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GENERAL ASSEMBLY REPORTS AND PAPERS OF GENERAL INTEREST

- Gen:1 Observers' Reports from Cooperating Organisations
- Gen:2 ICES Activities in 2001/2002
- Gen:3 Elections and Appointments of Council Officials at 2002 Annual Science Conference (90th Statutory Meeting) (E+F)
- Gen:4 Report on ICES Symposia
- Gen:5 2001/2002 Overview of ICES Committees and Subsidiary Groups and their Shadowing by Secretariat Staff, and Schedule of ICES Meetings and List of CM Codes

DELEGATES MEETING

- Del:1 Final Accounts for Financial Year 2000
- Del:2 Progress Report on Administration
- Del:3 Salmonid Affairs in the ICES Structure
- Del:4 Status Report of Accounts as of 15 September 2002
- Del:5 Draft Budget for 2003 and Draft Forecast Budget for 2004
- Del:6 Report of Working Group on Long-Term Finances
- Del:7 Draft ICES Integrated Action Plan
- Del:8 Proposal for Establishing Affiliate National Members
- Del:9 Arrangements for future Annual Science Conferences and Statutory Meetings: 2003 and 2004
- Del:10 Proposal for an Environmental Dialogue Meeting
- Del:11 Statistics on ASC participation 1992–2001
- Del:12 Report of the ICES/Commissions Working Group on Cooperative Procedures
- Del:13 Report of Management Committee for the Advisory Process (including the Report of the Study Group on ACFM Procedures)
- Del:14 Report of the GEF Baltic Regional Project
- Del:15 Rules for External Observers at Advisory Committee Meetings
- Del:17 ICES/NAFO MoU
- Del:17 Appointment of ACFM Chair
- Del. 18 Social Activities

FINANCE COMMITTEE

- Fi:1* Agenda for Finance Committee

* For Finance Committee and Delegates only

PUBLICATIONS COMMITTEE

Pub:1	Agenda for Publications Committee
Pub:2	Report of Publications Committee (2001)
Pub:3	Review of ICES Publication Activities for 2002
Pub:4	<i>ICES Journal of Marine Science: Editors' Report for 2002</i>
Pub:5	<i>ICES Journal of Marine Science: Academic Press Publisher's Report for 2002, with Appendix</i>
Pub:6	<i>ICES Cooperative Research Report series: Editor's Report for 2002</i>
Pub:7	<i>ICES Identification Leaflets for Plankton: Editor's Report for 2002</i>
Pub:8	<i>ICES Identification Leaflets for Diseases and Parasites of Fish and Shellfish: Editor's Report for 2002</i>
Pub:9	<i>ICES Techniques in Marine Environmental Sciences: Editor's Report for 2002</i>

CONSULTATIVE COMMITTEE (A)

A:01 Ref. ACFM, ACME, ACE	Minutes from ACFM meeting October 2001
A:02 Ref. ACFM, ACME, ACE	2001/2002 Intersessional activities of Consultative Committee
A:04 Ref. ACFM, ACME, ACE	Minutes from ACFM meeting May 2002
A:05 Ref. ACFM, ACME, ACE	Minutes from ACME meeting June 2002
A:06 Ref. ACFM, ACME, ACE	Minutes from ACE meeting June 2002
A:08 Ref. Bureau ACFM, ACME, ACE	MCAP report August 2001
A:09 Ref. Bureau, ACFM, ACME, ACE	MCAP report January 2002

MCAP

MCAP:01 Ref. ACFM	Study Group on ACFM Working Procedures (SGWP)
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ACFM

ACFM:01	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)
ACFM:02	Working Group on the Assessment of Northern Shelf Demersal Stocks (WGNSDS)
ACFM:03	Working Group on Eels (WGEEL)
ACFM:04 Ref. G	<i>Pandalus</i> Assessment Working Group (WGPAND)
ACFM:05	Working Group on the Assessment of Southern Shelf Demersal Stocks (WGSSDS)
ACFM:06	Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine, and Anchovy (WGMHSA)
ACFM:07	Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS)
ACFM:08	Fisheries Statistics Liaison Working Group (WGSTAL)
ACFM:09 Ref. D, G	Study Group on Discard and By-Catch Information (SGDBI)
ACFM:10 Ref. ACE, D	Study Group on the Further Development of the Precautionary Approach to Fishery Management (SGPA)
ACFM:11 Ref. G	Study Group on Sea Bass (SGBASS)
ACFM:12	Herring Assessment Working Group for the Area South of 62°N (HAWG)
ACFM:13	Baltic Salmon and Trout Assessment Working Group (WGBAST)
ACFM:14	Working Group on North Atlantic Salmon (WGNAS)
ACFM:15	Working Group on <i>Nephrops</i> Stock (WGNEPH)
ACFM:16 Ref. G	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP)
ACFM:17	Baltic Fisheries Assessment Working Group (WGBFAS)
ACFM:18	Arctic Fisheries Working Group (AFWG)
ACFM:19	Northern Pelagic and Blue Whiting Fisheries Working Group (WGNPBW)
ACFM:20	North-Western Working Group (NWWG) + Addendum
ACFM:21 Ref. WGBFAS	Study Group on Baltic Herring and Sprat Maturity (SGBHSM)

REFERENCE PAPERS: A:01, A:02, A:04, A:05, A:06, A:08, A:09, B:01, C:02, C:10, D:02, D:03, D:04, D:05, D:06, D:07, D:08, D:09, F:03, G:03, G:04, G:07, G:08, G:09

ACME

- ACME:01 ICES/AMAP Study Group for the Assessment of AMAP POPs and Heavy Metals Data
Ref. E (SGPOP)
- ACME:02 ICES/HELCOM Steering Group on Quality Assurance of Chemical Measurements in the
Ref. C, E, H Baltic Sea
(SGQAC)
- ACME:03 ICES/HELCOM Steering Group on Quality Assurance of Biological Measurements in the
Ref. C, E, H Baltic Sea
(SGQAB)
- ACME:04 ICES/OSPAR Steering Group on Quality Assurance of Biological Measurements in
Ref. C, E the Northeast Atlantic (SGQAE)
- ACME:05 ICES/IMO/IOC Study Group on Ballast and Other Ship Vectors (SGBOSV)
Ref. E, F
- ACME:06 Working Group on Introductions and Transfers of Marine Organisms (WGITMO)
Ref. E, F

REFERENCE PAPERS: A:01, A:02, A:04, A:05, A:06, A:08, A:09, C:02, C:03, C:04, C:05, C:06, C:07, C:10, C:16, E:01, E:02, E:03, E:04, E:06, E:07, F:02, F:03, F:04, H:02

ACE

- ACE:01 Study Group on Integrated Data Management (SGIDM) (No report. Meeting
postponed until next year)
- ACE:02 Working Group on Marine Mammal Population Dynamics and Habitat
Ref. E, G (WGMPH)
- ACE:03 Working Group on Ecosystem Effects of Fishing Activities (WGECO)
Ref. D, E, G
- ACE:04 Study Group on Ecosystem Assessment and Monitoring (SGEAM)
Ref. E
- ACE:05 Study Group on Mapping the Occurrence of Cold Water Corals (SGCOR)
Ref. E,
WGECO

REFERENCE PAPERS: A:01, A:02, A:04, A:05, A:06, A:08, A:09, C:02, C:04, C:05, C:06, C:07, C:10, C:12, C:14, D:03, D:04, D:07, D:09, E:01, E:05, E:06, G:04, G:10, H:03

FISHERIES TECHNOLOGY COMMITTEE (B)

- B:01 ICES-FAO Working Group on Fishing Technology and Fish Behaviour (WGFTFB)
Ref. ACFM
- B:02 Study Group on Mesh Measurements Methodology (SGMESH)
- B:03 Study Group of Target Strength Estimation in the Baltic Sea (SGTSEB)
(Report not available)
- B:04 Planning Group on the HAC Data Exchange Format (PGHAC)
- B:05 Working Group on Fisheries Acoustics Science and Technology (WGFAST)
- B:06 Summary of Conclusions - Expert Group Reports

REFERENCE PAPER: G:09

OCEANOGRAPHY COMMITTEE (C)

- C:01 Study Group on Incorporation of Process Information into Stock Recruitment
Ref. D, Models (SGPRISM)
WGRP
- C:02 Ref. D, ICES-EuroGOOS Planning Group on the North Sea Pilot Project (PGNSP)
E, G, ACFM,
ACME, ACE
- C:03 ICES-IOC Working Group on Harmful Algal Bloom Dynamics (WGHABD)
Ref. ACME
- C:04 Working Group on Seabird Ecology (WGSE)
Ref. E, F,
ACME, ACE
- C:05 Workshop on New Perspectives in Understanding and Predicting Eutrophication
Ref. ACME, (WKNUPE)
ACE
- C:06 Working Group on Phytoplankton Ecology (WGPE)
Ref. ACME,
ACE
- C:07 Working Group on Zooplankton Ecology (WGZE)
Ref. ACME,
ACE
- C:08 Working Group on Oceanic Hydrography (WGOH)
- C:09 Study Group on Modelling of Physical/Biological Interactions (SGPBI)
- C:10 ICES/IOC Steering Group on GOOS (SGGOOS)
Ref. ACFM,
ACME, ACE
- C:11 Working Group on Marine Data Management (WGMDM)
- C:12 Study Group on the Development of Marine Data Exchange Systems using XML
Ref. ACE (SGXML)
- C:13 Workshop on the Transport of Cod Larvae (WKTCL)

