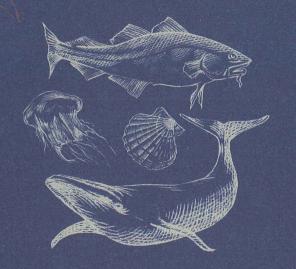


2004





INSTITUTE OF MARINE RESEARCH HAVFORSKINGSINSTITUTTET





# VISION

The Institute of Marine Research will be a national and international innovator in marine research and a credible supplier of premises and knowledge.

The Institute intends to contribute in this way to responsible utilisation of the potential of our oceans and coasts as a food source and as a basis for industrial activity and recreation.



#### PRINCIPAL TASKS

The Institute of Marine Research carries out research on marine resources, the marine environment, the coastal zone and aquaculture. Its range of activities focus primarily on the ecosystems of the Barents Sea, the Norwegian and North Seas, and the Norwegian coastal zone. Its main objective is to provide scientific advice to the authorities, industry and the general public, in addition to development aid cooperation in research and resources management.

The Institute of Marine Research is an agency of the Ministry of Fisheries, and it will:

- investigate the environment and biology of the ocean and the coast
- develop technology to be used in fishing, marine mammal hunting and aquaculture
- provide resources management advice to the authorities, the fishing industry and other interested parties
- publish the results of research with the aim of promoting the interests of the fishing and aquaculture industries and of society in general

#### MANAGEMENT ADVICE PROGRAMMES

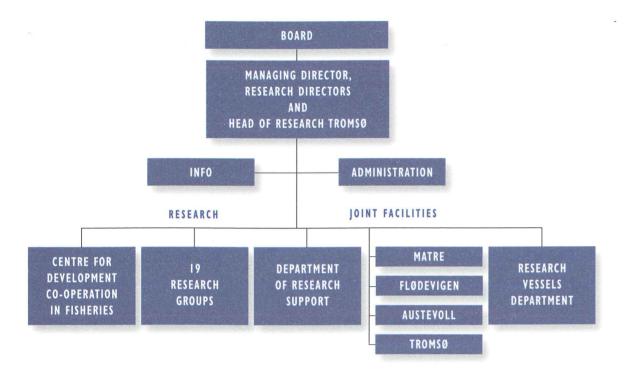
The Institute of Marine Research has set up four management advice programmes. Our advice is ecosystem-based, and is developed on the basis of the research and monitoring efforts of research groups and research support groups. These programmes account for around fifty percent of the activity of the Institute, and they consist of:

- Management Advice on the Barents Sea Ecosystem
- Management Advice on the Norwegian and North Sea Ecosystems
- Management Advice on the Coastal Zone Ecosystem
- Management Advice on Aquaculture and Ocean Ranching

577.7 551.460948/ \$x(2)481

3

04vf01505



# **ORGANISATION**

The scientific activities of the Institute of Marine Research are organised in the form of:

- Nineteen research groups
- ▶ The Research Support Department
- ▶ The Centre for Development Co-operation in Fisheries

The Institute's vessels and research stations are joint facilities for our scientific work. Our aim is to create an integrated, scientifically focused organisation with short lines of internal communication.

#### RESEARCH GROUPS

# BARENTS SEA ECOSYSTEM AND FISH STOCKS

Ecosystem-based resources research and monitoring in the Barents Sea, adopting a "top-down" approach.

# NORWEGIAN AND NORTH SEA ECOSYSTEMS AND FISH STOCKS

Ecosystem-based resources research and monitoring in the Norwegian Sea and the North Sea, adopting a "bottom-up" approach.

# COASTAL ZONE ECOSYSTEMS

Ecosystem-based research and monitoring related to the management of resources, environment and aquaculture in the coastal zone.

### DOCEANOGRAPHY AND CLIMATE

Research and monitoring of the physical and climatic processes which influence the dynamics of marine ecosystems.

# PLANKTON

Monitoring of and research on phyto- and zooplankton, fish eggs and larvae in our large marine ecosystems.

# SHELLFISH

Monitoring of and research on biological resources related to the seabed and sea ranching of shellfish. Surveys of crustaceans, queen scallops and great scallops.

# **SEABED HABITATS**

Mapping and condition evaluation of benthic nature types. Research on various habitats, their ecological importance and their significance for biological diversity.

# MARINE ENVIRONMENT QUALITY

Monitoring of chemical pollution in the Norwegian marine region in order to see how pollution affects the living conditions and quality of our live marine resources.

# FISHERIES AND FISH STOCKS

Research and development aimed at reducing uncertainty in fisheries data via systems for dataacquisition from the fisheries, and quality assurance of these data for use in e.g. stock estimations.



