

CM 1998 - contents

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Authors have been requested to provide 200 copies of their papers (125 to be sent to Portugal and 75 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 1997/1998
- Gen:3 Elections and Appointments of Council Officials at 1998 Annual Science Conference (86th Statutory Meeting) (E+F)
- Gen:4 Report of the Bureau Working Group on Strategic Planning
- Gen:5 Report on ICES Symposia
- Gen:6 1997/1998 Overview of ICES Committees and Subsidiary Groups and their Shadowing by Secretariat Staff, and Schedule of ICES Meetings and List of CM Codes

DEL - DELEGATES DOCUMENTS

- Del:1 Final Accounts for Financial Year 1996/1997
- Del:2 Preliminary Report on Administration
- Del:3 Cooperation with Other International Organisations: Working and Financial Arrangements
- Del:4 Estimated Accounts for Financial Year 1997/1998 (E+F)
- Del:5 Budget for Financial Year 1998/1999 (E+F)
- Del:6 Forecast Budget for Financial Year 1999/2000 (E+F)
- Addendum to
Del:6 Summary of ICES Secretariat Workplan, including Associated Resources
- Del:7 Elections and Appointments at the 1998 Annual Science Conference
- Del:8 Arrangements for 1999 (87th Statutory Meeting; Sweden), 2000 (88th Statutory Meeting; Belgium), and Subsequent Annual Science Conferences
- Del:9 Lithuanian Application to Accede to ICES Convention
- Del:10 Report on Second Meeting of ICES/Commissions Working Group on Cooperative Procedures
- Addendum to
Del:10 Implications for ICES of Second Meeting of ICES/Commissions Working Group on Cooperative Procedures
- Del:11 Developing Memoranda of Understanding
- Del:12 Continuation of Advisory Honoraria to Chairmen of ACFM and ACME Beyond 1998/1999
- Del:13 Progress on Planning and Funding for the ICES Centenary
- Del:14 Report of Coordinating Group on ICES Advice
- Del:15 Report of Bureau Working Group on Strategic Planning
- Del:16 Report of Steering Group on Planning for Eleventh ICES Dialogue Meeting
- Del:17 Progress Report on Planning for ICES Young Scientists Conference
- Del:18 Status of ICES/GLOBEC Project Office

(E+F) in English and French

FI - FINANCE COMMITTEE

FI:1* Agenda for Finance Committee

PUB - PUBLICATION COMMITTEE

Pub:1 Agenda for Publications Committee
Pub:2 Review of ICES publication activities in 1997/1998
Pub:3 Sale and promotion of ICES publications during the last three years
Pub:4 *ICES Journal of Marine Science*: Editors' Report for 1997/1998
Pub:5 *ICES Journal of Marine Science*: Strategy for development
Pub:6 *ICES Journal of Marine Science*: Academic Press Publisher's Report for 1997/1998
Pub:7 *ICES Journal of Marine Science*: Status of ICES/Academic Press joint account for 1997,
with two Annexes
Pub:8 *ICES Cooperative Research Report* series: Editor's Report for 1997/1998
Pub:9 *ICES Identification Leaflets for Plankton*: Editor's Report for 1997/1998
Pub:10 *ICES Identification Leaflets for Diseases and Parasites of Fish and Shellfish*: Editor's
Report for 1997/1998
Pub:11 *ICES Techniques in Marine Environmental Sciences*: Editor's Report for 1997/1998
Pub:12 Role of the ICES Publications Committee

REFERENCE PAPER: DEL:15/GEN:6

* For Finance Committee and Delegates only

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- A:1 Agenda for Consultative Committee
- A:2 Minutes from ACFM Meeting 22–31 October 1997
- A:3 Minutes from ACFM Meeting 18–21 May 1998
- A:4 Minutes from ACME Meeting 8–13 June 1998
- A:5 Report of Mid-Term Meeting of the Consultative Committee and the ASC
Programme Planning Group 4–6 June 1998
- A:6 Compendium of Draft Recommendations

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 - ✓ B:2 Study Group on Grid (Grate) Sorting Systems in Trawls, Beam Trawls and Seine Nets 6 5029
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 - ✓ B:4 Working Group on Fisheries Acoustics Science and Technology 6 5031
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 - ✓ B:6 Study Group on the Use of Selectivity and Effort Measurements in Stock Assessment 6 5033

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- ✓ C:3 Working Group on Phytoplankton Ecology *6 5008*
Ref. ACME
- ✓ C:4 Working Group on Harmful Algal Bloom Dynamics *6 5009 + Add. C:4 = 6 5010*
- ✓ C:5 Working Group on Seabird Ecology
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- ✓ C:6 Working Group on Zooplankton Ecology *6 5012*
- ✓ C:7 Working Group on Marine Data Management *6 5011*
- ✓ C:8 Working Group on Oceanic Hydrography *6 5013*
- ✓ C:9 Third ICES/GLOBEC Backward-Facing Workshop *6 5014*
- ✓ C:10 ICES/GLOBEC Working Group on Cod and Climate Change *6 5015*
- ✓ C:11 ICES/GLOBEC North Atlantic Regional Coordination Group, September 1997 *6 5016*
- ✓ C:12 Steering Group on Global Ocean Observing System *6 5018*
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- ✓ C:13 ICES/GLOBEC North Atlantic Regional Coordination Group, May 1998 *6 5017*
- ✓ C:14 ICES/GLOBEC Workshop on Prediction and Decadal-Scale Ocean Climate
Fluctuations of the North Atlantic *6 5019*

REFERENCE PAPERS: E:1, E:2, ACME:1, ACME:2, ACME:3, ACME:9

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- ✓ D:2 Study Group on Stock-Recruitment Relationships for North Sea Autumn-Spawning Herring *b 5037*
- ✓ D:3 Planning Group on Surveys on Pelagic Fish in the Norwegian Sea *b 5038*
- ✓ D:4 Study Group on the Evaluation of the Quarterly IBTS Surveys *b 5039*
Ref. ACFM
- ✓ D:5 Comprehensive Fishery Evaluation Working Group
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- ✓ D:6 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1997: Quarter 1 *b 5040*
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- ✓ D:7 Study Group on the Management Performance of Fisheries Systems *in the mottatt.*
- ✓ D:8 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1991: Quarter 2, 3, and 4 *b 5041*
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- ✓ D:9 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1992: Quarter 2, 3 and 4 *b 5042*
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- ✓ D:10 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1993: Quarter 2, 3 and 4 *b 5043*
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- ✓ D:11 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1994: Quarter 2,3 and 4 *b 5044*
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- ✓ D:12 International Bottom Trawl Survey in the North Sea, Skagerrak and Kattegat in 1995: Quarter 2,3 and 4 *b 5045*
Ref. G
- ✓ D:13 International Bottom Trawl Survey Working Group
- ✓ D:14 *Rep. on the 0-group fish survey in Icelandic waters, Aug. 1998*
b 5046

REFERENCE PAPERS; C:1, E:1, E:2, G:2, G:4, H:3, ACFM:10, ACFM:13

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- ✓ E:1 Benthos Ecology Working Group 65051
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- ✓ E:2 Marine Chemistry Working Group 65052
Ref. ACME, C
- ✓ E:3 Working Group on Biological Effects of Contaminants
Ref. ACME
- ✓ E:4 Working Group on Environmental Assessment and Monitoring Strategies
Ref. ACME
- ✓ E:5 Working Group on the Effects of Extraction of Marine Sediments on the Marine
Ref. ACME Ecosystem
- ✓ E:6 Working Group on Marine Mammal Habitats
Ref. ACME,
G
- ✓ E:7 Working Group on Marine Sediments in Relation to Pollution
Ref. ACME
- ✓ E:8 Working Group on Statistical Aspects of Environmental Monitoring
Ref. ACME
- ✓ E:9 Joint Session of the Working Group on Biological Effects of Contaminants and the
Ref. ACME Working Group on Statistical Aspects of Environmental Monitoring

REFERENCE PAPERS: C:5, C:12, F:2, F:4, G:6, ACFM/ACME:1, ACME:1, ACME:2, ACME:3, ACME:4, ACME:5, ACME:6, ACME:7, ACME:8

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- ✓ F:2 Working Group on Environmental Interactions of Mariculture 6 5054
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- ✓ F:3 Working Group on Marine Fish Culture
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- ✓ G:1 Workshop on Otolith Ageing of North Sea Whiting (Preliminary report)
- G:2 Planning Group for Pelagic Acoustic Surveys in ICES Sub-Areas VIII and IX $\frac{1}{2}$ ihluu mott.
Ref. D
- ✓ G:3 ^{Report} Study Group on Redfish Stocks 6 5074
Ref. H
- ✓ G:4 ^{Report} Planning Group for Herring Surveys 6 5072
Ref. D
- G:5 Horse Mackerel Otolith Workshop - no meeting held $\frac{1}{2}$ ihluu mottatt
- ✓ G:6 Working Group on Marine Mammal Population Dynamics and Trophic Interactions
Ref. E, ACME, ACFM 6 5075
- ✓ G:7 Working Group on Cephalopod Fisheries and Life History 6 5076
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- ✓ G:8 Working Group on *Crangon* Fisheries and Life History
- ✓ G:9 Study Group on Life Histories of *Nephrops* 6 5077
- ✓ G:10 Study Group on the Biology and Life History of Crabs
- ✓ G:11 Planning Group on the Census of the Fishes
- ✓ G:12 Study Group on Elasmobranch Fishes
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- ✓ G:13 Study Group on Beam Trawl Surveys
Ref. ACFM
- ✓ G:14 Working Group on Mackerel and Horse Mackerel Egg Surveys
Ref. ACFM
- G:15 Study Group on Sea Trout $\frac{1}{2}$ ihluu mottatt
- ✓ G:16 Stock Identification Methods Working Group
- ✓ G:17 Study Group on Ocean Salmon Tagging Experiments with Data Logging Tags 6 5078
- ✓ G:18 EIFAC/ICES Working Group on Eels
Ref. ACFM

REFERENCE PAPERS: C:12, D:6, D:8, D:9, D:10, D:11, D:12, ACFM:12, E:6, ASSESS:5

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- ✓ H:1 Workshop on Standard Trawls for Baltic International Fish Surveys
Ref. B
- H:2 Baltic Herring Age-Reading Study Group *6 / ihke mottalf*
- ✓ H:3 Study Group on Baltic Acoustic Data
Ref. D
- ✓ H:4 Baltic International Fish Survey Working Group

