

Contributions to the 2001 Annual Science Conference

Gen	General Assembly Reports and Papers of General Interest.....	20
Del	Delegates Meetings	20
Fi	Finance Committee.....	21
Pub	Publications Committee	21
A	Consultative Committee	21
B	Fisheries Technology Committee.....	22
C	Oceanography Committee	22
D	Resource Management Committee.....	23
E	Marine Habitat Committee	23
F	Mariculture Committee	24
G	Living Resources Committee	24
H	Baltic Committee.....	24
ACFM	Advisory Committee on Fishery Management Assessment Working Group Reports.....	25
ACME	Advisory Committee on the Marine Environment Environment-related Working Group Reports	26
<i>Theme Sessions</i>		
J	The Life History, Dynamics, and Exploitation of Living Marine Resources: Advances in Knowledge and Methodology	27
K	The Response of Cephalopod Populations and Fisheries to Changing Environment and Ecosystems .	30
L	The Stock Structure of Atlantic Cod: State of the Art.....	33
M	Developing Salmon Conservation Limits – Recent Progress and Reviews	34
N	Case Studies in the Systems Analysis of Fisheries Management.....	35
O	Application of Mark-Recapture Experiments to Stock Assessment.....	36
P	Quality and Precision of Basic Data Underlying Fish Stock Assessment and Implications for Fisheries Management Advice	37
Q	Catchability and Abundance Indicators – the Influence of Environment and Fish Behaviour	39
R	What Information Does Ecosystem Management Need from Ecologists and Gear Technologists to Assess Ecosystem Effects of Fishing and Implement Policies.....	41
S	Eutrophication, For Better or For Worse: Can it be Controlled?	41
T	Use and Information Content of Ecosystem Metrics and Reference Points.....	42
U	Ecosystem Change in the Baltic	43
V	Growth and Condition in Gadoid Stocks and Implications for Sustainable Management	44
W	Transport Processes in the North Atlantic.....	46
Y	Sustainable Development and Conservation of Natural Resources of the Coastal Zone	48

GENERAL ASSEMBLY REPORTS AND PAPERS OF GENERAL INTEREST

- Gen:1 Observers' Reports from Cooperating Organisations
- Gen:2 ICES Activities in 2000/2001
- Gen:3 Elections and Appointments of Council Officials at 2001 Annual Science Conference (89th Statutory Meeting) (E+F)
- Gen:4 Report on ICES Symposia
- Gen:5 2000/2001 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 1999/2000
- Del:2 Progress Report on Administration
- Del:3 Plans for Improved Accommodation at ICES Headquarters
- Del:4 Status Report of Accounts as of 15 September 2001
- Del:5 Draft Budget for 2002 and Draft Forecast Budget for 2003
- Del:6 Report on Planning and Funding for the ICES Centenary
- Del:7 Changes in Rules of Procedure
- Del:8 ICES Strategic Plan
- Del:9 ACFM, ACME and ACE Matters, including ACFM Embargo
- Del:10 Report on the History Book Project
- Del:11 Draft Copenhagen Declaration
- Del:12 Report of the Bureau Working Group on International Programmes
- Del:13 Report on 2001 Meeting of ICES/Commissions Working Group on Cooperative Procedures
- Del:14 Arrangements for Future Annual Science Conferences and Statutory Meeting: 2002 (Denmark; ICES Centenary), 2003 (Estonia), 2004 (Spain)
- Del:15 Activity Report on the GEF Baltic Sea Regional Project
- Del:16 Report of Management Committee on Advisory Process (MCAP)
- Del:17 Report of ICES/GLOBEC Steering Group
- Del:18 Social Events
- Del:19 Application by Peru for Scientific Observership
- A:5 Reports and Recommendations of Consultative Committee
- Gen:3 Elections and Appointments at the 89th Statutory Meeting

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 (2000)

Pub:3 Publications Policy and the Publications Committee

Pub:4 Review of ICES Publication Activities for 2001

Pub:5 *ICES Journal of Marine Science*: Editors' Report for 2001, with Appendix

Pub:6 *ICES Journal of Marine Science*: Academic Press Publisher's Report for 2001, with two Appendices

Pub:7 *ICES Cooperative Research Report* series: Editor's Report for 2001

Pub:8 *ICES Identification Leaflets for Plankton*: Editor's Report for 2001

Pub:9 *ICES Identification Leaflets for Diseases and Parasites of Fish and Shellfish*: Editor's Report for 2001

Pub:10 *ICES Techniques in Marine Environmental Sciences*: Editor's Report for 2001

CONSULTATIVE COMMITTEE

A:01 Consultative Committee

A:02 Minutes from ACFM Meeting October 2000

A:03 Minutes from ACFM Meeting May 2001

A:04 Minutes from ACME Meeting May 2001

A:05 Report of Mid-Term Consultative Committee June 2001

A:06 Minutes from ACE Meeting August 2001

REFERENCE PAPERS: D:09, G:03

FISHERIES TECHNOLOGY COMMITTEE (B)

- B:01 Study Group on Mesh Measurements Methodology (SGMESH)
B:02 Ref. H Study Group on Target Strength Estimation in the Baltic Sea (SGTSEB)
B:03 Planning Group on the HAC Data Exchange Format (PGHAC)
B:04 Joint Working Group on Fishing Technology and Fish Behaviour (WGFTFB) and Working Group on Fisheries Acoustics Science and Technology (WGFAST)
B:05 Working Group on Fishing Technology and Fishing Behaviour (WGFTFB)
Ref. ACFM
B:06 Working Group on Fisheries Acoustics Science and Technology (WGFAST)

REFERENCE PAPERS: C:01, G:10

OCEANOGRAPHY COMMITTEE (C)

- C:01 Ref. B, D, E, F, G, H ICES-IOC Steering Group on GOOS (SGGOOS)
C:02 Ref. D Study Group on Incorporation of Process Information into Stock Recruitment Models (SGPRISM)
C:03 Study Group on Modelling of Physical/Biological Interaction (SGMPI)
C:04 ICES/IOC Working Group on Harmful Algal Bloom Dynamics (WGHABD)
Ref. ACME
C:05 Ref. E, F, and ACME, ACE Working Group on Seabird Ecology (WGSE)
C:06 Working Group on Oceanic Hydrography (WGOH)
Ref. ACME
C:07 Working Group on Zooplankton Ecology (WGZE)
Ref. ACME
C:08 Working Group on Phytoplankton Ecology (WGPE)
Ref. ACME
C:09 Working Group on Marine Data Management (WGMDM)
Ref. ACME
C:10 Ref. G Working Group on Recruitment Processes (WGRP)
C:11 Study Group on an ICES/IOC Microplankton Protist List (SGPHYT)
Ref. ACME
C:12 ICES/GLOBEC Working Group on Cod and Climate Change (WGCCC)
Ref. ACME
C:13 Steering Group for the ICES/GLOBEC North Atlantic Programme (SGNARO)
C:14 Executive Summaries of Reports

REFERENCE PAPERS: E:02, H:03, ACME:03, ACME:04, ACME:05

RESOURCE MANAGEMENT COMMITTEE (D)

- D:01 Workshop on Synthesis of Surveys on Pelagic Fish in Norwegian Sea and Adjacent Areas (WKSSPF)
- D:02 Workshop on International Analysis of Market Sampling and the Evaluation of Raising Procedures and Data-Storage (software) (WKIMS)
- D:03 Study Group to Evaluate the Effects of Multispecies Interactions (SGEEMI)
- D:04 Planning Group on Redfish Stocks (PGRS)
Ref. ACFM
- D:05 International Bottom Trawl Survey Working Group (IBTSWG)
Ref. ACFM
- D:06 Working Group on Fishery Systems (WGFS)
Ref. ACFM
- D:07 Working Group on Surveys on Pelagic Fish in the Norwegian Sea (WGSPFN)
Ref. ACFM,
ACME
- D:08 Ref. Working Group on Methods on Fish Stock Assessments (WGMG)
ACFM, G
- D:9 Ref. A, Steering Group on Courses in Fish Stock Assessment Techniques (SGCFAT)
ACFM
- D:10 Ref. Workshop on FLEKSIBEST (WKFLEK)
ACFM

REFERENCE PAPERS: C:01, G:02, G:08, H:02, ACFM:09, ACFM:11, ACFM:13, ACFM:21,

MARINE HABITAT COMMITTEE (E)

- E:01 Ref. ACME Steering Group for a Sea-Going Workshop on Pelagic Biological Effects Methods (SGSEA)
- E:02 Ref. ACME, Marine Chemistry Working Group (MCWG)
C
- E:03 Ref. ACME Working Group on Biological Effects of Contaminants (WGBEC)
- E:04 Ref. ACME Working Group on Marine Sediments in Relation to Pollution (WGMS)
- E:05 Ref. ACME Working Group on Statistical Aspects of Environmental Monitoring (WGSAEM)
- E:06 Ref. ACME Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem (WGEXT)
- E:07 Ref. ACME, Working Group on Marine Habitat Mapping (WGMHM)
ACE
- E:08 Ref. ACME Benthos Ecology Working Group (BEWG)
- E:09 Ref. ACME, Study Group on Ecosystem Assessment and Monitoring (SGEAM)
ACE

REFERENCE PAPERS: C:01, C:05, F:01, F:02, G:04, G:06, ACME:02, ACME:03, ACME:04, ACME:05, ACME:07, ACME:08, ACME:09

MARICULTURE COMMITTEE (F)

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

REFERENCE PAPERS: C:01, C:05, ACME:07, ACME:08

LIVING RESOURCES COMMITTEE (G)