- C:14 Working Group on Recruitment Processes (WGRP)
Ref. ACE
- C:15 The ICES/GLOBEC Working Group on Cod and Climate Change (WGCCC)
- C:16 Study Group on an ICES/IOC Checklist of Phytoplankton and other Protists (SGPHYT) (Report not available)
Ref. ACME
- C:17 The Steering Group for the ICES/GLOBEC North Atlantic Programme and Regional Office (SGNARO)
- C:18 Summary of Conclusions - Expert Group Reports

REFERENCE PAPER: ACME:02, 03, 04, E:07

RESOURCE MANAGEMENT COMMITTEE (D)

- D:01 Working Group on Methods on Fish Stock Assessments (WGMG)
- D:02 Workshop Course on Fish Stock Assessment Techniques (WKCFAT)
Ref. G, ACFM
- D:03 International Bottom Trawl Survey Working Group (IBTSWG)
Ref. G,
ACFM, ACE
- D:04 Workshop on MSVPA in the North Sea (WKMSNS)
Ref. ACFM,
ACE
- D:05 Planning Group on North Sea Cod and Plaice Egg Surveys (PGEGGS)
Ref. G,
ACFM,
WGNSSK
- D:06 Study Group on Age-length Structured Assessment Models (SGASAM)
Ref. ACFM
(No report. Meeting postponed until next year)
- D:07 Planning Group on Surveys on Pelagic Fish in the Norwegian Sea (PGSPFN)
Ref. ACFM,
ACE
- D:08 Planning Group on Redfish Stocks (PGRS)
Ref. ACFM
- D:09 Working Group on Fishery Systems (WGFS)
Ref. ACFM,
ACE:

REFERENCE PAPERS: ACFM:09, ACFM:10, ACE:03, C:01, C:02, G:02, G:06, G:10

MARINE HABITAT COMMITTEE (E)

- E:01 Marine Chemistry Working Group (MCWG)
Ref. C,
ACME, ACE
- E:02 Working Group on Biological Effects of Contaminants (WGBEC)
Ref. ACME
- E:03 Working Group on Marine Sediments in Relation to Pollution (WGMS)
Ref. ACME
- E:04 Working Group on the Statistical Aspects of Environmental Monitoring
(WGSAEM)
Ref. ACME
- E:05 Working Group on Marine Habitat Mapping (WGMHM)
Ref. ACE
- E:06 Working Group on the Effects of Extraction of Marine Sediments on the Marine
Ecosystem (WGEXT)
Ref. D,
ACME, ACE
- E:07 Benthos Ecology Working Group (BEWG)
Ref. C, ACME

**REFERENCE PAPERS: ACME:01, ACME:02, ACME:04, ACME:05, ACME:06, ACE:02, ACE:03,
ACE:04, ACE:05, C:02, C:04, G:07**

MARICULTURE COMMITTEE (F)

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

REFERENCE PAPERS: ACME:05, ACME:06, C:04

LIVING RESOURCES COMMITTEE (G)

- G:01 Study Group on the Estimation of Spawning Stock Biomass of Sardine and Anchovy (SGSBSA)
- G:02 Planning Group for Herring Surveys (PGHERS)
Ref. D,
HAWG
- G:03 Ref. Planning Group on Aerial and Acoustic Surveys for Mackerel (PGAAM)
ACFM, B
- G:04 Working Group on Cephalopod Fisheries and Life History (WGCEPH)
Ref. ACFM,
ACE
- G:05 Ref. H Baltic International Fish Survey Working Group (WGBIFS)
- G:06 Ref. D, Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS)
WGMHSA
- G:07 Working Group on Beam Trawl Surveys (WGBEAM)
Ref. E, ACFM
- G:08 Study Group on Elasmobranch Fishes (SGEF)
Ref. ACFM
- G:09 Working Group on *Crangon* Fisheries and Life History (WGCRAN)
Ref. B, ACFM (Reporting to CM 2003)
- G:10 Study Group on the Biology and Life History of Crabs (SGCRAB)
Ref. D, ACE
- G:11 Stock Identification Methods Working Group (SIMWG)

REFERENCE PAPERS: ACFM:04, ACFM:09, ACFM:11, ACFM:16, ACE:02, ACE:03, D:02, D:03, D:05

BALTIC COMMITTEE (H)

- H:01 Study Group on Salmon Scale Reading Problems (SGSSR)
- H:02 ICES-IOC-SCOR Study Group on GEOHAB in the Baltic (SGGIB)
Ref. ACME
- H:03 Study Group on Ecosystem and Multispecies Predictions (SGMPB)
Ref. ACE (Report not available)
- H:04 Ref. Study Group on Herring Assessment Units in the Baltic Sea (SGHAUB)
ACFM, D

REFERENCE PAPERS: ACME:02, ACME:03, G:05

THEME SESSION ON THE USE OF MARINE RESEARCH VESSELS IN ICES – OPTIONS FOR THE FUTURE (J)

<i>Code nr</i>	<i>First Author, Co-Author</i>	<i>Title</i>
J:01	<i>Doug Beare, Coby L. Needle, Finlay Burns, and David Reid</i>	Making the most of research vessel data in stock assessments: examples from ICES Division VIa
J:02	<i>Paul Fernandes, P. Stevenson, A.S. Brierley, F. Armstrong, and E.J. Simmond</i>	AUVs as research vessels: the pros and cons
J:03	<i>Mireille Bouleau and Nicolas Bez</i>	Comparison between "underway" and "on station" acoustic measurements made during bottom trawl surveys
J:04	<i>I. Huse, K. Michalsen, and R. Skeide</i>	Estimates of towing time in surveys
J:05	<i>Odd Nakken and Michael Pennington</i>	Monitoring ecosystems using research surveys; maximizing information and minimizing cost
J:06	<i>A.F. Zuur, D. Stokes, J.C. Mahé, and R. Officer</i>	A hierarchical approach to the statistical analysis of research vessel intercalibration data
J:07	<i>Per W. Nieuwejaar and Hans Petter Knudsen</i>	Safety standards and quality assurance of research vessel programmes
J:08 Poster	<i>Nicolas Bez</i>	Relevancy of indices of abundances of egg and larvae by-catches during triennial mackerel egg surveys
J:09 Poster	<i>Jonna Tomkiewicz</i>	An illustrated manual for macroscopic determination of Baltic cod reproductive status
J:10	<i>R.B. Mitson</i>	Research vessel standards: Underwater radiated noise

THEME SESSION ON THE INTEGRATION OF ACOUSTIC AND OPTICAL SURVEY TECHNIQUES AND MARINE BIOLOGICAL DATA FOR THE PURPOSE OF SEABED CLASSIFICATION (K)

K:01	<i>C.J. Brown, A.J. Hewer, W.J. Meadows, D.S. Limpenny, K.M. Cooper, and H.L. Rees</i>	Mapping of gravel biotopes: an integrated approach
K:02	<i>R.L. Foster-Smith and P. Gilliland</i>	Using acoustic remote sensing and point samples to map and monitor biota in the dynamic sediments of the Wash, UK
K:03	<i>F. Beuchel and B. Gulliksen</i>	Monitoring of rocky-bottom biotopes in northern Norway and Svalbard using image analysis
K:04	<i>D.S. Limpenny, S.E. Boyd, W.J. Meadows, and H.L. Rees</i>	The utility of habitat mapping techniques in the assessment of anthropogenic disturbance at aggregate extraction sites
K:05	<i>Alain Norro, V.Pison, and J.Ozer</i>	Volumetric evolution of an exploited sandbank. Perspective of use for the Autonomous Underwater Vehicle (AUV) Mauve
K:06	<i>R.J. Kloster, A. Williams, and A. Butler</i>	Exploratory surveys of seabed biotopes in deep water using remote sensing – needs and realities
K:07	<i>Rosa Freitas, Ana Maria Rodrigues, and Victor Quintino</i>	Relating acoustic seabed classification to marine benthic habitats. Examples from the western Portuguese shelf using single-beam echo sounders

- K:08 *S.M. Freeman, M. Bergmann, H. Hinz, M.J. Kaiser, J. Bennell, and S. I. Rogers* Use of acoustic seabed classification to identify fish habitats
- K:09 *S.M. Freeman, S. Mackinson, and R. Flatt,* Diurnal patterns in the habitat utilisation of sandeels using acoustic survey techniques
- K:10 *Steven Mackinson, Steven Freeman, Roger Flatt, and Bill Meadows* Improved acoustic surveys by combining fisheries and ground discrimination acoustics
- K:11 *Withdrawn*
- K:12 *Thomas T. Noji, Brian J. Todd, Richard A. Pickrill, Page C. Valentine, and Susan Snow-Cotter* Mapping the Gulf of Maine: building the link between marine geology and benthic habitats to improve ocean management
- K:13 *Withdrawn*