REFERENCE PAPERS: D:1, G:3, ACFM:11, ACME:1, ACME:2, ACME:3

ACFM/ACME

✓ ACFM/
ACME:1
Ref. E

Working Group on Ecosystem Effects of Fishing Activities

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- Pt. 1, 2, 3 / 6 4943-4945
- ✓ Assess:1 Working Group on the Assessment of Northern Shelf Demersal Stocks
 - ✓ Assess:2 Arctic Fisheries Working Group Pt. 1 + 2 / 6 4940-4941
 - Assess:3 Joint ICES/NAFO Working Group on Harp and Hooded Seals
 - Assess:4 Working Group on the Assessment of Southern Shelf Demersal Stocks
 - ✓ Assess:5, Ref. G *Pandalus* Assessment Working Group 6 4942
 - ✓ Assess:6 Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy - Part. 1 + 2 / 6 4902-4903
 - ✓ Assess:7 Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (1-3)
 - ✓ ACFM:8 Study Group on the Assessment of Other Fish and Shellfish Species 5375 / 6 4947 (pt. 1-2)
 - ✓ ACFM:9 Study Group on Future Requirements for Fisheries Assessment Data and Software
 - ACFM:10 Study Group on the Precautionary Approach to Fishery Management 6 4946
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 - ✓ ACFM:11 Study Group on Management Strategies for Baltic Fish Stocks
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 - ✓ ACFM:12 Study Group on the Biology and Assessment of Deep-Sea Fisheries Resources 6 1948
 - Ref. G
 - ✓ ACFM:13 Workshop on Setting Conservation Limits for Salmon in the Northeast Atlantic
 - Ref. D
 - ✓ ACFM:14 Herring Assessment Working Group for the Area South of 62°N 6 4949 / 6 1950 (pt. 1-2)
 - ✓ ACFM:15 + Working Group on North Atlantic Salmon 6 5005
 - supplement
 - ✓ ACFM:16 Baltic Fisheries Assessment Working Group
 - ✓ ACFM:17 Baltic Salmon and Trout Assessment Working Group
 - ✓ ACFM:18 Northern Pelagic and Blue Whiting Fisheries Working Group 6 5020
 - ✓ ACFM:19 North-Western Working Group 6 5021 / 6 5022 (pt. 1-2)

REFERENCE PAPERS: C:1, D:2, D:4, D:5, D:6, D:8, D:9, D:10, D:11, D:12, F:2, G:6, G:7, G:12, G:13, G:14, G:18

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ACME

- ✓ ACME:1 ICES/HELCOM Steering Group on Quality Assurance of Biological Measurements
Ref. C, E, H in the Baltic Sea
- ✓ ACME:2 ICES/HELCOM Steering Group on Quality Assurance of Chemical Measurements
Ref. C, E, H in the Baltic Sea
- ✓ ACME:3 ICES/OSPAR Steering Group on Quality Assurance of Biological Measurements
Ref. C, E, H Related to Eutrophication Parameters — b 5023
- ✓ ACME:4 Working Group on Introductions and Transfers of Marine Organisms - b 5024
Ref. E, F
- ✓ ACME:5 ICES/IOC/IMO Study Group on Ballast Water and Sediments b 5025
Ref. E
- ✗ ACME:6 ICES/GESAMP Working Group on the Control of Marine Pests - no meeting held NB! ÷
Ref. E, F
- ✗ ACME:7 Study Group on Monitoring Programmes for Contaminants in Sediments - no
Ref. E meeting held NB! ÷
- ✓ ACME:8 ICES/HELCOM Benthos Taxonomic Workshop b 5026
Ref. E
- ✓ ACME:9 ICES/HELCOM Workshop/Training Course on Phytoplankton b 5027
Ref. C

REFERENCE PAPERS: C:2, C:3, E:1, E:2, E:3, E:4, E:5, E:6, E:7, E:8, E:9

**MINI-SYMPOSIUM ON COASTAL EUTROPHICATION, SYSTEM PRODUCTIVITY, AND
(HARMFUL) ALGAL BLOOMS: WHAT DO WE LEARN FROM MESOCOSMS?**

- | | | | |
|---|--------|--|--|
| ✓ | Mini:1 | V.V. Sapozhnikov and N.M. Lapina | Studies of production-destruction processes in the Black Sea lagoons with the mesocosm systems <i>ikke mott.</i> |
| ✓ | Mini:2 | A.I. Agatova and V.V. Sapozhnikov | The biohydrochemical studies in the shelf zone of the Black Sea and several reasons of the development of harmful algal blooms <i>ikke mott.</i> |
| ✓ | Mini:3 | D.K. Mills and R. Sanders | Ecosystem response to nutrient input: preliminary analysis of results from Thames plume |
| ✓ | Mini:4 | S.M. Mykkestad, K.Y. Børsheim, S. Kirkvold, and H. Reinertsen | The production of soluble cellular carbohydrates and the release of dissolved organic carbon (doc) including carbohydrates, in relation to nutrient supply in a mesocosm experiment |
| ✓ | Mini:5 | T. Tamminen, A.-S. Heiskanen, R. Lignell, J. Seppälä, P. Kuuppo, K. Olli, K. Kivi, and P. Tuomi | Nutrient enrichments and food web interactions in shaping phytoplankton responses, and retention vs. export of accumulated nutrients in four large-scale mesocosm experiments <i>ikke mott.</i> |
| ✓ | Mini:6 | Y. Olsen et al. | Studies of ecological response versus nutrient dose relationship using experimental mesocosms - Comparison of short-term response in chlorophyll-a following nutrient additions to European coastal waters |
| ✓ | Mini:7 | A. Jöborn, H. Oscarsson, and L. Phil | A new approach to combat blooms of ephemeral opportunistic macroalgae in Scandinavian coastal waters |
| ✓ | Mini:8 | R. Dame, D. Edwards, L. Gregory, S. Thomas, C. Corbett, B. Kjerfve, E. Koepfler, A. Lewitus, D. Allen, D. Bushek, and T. Prins | Ecosystem scale observations of estuarine variability <i>ikke mott.</i> |
| ✓ | Mini:9 | T.C. Prins, V. Escaravage, L.P.M.J. Wetsteyn, and J.C.H. Peeters | Effects of N and P enrichment on phytoplankton composition, primary and secondary production in an experimental marine ecosystem |

**THEME SESSION ON VARIATION IN THE PATTERN OF FISH AGGREGATION:
MEASUREMENT AND ANALYSIS AT DIFFERENT SPATIAL AND TEMPORAL SCALES AND
IMPLICATIONS (J)**

- J:1 ✓ Withdrawn
- J:2 ✓ R. Aukland and D. Reid The impact of changing stock size on the aggregative behaviour of North Sea herring
- J:3 D.G. Reid, P.G. Fernandez, E. Bethke, A. Couperus, E. Goetze, N. Håkansson, J. Pedersen, K.J. Staehr, E.J. Simmonds, R. Toresen and E. Torstensen On visual scrutiny of echograms for acoustic stock estimation
i like math.
- J:4 ✓ D.N. MacLennan and E.J. Simmonds Fish aggregations near the seabed
- J:5 ✓ P. Petitgas and B. Samb On the clustered occurrence of fish schools along acoustic survey transects and its relation to population abundance
- J:6 ✓ P.G. Fernandes A spatial analysis of trawl variability in the 1995 North Sea herring acoustic survey
- J:7 ✓ K. Wieland, L. Foldager, R. Holst, and A. Jarre-Teichmann Spatial distribution and variability of abundance estimates of juvenile (age 1 and 2) whiting and cod in the North Sea
- J:8 ✓ M. Soria, P. Petitgas, T. Bahri, and T. Lafont On the size of fish schools and clusters of schools: a spatial analysis of multibeam sonar images of schools in the Mediterranean sea
- J:9 ✓ U. Böttcher, R. Oeberst, and B. Mieske Daily vertical migration patterns of Baltic 0-group cod
- J:10 ✓ E. Lebarbier, J. Massé, and P. Petitgas Relating trawl catches to aggregation variability to improve identification of echo-traces during acoustic surveys
- J:11 ✓ S. Mackinson and N. Newlands Using local and scientific knowledge to predict distribution and structure of herring shoals
- J:12 ✓ S. Mackinson, L. Nøttestad, S. Guénette, T. Pitcher, O.A. Misund and A. Fernö Distribution and behavioural dynamics of ocean feeding Norwegian spring spawning herring: observations across spatio-temporal scales
to 5122
- J:13 ✓ L. Gonzalez, F. Gerlotto, and J. J. Cardenas Pelagic fish populations in Eastern Venezuela: impact of the environmental characteristics on the morphology, aggregation and spatio-temporal distribution of *Sardinella aurita* schools
- J:14 ✓ L. Millischer and D. Gascuel Individual-based modelling of fishing tactics
- J:15 ✓ V.M. Tsontos Spatial abundance distribution patterns and scaling properties within an exploited bivalve population
- J:16 ✓ G. Huse and J. Giske Individual based spatial models with evolved behaviour
- J:17 ✓ N. Kuyeye and O.A. Misund Seasonal changes in distribution and aggregation characteristics of sardinella species in Angolan waters
to 5123
- J:18 ✓ M. Ostrowski and I.J. Huse Variation in acoustically measured abundance from repeated surveys of herring
to 5126

- ✓ J:19 B.E. Axelsen, L. Nøttestad, A. Fernö, A. Johannessen, and O.A. Misund Await in the pelagic: herring compromising reproduction and survival within a vertically split school 65127
- ✓ J:20 L. Nøttestad Extensive gas bubble release in Norwegian spring spawning herring (*Clupea harengus*) during predator avoidance 65128
- J:21 H. Mosegaard ikke mott. Medium and large scale aggregations of different herring stocks in the Eastern North Sea, the Skagerrak and the Kattegat areas
- ✓ J:22 J. Pedersen and R. Holst Description of fish layers using the three-dimensional information obtained by a split-beam echo sounder
- ✓ J:23 P. Petitgas, N. Diner, S. Georgakarakos, D. Reid, R. Aukland, J. Massé, C. Scalabrin, M. Iglesias, R. Muino, and P. Carrera Sensitivity analysis of school parameters to compare schools from different surveys: A review of the standardisation task for the EC-FAIR programme CLUSTER
- J:24 Withdrawn
- ✓ J:25 S. Ehrich, S. Adlerstein, S. Götz, N. Mergardt and A. Temming Variation of mesoscale fish distribution in the North Sea
- ✓ J:26 B. Rothschild and D. Cai Spatially explicit theory of recruitment -and-stock and plankton interactions
- ✓ J:27 C. Goss and I. Everson Acoustic sampling intensity and vertical distribution of targets, with special reference to Antarctic Krill
- J:28 Withdrawn
- ✓ J:29 E.J. Simmonds The implications of the distribution and mobility of North Sea herring on the evaluation of the stock
- ✓ J:30 O.A. Misund, N'Kosi Luyeye, D. Boyer, J. Coetzee, R. Cloete, J. Dalen, and G Oechslin School dynamics, swimming behaviour and surface appearance of sardinella in Angolan waters 65129
- ✓ J:31 J. Coetzee, N'Kosi Luyeye, G. Oechslin, and O.A. Misund Variability in the spatial structure of three schooling pelagic species off Namibia 65130
- ✓ J:32 A. Slotte Patterns of aggregation in Norwegian spring spawning herring (*Clupea harengus* L.) during the spawning season 65131
- J:33 P. Fernandez, M. Soria, and F. Gerlotto ikke mott. Into the next dimension: three-dimensional acoustic observations of fish school aggregations
- J:34 J. Santos and F. Nøstvik ikke mott. Spatial scale of variation of biological traits in different fish species of the Barents Sea
- J:35 J. Santos and L. Krag ikke mott. Comparative study of density estimation of marine species in bottom trawl surveys and acoustic surveys
- J:36 R.G. Perrotta, A. Madirolas, and M. Delia Viñas ikke mott. Aggregation patterns of mackerel (*Scomber japonicus*) schools in relation to the environmental conditions for two different fishing areas off the Argentine coast
- J:37 Withdrawn