- G:01 Workshop on Identification and Staging of Mackerel and Horse Mackerel Eggs
(WKMHME)
- G:02 Ref. D Planning Group for Herring Surveys (PGHERS)
- G:03 Ref. A, Planning Group on Comparing the Structure of Marine Ecosystems in the ICES
ACFM area (PGECLM)
- G:04 Ref. E Study Group on the Biology and Life History of Crabs (SGCRAB)
- G:05 Ref. Working Group on Cephalopod Fisheries and Life History (WGCEPH)
ACFM,
ACME
- G:06 Ref. Working Group on Beam Trawl Surveys (WGBEAM)
ACFM, E
- G:07 Ref. Study Group on Elasmobranch Fishes (SGEF)
ACFM
- G:08 Ref. D Working Group on Mackerel and Horse Mackerel Egg Survey (WGMEGS)
- G:09 Stock Identification Methods Working Group (SIMWG)
- G:10 Ref. Working Group on *Crangon* Fisheries and Life History (WGCRAN)
ACFM, B

REFERENCE: C:01, C:10, D:08, ACMF:13, ACFM:21, ACME:09

BALTIC COMMITTEE (H)

- H:01 Baltic Herring Age-Reading Study Group (BHARSG)
- H:02 Ref. D Baltic International Fish Survey Working Group (WGBIFS)
- H:03 Ref. Study Group on GEOHAB Implementation in the Baltic (SGGIB)
ACME, C
- H:04 Study Group on Multispecies Predictions in the Baltic (SGMPB)
- H:05 Study Group of Baltic Cod Age Reading (SGBCAR)

REFERENCE PAPERS: B:02, C:01, ACM3:03, ACME:04

ACFM

- ACFM:01 Working Group on the Assessment of Northern Shelf Demersal Stocks (WGNSDS)
- ACFM:02 Arctic Fisheries Working Group (AFWG)
- ACFM:03 EIFAC/ICES Working Group on Eels (WGEEL)
- ACFM:04 *Pandalus* 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 Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)
- ACFM:08 Joint ICES/NAFO Working Group on Harp and Hooded Seals
- ACFM:09 Cancelled
- ACFM:10 Study Group on Herring Assessment Units in the Baltic Sea (SGHAUB)
- ACFM:11 Study Group on Precautionary Approach (SGPA)
Ref. D
- ACFM:12 Herring Assessment Working Group for the Area South of 62°N (HAWG)
- ACFM:13 Study Group on Discard and By-Catch Information (SGDBI)
Ref. D, G
- ACFM:14 Baltic Salmon and Trout Assessment Working Group (WGBAST)
- ACFM:15 Working Group on North Atlantic Salmon (WGNAS)
- ACFM:16 Working Group on *Nephrops* Stocks (WGNEPH)
- ACFM:17 Northern Pelagic and Blue Whiting Fisheries Working Group (WGNPBW)
- ACFM:18 Baltic Fisheries Assessment Working Group (WGBFAS)
- ACFM:19 Arctic Fisheries Working Group (AFWG)
- ACFM:20 North-Western Working Group (NWWG)
- ACFM:21 Joint ICES/NAFO Working Group on Harp and Hooded Seals (WGHARP)
Ref. D, G
- ACFM:22 Study Group on the Evaluation of Current Assessment Procedures for North Sea Herring (SGEHAP)
- ACFM:23 Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP)
- ACFM:24 Study Group on Baltic Herring and Sprat Maturity (SGBHSM)
- ACFM:25 Study Group on Sea Bass (SGBASS)

REFERENCE PAPERS: B:05, D:04, D:05, D:06, D:07, D:08, D:09, D:10, G:05, G:06, G:07, G:10, ACME:09

ACME

- ACME:01 Planning Group for the Ecological Quality Objective Requests (PGEQO)
Ref. ACE,
ACFM
- ACME:02 Workshop on Deep-Seabed Survey Technologies (WKDSST)
Ref. ACE, E
- ACME:03 ICES/HELCOM Steering Group on Quality Assurance of Biological Measurements
in the Baltic Sea (SGQAB)
Ref. C, E, H
- ACME:04 ICES/HELCOM Steering Group on Quality Assurance of Chemical Measurements
in the Baltic Sea (SGQAC)
Ref. C, E, H
- ACME:05 ICES/OSPAR Steering Group on Quality Assurance of Biological Measurements
Related to Eutrophication Effects (SGQAE)
Ref. C, E
- ACME:06 Planning Group for a Workshop on Ecosystem Models (PGEM)
Ref. ACE
- ACME:07 ICES/IOC/IMO Study Group on Ballast and Other Ship Vectors (SGBOSV)
Ref. E, F
- ACME:08 Working Group on Introductions and Transfers of Marine Organisms (WGITMO)
Ref. E, F
- ACME:09 Working Group on Ecosystem Effects of Fishing Activities (WGECO)
Ref. ACE,
ACFM, D, E,
G

REFERENCE PAPERS: C:04, C:05, C:06, C:07, C:08, C:09, C:11, C:12

ACE

- ACE:01 Working Group on Marine Mammal Population Dynamics and Habitats
(WGMMPH)

REFERENCE PAPERS: C:05, E:07, E:09, ACME:01, ACME:02, ACME:06, ACME:09

**THEME SESSION ON THE LIFE HISTORY, DYNAMICS, AND EXPLOITATION OF LIVING
MARINE RESOURCES: ADVANCES IN KNOWLEDGE AND METHODOLOGY (J)**

Code No.	Authors	Title
J:01	<i>P. Abaunza, S., Mattiucci, G. Nascetti, A. Magoulas, R. Cimmaruta, and L. Bullini</i>	Morphometric and meristic variation in European hake, <i>Merluccius merluccius</i> , from the Northeast Atlantic and Mediterranean Sea
J:02	<i>M.C. Bell, R.C.A. Bannister, P. Walker, P.W. Atkinson, and N.A. Clark</i>	Fisheries and bird predation as components of cockle (<i>Cerastoderma edule</i>) mortality in the Burry Inlet, south Wales
J:03	<i>M.C. Bell and D.W. Palmer</i>	Spatial variation in catch rate and abundance of scallops (<i>Pecten maximus</i>) in the western English Channel
J:04	<i>Deidre Brophy, Bret Danilowicz, and Teresa Jeffries</i>	An investigation of population movements in Atlantic herring using LA-ICPMS analysis of larval and juvenile otoliths
J:05	<i>Nick Caputi</i>	Relationships between some life history stages of the western rock lobster, <i>Panulirus cygnus</i> , fishery in Western Australia
J:06	<i>L.R. Castro, A. Llanos, E. Tarifeño, M. Carmona, and R. Escribano</i>	Latitudinal variations in early life stage parameters of the Peruvian anchovy <i>Engraulis ringens</i> : evidence of inter-population differences and temperature-dependent effects
J:07 Poster	<i>Pablo Chavance and Didier Gascuel</i>	Abundance and distribution changes of the Cuckoo Ray (<i>Raja naevus</i>) in European waters
J:08	<i>L. Chícharo, M.B.L. Gaspar, D. Vafidis, M.G. Marin, L. da Ros, M. Pellizato, U. Labarta, and M.-J. Reiriz</i>	Impact of bivalve fisheries in the Ria Formosa lagoon (Portugal), Venice lagoon (Italy), and Aegean Sea (Kavala-Greece). An integrated overview
J:09 Poster	<i>L. Chícharo, J. Regala, F. Alves, M.B. Gaspar, and A. Chícharo</i>	Changes and recovery of the benthic community of a clam-dredged area off the Algarve coast (South Portugal)
J:10 Poster	<i>L. Chícharo, A. Chícharo, A. Amaral, S. Condiño, and L. Cristovão</i>	Application of RNA/DNA ratios and AEC (Adenylic Energy Charge) to the assessment of fishery-induced stresses to the clam <i>Ruditapes decussatus</i>
J:11	<i>Maurice Clarke, Paul Connolly, Ciarán Kelly, and John Molloy</i>	Differing life history strategies of deepwater fish species: implications for sustainable exploitation
J:12	<i>Robin Cook and R.J. Fryer</i>	A non-parametric approach to investigating fish population dynamics
J:13	<i>Geneviève Desportes, Trine Jepsen, Jakob H. Kristensen, Deborah Benham, Ursula Siebert, Bodil Korsgaard, Jörg Driver, Kirstin Anderson, and Gwyneth Sheppard</i>	Reproduction in harbour porpoises: behaviour and hormones
J:14	<i>Derek Eaton, Julian Addison, Steve Milligan, Juan Brown, and Liam Fernand</i>	Larvae surveys of edible crab (<i>Cancer pagurus</i>) off the east coast of England: implications for stock structure and management