**THEME SESSION ON THE CENSUS OF MARINE LIFE: TURNING CONCEPT INTO REALITY
(L)**

- L:01 *Teresa Radziejewska and Ryszard Kotliński* Acquiring marine life data while experimentally assessing environmental impact of simulated mining in the deep sea
- L:02 *Kenneth Awebro, Maibritt Bager, Poul Holm, Julia Lajus, Brian MacKenzie, and Henn Ojaveer* Baltic Sea fisheries in previous centuries: development of catch data series and preliminary interpretations of causes of fluctuations
- L:03 *K.K. N'Singi, P. Barros, Moses Maurihungirire* Distribution patterns of large-eye dentex (*Dentex macrophthalmus* block, 1791) and some biological aspects in the Angolan and Namibian waters
- L:04 *J.M. Portela, M.C. González M.C. and J.M. Bellido* Preliminary results of a Exploratory Fishing targeting deep-water species off Uruguay
- L:05 *J.M. Portela, J.M. Bellido, X.A. Cardoso, J. Wang, E. Ulloa, M.G. Otero, and V. Tato* Analysis of the evolution of hake (*Merluccius hubbsi* and *Merluccius australis*) catch and effort by Spanish vessels operating in the Patagonian shelf area since the beginning of this industrial fishery
- L:06 *Withdrawn*
- L:07 *Adriana Alves and J.H. Delgado* First description of a new local fishery of pink dentex, *Dentex (Cheimerius) gibbosus* (Rafinesque, 1810) (Pisces:Sparidae) off Madeira Island
- L:08 *Pablo Durán Muñoz and Esther Román* Database of the Spanish Observers Program in North Atlantic international waters: Exploring how this existing information could be used to investigate the composition and distribution patterns and the biology of the deep-water species
- L:09 *H. Rees, S. Cochrane, S. Degraer, G. Duineveld, H. Hillewaert, I. Kröncke, E. Rachor, M. Robertson, J. Craeymeersch, M. de Kluijver, and E. Vanden Berghe* The North Sea Benthos Project: planning, management and objectives
- L:10 *Odd Aksel Bergstad and Tone Falkenhaug* The CoML Pilot Project MAR-ECO: Goals, Status, and significance for ICES

L:11	<i>Julio Portela, A. Arkhipkin, S. Hill, E. Ulloa, B. Santos, V. Tato, J.M. Bellido, D. Middleton, D. Agnew, and J. Wang</i>	Overview of the Spanish fisheries in the Patagonian Shelf
L:12	<i>Rainer Froese and Kathleen Kesner-Reyes</i>	Impact of fishing on the abundance of marine species
L:13	<i>Sukgeun Jung and Edward D. Houde</i>	Evaluating temporal and spatial variability in biomass, species assemblage and diversity of fishes in a Chesapeake Bay, USA, Census of Marine Life
L:14	<i>Heino O. Fock, S. Ehrich, and C. Pusch</i>	Structure and diversity patterns of deep-sea pelagic fish assemblages in relation to the Mid-Atlantic Ridge (45°N to 50°N)
L:15	<i>Rainer Froese and Phoebe Y. Zhang</i>	The Ocean Biogeographic Information System
L:16	<i>Hiltrun Müller</i>	The distribution of "Belt Sea cod" and "Baltic cod" in the Baltic Sea from 1995 to 2001 estimated by discriminant analysis of the number of dorsal fin rays
L:17	<i>Maria Fosshem and E.M. Nilssen</i>	Identification of the fish communities in the Barents Sea: Is there a faunal discontinuity across the Polar front?
L:18	<i>Verena M. Trenkel, Nicolas Bailly, Olivier Brosseau, Romain Causse, Marine Girard, John D.M. Gordon, Daniel Latrouite, David Le Piver, Pascal Lorange, Stéphanie Mahévas, Benoit Mesnil, Jean-Charles Poulard, Marie-Joëlle Rochet, Franz Uiblein, Jean-Philippe Vacherot, Gérard Veron, and Helmut Zibrowius</i>	First results of a quantitative study of deep-sea fish on the continental slope of the Bay of Biscay: visual observations and trawling
L:19	<i>Emmanuel Chassot and Didier Gascuel.</i>	Typology and characterization of European "Fisheries Ecosystem Units"
L:20	<i>Ron O'Dor and Kristen Yarincik</i>	The Census of Marine Life: Linking the Oceans' Past, Present and Future
L:21	<i>Laurans Martial, Aboubacar Sidibe, and Didier Gascuel</i>	Ecosystem effects of a quickly developed fishery: trends in biomass of demersal resources of Senegal and Guinea
L:22	<i>Maurice Clarke, Pablo Duran, Pascal Lorange, Odd Aksel Bergstad, John Gordon, Franz Uiblein, and Vladimir Vinnichenko</i>	Life history strategies of demersal fishes on the Northern Mid-Atlantic Ridge
L:23	<i>Michael Roman, X. Zhang, and C. McGilliard</i>	Census of Marine Life (CoML) in Chesapeake Bay, U.S.: Annual variability in the spatial patterns of plankton abundance
L:24	<i>Udeme I. Enin and Joachim Gröger</i>	Fish community size structure in the Mecklenburg Bight and Arkona Basin in the Baltic Sea, in the decade 1991 to 2000

- L:25 *W. Jeffrey Bolster, Andrew A. Rosenberg, William B. Leavenworth, and Karen Alexander* Using historic logbooks to determine cod abundance and distribution in the Gulf of Maine, Gulf of Saint Lawrence, Labrador Coast and Scotian Shelf, 1852–1866
- L:26 *Mehmet Cengiz Deval, T. Bök, T. Z. Alici, and I.K.Oray* The effect of salinity changes from the western Black Sea to the northern Aegean Sea on the eggs and larvae of the European Ancovy *Engraulis encrasicolus* L.1758
- L:27 *Mehmet Cengiz Deval, C. Ates, T.Bök and I.K.Oray* Investigations of the distribution of the eggs and larvae of the Sprata *Sprattus sprattus* Linnaeus 1758, in the Sea of Marmara
- L:28 *Mikko Heino and Olav Rune Godø* Blue whiting – a key species in the mid-water ecosystems of the north-eastern Atlantic
- L:29 *Withdrawn*
- L:30 *Tim D. Smith, Randall Reeves, Nancy Friday, and Andre Punt* Reconstructing humpback whale populations in the North Atlantic
- L:31 *Filipe M. Porteiro, Ricardo S. Santos, and Richard D. M. Nash* How many dragonfishes are there?
- L:32 *Jo Høyer, Elinor Bartle, and Morten Steffensen* Beyond the Scientists: the importance of engaging the public, a Public Outreach model
- L:33 *H.-Ch. John, J.M. Rodriguez, and D. Schnack* Canary Islands fish larvae: How large the sample, how deep the tow, how many are there really?
- L:34 *Iñaki Quincoces, M. Santurtún, and P. Lucio* Reproductive maturity studies on black anglerfish (*L. budegassa*) from the Bay of Biscay
- L:35 *V.N. Shibanov, B.I.Vinnichenko, and A.P.Pedchenko* Russian investigations and fishing in the northern part of Mid-Atlantic Ridge
- L:36 *Paulino Lucio, M. Santurtún, I. Quincoces, and H. Murua* Evolution of the sexual maturity parameters of Northern Hake between 1987 and 2001
- L:37 *Juan C. Arronte, J.Landa, P. Abaunza, and C. Fariña.* *Calliobdella lophii* (Hirudinea, Piscicolidae) parasitizing on anglerfish (*Lophius sp.*) in the Bay of Biscay. A preliminary study
- L:38 *Simeon Hill, avid Middleton, Julio Portella, Graham Pierce, and Jose R. Fuertes* Assessment of the Falkland Islands population of Argentine hake *Merluccius hubbsi*

**THEME SESSION ON THE OCEANOGRAPHY AND ECOLOGY OF SEAMOUNTS –
INDICATIONS OF UNIQUE ECOSYSTEMS (M)**

- M:01 *Manfred Kaufmann, Klaus von Bröckel, Christian Mohn, and Aike Beckmann* The influence of the Great Meteor Seamount on the distribution of phytoplankton
- M:02 *Withdrawn*
- M:03 *A.G. Arkhipov, D. A. Kozlov, and E. V. Cherkashin* Structure of waters and distribution of fishes at different ontogenetic stages around seamounts of the Central-Eastern Atlantic Ocean

