# INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA

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COUNCIL MEETING 1990

## CONTRIBUTIONS TO BE PRESENTED AT THE 78TH STATUTORY MEETING

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#### GEN - GENERAL ASSEMBLY REPORTS AND PAPERS OF GENERAL INTEREST

Gen:1 Observers' reports from cooperating organizations (and Addendum)

Gen:2 ICES activities in 1989/1990

Gen:3 Election of a standing scientific Committee Chairman at the 78th Statutory Meeting (E + F)

Gen:4 Advance Release of Tables 1-6 of Bulletin Statistique, Vol. 74, 1989

Gen:5 Oceanographic Data Centres in the ICES Community

LA LA	EL - DELEGATES DUCUMENTS
Del:1*	Audited Income and Expenditure Accounts for the Financial Year 1988/1989 with Balance Sheet at 31/10 1989
Del:2*	Preliminary report on administration for the year 1 November 1989 to 31 October 1990
Del:3*	Report on activities, 1990
Del:4*	Estimated accounts for the financial year 1989/1990
Del:5*	Draft budget for the financial year 1990/1991 (E+F)
Del:6*	Draft forecast budget for the financial year 1991/1992 (E+F)
Del:7*	Elections and appointments by the Council at the 78th Statutory Meeting $(\hbox{\sc E}+F)$
Del:8*	Report of the meeting of the <u>ad hoc</u> Planning Group for the Eighth Dialogue Meeting
Del:9*	Request for observer status by Greenpeace Inter- national
Del:10*	North Sea Task Force Progress Report
Del:11*	Guidelines for North Sea Task Force activities within the Secretariat and ICES
Del:12*	Report of ICES-HELCOM meeting, ICES Headquarters, 6 February 1990
Del:13*	Report of ICES-OSPARCOM-HELCOM Inter-Secretariat meeting, Copenhagen, 5 February 1990
Del:14*	Cooperation with Commission of EC
Del:15* Ref. A	North Atlantic Committee for Cooperation on Re- search on Marine Mammals
Del:16*	Guidelines and criteria governing observership of non-governmental organizations at meetings of the Helsinki Commission and the Oslo and Paris Com- missions
Del:17* Ref.A	Proposed Agreement on the Conservation of small Cetaceans

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\* For Delegates only. (E+F) = in English and French.

## FI - FINANCE COMMITTEE

Fi:1\* A

Agenda for the Finance Committee

## PUB - PUBLICATIONS COMMITTEE

Pub:1*	Agenda for the Publications Committee
Pub:2*	Publication activities in 1989/1990
Pub:3*	Sale of ICES publications during the last three years
Pub:4*	Report from the Editors of the Journal du Conseil for the ICES Year 1989-1990
Pub:5*	Arrangements for handling publication of Journal du Conseil
Pub:6*	ICES publications: sales and expenditure

## REFERENCE PAPERS FOR THE PUBLICATIONS COMMITTEE

E:8	Editor's report on Techniques in Marine Environmental Sciences
F:3	Report of the Editor of the Disease Sheets

L:111 Report of the Editor of the Plankton Identification Sheets

\*For the relevant Committees only.

# A ~ CONSULTATIVE COMMITTEE

A:1*	Agenda for the Consultative Committee
A:2*	Report of the Programme Planning Group Meeting, ICES Headquarters, 24–25 May 1990
A:3*	Minutes of ACFM Meeting, 31 October-8 November 1989
A:4*	Minutes of ACFM Meeting, 15-23 May 1990
A:5*	Report of the ICES-IOC Study Group on Models for Recruitment Processes, Paris, 7-11 May 1990
A:6*	Report of the Inter-Committee Recruitment Group, Copenhagen, October 1990
A:7*	Minutes of the meeting of the Advisory Committee on Marine Pollution, Copenhagen, 5-14 June 1990
A:8*	Future ICES Symposia

# REFERENCE PAPERS FOR THE CONSULTATIVE COMMITTEE

Del:15*	North Atlantic Committee for Cooperation on Research on Marine Mammals
Del:17*	Proposed Agreement on the Conservation of Small Ceta-

\*For the relevant Committee only.

# B - FISH CAPTURE COMMITTEE

B:1		Report of Activities, 1989
B:2 Sess.R	R. Toresen	Absorption of acoustic energy in dense herring schools studied by attenuation in the bottom echo signal
B:3 Sess.U	P.A. Koeller	Controlling the variability of survey gear performance
B:4		Withdrawn.
B:5	B.Ja. Krayzler	Hydroacoustic automatised system for studying objects' behaviour
B:6		Withdrawn.
B:7		Withdrawn.
B:8		Withdrawn.
B:9 Sess.R	A. Lebourges	Species recognition based on the spectral signature of individual targets
B:10 Sess.R	P. Degnbol <u>et al</u> .	ECHOANN - An analyzer for echosounder signals
B:11 Sess.R	H. Bodholt	Fish density derived from echo integration and <u>in situ</u> target strength measurements
B:12 Sess.R	B.S. Nakashima and D.S. Miller	The effect of trawl selectivity on estimates of acoustic biomass and year-class strength of capelin ( <u>Mallotus villosus</u> )
B:13 Sess.P	B.S. Nakashima	The application of airborne digital imagery and image analysis techniques to detect and measure capelin schools ( <u>Mallotus villosus</u> )
B:14 Sess.U	R.B. Millar and S.J. Walsh	Analysis of trawl selectivity studies with an appli- cation to trouser trawls
B:15		Withdrawn.
B:16 Ref.G	K. Groeneveld and A.D. Rijnsdorp	an 8-m beam trawl
в:17	F.A. Veenstra and J. Stoop	Safety integrated redesign of Dutch beam trawlers
B:18	A.M. Buys	Integrated wheelhouse electronics: a layout on board Dutch beam trawlers
B:19	B. van Marlen <u>et al</u> .	Performance measurements on a single-door trawl towed at the sea surface
B:20	D. Tianyuan, J.W. de Wilde and J. de Jage	Economic results of stern freezer trawlers in relation to technical parameters r

B:21 K.G. Foote Equivalent beam angles for several standard transducers Sess.R B:22 K.G. Foote Bad-weather calibration of split-beam echo sounding Sess.R systems B:23 K.G. Foote Simultaneous two-sphere two-transducer calibration Sess.R B:24 K.G. Foote How to correct fish density estimates for extinction Sess.R B:25 Withdrawn. B:26 M.R. Martins, Gillnet selectivity experiments on pout (Trisopterus Sess.U F. Cardador luscus) in Portuguese waters B:27 A. Järvik Selectivity of Baltic herring trawls studied by the covered codend and twin codend methods Sess.U and P. Suuronen B:28 P. Suuronen Preliminary trials with a square mesh codend in herring Sess.U trawls B:29 Withdrawn. B:30 Optimal acoustic beam pattern corrections for split beam E. Ona transducers Sess.R B:31 Hull mounted, protruding transducer for improving echo E. Ona and integration in bad weather Sess.R J. Traynor B:32 Withdrawn. B:33 E.J. Simmonds Sea bed following: efficient data collection for echo Sess.R and integration D.N. MacLennan B:34 R.S.T. Ferro The analysis of catch comparison data Sess.U and P.A.M. Stewart B:35 Withdrawn. B:36 Report on the joint session of the Working Groups on Fishing Technology and Fish Behaviour and on Fisheries Acoustics Science and Technology, Rostock, 25 April 1990 B:37 B. van Marlen A simulation model to determine the optimal freezing rate of a stern trawler for a given catch input B:38 A. Aglen Swimming behaviour of fish schools in the North Sea Sess.R and during acoustic surveying and pelagic sampling trawling O.A. Misund B:39 Fish shaped bait does not improve the response of S. Løkkeborg coastal cod B:40 Dynamics of moving masses variability in packing density 0.A. Misund Sess.R and shape among pelagic shcools

B:41 Sess.R	0.A. Misund <u>et al</u> .	Relationships between the geometric dimensions and bio- mass of schools
B:42		Withdrawn.
B:43		Withdrawn.
B:44		Report of the Working Group on Fishing Technology and Fish Behaviour, Rostock, 23-24 April 1990
B:45		Report of the Working Group on Fisheries Acoustics Science and Technology, Rostock, 26-27 April 1990
B:46 Sess. U	B. Isaksen and J.W. Valdemarsen	Codend with short lastridge ropes to improve size selec- tivity in fish trawls
B:47		Reduction of fish by-catch in shrimp trawl using a solid separator grid in the aft belly
B:48	N.R. Chessley and B.P. Gates	Techno-economic analysis of fishing system developments
Sess.	F. Gerlotti, D. Petit et P. Fréon	Influence of the light of a survey vessel on TS distribution
	P. Fréon, F. Gerlotti and M. Soria	Evaluation of the influence of vessel noise by night on fish distribution as observed using alternate motor and sails aboard a survey vessel
B:51 Sess.U	B. Isaksen, S. Lisovsky and V.A. Sakno	A comparison of the selectivity in codends used by Soviet and Norwegian trawler fleets in the Barents Sea

