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#### Requests for additional copies of documents when supplies run out

Authors have been requested to sent 125 copies of their papers to Belgium and 5 to the ICES Secretariat). Copies of the various papers are made available in the Documents Room. Participants may help themselves to copies of scientific papers on a first-come-first-served basis. Should supplies of particular papers run out, those wishing to obtain copies should not contact the Secretariat but approach the senior author of the paper concerned (name and address given with Abstracts). It is hoped that authors will send copies to those requesting them once the Annual Science Conference is over.

# GENERAL ASSEMBLY REPORTS AND PAPERS OF GENERAL INTEREST

Gen:1	Observers' Reports from Cooperating Organisations		
Gen:2	ICES Activities in 1999/2000		
Gen:3	Elections and Appointments of Council Officials at 2000 Annual Science Conference (88th Statutory Meeting) (E+F)		
Gen:4	Report on ICES Symposia		
Gen:5	1999/2000 Overview of ICES Committees and Subsidiary Groups and their Shadowing by Secretariat Staff, and Schedule of ICES Meetings and List of CM Codes		

**REFERENCE PAPER: Del:10** 

### **DEL - DELEGATES DOCUMENTS**

Del:1	Final Accounts for Financial year 1998/99		
Del:2	Progress Report on Administration		
Del:3	Application by Chile for Observer Status		
Del:4	Estimated Accounts for Financial Year 1999/2000		
Del:5	Budget for Financial Year 2001		
Del:6	Forecast Budget for Financial Year 2002		
Del:7	Report of the Coordinating Group on ICES Advice		
Del:8	Proposal to Change the Financial and Operational Year		
Del:9	Proposed Changes of Rules of Procedure 26, 28 and 29, and Related decisions Required by the Council Regarding Advisory Committee		
Del:10	Report of the Bureau Working Group on the Advisory Process		
Del:11	Progress on Planning and Funding for the ICES Centenary		
Del:12	Report on the History Book Project		
Del:13	Developing Memoranda of Understanding		
Del:14	Summary of Open Forum Discussions		
Del:15	Report of 6 February Meeting of Joint ICES/Commissions Working Group on Cooperative Procedures		
Del:16	Arrangements for 2001 (89th Statutory Meeting; Norway), 2002 (90th Statutory Meeting; Denmark), and Subsequent Annual Science Conferences		
Del:17	Progress Report on the GEF Baltic Sea Regional Project		
Del:18	Preliminary Report of the 12th (Environmental) Dialogue Meeting		
Del:19	Status of ICES/GLOBEC Office		
Del:20	Report on the Follow-Up of the 11th Dialogue Meeting		
A:5	Report of the 2000 Mid-Term Meeting of CONC		
Gen:3	Elections and Appointments at the 88th Statutory Meeting		

**REFERENCE PAPERS: A:5, GEN:3** 

#### FI - FINANCE COMMITTEE

Fi:1\* Agenda for Finance Committee

#### **PUB - PUBLICATIONS COMMITTEE**

Pub:1	Agenda for Publications Committee		
Pub:2	Review of ICES Publication Activities in 1999/2000		
Pub:3	ICES Journal of Marine Science: Editors' Report for 1999/2000		
Pub:4	ICES Journal of Marine Science: Academic Press Publisher's Report for 1999/2000		
Pub:5	ICES Cooperative Research Report series: Editor's Report for 1999/2000		
Pub:6	ICES Identification Leaflets for Plankton: Editor's Report for 1999/2000		
Pub:7	ICES Identification Leaflets for Diseases and Parasites of Fish and Shellfish: Editor's Report for 1999/2000		
Pub:8	ICES Techniques in Marine Environmental Sciences: Editor's Report for 1999/2000		

### **CONSULTATIVE COMMITTEE**

A:1	Agenda for Consultative Committee		
A:2/ ACFM:00A	Minutes from ACFM Meeting 26 October to 4 November 1999		
A:3/ ACFM:00B	Minutes from ACFM Meeting 25 May to 1 June 2000		
A:4/ ACME:01A	Minutes from ACME Meeting 26 January to 2 February 2000		
A:5	Report of Mid-Term Meeting of the Consultative Committee and the ASC Programme Planning Group		
A:6/ ACME:01B	Minutes from ACME Meeting 5–10 June 2000		
A:7	Compendium of Draft Resolutions		
A:8	Proposal from Prof. Hempel and Prof. Wooster: Theme Sessions at 2002 ASC		
Working documnt	:1 Maintaining and Expanding Competence in Fish Stock Assessment		

#### **REFERENCE PAPER: H:03**

<sup>\*</sup> For Finance Committee and Delegates only

#### FISHERIES TECHNOLOGY COMMITTEE

B:01	Study Group on Methods for Measuring the Selectivity of Static Gear (SGMMG)		
B:02	Study Group on Mesh Measurements Methodology (SGMESH)		
B:03	Working Group on Fishing Technology and Fish Behaviour (WGFTFB)		
B:04 Ref. H	Working Group on Fisheries Acoustics Science and Technology (WGFAST)		
B:05	Joint Session of the Working Group on Fishing Technology and Fish Behaviour (WGFTFB) and Working Group on Fisheries Acoustics Science and Technology (WGFAST)		

### **REFERENCE PAPERS: C:02, G:11**

#### **OCEANOGRAPHY COMMITTEE**

C:01 Ref. D	Study Group on Incorporation of Process Information into Stock-Recruitment Models (SGPRISM)
C:02 Ref ACME, B, D, E,F, G, H	ICES/IOC Steering Group on GOOS (SGGOOS)
C:03 Ref. G	Working Group on Recruitment Processes (WGRP)
C:04 Ref. ACME, E	Working Group on Seabird Ecology (WGSE)
C:05 Ref. ACME	Working Group on Shelf Seas Oceanography (WGSSO)
C:06 Ref. ACME, E	ICES/IOC Working Group on Harmful Algal Bloom Dynamics (WGHABD)
C:07 Ref. ACME, E	Working Group on Oceanic Hydrography (WGOH)
C:08	Working Group on Marine Data Management (WGMDM)
C:09 Ref. ACME	Working Group on Zooplankton Ecology (WGZE)
C:10 Ref. ACME	Working Group on Phytoplankton Ecology (WGPE)
C:11 Ref. G	ICES/GLOBEC Working Group on Cod and Climate Change (WGCCC)
C:12 Ref. ACFM	Workshop on the Dynamics of Growth in Cod (WKDGC)
C:13	Study Group on an ICES/IOC Checklist of Phytoplanton (SGPHYT)
C:14	Steering Group for the ICES/GLOBEC North Atlantic Regional Office (SGNARO)

### REFERENCE PAPERS: E:01, ACME:03, ACME:04, ACME:05, and ACME:09

#### RESOURCE MANAGEMENT COMMITTEE

D:01 Study Group on Market Sampling Methodology (SGMSM)

Ref. ACFM

D:02 Working Group on Fishery Systems (WGFS)

D:03 Planning Group on Surveys on Pelagic Fish in the Norwegian Sea (PGSPFN)

Ref. ACFM

D:04 Workshop on Synthesis of Surveys on Pelagic Fish in Norwegian Sea and Adjacent

(to ASC 2001) Areas (WKSSPF)

D:05 Workshop on International Analysis of Market Sampling and the Evaluation of

Ref. ACFM Raising Procedures and Data-Storage (software) (WKIMS)

(to ASC 2001)

D:06 Study Group to Evaluate the Effects of Multispecies Interactions (SGEEMI)

Ref. ACFM, G (to ASC 2001)

D:07 International Bottom Trawl Survey Working Group (IBTSWG)

Ref. ACFM, G

REFERENCE PAPERS: C:01, C:02, G:01, G:02, G:03, H:02, ACFM:11, ACME:02

#### MARINE HABITAT COMMITTEE

E:01 Marine Chemistry Working Group (MCWG)

Ref. ACME, C

E:02 Working Group on the Marine Mammal Habitats (WGMMHA)

Ref. ACME

E:03 Working Group on Marine Sediments in Relation to Pollution (WGMS)

Ref. ACME

E:04 Working Group on Biological Effects of Contaminants (WGBEC)

Ref. ACME

E:05 Working Group on Statistical Aspects of Environmental Monitoring (WGSAEM)

Ref. ACME

E:06 Study Group on Marine Habitat Mapping (SGMHM)

Ref. ACME

E:07 Working Group on the Effects of Extraction of Marine Sediments on the Marine

Ref. ACME Ecosystem (WGEXT)

E:08 Benthos Ecology Working Group (BEWG)

