

## Contributions to the 2003 Annual Science Conference

Gen	General Assembly Reports and Papers of General Interest .....
Del	Delegates Meetings.....
Fi	Finance Committee .....
Pub	Publications Committee .....
A	Consultative Committee .....
MCAP	Management Committee for the Advisory Process .....
ACFM	Advisory Committee on Fishery Management Assessment Working Group Reports.....
ACME	Advisory Committee on the Marine Environment-related Working Group Reports.....
ACE	Advisory Committee on Ecosystems .....
B	Fisheries Technology Committee .....
C	Oceanography Committee .....
D	Resource Management Committee .....
E	Marine Habitat Committee .....
F	Mariculture Committee.....
G	Living Resources Committee.....
H	Baltic Committee .....

### *Theme Sessions*

J	The Role of Benthic Communities as Indicators of Marine Environmental Quality and Ecosystem Change .....
K	Towards Regional Marine Biometeorology Networks: Expectations, Current Experiences and Results – No contributions
L	Plankton Monitoring: Better Coverage by Ship-of-Opportunity and Remote Sensing Methods .....
M	Biological Effects Monitoring in the Baltic Sea .....
N	Size-Dependency in Marine and Freshwater Ecosystems .....
O	Transport of Eggs and Larvae Relevant to Cod Stocks of the North Atlantic .....
P	Physical-Biological Interactions in Marginal and Shelf Seas .....
Q	Regional Long-Term Changes in the Spatial Distribution, Abundance and Migration of Pelagic and Demersal Resources .....
R	Freshwater and Diadromous Fishes in the Baltic Sea.....
S	Ecosystem Consequences of Cyanobacteria in the Baltic Sea .....
T	On the State and Stability of the northern North Atlantic: Patterns and Trends.....
U	The Scope and Effectiveness of Stock Recovery Plans in Fishery Management .....
V	Mixed and Multi-Stock Fisheries – Challenges and Tools for Assessments, Prediction, and Management.....
W	Decisions Systems for Eutrophication.....
X	Evaluation of Fisheries Management Scenarios and the Supporting Data through Simulation .....
Y	Reference Point Approaches to Management within the Precautionary Approach .....
Z	The Historical and Current use of Technical Conservation Measures and the Evaluation of their Effectiveness, with Special Emphasis on North Atlantic Demersal Fisheries.....

## GENERAL ASSEMBLY REPORTS AND PAPERS OF GENERAL INTEREST

- Gen:1 Observers' Reports from Cooperating Organisations
- Gen:2 ICES Activities in 2002/2003
- Gen:3 Elections and Appointments of Council Officials at 2003 Annual Science Conference (91st Statutory Meeting) (E+F)
- Gen:4 Report on ICES Symposia
- Gen:5 2002/2003 Overview of ICES Committees and Subsidiary Groups and their Shadowing by Secretariat Staff, and Schedule of ICES Meetings and List of CM Codes

### DELEGATES MEETINGS

- Del:1 Final Accounts for Financial Year 2002
- Del:2 Progress Report on Administration
- Del:3 2003 Annual Science Conference – Social Activities
- Del:4 Status Report of Accounts. 15 September 2003
- Del:5 Draft Budget 2004 and 2005
- Del:6 Arrangements for the 2004 and 2005 Annual Science Conferences
- Del:7 Report of Steering Group for the Next Dialogue Meeting
- Del:8 ICES Press Policy
- Del:9 Report of SGAWWP (MCAP:02)
- Del:10 Report of the ICES/Commissions Working Group on Cooperative Procedures
- Del:11 Revised MoUs of Client Commissions
- Del:12 Development of MoU with NAFO
- Del:13 Draft Procedures for Increasing the Transparency of the ICES Advisory Process
- Del:14 Report of IOC Meeting
- Del:15 GEF Baltic Regional Report
- Del:16 Current Status of the ICES/GLOBEC Programme and Office
- Del:17 Appointment of Editor-in-Chief of the *ICES Journal of Marine Science*
- Del:18 Framework Policy for Quality Assurance

### FINANCE COMMITTEE

- Fi:1\* Agenda for Finance Committee

\* For Finance Committee and Delegates only

## CONSULTATIVE COMMITTEE (A)

A:01 Report of the Consultative Committee, 23–26 May 2003

### MCAP

- MCAP:01 Advisory Committee on Fishery Management (ACFM) (October 2002)
- MCAP:02 Study Group on ACFM, ACE and Working Group Working Protocols  
Ref. ACFM, (SGAWWP)  
ACE, ACME
- MCAP:03 Advisory Committee on Ecosystems (ACE)
- MCAP:04 Advisory Committee on Fishery Management (ACFM) (May 2003)
- MCAP:05 Advisory Committee on the Marine Environment (ACME)

### ACFM

- ACFM:01 Working Group on the Assessment of Southern Shelf Stocks of Hake, Monk and Megrin (WGHMM)
- ACFM:02 Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)
- ACFM:03 Working Group on the Assessment of Southern Shelf Demersal Stocks (WGSSDS)
- ACFM:04 Working Group on the Assessment of Northern Shelf Demersal Stocks (WGNSSDS)
- ACFM:05 Ref. G *Pandalus* Assessment Working Group (WGPAND)
- ACFM:06 ICES/EIFAC Working Group on Eels (WGEEL)
- ACFM:07 Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine, and Anchovy (WGMHSA)
- ACFM:08 Ref. D Study Group on the Development of Fishery-based Forecasts (SGDFF)
- ACFM:09 Study Group on the Further Development of the Precautionary Approach to Fishery  
Ref. ACE, D Management (SGPA)
- ACFM:10 Study Group on the Revision of Data for North Sea Herring (SGREDNOSE)  
Ref. HAWG
- ACFM:11 Study Group on Biological Reference Points for Northeast Arctic Cod (SGBRP)  
Ref. SGPRP
- ACFM:12 Workshop on Catch Control, Gear Description and Tag Reporting in Baltic Salmon  
Ref. WGBAST (WKCGTS)
- ACFM:13 Workshop to Develop Improved Methods for Providing Harp and Hooded Seal Harvest  
Advice (WKDIMPH)
- ACFM:14 ICES/NSCFP Study Group on the Incorporation of Additional Information from the  
Ref. D Fishing Industry into Fish Stock Assessments (SGFI)

ACFM:15 Ref. HAWG, WGBFAS, AFWG, NWWG, WGNPBW, WGNSSK, WGHMM, WGNSDS, WGSSDS, WGMHSA	Study Group on Precautionary Reference Points for Advice on Fishery Management (SGPRP)
ACFM:16	Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS)
ACFM:17	Herring Assessment Working Group for the Area South of 62°N (HAWG)
ACFM:18	Working Group on <i>Nephrops</i> Stocks (WGNEPH)
ACFM:19 Ref. D,F,C	Working Group on North Atlantic Salmon (WGNAS)
ACFM:20	Baltic Salmon and Trout Assessment Working Group (WGBAST)
ACFM:21	Baltic Fisheries Assessment Working Group (WGBFAS)
ACFM:22	Arctic Fisheries Working Group (AFWG)
ACFM:23	Northern Pelagic and Blue Whiting Fisheries Working Group (WGNPBW)
ACFM:24	North-Western Working Group (NWWG)
ACFM:25 Ref. G	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP)

**REFERENCE PAPERS: MCAP:02, ACE:01, B:01, B:07, C:08, D:01, D:02, D:03, D:04, D:05, D:06, D:07, D:08, D:09, G:02, G:08, G:09, G:14**

#### ACME

ACME:01 Ref. C, E, H	ICES/HELCOM Steering Group on Quality Assurance of Chemical Measurements in the Baltic Sea (SGQAC)
ACME:02 Ref. C, E, H	ICES/HELCOM Steering Group on Quality Assurance of Biological Measurements in the Baltic Sea (SGQAB)
ACME:03 Ref. E, F	ICES/IMO/IOC Study Group on Ballast and Other Ship Vectors (SGBOSV)
ACME:04 Ref. E, F	Working Group on Introductions and Transfers of Marine Organisms (WGITMO)