# REFERENCE PAPERS FOR THE FISH CAPTURE COMMITTEE

D:25, D:34, G:32, J:13

		C - HYDROGRAPHY COMMITTEE
C:1	G.I. Nesvetova	Hydrochemical conditions in the Spitsbergen area according to the autumn 1972-1988 data
C:2		Withdrawn.
C:3	and	Mesoscale variability of hydrophysical fields generated by the Canary Current upwelling from the navigational and satellite observation data
C:4 Ref.G+H	Ju.A. Vialov and Yu.S. Altman	Variabilté de rotation terrestre et des pêches
C:5 Ref. G+H	A.A. Elisarov, B.N. Kotenev and S.N. Rodionov	Izhevsky's system of nature in the light of modern investigations
C:6 Ref.E		Report of the PEX Study Group Meeting, Tallinn, 8-9 April 1990
C:7 Ref.E	G. Weichart	The quality of "old" oceanographic phosphate data
C:8 (pl Sess.T	us Annex)	Report of Working Group on Shelf Seas Oceanography, Fuengirola, Spain, 27-29 March 1990
C:9		Report of the Working Group on Oceanic Hydrography, Copenhagen, 28-29 April 1990
C:10		Report of the Working Group on Marine Data Management, Sopot, Poland, 1-4 May 1990
C:11 Sess.P		Report of the Study Group for the Application of Aerospace Remote Sensing
C:12 Sess.P		A new perspective for remote sensing measurements of plankton pigments and water quality
C:13	C. Druet	Synthesis on the results of triennial 1987–1989 S/V "Oceania" summer cruises performed in the energetically active zones of Greenland Sea
C:14 Sess.P	I.A. Bychkova <u>et al</u> .	Experimental satellite monitoring of the Baltic Sea in the 1980s
C:15 Sess.P	B. Håkonsson	Remotely sensed water mass distributions and large scale sea surface circulations in the Skagerrak
C:16		Withdrawn.
C:17	J. Meincke	The Greenland Sea interannual variability
C:18	B. Krutskikh and A. Makshtas	Hydrological features of East Greenland current

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C:19	B. Krutskikh and A. Makshtas	Experience in estimating characteristics of sea/air interaction in the Greenland and Norwegian Seas
C:20	K. Myrberg	Testing of a two-level flow model with stationary winds and simple basins
C:21	R.A. Myers, G. Mertz and J.A. Helbig	Long period salinity variations of Labrador slope water
C:22	G. van de Kamp	Long-term changes in salinity distribution in the central North Sea
C:23	L. Sellmann	Interaction between the Greenland Sea gyre and the East Greenland Current at $75^{0}\mathrm{N}$
C:24	S.S. Krist- mansson <u>et al</u> .	The Greenland Sea Project in the western Iceland Sea: current measurements and water masses in the Denmark Strait
C:25	J.W. Nielsen and E. Buch	Geopotential anomaly fields and geostrophic velocity profiles in the western Iceland Sea
C:26	J.C. Gascard and S.A. Malmberg	Circulation and hydrography in the Jan Mayen area
C:27	S.A. Malmberg <u>et al</u> ,	Greenland Sea Project in the western part of the Iceland Sea from Jan Mayen to the Denmark Strait
C:28 Ref.L	W.E. Walser Jr. R Hughes and S.C. Rabalais	A new multiple interface data acquisition system MIDAS for use in shipboard data acquisition systems
C:29 Sess.P	P. Gudmandsen	Satellite observation of polar seas
C:30	T. Gytre and Ø. Østensen	A field intercomparison between an acoustic current pro- filer/ADCP and two Sarvonius type current meters
C:31 (+ Ref.E	Addendum)	Report of the Study Group on SKAGEX Kiel, 31 October - 2 November 1989 and Gdynia, 6-9 March 1990
C:32		Withdrawn.
C:33 Sess.P <u>Poster</u>	R. Rudloff	Application of remote sensing in hydrography and navigation
C:34	C. Afonso Dias, M.H. Cavaco and J. Pissara	Observation of the Azores front in July 1987 and June 1989
C:35	J. Aure <u>et al</u> .	The Jutland Current - Nutrient and physical oceanographic conditions in late autumn 1989

C:36 Climate change and marine fish distributions: analogies S.A. Murawski Ref. and from seasonal and annual variability G+H+L D.G. Mountain C:37 P. Cornillon Satellite-derived global sea surface temperature fields: Sess.P 1981-present C:38 Withdrawn. V.A. Makarevich On qualitative visualization of ocean water circulation C:39 and related matter transfer, numerical modelling results C:40 E.Fogelgvist. Salinity effects in the analysis of nitrate in seawater Ref.E B. Yhlen and B. Thorstensson L. Fusco, C:41 The ocean colour European archive network (OCEAN) project Sess.P V. Barale and P.Schlittenhardt C:42 L. Fusco ESA RS data archives and user access for past, present, Sess.P and future missions C:43 Hydrographer's Report SKAGEX 1990. Results from the nutrient intercalibration C:44 L. Føyn Ref.E

#### REFERENCE PAPERS FOR THE HYDROGRAPHY COMMITTEE

D:7, G:33, G:49, G:50, H:13, J:27, L:4, L:8, Poll:1, Poll:2

D - STATISTICS COMMITTEE		
D:1	Report of the Statistics Committee Liaison Working Group, Copenhagen, 21–22 November 1989	
D:2	Report of the Working Group on ADP Matters, Copenhagen. 15-16 March 1990	
D:3	Withdrawn.	
D:4 and D:5	Withdrawn.	
D:6 V.V. Blinov Ref.G	To the methodology of modelling of the Barents Sea ichthyocenesis	
D:7 V.V. Blinov Ref.C+H	The possibilities for modelling of oceanographic conditions of reproduction, spawning, and feeding migration paths for the northern stock of blue whiting in the North-East Atlantic	
D:8	Withdrawn.	
D:9 D. Vasilyev	Adaptive step cohort analysis	
D:10 and D:11	Withdrawn.	
D:12 P. Petitgas	A geostatistical variance of the total abundance esti- mate for a regular sampling grid	
D:13 J.M. Hoenig, W.G. Warren and M. Stocker	Bayesian and related approaches to fitting stock production models	
D:14 K.H. Pollock, J.M. Hoenig and C.M. Jones	Estimation of fishing and natural mortality when a tagging study is combined with port sampling	
D:15 J.M. Hoenig and M.H. Prager	Can we determine the significance of key events on a recruitment time series? - A power study of superposed epoch analysis	
D:16 M. Soriano <u>et al</u> .	New functions for the analysis of two-phase growth of juvenile and adult fishes, with application to Nile perch	
D:17 W.S. Warren Ref.M and J.B. Dempsor	The precision of mark-recapture estimates under time n interval stratification	
D:18 W.G. Warren Ref.K	Classification without prior criteria illustrated with shellfish data	
D:19 W.G. Warren	Outliers, mixtures, and extending the Delta distribution for fisheries surveys	
D:20 W.G. Warren	Median Polish kriging of marine populations	
D:21 P.A. Shelton, Ref.G+H L. Fahrig and R.B. Billar	Uncertainty associated with cod-capelin interactions: how much is too much?	