- J:15
Poster *Karim Erzini, L. Bentes, P.G. Lino, J. Ribeiro, R. Coelho, P. Monteiro, C. Correia, and J.M.S. Gonçalves* Trammel nets selectivity studies in the Algarve (southern Portugal): II. Size selectivity
- J:16 *Athanasios K. Exadactylos, Andreas Y. Troumbis, Audrey J. Geffen, and John P. Thorpe* Population structure of the Dover sole, *Solea solea* L., in the Atlantic using randomly amplified polymorphic DNA (PCR-RAPD) marking
- J:17 *Withdrawn*
- J:18 *Kevin Friedland, D. Abasi, L. Clarke, D. Sigourney, and A. Stein* Automated fecundity and egg sizing for marine species from scanned images: rapid sample processing and large data volumes
- J:19 *K. Hardardottir, O.S. Kjesbu, and G. Marteinsdottir* Relationship between atresia, fish size and condition in Icelandic cod (*Gadus morhua* L.)
- J:20 *Tore Haug, Anne Kirstine H. Fire, Vladimir A. Potelov, and Michael C.S. Kingsley* Trends-in-age at maturity and growth parameters of female Northeast Atlantic harp seals *Pagophilus groenlandicus*
- J:21 *Olive Heffernan and Bret Danilowicz* A biochemical study of the spawning localities and timing of commercial fish species in the Irish Sea
- J:22 *Hóraldur Joensen and Otto Grahl-Nielsen* Discrimination among species and stocks of redfish (*Sebastes viviparus*, *S. marinus*, *S. viviparus*), cod (*Gadus morhua*), and herring (*Clupea harengus*) by chemometry of the fatty acid profile in selected tissues
- J:23 *Pauline Kamermans* Factors affecting recruitment in bivalve molluscs
- J:24 *M.H.F. Kloppmann, M.C. Bailey, and H.v. Westernhagen* Distribution of larval and post-metamorphosis mackerel in the Celtic Sea
- J:25 *G. Kraus and F.W. Köster* Duration, frequency and timing of sprat spawning in the Central Baltic: An analysis based on gonadal maturity
- J:26 *Mauricio F. Landaeta and Leonardo R. Castro* Spring spawning and early nursery zone of the mesopelagic fish *Maurollicus parvipinnis* at the coastal upwelling zone off Talcahuano, central Chile
- J:27 *Chevonne Laurenson, I.G. Priede, L.W. Bullough, and I.R. Napier* Where are the mature anglerfish? - the population biology of *Lophius piscatorius* in northern European waters
- J:28 *Orla Lee, Bret Danilowicz, and Mark Dickey-Collas* Growth and condition of dab (*Limanda limanda*) and sprat (*Sprattus sprattus*) larvae in relation to seasonal stratification in the Irish Sea
- J:29 *Christina Lockyer, Genevieve Desportes, Kirstin Anderson, Sabrina Labberté, and Ursula Siebert* Monitoring growth of harbour porpoise (*Phocoena phocoena*) in human care
- J:30
Poster *Maria de Lourdes Sardinha and Pedro Barros* Association between bottom depth and some biological characteristics of *Parapenaeus longirostris* (Lucas, 1846) in Angolan waters

- J:31 *Andrei Makarchouk and E. Yula* Calculation of the spawning-stock biomass of sprat in the Gotland Basin (Eastern Baltic Sea) with the Hensen - Apstein method
- J:32 *Piotr Margoński* Mesoscale distribution of zooplankton and fish larvae in the Vistula Lagoon (southern Baltic Sea)
Poster
- J:33 *Richard McGarvey, Janet M. Matthews, and Andrew W. Levings* An individual-based dynamic and stochastic model of Australian giant crab (*Pseudocarcinus gigas*)
- J:34 *Erik Olsen, H.J. Skaug, A. Leithe, B. Bergflødt, and K.A. Fagerheim* A comparison of variability and bias when ageing Northeastern Atlantic minke whales (*Balaenoptera acutorostrata*) by counting growth layer groups in *Bulla tympanica* and mandible
- J:35 *T. Saat, A. Veersalu, and J. Tambets* Timing of embryo development in fishes and lampreys
- J:36 *Withdrawn*
- J:37 *Withdrawn*
- J:38 *Henrik Sparholt, Lena I. Larsen, and J. Rasmus Nielsen* Verification of multispecies interactions in the North Sea by trawl survey data on Norway pout (*Trisopterus esmakii*)
- J:39 *Henrik Sparholt, Lena I. Larsen, and J. Rasmus Nielsen* Non-predation natural mortality of Norway pout in the North Sea
- J:40 *D.A. Stolyarenko, M.B. Malioutov, and B.G. Ivanov* Investigating population age structure with multiple samples: a series of histograms vs. average
- J:41 *Christoph Stransky, Sif Gudmundsdóttir, Torsteinn Sigurdsson, Svend Lemvig, and Kjell Nedreaas* Age readings of *Sebastes marinus* otoliths: bias and precision between readers and otolith preparation methods
- J:42 *Lauri Urho* Larval profit hypothesis on fish production mechanisms
- J:43 *Joana Cardoso, Jaap van der Meer, and Henk W. van der Veer* Interspecies comparison of energy flow in some North Atlantic bivalve species by means of dynamic energy budgets
- J:44 *Begoña Villamor, Pablo Abaunza, and Celso Fariña* Age and growth of northeast Atlantic mackerel (*Scomber scombrus* L., 1758) in waters of the north and northwest of Spain (ICES Divisions VIIIc and IXa North), 1990–2000
- J:45 *Harald Yndestad and Anne Stene* Systems dynamics of the Barents Sea capelin
- J:46 *M.J. Armstrong, H.D. Gerritsen, W. McCurdy, and J.A.D. Peel* Variability of maturity and growth of cod (*Gadus morhua* L.) in trawl surveys of the Irish Sea
Poster
- J:47 *Paulo Brinca* Distribution, abundance and some biological aspects of Canary drum (*Umbrina canariensis* Valenciennes, 1843) and Longneck croaker (*Pseudolithus typus* Bleeker, 1863) off Angola
Poster
- J:48 *A. Fernández, C. Rodríguez-Cabello, I. Olaso, F. Sánchez, and A. Serrano* Biometric relationships to estimate length and weight of *Leucoraja naevus*, *Raja montagui* and *R. clavata*, from wing landings in the Cantabrian Sea
Poster
- J:49 *Henk J.L. Heessen* Development of Elasmobranch Assessments (DELASS)
Poster

- J:50 *A.I. Krysov* Reproductive capacity and year-class strength of the Norwegian spring spawning herring
Poster
- J:51 *Paulino Lucio, Marina Santurtún, Iñaki Quincoces, Susana Arego, and Elixabete Zuriarrain* A graphical approximation of hake growth in the North-eastern Atlantic during 1987–2000 (Results of reading more than 23,000 otoliths collected in this period)
Poster
- J:52 *Christina Morgado, Susana Barbosa, Maria Hortense Afonso, and Maria Lourdes Godinho* Relationship between otolith measurements and age of European hake (*Merluccius merluccius*)
Poster
- J:53 *Withdrawn*
- J:54 *Julio M. Portela, José M. Bellido, and José A. Cardoso* On a possible spawning area of Southern blue whiting (*Micromesistius australis*) to the west of the Falkland/Malvinas Islands
Poster
- J:55 *Iñaki Quincoces, Marina Santurtún, and Paulino Lucio* A new method for *Lophius* spp. gonad oocytes isolation for fecundity studies. Preliminary results on Black Anglerfish total fecundity
Poster
- J:56 *Réjane Streiff, S. Mira, M. Castro, and M.L. Cancela* Multiple paternity in the Norway lobster, *Nephrops norvegicus* L., detected by microsatellite markers
Poster
- J:57 *Withdrawn*
Poster
- J:58 *Filomena Vaz-Velho and Pedro Barros* Diurnal variation in the acoustic density (Sa) of horse mackerel off Angola in relation to circadian cycles
Poster
- J:59 *Karim Erzini, L. Bentes, P.G. Lino, J. Ribeiro, R. Coelho, P. Monteiro, C. Correia and J.M.S. Gonçalves* Trammel nets selectivity studies in the Algarve (southern Portugal): I. Catch composition and catch rates
Poster

THEME SESSION ON THE RESPONSE OF CEPHALOPOD POPULATIONS AND FISHERIES TO CHANGING ENVIRONMENT AND ECOSYSTEMS (K)

- K:01 *Alexander I. Arkhipkin, Alexander M. Sirota, Alexander V. Remeslo, Igor A. Polishchuk, and David A.J. Middleton* The influence of seasonal environmental changes on ontogenetic migrations of the squid *Loligo gahi* around the Falkland Islands
- K:02 *José M. Bellido, Graham J. Pierce, and Jianjun Wang* Development of a two-stage GAM model to study Scottish squid abundance in relation to environmental conditions
- K:03 *José M. Bellido, Graham J. Pierce, and Jianjun Wang* Environmental GIS modelling on the Scottish veined squid *Loligo forbesi*
Poster
- K:04 *A.B. Bendik* Abundance explosion of the Jumbo squid, *Dosidicus gigas*, on the high seas of the Peruvian region in relation to anomalous oceanographic patterns
- K:05 *Marco Biemann and Uwe Piatkowski* Amounts and composition of trace elements in the statoliths of loliginid squids and their relationships to environmental variables
Poster

- K:06 Poster *L. Challier, J. Royer, and J.P. Robin* Variability in age-at-recruitment and juvenile growth in English Channel *Sepia officinalis* described with statolith analysis
- K:07 *E.G. Dawe, E.G. Colbourne, D.D. Jones, D.A. Methven, and L.C. Hendrickson* Squids as potential indicator species of environmental or ecosystem change in the Northwest Atlantic Ocean
- K:08 Poster *V. Denis, J. Royer, P. Peries, J. Wang, G.J. Pierce, P. R. Boyle, M.R. Dunn, and J.P. Robin* French and UK bottom trawl fisheries in the English Channel: spatial and temporal patterns for fishing effort and cephalopod catch and integration of fleet components in the computation of squid and cuttlefish abundance indices
- K:09 *Rabea Diekmann and Uwe Piatkowski* Early life stages of cephalopods in the Sargasso Sea: Distribution and diversity relative to hydrographic conditions
- K:10 Poster *K. Erzini, J. Sendão and T.C. Borges* Trends and environmental variability in the catches and CPUE of the common octopus (*Octopus vulgaris*, Curier 1797) in the Algarve
- K:11 *S. Georgakarakos, J. Haralabous, D. Koutsoubas, C. Arvanitidis, and A. Kapantagakis* Modelling and forecasting *loliginid* and *ommastrephid* landings in Greek waters by applying time series analysis techniques and artificial neural networks
- K:12 *A.N. Golub* Oceanographic factors influencing squid larval distribution in the Southwest Atlantic
- K:13 Poster *Marko Herrmann, H. Gonschior, and U. Piatkowski* Hydrographic changes push European common squid *Alloteuthis subulata* into Kiel Bay, western Baltic Sea, its easternmost area of distribution
- K:14 *Simeon L. Hill and R.C. Wakeford* Environmental and behavioural influences on vessel efficiency in the Falkland Islands *Loligo gahi* fishery: implications for stock assessment
- K:15 Poster *V.V. Laptikhovsky, A.V. Remeslo, Ch.M. Nigmatullin, and I.A. Polishchuk* Recruitment strength forecast in the shortfin squid, *Illex argentinus* (*Cephalopoda: Ommastrephidae*) based on satellite SST data, and some consideration on the species' population structure
- K:16 *V.V. Laptikhovsky and A.V. Remeslo* The Falkland Current as a governor of biological patterns in the shortfin squid, *Illex argentinus* on the high seas (45–47° S)
- K:17 *Colm Lordan* The reproductive biology of *Illex coindetii* in Irish waters: With an examination of life-cycle in relation to oceanographic features
- K:18 *Paulino Lucio, Marina Santurtún, Iñaki Quincoces, and Iñaki Artetxe* Geographical distribution and fishing effort of the cephalopod catches by the Basque fleet in the Northeastern Atlantic waters during the period 1994–2000
- K:19 *Frank Melzner, J.W. Forsythe, P.G. Lee, C. Clemmesen, U. Piatkowski, and H. Rosenthal* Can RNA/DNA ratios predict recent growth in the European cuttlefish *Sepia officinalis* (*Mollusca: Cephalopoda*)?
- K:20 *David A.J. Middleton and Alexander I. Arkhipkin* Environmental effects on the distribution and migrations of the squid *Illex argentinus* (*Ommastrephidae*) in Falkland Islands waters