J:38 A.R.G. Tomas ✓
Poster

Environment on population structure of the cusk-eel, *Ophidion holbrooki*, from the Southeastern Brazil

J:39 A. Madirolas and F.C.
Poster Machado

In situ target strength measurements of Argentine hake (*Merluccius hubbsi*)

ilike mollaff

THEME SESSION ON THE USE OF GENETICS IN AQUACULTURE (K)

- ✓ K:1 P. Eskelinen and J. Piironen Effects of inbreeding on fertilization, fry size and juvenile growth of rainbow trout
- ✓ K:2 M. Pempera, R. Wenne, and D.O.F. Skibinski Length heteroplasmy of mitochondrial DNA and population differentiation of the mussel *Mytilus trossulus* from the Southern Baltic
- ✓ K:3 S.-E. Fevolden, J. Solvang, and E. Berg Population divergence of Atlantic cod at the synaptophysin locus; microgeographic variation within fjords
- ✓ K:4 E. Wlodarczyk and R. Wenne Genetic differentiation of Polish sea trout, *Salmo trutta m. trutta*, populations based on RFLP analysis of PCR-amplified mtDNA segments
- ✓ K:5 I. Martinez and L.A. Pastene RAPD-typing of North Atlantic and Western North Pacific minke whales, *Balaenoptera acutorostrata*
- ✓ K:6 T.F. Cross, P. Galvin and E. Dillane The use of molecular markers in aquaculture genetics
- ✓ K:7 P. Boudry, B. Collet, G. Kotoulas, A. Magoulas, V. Hervouet, F. Bonhomme, and A. Gérard The use of microsatellite markers for parentage analysis in the Pacific cupped oyster, *Crassostrea gigas* (Thunberg)
- ✓ K:8 T. Aho, J. Piironen, E. Ranta, and C.R. Primmer Microsatellites for assessment of genetic variation and improvement of hatchery practices in salmonid populations
- ✓ K:9 O. Vasin First finding of polymorphism at esterase D loci on the Baltic salmon (*Salmo salar* L.)
- (K:10 Withdrawn
- ✓ K:11 R.H. Devlin Benefits, limitations, and risks of transgenic fish for aquaculture
- (K:12 Withdrawn
- ✓ K:13 P. Bossier, G. Vanderstappen, G.V. Triantaphyllidis and P. Sorgeloos Long-primer RAPD for authentication of *Artemia* species
Poster
- ✓ K:14 S.-E. Fevolden and K.H. Røed Selective breeding for post-stress levels of lysozyme and cortisol in rainbow trout
Poster
- ✓ K:15 M. De Lourdes Sardinha and G. Nævdal Population genetics studies of the Angolan Horse Mackerels; *Trachurus trecae cadenat*, 1949 and *Trachurus Capensis Castelnua*, 1861
Poster
- K:16 ^{like moff.} E. Gagicas, and G. Blanco The use of allozyme, microsatellite and RAPDs markers in the identification of brown trout (*Salmo trutta*) populations
Poster
- K:17 ^{like moff.} T. Johansen, A.K. Danielsdottir, N.R. Hareide, and G. Nævdal Progress report on the genetic characterisation of Giant *Sebastes* along the Reykjanes Ridge
Poster
- ✓ K:18 T. Johansen, A.K. Danielsdottir, and G. Nævdal Progress report on the studies of the genetic relationship of deep-sea and oceanic *Sebastes mentella* in the Irminger Sea
Poster

- ✓ K:19 Poster O.D.B. Jonsdottir, A.K. Imslund, A.K. Danielsdottir, V. Thorsteinsson, and G. Nævdal Genetic differentiation among Atlantic cod in south and southeast Icelandic waters: Synaptophysin (Syp I) and haemoglobin (HbI) variation
- ✓ K:20 Poster T. Johansen, N.R. Hareide, and G. Nævdal Genetic variation in Icelandic brown trout (*Salmo trutta*) populations
- K:21 Poster G. ^{ihle mott.}Blanco, H. Pineda, I. McCarthy, E. Vázquez, and J.A. Sánchez Genetic variability, timing of first feeding and life history strategy in Atlantic salmon

**THEME SESSION ON FARMING MARINE FISH BEYOND THE YEAR 2000:
TECHNOLOGICAL SOLUTIONS FOR BIOLOGICAL CHALLENGES (L)**

- ✓ L:1 H.K. Strand Social interactions; a comparative study of pre- and post-metamorphosed halibut and turbot fry
- ✓ L:2 V. Øiestad Shallow raceway as a solution to compact resource-maximizing farming procedure for marine fish species
- ✓ L:3 J.G. Støttrup and H. Paulsen Stocking of marine fish - a growing market for aquaculture
- ✓ L:4 J.C. Holm, S.A. Tuene and J.E. Fosseidengen Halibut behaviour as a means of assessing suitability of ongrowth systems *to 5150*
- ✓ L:5 I-B Falk-Petersen, T.K. Hansen, R. Fieler, and L.M. Sunde Cultivation of the spotted wolffish (*Anarhichas minor* Olafsen) - A new candidate for cold-water fish farming
- ✓ L:6 B. Björnsson Can fisheries yield be enhanced by large-scale feeding of a predatory fish stock? A case study of the Icelandic cod stock
- ✓ L:7 A. Kittelsen The modern cage culture in fish farming
- ✓ L:8 P. Bovbjerg Pedersen Status of recirculation technology in Denmark
- ✓ L:9 Y. Olsen, G. Øie, K.I. Reitan, O. Vadstein and J. Rainuzzo Cultivation of turbot (*Scophthalmus maximus*) juveniles. Effects of larval stocking density during first feeding
- ✓ L:10 B.R. Howell The effect of stocking density on growth and size variation in cultured turbot, *Scophthalmus maximus*, and sole, *Solea solea*
- ✓ L:11 T. Pedersen, T.S. Kristiansen, and T. Svåsand Possibilities and limitations of extensive aquaculture of marine fish - evaluation of current results with Atlantic cod and further prospects
- L:12 *the molt* J.P. Peleteiro, M. Olmedo, C. Gómez, and B. Alvarez-Blázquez Evaluation of five new potentially farmable fish species: Blackspot sea bream (*Pagellus bogaraveo*), red mullet (*Mullus surmuletus*), white bream (*Diplodus sargus*), sea bream (*Diplodus vulgaris*), pollack (*Pollachius pollachius*), axillary bream (*Pagellus acarne*), in the NW of the Iberian Peninsula *to 5151*
- ✓ L:13 T. van der Meeren, T. Harboe, J.C. Holm, and R. Solbakken A new cleaning system for rearing tanks in larval fish culture *to 5152*
- ✓ L:14 T. Harboe, S.Å. Skår, K.E. Naas, and J.C. Holm Incubation of halibut yolk sac larvae improved by addition of freshwater and oxygen *to 5153*
- ✓ L:15 K.Ø Midling, K. Aas, B. Isaksen, J. Pettersen, and S.H. Jørgensen A new design in net cage technology for live seafood and aquacultural purposes *to 5154*
- ✓ L:16 P. Pagand, J.-P. Blancheton, J. Lemoalle, and C. Casellas High rate algal pond for the treatment of marine effluent from a semi-closed fish rearing system
- ✓ L:17 T. Næss, K. Hamre, and J.Chr. Holm Successful early weaning of Atlantic halibut (*Hippoglossus, hippoglossus*) in small shallow raceway systems *to 5155*
- ✓ L:18 G. Bæverfjord Ethics and animal welfare in intensive aquaculture production

- ✓ L:19 E. Kjørsvik, K. Hoehne, K- I Reitan, and J. Rainuzzo Evaluation of egg and larval quality criteria as predictive measures for juvenile production in turbot (*Scophthalmus maximus* L.)
- L:20 Julie Moff A. Sanchez-Lamadrid Stock enhancement of gilthead sea bream, *Sparus aurata* L., in the Bay of Cádiz: growths, movements and survivals
- Poster Julie Moff
- L:21 M. Olmedo, J.P. Peleteiro, First experiences of larval culture of blackspot sea bream (*Pagellus bogaraveo*)
- Poster B. Alvarez-Blázquez, and C Gómez

THEME SESSION ON IMPACT OF CEPHALOPODS IN THE FOOD CHAIN AND THEIR INTERACTION WITH THE ENVIRONMENT (M)