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D:22		Withdrawn.
D:23 Sess.S	R.A. Myers	Setting quotas in a stochastic fishery
D:24 Ref.G+H	R.A. Myers	The analysis of catch-at-age data in the presence of multiple stocks and seasonal migration
D:25 Ref. B+H	K.G. Foote and G. Stefansson	Definition of the problem of estimating fish abundance over an area from acoustic line-transect measurements of density
D:26 Ref.G	M. Azevedo, F. Cardador and E. Serrão	First attempt to estimate fish distribution and abundance based on geostatistical techniques applied to data collected on a Portuguese groundfish survey (ICES Division IXa)
D:27	E. Ferrandis	Effort and mortality in stochastic Brownian models for fish population dynamics
D:28 Ref.H	H. Gjøsæter and K. Korsbrekke	Schooling-by-size in the Barents Sea capelin stock
D:29, D	:30, and D:31	Withdrawn.
D:32	P. Pallarés and J.A. Pereiro	LCA errors with recruitment fluctuations
D:33	ICES Statistician	Progress Report, 1989/1990
D:34 Ref.B+G	+H+K	Report of the Study Group on the Applicability of Spatial Statistical Techniques to Acoustic Survey Data, Brest, 4-6 April 1990
D:35 Ref.G	V.V. Blinov	A few points concerning VPA estimates when using short time data series and possible non-linear or chaotic character of fishery dynamics in the case of beaked redfish stock in the Irminger Sea
D:36 Ref.G	T. Polacheck and J.Volstad	Analysis of spatial variability of Georges Bank haddock ( <u>Melanogrammus aeglefinus</u> ) from trawl survey data using a linear regression model with spatial interaction

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# REFERENCE PAPERS FOR THE STATISTICS COMMITTEE

G:24, G:26, G:52, G:53, G:61, H:6, J:17, Poll:6

E:1		Not available.
E:2	A.Y. Cantillo and J.M. Bewers	A catalogue of marine standards and reference materials
E:3	J.M. Bewers and R.J. Pentreath	Comparison of risks associated with marine fish consumption
E:4 Ref.G+J	O. Bagge J <u>et al</u> .	Hypoxia and the demersal fish stock in the Kattegat (IIIa) and Sub-division 22
E:5		Withdrawn.
E:6	S. Mellergaard and E. Nielsen	Fish disease investigations in Danish coastal waters with special reference to the impact of oxygen deficiency
E:7	M.N. Moore and M.G. Simpson	Molecular and cellular pathology in environmental impact assessment
E:8 Ref.Puł	<b>b</b>	Editor's Report on Techniques in Marine Environmental Sciences
E:9 Ref.G	I. Marthinsen and G. Staveland	Levels of mercury in flounder ( <u>Platichthys flesus</u> L.) and cod ( <u>Gadus morhua</u> L.) caught during the year 1988 in the Hvaler archipelago, southern Norway
E:10	J. de Boer <u>et</u> al.	Intercomparison exercise on the analysis of individual chlorobiphenyl congeners in marine media - first step: optimization of gas chromatographic conditions
E:11	A.D. Vethaak and T.ap Rheinallt	A review and evaluation of the use of fish diseases in the monitoring of marine pollution in the North Sea
E:12	D. Bucke and S.W. Feist	Marine fish diseases: an overview of 10 years investigations by MAFF (UK)
E:13	C.F. Fileman <u>et al</u> .	Dissolved and particulate trace metals in surface waters over the Dogger Bank, central North Sea
E:14	R.J. Law and M.D. Nicholson	The 4th round hydrocarbon intercomparison programme: preliminary assessment of Stage 1
E:15	R.G. Lees <u>et al</u> .	Benthic studies in relation to dredging activity off the Isle of Wight, southern England
E:16	G. Irion and G. Müller	Sedimentary processes in the North Sea as revealed from heavy metal distributions in sediment cores
E:17	S.M. Rowlatt	Some effects of colliery waste disposal on sediment quality off the northeast coast of England

E:18 Ref.F	J.E. Thain, P. Matthiessen and S. Bifield	The toxicity of dichlorvos to some marine organisms
E:19 Sess.P	R. Doerffer	How to derive concentrations of chlorophyll, suspended matter, and gelbstoff from multispectral radiances of case II water?
E:20 Ref.G	D. Vethaak, M. Eggens and J. Jol	On the frequency of left-sided individuals in European flounder ( <u>Platichthys flesus</u> ) populations in relation to pollution monitoring
E:21 Ref.J	PO. Larsson	Diseases of cod observed on Swedish surveys in the Baltic
E:22	M. Kersten and I. Kröncke	Bioavailability of trace metals from marine sediments
E:23		Withdrawn.
E:24	L. Massie, A. McIntosh and J.M. Davies	Assessment of fish from the northern North Sea for oil taint
E:25 Ref.F	I.M. Davies, W. Turrell and J. McHenery	Environmental impact of fish farms in Scottish sea lochs
E:26	G. Topping and D. Wells	Quality assurance work in relation to the North Sea Task Force Monitoring Programme
E:27	G. Clark, D.C. Moore and I.M. Davies	Recovery of a sewage sludge dumping ground
E:28 Sess.T		Report of the Working Group on the Effects of Extraction of Marine Sediments on Fisheries, Charlottetown, Canada, 15-18 May 1990
E:29	A. Köhler– Günther <u>et al</u> .	Report on the interdisciplinary research project "Fish diseases in the Wadden Sea"
E:30	A. Köhler- Günther	Celullar responses in fish liver as indicators for toxic effects of environmental pollution
E:31 Ref.G	T. Lang	Infestation of North Sea whiting ( <u>Merlangius merlangus</u> L.) with externally visible parasites
E:32 Ref.K	R. Knust	The black spot disease in <u>Crangon crangon</u> L. of the German Bight
E:33	PD. Hansen and R.F. Addison	The use of mixed function oxidases (MFO) to support biological effects monitoring in the sea
E:34	P.J. Kershaw, G.J. Hunt and P.A. Gurbutt	A seabed source of artificial radionuclides

E:35 Draft Cooperative Research Report on the Effects of Extraction of Marine Sediments on Fisheries

E:36 M. Perttilä Conclusions of the Critical Review of Baltic Sediments

#### REFERENCE PAPERS FOR THE MARINE ENVIRONMENTAL QUALITY COMMITTEE

C:6, C:7, C:31, C:40, C:44, F:34, K:11, N:12, N:14, Poll:1 to Poll:7

# F - MARICULTURE COMMITTEE

F:1		Report of Activities, 1989
F:2 Ref.G	E. Moksness and D. Stefanussen	Growth rates in cultured common wolffish ( <u>Anarhichas</u> <u>lupus</u> ) and spotted wolffish ( <u>A. minor</u> )
F:3 Ref.Pub	)	Report of the Editor of the Disease Sheets
F:4		Withdrawn.
F:5	V.G. Martynov, N.K. Vorobieva and G.L. Gorshkova	Rearing conditions for juvenile Atlantic salmon ( <u>Salmo</u> <u>salar</u> ) using the heating of water
F:6		Withdrawn.
F:7	JE. Juell	Hydroacoustic detection of food waste - a method to determine maximum food intake of fish populations in sea cages
F:8 Sess.0	W.L. Silvert <u>et al</u> .	Modelling the feeding, growth, and metabolism of cultured salmonids
F:9	J.E. Stewart <u>et al</u> .	An analytical approach for evaluating opportunities in mariculture and assessing research needs: a proposal
F : 10	I.E. Calcedo	The effect of feed protein content on the intake and growth of turbot ( $\underline{Scophthalmus} \max L$ .)
F:11		Publications of interest to the Mariculture Committee, 1989-1990
F:12 Sess.T		Report of the Working Group on Environmental Impacts of Mariculture, Aberdeen, 27-31 March 1990
F:13 Sess.T	<u>.</u>	Report of the Working Group on Pathology and Diseases of Marine Organisms, Vigo, Spain, 23–27 April 1990
F:14		Report of the Working Group on Introductions and Transfers of Marine Organisms, Halifax, 6-8 June 1990
F:15		Report of the Working Group on Genetics
F:16		Withdrawn.
F:17	R. Lauterbach	Production principles for rainbow trout aquaculture in coastal brackish waters of the German Democratic Republic
F:18	0. Fukuhara, <u>et</u> <u>al</u> .	Development and behaviour of larvae and juveniles of turbot, <u>Scophthalmus</u> <u>maximus</u> L., in hatchery tanks

- F:19 E.A. Black, New developments in air transportation of salmon smolts B. Redfern and H. Rosenthal
- F:20 H. Rosenthal, Evaluation of shelters to reduce cannibalism in juvenile K. Lawonyawut <u>Macrobrachium rosenbergii</u> under intensive culture condiand J. Willführ tions
- F:21 H. Rosenthal A proposed glossary on biological and technical terms et al. relevant to aquaculture
- F:22 R.C. Reyes, Respiration and behaviour of <u>Macrobrachium rosenbergii</u> U. Waller at different levels of oxygen saturation and H. Rosenthal
- F:23 P. Fischer, <u>In situ</u> and laboratory investigations of respiration and U. Kils <u>behaviour of <u>Gasterosteus aculeatus</u> and <u>Zoarces vivipa</u>and U. Waller <u>ris</u> at various oxygen concentrations</u>
- F:24 C.A. Fernandez- Larval rearing of turbot (<u>Scophthalmus maximus</u>): effect Pato <u>et al</u>. of density of living food
- F:25 C.A. Fernandez- Effect of vitamin C on turbot (<u>Scophthalmus maximus</u>) Pato <u>et al</u>. using different experimental diets in feeding
- F:26 C. Martinez- Effect of vitamin C on hypertyrosinemic diet in turbot Tapia <u>et al</u>. (<u>Scophthalmus</u> <u>maximus</u>)
- F:27 C.A. Fernandez- Use of pyridoxine and ascorbic acid at different doses in Pato <u>et al</u>. turbot (<u>Scophthalmus maximus</u>) in experimental feeding
- F:28

Withdrawn.