# OBSERVATION METHODOLOGY

Development of methods and models for the acquisition of resources and biological data, primarily acoustic methods and protocols in addition to technology.

# MARINE MAMMALS

Research on and monitoring of Greenland seals, hooded seals, harbour seals and grey seals. Dataacquisition, monitoring and stock research on minke whales and other species of marine mammal.

# RESPONSIBLE FISH CAPTURE

Support for the Norwegian fishing industry through the development and modification of energy-efficient, cost-effective, environmentally and resources-friendly fish-capture technology.

# POPULATION GENETICS

Genetic characterisation of wild stocks and species under cultivation, including species in the process of domestication. Mapping of the extent of escapes of aquaculture organisms.

# MARINE GENOME RESEARCH

Establishment and upgrading of instrumentation, competence and networks for structural and functional genome research.

# PHYSIOLOGY OF GROWTH AND REPRODUCTION

Establishment of basic knowledge of the environmental, physiological and molecular regulation of fish, with focus on cultivated species.

# FISH WELFARE IN AQUATIC PRODUCTION

Generation of knowhow aimed at reducing stress, pain and disease, thus ensuring an acceptable standard of fish welfare and efficient production.

# FISH HEALTH AND DISEASES

Study of the spread of infectious diseases between species, factors that affect the ability to elicit disease and effects on hosts, preventive treatment strategies for aquaculture.

# FEED, FEEDING AND QUALITY

Studies of feeds and feeding, including the effects on wellbeing of formulated diets in cultivated fish, as well as better understanding of quality in wild and cultivated fish.

# ▶ RECRUITMENT BIOLOGY AND BEHAVIOUR

Elucidation of central principles of egg and larval production at individual and stock levels. Documentation of the behaviour of important marine organisms.

# CENTRE FOR DEVELOPMENT CO-OPERATION IN FISHERIES

The Centre for Development Co-operation in Fisheries is responsible for the planning and implementation of fisheries development projects in developing countries. The Centre maintains internal and national competence in fisheries development aid, in cooperation with the Norwegian Directorate of Fisheries and other Norwegian centres of expertise.

# DEPARTMENT OF RESEARCH SUPPORT

The Department of Research Support is responsible for cruises and field studies, laboratories and data-processing.

#### RESEARCH SUPPORT GROUPS

- Biological Laboratories
  - Infection laboratory
  - Physiology laboratory
- Zooplankton laboratory
- Parisvatnet Field Station
- Fish counter
- Circular tank
- Chemical Laboratories
- Molecular Biological Laboratories
  - Genetics laboratory
- Disease laboratory
- Observation Technology
- Norwegian Marine Data Centre
- Operational Studies



# **RESEARCH STATIONS**

#### AUSTEVOLL

The station operates a number of experimental research facilities and laboratories with a range of highly specialised analytical instrumentation. It focuses primarily on the cultivation of marine species.

#### FLØDEVIGEN

This is one of the oldest marine research institutes in Europe. Its research focuses on questions related to the management of marine living areas and resources of the coastal zone.



# MATRE

The station is special because it is capable of holding all stages of salmonids on the same site, both on land and at sea. It also operates chemical and biological laboratories.

G.O. SARS Built: 2003 4067 grt. L.o.a. 77,5 m



### RESEARCH VESSELS

The Institute of Marine Research is responsible for the operation of five large research vessels. These research vessels are our most important tools for gathering data in the fields of marine resources and the environment.

JOHAN HJORT Built: 1990 1828 grt. L.o.a. 64,4 m



OVERVIEW OF CRUISE ACTIVITIES

Vessel	Cruise days <sup>1</sup>		
G.O. Sars	320		
Johan Hjort	320		
Håkon Mosby	320		
G.M. Dannevig	190		
Dr. Fridtjof Nansen	315		
Hans Brattström	200		
Fangst	190		
Jan Mayen²	75		
Chartered vessels	800		
Total	2 612		

# G.M. DANNEVIG Built: 1979 171 grt



1) Average figures

2) Operating responsibility: University of Tromsø

## HÅKON MOSBY Built: 1980 701 grt. L.o.a. 47,2 m Owner: University of Bergen



# DR. FRIDTJOF NANSEN Built: 1993 L.o.a. 56,8 m



# NUMBER OF EMPLOYEES!

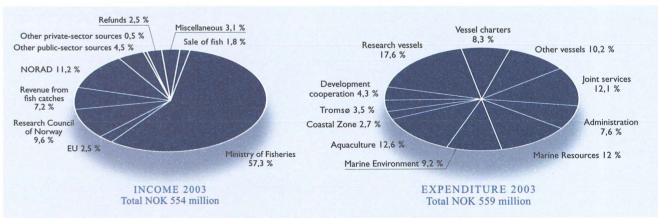
	Bergen	Tromsø	Flødevigen	Matre	Austevoll	Total
Scientists	120	18	10	9	12	169
Technicians	180	7	13	- 11	16	227
Crew	102	0	0	0	0	102
Admin.	74	3	3	3	2	85
Total	476	28	26	23	30	583