**REFERENCE PAPERS: MCAP:02, ACE:01, C:01, C:02, C:05, C:06, C:07, C:08, C:09, E:03, E:04, E:06, E:07, E:09, F:03, F:04**

#### ACE

ACE:01 Ref. ACME, ACFM	Study Group on Management of Integrated Data (SGMID)
ACE:02 Ref. E	Study Group on Cold Water Corals (SGCOR)
ACE:03	Working Group on Marine Mammal Ecology (WGMME)

Ref. E, G

ACE:04 Regional Ecosystem Study Group for the North Sea (REGNS)

ACE:05 Working Group on Ecosystem Effects of Fishing Activities (WGECO)

Ref. D, E, G

**REFERENCE PAPERS: MCAP:02, ACFM:09, B:01, C:02, C:03, C:08, C:09, D:05, D:06, D:09, E:07, E:08, F:01, G:02, G:04, H:05**

#### **FISHERIES TECHNOLOGY COMMITTEE (B)**

B:01 Study Group on Survey Trawl Gear for the IBTS Western and Southern Areas (SGSTG)  
Ref. ACFM, ACE, D, G, WGFTFB

B:02 Study Group on Mesh Measurements Methodology (SGMESH)  
Ref. WGFTFB

B:03 Planning Group on the HAC Data Exchange Format (PGHAC)  
Ref. WGFAST

B:04 Ref. E, Study Group on Acoustic Seabed Classification (SGASC)  
WGFAST

B:05 Ref. H, Study Group of Target Strength Estimation in the Baltic Sea (SGTSEB)  
WGFAST

B:06 Working Group on Fisheries Acoustics Science and Technology (WGFAST)

B:07 ICES-FAO Working Group on Fishing Technology and Fish Behaviour (WGFTFB)  
Ref. ACFM

B:08 Study Group on the Review of the Structure of the Fisheries Technology Committee (SGRSFTC)

**REFERENCE PAPERS: E:08, G:08**

#### **OCEANOGRAPHY COMMITTEE (C)**

C:01 Working Group on Zooplankton Ecology (WGZE)  
Ref. ACME

C:02 Study Group for Phytoplankton and Protist Taxonomy (SGPPT)  
Ref. ACME, ACE

C:03 Working Group on Seabird Ecology (WGSE)  
Ref. ACE, D, E, G

C:04 Study Group on Modelling of Physical/Biological Interactions (SGPBI)

C:05 Working Group on Phytoplankton Ecology (WGPE)  
Ref. ACME

C:06 ICES-IOC Working Group on Harmful Algal Bloom Dynamics (WGHABD)  
Ref. ACME, F

C:07 Working Group on Oceanic Hydrography (WGOH)  
Ref. ACME

C:08 Ref. ACFM, ACME, ACE, D, E, G	ICES-EuroGOOS Planning Group on the North Sea Pilot Project NORSEPP (PGNSP)
C:09 Ref. ACME, ACE	ICES-IOC Steering Group on GOOS (SGGOOS)
C:10 Ref. G	Workshop on a Synthesis of the Cod and Climate Programme (WKCCP)
C:11	ICES/GLOBEC Working Group on Cod and Climate Change (WGCCC)
C:12	ICES-IOC Study Group on the Development of Marine Data Exchange Systems using XML (SGXML)
C:13	Working Group on Marine Data Management (WGMDM)
C:14	Workshop on Zooplankton Taxonomy (WKZT)
C:15	Workshop on Real-time Coastal Observing Systems for Ecosystem Dynamics and Harmful Algal Blooms (WKHABWATCH)
C:16	Working Group on Recruitment Processes (WGRP)
C:17 Ref. Bureau	Steering Group for the ICES/GLOBEC North Atlantic Programme and Regional Office (SGNARO)

**REFERENCE PAPERS: ACFM:19, ACME:01, ACME:02, D:01, E:02, E:09**

**RESOURCE MANAGEMENT COMMITTEE (D)**

D:01 Ref. ACFM, C, G, H, WGMG	Study Group on Growth, Maturity and Condition in Stock Projections (SGGROMAT)
D:02 Ref. ACFM	Planning Group on Redfish Stocks (PGRS)
D:03 Ref. ACFM, G	Working Group on Methods on Fish Stock Assessments (WGMG)
D:04 Ref. ACFM, G	Workshop on Fish Stock Assessment Techniques (WKCFAT)
D:05 Ref. ACFM, ACE, G	International Bottom Trawl Survey Working Group (IBTSWG)
D:06 Ref. ACFM, ACE	Working Group on Fishery Systems (WGFS)
D:07 Ref. ACFM	Study Group on Age-length Structured Assessment Models (SGASAM)
D:08 Ref. ACFM	Planning Group on Redfish Stocks (PGRS)
D:09 Ref. ACFM, ACE, G	Study Group on Multispecies Assessments in the North Sea (SGMSNS)
D:10	Planning Group on Surveys of Pelagic Fish in the Norwegian Sea (PGSPFN)

**REFERENCE PAPERS: ACFM:08, ACFM:09, ACFM:14, ACFM:19, ACE:05, B:01, C:03, C:08, E:07, G:03, G:04, G:05, G:06, G:07, G:11, G:14**

#### **MARINE HABITAT COMMITTEE (E)**

- E:01            Steering Group on Quality Assurance of Biological Measurements in the Northeast Atlantic (SGQAE)
- E:02            Marine Chemistry Working Group (MCWG)  
Ref. C
- E:03            Working Group on the Statistical Aspects of Environmental Monitoring (WGSAEM)  
Ref. ACME
- E:04            Working Group on Marine Sediments in Relation to Pollution (WGMS)  
Ref. ACME
- E:05            Study Group on the North Sea Benthos Project 2000 (SGNSBP)  
Ref. BEWG
- E:06            Working Group on Biological Effects of Contaminants (WGBEC)  
Ref. ACME
- E:07            Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem (WGEXT)  
Ref. ACME, ACE, D
- E:08            Working Group on Marine Habitat Mapping (WGMHM)  
Ref. ACE, B
- E:09            Benthos Ecology Working Group (BEWG)  
Ref. ACME, C
- E:10            Study Group on Information Needs for Coastal Zone Management( (SGINC)

**REFERENCE PAPERS: ACME:01, ACME:02, ACME:03, ACME:04, ACE:02, ACE:03, ACE:05, B:04, C:03, C:08**

#### **MARICULTURE COMMITTEE (F)**

- F:01            Working Group on the Application of Genetics in Fisheries and Mariculture (WGAGFM)  
Ref. ACE, I
- F:02            Working Group on Marine Fish Culture (WGMAFC)
- F:03            Working Group on Pathology and Diseases of Marine Organisms (WGPDMO)  
Ref. ACME
- F:04            Working Group on Environmental Interactions of Mariculture (WGEIM)  
Ref. ACME
- F:05            Working Group on Marine Shellfish Culture (WGMASC)

**REFERENCE PAPERS: ACFM:19, ACME:03, ACME:04, C:06**

## LIVING RESOURCES COMMITTEE (G)

- G:01 Working Group on *Crangon* Fisheries and Life History (WGCRAN)
- G:02 Working Group on Cephalopod Fisheries and Life History (WGCEPH)  
Ref. ACFM,  
ACE
- G:03 Planning Group for Herring Surveys (PGHERS)  
Ref. D, HAWG
- G:04 Working Group on Fish Ecology (WGFE)  
Ref. ACE, D
- G:05 Baltic International Fish Survey Working Group (WGBIFS)  
Ref. D, H
- G:06 Ref. D Planning Group on North Sea Cod and Plaice Egg Surveys in the North Sea  
(PGEGBS)
- G:07 Ref. D Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS)
- G:08 Ref. Planning Group on Aerial and Acoustic Surveys for Mackerel (PGAAM)  
ACFM, B
- G:09 Working Group on Elasmobranch Fishes (WGEF)  
Ref. ACFM,  
PGCCDBS
- G:10 Workshop on Lobster Reference Points for Fishery Management (WKRPFM)
- G:11 Ref. D Study Group on the Biology and Life History of Crabs (SGCRAB)
- G:12 Study Group on the Estimation of Spawning Stock Biomass of Sardine and  
Anchovy (SGSBSA)
- G:13 Workshop on Mackerel and Horse Mackerel Egg Staging and Identification  
(WKMHMES)
- G:14 Working Group on Beam Trawl Surveys (WGBEAM)  
Ref. ACFM, D
- G:15 Stock Identification Methods Working Group (SIMWG)