- ilke moffatt*
M:1 E.A.G. Vidal, H. Herb, F.P. Prey capture by hatchling loliginid squid
DiMarco, J.H. Wormuth
and P.G. Lee
- ✓ M:2 M. Vecchione The role of young cephalopods in food webs and their environment:
a major gap in our knowledge
- ✓ M:3 M. Vecchione, C.F.E. In-situ observations on ommastrephid squids in the western North
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- ✓ M:4 C.W. Glass, B. Sano, H.O. Squid (*Loligo pealei*) reactions to towed fishing gears; the role of
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H.A. Carr
- M:5 *ilke moffatt*
P. Rodhouse The South Georgia squid fishery
- (M:6 Withdrawn
- ✓ M:7 R. Macnaughton, E. Rogan, The importance of cephalopods in the diet of blue shark (*Prionace*
V. Hernández-García, and *glauca*) south and west of Ireland
C. Lordan
- M:8 *ilke moffatt*
M.R. Clarke, M.B. Santos, The importance of cephalopods in the diets of marine mammals and
and G.J. Pierce other top predators
- ✓ M:9 R.K. O'Dor and J.A. Hoar Does geometry limit squid growth?
- ✓ M:10 H. Bjørke and H. Gjørseter Who eats the larger *Gonatus fabricii* (Lichtenstein) in the
Norwegian Sea? 65156
- ✓ M:11 Y. Ikeda, S. Onaka, N. Migratory routes of the Japanese common squid (*Todarodes*
Takai, H. Kidokoro, N. *pacificus*) inferred from analyses of statolith trace elements, and
Arai, and W. Sakamoto nitrogen and carbon stable isotopes
- ✓ M:12 N. Takai, S. Onaka, Y. Biological and geographical variations of carbon and nitrogen stable
Ikeda, A. Yatsu, H. isotope ratios of squid
Kidokoro, and W.
Sakamoto
- ✓ M:13 N. Koueta, B.B. Castro, and Biological indices for instantaneous growth estimation in young
E. Boucaud-Camou cephalopod *Sepia officinalis* L.
- ✓ M:14 E. Hatfield Seasonal temperature change affects the growth of the squid *Loligo*
gahi (*Cephalopoda: Loliginidae*): I. The length-at-age relationship
- M:15 *ilke moffatt*
E. Hatfield, S. Cadrin, and Factors influencing the abundance of the longfin inshore squid,
Poster D. Mountain *Loligo pealeii*
- ✓ M:16 B.A. Roel and A.I.L. Payne Management of the South African chokka squid jig fishery under
uncertainty regarding trends in resource abundance
- (M:17 Withdrawn
- ✓ M:18 Y. Sakuari, J.R. Bower, H. Changes in inferred spawning sites of *Todarodes pacificus* based on
Kiofujii, S. Saitoh, T. Goto, changing environment
Y. Hiyama, K. Mori, and
Y. Nakamura

- ✓ M:19 A.F. González, S. Pascual, C. Gestal, E. Abollo, and A. Guerra What makes a cephalopod a suitable host for parasites? The case of Galician waters
- ✓ M:20 G.J. Pierce, J. Wang, J.M. Bellido, C.M. Waluda, J.-P. Robin, V. Denis, D. Kousoubas, V. Valavanis, and P.R. Boyle Relationships between cephalopod abundance and environmental conditions in the Northeast Atlantic and Mediterranean as revealed by GIS
- M:21 ^{like moff.} H.I. Daly, G.J. Pierce and S.K. Cho Stock assessment for squid in Scottish waters
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- ✓ M:22 J.-P. Robin, V. Denis, and A. Carpentier Distribution and abundance indexes of East English Channel squid populations: comparison of commercial trawlers LPUE and CGFS research cruise data
- ✓ M:23 J. Royer, M.B. Santos, S.K. Cho, G.J. Pierce, G. Stowasser, H.I. Daly, and J.-P. Robin Cephalopod consumption by fish in English Channel and Scottish waters
- ✓ M:24 K. Henry, V. Denis, and J.-P. Robin *Ommastraepid squids* exploited by French trawlers: preliminary analysis of stock structure based on the sampling of Southern Brittany landings
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- ✓ M:25 R. Abbes and F. X. Bard La part des Céphalopodes dans la nutrition des thons tropicaux profonds d l'Océan Pacifique
- ✓ M:26 F. Velasco, I. Olaso, and F. Sánchez The role of cephalopods as forage for the demersal fish community in the southern Bay of Biscay
- ✓ M:27 M.J. Roberts, P. Rodhouse, R. O'Dor, and Y. Sakurai A global perspective of environmental research on squid
- ✓ M:28 M. Parry Feeding ecology of *Ommastrephes bartramii* in the Central North Pacific
- ✓ M:29 J.M.F. Pereira, A. Moreno, and M M. da Cunha Western European squid distribution: a review
- M:30 Withdrawn
- ✓ M:31 J.M. Portela and M. Rasero Daily feeding pattern of Patagonian squid *Loligo gahi* in Falkland/Malvinas Islands waters
- ✓ M:32 E.G. Dawe and E.B. Colbourne Short-finned squid (*Illex illecebrosus*) abundance with environmental conditions in Canadian fishery areas
- ✓ M:33 E. Balguerías and M.E. Quintero The origin of the Saharan Bank fishery for cephalopods
- M:34 Withdrawn
- ✓ M:35 R. A. Santos and M. Haimovici Cephalopods in the diet of marine mammals stranded or incidentally caught along Southeast and Southern Brazil (22° to 34° S)
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- ✓ M:36 E.K. Shea and M. Vecchione Quantitative analysis of morphology to determine developmental discontinuities in cephalopod life cycles
^{like moff.}
- M:37 H. Kidokoro How do environmental variables affect growth and feeding of the Japanese common squid (*Todarodes pacificus*)?
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- like matt.
- M:38 Poster J. Mori, T. Kubodera, and N. Baba Squids in the diet of northern fur seals, *Callorhinus ursinus*, caught in the western and central North Pacific
- ✓ M:39 Poster A. Yatsu, J. Mori, T. Watanabe, T. Meguro, Y. Komei, and Y. Sakuari Interannual variability in the neon flying squid abundance and oceanographic conditions in the Central North Pacific Ocean during 1979-1997
- M:40 Poster like matt. S. Craig, K.D. Black And P.R. Boyle The effects of temperature on development and hatching of squid *Loligo forbesi* (Cephalopod, *Liliginidae*) embryos
- M:41 Poster like matt. V. Bettencourt, B.G. Castro, L. Fuentes, and A. Guerra Changes on biochemical indices of growth of *Sepia officinalis* with starvation and refeeding
- ✓ M:42 Poster A. Moreno and J.M.F. Pereira Cephalopod paralarval distribution in Iberian Atlantic waters
- ✓ M:43 V. Denis and J.-P. Robin Present status of the French Atlantic fishery for cuttlefish (*Sepia officinalis*)
- ✓ M:44 Poster E. Lefkaditou, A. Siapatis, and C. Papaconstantinou Seasonal and spatial changes in the abundance and distribution of *Eledone Moschata* (Cephalopoda: Octopoda), in the South Aegean Sea (Eastern Mediterranean)
- ✓ M:45 Poster A. Caveriviere, F. Domain, and A. Djallo Observations about the influence of temperature on the length of the *Octopus vulgaris* embryonic development (Senegal, West Africa)
- M:46 Poster like matt. C. MacKenzie and D.E. Wells Organism contaminants in the cephalopod, *Loligo forbesi* and mackerel (*Scomber scombrus*) from Scottish coastal waters: The influence of prey selection on contaminant patterns in cetaceans
- ✓ M:47 Poster F.J. Sánchez, J. Iglesias, C. Moxica, and J.J. Otero Growth of octopus (*Octopus vulgaris* Cuvier) males and females under culture conditions
- ✓ M:48 Poster E. Jónsson Study of the biology of European flying squid, *Todarodes sagittatus*, occurring in deep waters south of Iceland

THEME SESSION ON ECOLOGY OF DIADROMOUS FISHES DURING THE EARLY MARINE PHASE (N)

- | | | | |
|---|------|--|---|
| / | N:1 | E. Feunteun, A. Acou, P. Laffaille and A. Legault | European eel, <i>Anguilla anguilla</i> , population parameters and prediction of spawner escapement from continental hydrosystems to marine waters <u>ilke mott.</u> |
| ✓ | N:2 | E. Rochard, M. Lepage, S. Tremblay and C. Gazeau | Downstream migration evolution of the juvenile European sturgeon <i>Acipenser sturio</i> L. in the Gironde estuary <u>ilke mott.</u> |
| / | N:3 | C. Taverny and P. Elie | Feeding habits of shads <i>Alosa alosa</i> (Linné, 1766) and <i>Alosa fallax</i> (Lacépède, 1803) in the Bay of Biscay <u>ilke mott.</u> |
| / | N:4 | C. Taverny and P. Elie | Spatio-temporal distribution of shads <i>Alosa alosa</i> and <i>Alosa fallax</i> in the Bay of Biscay |
| ✓ | N:5 | M. García-Gallego, A. Sánchez de Lamadrid, A. Sanz, J.L. Muñoz, J. Domezain, M.C. Soriguer, A. Domezain, and J.A. Hernando | Effect of age/weight on the process of seawater induced adaptation of the sturgeon <i>Acipenser naccarii</i> (Bonaparte 1836) |
| / | N:6 | A.F. Youngson | Diadromy: making good in a complex world <u>ilke mott.</u> |
| ✓ | N:7 | K.D. Friedland and D.G. Reddin | Growth patterns in post-smolts captured in Labrador Sea and the temporal scale of recruitment coherence in North America |
| ✓ | N:8 | K.D. Friedland, J.-D. Dutil and T. Sadusky | Post-smolt growth in Atlantic salmon from North America and the nature of marine juvenile nurseries |
| ✓ | N:9 | M.-N. de Casamajor, N. Bru, and P. Prouzet | Characteristics of glass eels migration (<i>Anguilla anguilla</i> L.) on Adour estuary according to environmental conditions |
| / | N:10 | R.F. Tallman | The early marine phase of Arctic anadromous fishes - the Dark Portal <u>ilke mott.</u> |
| ✓ | N:11 | H. Westerberg | The migration of glass-eel and elvers in the Skagerrak and the Kattegat |
| ✓ | N:12 | N. Bru, M.-N. de Casamajor, E. Albert, P. Prouzet, F. Sanchez, and P. Lazore | Model of glass-eels (<i>Anguilla anguilla</i> L.) behaviour into the Adour estuary |
| ✓ | N:13 | A.V. Zubchenko, N.G. Popov, and M.A. Svenning | Salmon rivers on the Kola Peninsula. Some results from acclimation of pink salmon (<i>Oncorhynchus gorbusha</i> Walbaum) |
| / | N:14 | M.A. Svenning and A. Klemetsen | Latitudinal variation in sea water migration, growth and survival of wild anadromous Arctic charr, <i>Salvelinus alpinus</i> <u>ilke mott.</u> |
| ✓ | N:15 | M. Holm, J.C. Holst, and L.P. Hansen | Spatial and temporal distribution of Atlantic salmon post-smolts in the Norwegian Sea and adjacent areas - origin of fish, age structure and relation to hydrographical conditions in the sea <u>b 5240</u> |
| ✓ | N:16 | A. Moore, I.C. Russell, M. Ives, S. Ives, E.C.E. Potter and C.P. Waring | The riverine, estuarine and coastal migratory behaviour of wild Atlantic salmon (<i>Salmo salar</i> L.) smolts |

NB.!!