Ref. ACME

E:09 Study Group on Ecosystem Assessment and Monitoring (SGEAM)

Ref. ACME

REFERENCE PAPERS: C:02, C:04, C:06, C:07, F:01, F:02, G:05, G:12, G:13, ACME:02, ACME:03, ACME:04, ACME:05, ACME:07, ACME:08, ACME:09

#### MARICULTURE COMMITTEE

F:01 Working Group on Pathology and Diseases of Marine Organisms (WGPDMO)

Ref. ACME, E

F:02 Working Group on Environmental Interactions of Mariculture (WGEIM)

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:02, ACME:07, ACME:08

#### LIVING RESOURCES COMMITTEE

G:01 Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS)
Ref. D
G:02 Planning Group for Herring Surveys (PGHERS)
Ref. D
G:03 Planning Group for Pelagic Acoustic Surveys in ICES Sub-Areas VIII and IX
Ref. D (PGPAS) - no report

G:04 Working Group on Cephalopod Fisheries and Life History (WGCEPH)

Ref. ACFM, ACME

G:05 Working Group on Marine Mammal Population Dynamics and Trophic Interactions

Ref. ACFM, (WGMMPD)

ACME, E

G:06 Study Group on Life History of *Nephrops* (SGNEPH)

Ref. ACFM

G:07 Workshop on the Estimation of Spawning Stock Biomass of Sardine (WKSBS)

G:08 Workshop on Identification and Staging of Mackerel and Horse Mackerel Eggs

(WKMHME)

G:09 Study Group on Elasmobranch Fishes (SGEF)

Ref. ACFM

G:10 Stock Identification Methods Working Group (SIMWG)

G:11 Working Group on Crangon Fisheries and Life History (WGCRAN)

Ref. ACFM, B

G:12 Working Group on Beam Trawl Surveys (WGBEAM)

Ref. ACFM, E

G:13 Study Group on the Biology and Life History of Crabs (SGCRAB)

Ref. E

REFERENCE PAPERS: C:02, C:03, C:11, D:06, D:07, ACFM:02, ACFM:05, ACME:02

### **BALTIC COMMITTEE**

H:01	Study Group on Baltic Cod Age Reading (SGBCAR)
H:02 Ref. D	Baltic International Fish Survey Working Group (WGBIFS)
H:03 Ref. A	Study Group on the Scientific Basis for Ecosystem Advice in the Baltic (SGBEAB)
H:04	Baltic Herring Age-Reading Study Group (BHARSG)
H:05	Study Group on Multispecies Predictions in the Baltic (SGMPB) - no report
H:06	Study Group on Salmon Scale Reading Problems (SGSSR) - no report

**REFERENCE PAPERS: B:04, C:02, ACFM:09, ACME:03, ACME:04, ACME:06, ACME:09** 

### **ACFM**

ACFM:00A	Minutes from ACFM Meeting 26 October to 4 November 1999
ACFM:00B	Minutes from ACFM Meeting 25 May to 1 June 2000
ACFM:01	Working Group on the Assessment of Northern Shelf Demersal Stocks (WGNSDS)
ACFM:02 Ref. G	Pandalus Assessment Working Group (WGPAND)
ACFM:03	Arctic Fisheries Working Group (AFWG)
ACFM:04	Working Group on the Assessment of Southern Shelf Demersal Stocks (WGSSDS)
ACFM:05 Ref. G	Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine, and Anchovy (WGMHSA)
ACFM:06	EIFAC/ICES Working Group on Eels (WGEEL)
ACFM:07	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)
ACFM:08	Study Group on the Biology and Assessment of Deep-Sea Fisheries Resources (SGDEEP)
ACFM:09 Ref. H	Study Group on Baltic Herring Maturity (SGBHSM) - no report
ACFM:10 + Addendum	Herring Assessment Working Group for the Area South of 62° N (HAWG)
ACFM:11 Ref. D	Study Group on Discard and By-catch information (SGDBI)
ACFM:12	Baltic Salmon and Trout Assessment Working Group (WGBAST)
ACFM:13	Working Group on North Atlantic Salmon (WGNAS)
ACFM:14	Baltic Fisheries Assessment Working Group (WGBFAS)
ACFM:15 + Addendum	North-Western Working Group (NWWG)
ACFM:16	Northern Pelagic and Blue Whiting Fisheries Working Group (WGNPBW)
ACFM:17	CWP Intersessional Meeting
ACFM:18	Arctic Working Group on North-East Arctic Cod and Haddock

REFERENCE PAPERS: A:2, A:3, C:12, D:01, D:03, D:05, D:06, D:07, G:04, G:05, G:06, G:09, G:11, G:12, ACME:02

#### **ACME**

ACME:01A	Minutes from ACME Meeting 26 January to 2 February 2000		
ACME:01B	Minutes from ACME Meeting 5-10 June 2000		
ACME:02 Ref. ACFM, D, E, G	Working Group on Ecosystem Effects of Fishing Activities (WGECO)		
ACME:03 Ref. C, E, H	ICES/HELCOM Steering Group on Quality Assurance of Biological Measurements in the Baltic Sea (SGQAB)		
ACME:04 Ref. C, E, H	ICES/HELCOM Steering Group on Quality Assurance of Chemical Measurements in the Baltic Sea (SGQAC)		
ACME:05 Ref. C, E	ICES/OSPAR Steering Group on Quality Assurance of Biological Measurements Related to Eutrophication Effects (SGQAE)		
ACME:06 Ref. H	Study Group on Estimation of the Annual Amount of Discards and Fish Offal in the Baltic Sea (SGDIB)		
ACME:07 Ref. E, F	Working Group on Introductions and Transfers of Marine Organisms (WGITMO)		
ACME:08 Ref. E, F	ICES/IOC/IMO Study Group on Ballast and Other Ship Vectors (SGBOSV)		
ACME:09 Ref. C, E, H	ICES/HELCOM Second Workshop on Quality Assurance of Chemical Analytical Procedures for the COMBINE and PLC-4 Programmes (WKQAC)		

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

### MINI-SYMPOSIUM ON DEFINING THE ROLE OF ICES IN SUPPORTING BIODIVERSITY (MINI)

Mini:01	Chris Frid and Leonie Robinson	Ecological reference points for North Sea benthos: can we manage benthic biodiversity?
Mini:02	Chris Frid, Stuart Rogers, Mike Nicholson, Jim Ellis, and Steve Freeman	Using biological characteristics to develop new indices of ecosystem health
Mini:03	Sarah Jones, Stephan Lutter, and Simon Cripps	Scientific advice for marine ecosystem management – an NGO perspective
Mini:04	Thomas Osborn and Richard T. Barber	Why are large, delicate, gelatinous organisms so successful in the ocean's interior?
Mini:05	Jake Rice	ICES and species at risk
Mini:06	Marie-Joëlle Rochet, Verena M. Trenkel, Jean-Charles Poulard, and Isabelle Péronnet	Using discards estimates for assessing the impact of fishing on biodiversity
Mini:07	Rob Stephenson and Ellen Kenchington	Conserving fish stock structure is a critical aspect of preserving biodiversity
Mini:08	Mark L. Tasker and Paul Knapman, David Donnan, Clare Eno, Barry Haynes and Bob Hastings	How ICES can help integrate biodiversity consideration into fisheries advice
Mini:09	Filip A.M. Volckaert, Edgar Daemen, Tom Cross, and Frans Ollevier	The genetic structure of European eel revisited and implications for its conservation
Mini:10	Anna Was and R. Wenne	Biodiversity at the population genetic level: microsatellite DNA poplymorphism in the sea trout population from southern Baltic
Mini:11	H.M. Winkler, K. Skora, R. Repecka, M. Pliks, E. Urtans, A. Gushin, and H. Jespersen	Checklist and state of Baltic Sea fish species
Mini:12 Poster	A.V. Dolgov	New data on composition and distribution of the Barents Sea ichthyofauna
Mini:13 Poster	Michele Gristina, G. Garofalo, G. Bono, and D. Levi	Effects of commercial trawl fishing in the Straits of Sicily on the diversity of demersal resources
Mini:14 Poster	Yves Samyn and Edward Vanden Berghe	Faunistics as the impetus for conservation of sea cucumbers ( <i>Echinodermata: Holothuroidea</i> ) in the littoral waters of Kenya
Mini:15 Poster	Edward Vanden Berghe and Yves Samyn	The use of databases for conservation of sea cucumbers ( <i>Echinodermata: Holothuroidea</i> ) in the littoral waters of Kenya