- K:21 *Ch. M. Nigmatullin and O.A. Shukhalter* The macro-ecosystem variations of helminth fauna in ommastrephid squid *Sthenoteuthis oualaniensis* from Indian Ocean and East Tropical Pacific
- K:22 *Ronald O'Dor* Counting cephalopods in the Census of Marine Life
- K:23 *Withdrawn*
- K:24 *G.J. Pierce and P.R. Boyle* Time-series models of interannual trends in abundance of squid (*Loligo forbesi*) in Scottish waters
- K:25 *Mario Rasero, E. Román, J.M. Portela, and J.A. Cardoso* A contribution to the knowledge of the cephalopod fauna of Svalbard Islands
- K:26 *Mario Rasero, J.M. Portela, and M. Alvarez-Pérez* First attempt to fit depletion models to cephalopod fishery data in Spanish waters
- K:27 *Mario Rasero, F. Sánchez, and M. Alvarez-Pérez* Geographical and bathymetric distribution of cephalopods in N-NW Spanish shelf and slope: results of the "Demersales 2000" cruise
- K:28 *M.J. Roberts* Chokka squid abundance maybe linked to changes in the agulhas bank ecosystem during spawning and the early life cycle
- K:29 *J. Royer, P. Peries, and J.P. Robin* Stock assessments of English Channel *Loliginid* squid: updated depletion methods and new analytical methods
- K:30 *Marina Santurtun, Paulino Lucio, Iñaki Quincoces, and Iñaki Artetxe* Cephalopod catches of the Basque fleet in the Northeastern Atlantic waters during the period 1994–2000
- K:31 *A.F. Zuur* Estimation of common trends in fisheries time series
- K:32 *David J. Agnew, S.L. Hill, and J.R. Beddington* Using predictions of recruitment strength to manage single-cohort stocks of an annual squid species: *Loligo gahi* in the Falkland Islands
- K:33 *A. Caverivière and H. Demarcq* Abundance indexes of *Octopus Vulgaris* and the coastal upwelling intensity in the south of Senegal
- K:34 *Patrizia Jereb, Daniela Massi, Giacomo Norrito, and Fabio Fiorentino* Preliminary observations of environmental effects on spatial distribution and abundance of *Eledone cirrhosa* and *Illex coindetii* in the Strait of Sicily (Central Mediterranean Sea)
- K:35 *Didier Jouffre, Alain Caverivière, Sophie Lanco-Bertrand, and Didier Gascuel* Virtual population analysis of the Senegalese *Octopus vulgaris* stock
- K:36 *Sónia Seixas and T. Pinheiro* Seasonal variations for the concentrations of trace elements in common octopus (*Octopus vulgaris*) at Portuguese waters
- K:37 *José C. Xavier, Paul G. Rodhouse, and John P. Croxall* New estimates of the *Martialia hyadesi* stock based on predator diet – implications for South Atlantic squid fisheries

THEME SESSION ON THE STOCK STRUCTURE OF ATLANTIC COD: STATE OF THE ART
(L)

- L:01 *Erik Berg, O.T. Albert, and J.E. Eliassen* Cod in fjords and coastal waters of North-Norway: Variation in length and maturity-at-age.
- L:02 *O.D.B. Jónsdóttir, A.K. Daniëlsdóttir, A.K. Imsland, V. Thorsteinsson, and G. Nævdal* Genetic differentiation among Atlantic cod in south and south-east Icelandic waters: synaptophysin (Syp I) and haemoglobin (HbI) variation
- L:03 *Einar Eg Nielsen, Michael Møller Hansen, Cathrin Smith, Dorte Meldrup, and Peter Grønkhjær* Genetic population structure of cod (*Gadus morhua*) in the Northeast Atlantic
- L:04 *Svein-Erik Fevolden and Tuula Sarvas* Distinct genetic divergence between cod (*Gadus morhua*) in fjords and cod in offshore waters in northern Norway
- L:05 *Björn Gunnarsson, Hedinn Valdimarsson, Gavin A. Begg, and Gudrun Marteinsdóttir* Spatial and temporal abundance, age and hatch-date distributions of Icelandic larval and pelagic juvenile cod in relation to currents observed with surface drifters
- L:06 *William F. Hutchinson, Gary R. Carvalho, and Stuart I. Rogers* Marked genetic structuring in localised spawning populations of cod (*Gadus morhua*) within the North Sea and adjoining waters, as revealed by microsatellites
- L:07 *Torild Johansen, Sven-Erik Fevolden, Gunnar Nyhammer, and Gunnar Nævdal* Evidence of genotype-dependent variation in growth of cod
- L:08 *O.D.B. Jónsdóttir, A.K. Daniëlsdóttir, and G. Nævdal* Genetic differentiation among Atlantic cod (*Gadus morhua* L.) in Icelandic waters: temporal stability
- L:09 *O.D.B. Jónsdóttir, O.Y. Atladóttir, A.K. Imsland, and A.K. Daniëlsdóttir* Population genetic structure of Atlantic cod (*Gadus morhua* L.) in the North Atlantic Ocean, using nuclear DNA RFLP analysis
- L:10 *O.D.B. Jónsdóttir, A.K. Imsland, A.K. Daniëlsdóttir, and G. Marteinsdóttir* Genetic heterogeneity and growth properties of different genotypes of Atlantic cod (*Gadus morhua* L.) at two spawning sites off south Iceland
- L:11 *Sten Karlsson and J. Mork* Evidence of natural selection at the *Synaptophysin locus* (SypI) in a natural population of cod (*Gadus morhua* L.)
- L:12 *Kjell Kr. Olsen, Svein-Erik Fevolden, and Jens-Eric Eliassen* When science outpaces a rusty management model
- L:13 *Ivar H. Pettersen* The population structure of cod (*Gadus morhua*) especially in the Lofoten -Vestfjord area
- L:14 *Daniel E. Ruzzante, Christopher T. Taggart, Roger W. Doyle and Doug Cook* Stability in the historical pattern of genetic structure of Newfoundland cod (*Gadus morhua*) despite the catastrophic decline in population size from 1964 to 1994

- L:15 *A.G.V. Salvanes and P.J.B. Hart* Is individual variation in competitive performance of juvenile cod related to haemoglobin genotype?
- L:16 *M. Stéfansson, J. Coughlan, Richard D. Fitzgerald, and T.F. Cross* Microsatellite DNA variation in reared strains of turbot (*Scophthalmus maximus*) and Atlantic halibut (*Hippoglossus hippoglossus*) compared with wild samples
- L:17 *Terry D. Beacham, John Bratney, Kristina M. Miller, Khai D. Le, Angel D. Schulze, and Ruth E. Withler* Stock structure of Atlantic cod (*Gadus morhua* L.) off Newfoundland and Labrador determined from genetic variation
- L:18 *Sigurd Heiberg Espeland, Jakob Gjørseter, and Nils Chr. Stenseth* Long term movement patterns of coastal cod (*Gadus morhua*)
- L:19 *Halvor Knutsen and Per Erik Jorde* Microsatellite DNA reveals fine-scaled population subdivision in Norwegian coastal cod (*Gadus morhua*)
- L:20 *Jens Loss Finstad and Jarle Tryti Nordeide* Sound production by coastal cod and North-East Arctic Cod
- L:21 *Tuula Sarvas and Svein-Erik Fevolden* Horizontal and vertical stratification of scnDNA allele frequencies of cod (*Gadus morhua*) in fjords in northern Norway
- L:22 *Espen Sjøreng and J.T. Nordeide* Fitness and viability of the egg and yolk sack larva of North-east Arctic cod, Norwegian coastal cod, and hybrids of the two groups

THEME SESSION ON DEVELOPING SALMON CONSERVATION LIMITS – RECENT PROGRESS AND REVIEWS (M)