**REFERENCE PAPERS: ACFM:05, ACFM:25, ACE:03, ACE:05, B:01, C:08, C:10, D:01, D:03, D:04, D:05, D:09**

## BALTIC COMMITTEE (H)

- H:01 Study Group on Salmon Scale Reading (SGSSR)  
Ref. I
- H:02 Study Group on Herring Assessment Units in the Baltic Sea (SGHAUB)  
Ref. WGBFAS
- H:03 Study Group on Multispecies Assessment in the Baltic (SGMAB)  
Ref. WGBFAS
- H:04 ICES-IOC-SCOR Study Group on GEOHAB Implementation in the Baltic  
(SGGIB)
- H:05 Ref. ACE Planning Group on Implementation of the Baltic Sea Regional Project (PG-  
IBSRP)

**REFERENCE PAPERS: ACME:01, ACME:02, B:05, D:01, G:05**



**Theme Session on the Role of Benthic Communities as Indicators of Marine Environmental Quality and Ecosystem Change (J)**

<i>Code No.</i>	<i>First Author, Co-Author(s)</i>	<i>Title</i>
J:01	<i>Iñigo Muxika, Á. Borja, and J. Franco</i>	The use of a Biotic Index (AMBI) to identify spatial and temporal impact gradients on benthic communities in an estuarine area
J:02	<i>Ángel Borja, J. Franco, and I. Muxika</i>	Classification tools for marine ecological quality assessment: the usefulness of macrobenthic communities in an area affected by a submarine outfall
J:03 Poster	<i>J. Syvokiene, L. Mickeniene, and R. Jankauskiene</i>	Hydrocarbon-degrading bacteria in the bacteriocenosis of higher crustaceans and fish
J:04	<i>H. L. Rees, S. E. Boyd, E. Garnacho, M. Schratzberger, and L. A. Murray</i>	Benthic indicators of anthropogenic effects: practical considerations in meeting regulatory needs
J:05	<i>Vadim A. Shtrik and Vasilij I. Sokolov</i>	The program of coastal ecosystem monitoring of Kola peninsula (Barents Sea) and the problem of introduced red king crab influence on nearshore communities
J:06 Poster	<i>Tiina Laakkonen and A-B. Andersin</i>	Population dynamics of the amphipod <i>Monoporeia affinis</i> in the southern part of the Gulf of Bothnia (Baltic Sea)
J:07	<i>Björn Gulliksen and Frank Beuchel</i>	Monitoring of rocky-bottom macrobenthic communities on locations at Svalbard and Jan Mayen using digital image analysis
J:08	<i>Withdrawn</i>	

**Theme Session Towards Regional Marine Biometeorology Networks: Expectations, Current Experiences and Results.** (Session K) - no contributions

**Theme Session on Plankton Monitoring: Better Coverage by Ship-of-Opportunity and Remote Sensing Methods (L)**

L:01	<i>Jukka Seppälä</i>	Spectral absorption and fluorescence characteristics of the Baltic Sea phytoplankton
L:02	<i>S. E. Holley, J. Waniek, and D. J. Hydes</i>	Ferrybox measurements of phytoplankton dynamics in a hypernutrified estuary (Southampton Water, UK)
L:03	<i>D. E. Levashov, G. A. Kantakov, P. A. Mikheychic, A. Y. Sedov, and A.P. Voronkov</i>	Optoelectronic method of plankton monitoring and fish stock feed base assessment
L:04	<i>E. D. Clarke, S. N. Wood, M. R. Heath, D. C. Speirs, W. S. C. Gurney, and S. J. Holmes</i>	Prediction of the annual cycle of phytoplankton production in the North East Atlantic
L:05	<i>Withdrawn</i>	

L:06	<i>Seppo Kaitala</i>	Development of the operational observation system of harmful algal blooms as a BOOS project
L:07	<i>Totti Takio, Jenni Vepsäläinen, Seppo Kaitala, and Vivi Fleming</i>	Remote sensing of chlorophyll <i>a</i> in the Baltic Sea together with automated fluorometer measurements
L:08	<i>Heidi Hällfors and Eija Rantajärvi</i>	Alg@line – 10 years of innovative phytoplankton monitoring and research in the Baltic Sea
L:09	<i>Lauri London and Urmas Lips</i>	Upwelling in the Gulf of Finland (along the Tallinn-Helsinki ferry line in 1997–2002)
L:10	<i>Liza Almesjö and Carl Rolff</i>	An evaluation of methods for obtaining water column integrated samples of filamentous cyanobacteria in the Baltic Sea
L:11	<i>Henning Wehde, Wilhelm Petersen, Michail Petschatnikov, Friedhelm Schroeder, and Franciscus Colijn</i>	Development and distribution of plankton observed with a ferrybox system for monitoring coastal waters
L:12	<i>Withdrawn</i>	
L:13	<i>Jouni Pulliainen, Jenni Vepsäläinen, Seppo Kaitala, Kari Kallio, Eija Rantajärvi, and Sampsa Koponen</i>	Spatial mapping of chlorophyll concentration in the Baltic Sea through the assimilation of satellite data with ship-of-opportunity observations

#### **Theme Session on Biological Effects Monitoring in the Baltic Sea (M)**

M:01	<i>Eugeniusz Andruliewicz, D. Napierska, M. Podolska, I. Barska, and L. Polak-Juszczak</i>	An integrated ichthyological-chemical-biochemical approach to assess the impact of the environmental quality status of selected marine sites on ichthyofauna health
M:02	<i>Kari K. Lehtonen, Sari Leiniö, Rolf Schneider, and Mirja Leivuori</i>	Biomarkers of pollution effects in the bivalves <i>Mytilus edulis</i> and <i>Macoma balthica</i> collected from two areas in the southern coast of Finland (Baltic Sea)
M:03	<i>Janina Baršienė, Janina Šyvokienė, Aleksandras Rybakovas, and R. Bučinskienė</i>	The assessment of cytogenetic and cytotoxic effects in gill cells of blue mussels ( <i>Mytilus edulis</i> )
M:04	<i>Withdrawn</i>	
M:05	<i>Katarzyna Grzyb, Michal Rychlowski, Anna Biegniewska, and Edward F. Skorkowski</i>	Tributyltin causes release of creatine kinase from fish spermatozoa
M:06	<i>Leili Järv, Ott Roots, and Mart Simm</i>	DDT and PCB concentrations dependency on the biology and domicile of fish: an example of perch ( <i>Perca fluviatilis</i> L. ) in Estonian coastal sea