- ✓ N:17 M. Holm, B.E. Axelsen, J. Sturlaugsson, N.A. Hvidsten, E. Ikonen and B.O. Johnsen Behaviour of acoustically tagged post-smolts in the Trondheim fjord - Influence of hydrographical and meteorological conditions on migration ilike mott.
- ✓ N:18 M. Holm, O.T. Skilbrei, E. Ona, I. Huse, and K.E. Jørstad Migratory behaviour of cultured Atlantic salmon smolts released during day or night 65241
- ✓ N:19 Ö. Karlström and I. Perä Smoltrun in a large northern Baltic River ilike mott.
- N:20 Withdrawn
- ✓ N:21 J.R. Waldman, D.J. Dunning, Q.E. Ross, and M.T Mattson Movements of young striped bass out of the Hudson River in relation to age, length, and abundance
- ✓ N:22 J. Sturlaugsson, I.R. Jónsson, and T. Tómasson Sea migration of anadromous arctic charr (*Salvelinus alpinus* L.) recorded by data storage tags ilike mott.
- ✓ N:23 J. Sturlaugsson and M. Jóhannsson Sea migration of anadromous brown trout (*Salmo trutta* L.) recorded by data storage tags
- ✓ N:24 M. Lepage, R. LeBarh, and E. Rochard Accidental catches at sea of an endangered migratory species, the European sturgeon (*Acipenser sturio* L.), and connections with various types of fishing

THEME SESSION ON DEEPWATER FISH AND FISHERIES (O)

- ✓ O:1 K. Kilongo Distribution, abundance, and feeding habits of hake (*Merluccius polli*) in Angolan waters
- ✓ O:2 K. Erzini, J.M.S. Gonçaves, L. Bentes, P.G. Lino, and J. Ribeiro The hake semi-pelagic ("pedra-boia") longline fishery in Algarve (southern Portugal) waters: catch composition, catch rates, discards, hook selectivity, and inter-annual variability
- ✓ O:3 M. Vecchione and J. Galbraith Cephalopod species captured by deepwater exploratory fishing off New England
- ✓ O:4 V. Allain Reproduction and fecundity of 3 species of deep-sea fish from the north-east Atlantic Ocean
- O:5 Withdrawn
- ✓ O:6 M.R. Pinho and G.M. Menezes Demersal and deep-water fishery in the Azores like molt.
- ✓ O:7 T.M. Gomes, E. Sola, M.P. Grós, G. Menezes, and M.R. Pinho Trophic relationships and feeding habits of demersal fishes from the Azores: importance to multispecies assessment
- ✓ O:8 B. Morales-Nin Mediterranean deep-water fish age determination and age validation: the state of the art
- ✓ O:9 J.-M. Casas, C.G. Piñeiro, and R. Bañón Results of experimental fishing surveys carried out in Galician Deep-waters like molt.
- ✓ O:10 C.G. Piñeiro, M. Casas, and R. Bañón Current situation of the deep-water fisheries exploited by Spanish fleets in the North and Northeast Atlantic: A review
- ✓ O:11 T. Blasdale and A.W. Newton Estimates of discards from two deep-water fleets in the Rockall Trough
- ✓ O:12 S.P. Melnikov, V.S. Mamylov, V.N. Shibanov, and A.P. Pedchenko Results from Russian trawl-acoustic survey on *Sebastes mentella* stock in the Irminger Sea in 1997
- ✓ O:13 V.I. Vinnichenko Alfonsino (*Beryx splendens*) biology and fishery on the seamounts in the open North Atlantic
- ✓ O:14 M.R. Clark Are deep-water fisheries sustainable? - the example of orange roughy in New Zealand
- ✓ O:15 V.I. Vinnichenko On conditions of formation of Greenland halibut (*Reinhardtius hippoglossoides*) concentrations in the open Northwest Atlantic
- ✓ O:16 O.V. Smirnov Dynamics of population fecundity of Greenland halibut (*Reinhardtius hippoglossoides*) of the Norwegian-Barents Sea stock by the data from 1984-1997 trawl surveys
- ✓ O:17 C. Lobo and K. Erzini Age and growth and diet of the Atlantic pomfret (*Brama brama*) from the south of Portugal (Algarve) like molt.
- ✓ O:18 J.D.M. Gordon Deep-water fish and fisheries in the Northeastern Atlantic and Mediterranean: an overview of the EC Fair Deep Fisheries Project
- ✓ O:19 P. Lorance and H. Dupouy C.p.u.e. abundance indices of the main target species of the French deep-water fishery in ICES Sub-Areas V, VI and VII

- ✓ O:20 H. Dupouy, V. Allain, and B. Kergoat The discards in the French fishery of roundnose grenadier in ICES Sub-Areas VI and VII
- ✓ O:21 J. Landa, , P. Pereda, R. Duarte, and M. Azevedo Growth study of white and black anglerfish (*Lophius piscatorius*; *L. budegassa*) based on annual sampling in the southern stock (ICES Divisions VIIIc and IXa)
- ✓ O:22 O.T. Albert, E.M. Nilssen, A. Stene , A.C. Gundersen, and K.H. Nedreaas Spawning of the Barents Sea/Norwegian Sea Greenland halibut (*Reinhardtius hippoglossoides*) b5242
- ✓ O:23 R. Duarte, M. Azevedo, J. Landa, and P. Pereda Reproduction of black and white anglerfish (*Lophius budegassa*; *L. piscatorius*) in the southern stock (ICES Divisions VIIIc and IXa)
- ✓ O:24 P.A. Large, P. Lorance, and J.G. Pope The survey estimates of the overall size composition of the deep-water fish species on the European continental slope, before and after exploitation ihke mott.
- O:25 Withdrawn
- ✓ O:26 J.E. Rønneberg , A.C. Gundersen, and J. Boje Fecundity of Greenland halibut (*Reinhardtius hippoglossides* Walbaum) in East Greenlandic waters
- ✓ O:27 A. Stene, A. Gundersen, O.T. Albert, P. Solemdal, and K.J. Nedreaas Early development of Northeast Arctic Greenland halibut (*Reinhardtius hippoglossoides*) b5243
- ✓ O:28 A.K. Woll, J. Boje, R. Holst, and A.C. Gundersen Selectivity in longline fishery for Greenland halibut (*Reinhardtius hippoglossoides* Walbaum) using different types of hooks and bait
- ✓ O:29 A.C. Gundersen, O.S. Kjesbu, A. Stene, and K.H. Nedreaas Fecundity of Greenland halibut (*Reinhardtius hippoglossoides*) in the north east Arctic b5243
- ✓ O:30 O.A. Bergstad , O. Bjelland, and J.D.M. Gordon Fish communities on the slope of the Eastern Norwegian Sea b
- ✓ O:31 B. Thomsen Faroese quest of orange roughy in the North Atlantic
- ✓ O:32 J.V. Magnússon Age, maturity and other biological parameters of two morid species *Lepidion eques* (Günther, 1887) and *Antimora rostrata* (Günther, 1878) in Icelandic waters
- ✓ O:33 R.A. Coggan, J.D.M. Gordon, and N.R. Merrett Reproduction, age and growth in the grenadier *Nezumia aequalis* (Günther, 1878) (*Pisces*: Macrouridae), a by-catch species of deep-water fisheries to the west of the British Isles
- ✓ O:34 M.R. Pinho, J.M. Gonçalves, H.R. Martins and G.M. Meneses Some aspects of the biology of the deep-water crab *Chaceon affinis* (A. Milne Edwards & Bouvier, 1894) off the Azores
- ✓ O:35 K.B. Jakobsdóttir Maturity and other biological aspects of two deep-water squaloid sharks, *Centroscyllium fabricii* (Reinhardt, 1825) and *Etmopterus princeps* (Collett, 1904), in Icelandic waters
- ✓ O:36 W.W. Wakefield, V.M. O'Connell, H.G. Greene, D.W. Carlite, and J.E. McRea The role of sidescan sonar in seafloor classification with a direct application to commercial fisheries management

- ✓ O:37 R.L. Haedrich and N.R. Merrett Can ecological knowledge catch up with deep-water fishing?
- ✗ O:38 Ch. Mytilineou, G. Poster Petrakis, and A. Fourtouni Composition of the discarded catches from experimental bottom trawl surveys in Greek waters like motto
- ✓ O:39 N.R. Hareide and G. Garnes The distribution and abundance of deep-water fish along the Mid-Atlantic Ridge from 43° N to 61° N
- ✓ O:40 C.J. Kelly, P.L. Connolly, and M.W. Clarke The deep water fisheries of the Rockall trough; some insights gleaned from Irish survey data
- ✓ O:41 M. Clarke, P.L. Connolly, and J.J. Bracken Age estimation of the squaliform shark *Centrophorus squamosus* (Bonnaterre, 1788) using the second dorsal spine
- O:42 Withdrawn
- ✓ O:43 P.R. Crone Spatial differences in maturity schedules of female Dover sole off Oregon
- ✓ O:44 J.A. Moore and J.K. Galbraith Results from exploratory deep-sea fishing off the northeastern US
- ✓ O:45 G. Petrakis, A. Terrats, A. Plastiras, and C. Papaconstantinou Some aspects on the reproduction of six deep-water fish species off the west coast of Greece (Ionian Sea)
- ✓ O:46 P. Pereda, A. Punzón, and J. Landa The "rasco" a gillnet fishery for anglerfish (*Lophius piscatorius* L., 1758 and *L. budegassa* Spinola, 1807) in the Cantabrian Sea (ICES Div. VIIIc)
- ✓ O:47 I. Quincoces, P. Lucio, and M. Santurtún Biology of the black anglerfish (*Lophius budegassa*) in the Bay of Biscay waters during 1996-1997
- ✓ O:48 I. Quincoces M. Santurtún, and P. Lucio Biological aspects of the white anglerfish (*Lophius piscatorius*) in the Bay of Biscay (ICES Divisions VIII a,b,d) in 1996-1997
- ✓ O:49 B. Draganik, I. Psuty-Lipska, and J. Janusz Ageing of roundnose grenadier (*Corypheanoides rupestris* Gunn.) from otoliths
- ✓ O:50 G. Petrakis Catch per unit of effort fluctuations in deep waters off the west coast of Greece (Ionian Sea)
- ✓ O:51 O. Bjelland and O.A. Bergstad Trophic ecology of deep-water fishes associated with the continental slope off the eastern Norwegian Sea 65239
- ✓ O:53 E. Cillaurren ad M. Simier Deepwater fisheries in Vanuatu (Oceania): are usual tools adequate for the management of small insular artisanal fisheries?
- ✓ O:54 C. Yau, M.A. Collins, I. Everson, and C.P. Nolan A new method for estimating the abundance of Patagonian toothfish (*Dissostichus eleginoides*)
- ✓ O:55 S. Mormede and I.M. Davies Trace elements in deep-water fish species from the Rockall Trough
- ✓ O:56 V.M. O'Connell, D.C. Carlile, and W.W. Wakefield Using line transects and habitat-based assessment techniques to estimate the density of yelloweye rockfish (*Scorpaenidae: Sebastes*) in the Eastern Gulf of Alaska
- ✗ O:57 J. Santos and T. Borges Trophic relationships in deep-water fish communities off the Algarve coast, Portugal like motto
- ✗ Poster