- M:01 *Tapani Pakarinen, A. Romakkaniemi, S. Kuikka, L. Uusitalo, and E. Ikonen* Evaluation of the quality of biological reference points of Baltic salmon management
- M:02 *W.W. Crozier and G.J.A. Kennedy* Development of conservation limits for Atlantic salmon stocks in the NEAC area: Northern Ireland as a case study
- M:03 *Niall O'Maoiléidigh* Overview of the Report of the Working Group on North Atlantic Salmon
- M:04 *E.C.E. Potter and M. Nicholson* A simple model for estimating biological reference points from noisy stock-recruitment data
- M:05 *E.C.E. Potter and L.P. Hansen* Do farm escapees distort estimates of salmon pre-fishery abundance and national conservation limits?
- M:06 *E.C.E. Potter* Improving estimates of salmon pre-fishery abundance and national conservation limits in the NASCO-NEAC area
- M:07 *Jake Rice* Review of ICES framework for fisheries advice and salmon advice
- M:08 *K.F. Whelan, P. McGinnity; N. O' Maoiléidigh, and Ted Potter* Attainment of conservation limits in the Burrishoole River, Co. Mayo, Ireland since 1980 – implications for local management

- M:09 *Kim D. Hyatt* Ecosystem considerations for the development of biological reference points and future implementation of Fisheries and Oceans Canada's wild salmon policy
- M:10 *L. Blair Holtby* Referential systems as a guide to implementing reference points for Pacific salmon

THEME SESSION ON CASE STUDIES IN THE SYSTEMS ANALYSIS OF FISHERIES MANAGEMENT (N)

- N:01 *A.D. Rijnsdorp, G.J. Piet, and J.J. Poos* Effort allocation of the Dutch beam trawl fleet in response to a temporarily closed area in the North Sea
- N:02 *John H. Annala, Jonathan Peacey, Kevin Stokes, and Nici Gibbs* The use of adaptive management programmes in the management of New Zealand's fisheries
- N:03 *Mette Bertelsen and Hans Lassen* Sustainable exploitation of a coastal resource – the blue mussel fishery in Limfjorden, Denmark
- N:04 *Wendell S. Brown, Frank L. Bub, Brian Rothschild, Miles Sundermeyer, Avijit Gangopadhyay, Robert Lane, Allan R. Robinson, and Patrick Haley* Assimilating near-real-time fisheries and environment data into an advanced fisheries management information system
- N:05 *Withdrawn*
- N:06 *A. Fernandez, C. Rodriguez-Cabello, I. Olaso, and F. Sánchez* Survival of lesser spotted dogfish (*Scyliorhinus canicula*, L.) discarded by trawlers
- N:07 *Daniel S. Holland* Integrating spatial controls into fishery management systems: The case of the Georges Bank multispecies groundfish fishery
- N:08 *Sakari Kuikka, Geoff Tuck, Tony Smith, and Xi He* Using simulation results and Bayesian belief network to assist fisheries planning: a case study of Patagonian toothfish fishery at Macquarie Island
- N:09 *Daniel E. Lane* Fisheries systems models for evaluating alternative management strategies: six OECD case studies
- N:10 *L.R. Little, S. Kuikka, A. Punt, F. Pantus, A. Smith, A.D. McDonald; C. Davies, and B. Mapstone* A fleet dynamics model with information sharing among vessels modelled using a Bayesian network
- N:11 *Withdrawn*
- N:12 *Valeri Makhotin and Per Solemdal* Lethal egg malformations in Arcto-Norwegian cod: a comparative study between different areas and between the years 2000 and 2001
- N:13 *Dominique Pelletier and Stéphanie Mahevas* Comparing the impact of Total Allowable Catches and Marine Protected Areas upon the dynamics of a mixed fishery
- N:14 *J.J. Poos, M.A. Pastoors, and A.D. Rijnsdorp* Quota regulation and efficiency in the Dutch beam trawl fleet
- N:15 *B.J. Rothschild, L.W.J. Lanerolle, and P.K. Yeung* Modulation of ocean productivity of small-scale turbulent flow

- N:16 *Hein Rune Skjoldal* Recruitment and stability of fish populations: the recruitment-stock paradox – yet again!
- N:17 *Kevin D.E. Stokesbury, Tu Truong, Farhad Azadivar, and Brian J. Rothschild* A management system for the Atlantic Sea scallop using video surveys, simulation modeling and optimization
- N:18 *M.A. Sundermeyer, B.J. Rothschild, and A.R. Robinson* A study of environmental indicators and the predictability of commercial fish stocks
- N:19 *M.E. Cagigas, G. Blanco, E. Vázquez, and J.A. Sánchez* Genetic characterization of stock structure of two species of anglerfish (*Lophius piscatorius* L., and *L. budegassa*) based on microsatellite markers: preliminary results
- N:20 *Withdrawn*

THEME SESSION ON APPLICATION OF MARK-RECAPTURE EXPERIMENTS TO STOCK ASSESSMENT (O)

- O:01 *Withdrawn*
- O:02 *L.J. Bolle, E. Hunter, A.D. Rijnsdorp, M.A. Pastoors, J.D. Metcalfe, and J.D. Reynolds* Do tagging experiments tell the truth? Using electronic tags to evaluate conventional tagging
- O:03 *John Bratley and Noel Cadigan* Estimation of short-term tagging mortality of adult Atlantic cod (*Gadus morhua*)
- O:04 *Noel G. Cadigan and John Bratley* Estimation of the exploitation rates and migration rates for cod (*Gadus morhua*) in NAFO Divisions 3KL and Subdivision 3Ps during 1997–2000 from tagging experiments
- O:05 *Paul Connolly and Rick Officer* The use of tagging data in the formulation of the Irish Sea Cod Recovery Plan
- O:06 *A. Fernández, C. Rodriguez-Cabello, I. Olaso, F. Sánchez, and A. Serrano* Is the lesser spotted dogfish (*Scyliorhinus canicula*) from the Cantabrian Sea a unique stock?
- O:07 *Stewart Frusher and John Hoenig* Estimating fishing and natural mortality and tag reporting rate using multi-year tagging models
- O:08 *E. Hunter, J.D. Metcalfe, J.D. Reynolds, and G.P. Arnold* Subdivision of the North Sea plaice population: evidence from electronic tags
- O:09 *Sigurdur Tor Jonsson* The importance of tagging in earnest: Review of saithe tagging experiments in the NE-Atlantic and introducing an ongoing Icelandic saithe tagging study
- O:10 *T. Pedersen and J. Pope* Tagging-based estimates of growth rates and mortality rates of wild and hatchery reared cod in a north Norwegian fjord
- O:11 *John Pope and John Bratley* A simple matrix based analysis of multiple area tagging data applied to the northern cod stock of Newfoundland
- O:12 *Jake Schweigert, Linnea Flostrand, Aril Slotte, and Doug Tallman* Application of coded wire tagging technology in Pacific herring to investigate stock structure and migration

- O:13 *Aril Slotte, Jake Schweigert, Linnea Flostrand, and Jan Erik Fosseidengen* Experiments on tagging mortality and shedding in captive Norwegian spring-spawning herring: effects of tagging season and tag type
- O:14 *Aril Slotte, Jake Schweigert, Linnea Flostrand, and Jostein Røttingen* Factors influencing tag-recovery rates in the Norwegian spring-spawning herring tagging scheme
- O:15 *Aril Slotte and Are Dommasnes* The correlation between tag-recovery data and VPA-data in Norwegian spring-spawning herring
- O:16 *Aril Slotte* Use of tag-recovery data to determine migration routes of Norwegian spring-spawning herring
- O:17 *A. Uriarte, P. Alvarez, S. Iversen, J. Molloy, B. Villamor, M.M.Martíns, and S. Myklevoll* Spatial pattern of migration and recruitment of North East Atlantic mackerel
- O:18 *Noel G. Cadigan and John Bratney* A nonparametric Von Bertalanffy model for estimating growth curves of Atlantic cod
- Poster
O:19 *Noel G. Cadigan and John Bratney* Semi-parametric estimation of tag loss and reporting rates using exact time-at-liberty data from tagging studies
- O:20 *Alain Caverivière, F. Domain, M. Fall, and D. Jouffre* Tagging *Octopus vulgaris* in Senegalese waters
- Poster
O:21 *Jorge Landa, R. Duarte, C. Fariña, I. Bruno, and J. Castro* Mark-recapture studies of black anglerfish (*Lophius budegassa*) in the North eastern Atlantic: preliminary results
- O:22 *Jorge Landa, I. Bruno, C. Fariña, and A. Autón* Movement rates and validation trials of growth of white anglerfish (*Lophius piscatorius*) in the North eastern Atlantic based on mark-recapture experiments
- Poster
O:23 *S. Prusov, F.G. Whoriskey, and S.J. Crabbe* Mark-recapture estimate of the stock abundance of the Atlantic salmon done during catch-and-release fishing on the Ponoï River, Kola peninsula, Russia

THEME SESSION ON QUALITY AND PRECISION OF BASIC DATA UNDERLYING FISH STOCK ASSESSMENT AND IMPLICATIONS FOR FISHERIES MANAGEMENT ADVICE (P)

- P:01 *Sondre Aanes and Michael Pennington* Assessing the precision of the estimated age distribution of the commercial catch of Northeast Arctic cod
- P:02 *Paul Connolly, V. Trujillo, G. Pestana, J. G. Pereira, S. Flatman, P. Moguedet, A. Newton, and L. Motos* Key issues concerning basic fisheries data for western EU waters
- P:03 *A. Eltink* Improvements in the quality of the basic horse mackerel age data during the last 20 years
- P:04 *R.E. Grift, M.A. Pastoors, and A.D. Rijnsdorp* Trends in reproductive parameters of North Sea plaice and cod: implications for stock assessment and management advice