- F:29 C.A. Fernandez- Growth of turbot (<u>Scophthalmus maximus</u>) from 1 to 3,000 g Pato <u>et al</u>. in the north of Spain
- F:30 C.A. Fernandez- Spawn, hatching, and larvae rearing of black spot sea Pato <u>et al</u>. bream (<u>Pagellus bogaraveo</u>): first experiences of its culture in the Oceanographic Center of Santander (Spain)
- F:31 C. Tapia-Martinez Comparative study of larval survival and growth in sea Martinez bream (<u>Pagellus bogaraveo</u>) using microencapsulated or <u>et al</u>. living food
- F:32 O. Cherequini Growth of wild black spot sea bream (<u>Pagellus bogaraveo</u>) under laboratory conditions. Some interesting parameters
- F:33 G. Andorsdóttir Comparisons of broodfish quality and egg quality in Atlantic salmon of Norwegian farmed strain, wild Atlantic salmon and ocean ranching Atlantic salmon of Norwegian farmed strain
- F:34 P.K. Hansen, Effects of organic waste from marine fish farms on the Ref.E K. Pitman seabottom beneath the cages and A. Ervik

F:35	A. Ervik <u>et al</u> .	Interactions between heritage, health, growth and environmental conditions in fish farming. Part 1: heritage, environment, and growth
F:36	B. Hjeltnes <u>et al</u> .	Interactions between heritage, health, growth and environmental conditions in fish farming. Part 2: health
F:37		Proposed revisions to the ICES Code of Practice. A report of the ICES Working Group on Introductions and Transfers of Marine Organisms
F:38	Ø. Bergh, G.H. Hansen and A. Jelmert	Bacterial diseases of eggs and yolk sac larvae of halibut ( <u>Hippoglossus</u> <u>hippoglossus</u> L.): Characterization and ex- perimental infection
F:39	Ø. Bergh and A. Jelmert	Antibacterial treatment procedures of eggs of halibut ( <u>Hippoglossus hippoglossus</u> L.)
F:40	J.V. Helvik and K. Pittman	Light affects hatching, development and pigmentation of halibut ( <u>Hippoglossus hippoglossus</u> L.)
F:41	I. Opstad and Ø. Bergh	Effects of continuous flow rate on development and mortality of halibut yolk sac larvae
F:42		Withdrawn.
F:43	A.B. Skiftesvik <u>et al</u> .	Effect of light on the development, activity, and mortality of halibut ( <u>Hippoglossus hippoglossus</u> L.) yolk sac larvae
F:44	K.E. Naas and A. Mangor- Jensen	Initial feeding rates of Atlantic halibut larvae ( <u>Hippo-</u> <u>glossus hippoglossus</u> ) at different prey densities
F:45	A. Jelmert and K.E. Naas	Induced deformities on larvae of the Atlantic halibut ( <u>Hippoglossus hippoglossus</u> L.). A new experimental approach
F:46		Withdrawn.
F:47	H. Otterå and Ø. Lie	Weaning trials with cod fry on artificial diets
F:48	G. Blom <u>et</u> <u>al</u> .	Comparative growth and survival of two genetic strains of Atlantic cod ( <u>Gadus morhua</u> L.) reared through the early life stages in a marine pond in western Norway
F:49	A.C. Barnes <u>et al</u> .	<u>In vitro</u> activities of 4-quinolone antimicrobials against <u>Aeromonas salmonicida</u>
F:50	D. Smail, P. Huntly and A.L.S. Munro	Fate of four fish pathogens after exposure to an ensiling mixture containing fish farm mortalities
F:51 Ref.M	W. Turrell and A.L.S. Munro	Further modelling studies on the fate and dispersion of <u>Aeromonas salmonicida</u> released during a furunculosis enidemic in sea-caged Atlantic salmon (Salmo salar L.)

F:52	K. Boxaspen, T. Harboe and L.H. Skjolddal	Calculated rate of halibut larvae ( <u>Hippoglossus hippo- glossus</u> L.) from startfeeding to metamorphosis on diet of natural zooplankton and <u>Artemia</u> sp.
F:53	T. Harboe <u>et al</u> .	Age of Atlantic halibut ( <u>Hippoglossus hippoglossus</u> L.) larvae at first feeding
F:54		Withdrawn.
F:55 Ref.M	D.M. Furevik <u>et al</u> .	Migratory patterns of escaped farm-raised Atlantic salmon
F:56		Withdrawn.
F:57	H. Rabben et al.	Startfeeding success of halibut larvae as a function of temperature regime
F:58		Withdrawn.
F:59	L.H. Skjolddal <u>et al</u> .	Calculated growth rate of halibut larvae ( <u>Hippoglossus</u> <u>hippoglossus</u> L.) as a function of introduction time for <u>Artemia</u> sp.
F:60	L.H. Skjolddal <u>et al</u> .	A comparison of growth rate of halibut larvae ( <u>Hippo- glossus hippoglossus</u> L.) fed natural zooplankton and enriched <u>Artemia</u> sp.
F:61	T. Næss <u>et al</u> .	Green water in larvae culture - an experiment with natural phytoplankton in tanks for first feeding of halibut larvae ( <u>Hippoglossus hippoglossus</u> L.)
F:62		Withdrawn.
F:62 F:63	R. Nortvedt <u>et al</u> .	Withdrawn. A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks
		A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing
F:63 F:64	<u>et al</u> . R. Nortvedt	A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks Smoltification of Atlantic salmon in different water qualities and subsequent growth in seawater, following
F:63 F:64 Ref.M	<u>et al</u> . R. Nortvedt	A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks Smoltification of Atlantic salmon in different water qualities and subsequent growth in seawater, following distinct transfer strategies from freshwater Report of the Working Group on Mass Rearing of Juvenile
F:63 F:64 Ref.M F:65	et al. R. Nortvedt et al. J. Munro et al.	A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks Smoltification of Atlantic salmon in different water qualities and subsequent growth in seawater, following distinct transfer strategies from freshwater Report of the Working Group on Mass Rearing of Juvenile Marine Fish Stress and osmotic performance of Atlantic cod ( <u>Gadus</u>
F:63 F:64 Ref.M F:65 F:66	et al. R. Nortvedt et al. J. Munro et al.	A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks Smoltification of Atlantic salmon in different water qualities and subsequent growth in seawater, following distinct transfer strategies from freshwater Report of the Working Group on Mass Rearing of Juvenile Marine Fish Stress and osmotic performance of Atlantic cod ( <u>Gadus</u> <u>morhua</u> ) at low enrichment salinity Investigations on offshore trout production along the
F:63 F:64 Ref.M F:65 F:66 F:67	et al. R. Nortvedt et al. J. Munro et al. HJ. Jennerich G. Schneider, T. Jäger and H. Rosenthal Annegret Anders	A multivariate approach to investigate growth of Atlantic salmon parrs as a function of water quality in rearing tanks Smoltification of Atlantic salmon in different water qualities and subsequent growth in seawater, following distinct transfer strategies from freshwater Report of the Working Group on Mass Rearing of Juvenile Marine Fish Stress and osmotic performance of Atlantic cod ( <u>Gadus</u> <u>morhua</u> ) at low enrichment salinity Investigations on offshore trout production along the coast of the German Democratic Republic Growing trout in global cages in an effluent plume of a

F:71	W. Gierer	Pharmaco-kinetic investigations on chloramphenicol in trout
F:72	I. Achenbach and R. Fröse	Presentation of a database system for information on and diagnosis of fish diseases
F:73	I. Lein and I. Holmefjord	Larval age at first feed intake in Atlantic halibut ( <u>Hippoglossus hippoglossus)</u>
F:74	I. Holmefjord and I. Lein	Natural spawning of Atlantic halibut ( <u>Hippoglossus</u> <u>hippoglossus</u> ) in captivity
F:75 Ref.M		Progress report of the Study Group on the Genetic Risks to Atlantic Salmon Stocks