M:04	<i>Alan Butler, C. Bulman, Xi He, T. Koslow, A. Williams, and S. Condie</i>	Tasmanian seamounts: diversity, biogeography, and benthopelagic connections
M:05	<i>E.I. Kukuev</i>	Ichthyofauna research on underwater mountains within the North-Atlantic Ridge and adjacent areas
M:06	<i>Elena L. Markhaseva and S. Schiel</i>	Rare benthopelagic calanoid copepods from the Great Meteor Seamount (Northern Atlantic)
M:07	<i>Birte Matthiessen,</i>	Seamounts, hotspots for high speciation rates in benthopelagic fishes? A case study on <i>Macroramphosus spp.</i> (Syngnathidae) on Great Meteor Seamount
M:08	<i>Telmo Morato and Tony Pitcher</i>	Challenges and problems in modelling seamount ecosystems and their fisheries
M:09	<i>Th. Sigurðsson, G. Jónsson, G., and J. Pálsson</i>	Deep scattering layer over Reykjanes Ridge and in the Irminger Sea
M:10	<i>Christian Pusch, H. Fock, F. Porteiro, and H. von Westernhagen</i>	Interaction of mesopelagic fish and shallow topography in different latitudes of the NE Atlantic
M:11	<i>A.A. Rowden, S. O'Shea, D.G. McKnight, and M.R. Clark</i>	Biodiversity of the macroinvertebrate assemblages of the Kermadec volcanic arc seamounts: evidence for the stepping-stone theory and the influence of geologic history
M:12	<i>Walter Nellen and S. Ruseler</i>	Composition of ichthyoplankton and horizontal and vertical distribution of fish larvae taxa in the Great Meteor Seamount area in September 1998
M:13	<i>Dieter Piepenburg and B. Müller</i>	Distribution of epibenthic communities on the Great Meteor Seamount (NE Atlantic) mirrors water-column processes
M:14	<i>Paul Johnston and David Santillo</i>	Conservation of Seamount Ecosystems: Application of an MPA Concept
M:15	<i>Karen I. Stocks</i>	Using SeamountsOnline, a biogeographic information system for seamounts, to examine patterns in seamount endemism
M:16	<i>Withdrawn</i>	
M:17	<i>Rabea Diekmann and Uwe Piatkowski</i>	Species composition and distribution patterns of early life stages of cephalopods at Great Meteor Seamount (subtropical NE Atlantic)
M:18	<i>Frank Hartmann</i>	The impact of the Great Meteor Seamount (NE Atlantic) on the nutritional condition of ichthyoplankton organisms - a histological study
M:19 Poster	<i>Petra Heinz, D. Ruepp, and Ch. Hemleben</i>	Benthic foraminifera communities at seamount "Great Meteorbank"
M:20	<i>Christian Mohn and Aike Beckmann</i>	The Upper Ocean Circulation at Great Meteor Seamount Part I: Structure of Density and Flow Fields
M:21	<i>Catriona Clemmesen and H. Röhrstedt</i>	Does the Great Meteor Seamount affect growth and condition of fish larva with special reference to <i>Vinciguerria nimbaria</i> ?
M:22	<i>Kai Horst George and Horst Kurt Schminke</i>	Harpacticoida (<i>Crustacea, Copepoda</i>) of the Great Meteor Seamount, with first conclusions as to the origin of the plateau fauna
M:23	<i>Withdrawn</i>	
M:24	<i>Gunnar Gad and Horst Kurt Schminke</i>	How important are seamounts for the dispersal of meiofauna?

M:25	<i>J.A. Moore, M. Vecchione, B. B. Collette, and R. Gibbons</i>	The fauna of Bear Seamount (New England Seamount chain), and the presence of "natural invader" species
M:26	<i>Octavio Melo and G. Menezes</i>	Exploratory fishing of the orange roughy (<i>Hoplostethus atlanticus</i>) in some seamounts of the Azores archipelago
M:27	<i>Bettina Martin</i>	Composition and vertical distribution of zooplankton at the Great Meteor Seamount, subtropical NE Atlantic
M:28	<i>Heike Zidowitz, Heino O. Fock, and Hein v. Westernhagen</i>	The role of <i>Zenopsis</i> spp. as predator in seamount and shelf habitats
M:29	<i>Withdrawn</i>	
M:30	<i>Nils Benke</i>	The benthic community of the Great Meteor Bank
M:31	<i>Bernd Christiansen</i>	OASIS: a new EU project on the ecology of Atlantic seamounts
M:32	<i>V.I. Vinnichenko</i>	Prospects of fisheries on the seamounts
Poster		
M:33	<i>A. G. Arkhipov and N. I. Mylnikov</i>	On the pelagic phase of the life cycle of the common angler (<i>Lophius piscatorius</i> Linne) around seamounts of the Rockall-Hatton area
Poster		
M:34	<i>Lutz Fischer</i>	The impact of the Great Meteor Seamount on the behaviour of zoo- and ichthyoplankton species and on the community structure. Stomach content analyses of dominant copepod species from the great Meteor Seamount in the Northeast Atlantic
Poster		
M:35	<i>S. Schnack-Schiel and Elke Mizdalski</i>	Occurrence and distribution pattern of copepods in the vicinity of the Great Meteor Seamount, Northeast Atlantic, in September 1998
Poster		
M:36	<i>Heino O. Fock, Birte Matthiessen, Heike Zidowitz, and Hein v. Westernhagen</i>	Resource partitioning of deep-sea fishes at the Great Meteor seamount (subtropical NE Atlantic): Niche overlap and support for the sound scattering layer-interception hypothesis
Poster		
M:37	<i>Aike Beckmann and Christian Mohn</i>	The Upper Ocean Circulation at Great Meteor Seamount Part II: Retention Potential of the Seamount Induced Circulation
M:38	<i>Withdrawn</i>	
M:39	<i>Jorge M.S. Gonçales, P. Andrade, J.A.Silva, and J. Bispo</i>	Underwater survey of ichthyofauna from Eastern Atlantic Seamounts: Gettysburg and Ormond (Gorringe Bank)
Poster		
M:40	<i>Gunnar Gad</i>	Biodiversity of Loricifera from the plateau of the Great Meteor Seamount
Poster		
M:41	<i>Gunnar Gad</i>	Espilo- and Draconematidae (Nematoda) from the plateau of the Great Meteor Seamount
Poster		
M:42	<i>Luís Barceloss, O. Melo, F. Porteiro, and G. Meneze</i>	Feeding ecology of Orange Roughy in the Azores Archipelago
Poster		

**THEME SESSION ON THE ENVIRONMENTAL INFLUENCES ON TROPHIC INTERACTIONS
(N)**

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|------|--|---|
| N:01 | <i>B.E. Scott, J. Sharples, O. Ross, S. Wanless, F. Daunt, S. Greenstreet, and H. Fraser</i> | The use of bio-physical indices to link changes in the availability of fish to predators |
| N:02 | <i>María de las Nieves Martínez Murillo, and Richard L. Haedrich</i> | Long-term response of a fish community to environmental variability |
| N:03 | <i>H. Kousa and R. Tamsalu</i> | Multi-triplet prey and predator plankton community model |
| N:04 | <i>E.W. North, R. R. Hood, S. Y. Chao, and L. P. Sanford</i> | Retention of fish early-life stages and copepod prey in an estuarine nursery area: the influence of environmental variability |
| N:05 | <i>V.N. Feldman, N.N. Zhigalova, and F.A. Patokina</i> | Dynamics of zooplankton structure, sprat and herring feeding and trophic interaction in conditions of water warming in South-Eastern Baltic Sea |
| N:06 | <i>Withdrawn</i> | |
| N:07 | <i>Stein Hjalti í Jákupsstovu</i> | The pelagic fish stocks, pilot whales and squid in Faroese waters – migration pattern, availability to fisheries and possible links to oceanographic events |
| N:08 | <i>Eilif Gaard and Karina Nattestad</i> | Feeding, reproduction and seasonal development of <i>Calanus finmarchicus</i> in relation to water masses and phytoplankton in the southern Norwegian Sea |
| N:09 | <i>Elvar Hallfredsson and Torstein Pedersen</i> | Predation on capelin larvae (<i>Mallotus villosus</i>) and prey preferences of potential fish predators in the Barents Sea |
| N:10 | <i>George L. Hunt, Lucy Vlietstra, and Ken Coyle</i> | Feathered Oceanographers: Foraging where physics sets the table |
| N:11 | <i>G.K. Davoren, W.A. Montevecchi, and John Andersen</i> | Hot spots of predators and prey on multiple spatial and temporal scales in the marine ecosystem of the Northwest Atlantic |
| N:12 | <i>Patricia Kremer</i> | Towards an understanding of salp swarm dynamics |
| N:13 | <i>A.J. Bishop, M.B. Santos, S. Desormonts, G.J. Pierce, and J.M. Portela</i> | The trophic relationships of several commercial finfish species from the southwest Atlantic |
| N:14 | <i>Yvan Simard, D. Lavoie, and F. J. Saucier</i> | From plankton to whales: oceanography of a traditional whale feeding ground and marine park in the St. Lawrence estuary |
| N:15 | <i>F. Daunt, S. Wanless, L. Wilson, G. Peters, D. Grémillet, B. Scott, J. Sharples, O. Ross, S. Greenstreet, and H. Fraser</i> | Effects of tidal currents on seabird foraging behaviour and diet in the North Sea |
| N:16 | <i>M. Starr, M. Harvey, P. S. Galbraith, D. Gilbert, D. Chabot and J.-C. Therriault</i> | Recent intrusion of Labrador Shelf waters into the Gulf of St. Lawrence and its influence on the plankton community and higher trophic levels |
| N:17 | <i>Sónia Mendes, P. Thompson, W. Turrell, and T. Lütkebohle</i> | The influence of the tidal cycle and a tidal intrusion front on the spatio-temporal distribution of the bottlenose dolphin, <i>Tursiops truncatus</i> , in a narrow estuarine channel, Scotland |

N:18 Poster	<i>Else Nøst Hegseth and Jan Backhaus</i>	Winter distribution of microzooplankton in the Nordic Seas
N:19 Poster	<i>Piotr Margoński</i>	Changes in spatial and temporal mesoscale distribution of zooplankton organisms in the context of trophic interactions with fish larvae and juveniles
N:20 Poster	<i>Leif Nøttestad and Rune Vabø</i>	Advanced hunting for herring: Killer whales and saithe trap herring by taking advantage of steep bottom topography
N:21 Poster	<i>Stefan Neuenfeldt and Hans-Harald Hinrichsen</i>	Possibilities for geo-location of predators in the Baltic Sea combining archival tags and hydrodynamic modeling
N:22 Poster	<i>Høgne H. Debes</i>	Abundance, stage composition and vertical distribution of krill in the Faroe-Shetland Channel in relation to season and hydrography