- P:05 *David Hirst, Ingunn Frida Tvette, and Geir Storvik* Estimating catch-at-age from market sampling data using a Bayesian hierarchical model
- P:06 *Vidar Hjellvik, Olav Rune Godø, and Dag Tjøstheim* The measurement error of marine survey catches: the bottom trawl case
- P:07 *Soenke Jansen, Christopher Zimmermann, and Cornelius Hammer* Six years of German participation in the North Sea Acoustic Survey for Herring: Results and reflections on survey design
- P:08 *E. Jardim, V. Trujillo, and Paz Sampedro* Uncertainties in sampling procedures and age composition for Hake and Sardine in Atlantic Iberian waters
- P:09 *M.E. Lonergan, D.L. Borchers, S.N. Wood, and A. Pout.* Using Generalised Additive Models to reduce uncertainty in biomass estimates for stock assessment
- P:10 *J.C. Mahé* Estimation of abundance indices-at-age in research surveys – A comparison of sampling strategies
- P:11 *D.L. Maxwell, B.D. Rackham, S. Warnes, M. Armstrong, A.N. Newton, and R. Officer* A study of market sampling data, precision of age compositions and the effect of mis-ageing: Irish Sea (VIIa) cod
- Poster
- P:12 *H. Mosegaard and S.A. Reeves* Revision of Baltic cod age determination based on otolith accretion characteristics and weight distributions
- P:13 *C.M. O'Brien, C.D. Darby, D.L. Maxwell, B.D. Rackham, H. Degel, S. Flatman, M.A. Pastoors, E.J. Simmonds, and M. Vinther* The precision of international market sampling for North Sea plaice (*Pleuronectes platessa* L.) and its influence on stock assessment
- P:14 *C.M. O'Brien, C.D. Darby, B.D. Rackham, D.L. Maxwell, H. Degel, S. Flatman, M. Mathewson, M.A. Pastoors, E.J. Simmonds, and M. Vinther* The precision of international market sampling for North Sea cod (*Gadus morhua* L.) and its influence on stock assessment
- P:15 *Withdrawn*
- P:16 *Michael Pennington* An evaluation of the IMR Summer Bottom Trawl Survey in the Barents Sea
- P:17 *P. Petitgas* Allocation of survey effort between small scale and large scale for improving the precision of fisheries survey-based abundance estimates
- P:18 *Stuart A. Reeves* The implications of age-reading errors for stock assessment and management advice: a case-study based on Eastern Baltic Cod
- P:19 *P. Reglero, M. Eero, and H. Mosegaard* Some considerations in the use of early life history stages of Baltic sprat (*Sprattus sprattus*) in recruitment prediction
- P:20 *Marie-Joëlle Rochet* Decorrelating the estimation of indicators and their reference points: the use of survey data

- P:21 *E.J. Simmonds, C.L. Needle, H. Degel, S. Flatman, C.M. O'Brien, M.A. Pastoors, A.P. Robb, and M. Vinther* The precision of international market sampling for North Sea herring and its influence on assessment
- P:22 *John Simmonds* A method for calculation of optimum mean weights-at-age for use in the assessments and predictions; an example using North Sea herring data
- P:23 *Per Sparre, Ole Folmer, and Clara Ulrich* A VPABASE: Prototype of database for storage and processing of VPA-input data
- P:24 *Gudrun Thorarinsdóttir and Stefan A. Ragnarson* Stock assessment of *Arctica islandica* and management advice
- P:25 *Withdrawn*
- P:26 *Withdrawn*
- P:27 *E. Jardim, I. Artetxe, and O. Gaudou* International Sampling Level DataBase (ISLDB) – A tool for sampling analysis
- Poster P:28 *E.J. Simmonds, V Svendsen, E. Torstensen; PG Fernandes, D G Reid; A.S. Couperus, K J Staehr, C Zimmermann, and E. Götze* The 2000 ICES Coordinated Acoustic Survey of ICES Divisions IIIa, IVa, IVb, and VIa(north)
- P:29 *N. Bez and C. Hammer* Mackerel and horse mackerel egg surveys: Estimation of sampling accuracy in regular-systematic plankton surveys

THEME SESSION ON CATCHABILITY AND ABUNDANCE INDICATORS – THE INFLUENCE OF ENVIRONMENT AND FISH BEHAVIOUR (Q)

- Q:01 *Julian Addison, Andy Lawler, and Mike Nicholson* Catchability of brown shrimps (*Crangon crangon*) in relation to environmental variables: experimental and modelling approaches
- Q:02 *Sara Adlerstein and Siegfried Ehrlich* Variability of hydrographic conditions on cod catches in North Sea bottom trawl surveys
- Q:03 *Arnaud Bertrand, Erwan Josse, Pascal Bach, and François Gerlotto* Tuna catchability with a longline related to trophic and tuna habitat characteristics
- Q:04 *P. Brehmer and F. Gerlotto* Comparative analysis of swimming behaviour in different populations of *Sardinella aurita*: influence of environment and exploitation, effect on catchability
- Q:05 *N. Cadic, P. Irz, C. Argillier, O. Schlumberger, M. Sagliocco, and J.P. Proteau* Fish census during reservoir draining to assess the biases in gillnetting or echocounting fish population estimates
- Q:06 *Gersom Costas and Antonio Punzón* Standardising of Spanish trawl CPUE for northern hake using Generalized Linear Modelling
- Q:07 *Arill Engaas, Egil Ona, and Kjell Ramberg* *In situ* determination of bottom trawl ground gear contact

- Q:08 *Paul Fernandes, Lorna Macdonald, R. Aukland, D. Reid, E.J. Simmonds, and A. Shanks* Changes in the availability of herring to the North Sea acoustic survey; the impact of diurnal migration
- Q:09 *Natalia Gorska and Egil Ona* Modelling herring target strength pressure dependence in the frequency domain
- Q:10 *Nils Olav Handegard and Egil Ona* Modelling fish reaction to vessel noise, the significance of the reaction thresholds
- Q:11 *Vidar Hjellvik, Olav Rune Godø, and Dag Tjøstheim* Diurnal bias and uncertainty in bottom trawl survey catches: does it pay to adjust?
- Q:12 *Tamara Janoscik, N.P. Lester, and N.C. Collins* Developing a lake-specific catchability coefficient for lake trout (*Salvelinus namaycush*) index netting
- Q:13 *Sigurður Tor Jonsson and Hoskuldur Björnsson* Tuning of saithe VPA with survey indices: can noisy indices from a bottom trawl survey be of use in the assessment of a semi-pelagic species?
- Q:14 *Withdrawn*
- Q:15 *Odd Nakken and Michael Pennington* On the relation between 'true' numbers of Northeast Arctic cod and VPA- or survey-based abundance estimates
- Q:16 *Withdrawn*
- Q:17 *J.B. Pérodou and A. Souplet* Causes of variations of two temporal series of hake's abundance indicators in the Golfe du Lion (Mediterranean Sea) obtained independently by commercial fishing data and by experimental survey data
- Q:18 *Antonio Punzón and Begoña Villamor* Analysis of the Northeast Atlantic mackerel (*Scomber scombrus* L.) population exploited by the handline fishery in the North of Spain (ICES Divisions VIIIb,c)
- Q:19 *Antonio Punzón, Gersom Costas, Rosa Gancedo, and Roberto Morlan* Segmentation of the mixed trawl fishery that exploits demersal resources in the Cantabrico (ICES Division VIIIc)
- Q:20 *D. Righton, J.D. Metcalfe, and G.P. Arnold* Vertical reality: utilising knowledge of cod behaviour to interpret survey results
- Q:21 *Yvan Simard, Hugo Bourdages, and Louise Savard* A geostatistical application for correcting the effect of day/night catchability variations in northern shrimp (*Pandalus borealis*) bottom trawl surveys
- Q:22 *George Skaret, Leif Nøttestad, Anders Fernø, Arne Johannessen, and Bjørn-Erik Axelsen* Impact of herring spawning behaviour on acoustic estimates
- Q:23 *Aril Slotte* The influence of fish behaviour on acoustic abundance estimates during the spawning season in Norwegian spring spawning herring
- Q:24 *Boonchai Stensholt, Asgeir Aglen, Sigbjørn Mehl, Kjell Harald Nedreaas, and Eivind Stensholt* Spatial density distributions of fish, a balance between environmental and physiological limitation
- Q:25 *Gersom Costas* Application of robust statistic methods to commercial CPUE data
Poster

- Q:26 *Oleg M. Lapshin and Y.V. Gerasimov* Determination of the variability of selectivity and intensity of fishing by set nets on nearshore fishing grounds using the influence of fish behaviour and environmental patterns
- Q:27 *Oleg M. Lapshin, A.A. Gratchef, and Y.V. Gerasimov* The selectivity and catchability of gill nets in herring fishing in the northern part of the Caspian Sea

THEME SESSION ON WHAT INFORMATION DOES ECOSYSTEM MANAGEMENT NEED FROM ECOLOGISTS AND GEAR TECHNOLOGISTS TO ASSESS ECOSYSTEM EFFECTS OF FISHING AND IMPLEMENT POLICIES? (R)

- R:01 *F. Gerlotto, P. Brehmer, D. Buestel, and F. Sanguinède* A method for acoustic monitoring of a mussel longline ground using vertical echosounder and multibeam sonar
- R:02 *D.W. Kulka* Quantifying trawling intensity in Canadian waters
- R:03 *Withdrawn*
- R:04 *Esteban Puente, L. Arregi, E. Gomez, and G. Sancho* An experimental approach to study the effects of lost of static fishing gear on the Bay of Biscay benthic communities: FANTARED-2
- R:05 *Kenneth Sherman* Application of medium-term strategies for ecosystem-based management
- R:06 *David A. Somerton* Environmental effects of bottom trawling: a benthic overfishing model
- R:07 *Einar Svendsen, Jens Gl. Balchen, Jo Arve Alfredsen; and Bjarte Bogstad* AMOEBE: A Model-based and data-driven Operational Ecological Biomass Estimator
- R:08 *Verena M. Trenkel and Michael Klages* Underwater video for observing the ecosystem and *in situ* experiments
- R:09 *B. van Marlen, M.J.N. Bergman, S. Groenewold, and M. Fonds* Research on diminishing impact in demersal trawling – The experiments in the Netherlands
- R:10 *B. van Marlen, D. de Haan, A.S. Revill, K.E. Dahm, H. Wienbeck, M. Purps, J. Coenjaerts, and H. Polet* By-catch reduction devices in the European Crangon fisheries
- R:11 *Andy J. Wheeler, Dave S.M. Billett, Doug G. Masson, and A. Grehan* The impact of demersal trawling on NE Atlantic coral ecosystems with particular reference to the northern Rockall Trough