## REFERENCE PAPERS FOR THE MARICULTURE COMMITTEE

E:18, E:25, K:11, K:13, K:23, L:92, Poll:7

- G:1 Report of Activities, 1989
- G:2 Report of the Study Group on Oceanic-Type <u>Sebastes</u> mentella, Reykjavik, 21-23 February 1990
- G:3 A.M. Ajiad Variabilities in stomach contents of cod, collected by Sess.0 demersal and pelagic trawl in the southern part of the Barents Sea
- G:4 A.M. Ajiad Trophic interrelation between length groups of Northeast Sess.Q Arctic cod in the southern part of the Barents Sea Poster
- G:5 J. Gjøsæter, Genotype distributions of cod from the southeastern K.E. Jørstad coast of Norway and G. Nævdal
- G:6 A.V. Dolgov Daily feding rhythms and food intake of the Barents Sea Sess.O and cod and haddock in the summer of 1989 N.A. Yaragina
- G:7 M.V. Kovtsova Distribution, abundance, and survival conditions of and haddock fingerlings from the 1982-1989 year classes in Y.M. Lepesevich the southern Barents Sea
- G:8 M.S. Shevelev, Soviet investigations of cod, haddock and redfish within A.E. Dorchenkov the Barents Sea and adjacent waters in 1989 and V.S. Mamylov
- G:9

#### Withdrawn.

Withdrawn.

G:10 G.P. Nizovtsev, Fisheries regulation measures and biological substan-Sess.S M.V. Kovtsova tiation of the minimum landing size for the Arctoand V.L. Tretyak Norwegian cod and haddock

- G:11 A.V. Dolgov Estimation of rations and food consumption of deep-water Sess.O and redfish (<u>Sebastes mentella</u>) from the Norwegian-Barents K.V. Drevetnyak Sea stock
- G:12 A.P. Shvagzhdis Feeding peculiarities of Greenland halibut from the Norwegian-Barents Sea stock in 1980-1989

G:13, G:14, and G:15

G:16 N.Ja. Lipskaya Food consumption rates among fish larvae belonging to Sess.0 different biological groups

G:17 D. Pauly, Some features of fish food consumption estimates used by Sess.O V. Christensen and V. Sambilev

- G:18 H.B. Hernandez, Sess.O P.F. Aliño and A. Jarre The daily food consumption of <u>Siganus fuscescens</u>, an important herbivore in the seagrass communities of Bolinao, Pangasinan Province, Philippines
- G:19 A. Jarre, A generalised approach for estimating daily ration from Sess.O A. Temming stomach content dynamics and D. Pauly

G:20	J. Alperi	Croissance des cardines ( <u>Lepidorhombus</u> whiffiagonis et <u>L. boscii</u> ) en Mer cantabrique (Division VIIIc du CIEM)
G:21	H. Dupouy, D. Christien and B. Kergoat	Estimation de la mortalité par pêche et rendement par recrue du lieu jaune ( <u>Pollachius pollachius</u> ) du plateau celtique
G:22 Sess.0	B. Bogstad and S. Mehl	The consumption rate of North-East Arctic cod - a comparison of gastric evacuation models
G:23		Withdrawn.
G:24 Ref.D	R.B. Millar and R.A. Myers	Modelling environmentally induced change in growth for Atlantic Canada cod stocks
G:25 Ref.H	R.B. Millar, L. Fahrig and P.A. Shelton	Effect of capelin biomass on cod growth
G:26 Ref.D	L. Fahrig and B. Atkinson	Concurrent exploitation of multiple stocks: a redfish simulation study $% \left( {{{\left[ {{{{\bf{n}}_{{\rm{s}}}}} \right]}_{{\rm{s}}}}} \right)$
G:27 Ref.L	M.A. van der Land, H.J.L. Heessen and A.D. Rijnsdorp	The result of the 1989 egg surveys for cod and plaice
G:28		Withdrawn.
G:29 Ref.H+J	H.C. Welleman J	Annual check formation in otoliths as a starting point for ageing by means of computer analysis
G:30 Ref.H	H. Gislason	Fishing patterns and yield variations
G:31 Sess.0	A. Temming F. Köster	Stomach evacuation rates of cod and herring estimated from field data
G:32 Ref.B	Aa. Bjordal and T. Laevastu	Effects of trawling and longlining on the yield and biomass of cod stocks - numerically simulated
	I. Daevastu	
G:33 Ref.C	<ul> <li>B. Hansen,</li> <li>A. Kristiansen</li> <li>and J. Reinert</li> </ul>	Cod and haddock in Faroese waters and possible climatic influences on them
	<ul> <li>B. Hansen,</li> <li>A. Kristiansen</li> <li>and J. Reinert</li> <li>F.W. Köster</li> </ul>	
Ref.C G:34 Sess.O G:35	<ul> <li>B. Hansen,</li> <li>A. Kristiansen</li> <li>and J. Reinert</li> <li>F.W. Köster</li> </ul>	influences on them Tank experiments on board: a useful tool for the
Ref.C G:34 Sess.O G:35	<ul> <li>B. Hansen,</li> <li>A. Kristiansen</li> <li>and J. Reinert</li> <li>F.W. Köster</li> <li>et al.</li> <li>P.J. Bromley</li> </ul>	influences on them Tank experiments on board: a useful tool for the estimation of stomach evacuation rates? Feeding in the trawl and the consequences for estimating

- G:38 R.S. Millner Distribution and abundance of juvenile sole and plaice and in the eastern English Channel from young fish surveys C.L. Whiting
- G:39

G:44

- G:40D. OtterleiThe growth of ling (Molva molva) in populations along<br/>the continental shelf off Shetland, the Faroes, and<br/>P. GrotnesP. GrotnesRockall
- G:41 J. Magnusson Icelandic investigations on the oceanic stock of <u>S. men-</u> and Jutta V. <u>tella</u> in the Irminger Sea in 1989 and 1990 Magnusson
- G:42 Jutta V. Ageing and age composition of silver smelt (<u>Argentina</u> Magnússon <u>silus</u> Asc.) in Icelandic waters
- G:43 J. Magnusson, Further studies on young redfish in the East Greenland K. Kosswig Shelf area and Jutta V. Magnusson
  - Withdrawn.

Withdrawn.

- G:45 P. Pereda and I. Olaso of the shelf of the Cantabrian Sea
- G:46 Preliminary report on the international O-group fish Ref.H survey in the Barents Sea and adjacent waters in August-September 1990
- G:47 H. Gjøsæter Growth of Polar cod (<u>Boreogadus saida</u>) in the Barents Ref.H and A.M. Ajiad Sea
- G:48 A.M. Ajiad Diet of Polar cod (<u>Boreogadus saida</u>) in the Barents Sea Ref.H and H. Gjøsæter related to fish size and geographic distribution
- G:49 H. Loeng and Growth of O-group fish in relation to temperature con-Ref.C H. Gjøsæter ditions in the Barents Sea during the period 1965-1989
- G:50 Report of the ICES Study Group on Cod Stock Fluctuations
- Ref.C+L

G:51 A.P. Robb Gastric evacuation in whiting (<u>Merlangius merlangus</u> L.) Sess.O

G:52 P. Kunzlik <u>Ad hoc</u> tuning of non-annual virtual population analyses Ref.D+H+J

G:53 S. Reeves Linear modelling of discard data from Scottish demersal Ref.D fisheries

G:54 O.R. Godø Comparison of catches of cod from Norwegian commercial Sess.U and trawlers and research vessels K. Korsbrekke

G:55 O.R. Godø Length selection during trawl sampling and its effect on abundance indices by age

K. Sunnanå

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G:56 O. Jørgensen and K. Akimoto	Distribution and biology of <u>Sebastes mentella</u> in the Greenlandic part of the Irminger Sea in September 1989
G:57 O. Jørgensen <u>Poster</u> and K.Akimoto	Results of a stratified-random bottom trawl survey off Northeast Greenland in 1989
G:58 H. Hovgård and F. Riget	A long-line estimate of swept area abundance of cod in inshore areas of West Greenland
G:59	Report of the Study Group on Beam Trawl Surveys in the North Sea and English Channel, Ostende, 6–9 June 1990
G:60	Report of the Study Group on the Fecundity of Sole and Plaice in Sub-areas IV and VIII and Divisions VIId,e, Lowestoft, 18-21 September 1990
G:61 HJ. Rätz Ref.D	Remarks on the reliability of the abundance estimates derived from groundfish surveys conducted in Greenlandic waters
G:62 R. Knust	Food and condition of dab ( <u>Limanda limanda</u> L.) from the Dogger Bank and the German Bight
G:63 P. Degnbol Sess.0 <u>et al</u> .	Experimental estimation of food preference in cod - results of a pilot experiment
G:64	Withdrawn.
G:65 O. Hagström, PO. Larsson and M. Ulmestrand	Swedish cod data from the International Young Fish Surveys, 1981-1990
G:66 C.E. Purdom and D.J. Garrod	Fisheries on the Dogger Bank
G:67 R.P. Briggs	Whiting recruitment studies using discard data from the Northern Ireland <u>Nephrops</u> fishery
G:68 J. Jakobsson <u>Poster</u>	Icelandic O-group fish survey
	Icelandic O-group fish survey Aspects of gastric evacuation in the Atlantic cod ( <u>Gadus</u> <u>morhua</u> L.)