# THEME SESSION ON EFFICIENCY, SELECTIVITY, AND IMPACTS OF PASSIVE FISHING GEARS $(\mathbf{J})$

J:01	Pascal Bach, L. Dagorn, and C. Misselis	The role of bait type on pelagic longline efficiency
J:02	Arne Bjørge, Nils Øien, Siri Hartvedt, and Trine Bekkby	Dispersal and by-catch mortality in grey, <i>Halichoerus grypus</i> , and harbour, <i>Phoca vitulina</i> , seals tagged at the Norwegian coast
J:03	H. Arnold Carr,	Methods for measuring the selectivity of static gear; A progress review of the manual
J:04	Daniel Erickson, Susan Goldhor and Radu Giurca	Efficiency and species selectivity of fabriacated baits used in Alaska demersal longline fisheries
J:05	Hallvard Godøy, Dag. M. Furevik and Svein Løkkeborg	Reduced bycatch of red king crab ( <i>Paralithodes camtschatica</i> ) in the cod gillnet fisheries in northern Norway. Fishing trials with norsel mounted gillnets
J:06	René Holst, David Wileman, and Niels Madsen	The effect of twine thickness in cod gill nets
J:07	René Holst and Rasmus J. Nielsen	A longitudinal study of the selectivity parameters estimated from experimental gillnet catch data for herring, <i>Clupea harengus</i>
J:08	Odd-Børre Humborstad and D.M. Furevik	Ghostfishing gillnets in Norwegian waters
J:09	I. Huse and A.V. Soldal	Mortality in pelagic longline fisheries for haddock
J:10	Svein Løkkeborg,	Review and evaluation of three mitigation measures – bird-scaring line, underwater setting and line shooter – to reduce seabird bycatch in the Norwegian longline fishery
J:11	F.M. Lucena, C.M. O'Brien, and E.G. Reis	The effect of fish morphology and behaviour on the efficiency of gill nets, their selectivity and by-catch: two examples from southern Brazil
J:12	Tönjes Mentjes and Kay Panten	Relative size and girth selectivity of cod gillnets in the Western Baltic
J:13	Henry O. Milliken, H.Arnold Carr, Holly McBride, and Marianne Farrington	Selectivity studies in the Northwest Atlantic longline fishery
J:14	E. Urtans, J. Priednieks	The present status of seabirds bycatch in Latvian coastal fishery of the Baltic Sea
J:15 Poster	Gerald Brothers	Testing square mesh panels in trap nets to reduce the catch of juvenile Atlantic Cod
J:16 Poster	Leili Järv, T. Drevs, and A. Järvik	Size-species selectivity of gillnets in the Estonian coastal zone: regulation efficiency

J:17 Poster	G.A. Petrakis, A. Chilari, and A. Terrats	Gillnet metier of blackspot seabream in the Ionian Sea
J:18 Poster	Ahto Järvik and Tiit Raid	On biological, technical and socio-economical aspects of Baltic herring pound net fishery in Estonia
J:19	Withdrawn	

# THEME SESSION ON THE INCORPORATION OF EXTERNAL FACTORS IN MARINE RESOURCE SURVEYS (K)

K:01	Sara Adlerstein, and Siegfried Ehrich	Effect of deviation from vessel target speed over ground, trawl speed through water and time of day on catch rates of several fish species in North Sea surveys
K:02	D.J. Beare, D. Reid, and P. Petitgas	Spatio-temporal patterns in herring ( <i>Clupea harengus</i> L.) school abundance and size in the NW North Sea:  Modelling space time dependencies to allow examination of the impact of local school abundance on school size
K:03	D.J. Beare, D.G. Reid, P. Petitgas, J. Masse, P. Carrera, and S. Georgakarakos	Spatio-temporal patterns in pelagic fish school abundance and size: a study of pelagic fish aggregation using acoustic surveys from Senegal to Shetland
K:04	D.J. Beare and D.G. Reid	Investigating the complexity of spatio-temporal patterns evidenced in the triennial mackerel and horse-mackerel egg survey data
K:05 Poster	Nicolas Bez and Jacques Rivoirard	Collocation indices to compare spatial distributions of populations
K:06	Withdrawn	
K:07 Poster	Patrice Brehmer, F. Gerlotto, and B. Samb	Measuring fish school avoidance during acoustic surveys
K:08	Withdrawn	
K:09	Liz Clarke and John Simmonds	Spatio-temporal models of North Sea herring
K:10 Poster	Janet Coetzee, Ole Arvid Misund, and David Boyer	Survey vessel avoidance reaction of Sardinella off Angola
K:11 Poster	T.R. Hammond and C.M. O'Brien	Persistence of acoustically observed fish biomass in a 220 km <sup>2</sup> survey region
K:12	Withdrawn	
K:13	Withdrawn	
K:14	Cecilie Kvamme, Leif Nøttestad, Anders Fernö, Ole A. Misund, Are Dommasnes, and Bjørn E. Axelsen	A sonar study of the migration pattern of Norwegian spring-spawning herring ( <i>Clupea harengus</i> L.) in July

K:15	Oleg M. Lapshin, Y.V. Gerasimov, Y.G. Izumov, and I.G. Istomin	The influence of polymorphic characteristics on the Alaska Pollack ( <i>Theragra chalcogramma</i> ) fishing efficiency
K:16 Post	er R.B. Mitson	Fish avoidance: the vessel noise factor
K:17	Ramón Muiño and Pablo Carrera	Sardine (Sardina pilchardus Walbaum) characterisation off the Spanish Atlantic coast
K:18	C.M. O'Brien and J.C. Fox	Incorporating temporal information in ichtyoplankton surveys using a model-based approach: cod: ( <i>Gadus morhua</i> L.) in the Irish Sea
K:19 Pos	cer C.M. O'Brien, S. Adlerstein, and S. Ehrich	Accounting for spatial-scale in research surveys: analyses of 2-year old cod from English, German and international groundfish surveys in the North Sea
K:20	R. Oeberst, P. Ernst, and C.C. Friess	Inter-calibrations between German demersal gears HG $20/25$ and TV3 $520$ as well as between the gears TV3 $520$ and TV3 $930$
K:21	R. Oeberst	Proposal for the stratification of the Baltic Sea for the Baltic International Trawl Survey
K:22	Withdrawn	
K:23	Michael Pennington, Liza-Maré Burmeister, and Vidar Hjellvik	Assessing trawl-survey estimates of frequency distributions
K:24	Michael Pennington,	Survey-based stock assessments: Are they more reliable than catch-based assessments?
K:25	Pierre Petitgas	On the clustering of fish schools at two scales and their relation with meso-scale physical structures
K:26	G.A. Petrakis, D.N. MacLennan, and A.W. Newton	North Sea trawl surveys: Diel and depth effects on the catch rates
K:27	Gerjan Piet	Evaluation of the incorporation of external information using GAM on the catch-at-age index estimation for North Sea plaice and sole
K:28	D.G. Reid, J-C Mahe, P. Connolly, C.G. David, and A. Newton	Quantifying variability in gear performance on IBTS surveys: Swept area and volume with depth
K:29 Post	eer D.G. Reid,	The relationship of herring school size and abundance with seabed characteristics in the NW North Sea
K:30	Jacques Rivoirard	Testing the effects of vessel, gear and daylight on catch data from the International Bottom Trawl Survey in the North Sea
K:31	Jacques Rivoirard and Kai Wieland	Correcting daylight effect in the estimation of fish abundance using kriging with external drift, with an application to juvenile haddock in North Sea
K:32 Post	John Simmonds, Jacques Rivoirard, and Paul Fernandes	Vessel, gear and day/night effects in the estimation of herring abundance and distribution from the IBTS surveys in North Sea

David Somerton and Ken Weinberg	The effect of water speed on bottom contact and escapement under the footrope of a survey trawl
Boonchai K. Stensholt, Kathrine Michalsen, and Olav Rune Godø	Behavioural rhythm of cod during migration in the Barents Sea
Rune Vabø	The effects of removing behaviourally based biases from acoustic estimates of wintering NSS-herring
Marion Verdoit, and Dominique Pelletier	Characterizing the spatial and seasonal dynamics of the whiting population in the Celtic Sea from the analysis of commercial catch and effort data and scientific survey data
Charles W. West and John R. Wallace	Measurements of distance fished during the trawl retrieval period
Pablo Carrera and Ramón Muiño	Evidence of a change in the aggregation pattern of coastal pelagic fish species in the Bay of Biscay after a period of high intensity rain
E.J. Simmonds, E. Toresen, E. Torstensen, C. Zimmermann, E. Götze, D.G. Reid, and A.S. Couperus	1999 ICES Coordinated Acoustic Survey of ICES Divisions IIIa, IVa, IVb and VIa (north)
	Ken Weinberg Boonchai K. Stensholt, Kathrine Michalsen, and Olav Rune Godø Rune Vabø  Marion Verdoit, and Dominique Pelletier  Charles W. West and John R. Wallace Pablo Carrera and Ramón Muiño  E.J. Simmonds, E. Toresen, E. Torstensen, C. Zimmermann, E. Götze, D.G. Reid, and