M:07	<i>Doris Schiedek, Edvardas Bagdonas, Lennart Balk, Janina Baršienė, Katja Broeg, Jens Gercken, Angela Koehler, Kari K. Lehtonen, Simone Pfeifer, Janina Šyvokienė, and Rolf Schneider</i>	Biomarker responses in the blue mussel ( <i>Mytilus edulis</i> ) and the eelpout ( <i>Zoarces viviparus</i> ) in the Western Baltic Sea
M:08	<i>L. Balk, B. Liewenborg, M. Linderoth, H. Sundberg, E. Noaksson, T. Hansson, U. Tjärnlund, D. Schiedek, and G. Åkerman</i>	Biomarker studies of female perch ( <i>Perca fluviatilis</i> ) in a chronically polluted gradient through the Stockholm archipelago
M:09	<i>Sabine Schnell, Doris Schiedek, Rolf Schneider, Lennart Balk, Pekka J. Vuorinen, Heta Vuontisjärvi, and Thomas Lang</i>	Some indications of contaminant effects on Baltic cod ( <i>Gadus morhua</i> L.)
M:10	<i>Pekka J. Vuorinen, Marja Keinänen, and Heta Vuontisjärvi</i>	Bile PAH-metabolite concentrations in perch ( <i>Perca fluviatilis</i> ) exposed to crude oil and sampled in the Gulf of Finland near an oil refinery and in Baltic salmon ( <i>Salmo salar</i> )
M:11	<i>Janina Baršienė, Kari K. Lethonen, Pekka Vuorinen, Thomas Lang, Janusz Pempkowiak, Janina Šyvokienė, Veronika Dedonytė, Aleksandras Rybakovas, Hetta Vuontisjärvi, and Justyna Kopecka</i>	Biomarker responses in the mussel ( <i>Mytilus edulis</i> ) and the flounder ( <i>Platichthys flesus</i> ) in the Klaipėda-Butinge area (Baltic Sea)
M:12	<i>Mart Simm, O. Roots, and L. Järv</i>	Quality criteria for DDT and HCH in Estonian coastal fish
M:13 Poster	<i>Oleg M. Lapshin and Natalie S. Zhmur</i>	Complex methodology of spot pollution sources influence estimation in water areas of the Baltic and the Black Seas
M:14	<i>Katja Broeg, H. v. Westernhagen, S. Zander, W. Körting, and Angela Koehler</i>	The "Bioeffect Assessment Index" (BAI) as a promising tool for the estimation of German Bight and Baltic Sea environmental quality?
M:15	<i>K. Cooreman, P. Roose, and M. Raemaekers</i>	Status and use of biological effects techniques
M:16	<i>Withdrawn</i>	
M:17	<i>Thomas Lang, Janina Baršienė, Katja Broeg, Justyna Kopecka, and Jari Parkkonen</i>	Liver histopathology in Baltic flounder ( <i>Platichthys flesus</i> ) as indicator of biological effects of contaminants

M:18 Poster *Dorota Napierska and Magdalena Podolska* Measurements of AChE, GST and EROD in flounder, *Platichthys flesus*, and eelpout, *Zoarces viviparus*, from the southern Baltic Sea

### Theme Session on Size-Dependency in Marine and Freshwater Ecosystems (N)

N:01 *Aril Slotte* Size dependency in the migrations and distribution of Norwegian spring-spawning herring

N:02 *Andrei Makarchouk and G. B. Grauman* Changes in the size of sprat eggs in the Eastern Baltic

N:03 *J. F. De Pierrepont, B. Dubois, S. Desormonts, M. B. Santos, and J. P. Robin* Diet of English Channel cetaceans stranded on the coast of Normandy

N:04 *J. L. Blanchard, N. K. Dulvy, J. E. Ellis, J. K. Pinnegar, and S. Jennings* Large-scale forcing factors influence size-based metrics of Celtic Sea fish communities

N:05 *Eric Benoît and Marie-Joëlle Rochet* The meaning of fish size spectra, the effects of fishing on them and the usefulness of their slope as indicator of fishing impacts

N:06 *Danute Uzars, Didzis Ustups, B. Müller-Karulis, and Evalds Urtans* Size structure and feeding ecology of fish communities in the surf zone of the eastern Baltic

N:07 *Pierre Petitgas and Patrick Grellier* Size selective processes for anchovy in Biscay, 2000–2002: recruitment, adult survival and spawning

N:08 Poster *Jens Floeter and Axel Temming* Size preference models for North Sea cod, whiting, saithe and grey gurnard feeding on fish

N:09 *R. Tamsalu, V. Zalesny, and R. Aps* Modelling of the size-dependent plankton community

N:10 *Niels Daan, Henrik Gislason, John Pope, and Jake Rice* Changes in the North Sea fish community: evidence of indirect effects of fishing

N:11 *Emmanuel Chassot and D. Gascuel* Estimation of the impact of trophic interactions on biological production functions of an ecosystem

N:12 Poster *Heikki Paltonen, M. Vinni, A. Lappalainen, and J. Pönni* Spatial, diurnal and size-dependent patterns in feeding of herring, sprat and three-spined stickleback in the Gulf of Finland, Baltic Sea

### Theme Session on the Transport of Eggs and Larvae Relevant to Cod Stocks of the North Atlantic (O)

O:01 *H.-H. Hinrichsen, C. Möllmann, and J. O. Schmidt* Spatial overlap patterns between Baltic larval cod and its prey obtained from drift model studies

O:02 *Joël Chassé* Modelling of cod eggs and larvae drift, growth and survival in the Gulf of St. Lawrence, Canada

O:03 *L. A. Lisovenko* The new technique of stock assessment of fish having discrete oogenesis and portional spawning based on experimental egg incubation data

O:04	<i>Nina V. Mukhina, A. G. Trophimov, and B. A. Ivshin</i>	The importance of vertical ascending velocity and water dynamics for the estimation of the abundance index and survival of the Northeast Arctic cod ( <i>Gadus morhua</i> L.) from the Barents Sea in early life history
O:05	<i>D. Mountain, J. Green, J. Sibunka, and D. Johnson</i>	The transport of cod and haddock eggs and larvae on Georges Bank, 1995–1999
O:06	<i>Marie Storr-Paulsen, Kai Wieland, and Holger Hovgaard</i>	The stock structure of Atlantic cod ( <i>Gadus morhua</i> ) in West Greenland waters: Implications of transport and migration
O:07	<i>Frode Vikebø, Svein Sundby, and Bjørn Ådlandsvik</i>	Effect of climate on marine ecosystem
O:08 Poster	<i>Steingrímur Jónsson</i>	Flow of Atlantic Water north of Iceland and the associated transport of heat

### Theme Session on Physical-Biological Interactions in Marginal and Shelf Seas (P)

P:01	<i>Volker Mohrholz</i>	Renewal of deep water in the Bornholm Basin
P:02	<i>Wolfgang Fennel</i>	Theory of marine ecosystems
P:03	<i>Withdrawn</i>	
P:04	<i>Charles Hannah</i>	Strategy for modelling physical-biological interactions
P:05	<i>Frank Janssen, T. Neumann, and M. Schmidt</i>	The influence of wintertime hydrographic conditions on cyanobacteria blooms in the Baltic Sea
P:06	<i>Morten Skogen, Henrik Søiland, and Einar Svendsen</i>	Eutrophication issues attacked by a numerical model of the North Sea/Skagerrak
P:07 Poster	<i>E. M. Karasiova</i>	Interannual variability of the wind impact as a factor affecting the abundance of the Baltic sprat recruitment
P:08	<i>P. Pepin and J. F. Dower</i>	Uncertainty in model-data interplay for coupled biological-circulation models
P:09 Poster	<i>Jonne Kotta, H. Orav-Kotta, I. Kotta, and M. Simm</i>	Effect of the introduced polychaete <i>Marenzelleria viridis</i> on the simple ecosystem in the northern Baltic Sea
P:10 Poster	<i>Andrei Makarchouk and G. B. Grauman</i>	Some data about place, time and depth of spawning of sprat in the Eastern Baltic
P:11	<i>A. Gallego and M. Heath</i>	The potential role of settlement on the stock-recruitment relationship: numerical experiments using bio-physical modelling simulations
P:12	<i>Kenneth Sherman</i>	Physical, biological and human forcing of biomass yields in large marine ecosystems
P:13 Poster	<i>Daniel Stepputtis</i>	How behaviour of sprat and herring in the Central Baltic Sea depends on physical factors
P:14 Poster	<i>Anda Ikauniece, E. Kostrichkina, B. Kalveka, and M. Mazmacs</i>	Factors structuring the plankton communities in the Eastern Gotland Basin and the Gulf of Riga, Baltic Sea