# REFERENCE PAPERS FOR THE DEMERSAL FISH COMMITTEE

B:16, C:4, C:36, D:6, D:21, D:24, D:26, D,34, D:35, D:36, E:4, E:9, E:20, E:31, F:2, H:6, H:13, H:16, J:4, L:92, L:100, N:11, N:17,

H:1 Report of Activities, 1989 Report of the Mackerel/Horse Mackerel Egg Production H:2 Workshop, Lowestoft, 29 January - 2 February 1990 H:3 Report of the International North Sea, Skagerrak, and Ref.G Kattegat Bottom Trawl Survey Working Group, Copenhagen, Sess.S 26 February - 1 March 1990 A preliminary study of microstructure in otoliths of H:4 S.A. Iversen and E. Moksness sea-caught mackerel (Scomber scombrus L.) larvae H:5 Second Report of the EEC-Norwegian Joint Scientific Group on Migration and Area Distribution of Mackerel (Western Stock), Brussels, 12-13 December 1989 H:6 H. Sparholt Using GLM analysis on the IYFS herring data for the Ref.D+G North Sea H:7 Growth and maturation rate of Atlanto-Scandian herring E.I. Seliverin the 1950-1980s stova H:8 N.A. Isaev and Results of Soviet investigations on blue whiting in the S.V. Belikov Northeast Atlantic in spring 1989 H:9 N.A. Barkova Utilisation des informations satéllitaires pour l'étude Sess.P and M.W. des particularités de répartition de la sardine dans . Domanevskava l'Atlantique centre-est H:10 Withdrawn. E.M. Gerber Fish resources in oceanic areas of the North Atlantic H:11 Etude du remplacement du contingent géniteur dans la H:12 L.I. Koval population de chinchard, Trachurus symmetricus murphy (Nichols) H:13 Report on the International Young Fish Survey in the Ref.C+G North Sea, Skagerrak, and Kattegat in 1990 H:14 Distribution and growth of blue whiting in the North-T. Monstad East Atlantic H:15 Some biological factors of blue whiting in the North-T. Monstad East Atlantic H:16 B. Bogstad and Estimation of predation mortalities on capelin using a Ref.G S. Tjelmeland cod-capelin model for the Barents Sea H:17 W. Smith and Larval distribution patterns: evidence for the collapse/recolonisation of Atlantic herring on Georges W. Morse Bank H:18 P. Berrien Atlantic mackerel egg production and spawner biomass estimates for the Gulf of St. Lawrence and Northeastern Ref.L

US waters, 1987

H:19 Distribution and mortality of pelagic eggs of by-catch M.A. van der Ref.L Land species in the 1989 egg surveys in the southern North Sea H:20 A. Eltink Horse mackerel egg production and spawning stock size in Ref.L the North Sea in 1989 H:21 A. Corten The choice of target fishing mortality in herring Sess.S fisheries H:22 and H:23 Withdrawn. H:24 E. Kirkeqaard Report on the herring acoustic surveys in the North Sea, Skagerrak, and Kattegat during summer 1989 et al. H:25 Amor Sola Seasonal occurrence of pelagic fish eggs and larvae in the Cantabrian Sea (VIIIc) and Galicia (IXa) from 1987 Ref.L et al. to 1989 H:26 L. Motos and An egg production estimate of biomass of the Bay of Ref.L J. Santiago Biscay anchovy, Engraulis encrasicholus L. in 1989 H:27 P. Lucio and, Aspects of the reproductive biology of the anchovy, Ref.L A. Uriarte Engraulis encrasicholus L. (1758) during 1987 and 1988 in the Bay of Biscay H:28 Withdrawn. H:29 L. Motos Results of the 1989 AZTI-SIO egg surveys on mackerel, Ref.L <u>et al</u>. Scomber scombrus, and horse mackerel, Trachurus trachurus H:30 E. Kjørsvik On the inter-tidal spawning of Balsfjord herring (Clupea et al. harengus) H·31 M. Walsh Estimation of total potential fecundity and atresia in et al. the Western mackerel stock 1989 н:32 Report of the Working Group on Herring Larvae Surveys South of  $62^9\,N$ , 27 February - 2 March 1990 H:33 Acoustic surveys on blue whiting north of the Faroes in J.A. Jacobsen August/September 1988 and 1989 H:34 J.A. Jacobsen A survey on herring south of the Faroes in June 1990 H:35 Report of the Planning Group for Acoustic Surveys in ICES Sub-areas VIII and IX, Lisbonne, 29-31 May 1990 Trophic relationships between skipjack tuna (Katsu-H:36 J. Castro wonus pelamis), chub mackerel (Scomber japonicus), and Sess.Q et al. Poster silversides (Atherina presbyter) in the area of the Canary Islands H:37 M. Meixide Results of the blue whiting otolith exchange H:38 S.V. Belkov, Results of blue whiting investigations in the northeast D.M. Mahon Atlantic in spring, 1990 and J. Molloy

H:39 N.A. Isaev Results of research on blue whiting to the west of the and D. Minchin Irish coast in spring 1989

H:40 Report on the ICES Herring Larval Surveys in the North Sea and adjacent waters

### REFERENCE PAPERS FOR THE PELAGIC FISH COMMITTEE

C:4, C:36, D:7, D:21, D:24, D:25, D:28, D:34, G:25, G:29, G:46, G:48, G:52, J:4, J:16, J:30, L:92, L:106, N:17

#### J - BALTIC FISH COMMITTEE

J:1 Report of Activities, 1989 J:2 List of Publications related to the interests of the Baltic Fish Committee J:3 R. Aps, Allometric growth of the Baltic sprat otoliths L. Ustinova and B. Gentzen .1 - 4 Application of image analysis system in sprat otolith R. Aps Ref.G+H <u>et al</u>. studies J:5 T. Raid On herring reproduction in the northeastern Baltic J:6 S. Shirokov Dynamics of maturation of the Baltic sprat J:7 L. Ustinova Growth of the juvenile Baltic sprat J:8 R. Aps A century of Baltic sprat biology investigations: stock identification, recruitment, otoliths J:9 R. Aps et al. Microstructure of the Baltic cod otoliths J:10 T.I. Bulgakova A model for the embryonal period in the Baltic cod life Ref.L and history G.B. Grauman M. Plikshs J:11 Acoustic survey of the spawning stock of cod in the Eastern Baltic in 1989 anđ E. Gradalev J:12 W. Weber and Investigation on cod stomachs in the Western Baltic U. Damm J:13 K.-J. Stæhr Report on the acoustic survey in ICES Sub-divisions 22, Ref.B and 23, and 24 in November 1989 Th. Neudecker J:14 K. Krenkel Preliminary results of fecundity investigations of R-Rügen spring-spawning herring in 1988 and 1989 J:15 N. Schulz A new attempt to calculate consumption rates for cod Sess.0 (Gadus morhua) in the western Baltic J:16 O. Rechlin On the separation of catch projections for a stock with Ref.H seasonal fisheries in different areas: herring assessment unit Division IIIa and western Baltic Sea J:17 M. Hildén and Structural changes in the Finnish trawl fishery in the Ref.D P. Kultalahti 1980s and the identification of fishing strategies J:18 W. Grygiel The trends in Polish sprat landings and sprat biological characteristics in the Southern Baltic in the 1981-1986 period J:19 P. Margonski Some aspects of straight-nosed pipefishes' (Nerophis ophidion L.) biology in the Gdansk Bay