# THEME SESSION ON NORTH ATLANTIC PROCESSES (L)

L:01	Yu. Bochkov, E. Sentyabov, and A. Karsakov	The relation between long-term variations of water temperature in the North Atlantic and Nordic Seas
L:02	Eugene Colbourne	Interannual variation in the transport of the Labrador Current on the Newfoundland Shelf
L:03	Bogi Hansen, Steingrímur Jónsson, William R. Turrell, and Svein Østerhus	Seasonal variations in the Atlantic water inflow to the Nordic Seas
L:04	Pierre Jaccard, G. Reverdin, H. Svendsen, S. Østerhus, and T. Rossby	First results of upper ocean variability in the North Atlantic between the North Sea and Greenland from repeat ADCP and thermo-salinograph measurements onboard the container vessel 'Nuka Arctica'
L:05	Withdrawn	
L:06	E.M. Karasiova and A.S. Zezera	On influence of long-term variability of temperature regime in the Gdansk Deep of the Baltic Sea on the sprat reproduction and the offspring survival
L:07	Gerd Krahmann, Martin Visbeck, and Gilles Reverdin	Formation and propagation of temperature anomalies in the North Atlantic Current
L:08	S. K. Kydersky and A. S. Zezera	Multidecadal changes in the Baltic marine ecosystem under hydroclimatological forcing

L:09	Karin Margreta H. Larsen, Bogi Hansen, Regin Kristiansen, and Svein Østerhus	Internal tides in the waters surrounding the Faroe Plateau
L:10	Sven-Aage Malmberg, Hedinn Valdimarsson, and Steingrimus Jonsson	Fresh/polar water input in the East Icelandic Current
L:11	Sven-Aage Malmberg	Hydrographic conditions in the inflow of Atlantic water into North Icelandic waters in relation to NAO
L:12	Withdrawn	
L:13	Withdrawn	
L:14	V.K. Ozhigin, A.G. Trofimov, and V.A. Ivshin	The Eastern Basin Water and currents in the Barents Sea
L:15	Gilles Reverdin, H. Valdimarsson, and P. Jaccard	Surface waters of the North Atlantic subpolar gyre in recent years
L:16	Tom Rossby, A. Bower, P. Richardson, M. Prater, H. Zhang, H. Hunt, and S. Fontana	Direct observations of warm water pathways in the northern North Atlantic
L:17	Igor M. Yashayaev	12-year hydrographic survey of the Newfoundland Basin: seasonal and interannual variability in water masses
L:18	Igor M. Yashayaev Allyn Clarke, and John Lazier	The recent decline of the Labrador Sea Water
L:19	Walter Zenk	Direct observations of the Iceland Basin cyclone at mid depths
L:20 Poster	Randi Invaldsen, Lars Asplin, and Harald Loeng	Transport of Atlantic water through the Barents Sea
L:21 Poster	HCh. John, V. Mohrholz, and J.R.E. Lutjeharms	Cross-front structures in hydrography and fish larvae at the Angola-Benguela Frontal Zone
L:22 Poster	V. Mohrholz, M. Schmidt, J.R.E. Lutjeharms, and H Ch. John	Space-time behaviour of the Angola-Benguela Frontal Zone during the Benguela Niño of April 1999

# THEME SESSION ON ENVIRONMENT – PLANKTON – FISH LINKAGES (M)

M:01	Cyril C. Ajuzie and Guy T. Houvenaghel	Prorocentrum lima (Microalgae: Dinoflagellata): killer food for zooplankton
M:02	Withdrawn	
M:03	L.J. Buckley, E.C. Caldarone, R.G. Lough, and T.L. Ong	Patterns in growth, ingestion and survival probability of Atlantic cod ( <i>Gadus morhua</i> ) and haddock ( <i>Melanogrammus aeglefinus</i> ) larvae on Georges Bank
M:04	Ann Bucklin, O.S. Astthorson, Astthor Gislason, and Peter H. Wiebe	Calanus finmarchicus in Icelandic waters: population genetics and ecology at the Norwegian Sea/N. Atlantic Ocean boundary
M:05	Robin Clark and Chris L.J. Frid	Long term changes in the North Sea – A two model system?
M:06	Padmini Dalpadado, Bjarte Bogstad, Nina Borkner, H. Gjøsæter, Sigbjørn Mehl, and H.R. Skjoldal	Are the macrozooplankton populations in the Barents Sea controlled by predation?
M:07	K.F. Drinkwater, K.T. Frank, and B. Petrie	The effects of <i>Calanus</i> on the recruitment, survival and condition of cod and haddock on the Scotian Shelf
M:08	Are Edvarden, Dag Slagstad, Kurt S. Tande, and Pierre Jaccard	Measurements and modelling of ocean climate and zooplankton in the Barents Sea
M:09	Astthor Gislason and Olafur S. Astthorsson	On the food of herring in the western part of the Norwegian Sea
M:10	Erica Head	Internannual variations in hydrography and spring bloom dynamics, and their effect on <i>Calanus finmarchicus</i> distribution and reproduction on the Scotian Shelf in the late '90s and 2000
M:11	Withdrawn	
M:12	Ahmet E. Kideys	The role of plankton fluctuations in the production of pelagic fishes in a sensitive ecosystem
M:13	Kosei Komatsu, Y. Matsukawa, K. Nakata, T. Ichikawa, and K. Sasaki	Seasonal variation of plankton dynamics in the Kuroshio extension region based on a 3-D ecosystem model
M:14	A. M'harzi, S. De Galan, M. Tackx, M.H. Daro, and L. Goeyens	Plankton size distribution and predator-Prey relationship in the Belgian coastal zone
M:15	David Mountain, Joseph Kane, and John Green	Environmental forcing of variability in zooplankton abundance and cod recruitment on Georges Bank
M:16	Lutz Postel	Interannual variations of the amount of herring in relation to plankton biomass and activity, temperature and cloud coverage in the Baltic Sea

M:17	Jeffrey A. Runge, J. Quinland, E. Durbin, L. Incze, G. Lough, J. Manning, D. Mountain, B. Niehoff, S. Plourde, and F. Werner	The effect of spatial and temporal variations zooplankton concentrations on larval cod growth and survival on Georges Bank: a sensitivity analysis based on modeling and observations
M:18	Doug Sameoto	Decadal plankton changes on the eatern Nova Scotian Shelf and western North Atlantic
M:19	Kenneth Sherman, Jospeh Kane, Steven Murawski, William Overholtz, and Andrew Solow	Zooplankton as an ecological indicator in a fish stock recovery assessment
M:20	Dag Slagstad, Kurt Tande, Webjørn Melle, Bjørnar Ellertsen and François Carlotti	Regional dynamics of <i>Calanus</i> in the Norwegian Sea in response to ocean climate in 1997
M:21	John H. Steele	How to get more fish: ecosystem and environmental options
M:22	Withdrawn	
M:23	Kazuaki Tadokoro, Toshiro Saino, and Takashige Sugimoto	Geographical variation of Chl-a seasonality, and its interannual variation in the subarctic North Pacific Ocean
M:24	F.E. Werner, et al.	Modeling growth and advection of larval cod and haddock on Georges Bank in evolving flow and prey fields: a synthesis of observations and model results for Spring 1995
M:25 Poster	Gustavo L. Alvarez Colombo, A. Madirolas	Sound scattering from macrozooplankton aggregations off Patagonia at 38 kHz
M:26 Poster	Kerim Aydin, Patricia Livingston, and Robert C. Francis	Carrying capacity of apex predators and the frequency and cadence of physical forcing in marine foods webs
M:27 Poster	James J. Bisagni	The seasonal cycle of nitrate supply and potential new production in the Gulf of Maine and Georges Bank Regions
M:28 Poster	S. Chiba, T. Ishimaru, G.W. Hosie, and M. Fukuchi	Large scale interaction between sea ice dynamics and zooplankton community off east Antarctica
M:29 Poster	S.S. Drobysheva and V.N. Nesterova	Reasons of plankton biomass dynamics in the southern Barents Sea
M:30 Poster	D.S. Neto, B.B. Sangolay, C.A. Ruby, M.L. Silva, and H.S. Marques	Phytoplankton biomass across and along the Angola-Benguela frontal zone in April 1999