P:15 Poster	<i>Irina Alekseeva, Corinna Schrum, and Michael St. John</i>	Ecosystem dynamics in hydrographic fronts of the North Sea, investigation by a 3-D coupled bio-physical model HAMSOM-ECO
P:16	<i>Christine Hanson, Charitha Pattiaratchi, and Anya Waite</i>	The unique continental shelf dynamics off Western Australia: physical controls on phytoplankton productivity
P:17	<i>Henn Ojaveer, M. Simm, and I. Kotta</i>	'High energy' zones – crucial locations for regular surveying
P:18 Poster	<i>Christian Möllmann, Hans-Harald Hinrichsen, and Jörn O. Schmidt</i>	Simulating the interaction of <i>Pseudocalanus</i> sp. with the physical environment in the Central Baltic Sea
P:19	<i>A. F. Vézina and B. Casault</i>	Connections between variability in the surface mixed layer and phytoplankton production on the Scotian shelf (NW Atlantic): an appraisal using physical-biological simulations
P:20	<i>Thomas Neumann, Wolfgang Fennel, and Christine Kremp</i>	A stage resolving model of copepods coupled with a 3-dimensional biogeochemical model of the Baltic Sea
P:21 Poster	<i>Piotr Margónski and Katarzyna Horbowa</i>	The Vistula Lagoon – the response of the system to changes of anthropogenic factors
P:22 Poster	<i>Paula Álvarez, Unai Cotano, Julien Mader, and V. Valencia</i>	A study of early-life history of Atlantic mackerel in the southern-east corner of the Bay of Biscay in relation to physical and biological conditions
P:23 Poster	<i>Inga Hense and Tapani Stipa</i>	Bloom development of the primary producers in the Baltic Sea
P:24	<i>Guoqi Han</i>	Seasonal-mean circulation and tidal currents on the Newfoundland Shelf
P:25	<i>Gwenhael Allain, Pierre Petitgas, Pascal Lazure, and Patrick Grellier</i>	Stochastic bio-physical modelling of anchovy ( <i>Engraulis encrasicolus</i> ) larval growth and survival in the Bay of Biscay and its use for recruitment prediction
P:26	<i>Eero Aro and Kai Myrberg</i>	The integration of the Baltic Sea modelling and estimation of cod larvae transport from the main spawning ground in the southern Baltic
P:27 Poster	<i>Oleg Andrejev, Kai Myrberg, Pentti Mälkki, and Matti Perttilä</i>	Three-dimensional modelling of the main Baltic inflow in 1993
P:28	<i>Withdrawn</i>	
P:29 Poster	<i>Luzdivina Rueda, Guillermo Boyra, and Andrés Uriarte</i>	Adaptive buoyancy of sardine ( <i>Sardina pilchardus</i> ) eggs to the environmental density
P:30	<i>Benjamin Planque, Pascal Lazure, and Anne-Marie Jégou</i>	Interannual variability in spring hydrological changes. A method for typological classification and an application to the Bay of Biscay continental shelf
P:31	<i>Withdrawn</i>	
P:32	<i>Corinna Schrum, Irina Alekseeva, and Mike St. John</i>	Turbulence vs. individual behaviour of organism. A study to discuss different forcing mechanism of frontal accumulation
P:33	<i>E. W. North, R. R. Hood, S.-Y. Chao, and L. P. Sanford</i>	Combining Eulerian and Lagrangian numerical approaches to investigate the influence of hydrographic variability on the transport of sediment and fish eggs

P:34	<i>Withdrawn</i>	
P:35	<i>Peter H. Wiebe, M. C. Benfield, C. H. Greene, A. C. Lavery, M. F. Baumgartner, N. Copley, D. Mountain, and G. L. Lawson</i>	Spatial and temporal variation in the hydrography and plankton distributions in the Gulf of Maine during autumns of 1997, 1998, and 1999
P:36	<i>Ann Bucklin, Dennis J. McGillicuddy, and Christopher A. Manning</i>	Biological-physical processes determining <i>Pseudocalanus</i> spp. (Crustacea; Copepoda) distribution and abundance on Georges Bank in the Northwest Atlantic
P:37	<i>Jörn O. Schmidt, Jens Floeter, Jens Peter Hermann, Anne Sell, Mike St. John, Christian Möllmann, and Axel Temming</i>	Small scale distribution of reproducing female <i>Pseudocalanus</i> sp. in the Bornholm Basin (central Baltic Sea) during two contrasting hydrographic regimes in spring 2002 and 2003
P:38 Poster	<i>Tuula Kohonen, Ulla Helminen, Petri Vahteri, Joonas Virtasalo, and Ilppo Vuorinen</i>	Methods for assessing the state of fish reproduction areas in the Archipelago Sea, SW Finland
P:39 Poster	<i>Chris Rückert, Jens Floeter, Corinna Schrum, Irina Alekseeva, Eberhardt Götze, Christopher Zimmermann, Michael St. John, and Axel Temming</i>	Changes in spatial distribution of North Sea clupeids during the 1990s: a response to frontal dynamics?!
P:40 Poster	<i>Petur Steingrund and Eilif Gaard</i>	Relationship between phytoplankton production and cod production on the Faroe shelf

**Theme Session on the Regional Long-Term Changes in the Spatial Distribution, Abundance and Migration of Pelagic and Demersal Resources (Q)**

Q:01	<i>Withdrawn</i>	
Q:02	<i>Tiit Raid</i>	Herring fishery in the Gulf of Finland: effects of stock distribution pattern
Q:03	<i>Mikko Heino, Georg H. Engelhard, and Olav Rune Godø</i>	Variations in the distribution of blue whiting in the Barents Sea: climatic influences or year class effects?
Q:04	<i>Eberhard Götze and Tomas Gröhsler</i>	Temporal and spatial distribution of herring in the Western Baltic Sea in 1991–2002
Q:05	<i>S. M. Kasatkina and Zh. A. Frolkina</i>	Investigations of demersal mackerel icefish ( <i>C. gunnari</i> ) spatial distribution in relation to improvements in stock estimates by trawl-acoustic survey
Q:06	<i>R. Patel, O. R. Godø, and A. Lohrmann</i>	Observing behaviour of over-wintering herring ( <i>Clupea harengus</i> L.) in Ofoten with acoustic current profiler

Q:07	<i>Alexander I. Arkhipkin</i>	Interannual changes in spatial distribution and abundance of the Patagonian squid <i>Loligo gahi</i> in the Southwest Atlantic
Q:08	<i>Jason S. Link</i>	Understanding the long-term dynamics of non-traditional species in benthic-demersal communities
Q:09	<i>Alexei M. Orlov</i>	Possible ways of exchange between Asian and American ichthyofaunas in the North Pacific Ocean
Q:10	<i>Paul D. Eastwood, Stuart I. Rogers, and Geoff J. Meaden</i>	Estimating habitat carrying capacity and the spatio-temporal distribution of adult sole in the eastern English Channel
Q:11	<i>Jacob Hagberg, Anders Svensson, Henrik Svedäng, and Francesca Vitale</i>	Preliminary analysis of the fish community change in the Skagerrak and Kattegatt from historic monitoring data
Q:12	<i>Svajunas Stankus</i>	The changes of turbot ( <i>Psetta maxima</i> L.) population structure in the Lithuanian EEZ
Q:13	<i>A.-B. Florin</i>	Using survey data to detect changes in coastal fish fauna
Q:14	<i>Michele Casini, Francesca Vitale, and Massimiliano Cardinale</i>	Trends in biomass and changes in spatial distribution of fish species in Kattegatt and Skagerrak between 1981–2003
Q:15	<i>Pierre Petitgas, Jacques Massé, Patrick Grellier, and Pierre Beillois</i>	Variation in the spatial distribution of fish length: a multi-annual geostatistics approach on anchovy in Biscay 1985–2002
Q:16	<i>Astrid K. Woll, G. I. van der Meeren, S. Tveite, and Inge Fossen</i>	Resource study of the edible crab, <i>Cancer pagurus</i> , in Norway
Q:17	<i>Mireille Bouleau, Nicolas Bez, Vidar Hjellvik, Olav Rune Godø, David Reid, Douglas Bear, Tony Greig, Mike Armstrong, Hans Gerritsen, Steven Mackinson, Suzanna Neville, Jeroen van der Kooij, Yves Vérin, and Jacques Massé</i>	Differences between near bottom biomass spatial structure observed in the Irish Sea, the North Sea and the Barents Sea in recent years
Q:18	<i>Jacques Massé, Hector Villalobos, and Pierre Petitgas</i>	Location of the anchovy fishery ( <i>Engraulis encrasicolus</i> ) according to the fish distribution observed by acoustic survey along 10 years of analysis (1989–1998)
Q:19	<i>D. G. Reid, A. Eltink, and C. Kelly</i>	Inferences on the changes in pattern in the prespawning migration of the western mackerel ( <i>Scomber scombrus</i> ) from commercial vessel data
Q:20	<i>E. J. Simmonds, C. Zimmermann, S. Jansen, E. Götze, E. Torstensen, K.-J. Stæhr, A. S. Couperus, and P. G. Fernandes</i>	ICES coordinated acoustic survey of ICES Divisions IIIa, IVa, IVb and VIa (north). 2002 Results and long-term trends.