J:20	J. Netzel	Cod migrations in Southern Baltic
J:21	Th. Neudecker	Results of morphometric investigations on herring otoliths from the Western Baltic using an image analyser
J:22	Th. Neudecker	Changes in growth of Western Baltic herring from 1982 to 1989
J:23 Ref.L	R. Thiel	Community structure and niche relationships of young and small fish communities within the shallow water areas of a Baltic bay
J:24 and	l J:25	Withdrawn.
J:26 Sess.R	E. Ona and L.E. Palmen	The herring swimbladder and salinity; a comparison of Baltic and Norwegian spring-spawning herring
J:27 Ref.C	E. Aro <u>et al</u> .	Estimation of Baltic cod eggs and larvae drift by two- layer, two-dimensional linear flow model
J:28	E. Aro <u>et al</u> .	Estimation of changes in the abundance of Baltic herring and sprat stocks by combined hydroacoustic-trawl surveys in the Gulf of Finland in autumn, winter, and spring
J:29		Report of the Study Group on Young Fish Surveys in the Baltic, Tvärminne, Finland, 3–7 September 1990
J:30 Ref.H	A. Müller, K. Muhsin and F. Köster	Ovarian maturation and batch fecundity in Baltic sprat from the Bornholm Basin, 1988
J:31		Withdrawn.
J:32	R. Parmanne and E. Kuittinen	The fecundity of herring in the northern Baltic Sea
J:33		Withdrawn.
J:34		Report of the Planning Group for Hydroacoustic Surveys in the Baltic, Copenhagen, 17-18 April 1990
J:35	0. Hagström <u>et al</u> .	Acoustic estimates of the herring and the sprat stocks in the Baltic proper October 1989
J:36	E. Steffensen and O. Bagge	The landings per unit effort of cod, plaice, flounder, dab, turbot, and brill in the western Baltic 1963-1989 as estimated from the Bagenkop fleet

REFERENCE PAPERS FOR THE BALTIC FISH COMMITTEE

E:4, E:21, G:29, G:30, G:52

## K - SHELLFISH COMMITTEE

<b>K:1</b>		Report of Activities, 1989
K:2	Gro I. van der Meeren <u>et al</u> .	Large-scale release experiment of juvenile lobsters, <u>Homarus gammarus</u> , in Norway
K:3	A. Nicolajsen and H. Eiriksson	A preliminary report on the reproductive cycle of <u>Nephrops norvegicus</u> at the Faroes
K:4	B.I. Berenboim, A.I. Mukhin and G.K. Sheveleva	Soviet investigations of shrimp, <u>Pandalus borealis</u> , in the Barents Sea and off the Spitsbergen area in 1989
<b>K:</b> 5		Withdrawn.
K:6 Ref.L	I.S. Wehrtmann	Larval production of <u>Crangon septemspinosa</u> in waters ad- jacent to Chesapeake Bay, USA, in relation to oceano- graphic conditions
K:7	I.S. Wehrtmann and C. Stagg	Distribution of <u>Crangon septemspinosa</u> larvae off Chesa- peake Bay, USA: a comparison of field data and the results of a larval transport model
K:8 and	d K:9	Withdrawn.
K:10	C.C.E. Hopkins, J.R. Sargent and E.M Nilssen	Total lipid content, and lipid and fatty acid composition of the deep-water prawn <u>Pandalus borealis</u> from Balsfjord, northern Norway: growth and feeding relationships
K:11 Ref. E+F	A. Bodoy et al.	Mass mortalities of oysters ( <u>Crassostrea gigas</u> ) during the spring 1988 in the Bay of Marennes-Oléron (Alantic coasts of France), related with environmental problems
K:12		Withdrawn.
K:13 Ref.F	R.C.A. Bannister <u>et al</u> .	The 1989 results from a lobster stock enhancement experiment on the east coast of England
K:14 Sess.P	P. Walker, P.J. Dare and E. Clark	The potential of aerial photography for estimating intertidal stocks of mussels ( <u>Mytilus edulis</u> ) in the Wash, England
K:15	A.M. Caramelo and G. Pestana	An assessment of the shellfish Portuguese fishery (ICES Division IXa) and management strategies results
K:16		Publications of interest to the Shellfish Committee, 1990
K:17	Gro I. van der Meeren	Foraging activity in common shore crabs, <u>Carcinus maenas</u> on a blue mussel bed
K:18		Withdrawn.

K:19 Sess.Q <u>Poster</u>	C. Bacher	Trophic capacity of the Bay of Marennes-Oléron: coupling a model of transport of particulate matter and a model of growth of <u>Crassostrea gigas</u>
K:20	M. Héral, B.J. Rothschild and P. Goullet- quer	Decline of oyster production in the Maryland portion of the Chesapeake Bay: causes and perspectives
K:21	O. Tully and J.P. Hillis	Spatial patterns of variability in length frequency distribution of <u>Nephrops</u> in the Irish Sea
K:22	J.P.Hillis and M. Geary	The Irish fishery for <u>Nephrops</u> on the Porcupine Bank
	S. Andersen and K. Naas	Growth of scallop juveniles ( <u>Pecten maximus</u> ) in an en- riched shallow sea water basin

# REFERENCE PAPERS AND POSTER FOR THE SHELLLFISH COMMITTEE

D:18, D:34, E:32, N:8 (Poster)

#### L - BIOLOGICAL OCEANOGRAPHY COMMITTEE

L:1 (+ Addendum) Report of Activities, 1989 J.H. Cowan, Jr. Estimates of relative predation potential by medusae, T.: 2 and E.D. Houde ctenophores and fish on ichthyoplankton in Chesapeake Bay L:3 E.D. Houde Temperature-dependent and size-dependent variability in vital rates of marine fish larvae A.G. Alexseeva, Effects of oceanographic conditions on primary produc-T.: 4 Ref.C I.I. Svetlov tion distribution in the Irminger Sea and L.G. Balabanova L:5, L:6, and L:7 Withdrawn. L:8 R. Ian Perry The Georges Bank frontal system: mechanisms of plankton Ref.C retention or dispersal et al. L:9 Withdrawn. Distribution of auto-, mixo, and heterotrophic plankton L:10 H. Auf dem Sess.V Venne ciliates in the Greenland Sea in late spring and fall 1988 L:11 Y. Desaunay ZEBULON, a simple suprabenthic sampling gear for Poster et al. ichthyoplankton studies over the continental shelf L:12 E. Marchal. Scattering layer of micronekton, thermal structure and Sess.R F. Gerlotto tuna abundance in the Atlantic equatorial current system and B. Stequert K. Richardson Annual distribution and production of phytoplankton in L:13 the southern Kattegat and A. Christoffersen L:14 B. Requera, Distribution of Dinophysis acuta at the time of a DSP I. Bravo and outbreak in the Rias of Pontevedra and Vigo (Galicia, NW S. Fraga Spain) Physiological rate measurements of zooplankton produc-L:15 M.E. Huntley tion rates - Beyond this broken promise Sess.V Withdrawn. T.: 16 L:17 D.V. Holliday Acoustic assessment of zooplankton in the Irish Sea Sess.R et al. P. Juel Hansen The annual cycle of heterotrophic dinoflagellates in the L:18 Kattegat; with emphasis on the trophic role in the marine microbial food web Contribution of zooplankton grazing in the decomposition L:19 T. Gissel Nielsen of a Ceratium bloom

L:20	M. Berman	Enhanced zooplankton processing with image analysis technology
L:21		Withdrawn.
L:22	J. Kane and J. Green	Zooplankton biomass on Georges Bank 1977-1986
L:23	K. Sherman, J. Jossi and J. Goulet	Comparative stability of zooplankton communities of the Northeast US Shelf ecosystem and the North Sea ecosystem in relation to climatic variability
L:24	K. Sherman	Large marine ecosystems as global units for management: an ecological perspective
L:25 Sess.V	A. Bedo	Filter feeding by Appendicularians: various estimates of their grazing on <u>Synechoccus</u> sp. (cyanobacteria)
L:26 Sess.V	C. Morales and R. Harris	A review of the gut fluorescence method for estimating ingestion rates of planktonic herbivores
L:27 Sess.V	O.H. Haslund and M. Fryd	In situ measurements of copepod production: a comparison of two methods
L:28 Sess.Q <u>Poster</u>	P. Bernal <u>et al</u> .	A steady state trophic model for a highly productive em- bayment: Concepcion Bay, Chile
L:29 Sess.Q <u>Poster</u>	A. Yañez- Arancibia <u>et al</u> .	Trophic analysis of macrofauna, nektonic food consump- tion, and shrimp predation by fishes in Terminos Lagoon, Mexico
L:30 Sess.Q <u>Poster</u>	P. Degnbol	The pelagic zone of central Lake Malawi - a trophic box model
	J.W. Baretta, P. Ruardij and A. Stam	Ems estuary ecosystem model
	A. Cohen, R. Olivieri and F. Chavez	An ecosystem model of Monterey Bay, California (merged with L:33)
L:34 Sess.Q <u>Poster</u>	E. Cohen and M. Fogarty	A trophic model of Georges Bank
L:35 Sess.Q <u>Poster</u>	K. Ruddle and V. Christensen	A quantitative energy flow model of the Mulberry Dike - Carp pond integrated farming system of the Zhujiang Delta, Guangdong Province, People's Republic of China
L:36 Sess.Q Poster	M.L.Palomares <u>et al</u> .	A trophic model of a Mediterranean lagoon, Etang de Thau, France