**THEME SESSION ON THE PELAGIC FISH RESPONSES TO CLIMATE VARIABILITY –
CONSEQUENCES FOR FISHERIES AND ECOSYSTEM ADVICE (O)**

O:01	<i>Marceliano Segura Zamudio</i>	Influence of oceanographic conditions in the distribution and behaviour of the anchovy (<i>Engraulis ringens</i> J.) from acoustic estimations between 1998 – 2002 and studies of fishing effort by ARGOS (1999 – 2002)
O:02	<i>Joseph Sebastian Paimpillil</i>	Variability of Finfish and Shrimp Catches and Patterns of Physico- Chemical Parametrs in N.W.Arabian Gulf.
O:03	<i>Pierre Petitgas, J. Massé, P. Beillois, B. Planque, P. Bourriau, P. Lazure, and M. Santos</i>	Estimating in situ fish fecundity on various spawning grounds by coupling acoustics and CUFES during fisheries surveys: exploration of the methods potential on anchovy and sardine in Biscay
O:04	<i>Pierre Petitgas, J.P. Bergeron, A. Herbland, D. Delmas, N. Koueta, J.M. Froidefond, J. Massé, P. Beillois, P. Bourriau, and M. Santos</i>	Functional pelagic entities in Biscay and their relation with anchovy and sardine fish distribution, their condition and spawning
O:05	<i>Nkosi Luyeye</i>	Seasonal changes and spatio-temporal distribution of <i>Sardinella</i> spp in Angolan waters
O:06	<i>Enrique Portilla, B. Planque, P. Petitgas, J. Massé, P. Beillois, P. Bourriau, and M. Santos</i>	Spatial association between spawning sardine and anchovy and their eggs in the bay of Biscay as observed by coupled acoustic and CUFES surveys
O:07	<i>Sandrine Vaz and P. Petitgas</i>	Study of anchovy population dynamics using spatialised age-specific matrix models
O:08	<i>A. Nissling, H.-H. Hinrichsen, A. Müller, L. Andersson and F. Köster, and A. Makarchouk</i>	Vertical distribution and egg survival of Baltic sprat in relation to temperature and oxygen conditions – implications for stock development
O:09	<i>A.S. Malkov</i>	Movement of the Earth pole and population dynamics of Norwegian spring-spawning herring (<i>Clupea harengus</i>) and arctic cod (<i>Gadus morhua</i>)
O:10	<i>E. Karasiova</i>	Influence of interannual variability of hydrographic parameters spatial distribution in thermocline and halocline on sprat larvae distribution and subsequent juveniles abundance in the South-eastern Baltic Sea

O:11	<i>E.M. Karasiova, E.A. Gribov, and V.M. Andreeva</i>	Fish larvae assemblages in the coastal shallow zone of the South-Eastern Baltic Sea: environmental factors driving inter-annual variability
O:12	<i>Natalja Kondratjeva and Viesturs Berzinsh</i>	Baltic herring larvae in the Gulf of Riga – dynamics in the final quarter of the XXth century
O:13	<i>Andrei Makarchouk</i>	Changes in the survival of sprat eggs in the Eastern Baltic
O:14	<i>Gwenhael Allain, P. Petitgas, P. Grellier, and P. Lazure</i>	Comparative otolith growth and drift of larval and juvenile anchovy in Biscay and implications for survival
O:15	<i>Jan Arge Jacobsen, Stein Hjalti í Jákupsstovu, and Marita Poulsen</i>	Does the seasonal variation in fat content of blue whiting affect the acoustic conversion factor (TS)?
O:16	<i>Omar Ettahir1, Am. Berraho, G. Vidy, M. Ramdani, S. Zizah, and T. Dochi</i>	Distribution of sardine, <i>Sardina pilchardus</i> (Walb.) eggs and larvae along the south Moroccan Atlantic coast (21-26 N)
O:17	<i>Withdrawn</i>	
O:18	<i>K.T. Frank and K.F. Drinkwater</i>	Links between the recent increase in pelagic fishes and environmental changes on the Scotian Shelf
O:19	<i>Maria de Fatima Borges, Avijit Gangopadhyay, Jorge Mesias, and Anne-Marie Brunner</i>	Multiscale Impact of Climatic Regime Shifts on Georges Bank and Gulf of Maine Cod Populations
O:20	<i>Johan Blindheim and Svend-Aage Malmberg</i>	The mean sea level pressure (MSLP) gradient across the Denmark Strait as index for the oceanographic Conditions in North-Icelandic waters.
O:21	<i>Włodzimierz Grygiel and M. Wyszynski</i>	Sexual maturation of southern Baltic herring and sprat (1980-2001)
O:22	<i>Georgi M. Daskalov</i>	Long-term changes in fish abundance and environmental indices in the Black Sea
O:23	<i>Withdrawn</i>	
O:24	<i>B.A. Roel, P. Large, and C.M. O'Brien</i>	Influence of the environment on the dynamics of an inshore spring spawning herring stock
O:25	<i>A. Uriarte, B.A. Roel, A. Borja, G. Allain, and C.M. O'Brien</i>	Role of environmental indices to estimate recruitment of the Bay of Biscay anchovy
O:26	<i>Alicia Lavín, X. Moreno-Ventas, V. Ortiz de Zárate, P. Abaunza, and J. M. Cabanas</i>	Environmental variability in the North Atlantic and Iberian waters and its influence on pelagic fish: the cases of albacore and horse mackerel
O:27 Poster	<i>Sandrine Vaz, P. Petitgas, P. Beillois, and J. Massé</i>	Variations in anchovy biometric parameters and spatial distribution in the bay of Biscay from 1983 to 2001
O:28 Poster	<i>N. Mikkelsen and T. Pedersen</i>	The stock-recruitment relationship of the Barents Sea capelin (<i>Mallotus villosus</i>) influences by temperature and predation
O:29 Poster	<i>Andrzej Orłowski,</i>	Environmental pressure on the autumn clupeoids distribution in the southern Baltic (acoustic studies)
O:30 Poster	<i>P. Conde, J. Martin, P. Otero, J. Portela, and P.J. Torres</i>	Fisheries study and monitoring of by-catches of small cetaceans in Galicia region

THEME SESSION ON THE SHELF SEAS PROCESSES: THE FOUNDATION FOR ECOSYSTEM UNDERSTANDING (P)

P:01	<i>Withdrawn</i>	
P:02	<i>Thomas Osborn, W.A.M. Nimmo Smith, L. Luznik, W. Zhu, and J. Katz</i>	Turbulent stress measurements in the coastal ocean using Particle Image Velocimetry (PIV)
P:03	<i>Anatoli N. Pantiulin</i>	The new structural system of the White Sea as foundation for ecological analysis
P:04	<i>Pierre Petitgas and P. Lazure</i>	Typology of currents in Biscay for the period 1985-2000 as produced by a circulation model
P:05	<i>Withdrawn</i>	
P:06	<i>Christiane Kuhrts and Wolfgang Fennel</i>	Modelling sedimentary processes in the western Baltic
P:07	<i>V. Zalesny, R. Tamsalu, P. Ennet, and H. Kuosa</i>	The influence of the hydrodynamic processes on the marine ecosystem
P:08	<i>Kai Myrberg, Oleg Andrejev, Jari. J. Haapala, and Harri Kuosa</i>	Upwellings in the Gulf of Finland, a study based on verification of a three-dimensional model with measurements
P:09	<i>Belmiro Castro, Luiz B. Miranda, Roberto F.C. Fontes, and Gleise N. Carneiro</i>	Current measurements in the upwelling region off Cabo Frio (Southeast Brazil)
P:10	<i>Karin Margretha H. Larsen, Bogi Hansen, Harald Svendsen, and Knud Simonsen</i>	The front on the Faroe shelf
P:11	<i>Uffe Høgsbro Thygesen</i>	Lagrangian stochastic modeling of dispersal: Beyond the biased random walk
P:12	<i>Thomas Neumann and Christine Kremp</i>	Nutrients load reduction experiments with a three dimensional Baltic Sea ecosystem model
P:13	<i>Guoqi Han and John W. Loder</i>	Modelling seasonal-mean circulation on the southern Newfoundland and eastern Scotian Shelves
P:14	<i>Withdrawn</i>	
P:15	<i>R.G. Lough, C. G. Hannah, P. Berrien, D. Brickman, J. W. Loder, and J. A. Quinlan</i>	Spawning pattern variability and its effect on retention, larval growth, and recruitment in Georges Bank cod and haddock
P:16	<i>J. A. Quinlan, R. G. Lough, , D. Brickman, S. Oakey, C. G. Hannah, and P. Berrien</i>	A modeling exploration of the population dynamics of Georges Bank haddock
P:17	<i>Włodzimierz Krzyminski, Elzbieta Lysiak-Pastuszek, Natalia Drgas, Grazyna Sapota, Jerzy Woron, Beata Danowska, and Tamara Zalewska</i>	Activities of the Institute of Meteorology and water management related to the protection of the Baltic Sea