Q:21	<i>Emma Hatfield and P. J. Copland</i>	Distribution and abundance of small pelagic fish in selected Scottish west coast sea lochs
Q:22	<i>D. Zeller, R. Watson, V. Christensen, J. Alder, M. L. D. Palomares, and D. Pauly</i>	Towards sustainable fisheries: mapping regional and global trends in abundance and catches
Q:23 Poster	<i>Jerzy Janusz and Kordian Trella</i>	Spatial and vertical distribution of redfish ( <i>Sebastes mentella</i> ) in the Irminger Sea and adjacent waters in July–September 2002
Q:24	<i>Doug Beare, Finlay Burns, Emma Jones, Kevin Peach, and David Reid</i>	Observations on long-term changes in prevalence of fish species with southern biogeographic affinities in the northern North Sea
Q:25 Poster	<i>Withdrawn</i>	
Q:26 Poster	<i>Patrícia Amorim, A. Almeida, V. Pires, and K. A. Stobberup</i>	Changes over time in the spatial distribution of demersal resources in Guinea Bissau
Q:27 Poster	<i>Fátima Cardador, Corina Chaves, Ana Moreno, Rafael Duarte, Cristina Morgado, and Ernesto Jardim</i>	Distribution and abundance patterns of some species during the last decade in Portuguese continental waters
Q:28 Poster	<i>Cristina Silva, Francisco Leotte and Pedro Machado</i>	Changes in the biodiversity of epifaunal communities in specific locations within the area of <i>Nephrops</i> distribution
Q:29 Poster	<i>S. J. Barbeaux and M. W. Dorn</i>	Spatial and temporal analysis of eastern Bering Sea echo integration-trawl survey and catch data of walleye pollock, <i>Theragra chalcogramma</i>

#### **Theme Session on Freshwater and Diadromous Fishes in the Baltic Sea (R)**

R:01	<i>Teija Aho</i>	Monitoring coastal fisheries in Sweden
R:02	<i>Tiit Paaver, Ene Saadre, Mart Kangur, and Triin Veber</i>	Migration pattern and recapture rate of salmon <i>Salmo salar</i> L. stocked into the rivers of the southern Gulf of Finland in the Baltic Sea
R:03	<i>Magnus Appelberg, M. Holmqvist, and G. Forsgren</i>	An alternative strategy for coastal fish monitoring in the Baltic Sea
R:04	<i>Stig Pedersen and Gorm Rasmussen</i>	Danish delayed release experiments with Baltic salmon ( <i>Salmo salar</i> ) 1995–99
R:05 Poster	<i>Rimantas Repecka</i>	Ecology and changes in abundance of twaite shad and vimba in Lithuanian waters
R:06	<i>Linas Ložys</i>	Seasonal migrations of pikeperch <i>Sander lucioperca</i> from fresh to brackish waters. In vitro studies of salinity effect on pikeperch YOY
R:07	<i>Włodzimierz Grygiel and Kordian Trella</i>	Long-term (1976–2002) changes in freshwater and diadromous fishes occurrence in the bottom layer of the southern Baltic Sea (on the basis of the Polish Young Fish Surveys)

R:08 Poster	<i>Vida Ziliukiene</i>	Distribution and size structure of smelt ( <i>Osmerus eperlanus</i> L.) larvae in the Lithuanian part of the Curonian Lagoon during their migration to the Baltic Sea
R:09	<i>Jonas Dahl, Johan Dannewitz, Erik Petersson, Lars Karlsson, Torbjörn Järvi, Anna Löf, and Bjarne Ragnarsson</i>	Environmental variation affects the timing of spawning migration in anadromous Baltic salmon ( <i>Salmo salar</i> )
R:10	<i>Atis Minde, M. Plikshs, and D. Ustups</i>	Recent changes in fish community structure of the Southern part of the Gulf of Riga: effects of fishery or eutrophication?
R:11	<i>Erkki Ikonen and Ari Saura</i>	Differences in survival of two Atlantic salmon strains having distinct migration pattern released in the Kymijoki River in the northern Baltic Sea
R:12	<i>Withdrawn</i>	
R:13	<i>M. Vetemaa, A. Albert, R. Eschbaum, and T. Saat</i>	Invasion of gibel carp into the Estonian coastal sea
R:14	<i>T. Saat, R. Eschbaum, M. Vetemaa, and A. Verliin</i>	Ten years of coastal fish monitoring in Estonia: dynamics of fish assemblages and populations
R:15 Poster	<i>A. Verliin, I. Sõrmus, R. Eschbaum, and T. Saat</i>	The state of whitefish populations along the Estonian coast
R:16 Poster	<i>Kari Saulamo, G. Thoresson, and H. Lehtonen</i>	Comparing inquiry and mark-recapture data in studying the spatial distribution of pikeperch ( <i>Sander lucioperca</i> ) fishery in Baltic archipelago
R:17 Poster	<i>Linas Ložys</i>	Advantages of perch ( <i>Perca fluviatilis</i> ) migrations between brackish and freshwater sites. Experimental explanation of the phenomenon
R:18 Poster	<i>Anti Vasemägi and Jan Nilsson</i>	Genetic consequences of hatchery releases in the Baltic Sea: River Ume/Vindelälven case
R:19 Poster	<i>Jouni Kervinen and Jyrki Lappalainen</i>	The status of river lamprey ( <i>Lampetra fluviatilis</i> ) in River Kymijoki

#### **Theme Session on the Ecosystem Consequences of Cyanobacteria in the Baltic Sea (S)**

S:01	<i>Tenno Dreves, Andres Jaanus, and Ele Vahtmäe</i>	On the effect of cyanobacterial blooms on the flounder stock in the Gulf of Finland
S:02	<i>Miina Karjalainen, Marko Reinikainen, Lisa Spoof, and Jussi Meriluoto</i>	Effect of cyanobacteria on fish and crustacean growth
S:03 Poster	<i>S. Suikkanen, G. O. Fistarol, and E. Granéli</i>	Allelopathic effects of Baltic cyanobacteria

### Theme Session on the State and Stability of the northern North Atlantic: Patterns and Trends (T)

T:01	<i>Massimiliano Cardinale and Joakim Hjelm</i>	Environmental stochasticity and recruitment anomalies of gadoids in the North Atlantic
T:02	<i>Harald Yndestad</i>	A lunar nodal spectrum in Arctic time series
T:03	<i>K. Batrak, S. Dobroliubov, and A. Krovnin</i>	Long-term variability of water mass characteristics in the northern North Atlantic
T:04	<i>Joakim Hjelm and Massimiliano Cardinale</i>	Inter- and intra-specific variation of reproductive strategies in North Atlantic gadoids
T:05	<i>Steingrímur Jónsson and Jóhannes Briem</i>	The transport of water and fresh water with the East Icelandic Current
T:06	<i>Thomas Rossby</i>	Spatial and temporal modes of variability of the Gulf Stream in the NW Atlantic
T:07	<i>Kjell Arild Orvik and Øystein Skagseth</i>	The impact of the wind stress curl in the North Atlantic on the Norwegian Atlantic Current
T:08	<i>W. R. Turrell and T. J. Sherwin</i>	A re-examination of the Wyville-Thomson Ridge overflow, and its relevance to fluxes west of Britain
T:09	<i>C. González-Pola, A. Lavín, and M. Vargas</i>	Intermediate water masses variability in the Southern Bay of Biscay. 2003 update
T:10 Poster	<i>Bogi Hansen, Svein Østerhus, Hjálmar Hátún, Regin Kristiansen, and Karin Margreta Húsgarð Larsen</i>	The Iceland-Faroe inflow of Atlantic water to the Nordic Seas

