP Regional
1982 Seas Directories and Bibliographies. Rome, FAO, 254 p.
- UNEP, Bibliography of the marine environment in the Kuwait Action Plan region. UNEP
1984 Regional Seas Directories and Bibliographies. Rome, FAO, 52 p.
- UNEP, Bibliography of the marine environment in South Asian Seas. UNEP Regional
1984 Seas Directories and Bibliographies. Rome, FAO, 39 p.
- UNEP/FAO, Bibliography of the marine environment in East Asian Seas. UNEP Regional
1984 Seas Directories and Bibliographies. Rome, FAO, 76 p.
- UNEP/Pacific Science Association/SPREP/University of Guam, Directory of Pacific
1984 coral reef researchers. UNEP Regional Seas Directories and Bibliographies. Rome, FAO, 101 p.
- UNEP/FAO, Directory of marine environmental centres in East Asian Seas. UNEP
1984 Regional Seas Directories and Bibliographies. Rome, FAO, 138 p.
- UNEP/FAO, Directory of marine environmental centres in Mediterranean. UNEP Regional
1985 Seas Directories and Bibliographies. 3rd ed. Rome, FAO, 302 p.
- UNEP/FAO, Bibliography of the marine environment in Mediterranean, 1978-1984. UNEP
1985 Regional Seas Directories and Bibliographies. 2nd ed. Rome, FAO, 151 p.
- UNEP/FAO, Directory of marine environmental centres in Caribbean. UNEP Regional
Seas Directories and Bibliographies. 2nd ed. (in preparation)
- UNEP/FAO, Directory of marine environmental centres in South Pacific. UNEP Regional
Seas Directories and Bibliographies (in preparation)
- UNEP/FAO, Bibliography of the marine environment in Caribbean. UNEP Regional Seas
Directories and Bibliographies (in preparation)
- UNEP/FAO, Directory of marine environmental centres in Indian Ocean and Antarctic
Region. UNEP Regional Seas Directories and Bibliographies (in preparation)

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Pour:



Le Centre d'activités du Programme
pour les mers régionales
Programmes des Nations Unies pour
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