✓	O:58 Poster	J. Gordon	The EC FAIR Deep Fisheries Project <u>like mott.</u>
✓	O:59 Poster	L. Carvalho and I. Figueiredo	Black scabbardfish fishery. Analysis of a pilot sampling <u>like mott.</u>
✓	O:60 Poster	P. Lorance, H. Dupouy, and V. Allain	Assessment of the roundnose grenadier (<i>Coryphaenoides rupestris</i>) stock in the Rockall Trough and neighbouring areas (ICES Sub-Areas V, VI and VII)
✓	O:61 Poster	H. Dupouy and P. Lorance	Biomass estimate and optimum rate of exploitation for three main species of deep-sea fishes in ICES Divisions VI and VII b,c <u>like mott.</u>
	O:62	<u>Withdrawn</u>	
✓	O:63 Poster	L.W. Bullough, W.R. Turrell, J.D.M. Gordon, I.G. Priede, and J. Hislop	Hydrographic variability and deep-water fishery West of Shetland <u>like mott.</u>
✓	O:64 Poster	O.A. Bergstad, and J.E. Skjæraasen	Distribution and feeding of rays in the northeastern North Sea and on the Norwegian Sea slope <u>like mott.</u>
✓	O:65 Poster	V. Henriques	Portuguese deep-water fisheries on the continental slope <u>like mott.</u>
✓	O:66 Poster	J. Magnússon	Deep-water fisheries at Iceland
✓	O:67 Paper	O. Moura, I.Figueiredo, P.Bordalo Machado, and V. Henriques	Research on deep-water species off the Portuguese continental coast
✓	O:68 Poster	M.J. Figueiredo, I. Figueiredo, and P.B. Machado	Deep-water crustaceans off the Portuguese continental slope. Will they be an alternative in the future?
✓	O:69 Poster	P.B. Machado, R. Martins, I. Figueiredo, and L. Gordo	Some notes on the biology of the black scabbardfish <u>like mott.</u>
✓	O:70 Poster	I. Figueiredo and A. Moreira	Biological aspects of bluemouth off the Portuguese continental slope
✓	O:71 Poster	A. dos Santos	On the occurrence of megalopa larvae of the giantred crab <i>Chaceon affinis</i> off the Portuguese continental coast <u>like mott.</u>
✓	O:72 Poster	O. Moura	Species density estimated by kriging and stratified random sampling estimators
✓	O:73 Poster	C. Berrehar, M-H Dubuit, and P. Lorance	Orange roughy fishery in the North East Atlantic <u>like mott.</u>
✓	O:74 Poster	P. Lorance	Comparison of the deep demersal fish assemblage structure sampled before and after fishery exploitation <u>like mott.</u>
✓	O:75 Poster	T. Sigurdsson and P. Reynisson	Distribution of pelagic redfish (<i>S. mentella</i> Travin), at depths below 500 m, in the Irminger Sea and adjacent waters in May 1998
✓	O:76 Poster	E. Katsarou and G. Nævdal	Population studies on roughhead grenadier, <i>Macrourus berglax</i> L., from the North Atlantic
✓	O:77 Poster	R.L. Haedrich and N.R. Merrett	Changing size structure in exploited deep-sea fish communities

✓ O:78: I. Quincozes ... mott. O:78

- ✓ O:79 I. Quincozes, P. Lucio, and M. Santurtún The gonadal development of the black anglerfish, *Lophius budegassa* (Spinola 1807): a histological study
- ✓ O:80 G.M. Menezes, H.M. Silva, and M.R. Pinho Demersal fish assemblages of the Azores Islands based on longline cruise surveys like mott.
- ✓ O:81 O. Melo, G.M. Menezes, and M. Weber Vertical distribution of catch and interspecific competition in bottom longline (Stone/Buoy) like mott.
- ✓ O:82 A. Canha, M.R. Pinho, and G.M. Menezes A preliminary approach to stock assessment of the multispecific demersal fishery of the Azores like mott.
- ✓ O:83 A. Mendonça, S. Estácio, H. Krug, G.M. Menezes, J. Branco, and M.R. Pinho Reproduction aspects of some demersal fishes captured in the Azores archipelago
- ✓ O:84 H. Krug, D. Rosa, G.M. Menezes, and M.R. Pinho Age and growth of some demersal species of the Azores
- ✓ O:85 C. Papaconstantinou, C. Boutsoulis, and G. Petrakis Biological aspects of the black-bellied angler (*Lophius budegassa*, spinola, 1807) in the Aegean Sea (Mediterranean Sea) like mott.
- ✓ O:86 M. Girard and M.-H. Du Buit Particularities of the reproductive cycle in two species of deep-water sharks: *Centrophorus squamosus* and *Centroscymnus coelolepis*
- ✓ O:87 A. Giga, G. Silva, and G.M. Menezes Assay of ageing techniques for deep-water sharks of the Azores like mott
- ✓ O:88 G.M. Menezes Preliminary analysis of the feeding habits of demersal fish in the Azores like mott.
- ✓ O:89 G.M. Menezes Some aspects of the biology and ecology of *Chaceon affinis* in the Azores like mott.
- ✓ O:90 G.M. Menezes Demersal cruise surveys in Azores and Madeira using a bottom-longline gear like mott.
- ✓ O:91 G.M. Menezes Contribution for the multispecific stock assessment of several demersal speices of the Azores like mott.

**THEME SESSION ON DEVELOPMENT OF TOXICITY AND QUALITY STANDARDS FOR
CONTAMINANTS IN THE MARINE ENVIRONMENT (P)**

- ✓ P:1 M.D. Nicholson and R. Fryer A note on using fuzzy sets to summarise and rank contaminant monitoring data
- ✓ P:2 B. Bjerkeng, N.W. Green, and K. Hylland Sørfjorden, western Norway: a case for testing alternative monitoring strategies using accumulation in and effects on Atlantic cod (*Gadus morhua*)
- ✓ P:3 K. Lee, K.-L. Tay, and C. Belanger Development of a microscale biotest based on microbial exoenzyme activity in sediments
- ✓ P:4 J.M. Lourens, T. Crommentuijn, B.J. Kater, T.C. Brummelsen, and D. Jonkers Setting environmental quality standards with specific considerations to the marine environment
- P:5 Withdrawn
- ✓ P:6 P. Hess, C. Robinson, R.M. Stagg, and D.E. Wells Method for the evaluation of the contribution of CBs, PCDD/Fs and PAHs to the P450 1A toxicity present in marine sediments
- illic mott.

THEME SESSION ON SKILL ASSESSMENT OF ENVIRONMENTAL MODELLING (Q)

- ✓ Q:1 J.M. de Kok, C. de Valk, J.A.Th.M. van Kester, E.D. de Goede and R.E. Uittenbogaard Validation of a temperature and salinity model for the Rhine plume
- ✓ Q:2 A.C. Le Gall, D.J. Hydes, B.A. Kelly-Gerreyn, and D.J. Slinn Development of a 2-D horizontal biogeochemical model for the Irish Sea DYMONIS
- ✓ Q:3 H. Søiland and M.D. Skogen Validation of a 3-D biophysical model using nutrient observations in the North Sea *6 5232*
- ✓ Q:4 A. Eigenheer and H. Dahlin Baltic Sea modelling and validation procedures at SMHI
- ✓ Q:5 A. Moll Assessment of three-dimensional physical-biological ECOHAM1 simulations by quantified validation for the North Sea with ICES and ERSEM data
- ✓ Q:6 C.N.K. Mooers and R.C. Perez Skill assessment of a Gulf of Mexico shelf circulation model *like moff.*
- ✓ Q:7 P.G.J. ten Brummelhuis, J. G. Boon, H. Gerritsen, and R.J. Vos Sensitivity analysis and skill assessment of an integrated model for SPM transport on a regional scale *like moff.*
- ✓ Q:8 H. Scholten, M.W.M. van der Tol, and A.C. Smaal Models or measurements? Quantitative validation of an ecophysiological model of mussel growth and reproduction
- ✓ Q:9 C. Schrum and F. Janssen Validations for a coupled ice/ocean model for the North Sea and the Baltic Sea *like moff.*
Poster

**THEME SESSION ON MESOSCALE PHYSICAL PHENOMENA AND BIOLOGICAL
PRODUCTION: IMPLICATIONS FOR GLOBEC (R)**

- ✓ R:1 R.P. Sánchez, J. Altheit, P. Martos, and M. Pájaro The spawning and early life of *Engraulis anchoita* in the tidal fronts off Patagonia ikke mott.
- ✓ R:2 P. Dalpadado, B. Ellertsen, W. Melle and A. Dommasnes Food, and feeding condition and prey selectivity of herring (*Clupea harengus*) through its feeding migrations from coastal areas of Norway to the Atlantic and Arctic waters of the Nordic Seas 65233
- R:3 Withdrawn
- ✓ R:4 J.O. Blanton and K.R. Tenore Interannual variability of upwelling strength and mussel production on the Iberian Peninsula
- ✓ R:5 J.H. Steele and A. Beet Physical factors affecting copepod migration
- ✓ R:6 J.H. Steele Incorporating the microbial loop in a simple plankton model ikke mott.
- ✓ R:7 E. Gaard The zooplankton community structure in relation to its biological and physical environment on the Faroe Shelf, 1989-1997
- ✓ R:8 P. Møller, M.A. St. John, T. Lund, and K.P. Madsen Identifying the effect of frontal regimes on conditions of larval and juvenile sand lance (*Ammodytes* sp.): Utilization of foodweb specific tracer lipids
- ✓ R:9 S. Kimura, H. Nakata, Y. Okazaki, and A. Kasai Biological production in meso-scale eddies caused by frontal disturbances of the Kuroshio and the Kuroshio Extension
- ✓ R:10 Y. Okazaki, H. Nakato, and S. Kimura Distribution, food availability and nutritional condition of anchovy larvae (*Engraulis japonicus*) in a frontal area of the Kuroshio Extension ikke mott.
- ✓ R:11 A. Makarchouk and H-H Hinrichsen The vertical distribution of ichthyoplankton in relation to the hydrographic conditions in the Eastern Baltic
- ✓ R:12 P. Danielsen Investigations of hydrographic processes influencing the distribution and production of phyto- and zooplankton in the Bornholm Basin, Baltic Sea
- ✓ R:13 H. Nakata, S. Kimura, Y. Okazaki, and A. Kasai Entrainment of coastal water into meso-scale eddies caused by frontal disturbances of the Kuroshio Current: Its implication for anchovy recruitment
- R:14 Withdrawn
- ✓ R:15 K.F. Drinkwater Horizontal dispersion on the northern flank of Georges Bank
- ✓ R:16 B.R. MacKenzie, A. Visser, M. Heath, A. Gallego, and W. Crawford Environmental variability along the drift track of larval haddock in the East Shetland Atlantic inflow
- ✓ R:17 R. Sætre, E. Svendsen, P. Fossum, M.D. Skogen, and G. Eriksrød On the site-specific role of the central Norwegian shelf for the recruitment strategy of the Norwegian spring spawning herring 65237
- ✓ R:18 S.A. Iversen, M.D. Skogen, and E. Svendsen Influx of Atlantic water and feeding migration of horse mackerel 65238
- ✓ R:19 V.L. Filipe A cyclonic eddy observed in Angolan waters in April 1997