THEME SESSION ON EUTROPHICATION, FOR BETTER OR FOR WORSE: CAN IT BE CONTROLLED? (S)

- S:01 *T.L. Bokn* Fucooid distributions, abundances and changes in the inner Oslofjord, Norway during 1970–2000

S:02	<i>Edward J. Chesney and Donald M. Baltz</i>	Patterns in the expression of nutrient enrichment: Perspectives on fisheries and fisheries habitat in eutrophic ecosystems
S:03	<i>Johan Craeymeersch, Marnix van Stralen, and Tammo Bult</i>	Meat content of cultured mussels (<i>Mytilus edulis</i>) in relation to food supply, eutrophication, and suspended matter concentration in the Dutch Wadden Sea
S:04	<i>Jens Dahlmann and Bernd Luckas</i>	An LC/MS-based multitoxin method for brackish waters and lakes coupled with structure elucidation of microcystins
S:05	<i>Karel Essink</i>	Response of an estuarine ecosystem to reduced organic waste discharge
S:06	<i>Lars Føyen and Magnar Hagebø</i>	Nutrients in the inner Oslofjord. Development over time
S:07	<i>Jan Magnusson and Birger Bjerkeng</i>	The eutrophication of the inner Oslofjord – observed changes in water masses after purification actions
S:08	<i>F. Olsgard</i>	Sediment-dwelling fauna in the eutrophicated and polluted Oslofjord
S:09	<i>Alexander Rühl, Christian Hummert, Katrin Reinhardt, Gunnar Gerdts, and Bernd Luckas</i>	Determination of new algal neurotoxins (spirolides) near the Scottish east coast
S:10	<i>Withdrawn</i>	
S:11	<i>O.V. Titov</i>	Is the natural eutrophication of the Barents Sea possible?
S:12	<i>Victor N. de Jonge</i>	Present state, effects, and challenges for remediation measures of eutrophication in coastal waters

THEME SESSION ON USE AND INFORMATION CONTENT OF ECOSYSTEM METRICS AND REFERENCE POINTS (T)

T:01	<i>Jeremy Collie, Henrik Gislason, and Morten Vinther</i>	Using AMOEBAs to integrate multispecies, multifleet fisheries advice
T:02	<i>Philippe Cury and Villy Christensen</i>	SCOR/IOC Working Group 119: 'Quantitative Ecosystem Indicators for Fisheries Management'
T:03	<i>Niels Daan</i>	The IBTS database: a plea for quality control
T:04	<i>Niels Daan</i>	A spatial and temporal diversity index taking into account species rarity, with an application to the North Sea fish community
T:05	<i>Niels Daan, John Pope, Henrik Gislason, and Jake Rice</i>	Report of a Private Working Group
T:06	<i>Chris Frid and Steve Hall</i>	Ecological Quality Objectives for benthic communities: If we protect the habitat do we need to do more?
T:07	<i>Rainer Froese, Uwe Piatkowski, Stefan Garthe, and Daniel Pauly</i>	A preliminary comparison of the trophic structure of some large marine ecosystems
T:08	<i>Louize Hill, Bob Mohn, Jeremy Collie, and Maria de Fatima Borges</i>	Life history characteristics as tools to evaluate changes in exploited fish communities

- T:09 *Ronald LanTERS and Tanja Verbeeten* Application of ecosystem metrics in regulating fisheries in the Dutch Wadden Sea
- T:10 *Jason S. Link, Jon K.T. Brodziak, William J. Overholtz, Wendy L. Gabriel, Steve F. Edwards, Tim D. Smith, and Michael J. Fogarty* Ecosystem: Integration, synthesis, trends and meaning of ecosystem metrics. Or getting to the brass tacks of ecosystem based fishery management
- T:11 *G.J. Piet* Ecological Quality metrics and reference points of the North Sea fish community
- T:12 *Jake Rice* From Science to Advice: How to Find Ecosystem Metrics to Support Management
- T:13 *Leonie Robinson and Chris Frid* Dynamic ecosystem models and the evaluation of ecosystem effects of fishing: can we make meaningful predictions?
- T:14 *Robert O'Boyle, R. G. Jamieson, J. Arbour, D. Cobb, S. Courtenay, R. Gregory, C. Levings, J. Munro, I. Perry, and H. Vandermeule* 2001. Objectives, Indicators and Reference Points for Ecosystem-Based Management in Canada: Report on Progress to Date

THEME SESSION ON ECOSYSTEM CHANGE IN THE BALTIC (U)

- U:00 *Brian MacKenzie* CORE/STORE Project: A case study with cooperation between countries inside and outside the EU
- U:01 *M.C. Bleil and R. Oeberst* Fecundity of Baltic cod - differences between ICES Subdivisions and variation from 1993 to 1999
- U:02 *V.N. Feldman, F.A. Patokina, and N.A. Kalinina* Recent changes in diet composition and daily food intake of the Baltic herring in the Gdansk Basin of the Baltic Sea
- U:03 *V.N. Feldman and T.G. Vasilieva* Changes in distribution, abundance and population structure of Baltic sprat in 1992-2000
- U:04 *C.C.E. Hopkins, J. Thulin, and E. Hoell* A paradigm involving transformation of the Baltic Sea ecosystem and fisheries regimes related to eutrophication, and options for mitigation to redress the root causes
- U:05 *E.M. Karasiova and A.S. Zezera* Interannual variability trends of sprat egg distribution and environmental conditions influencing egg development in the Gdansk Deep of the Baltic Sea in 1992-2000
- U:06 *Friedrich W. Köster, Christian Möllmann, Stefan Neuenfeldt, Morten Vinther, Gerd Krauss and Rüdiger Voss* Fish stock development and environmental variability in the Central Baltic Sea
- U:07 *Andrei Makarchouk* Modelling the vertical distribution of sprat eggs in the changing conditions of the Eastern Baltic
- U:08 *Christian Möllmann, Georgs Kornilovs, Ludvigs Sidrevics, and Friedrich W. Köster* Variability in population biology of calanoid copepods in the Central Baltic Sea

- U:09 *Kai Myrberg, Oleg Andrejev, Eero Aro, Juha Flinkman, and Harri Kuosa* Main upwelling regions in the Baltic Sea
- U:10 *A.N. Pantiulin and V.S. Arkhipkin* Four inland brackish seas: comparative analysis of hydrology and ecology
- U:11 *M. Plikshs, E. Jula, M. Fetter, D. Uzars, G. Kornilovs, F. Schvetsov, and A. Makarchouk* Long-term changes of oceanographic regime in the Gotland basin of the Baltic Sea: influence on fish species composition and fishery
- U:12 *M. Podolska and J. Horbowy* The analysis of infection of Baltic herring (*Clupea harengus membras*) with *Anisakis simplex* larvae using generalized linear models
- U:13 *T. Saat, R. Eschbaum, and M. Vetemaa* Recent changes in fish assemblages along the Estonian coast
- U:14 *M. Schaber, C. Möllmann, and F.W. Köster* Spatial and temporal variability in the stomach content of herring and sprat in the Bornholm Basin
- U:15 *Dietrich Schnack and Friedrich W. Köster* Environmental and fisheries influences on fish stock recruitment in the Baltic Sea (STORE). Summary of results 1999–2000
- U:16 *Lauri Urho, Jakob Kjellman, and Tea Pelkonen* Eutrophication and littoral age-0 fish abundance in the Gulf of Finland, northern Baltic Sea

THEME SESSION ON GROWTH AND CONDITION IN GADOID STOCKS AND IMPLICATIONS FOR SUSTAINABLE MANAGEMENT (V)

- V:01 *Niels G. Andersen* Use of bioenergetics modelling to predict variations in somatic growth and gonadal output
- V:02 *Vladimir M. Borisov, M.V. Bondarenko, and A.S. Krovnin* To the problem of the stock management of north-east Atlantic cod (*Gadus morhua*)
- V:03 *Keith Brander* Explaining and predicting variability in growth rates of cod
- V:04 *V. Buehler* Mechanisms that regulate selective mortality on larval and juvenile cod: fine tuning between growth and survival
- V:05 *Denis Chabot, Jean-Denis Dutil, and Christine Couturier* Impact of chronic hypoxia on food ingestion, growth, and condition of Atlantic cod, *Gadus morhua*
- V:06 *G.A. Chouinard and D.P. Swain* Bathymetric variation in condition and length-at-age of southern Gulf of St. Lawrence cod in September
- V:07 *Lorenzo Ciannelli, A.J. Paul, and R.D. Brodeur* Regional, interannual, and size-related variation in age-0 walleye pollock (*Theragra chalcogramma*) whole body energy content around the Pribilof Islands, Bering Sea