### Theme Session on the Scope and Effectiveness of Stock Recovery Plans in Fishery Management (U)

U:01	<i>Ingolf Røttingen</i>	The agreed recovery plan in the management of Norwegian spring-spawning herring
U:02 Poster	<i>Ole R. Eigaard and Holger Hovgaard</i>	Translating technological changes into biological effects: A multidisciplinary assessment utilising knowledge in the fishery system
U:03 Poster	<i>Konstantin Drevetnyak</i>	How about harvesting of redfish stock in the Barents and Norwegian Seas in the XXI century?
U:04	<i>G. A. Chouinard, A. F. Sinclair, and D. P. Swain</i>	Factors implicated in the lack of recovery of southern Gulf of St Lawrence cod since the early 1990s
U:05	<i>Withdrawn</i>	
U:06	<i>Jake C. Rice, Peter A. Shelton, Denis Rivard, Ghislain A. Chouinard, and Alain Fréchet</i>	Recovering Canadian Atlantic cod stocks: The shape of things to come?
U:07	<i>R. C. A. Bannister and Laurence Kell</i>	A perspective on the implementation and monitoring of EU recovery measures for Irish Sea and North Sea cod, taking into account experiences with stakeholders

U:08	<i>John F. Caddy and D. Agnew</i>	A summary of global stock recovery plans for marine organisms, including indicative information on time to recovery, and associated regime changes that may affect recruitment, hence recovery success
U:09	<i>N. Ó Maoiléidigh, C. Legault, P. Amiro, G. Chaput, and J. Erkinaaro</i>	Long- and short-term recovery trajectories from stock rebuilding programmes for North Atlantic salmon stocks
U:10	<i>Ciaran Kelly, J. Molloy, M. Clarke, and P. Connolly</i>	The closure of the Celtic Sea herring fishery from 1977 to 1982 – lessons learned
U:11	<i>Ciaran Kelly, C. Lordan, R. Officer, and P. Connolly</i>	The Irish Sea cod recovery plan – some lessons learned
U:12	<i>Joseph E. Powers</i>	Principles and realities for successful fish stock recovery – a review of some successes and failures

**Theme Session on the Mixed and Multi-Stock Fisheries – Challenges and Tools for Assessments, Prediction, and Management (V)**

V:01	<i>Stuart A. Reeves, Morten Vinther, and Kenneth R. Patterson</i>	From single-species advice to mixed-species management: taking the next step
V:02	<i>Robert Bellail, Jacques Bertrand, Olivier Le Pape, Jean-Claude Mahé, Jocelyne Morin, Jean-Charles Poulard, Marie-Joëlle Rochet, Ivan Schlaich, Arnauld Souplet, and Verena Trenkel</i>	A multispecies dynamic indicator-based approach to the assessment of the impact of fishing on fish communities
V:03	<i>Einar Júlíusson</i>	Why do fish stocks collapse?
V:04	<i>Eirik Tenningen, Olav Rune Godø, Svein Iversen, Aril Slotte, Vidar Hjellvik, and Terje Torkelsen</i>	Comparison of Northeast Atlantic mackerel ( <i>Scomber scombrus</i> ) distribution patterns in the Norwegian Sea using lidar, sonar and trawl
V:05	<i>Eirik Tenningen, James H. Churnside, and Aril Slotte</i>	Lidar TS measurements on Northeast Atlantic mackerel ( <i>Scomber scombrus</i> )
V:06	<i>K. H. Hauge and S. A. Iversen</i>	FISHU@LIS, a computer game on a general pelagic fishery
V:07	<i>Per Sparre</i>	An EXCEL-based software toolbox for stochastic fleet-based forecast
V:08	<i>V. A. Ermolchev, M. V. Ermolchev, and T. M. Sergeeva</i>	On the results of research on cod and haddock target strength in the Barents and Norwegian Seas
V:09	<i>Sakari Kuikka</i>	What the Bayesian approach can offer to ICES – Lessons from the assessment of Baltic Salmon

V:10	<i>J. A. A. De Oliveira and D. S. Butterworth</i>	Managing the multi-species South African pelagic fishery to incorporate conflicting rights-holder preferences
V:11	<i>Per Sparre</i>	Lectures on EXCEL (Visual Basic) system development for fisheries
V:12	<i>Catherine G. J. Michielsens, M. McAllister, S. Kuikka, T. Pakarinen, L. Karlsson, A. Romakkaniemi, I. Perä, and Samu Mäntyniemi</i>	Assessment of wild Baltic salmon stocks: how to combine different sources of information
V:13	<i>Samu Mäntyniemi, Atso Romakkaniemi, and Elja Arjas</i>	Probabilistic modelling of juvenile salmon population
V:14	<i>E. Prévost, N. Ó Maoiléidigh, P. McGinnity, P. Gargan, and W. Crozier</i>	Setting and transporting biological reference points to rivers in Ireland using a Bayesian hierarchical stock and recruitment analysis
V:15	<i>Withdrawn</i>	
V:16	<i>T. Hutton, S. Mardle, and S. Pascoe</i>	Modelling fishermen's behaviour within mixed fisheries
V:17	<i>W. W. Crozier, P.-J. Schon, G. Chaput, E. C. E. Potter, N. Ó Maoiléidigh, and J. MacLean</i>	Managing Atlantic salmon in the mixed stock environment: Challenges and considerations
V:18	<i>Gérald Chaput</i>	Considerations for using spawner reference levels in single and mixed stock fisheries
V:19	<i>Withdrawn</i>	
V:20	<i>Jon Brodziak</i>	Three approaches for addressing uncertainty in stock composition analysis
V:21	<i>E. C. E. Potter, W. W. Crozier, M. C. Nicholson, and P.-J. Schon</i>	Estimating and forecasting pre-fishery abundance of Atlantic salmon for the management of mixed stock fisheries
V:22	<i>Withdrawn</i>	
V:23	<i>Kjetil Hindar, Jarle Tufto, Leif M. Sættem, and Torveig Balstad</i>	Conservation of genetic variation in harvested salmon populations
V:24	<i>Jean-François Holley and Paul Marchal</i>	Defining fisheries as operational units to carry out mixed-fisheries forecasts and management
V:25	<i>Joseph E. Powers</i>	Approaches to incorporating mixing and movement of Atlantic bluefin tuna into management and assessment
V:26	<i>P. S. Hammond and G. P. Donovan</i>	The revised management procedure of the International Whaling Commission: managing the harvest of mixed stocks of baleen whales

### Theme Session on the Decision Systems for Eutrophication (W)

W:01	<i>Morten Skogen, Henrik Søiland, and Einar Svendsen</i>	Eutrophication scenaria from reduced nutrient loads to the North Sea
W:02	<i>Withdrawn</i>	