M:31 Poster	E. L. Orlova, A. V. Dolgov, V. N. Nesterova, M. Yu. Antsiferov, and L. L. Konstantinova	Pecularities of feeding behaviour in Arcto-Norwegian cod in the southern Barents Sea when major food objects are in deficiency
M:32 Poster	E. L. Orlova, E. I. Seliverstova, and V. N. Nesterova	Some features of distribution and feeding of the Atlantic herring ( <i>Clupea harengus</i> L.) in the Barents Sea
M:33 Poster	E.V. Sentyabov and N.V. Plekhanova	Rapid variations of the Norwegian Sea water heat content during 1995–1999 and their influence on condition of the feeding plankton
M:34	Withdrawn	

# THEME SESSION ON SPATIAL AND TEMPORAL PATTERNS IN RECRUITMENT PROCESSES (N)

N:01	G.A. Begg and G. Marteinsdottir	Incorporating spawning origins of pelagic juvenile cod and environmental variation in the stock-recruitment relationship
N:02	M. Bleil and R. Oeberst	Reproduction areas of the cod stock in the western Baltic Sea
N:03	Jesper Boje and E. Hjörleifsson	Nursery grounds for the West Nordic Greenland halibut stock - where are they?
N:04	Robert K. Cowen, C.B. Paris, Kamazima M.M. Lwiza, and D.B. Olson	Long distance dispersal versus local retention as a means of replenishing Carribean marine fish populations
N:05	Paul D. Eastwood and Geoff J. Meaden	Spatial modelling of spawning habitat suitability for the sole ( <i>Solea solea</i> L.) in the eastern English Channel and southern North Sea
N:06	Martin D. Ehrlich, P. Marthos, and R.P. Sánchez	Causes of spawning pattern variability of anchovy and hake on the Patagonian shelf
N:07	Withdrawn	
N:08	Øyvind Fiksen and Aril Slotte	Recruitment variability in Norwegian spring-spawning herring ( <i>Clupea harengus</i> L.): the effect of temperature in larval drift trajectories
N:09	Tomas Gröhsler, Uwe Böttcher, and Eberhard Götze	Horizontal and vertical distribution of sprat in the Southern Baltic Sea during spawning time. First results on the 1999 German June acoustic survey
N:10	Allain Gwenhael, P. Petitgas, P. Lazure, and P. Grellier	Coupling the otolith growth history of anchovy larvae with the physical history of water masses tracked in a hydrodynamic model
N:11	Mike Heath and Alejandro Gallego	Modelling the spatial and temporal structure of survivorship to settlement in North Sea and west of Scotland haddock
N:12	S. Hinckley, A.J. Hermann, and B.A. Megrey	An evaluation of the utility of spatially-explicit biophysical models in recruitment studies: the FOCI example

N:13	Sukgeun Jung and Edward D. Houde	Scale and pattern in recruitment processes of bay anchovy in Chesapeake Bay
N:14	Ryo Kimura, D.H. Secor, E.D. Houde, and P.M. Piccoli	Migration/dispersal patterns of YOY bay anchovy <i>Anchoa mitchilli</i> in the Chesapeake Bay: Sr:Ca analysis on a ubiquitous species
N:15	Birgitt Klenz	Abundance and distribution of larvae of commercially important fish species in the western Baltic Sea during the period 1993–1998
N:16	F.W. Köster, HH. Hinrichsen, D. Schnack, M.A. St. John, B.R. MacKenzie, J. Tomkiewicz, C. Möllmann, M. Plikshs, and A. Makachouk	Recruitment of Baltic cod and sprat stocks: Identification of critical life stages and incorporation of environmental variability and spatial heterogeneity into stock-recruitment relationships
N:17	Jesús García Lafuente, Alberto García, Salvatore Mazzola, Luis Quintanilla, Javier Delgado, Angela Cuttita, and Bernardino Patti	Influence of the surface circulation on the spawning strategy of the Sicilian Channel anchovy
N:18	R.G. Lough, C.G. Hannah, P. Verrien, D. Brickman, J.W. Loder, and J.A. Quinlan	Oceanic factors in cod and haddock egg and larval distributions on Georges Bank (1977-87) and processes which may govern interannual variability in recruitment
N:19	S. Mahévas, P. Petitgas, and P. Lazure	Stochastic (Markov) modelling along trajectories in a hydrodynamic model of series of events of potential interest for requitment
N:20	Andrei Makarchouk and Galina Grauman	The temporal and spatial changes in the observed size of cod eggs in the Eastern Baltic
N:21	Piotr Margoński	The abundance, growth rate and mortality of the early life stages of herring ( <i>Clupea harengus</i> ) and smelt ( <i>Osmerus eperlanus</i> ) in the Vistula Lagoon (southern Baltic Sea) during 1998–1999
N:22	Peter Munk	Spatial patterns in growth rate variability of Arctic cod in Disko Bay, West Greenland
N:23	E.W. North and E.D. Houde	Times, space, physics and food: the temporal and spatial distribution of anadromous fish larvae in an Estuarine Turbidity Maximum (ETM)
N:24	Pierre Pepin, John F. Dower, and Fraser Davidson	A dynamic spatially explicit analysis of growth and mortality in larval radiated shanny ( <i>Ulavria subbifurcata</i> )
N:25	J.A. Quinlan, R.G. Lough, W. Michaels, M. Fogarty, L.J. Buckley, J.P. Manning, E. Durbin, J.A. Runge, and F.E. Werner	Examining the potential effects of vertebrate predation on Georges Bank larval cod: A modeling study for the 1995 field season

N:26	Marie-Joelle Rochet	Spatial and temporal patterns in age and size at maturity and spawning stock biomass of North Sea gadoids
N:27	M.A. St. John, H. Mosegaard, HH. Hinrichsen, P. Grønkjær, F. Köster, K. Hüssy, and R. Neilsen	Baltic Cod: Resolving processes determining spatial and temporal windows of survival
N:28	Christoph Stransky	Migration of juvenile deep-sea redfish ( <i>Sebastes mentella</i> Travin) from the East Greenland shelf into the central Irminger Sea
N:29	Konrad Thorisson and Thor H. Asgeirsson	Cod larval atches in Icelandic waters in 1998
N:30 Poster	Hiroshi Kubota, Yoshioki Oozeki, and Ryo Kimura	Distributions of larvae and juveniles of small pelagic fishes in the northwest Pacific off east Japan
N:31 Poster	T. Thangstad, Jan Helge Fosså, Anders Fernö, and Arne Johannessen	Factors affecting the distribution of wrasses ( <i>Pisces: Labridae</i> ) in a fjord system: analysis by generalised linear models
N:32	Michala Aschan, Bjørn Ådlansvik, and Sigurd Tjelmeland	Spatial and temporal patterns in recruitment of shrimp Pandalus borealis in the Barents Sea

# THEME SESSION ON SUSTAINABLE AQUACULTURE DEVELOPMENT (O)

O:01	Ian M. Davies	Waste production in salmon farming
O:02	Daan Delbare and Rudy de Clerck	Release of reared turbot in Belgian coastal waters as a tool for stock enhancement
O:03	Inge Døskeland and Pia Kupka Hansen	Geographic infromations systems (GIS) are tools for better integrated coastal zone planning and management (ICZP/M)
O:04	Arne Ervik	Monitoring programmes - a vital part of mariculture regulation
O:05	Svein-Erik Fevolden and Knut H. Røed	Prospects for selective breeding for stress tolerance in aquacultured fish
O:06	N. Koueta, A. Le Calvé, B. Noel, and E. Boucaud-Camou	Changes of digestive enzymes during growth of cultured juvenile cuttlefish Sepia officinalis L (Mollusca Cephalopoda). Effect of a enriched diet and ration
O:07 Poster	Lasse H. Pettersson, Dominique Durand, Thomas T. Noji, Henrik Søiland, Einar Svendsen, Steve Groom, Samantha Lavender, Peter Regner, and Ola M. Johannessen	Satellite observations and forecasting can mitigate effects of toxic algae blooms

O:08 Poster Emilia Vázquez, C.

Fernández, C. Martínez, G. Blanco, and JA Sanchez Some growth data of cold shock triploids in turbot

(Scophthalmus maximus L.)