- P:18 *D.L. O'Brien, R.G.Lough, J.M.Fives, J.Manning, J.A.Quinlan, and L.Dransfeld* Observations on a retention mechanism for fish eggs and larvae in the Nympe Bank region of the Celtic Sea
- P:19 *Quilanda Fidel* SST and Angolan littoral rainfall variability
Poster

THEME SESSION ON THE OCEAN-SHELF SEA INTERACTIONS: IMPLICATIONS FOR BIOLOGY AND FISHERIES (Q)

- Q:01 *Alexander I. Arkhipin, Alexander M. Sirota, Vladimir V. Laptikhovsky, Ryszard Grzebielec, and David A.J. Middleton* The effect of Falkland Current inflows on offshore ontogenetic migrations of the squid *Loligo gahi* on the southern shelf of the Falkland Islands
- Q:02 *Harald Yndestad* The Code of long-term Fluctuations of Norwegian spring-spawning herring
- Q:03 *Peeter Ennet, V. Zalesny, R. Tamsalu, and H. Kuosa* Impact of open boundaries on coastal marine ecosystem.
- Q:04 *Jon K.T. Brodziak and David G. Mountain* Some Biological Responses of Fish Stocks to Increased Shelf Water Volume in the Mid-Atlantic Bight of the Northeast USA Continental Shelf Ecosystem
- Q:05 *Jianjun Wang, G.J. Pierce, J.M. Portela, J. M. Bellido, X.A Cardoso* The spatio-temporal pattern of hake (*Merluccius hubbsi*) abundance and environmental influence in the Patagonian shelf area
- Q:06 *Ad Corten* Ecological indications for long-term variations of Atlantic influence in the northwestern North Sea
- Q:07 *Leonie Robinson and C.L.J. Frid* Extrinsic control of shelf sea ecosystems: Multi-decadal dynamics in the North Sea - implications for management
- Q:08 *Philiip C. Reid, M. Edwards, G. Beaugrand, and M.Skogen* Evidence for effects on the North Sea ecosystem due to varying oceanic inflow over the last 100 years
- Q:09 *H.-Ch. John, V. Mohrholz, J.R.E. Lutjeharms, S. Weeks, R. Cloete, and A. Kreiner* Intrusion of Angolan water into the northern Benguela and anomalous cross-slope distributions of fish larvae

THEME SESSION ON THE IMMUNO-MODULATORS AND PROBIOTICS: ALTERNATIVES TO CHEMOTHERAPEUTICS? (R)

- R:01 *Withdrawn*
- R:02 *Tim Bowden* Immunomodulation. Does it have a practical application to larval fish?
- R:03 *Lone Gram and Mette Hjelm* The selection and potential use of aquatic bacteria as fish probiotics
- R:04 *Sami Nikoskelainen, Arthur Ouwehand, Göran Bylund, Seppo Salminen, and Esa-Matti Lilius* Benefits of a human divided probiotics for the rainbow trout (*Oncorhynchus mykiss*) health
- R:05 *Einar Ringø* Lactic acid bacteria in fish

- R:06 *Jorunn Skjermo, Anne Mari Rokstad, Ingrid Salvesen, Gudmund Skjåk-Bræk, and Olav Vadstein* Immunostimulation in marine larval rearing
- R:07 *Øivind Bergh and Øystein Evensen* Uptake and processing of bacteria in *Artemia franciscana* and halibut, *Hippoglossus hippoglossus* larvae visualized by immunohistochemistry
- R:08 *Pavlos Makridis* Use of probiotic bacteria in the rearing of larvae of Senegalese sole (*Solea senegalensis*)
- R:09 *Roy A. Dalmo* Immunostimulation of fish
- R:10 *P.J.W. Díaz-Rosales, A. Burmeister, S. Arijo, M. Chabrilón, F. L. Figueroa, J. Aguilera, and M.C. Balebona* Screening of algae extracts as potential stimulants of chemotaxis and respiratory burst activity of macrophages from sole (*Solea senegalensis*)
- Poster
- R:11 *H. Birkbeck*

THEME SESSION ON THE JUVENILE FISH CULTIVATION: IMPROVEMENTS IN QUALITY (S)

- S:01 *P.J.W. Olive, M.D. Islam, and S. Craig* A novel system for the production of essential PUFA for fish hatcheries using cultured polychaetes
- S:02 *Michael J. Millard, Jerre Mohler, and David Perkins* The use of calcein as a fry mark for evaluating restoration and culture programs of Atlantic salmon
- S:03 *David A. Bengtson,, Robin S. Katersky, Markus Koelbl, and Tessa L. Simlic* Energetic explanations for differential growth rates in summer flounder (*Paralichthys dentatus*) larvae and juveniles
- S:04 *Myron A. Peck,, Larry J. Buckley, and David A. Bengtson* Inter-individual differences in rates of routine energy loss and growth in early juvenile Atlantic cod (*Gadus morhua*)
- S:05 *Ed Trippel and Steven R.E. Neil* Juvenile growth and locomotory activity of haddock (*Melanogrammus aeglefinus*) in relation to photoperiod and light intensity
- S:06 *U. Waller, A. Schiller, J. Orellana, and M. Sander* The growth of young seabass (*Dicentrarchus labrax*) in a new type of re-circulation system

THEME SESSION ON THE SALMON AQUACULTURE, ENHANCEMENT, AND RANCHING: ARE THEY A THREAT TO WILD SALMONID STOCK (T)

- T:01 *Karin Boxaspen* Infection success of salmon lice related to temperature and implications for regional size of salmon production areas
- T:02 *Michael M. Hansen* Long-term effects of gene flow from domesticated fish into wild populations, assessed using microsatellite DNA analysis of historical and contemporary samples: A study using brown trout as a model species
- T:03 *Withdrawn*

T:04	<i>A. Ferguson, P. McGinnity with N. Baker, D. Cotter, R. Hynes, B. O'Hea, N. O'Maoiléidigh, P. Prodöhl, and G.Rogan</i>	A two-generation experiment comparing the fitness and life history traits of native, ranched, non-native, farmed, and 'hybrid' Atlantic salmon under natural conditions
T:05	<i>Ger Rogan, K. Whelan, D. Cotter, and R. Poole</i>	Ranching of Atlantic salmon (<i>Salmo salar</i> L.) to the rod from a native and non-native system
T:06	<i>Margaret A. McKibben, and D.W. Hay</i>	Planktonic distribution of sea lice <i>Lepeophtheirus salmonis</i> larvae in inter-tidal plankton samples in Loch Shildaig, Western Scotland in relation to local salmon farm production cycles
T:07	<i>Krisna Rungruangsak-Torrissen</i>	Wild salmon should not be threatened by healthy and non-genetically manipulated escapees
T:08	<i>Ove T. Skilbrei</i>	Distribution of escaped farmed salmon and rainbow trout in the sea and possible effects of salmon lice on wild stocks
T:09	<i>Michael J. Penston, Margaret A. McKibben, David W. Hay, and Phillip A. Gillibrand</i>	Larval sea lice. Distribution in Loch Shildaig, Western Scotland
T:10	<i>N. Ó Maoiléidigh,, Anne Cullen, and T. McDermott.</i>	Review of information on fish farm escapees in Ireland
T:11	<i>Árni Ísaksson and Sumarliði Óskarsson</i>	Icelandic salmon ranching; problems and policy issues –A historical perspective–
T:12	<i>Øystein Skaala, Geir Dahle, Kevin Glover, and Vidar Wennevik</i>	A northern subgroup of Atlantic salmon in Norway?
T:13 Poster	<i>A. Ayllon, F. Juanes, S. Gephard, J.L. Martinez, and E. Garcia-Vazquez</i>	Changes on genetic diversity following enhancement of wild populations at the southern limit of Atlantic salmon distribution
T:14	<i>Pauli Snoeijs, Ingrid Wänstrand, and Lies Van Nieuwerburgh</i>	Effects of phytoplankton community composition on thiamine availability for the Baltic salmon

THEME SESSION ON THE NEW DEVELOPMENTS AND APPLICATIONS OF GENETICS IN FISHERIES MANAGEMENT AND AQUACULTURE (U)

U:01	<i>Michael M. Hansen, Daniel E. Ruzzante, Einar E. Nielsen, Dorte Bekkevold, and Karen-Lise D. Mensberg</i>	Microsatellite DNA analysis of historical and contemporary samples provides new insights into the long-term genetic structure of brown trout populations
U:02	<i>E. Garcia-Vazquez, J. Perez, P. Alvarez, C. Rico, C. Fox, P. Lopes, A. Teia, N. Karaiskou, and C. Triantaphyllidis</i>	Genetic identification of fish by species-specific DNA markers for use in stock biomass assessments and detection of commercial fraud
U:03 Poster	<i>J.A. Sánchez, Y. Borrel, E. Vázquez, and G. Blanco</i>	Improving aquaculture stocks: genetic markers in pedigree analysis