### Theme Session on Evaluation of Fisheries Management Scenarios and the Supporting Data through Simulation (X)

X:01	<i>Dorothy J. Housholder, Mikko Heino, and Øyvind Fiksen</i>	Evaluation of harvest control rules: simple one-parameter vs. complex multi-parameter strategies
X:02	<i>Per Sparre, Rasmus Nielsen, and Sten Munch-Petersen</i>	A bootstrapping method to evaluate research vessel surveys indices for XSA-tuning, applied to Baltic Cod and North Sea Norway pout
X:03	<i>Dmitry Vasilyev</i>	Is it possible to diminish the impact of unaccounted time trends in age-structured surveys catchability on the results of stock assessment by means of separable cohort models ?
X:04	<i>J. Jurado-Molino and P. A. Livingston</i>	Incorporating predation interactions in a statistical catch-at-age model for a simplified predator-prey system in the eastern Bering Sea
X:05	<i>L. T. Kell, J. Cotter, O. Van Keeken, M. Pastoors, C. M. O'Brien, G. J. Piet, and B. R. Rackham</i>	The influence on stock assessment advice of sampling error in research survey and international market sampling data for North Sea cod ( <i>Gadus morhua</i> L.) and plaice ( <i>Pleuronectes platessa</i> L.)
X:06	<i>L. T. Kell, M. T. Smith, R. Scott, M. Pastoors, F. van Beek, T. Hammond, C. M. O'Brien, and G. Pilling</i>	Limiting inter-annual variation in total allowable catch strategies. An application to ICES flatfish stocks
X:07	<i>L. T. Kell, G. Pilling, G. Kirkwood, P. Abaunza, R. Aps, A. Biseau, C. Ulrich, K. Korsbrekke, P. Kunzlik, A. Laurec, B. Mesnil, C. Needle, M. A. Pastoors, and B. Roel</i>	Limiting inter-annual variation in Total Allowable Catch strategies. An application to ICES roundfish stocks
X:08	<i>Tatiana Bulgakova</i>	NEA cod dynamic simulation to test various management scenarios
X:09	<i>Nicolas Bez</i>	The catchability in a spatial context : a simulation exercise
X:10	<i>E. J. Simmonds, D. Beare, and D. G. Reid</i>	Sensitivity of the current ICA assessment of western mackerel and short-term prediction to the sampling error in the egg survey parameters
X:11	<i>E. J. Simmonds</i>	Sensitivity of North Sea herring assessment and short-term prediction to the sampling error in the measured input parameters

X:12	<i>C. E. Imrie, A. Korre, and D. G. Reid</i>	The use of geostatistical simulation for the estimation of the total annual egg production of Atlantic mackerel ( <i>Scomber scombrus</i> ) with associated confidence intervals
X:13	<i>C. Darby, J. De Oliveira, M. Dickey-Collas, and B. A. Roel</i>	Management of western horse mackerel given uncertainty in the survey index
X:14	<i>A. Laurec, J. C. Mahé, Alain Biseau, and M. Bertignac</i>	Remarks about the plus group and assessment techniques
X:15	<i>A. Laurec</i>	Correlations within VPA tuning residuals
X:16	<i>A. Laurec</i>	Remarks about data pre-processing and validation techniques of use for data issued from research surveys at sea
X:17	<i>O. van Keeken, M. Dickey-Collas, S. B. M. Kraak, J. J. Poos, and M. A. Pastoors</i>	The use of simulations of discarding to investigate the potential impact of bias, due to growth, on the stock assessment of North Sea plaice ( <i>Pleuronectes platessa</i> )
X:18	<i>Kenneth Patterson and Eskild Kirkegaard</i>	Presentation of fisheries advice taking account of mixed fisheries, environmental integration requirements, harvest rule-based fishery evaluations, and yield considerations and economic analysis.

**Theme Session on the Reference Point Approaches to Management within the Precautionary Approach (Y)**

Y:01	<i>Robert W. Furness</i>	Reference point approaches for precautionary management of fishing to avoid impacts on top predators
Y:02	<i>Stuart Reeves</i>	Environmental variability and the precautionary approach: the Baltic cod case
Y:03	<i>Dankert Skagen, Bjarte Bogstad, Per Sandberg, and Ingolf Røttingen</i>	Evaluation of candidate management plans, with reference to North-East Arctic cod
Y:04	<i>Per Sandberg, Ingolf Røttingen, and Harald Gjørseter</i>	The language of fishery management advice offered by ICES
Y:05	<i>Kjellrun Hiis Hauge, Hilde Elise Heldal, Erik Olsen, and Hein Rune Skjoldal</i>	A framework for communicating qualities of indicators
Y:06	<i>Kjellrun Hiis Hauge</i>	The fragility of precautionary reference points
Y:07	<i>Withdrawn</i>	
Y:08	<i>Jason S. Link</i>	A model of aggregate biomass tradeoffs
Y:09	<i>A. S. Krovnin, M. V. Bondarenko, and V. P. Serebryakov</i>	Ranking year class survival indices during early life of some food fishes of the Barents Sea for the purpose of the biological reference points definition and evaluation of environmental changes



Y:10	<i>C. M. O'Brien, L. T. Kell, and M. T. Smith</i>	Evaluation of the use of segmented regression through simulation for a characterisation of the North Sea cod ( <i>Gadus morhua</i> L.) stock, in order to determine the properties of $B_{lim}$ (the biomass at which recruitment is impaired)
Y:11	<i>G. J. Piet and J. C. Rice</i>	Performance of management advice of North Sea fish stocks using a precautionary approach
Y:12	<i>Jan Birger Jørgensen</i>	Some ideas on how to translate The Precautionary Approach (PA) in a better way in the management advice
Y:13	<i>V. L. Tretyak</i>	Optimization of a spawning stock structure of Northeast Arctic Cod as a key to its rational exploitation
Y:14	<i>Robert Aps, J. C. Rice, R. Tamsalu, and V. Zalesny</i>	Theory of optimal control based adaptive fishery management
Y:15	<i>Peter A. Shelton, Jake C. Rice, Denis Rivard, Ghislain A. Chouinard, and Alain Fréchet</i>	Recent progress on the implementation of the precautionary approach on Canadian cod stocks leading to the re-introduction of the moratorium
Y:16	<i>O. A. L. Paramor, J. L. Hatchard, K. Mikalsen, T. S. Gray, C. L. Scott, and C. L. J. Frid</i>	The integration of stakeholder opinion into the management of marine habitats
Y:17	<i>C. L. Scott, C. L. J. Frid, T. S. Gray, J. L. Hatchard, and O. A. L. Paramor</i>	Stakeholders and the ecosystem approach to management
Y:18	<i>José A. A. de Oliveira, Andres Uriarte, and Beatriz A. Roel</i>	Improvements in the management of Bay of Biscay anchovy by incorporating environmental indices as recruitment predictors
Y:19	<i>R. C. A. Bannister and Laurence Kell</i>	Reflections on the biological reference points in use in ICES, and their application in management
Y:20	<i>Withdrawn</i>	

**Theme Session on the Historical and Current Use of Technical Conservation Measures and the Evaluation of Their Effectiveness, with Special Emphasis on North Atlantic Demersal Fisheries (Z)**

Z:01	<i>Henrik Svedäng, Anders Svensson, and Jacob Hagberg</i>	Differences in technical fishing regulations between the Sound and Kattegat: marked effects on abundance and size distribution of dominant demersal fish species
Z:02	<i>D. J. Rihan and J. McDonnell</i>	Protecting spawning cod in the Irish Sea through the use of an inclined separator panel in <i>Nephrops</i> trawls
Z:03	<i>Ronald Fonteyne</i>	Review and evaluation of current mesh measurement methodologies and future perspectives
Z:04	<i>Irene Huse, Stanislav Lisovsky, Kjell Gamst, and Aud Vold Soldal</i>	Mortality when using sorting grids in trawls for mackerel ( <i>Scomber scombrus</i> L.)



Z:05	<i>Christopher Glass, B. Sarno, G. Morris, and T. Feehan</i>	The use of composite mesh codends to reduce bycatch and discard in North Atlantic fisheries
Z:06	<i>Mike Pawson and Graham Pickett</i>	The role of technical measures in the recovery of the UK sea bass ( <i>Dicentrarchus labrax</i> ) fishery 1980–2002
Z:07	<i>Petri Suuronen and Vesa Tschernij</i>	The problems encountered in the adoption of improved selectivity in the Baltic cod demersal trawl fishery
Z:08	<i>P. Kunzlik</i>	The potential impacts of recent UK national and EU international regulations on North Sea roundfish
Z:09	<i>Vesa Tschernij, Petri Suuronen, and Pekka Jounela</i>	A modelling approach for assessing short-term catch losses as a consequence of a mesh size increase
Z:10	<i>Holger Hovgaard, Stuart Reeves, and Jesper Raakjær Nielsen</i>	Using cost and earning information to evaluate the feasibility of mesh size regulations for Baltic cod
Z:11	<i>Boris N. Kotenev, Viktor K. Korotkov, and Oleg M. Lapshin</i>	The development of selective devices for trawl codend in cod fishing as the basis for measures to recover valuable fish stocks
Z:12	<i>S. V. Sergeev and V. N. Feldman</i>	The theoretical assessment of selectivity of trawl codends in the Baltic cod fishery