- ✓ R:20 P. B. Oliveira and A.F.G. Fiuza Seasonal and interannual variability of sea surface temperature in the NE Atlantic Coastal upwelling region using NOAA/AVHRR data
- ✓ R:21 D. Schnack and F.W. Köster Baltic COd REcruitment Project: Summary of results 1994-1997
- ✓ R:22 S. Skreslet The Norwegian coastal current frontal system, a spawning habitat of *Calanus finmarchicus* that forces yearclass formation in NE Arctic cod (*Gadus morhua*) by food-web telecommunication
- ✓ R:23 J.M. Cabanas and C. Porteiro Links between the North Atlantic Sardine recruitment and its environment
- ✓ R:24 M.D. Viñas and B.A. Santos First-feeding of hake (*Merluccius hubbsi*) larvae and prey availability in the Patagonian spawning area ilike mott.
- ✓ R:25 E.A.G. Vidal and M. Haimovici Distribution and abundance of *Illex argentinus* paralarvae (*Cephalopoda: Ommastrephidae*) in relation to oceanographic processes off southern Brazil ilike mott.
- ✓ R:26 S. Hernández-León, J. Arístegui, and J.M. Rodríguez Physical-biological interactions in the Northeast Central Atlantic: filaments, eddies and waves in the Canary current ilike mott.
- ✓ R:27 H. Nakata, Y. Suenaga, M. Fujihara, T. Nagasawa, and H. Yamada Interaction of wind-induced onshore/offshore drifts with coastal eddies on the shelf near the Sado Strait, Sea of Japan, in relation to recruitment strategies of brown sole (*Pleuronectes herzensteini*) ilike mott.
- ✓ R:28 R.P. Sánchez and D.R. Brown Larval and early juvenile growth of two Patagonian clupeoids: *Engraulis ancoita* and *Sprattus fuegensis* ilike mott.
- ✓ R:29 A. Reul, J.M. Blanco, F. Jiménez-Gómez, J. Rodríguez, F. Guerrero, B. Bautista, and V. Rodríguez Temporal variability in the mesoscale structure of plankton in the upwelling and frontal region of the NW Alboran sea ilike mott.
- ✓ R:30 S.O. Pires and A.F.G. Fiuza A satellite-based study of the seasonal evolution and the spatial structure of mesoscale physical processes off Portugal with relevance to the marine ecosystem

**THEME SESSION ON VISUALISATION OF SPATIAL (INCLUDING SURVEY) DATA
(POSTERS/SOFTWARE DEMONSTRATIONS) (S)**

✓	S:1	B.A. Megrey, E. Dobbins, and S. Hinckley	Using scientific visualization tools to facilitate analysis of multidimensional data from a spatially-explicit, biophysical, individual-based model of marine fish early life history
✓	S:2	L. Mayer, Y. Li, G. Melvin, and C. Ware	The application of 3-D visualization technology to pelagic fisheries assessment and research
✓	S:3	J.S. Ault and J. Luo	Coastal bays to coral reefs: visualizations of a spatial multistock production model
✓	S:4	C. Walters, D. Pauly, and V. Christensen	Ecospace: a software tool for predicting mesoscale spatial patterns in trophic relationships of exploited ecosystems, with special reference to impacts of marine protected areas
✓	S:5	A. Basu	Case study of land and marine data integration using GIS with 3D and fly-through visualization <u>like mott.</u>
✓	S:6	A.J. Booth	Visualisation of the spatial component of fisheries data and its incorporation into existing stock assessment models
✓	S:7	J. Luo, P.B. Ortner, D. Forcucci, and S.R. Cummings	Diel vertical migration of zooplankton and mesopelagic fish in the Arabian Sea
	S:8	<u>Withdrawn</u>	
✓	S:9	M.E. Monaco and S.K. Brown	Integration of GIS technology, habitats and living marine resource distributions <u>like mott.</u>
✓	S:10	S.B. Brandt, J.M. Jech, E. Demers, K. Barry, and D. Hondorp	Spatial visualization analyses: merging underwater acoustics and ecological modelling to view habitat from the fishes perspective <u>like mott.</u>
✓	S:11	C. Mooers	A regional GOOS as an approach to fisheries oceanography <u>like mott.</u>
✓	S:12	G.H. Wheless	Virtual reality in oceanography <u>like mott.</u>
	S:13	<u>Withdrawn</u>	
✓	S:14	G. Melvin, Y. Li, L. Mayer, and A. Clay	Development of an automated sounder/sonar acoustic logging system for deployment on commercial fishing vessels
✓	S:15 Poster	C.F. Greenlaw, D.V. Holliday, C.A. Barans, and B.W. Stender	Long-term, high-resolution acoustical monitoring of plankton in an estuary <u>like mott.</u>
✓	S:16 Poster	D.E. McGehee, C.F. Greenlaw, D.V. Holliday, and R.E. Pieper	High-frequency acoustical backscattering in the Arabian Sea: Acoustical analyses <u>like mott.</u>
✓	S:17 Poster	R.E. Piper, D.E. McGehee, C.F. Greenlaw, and D.V. Holliday	High-frequency acoustical backscattering in the Arabian Sea: Zooplankton size classes <u>like mott.</u>
✓	S:18 Poster	Z. Kemp and G. Meaden	Visualisation for fisheries management from a spatio-temporal perspective

- ✓ S:19 R.D. Stanley, R. Kieser, K. Cooke, and B. Mose 3-D visualization of acoustic survey data for widow rockfish (*Sebastes entomelas*) off British Columbia, Canada. Its use in survey design and communication with industry participants like mott.
- ✓ S:20 R.L. Johnson and D.B. Rex Interactive 3-D visualization of multibeam sonar data for fish behaviour evaluations
- ✓ S:21 L. Fortunati, G. Garofalo, and R. Demontis TSDV: a GIS tool for inspecting trawl survey data
- ✓ S:22 M. Ostrowski Quality control and preparation of acoustic survey data for treatment by spatial analysis techniques. Experiences from using integrated visualization software tools
- ✓ S:23 J.T. Anderson, R.S. Gregory, and W. Collins Digital acoustic seabed classification of marine habitats in coastal waters of Newfoundland like mott.
- ✓ S:24 A. Sharov and A. Akchremenko User-friendly graphic software for survey design and data visualization of shellfish and finfish resource assessment in the Chesapeake Bay like mott.
- ✓ S:25 K.Kr. Olsen and R. Jørgensen Is the application of fixed linear regression equations of target strength versus logarithm of fish length, a severe oversimplification in practical acoustic survey work? like mott.

**THEME SESSION ON MANAGEMENT UNDER A PRECAUTIONARY APPROACH:
ECOLOGICAL, SOCIAL, AND ECONOMIC CONSEQUENCES (T)**

✓	T:1	J.-D. Dutil, D. Gascon, M. Castonguay, M.O. Hammill, P. Ouellet, Y. Lambert, D. Chabot, H. Browman, D. Gilbert, A. Fréchet, J.-A. Gagné, and L. Savard	Biological limits to tradeoffs between biological and social considerations in fish stocks management: the need to factor in stock productivity <u>ilike mott.</u>
✓	T:2	F.J. Martinez Cordero and J. C. Seijo	Economic projects assessment under uncertainty: case study applying the precautionary approach to aquaculture <u>ilike mott.</u>
✓	T:3	J.D. van Zyl	A precautionary approach in a longline fishery from a socioeconomic perspective <u>ilike mott.</u>
✓	T:4	S. Christensen and H. Lassen	Short-term economic costs of the precautionary approach to management of the North Sea Herring
✓	T:5	A.V. Zubchenko and A.V. Zelentsov	Salmon rivers of the Kola Peninsula. Precautionary approach and management of Atlantic salmon stocks
✓	T:6	P. Marchal	Variation in catchability and precautionary TACs
✓	T:7	E.A. Totàro and E. Totàro	The possibility of the environmental tourism as an ecological, social and economic approach in the coastal areas
✓	T:8	O. Le Pape and J. Vigneau	Influence of fishing vessels properties and polyvalence on their fishing capacity: interest for management measures
✓	T:9	E. Cadima and M. Azevedo	Are limit reference F levels useful for management when they are smaller than target reference F levels?
✓	T:10	A.J. Cass, L.J. Richards, and J. Schnute	Consequences of precautionary management for mixed stock fisheries on sockeye salmon from the Fraser River, Canada
✓	T:11	R.L.P. Lanters and E.L. Enserink	Integration of ecological and fisheries objectives through indicator development
✓	T:12	J.P. Hillis	Avoidance of growth overfishing as an effective solution to both economic problems for the fishing community and ecological problems for the environment
✓	T:13	A.F. Sharov and A.E. Bobyrev	Fisheries strategies versus reproductive strategies: is consensus possible?
✓	T:14	A.E. Morcom-Harneis, I.H. Townend, A.J. Kenny and N.I. Pontee	Environmental risk assessment and its application in managing coastal and estuarine developments
	T:15	<u>Withdrawn</u>	
✓	T:16	K. Hiis Hauge	The use of personal knowledge in stock assessment <u>6-5246</u>
✓	T:17	E.C.E. Potter, L.P. Hansen, G. Gudbergsson, W.C. Crozier, J. Erkinaro, C. Insulander, J. MacLean, N. O'Maoileidigh, and S. Prusov	A method for estimating preliminary conservation limits for salmon stocks in the NASCO-NEAFC area

- ✓ T:18 B.J. Rothschild, A.R. Management information systems and the precautionary approach
 Robinson, M. Miller, A.
 Gangopadhyay, J. Bisagni,
 A. Cabeza, D. Cai, P.
 Fortier, , P.J. Haley. H.S.
 Kim, L. Lannerolle, W.G.
 Leslie, and C. Losano
- ✓ T:19 I. Lutchman and S. Des The precautionary approach and fishermen
 Clers
- ✂ T:20 D.E. Lane and B. Information requirements for alternative precautionary fisheries
 Kaufmann management systems ihke moff.
- ✂ T:21 J.P. Hillis Predictions of changes in annual and cumulative catch revenues and
 Poster profits in depleted fishery rehabilitation ihke moff.