### THEME SESSION ON NEW TRENDS IN FISH FEEDING IN AQUACULTURE (P)

P:01	P. Coutteau, S. Ceulemans, R. Robles, A. Oliva-Teles, S. Chatzifotis, A. Van Halteren, and P. Verstraete	Fish meal/fish oil replacement in practical diets for European seabass Dicentrarchus labrax and Gilthead seabream <i>Sparus aurata</i>
P:02	Gro-Ingunn Hemre and Kjartan Sandnes	By-catch and offal feed from the herring industry - performance of Atlantic salmon as concerns growth, feed utilisation and fillét quality
P:03	Anne-Katrine Lundeby, Bjarne Bøe, and Kåre Julshamn	Documenting seafood safety: contaminant concentrations in Norwegian fish feeds and mariculture products
P:04	Clive Talbot and Antonio García-Gómez	The role of technology transfer in the development of new fish species for aquaculture
P:05 Poster	Peter Coutteau, L. Tort, J. Rotllant, and S. Ceulemans	Screening of immunostimulants for the gilthead seabrean <i>Sparus aurata</i>
P:06 Poster	J.L. Zambonino Infante, C. Cahu, and P. Coutteau	Fish meal and fish oil replacement by vegetable lipid and protein sources in sea bass diets

# THEME SESSION ON TROPHIC DYNAMICS OF TOP PREDATORS: FORAGING STRATEGIES AND REQUIREMENTS, AND CONSUMPTION MODELS (Q)

Q:01	Arne Bjørge, Trine Bekkby, Vegar Bakkestuen, and Erik Framstad	Harbour seal <i>Phoca vitulina</i> habitat use and interaction with fisheries as explored by a combined GIS and population energetics model
Q:02	A.V. Dolgov	Feeding and food consumption by the Barents Sea predatory fishes in the 1980-90s
Q:03	Robert W. Furness	Impacts of fisheries on seabird community stability
Q:04	Stefan Garthe and William A. Montevecchi	Foraging strategies of seabirds: the northern Gannet ( <i>Sula bassana</i> ) as a model
Q:05	Viktor Lapko, Kerim Aydin, Vladimir Radchenko, and Patricia Livingston	A comparison of the Eastern and Western Bering Seas as seen through predation-based food web modeling
Q:06	Withdrawn	

Q:07	Ulf Lindstrøm, Alf Harbitz, Tore Haug, and Torstein Pedersen	Foraging behaviour of minke whales ( <i>Balaenoptera acutorostrata</i> ) in the southern Barents Sea
Q:08	W.A. Montevecchi and G.K. Davoren	Prey selectivity, capelin and inter-annual variation in the diets of common murre chicks in the Northwest Atlantic
Q:09	D. Righton, K. Turner, and J.D. Metcalfe	Behavioural switching in North Sea cod: implications for foraging strategy?
Q:10	D.J. Uzars, T. Baranova, and E. Yula	Variation in environmental conditions, feeding and growth of cod in the Eastern Baltic
Q:11	F. Velasco and I. Olaso	Hake food consumption in the southern Bay of Biscay estimated from a gastric evacuation model
Q:12	F. Velasco, J. Riis- Vestergaard, L. Hill, and I. Olaso	Food consumption of European hake ( <i>Merluccius merluccius</i> ) estimated by the application of two bioenergetic models: Is the growth of hake underestimated?
Q:13 Poster	L. Hill and M.F. Borges	A comparison of the seasonal abundance of hake ( <i>Merluccius merluccius</i> ) and its main prey species off the Portuguese coast
Q:14 Poster	Tsutomu Tamura and Y. Fujise	Geographical and seasonal changes of prey species and prey consumption in the western North Pacific minke whales
Q:15 Poster	V.N. Feldman, F.A. Patokine, and N.A. Kalinina	Diet composition, feeding rhythms and daily rations of the Baltic herring in the Gdansk Basin
Q:16 Poster	Kumbi Kilongo	Geographical distribution versus feeding habits of large- eye dentex ( <i>Dentex macrophathalmus</i> ) off Namibia and Angola
Q:17	Withdrawn	

# THEME SESSION ON THE APPLICATION OF EXPERIMENTAL LABORATORY STUDIES TO FISHERIES SCIENCE (R)

R:01	Jean-Denis Dutil, Y. Lambert, and D. Chabot	Estimating natural mortality of wild cod from controlled feeding and starvation experiments conducted in the laboratory
R:02	Øyvind Fiksen, Erling Otterlei, and Arild Folkvord	Experiments and models as reciprocal tools to understand environmental links in recruitment dynamics
R:03	Withdrawn	
R:04	Hans Høie, Arild Folkvord, and Arne Johannessen	A multivariate analysis of condition of herring larvae from different environmental regimes
R:05	Anders Nissling. Lars Westin, and Olle Hjerne	Spawning success in relation to salinity of three flatfish species, Dab ( <i>Pleuronectes limanda</i> ), plaice ( <i>Pleuronectes platessa</i> ) and flounder ( <i>Pleurone flesus</i> ), in the brackish water Baltic Sea.
R:06	Withdrawn	

R:07	Tone Rasmussen, Michala Aschan, and Jørgen Schou Christiansen	The implementation of laboratory studies to shrimp recruitment modelling - a brief review of experimental procedures
R:08	Terje Svåsand, A.M. Ajiad, 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 - A new EU-project
R:09	P.R. Witthames, T.E. Andersen, and O.S. Kjesbu	The application of tank experiments to the study of reproductive potential in teleosts using <i>Gadus morhua</i> as a test model
R:10 Poster	Ana Moreira, Pedro Bordalo Machado, and Ivone Figueiredo	The use of known ageing techniques to enhance growth bands on the second dorsal spine of the gulper shark ( <i>Centrophorus granulosus</i> Schneider, 1801) and the portuguese dogfish ( <i>Centroscymnus coelolepis</i> Bocage & Capello, 1864)
R:11 Poster	Lars Vallin and Anders Nissling	Maternal effects on egg size and egg buoyancy of Baltic cod, <i>Gadus morhua</i> . Implications for stock structure effects on recruitment
R:12	Nils Chr. Stenseth, Jakob Gjøsæter, Kyrre Lekve, and Arnoldo Frigessi	Modeling the population dynamics of cod along the Norwegian Skagerrak coast: what we need to understand better before we have reliable population model

# THEME SESSION ON TEMPORAL AND SPATIAL TRENDS IN THE DISTRIBUTION OF CONTAMINANTS AND THEIR BIOLOGICAL EFFECTS IN THE ICES AREA (S)

S:01	H. von Westernhagen, V. Dethlefsen and M. Haarich	Temporal trends in malformations of pelagic fish embryos from the southern North Sea in relation to anthropogenic xenobiotics
S:02	Stuart Fleming, R.W. Furness, and Ian M. Davies	Contemporary patterns and historical rates of increase of mercury contamination in different marine food chains
S:03	Ketil Hylland, Birger Bjerkeng, and Norman Green	Is there a relationship between accumulated contaminants and biomarker responses in Atlantic cod, <i>Gadus morhua</i> ?
S:04	Ketil Hylland	Strategies to investigate links between community response and individual response to environmental contaminants
S:05	Ketil Hylland	Biological effect of contaminants in pelagic marine ecosystems - a practical workshop

S:06	Mark F. Kirby, Mark Hurst, Carole A. Kelly, Sonia J. Kirby, Paula Neall, Tina A. Tylor, Steven Morris, and Peter Matthiessen	EROD and ChE measurements in flounder ( <i>Platichthys flesus</i> ) as monitoring tools in English estuaries
S:07	Hans J.C. Klamer, Willem M.G.M. van Loon, L.A. Villerius, A.E. van de Zande, and J.F. Bakker	QID: an innovative instrument for identification and verification of environmental toxicity
S:08	Peter Matthiessen, Yvonne Allen, John Bignell, John Craft, Steve Feist, Gary Jones, Ioanna Katsiadaki, Mark Kirby, Fiona Robertson, Sandy Scott, Christie Stewart, and John Thain	Studies of endocrine disruption in marine fish – progress with the EDMAR programme
S:09	Rolf Schneider, Doris Schiedek, and Gitte I. Petersen	Baltic cod reproductive impairment: ovarian organochlorine levels, hepatic EROD activity, developmetn success of eggs and larvae, challenge tests
S:10	J. Thain, Y. Allen, S. Kirby, and J. Reed	The use of Sediment Bioassays In Monitoring And Surveillance Programs In The UK. A preliminary assessment.
S:11	Kevin V. Thomas, Mark R. Hurst, Jacqueline Lavender, Peter Matthiessen, John E. Thain, and Mike J. Waldock	Characterising hazardous substances in the UK marine environment
S:12	W. Wosniok, T. Lang, V. Dethlefsen, S.W. Feist, A.H. McVicar, S. Mellergaard, and A.D. Vethaak	Analysis of ICES long-term data on diseases of North Sea dab ( <i>Limanda limanda</i> ) in relation to contaminants and other environmental factors
S:13 Poster	A.D. McIntosh, L. Webster and D. Richardson	Temporal trend observations in fish and sediments in the Clyde estuary
S:14 Poster	A.D. McIntosh, L. Webster and B. Gowland	Biomarkers and PAH concentrations of the common mussel, <i>Mytilus edulis</i> , in an industrially polluted sea loch
S:15 Poster	A.D. McIntosh, L. Webster, and D. Richardson	Monitoring the biological effects and the origins of PAHs in the Firth of Forth, Scotland