### OTHER POSITIONS

EU fellows	0
Research fellows	27
Post-docs	16
Adjunct chief scientists	- 11
Cleaning personnel	6
Apprentices	6
Trainee-scheme positions	3
Total	69

1) Because some positions are part-time the number of employees is not identical to the number of person-years of work performed.

# **ECONOMY**



### PARTNERS IN COOPERATION

Most Norwegian fisheries target stocks that we share with other countries, and most problems of the marine environment are international in character. The Institute is therefore an important adviser to international organisations and commissions.

# NATIONAL PARTNERS

- Ministry of Fisheries
   Directorate of Fisheries
   NIFES Norwegian Institute of Nutritional and Seafood Research
- Ministry of Environment
   DN Directorate of Nature Management
   SFN Norwegian Pollution Control Authority
- Ministry of Foreign Affairs
- Research Council of Norway
- NORAD Norwegian Agency for Development Cooperation

#### UNIVERSITIES AND COLLEGES

- ▶ UoB University of Bergen
- UoT University of Tromsø
- Norwegian College of Fisheries
- ▶ UoO University of Oslo
- NUST Norwegian University of Science and Technology
- ▶ NLH Agricultural University of Norway
- NVH Norwegian School of Veterinary Science

#### RESEARCH INSTITUTES

- Norwegian Institute of Fisheries and Aquaculture
- National Veterinary Institute
- Aqua Research
- ▶ DNMI Norwegian Meteorological Institute
- ▶ NP Norwegian Polar Research Institute
- NINA Norwegian Institute for Nature Research
- ▶ NIVA Norwegian Institute for Water Research

- ▶ SINTEF Foundation for Industrial and Technical Research
- OCEANOR Oceanographic Company of Norway ASA
- ▶ NERSC Nansen Environmental and Remote Sensing Center

## INTERNATIONAL PARTNERS

- ▶ ICES International Council for the Exploration of the Sea
- NAFO Northwest Atlantic Fisheries Organisation
- NEAFC Northeast Atlantic Fisheries Commission
- NASCOo North Atlantic Salmon Conservation Organization
- NAMMCO North Atlantic Marine Mammal Commission
- ▶ IWC International Whaling Commission
- ► CCAMLR Commission for the Conservation of Antarctic Marine Living Resources
- Nordic Council of Ministers
- ► FAO United Nations Food and Agriculture Organisation
- ▶ EU Framework Research Programmes
- ▶ PINRO-Russian Polar Marine Research Institute
- MRI Marine Research Institute, Iceland
- ▶ DFHU Danish Fisheries and Marine Research Institute
- MARLAB Fisheries Research Services, Scotland



## INSTITUTE OF MARINE RESEARCH, BERGEN

Nordnesgaten 50 — P.O. Box 1870 Nordnes

N-5817 Bergen - Norway

Tel.: +47 55 23 85 00 — Faks/Fax: +47 55 23 85 31

# INSTITUTE OF MARINE RESEARCH, TROMSØ

Sykehusveien 23, Postboks 6404

N-9294 Tromsø — Norway

Tel.: +47 55 23 85 00 — Faks/Fax: +47 77 60 97 01

### INSTITUTE OF MARINE RESEARCH, FLØDEVIGEN

N-4817 His - Norway

Tel.: +47 37 05 90 00 — Faks/Fax: +47 37 05 90 01

### INSTITUTE OF MARINE RESEARCH, AUSTEVOLL

N-5392 Storebø - Norway

Tel.: +47 55 23 85 00 — Faks/Fax: +47 56 18 22 22

### INSTITUTE OF MARINE RESEARCH, MATRE

N-5984 Matredal - Norway

Tel.: +47 55 23 85 00 - Faks/Fax: +47 56 36 75 85

# RSEARCH VESSELS DEPARTMENT

Nykirkekaien 1

Tel.: +47 55 23 68 49 — Faks/Fax: +47 55 23 85 32

#### INFORMATION

Tel.: +47 55 23 85 21 — Faks/Fax: +47 55 23 85 55 E-mail: informasjonen@imr.no

11

10