- U:04
Poster *M.E. Cagigas, G. Blanco, E. Vázquez, and J.A. Sánchez* A vision of populational structure of two principal species of anglerfish
- U:05 *Einar E. Nielsen, Michael M. Hansen, Daniel E. Ruzzante, Dorte Meldrup, and Peter GrønkJær* A hybrid-zone in Atlantic cod (*Gadus morhua*) in the Baltic and the Danish Belt Sea revealed by individual admixture analysis
- U:06 *Sabina De Innocentiis, E. Miggiano, A. Ungaro, A. Lesti, A.C. Andreoli, S. Livi, L. Sola, and D. Crosetti* Use of microsatellites to infer geographical origin of individual breeders from an Italian commercial hatchery
- U:07 *G.G. Novikov, A.A. Kolesnicov, T.V. Malinina, A.V. Zubchenko, K.L. Afanasiev, A.N. Stroganov, B.A. Kalabushkin, and G.A. Rubtsova* Research of DNA polymorphism of Atlantic salmon (*Salmo salar* L.) populations of the Barents and White sea basin rivers
- U:08 *T. Sarvas and S.E. Fevolden* Horizontal and seasonal variation in scnDNA allele frequencies and maturity of Atlantic cod (*Gadus morhua*) in Ullsfjorden, North Norway
- U:09 *P. Boudry, S. Launey, E. Diaz Almela, Y. Naciri-Graven, C. Ledu, S. Mira, N. Taris, F. Bonhomme, and S. Lapègue* Population genetics of the European flat oyster (*Ostrea edulis*): from larvae to populations
- U:10 *Withdrawn*
- U:11 *Sheila Stiles and J. Choromanski* Trends in genetics of bivalve mollusks: A review
- U:12 *Thomas T. Chen* Increase of fish innate immune response by transgenesis
- U:13 *Shahid Mahboob Rana* Molecular markers in the *Crassostrea*'s gametogenic cycle
- U:14
Poster *A. Triantafyllidis, J. Perez, N. Karaiskou, J-L Martinez, C. Triantaphyllidis, and E. Garcia-Vazquez* Genetic identification of three species of the genus *Trachurus* based on sequencing of the D-loop mitochondrial DNA region
- U:15
Poster *G. Blanco, J. Alvarez, E. Vázquez, and J.A. Sánchez* Developing genetics tools for monitoring a new cultivated specie, *Pagellus bogarabeo*
- U:16
Poster *Jens Carlsson, J. E. L. Carlsson, K. H. Olsén, M. M. Hansen, T. Eriksson, and J. Nilsson.* Effects of relatedness on micro-geographical distribution in brown trout populations
- U:17 *Kristina M. Miller, Terry D. Beacham, and Ruth E. Withler* Use of neutral and adaptive genetic variation in the management and conservation of Pacific salmon

THEME SESSION ON THE UNACCOUNTED MORTALITY IN FISHERIES (V)

- | | | |
|------|---|--|
| V:01 | <i>J.M. Bellido, J.M. Portela, J. Wang, G.J. and Pierce</i> | Trends in the pattern of discarding in the hake (<i>Merluccius hubbsi</i> and <i>Merluccius australis</i>) fishery in the SW Atlantic |
| V:02 | <i>D.A. Vasilyev and S.V. Belikov</i> | Blue whiting: what about natural mortality? |
| V:03 | <i>Verena M. Trenkel and Marie-Joëlle Rochet</i> | Towards a theory for discarding behaviour |
| V:04 | <i>R.R. Harris and M. Ulmestrand</i> | Discarding Norway lobster (<i>Nephrops norvegicus</i>) through low salinity layers - mortality and damage seen in simulation experiments |
| V:05 | <i>T.E. Helser, R.D. Methot, and J. Hastie</i> | A statistical model of discarding in the U.S. West Coast groundfish fishery |
| V:06 | <i>Tom Catchpole, Tim Gray, and Chris Frid</i> | Factors Influencing Discarding Patterns, a Case Study of the English Northeast coast <i>Nephrops norvegicus</i> Fishery |
| V:07 | <i>Withdrawn</i> | |
| V:08 | <i>Altan Lok, C. Metin, H. Ozbilgin, A. Tokac, A. Ulas, G. Metin., F. O. Duzbastýlar, H. Kaykac, C. Aydýn, and Z. Tosunoglu</i> | Survival ratios of red mullet (<i>Mullus barbatus</i>) and annular sea bream (<i>Diplodus annularis</i>) after escaping from trawl codend in the Eastern Aegean Sea |
| V:09 | <i>Leili Järv</i> | Non-professional fishery as one of the sources of unaccounted fishing mortality: a case of perch fishery in Estonian coastal sea |
| V:10 | <i>K.R. Patterson</i> | Exploring and quantifying structural uncertainty in age-structured fish stock assessment: an approach based on a “kernel” survivors analysis. |
| V:11 | <i>G.A. Chouinard, M.O. Hammill, and D.P. Swain</i> | Unaccounted mortality in fisheries: correspondence between changes in grey seal population abundance and variation in natural mortality of southern Gulf of St. Lawrence cod |
| V:12 | <i>Withdrawn</i> | |
| V:13 | <i>Withdrawn</i> | |
| V:14 | <i>Laura Lema, Névida Pérez, Rafael Duarte, and Paulino Lucio</i> | Some sources of variation in the assessment when introducing unaccounted mortality due to discarding practices. The case of Southern four-spot megrim stock |
| V:15 | <i>Ellen Pikitch, Daniel Erickson, Petri Suuronen, Esa Lehtonen, Craig Rose, and Chris Bublitz</i> | Selectivity and mortality of walleye pollock escaping from the codend and intermediate (= extension) section of a pelagic trawl |
| V:16 | <i>Withdrawn</i> | |
| V:17 | <i>Stéphanie Mahevas, and Verena Trenkel</i> | Using mixed models to describe the spatio-temporal allocation of effort of the french fleet fishing in the Celtic Sea in order to parametrize a spatial model of fishing mortality |
| V:18 | <i>Stéphanie Mahevas, Yann Sandon, and Alain Biseau</i> | Improvement of the relationship between effort and fishing mortality: quantification and characterisation of Fishing Power variations; example from the bottom-trawlers of South-Brittany targeting monkfish from 1983 to 1998 |
| V:19 | <i>Svend-Aage Malmberg and Steingrímur Jónsson</i> | Climatic/human impact on hydro-biological conditions in Icelandic waters |

V:20	<i>Ingolf Røttingen, Aril Slotte, Per Sandberg, and Bjarne Schultz</i>	Potential sources of unaccounted mortality in the fishery for Norwegian spring spawning herring
V:21	<i>Withdrawn</i>	
V:22	<i>Tiit Raid</i>	Stock complexity of herring: another potential source of uncertainties in fishing mortality estimates
V:23	<i>Petri Suuronen, Esa Lehtonen, and Mika Kurkilahti</i>	Assessment of mortality and skin injury of Baltic cod (<i>Gadus morhua</i>) that escape from trawl codend under commercial fishing conditions
V:24	<i>V. Tschernij and P-O. Larsson</i>	An estimation of the cod (<i>Gadus morhua</i>) catch in bottom gillnets lost along the southern coast of Sweden
V:25	<i>Mike Breen, Graham Sangster, Barry O'Neill, Rob Kynoch, Emma Jones, and Aud Soldal</i>	Evidence of sampling induced biases in mortality estimates from experiments investigating mortality in fish escaping from towed fishing gears
V:26	<i>Withdrawn</i>	
V:27	<i>Mike Breen and Robin Cook</i>	Inclusion of escape and discard mortality estimates in stock assessment models and its likely impact on fisheries management – a sensitivity analysis.
V:28	<i>G.G. Thorarinsdóttir, S.A. Ragnarsson, and K. Gunnarsson</i>	The impact of hydraulic dredging on ocean quahog populations
V:29	<i>W J Lart</i>	Discard studies, engaging fishers in support of management
V:30	<i>P.H. McMullen</i>	Fantared 2, a study to identify, quantify and ameliorate the impacts of static gear lost at sea
V:31	<i>I. Huse and A.V. Soldal</i>	Mortality and injuries of haddock that are caught by pelagic longline
V:32	<i>Olafur Ingolfsson, A.V. Soldal, and I. Huse</i>	Mortality and injuries of haddock, cod and saithe escaping through codend meshes and sorting grids
V:33 Poster	<i>Tom Catchpole, Chris Frid, and Tim Gray</i>	Estimating discard quantities for the English Northeast coast <i>Nephrops norvegicus</i> fishery
V:34 Poster	<i>Karim Erzini, L. Bentes, P.G. Lino, J. Ribeiro, R. Coelho, P. Monteiro, C. Correia, and J.M.S. Gonçalves</i>	"Ghost-fishing" of octopus and fish traps from the south coast of Portugal
V:35 Poster	<i>B. Draganik and Maksym Keida</i>	Pikeperch stock behaviour under the pressure of different fishing patterns in the Vistula Lagoon
V:36	<i>Withdrawn</i>	

THEME SESSION ON FISHERY AND ENVIRONMENTAL MANAGEMENT – IS THERE A ROLE FOR OPERATIONAL OCEANOGRAPHY? (W)

W:01	<i>Roald Sætre and Johan Blindheim</i>	Jens Eggvin – A Norwegian pioneer in operational oceanography
W:02	<i>Kenneth Sherman and, A. Duda</i>	Large Marine Ecosystem monitoring, assessment, and management across the global North-South divide
W:03	<i>Bruce Hackett, Johnny A. Johannessen, and Einar Svendsen</i>	Monitoring the Norwegian Coastal Zone Environment (MONCOZE)