# THEME SESSION ON CLASSIFICATION AND MAPPING OF MARINE HABITATS (T)

T:01	Rebecca J. Allee	A proposed ecosystem and habitat classification system for United States marine and estuarine waters
T:02	C.J. Brown, K.M. Cooper, W.J. Meadows, D.S. Limpenny, and H.L. Rees	An assessment of two acoustic survey techniques as a means of mapping seabed assemblages in the Eastern English Channel
T:03	David W. Connor	The BioMar marine habitat classification - its application in mapping, sensitivity and management
T:04	Cynthia E. Davies and Dorian Moss	The EUNIS habitat classification
T:05	D.J. de Jong	Ecotopes in the Dutch marine tidal waters
T:06	S. Degraer, V. van Lancker, G. Moerkerke, M. Vincx, P. Jacobs, and J.P. Henriet	Intensive evaluation of the evolution of a protected benthic habitat: HABITAT
T:07	D.C. Gordon, E.L.R. Kenchington, K.D. Gilkinson, D.L. McKeown, G. Steeves, M. Chin-Yee, W.P. Vass, K. Bentham, and P.R. Boudreau	Canadian imaging and sampling technology for studying marine benthic habitat and biological communities
T:08	H. Gary Greene, M.M Yoklavich, V.M. O'Connell, R.M. Starr, W.W. Wakefield, C.K. Brylinsky, J.J. Bizzarro and G.M. Cailliet	Mapping and classification of deep seafloor habitats
T:09	Eric Jagtman	Marine habitat classification and mapping within ICES: where to go from here?
T:10	A.J. Kenny et al.	An overview of seabed mapping technologies in the context marine habitat classification
T:11	Alexander Korolev and Marina Fetter	The mapping of benthic biocenoses in the coastal zone of Latvia
T:12	Ron McHugh	The potential of synthetic aperture sonar in seafloor imaging
T:13	Thomas Noji, Terje Thorsnes, and Jan Helge Fosså	Marine habitat mapping for the Norwegian Sea

T:14	Daniel Pauly, Villy Christensen, Rainer Froese, Alan Longhurst, Trevor Platt, Shubha Sathyendranath, Kenneth Sherman, and Reg Watson	Mapping fisheries onto marine ecosystems: a proposal for a consensus approach for regional, oceanic and global integrations
T:15	Maria Joào Rendas and Jon Side	Using autonomous underwater vehicles for seabed habitat mapping
T:16	Brian J. Todd, Vladimir E. Kostylev, Gordon B.J. Fader, Robert C. Courtney, and Riachard A. Pickrill	New approaches to benthic habitat mapping integrating multibeam bathymetry and backscatter, surficial geology and sea floor photographs: a case study from the Scotian Shelf, Atlantic Canada

# THEME SESSION ON MARINE BIOLOGICAL INVASIONS: RETROSPECTIVES FOR THE $20^{\rm TH}$ CENTURY – PROSPECTIVES FOR THE $21^{\rm ST}$ CENTURY (U)

U:01	Allegra A. Cangelosi and Ivor T. Knight	Comparing the bioeffectiveness of ballast water treatments
U:02	Withdrawn	
U:03	Clare Eno and John P. Hamer	The nature conservation implications of marine biological introductions
U:04	Karel Essink and Rob Dekker	Invasion ecology of <i>Marenzelleria c.f. wireni</i> (Polychaeta; Spionidae) in the Dutch Wadden Sea
U:05	Elena Ezhova and L.V. Rudinskaya	Ecological impact of Marenzelleria viridis (Polychaeta, Spionidae) in the Vistula lagoon, Baltic Sea
U:06	Oliver Floerli and Graeme J. Inglis	Marine bioinvasions: quantifying the potential of a transfer vector by analysing its relationship with the donor region
U:07	A. Gudimov nad Elena Gudimova	Towards biological consequences of the inroduction of red king crab Paralithodes camtchatica in the Barents Sea
U:08	Chad L. Hewitt	Marine biological invasions in Australian coastal waters: Current status and future trends
U:09	Withdrawn	
U:10	Ahmet E. Kideys, Zina Romanova, Galina A. Finenko, and Levent Bat	Alien wars in the Black Sea
U:11	V.V. Krylov	An optimum annual catch of snow crab <i>Chionoecetes</i> opilio
U:12	Daniel Masson	Ballast water research in France: current status
U:13	Dan Minchin	A conceptual approach for management of exotic species; modes of life, time-tunnels and exotic species cells

U:14	E.N. Naumenko and Yu. Yu Polunina	New Cladocera species – <i>Cercopagis pengoi</i> (Ostroumov, 1891) (Crustacea) in the Vistula Lagoon in the Baltic Sea
U:15	Henn Ojaveer, S. Gollasch, S. Olenin, V. Panov, and E. Leppäoski	Distribution and ecosystem impacts of exotic speces in the Baltic Sea
U:16	Henn Ojaveer, M. Simm, and A. Lankov	Consequences of invasion of a predatory cladoceran
U:17	Giulio Relini, M. Relini, and G. Torchia	Fish population changes following to invasion of the allochthonous alga <i>Caulerpa taxifolia</i> in the Ligurian Sea (NW-Mediterranean)
U:18	Sigal Sheffer, Eli Geffen and Avigdor Abelson	The invasion of Red-Sea species to the Mediterranean Sea: defining invasion mechanisms by assessment of transport modes and routes
U:19	Susan D. Utting	Introductions of molluscan shellfish – past experience and future considerations
U:20	Gro I van der Meeren, Kees O. Ekeli, Knut E. Jørstad, and Stein Tveite	Americans on the wrong side - the lobster <i>Homarus</i> americanus captured in Norwegian waters
U:21 Poster	S. Kuzmin	Distribution of snow crab <i>Chionoecetes opilito</i> (Fabricius) in the Barents Sea
U:22 Poster	Inger Wallentinus,	Introduced macrophytes - do they have as large an impact on the ecosystem and fisheries as animals?

# THEME SESSION ON MEDIUM-TERM FORECASTS IN DECISION-MAKING (V)

V:01	Bjarte Bogstad, Ingolf Røttingen, Per Sandberg, and Sigurd Tjelmeland	The use of Medium-Term Forecasts in advice and management decisions for the stock of Norwegian spring spawning herring ( <i>Clupea harengus</i> L.)
V:02	Tenno Drevs	On the flounder yield and spawning stock medium-term forecasts in Estonian waters
V:03	Stratis Gavaris, K.R. Patterson, C.D. Darby, P. Lewy, B. Mesnil, A.E. Punt, R.M. Cook, L.T. Kell, C.M. O'Brien, V.R. Restrepo, D.W. Skagen, and G. Stéfansson	Comparison of uncertainty estimates in the short term using real data
V:04	Johannes Hamre	Effects of climate and stocks interactions on the yield of north-east arctic cod. Results from multispecies model run
V:05	C.L. Needle, C.M. O'Brien and C.D. Darby, and M.T. Smith	The use of recruitment time-series structure and environmental information in medium-term stock projections