THEME SESSION ON EVALUATION OF MARINE PROTECTED AREAS AS MANAGEMENT TOOLS (U)

✓	U:1	K.T. Frank and J.E. Simon	An evaluation of the Emerald/Western Bank juvenile haddock closed area
✓	U:2	M.A. Pastoors, A.D. Rijnsdorp, and F.A. van Beek	Evaluation of the effects of a closed area in the North Sea ('Plaice Box') on the stock development of plaice (<i>Pleuronectes platessa</i>)
✓	U:3	J.W. Horwood	Evaluation of the effects of closed areas on fish stocks
✓	U:4	J.D. Metcalfe, G.P. Arnold, and E. Hunter	The use of electronic data storage tags in modelling the effectiveness of marine protected areas
	U:5	<u>Withdrawn</u>	
	U:6	<u>Withdrawn</u>	
✓	U:7	A. Punzón and R.M. Gancedo	Specific characterisation and identification of the fishing gears in use in the Cantabrian Sea (NE Atlantic, Northern Spain)
✓	U:8	S. Ehrich, W. Weber, and C. Zimmermann	A four-week area closure in the German Bight: A measure to protect the strong 1996 cod year-class
✓	U:9	R.W. Brown, D. Sheehan, and B. Figuerido	Response of cod and haddock populations to area closures on Georges Bank
✓	U:10	I. Røttingen and A. Slotte	Norwegian spring spawning herring (<i>Clupea harengus</i> L.): Protection of spawning areas in relation to changes in migration pattern <i>b 5247</i>
✓	U:11	A.V. Soldal, O. Bergstad, T. Kristiansen, S. Løkkeborg, and I. Svellingen	Oil production structures in the North Sea as fish aggregating devices <i>b 5093</i>
✓	U:12	H. Lai and P. Rago	Potential uses of area closure for rehabilitating over-harvested population: an example from Sea Scallops (<i>Placopecten magellanicus</i>) on Georges Bank <u><i>ilike mott.</i></u>
✓	U:13 Poster	C. Pipitone, F. Badalamenti, and G. D'Anna	Can coastal demersal resources be effectively enhanced and managed through trawling bans in temperate areas? A proposal for European Mediterranean countries <u><i>ilike mott.</i></u>
✓	U:14 Poster	H.M. Silva and G.M. Menezes	An intensive fishing experiment in a seamount in the Azores: implications for the assessment and management of demersal fishery <u><i>ilike mott.</i></u>
✓	U:15 Poster	R.R. Ferraz, G.M. Menezes, and R.S. Santos	The limpets marine protected zones in the Azores <u><i>ilike mott.</i></u>
✓	U:16 Poster	F. Tempera and R.S. Santos	Spatial variation of fish assemblages in the Faial-Pico Channel (Azores-Portugal) <u><i>ilike mott.</i></u>

THEME SESSION ON RECOVERY AND PROTECTION OF MARINE HABITATS AND ECOSYSTEMS FROM NATURAL AND ANTHROPOGENIC IMPACTS (V)

✓	V:1	T.D. Nickell, K.D. Black, T.H. Pearson, I.M. Davies, and P.G. Provost	The recovery of the sea-bed after the cessation of fish farming: benthos and biogeochemistry
✓	V:2	N.F. Plotitsyna	Content of pollutants in harp seals (<i>Phoca groenlandica</i>) of the White Sea population
✓	V:3	O.V. Titov	Hydrochemical and density indications of interannual variations in the Barents Sea ecosystem: periodical "disturbances", their reasons and consequences
✓	V:4	E.A. Totàro and E. Totàro	An integrated programme on the management of coastal areas: advanced training for managers of pleasure craft ports
✓	V:5	J.G. Støttrup, S. Helmig, J.K. Petersen, C. Krog, R. Zorn, H.T. Madsen, and J. Olsen	Is there a case for artificial reefs in Denmark?
✓	V:6	M. Service	Recovery of benthic communities in Strangford Lough following changes in fishing practice
	V:7	<u>Withdrawn</u>	
✓	V:8	H.L. Rees, R. Waldoock, P. Matthiessen, and M.A. Pendle	Improvements in the fauna in the Crouch estuary (United Kingdom) following a decline in TBT concentrations
✓	V:9	S.E. Boyd and H.L. Rees	Nematodes as sensitive indicators of change at dredged material disposal sites
✓	V:10	J. Dalsgaard, A. Jarre-Teichmann, and D. Pauly	An approach to the modelling of persistent pollutants in marine ecosystems
✓	V:11	K. Lee	Accelerating natural processes for oil spill remediation
✓	V:12	G.J. Piet, J.A. Craeymeersch, J. Buijs, and A.D. Rijnsdorp	Changes in the benthic invertebrate assemblage following the establishment of a protected area, the "plaice box"
✓	V:13	K. Hiscock, T. Hill, and D. Connor	Recovery of seabed wildlife from natural change and human activity - assessing 'sensitivity' and 'importance'
✓	V:14	A.J. Kenny, H.L. Rees, J. Greening, and S. Campbell	The effects of marine gravel extraction on the macrobenthos at an experimental dredge site off north Norfolk, UK (Results from 3 years post-dredging)
✗	V:15 Poster	A. Lappalainen and M. Rask	How did the coastal fish community structure change after strong reduction in waste-water loading? - a case study in the Helsinki sea area <u>ilke mott.</u>
✗	V:16 Poster	V.M. O'Connell, W.W. Wakefield, and H.G. Greene	Using in-situ technology to identify and characterize essential fish habitat for classification as a marine reserve in the Eastern Gulf of Alaska <u>ilke mott.</u>
✗	V:17 Poster	I. J.-O. Krakstad, I. Bethinussen, and T. Johannessen	Differences in the diet of 0-group cod in a polluted vs. a non-polluted area on the south coast of Norway: possible implications for the recruitment <u>ilke mott.</u>

THEME SESSION ON STOCK COMPONENTS IN MANAGEMENT (AA)

- ✓ AA:1 V.M. Borisov, V.P. Ponomarenko, and N.A. Yaragina Are there independent populations of coastal cod in the Barents and Norwegian Seas? (An analysis of views)
- ✓ AA:2 F. Saborido-Rey and K.H. Nedreaas Population structure of *S. mentella* in the North-East Arctic
6 5222
- ✓ AA:3 P.J. Wright, S.A. Pedersen, I.D. Tuck, L. Donald, and P. Lewy The influence of physical factors on habitat quality for the lesser sandeel, *Ammodytes marinus* and its relevance to fishing pressure in the North Sea
- ✓ AA:4 Yu. I. Bakay, S.A. Kuzmin, and S. Yu. Utevsky Ecological and parasitologic investigations on the Barents Sea red king crab (*Paralithodes camtschatica*) (the first results)
- ✓ AA:5 E. Karasiova On some peculiarities of Baltic cod distribution in connection with its migration pattern
- AA:6 M.A. Svenning, A. Zubchenko, and A. Putukin Life history and migration patterns of the Atlantic salmon in the River Varzuga, Kola, Russia. Preliminary results from radio tagging studies of summer and autumn runners like mott.
- ✓ AA:7 S.A. Pedersen, P. Lewy, and P. Wright Assessments of the lesser sandeel (*Ammodytes marinus*) in the North Sea based on revised stock divisions
- ✓ AA:8 S.V. Belikov, S.H. í Jákupsstovu, E. Shamrai, and B. Thomsen Migration of mackerel during summer in the Norwegian Sea
- ✓ AA:9 J. Rasmus Nielsen, B. Lundgren, K.-J. Stæhr, T.F. Jensen, J. Pedersen, S. Poulsen Distribution, abundance and stock composition of herring (*Clupea harengus*) in the Sound (ICES Sub-division 23) during the autumn, winter and spring periods from September 1993 to May 1998
- ✓ AA:10 H. Eiriksson Spatial variabilities of CPUE and mean size as possible criteria for unit stock demarcations in analytical assessment of *Nephrops* at Iceland
- ✓ AA:11 C. Ulrich, D. Gascuel and O. Maury A proposal for stock assessment and management in mixed stock fisheries: the in/out model. Application to Western English Channel cod

THEME SESSION ON FISHERIES ASSESSMENT METHODS (BB)

- | | | |
|---------|---|--|
| ✓ BB:1 | H. Sparholt and J. Tomkiewicz | A robust way of compiling trawl survey data for the use in the Central Baltic cod stock assessment |
| BB:2 | <u>Withdrawn</u> | |
| ✓ BB:3 | D.A. Vasilyev | Separable cohort procedures with internal property of unbiasedness of the solution |
| ✓ BB:4 | D. Schnack, N. Rohl, and J. Gröger | Effects of calculation procedure and reduced sampling effort on abundance indices of herring larvae as a measure of spawning stock size |
| ✓ BB:5 | F.A. van Beek | Discarding in the Dutch beam trawl fishery |
| ✓ BB:6 | T. Neudecker, J. Fischer, and U. Damm | Influence of tidal currents on fishing performance in the Wadden Sea |
| ✓ BB:7 | J. Gröger | An intrinsic linear cumulative growth rate model |
| ✓ BB:8 | R.J. Conser | A fresh look at surplus production modelling as a pragmatic assessment tool |
| ✓ BB:9 | T. Sigurdsson and K. Thórarinnsson | Icelandic fishery of oceanic redfish (<i>S. Mentella</i> Travin); information based on log-book data and sampling from commercial fishery |
| ✓ BB:10 | S. Poulsen, J.R. Nielsen, R. Holst, and K.-J. Stæhr | A herring size selection model for experimental gillnets used in the Sound (ICES Subdivision 23) |
| ✓ BB:11 | B.R. MacKenzie, J. Tomkiewicz, F. Köster, and A. Nissling | Quantifying and disaggregating the spawner effect: incorporating stock structure, spatial distribution and female influences into estimates of annual population egg production <i>to 5223</i> |
| ✓ BB:12 | P. Fonseca, A. Campos, and J. Feitoria | Square mesh windows experiments in Portuguese waters |
| ✓ BB:13 | V. Thorsteinsson
Poster | Vertical migration patterns of Atlantic Cod (<i>Gadus morhua</i>) in Icelandic waters; results from electronic data storage tags (DSTs) |
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