W:04	<i>G.G. Novikov and A.N.Pantiulin</i>	Interdisciplinary approach to monitoring of fish population and environmental changes in the White Sea
W:05	<i>C.L.J. Frid, M.F. Borges, N. Daan, T.S. Gray, J.L. Hatchard, L.Hill, A. Jarowski, K. Mikalsen, O.A.L. Paramor, G.J. Piet, S.A. Ragnarsson, C.L. Scott, W. Silvert and L. Taylor</i>	Developing a Fisheries Ecosystem Plan for the North Sea
W:06	<i>Carl O'Brien</i>	Stock assessment and projection of abundance - from environmental parameters to biological processes
W:07	<i>Ajit Kumar</i>	Costal environment and fisheries management for sustainable development in West Bengal, India
W:08	<i>Friedhelm Schroeder, Wilhelm Petersen, Michael Petschatnikov, and Franciscus Colijn</i>	A new system for automatic measurement of biological-chemical parameters from ferry boats
W:09	<i>W R . Turrell</i>	The ICES/EuroGOOS North Sea Pilot Project (NORSEPP)
W:10	<i>E.B. Colbourne, E. G. Dawe, and D. G. Parsons</i>	The current status of operational oceanography and its integration in fishery resource stock assessments in the Newfoundland Region of Atlantic Canada
W:11	<i>Glen Harrison, Brian Petrie, and Ken Frank</i>	Ecosystem monitoring in the Northwest Atlantic: Canada's Atlantic Zonal Monitoring Program (AZMP)
W:12	<i>Trevor Platt, César Fuentes-Yaco, and Kenneth T. Frank</i>	Ecosystem variability and fisheries
W:13	<i>Withdrawn</i>	
W:14 Poster	<i>Johanne Fischer</i>	EDIOS – European Directory of the Initial Ocean-observing System
W:15 Poster	<i>V. Borokov, V.Ozhigin, A.Karsakov, Yu.Lepesevich, and V.Shibanov</i>	Use of oceanographic information in management of the Russian fisheries in the Barents and Norwegian Seas
W:16 Poster	<i>C.L.J. Frid, M.F. Borges, N. Daan, T.S. Gray, J.L.Hatchard, L. Hill, A. Jarowski, K. Mikalsen, O.A.L. Paramor, G.J. Piet, S.A. Ragnarsson, C.L. Scott, W. Silvert and L. Taylor</i>	Developing a Fisheries Ecosystem Plan for the North Sea: management preferences

THEME SESSION ON BIOLOGICAL EFFECTS OF CONTAMINANTS IN MARINE PELAGIC ECOSYSTEMS (X)

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|------|---|--|
| X:01 | <i>Endre Aas, G. Jonsson, R. Sundt, S. Westerlund, and S. Sanni</i> | PAH metabolites and metals in bile from cod caged in the North Sea serve as indicators of pollution |
| X:02 | <i>K. Hylland, G. Becker, J. Klungsøyr, T. Lang, A. McIntosh, B. Serigstad, J.E. Thain, K.V. Thomas, T.I.R. Utvik, D. Vethaak, W. Wosniok</i> | An ICES workshop on biological effects in pelagic ecosystems (BECPELAG): overview of the programme |
| X:03 | <i>K.-E. Tollefsen, A. Ruus, M. Grung, A. Goksøyr, C. Dye, and K. Hylland</i> | Biomarker directed monitoring of toxic compounds in pelagic ecosystems |
| X:04 | <i>A. Ruus and J. Klungsøyr</i> | Biocummulation of contaminants in pelagic organisms, caged blue mussels and cod |
| X:05 | <i>H.v. Westernhagen and V. Dethlefsen</i> | Occurrence and malformations of pelagic fish eggs in the German Bight, southern North Sea, from 1984-2002. Temperature vs pollution effects |
| X:06 | <i>B. Serigstad, J.E. Thain, K. Hylland, G. Becker, J. Klungsøyr, T. Lang, A. McIntosh, K.V. Thomas, T.I.R. Utvik, D. Vethaak, and W. Wosniok</i> | The use of <i>in situ</i> deployment of live organisms and passive samplers to monitor contaminants in pelagic ecosystems |
| X:07 | <i>Kevin Thomas,, Jan Balaam, Katrina Collins, Mark Hurst, William Reynolds, and John Thain</i> | In vitro ecotoxicological assessment of pelagic ecosystems |
| X:08 | <i>Brett Lyons, Freya Goodsir, John Wedderburn, and Ian McFadzen</i> | Potential for UV-light to alter the toxicity of environmental seawater samples to invertebrate bioassay organisms |
| X:09 | <i>John Thain, Yvonne Allen, William Reynolds, and Sonia Kirby</i> | BECPELAG workshop: Measurement of scope for growth and neutral red retention in blue mussels |
| X:10 | <i>Alexander P. Scott, Ioanna Katsiadaki, and John Thain</i> | Development of an ELISA for cod vitellogenin and application to assessment of estrogen exposure in caged cod from the BECPELAG workshop |
| X:11 | <i>Stephen Feist, John Bignell, Gary Jones, and Grant Stentiford</i> | Measurement of histological changes in fish larvae, blue mussels and caged fish |
| X:12 | <i>Alistair McIntosh</i> | The assessment of hepatic 7-Ethoxyresorufin O-deethylase (EROD) activity in herring (<i>Clupea harengus</i>) and saithe (<i>Pollachius virens</i>) from two areas of the North Sea |
| X:13 | <i>K. Hylland, G. Becker, J. Klungsøyr, T. Lang, A. McIntosh, B. Serigstad, J.E. Thain, K.V. Thomas, T.I.R. Utvik, D. Vethaak, and W. Wosniok</i> | An ICES workshop on biological effects in pelagic ecosystems (BECPELAG): summary of results and recommendations |

**THEME SESSION ON THE EFFECTS OF FISHING IN THE GENETIC COMPOSITION OF
LIVINGS MARINE RESOURCES (Y)**

Y:01	<i>Keith Brander</i>	Is a utilitarian approach to the management of fisheries-induced adaptive change adequate and acceptable?
Y:02	<i>Marie-Joëlle Rochet and Stephan Munch</i>	A model for the evolution of growth and age at maturity in North Sea cod
Y:03	<i>S. Barot, M. Heino, L. O'Brien, and U. Dieckmann</i>	Reaction norms for age and size at maturation: study of the long-term trend (1970–1998) for Georges Bank and Gulf of Maine cod stocks
Y:04	<i>Rob Grift, Adriaan Rijnsdorp, Sebastien Barot, Mikko Heino, and Ulf Dieckmann</i>	Trends in reaction norms for maturation in North Sea plaice
Y:05	<i>V.L. Tretyak</i>	The impact of long-term overfishing on the abundance dynamics of early- and late-maturing Northeast Arctic cod
Y:06	<i>Bruno Ernande, Ulf Dieckmann, and Mikko Heino</i>	Fisheries-induced changes in age and size at maturation and understanding the potential for selection-induced stock collapse
Y:07	<i>David O. Conover and Stephan B. Munch</i>	Darwinian fishery management: rapid evolution of somatic growth and yield in experimentally harvested marine fish populations
Y:08	<i>Ulf Dieckmann, Mikko Heino, and Olav Rune Godø</i>	A Quantitative Genetics Model for the Evolution of Maturation Reaction Norms in Age- and Size-Structured Populations
Y:09	<i>Y.G. Izumov, Y.V. Gerasimov, and Oleg M. Lapshin</i>	The effect of fishing on the walleye pollock phenotype composition
Y:10	<i>Georg H. Engelhard and Mikko Heino</i>	Maturation characteristics in Norwegian spring-spawning herring before, during, and after a major population collapse
Y:11	<i>Richard Law</i>	Selective fishing and phenotypic evolution: past, present and future
Y:12	<i>Anna Gårdmark</i>	Fisheries-induced long-term effects on genetic composition in mixed fisheries
Y:13	<i>Ellen Kenchington and Mikko Heino</i>	Maintenance of genetic diversity: challenges for management of marine resources
Y:14	<i>Mikko Heino, Ulf Dieckmann, and Olav Rune Godø</i>	Reaction norm analysis of fisheries-induced adaptive change and the case of the Northeast Arctic cod
Y:15	<i>Thron O. Haugen and Leif Asbjørn Vøllestad</i>	Effects of variable and size-selective gill-net fishing on life-history evolution in grayling
Y:16	<i>Edward A. Trippel and Jarle Mork</i>	Long-Term Trends in Heritable Fish Life-History Traits: Utility of Correlation and Regression Analyses to Disentangle Environmental and Genetic Factors
Y:17	<i>Withdrawn</i>	
Y:18 Poster	<i>G.G. Novikov, V.N Shibanov, A.N Stroganov, K.I. Afanasjev, and C.P Melnikov</i>	Analysis of population and genetic characteristics of redfish of the Irminger Sea

- Y:19 *Dirk M. Menedoth* Structural analysis of aggregations of juvenile whiting
Poster (*Merlangius merlangus*) in the southern North Sea by way of
genetic fingerprints
- Y:20 *A.J. Bishop, M.B. Santos,* Morphometric and meristic variation in Argentine hake
Poster *G.J. Pierce, J.M. Bellido,* (*Merluccius hubbsi*) and southern hake (*Merluccius australis*)
M. Rasero, and J.M. from the southwest Atlantic
Portela