- V:08 *Catriona Clemmesen, V. Bühler, G. Carvalho, G. Evans, L. Hauser; W. Hutchinson, H. Mempel, E. Moksness, H. Otteraa, and T. Svaasand* Measurements of condition and growth of cod larvae reared in mesocosms: individual variability as a function of environmental condition or genetic inheritance
- V:09 *Rabea Diekmann and Uwe Waller* Experiments on metabolism and growth of juvenile cod (*Gadus morhua*) under simulation of natural oxygen fluctuations in the shallow waters of Kiel Bay
- V:10 *K.F. Drinkwater and K.T. Frank* Temperature and density-dependent effects on the growth of haddock (*Melanogrammus aeglefinus*) on the Scotian Shelf
- V:11 *Jean-Denis Dutil* The effect of energetic condition on growth in cod (*Gadus morhua*)
- V:12 *Øyvind Fiksen and Brian R. MacKenzie* How optimal state-dependent allocation to growth or reproduction may affect the total egg production in fish stocks
- V:13 *Arild Folkvord, E. Otterlei, and Ø. Fiksen* Laboratory and field estimates of larval growth of cod: how do they compare?
- V:14 *Kristin Helle* Do two-year-old Arcto-Norwegian cod remain in the area where they settled?
- V:15 *George Lilly* Changes in size-at-age and condition of cod (*Gadus morhua*) off Labrador and eastern Newfoundland during 1978–2000
- V:16 *Withdrawn*
- V:17 *C. Tara Marshall, Nathalia A. Yaragina, and Anders Thorsen* Evaluating the effectiveness of biological reference points in conserving reproductive potential
- V:18 *Gudrun Marteinsdóttir and Gavin A. Begg* The influence of spawner age, size, and condition on fundamental variables affecting reproductive potential
- V:19 *C.L. Needle, M.R. Heath, C.M. O'Brien, and C.D. Darby* Ogive characterisation in medium-term stock projections
- V:20 *L.R. O'Brien, P. Rago, P. Berrien, and G. Lough* Incorporating early-life history parameters in the estimation of the stock-recruit relationship of Georges Bank Atlantic cod (*Gadus morhua*): Is SSB the only crystal ball in the fish market?
- V:21 *Geir Ottersen, Kristin Helle, and Bjarte Bogstad* Current patterns during pelagic stages determine interannual variability in length-at-age of juvenile Arcto-Norwegian cod
- V:22 *Helge Paulsen* Feeding and condition of juvenile cod (*Gadus morhua*). Combining experimental and field data
- V:23 *Withdrawn*
- V:24 *Marie-Joëlle Rochet* The relationship between growth and age-at-maturity in North sea cod
- V:25 *A.G.V. Salvanes* Effect of experience on feeding behaviour: Captive-bred cod adapt more slowly to prey encountered in a novel manner than do wild cod
- V:26 *Alan F. Sinclair, Douglas P. Swain, and J. Mark Hanson* Disentangling effects of size-selective mortality, density, and temperature in length-at-age of Atlantic cod (*Gadus morhua*) in the southern Gulf of St. Lawrence

- V:27 *M.A. St John* Biomarkers: Reducing the effects of immigration in process studies examining larval and juvenile fish growth and condition
- V:28 *T. Svaasand, A.M. Ajiad, V. Buehler, G.R. Carvalho, C. Clemmesen, G. Dahle, L. Hauser, W.F. Hutchinson, T. Jakobsen, O.S Kjesbu, E. Moksness, H. Otteraa, H. Paulsen, D. Schnack, P. Solemdal, and A. Thorsen* Demonstration of maternal effects of Atlantic cod: Combining the use of unique mesocosm and novel molecular techniques – Results from the first-year experiment
- V:29 *D. Uzars, T. Baranova, and E. Yula* Interannual variation in gonadal maturation of cod in the Gotland Basin of the Baltic Sea: influence of environment and fish condition
- V:30 *Uwe Waller and Thorolf Boettger* The response of young cod (*Gadus morhua*) to environmental gradients
- V:31 *N.A. Yaragina and C.T. Marshall* Interannual variation in the liver condition index of cod as an indicator of temperature and feeding conditions in the Barents Sea
- V:32 *A.A. Filin* Simulation of cod growth based on the food supply and water temperature data
Poster

THEME SESSION ON TRANSPORT PROCESSES IN THE NORTH ATLANTIC (W)

- W:01 *G. Allain, P. Petitgas, P. Lazure, and P. Grellier* The transport of anchovy larvae and juveniles across the Bay of Biscay studied using otoliths increments and a 3D-hydrodynamic model
- W:02 *Paula Alvarez, Julie Fives, Lorenzo Motos, and Adolfo Uriarte* Onshelf transport of hake, *Merluccius merluccius*, eggs and larvae in the NE Atlantic
- W:03 *Lars Asplin, Randi Ingvaldsen, Harald Loeng, and Roald Saetre* Transport routes in the western Barents Sea
- W:04 *Ann Bucklin, R. Sean Hill, Olafur S. Astthorsson, Astthor Gislason, and Peter H. Wiebe* Transport of planktonic copepods between Atlantic and Arctic waters near Iceland: rapid assays of genetic diversity and structure for the copepod *Calanus finmarchicus*
- W:05 *Hjálmar Hátun and B. Hansen* On the correlation between ADCP and CTD data in the Faroe Current
- W:06 *R.M. Hendry* Interannual variability in warm water inflows to the Labrador Sea
- W:07 *Randi Ingvaldsen, Harald Loeng, and Svein Østerhus* Large outflows from the Barents Sea
- W:08 *Svend Aage Malmberg, John Mortensen, and Steingrimur Jonsson* Oceanic fluxes in Icelandic waters
- W:09 *Thomas Mørk Madsen and Detlef Quadfasel* Dense outflow from Storfjorden during 1997

W:10	<i>Kjell Arild Orvik and Peter P. Niller</i>	Circulation of Atlantic water in the northern North Atlantic and Nordic Seas
W:11	<i>A.N. Pantiulin</i>	The White Sea: problems of water exchange, water structure formation, and ecology
W:12	<i>Jan Piechura, T. Petelski, S. Wozniak, and R. Osinski</i>	Heat and salt fluxes in the West Spitsbergen Current in summer time
W:13	<i>John Read and Ken Medler</i>	New advice on Speed Sensor Calibration from tow-tank tests of Aanderaa RCM8 Instruments
W:14	<i>T. Rossby, A. Bower, P. Richardson, M. Prater, and H. Zhang</i>	The role of the mid-Atlantic ridge in constraining the mean circulation and eddy kinetic energy field on the 27.5 sigma-t surface in the northern North Atlantic
W:15	<i>Bert Rudels, E. Peter Jones, Ursula Schauer, and Patrick Eriksson</i>	Two sources for the lower halocline in the Arctic Ocean
W:16	<i>Roald Sætre and Harald Loeng</i>	B. Helland-Hansen and F. Nansen's investigations in the Norwegian and Barents Seas 100 years ago – are their results still valid?
W:17	<i>Ricardo F. Sánchez, and Paulo Relvas</i>	Volume transports in the upper layer west of Cape São Vicente, SW Portugal
W:18	<i>Svein Sundby</i>	On the mechanisms behind salinity anomaly signals of the northern North Atlantic
W:19	<i>Vigdis Tverberg, V. Pavlov, E. Hansen, and J. O'Dwyer</i>	Decadal trends in exchange of heat, salt, and deep water between the Arctic Ocean and the Nordic Seas
W:20	<i>A. Uriarte, Y. Sagarminaga, C. Scalabrin, V. Valencia, P. Cermeño, E. de Miguel, J.A. Gomez Sanchez, and M. Jimenez</i>	Ecology of anchovy juveniles in the Bay of Biscay 4 months after peak spawning: Do they form part of the plankton?
W:21	<i>A.S. Zezera</i>	Main features of the South-Eastern Baltic Sea hydrological regime in 2000 and the latest retrospectives
W:22	<i>Paulo Relvas and E.D. Barton</i>	Upper ocean circulation in the Cape São Vicente (Iberian Peninsula) region: the coastal counter current
W:23 Poster	<i>Edward J. Chesney, Kenneth L. Riley, and Terrence R. Tiersch</i>	Defining the role of gamete quality in the production of viable fish larvae: Results with red snapper (<i>Lutjanidae</i>)
W:24 Poster	<i>Ute Ernst and C. Boening</i>	Response of the subpolar North Atlantic circulation to local changes in the Nordic Sea overflows
W:25 Poster	<i>Sylvi Vefsnmo and Thomas McClimans</i>	Simple algorithms for coastal water pileup with downwelling winds
W:26 Poster	<i>Sylvi Vefsnmo and Thomas McClimans</i>	Monitoring the Atlantic inflow toward the Arctic

THEME SESSION ON SUSTAINABLE DEVELOPMENT AND CONSERVATION OF NATURAL RESOURCES OF THE COASTAL ZONE (Y)

- | | | |
|----------------|--|--|
| Y:01 | <i>Hans Ackefors and
Christer Olburs</i> | Management of fish resources in two different city archipelagos |
| Y:02 | <i>Trine Bekkby, Lars
Erikstad, and Vegar
Bakkestuen</i> | A landscape ecological approach to marine coastal zone applications |
| Y:03
Poster | <i>E. Cagigas, G. Blanco, E.
Vázquez, and J.A.
Sánchez</i> | Aquaculture impacts: genetic interactions between domesticated and wild fish |
| Y:04 | <i>Per Dolmer</i> | Sustainable production of mussels in Denmark |
| Y:05 | <i>M.V. Feldman</i> | The ecosystem approach in application to management of coastal zones of the South-Eastern Baltic |
| Y:06 | <i>Carlo Franzosini, R.
Odorico, M. Spoto, M.
Tempesta, P. Guglielmi,
M.A. Thili, and S. Ciriaco</i> | A GIS approach for marine conservation areas in the Mediterranean Ecoregion |
| Y:07 | <i>E.D. Houde and S.J.
Roberts</i> | Marine protected areas and fishery management in the coastal ocean: A US perspective |
| Y:08 | <i>Tor Henning Jørgensen</i> | Coastal zone planning and local participation – detailing ICZM |
| Y:09 | <i>Laura Recasens,
Montserrat Demestre,
and Pilar Sánchez</i> | Do artificial reefs improve artisanal fisheries production? |