V:06	K.R. Patterson, C.D. Darby, D.W. Skagen, and M. Smith	Validating three methods for making probability statements in fisheries forecasts
V:07	HJ. Rätz, J. Lloret, J. Casey, A. Aglen, S.A. Schopka, L.O'Brien, and P. Steingrund	Variation in fish condition between Atlantic cod ( <i>Gadus morhua</i> ) stocks and implications for their management
V:08	Victor Restrepo, K.R. Patterson, C.D. Darby, S. Gavaris, L.T. Kell, P. Lewy, B. Mesnil, A.E. Punt, R.M. Cook, C.M. O'Brien, D.W. Skagen, and G. Stéfansson	Do different methods provide accurate probability statement in the short term?
V:09	V.L. Tretyak	Modelling of age-dependent instantanous coefficients of natural mortality for Northeast Arctic cod
V:10	D.A. Vasilyev	Triple-separable VPA (TSVPA) or a stone to bridge the gap between separable cohort models and nonseparable ones
V:11	D.A. Vasilyev, S.V. Belikov, and A.I. Krysov	Blue whiting: results of stock assessment using filtered catch-at-age-data
V:12 Poster	M.A. Pérez, A. Aubone, M. Renzi, A. Madirolas, M. Ehrlich, G. Irusta, and M. Simonazzi	Overfishing indications in the hake ( <i>Merluccius hubbsi</i> ) stock south of 41 S. southwest Atlantic Ocean

# THEME SESSION ON COOPERATIVE RESEARCH WITH THE FISHING INDUSTRY: LESSONS LEARNED $(\mathbf{W})$

W:01	James A. Boutillier	Getting to yes with stakeholders in fisheries resource assessment - a paradigm shift
W:02	Ross Claytor, Jacques Allard, Allen Clay, Claude LeBlanc, and Ghislain Chouinard	Fishery acoustic indices for assessing Atlantic herring populations
W:03	Pablo Durán Muñoz and Esther Román Marcote	Spanish experimental fishings: A cooperative research initiative between scientifics and the local fishing industry
W:04	Pablo Durán Muñoz, Esther Román Marcote, and Fernando González	Results of a deep-water experimental fishing in the North Atlantic: An example of cooperative research with the fishing industry
W:05	R.S.T. Ferro and G.N. Graham	A recent UK joint initiative to revise technical conservation measures regulating the design of mobile gears
W:06	K.H. Hauge	Fisheries scientists' struggle for objectivity

W:07	William A. Karp, Craig S. Rose, John R. Gauvin and Sarah K. Gaichas, Martin W. Dorn, and Gary D. Stauffer	Government-industry cooperative research in the Northeast Pacific. Provisions under the Magnuson- Stevens Fishery Conservation and Management Act and examples from the Gulf of Alaska and the Eastern Bering Sea
W:08	Peter A. Koeller	Co-managing the Scotian Shelf Shrimp Fishery – so far so green
W:09	Richard McGarvey and Michael Pennington	Designing and evaluating length-frequency surveys for trap fisheries
W:10	J. Ferreira Dias, J. Cruz Filipe, J. Menezes, and J. Gonçalves Dias	Economics impact of sardine scarcity on the Portuguese canned fish industry: a system dynamics study
W:11	Richard D. Methot, John R. Wallace, and Charles W. West	Introducing a new trawl survey for US West Coast slope groundfish
W:12	Withdrawn	
W:13	Paul J. Rago, Steve Murawski, Kevin Stokesbury, William DuPaul, and Michael McSherry	Integrated management of the Sea Scallop Fishery in the Northeast USA: Research and commercial vessel surveys, observers, and vessel monitoring systems
W:14	A. Salthaug and O.R. Godø	Analysis of CPUE from the Norwegian bottom trawl fleet
W:15	Withdrawn	
W:16	Aril Slotte,	Use of data from the commercial fishing industry in the management of Norwegian spring spawning herring ( <i>Clupea harengus</i> L.)
W:17	Rob Stephenson, Gary Melvin, Mike Power, Jack Fife, dan Lane, and Don Aldous	Cooperative research with the Scotia-Fundy herring fishing industry: Lessons learned
W:18	Withdrawn	
W:19	Withdrawn	
W:20	K.C.T. Zwanenburg and S. Wilson	The Scotian Shelf and Southern Grand Banks Atlantic halibut ( <i>Hippoglossus hippoglossus</i> ) survey - Collaboration between the fishing and fisheries science organisation
W:21	Philip MacMullen	The unintended impacts of gill netting in European waters - quanitfying and mitigating the ghost fishin phenomenon

# THEME SESSION ON THE DEVELOPMENT OF REFERENCE POINTS AND MANAGEMENT SYSTEMS FOR FISHERIES AND THE MARINE ECOSYSTEM (X)

X:01	Sue Brown	The precautionary approach: a User's View
X:02	R.M. Cook	Complementing the ICES advisory process with stakeholders input
X:03	Barrie Deas	Fisherman and scientists: Collaboration as the basis for stock recovery
X:04	François Gauthiez	Multi-annual strategies: improving stock management and the dialogue between scientists and managers
X:05	Joe Horwood	Regime shifts and fisheries management
X:06	Martin.A. Pastoors, Peter Bailey, and Kjellrun Hiis-Hauge	Analysis of communication over and understanding of the 'precautionary approach'
X:07	Laura J. Richards	Developing a wild salmon policy for Pacific Canada
X:08	Ingolf Røttingen	A review of the process leading to the establishment of limit and precautionary reference points for the stock of Norwegian spring spawning herring
X:09	Sigurdur Tor Jónsson and Einar Hjörleifsson	Stock assessment bias and variation, analyzed retrospectively from ICES quality control sheets, and introducing the PA-residual

#### THEME SESSION ON DOWNTURN IN NORTH ATLANTIC SALMON ABUNDANCE (Y)

Y:01	Kerim Aydin	ENSO- and regime-scale variation in the biogeography of Gulf of Alaska micronekton as a driving mechanism for observed growth trends in Pacific salmon
Y:02	Withdrawn	
Y:03	Arni Isaksson	Status of Iceland salmon stocks
Y:04	A.F. Youngston, R.J. Fryer, and J.C. MacLean	Rod catches as indicators of abundance in the Scottish salmon fisheries
Y:05 Poster	Gloria Blanco Lizana, Y. Borrell, E. Vázquez, and J.A. Sánchez	Microsatellite variation and estimation of genetic relatness in Atlantic salmon
Y:06 Poster	José Sánchez, M.D. Ramos, H. Pineda, Y. Borrel, E. Vázquez, and G. Blanco	The application of genetic variation at microsatellite loci in Atlantic salmon ( <i>Salmo salar</i> L.) stock identification
Y:07	N O'Maoiléidigh	Summary of ICES Working Group on North Atlantic Salmon
Y:08	Malcolm Windsor and Peter Hutchinson	Recent development in salmon conservation through international cooperation in NASCO

# THEME SESSION ON GENERAL FISHERIES AND MARINE ECOLOGY (Z)

Z:01	Alexander Arkhipkin and David Middleton	Squid interspecific competition: possible impact of <i>Illex</i> argentinus onto <i>Loligo gahi</i> recruitment in the Southwest Atlantic
Z:02	Dariusz P Fey	Temperature and growth rate effect on the otolith size - fish size relationship estimated for Baltic herring from the Vistula Lagoon
Z:03	Kristin Helle, Bjarte Bogstad, Geir Ottersen, and Michael Pennington	Some environmental factors that influence the growth of Arcto-Norwegian cod from the early juvenile to the adult stage
Z:04	Withdrawn	
Z:05	Iwona Psuty-Lipska	Eelpout as an index of changes in the fish community of Gdansk Bay in 1985-1999
Z:06	Yu.I. Bakay	Parasites and pigmented patches as indicators of intraspecific structure of <i>Sebastes mentella</i> in the Irminger Sea
Z:07	Philip Percival and Chris Frid	The impact of fishing disturbance on benthic nutrient regeneration and flux rate
Z:08	Withdrawn	
Z:09 Poster	Paulino Lucio, M. Santurtun, and I. Quincoces	Tagging experiments on hake, anglerfish and other species in the Bay of Biscay
Z:10 Poster	Paulino Lucio, M. Santurun, A. Martínez Murgía, and I Quincoces	Experiments on horse mackerel in captivity. (An experiment of survival of this species tagged with external and internal tags).
Z:11 Poster	Hilario Murua, M. Santurtun, I Quincoces, and Paulino Lucio	Oocyte diameter evaolution along the year and batch fecundity of hake in the Bay of Biscay (ICES Divisions VIIIa, b, d)
Z:12 Poster	Anna Terrats, Kostas I. Stergiou, and G. Petrakis	Histological study of the gonadal development of armed gurnard, <i>Peristedion cataprhactum</i> (L. 1758)
Z:13 Poster	Lies Van Nieuwerburgh, Ingrid Wänstrand, and Pauli Snoeijs	Pigment transfer from phytoplankton to copepods in nutrient-enriched mesocosms