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L:37 P. Schalk Towards a conceptual model for the Antarctic marine ecosystem Sess.0 et al. Poster L:38 S. Opitz A quantitative steady-state model of the trophic interactions in a Carribean coral reef ecosystem Sess.0 Poster L: 39 S. Pisanty The ecosystem of Lake Kinneret. Israel Sess.0 Poster T.: 40 L. Arbaca-First approach for a trophic model for Tamiahua, a Sess 0 Arenas and E. coastal lagoon in Mexico Poster Valero-Pacheco T. . 41 G. Silvestre A trophic model of the shallow-water fisheries resources Sess.Q et al. of Brunei Darussalam. South China Sea Poster C.M. Aravindan Trophic relationships of major food fishes in a semi-T.: 42 Sess.0 enclosed estuary of the southwest coast of India Poster L:43 W. Silvert Size-structured models of continental shelf food webs Sess.0 Poster L:44 Withdrawn. R. Santhanam. Trophic model in an estuarine ecosystem of the southeast L:45 Sess.O A. Srinivasan coast of India Poster and M. Devaraj L:46 R. Jones The detrital cycle and its interaction with higher Sess.0 and trophic levels Poster E.W. Henderson A steady-state trophic model of the North Sea L:47 J.G. Pope, Sess.O P. Bromley Poster and J. Last L:48 and L:49 Withdrawn. Seasonal changes in the Peruvian upwelling ecosystem L:50 A. Jarre Sess.O and D. Pauly Poster Trophic dynamic structure of Celestun Lagoon, South Gulf L:51 E.A. Chavez, Sess.Q M. Garduño and of Mexico Poster F. Arreguin-Sanchez M. Vega-Cende- Trophic fluxes in a beach seine fishery of the Campeche L:52 Sess.Q jas, F. Arre-Bank Poster guin-Sanchez and M. Hernandez

L:53 F. Arrequin-Trophic box model of a coastal fish community of the Sanchez, E. Western Gulf of Mexico Sess.0 Poster Valero-Pacheco and E.A. Chavez L:54 G. de la Cruz A.Trophic relationships in Mandinga Laboo Lagoon, Veracruz, Mexico Sess.0 Poster L:55 P.M. Alino An ecosystem model of a tropical reef flat in Santiago Sess.Q et al. Island, Bolinao, Pangasinan, Philippines Poster L:56 P. Reyes-A preliminary ecosystem model of an eutrophic lake (Lake Sess.Q Marchant Aydat, France) Poster et al. F.A. Sanchez, An application of ECOPATH II model for analysis of the L:57 Sess.Q J.C. Seijo and marine community of the North Continental Shelf of Yuca-Poster E. Valerotan, Mexico Pacheco E.B. Christensen San Miguel Bay, Philippines L:58 Sess.Q et al. Poster L:59 J. Moreau, Trophic relationship in the fish community of Lake Sess.Q W. Ligtvoet Victoria, with emphasis on the impact of Nile perch Poster and Lates niloticus M.L. Palomares R. Molinet A trophic model of Golfo Triste, Venezuela L:60 Sess.Q et al. Poster H. Masundire A trophic model for Lake Kariba, Zimbabwe L:61 Sess.Q et al. Poster B. Marshall A trophic model of Lake McIlwaine. Zimbabwe L:62 Sess.0 Poster Withdrawn. L:63 L:64 A.A. van Dam, Trophic interactions in a napier grass (<u>Pennise</u>tum purpureum)-fed aquaculture pond in Malawi Sess.Q B.A. Costa-Poster Pierce and F. Chikafum L:65 R.P. Noble and Resource flows in crop-pond aqua ecosystems in Malawi Sess.Q S. Chimatiro Poster L:66 A.D. Pongase Efficient aggregation of boxes in trophic ecosystem Sess.Q models Poster Three new approaches for the graphical representation of L:67 D. Pauly and Sess.Q V. Christensen box models of ecosystems Poster

L:68 V. Christensen The ECOPATH II Model Sess.O and D. Pauly Poster T.: 69 V. Christensen Global comparison Sess.O and D. Pauly Poster L:70 U.S. Amara-An energy-flow model of Parakrama Samudra, an ancient Sess.Q singhe reservoir in Sri Lanka Poster L:71 A trophic model for IJsselmeer (The Netherlands) - a A.D. Buijse Sess.Q <u>et al</u>. shallow eutrophic lake Poster L:72 C. de la Cruz Steady-state models of a rice paddy ecosystem with and Sess.Q et al. without fish Poster L:73 V. Christensen Size-specific predation and "box" modelling Sess.Q and D. Pauly Poster L:74 M.V. Angel and Latitudinal patterns in biomass and diversity profiles Sess.V P.M. Hargreaves of planktonic and micronektonic communities in the northeastern Atlantic L:75 W. Greve Simulation-supported sequential synoptic sampling Sess.V L:76 Withdrawn. L:77 B.I. Bergström, Determination of abundance of gelatinous plankton with a Sess.V A. Gustavsson remotely operated vehicle (ROV) and J.O. Strömberg L:78 Towards a model of egg production in Calanus fin-H.-J. Hirche Sess.V marchicus laboratory and field observations J.C. Roff and L:79 An enzyme index of zooplankton growth rate Sess.V J.A. Berges L:80 H.G. Fransz Life cycle and production in Antarctic epipelagic cope-Sess.V pods Use of multiple frequency acoustics and other methods in D. Sameoto L:81 Sess.V et al. estimating copepod and euphausiid abundance and biomass Ref.Sess.R L:82 Withdrawn L:83 B. Hansen Functional relationship, particle retention, and selec-Sess.V tivity of phytoplankton by planktotrophic benthic larvae

exemplified by a gastropod veliger

L:84 Sess.V	N. Swanberg U. Båmstedt and L.P. Madin	Assessing the role of gelatinous zooplankton in the marine environment - a critique
L:85	G.P. Arnold, B.H. Holford and S.P. Milligan	Acceptance characteristics of the Lowestoft high speed plankton samplers: the conical nose cone
L:86	J.G. Braun <u>et al.</u>	Preliminary observations on picoplankton biomass in Canary Islands waters
L:87	C. Garcia- Ramos <u>et al</u> .	Seasonal distribution of zooplankton in Canary Island waters in the upper 200 metres
L:88	J.M. Rodriguez <u>et al</u> .	First approach to the knowledge of ichthyoplankton in the Canary Island waters: spatial and temporal varia- bility of ichthyoplankton abundance and zooplankton biomass
L:89	A. Röpke, U. Piatkowski and W. Welsch	A comparative study on the vertical distribution of fish and cephalopod larvae in three hydrographically and ecologically different areas of the Arabian Sea (preliminary results)
L:90	R. Fröse <u>et al.</u>	Development of an underwater video system for recording of ichthyoplankton and zooplankton
L:91	R. Fröese	Growth strategies of fish larvae
L:92 Ref.F+G	R. Fröese +H	Presentation of a biological database for species of current or future importance to aquaculture or fisheries
L:93	J.W. Jossi and J. Goulet	Zooplankton community abundance coherence and stability of the Northeast Shelf ecosystem
L:94 Sess.P	J.W. Campbell and T. Aarup	Ocean color applications in 1990: surviving the data gap
L:95		9th Report of the Benthos Ecology Working Group, Lisbon, 9-12 May 1990
L:96		Report of the Working Group on Recruitment Processes, Nantes, 26-28 June 1990
L:97	M. Kloppmann	The sampling efficiency of a horizontally towed Bé multiple-opening-closing-net
L:98	C. Clemmesen	Improvements in the fluorimetric determination of the RNA- and DNA-content in individual marine fish larvae
L:99	B. Ueberschär and C. Clemmensen	A comparison of the nutritional condition of herring larvae as determined by two biochemical methods - tryptic enzyme activity and RNA/DNA ratio measurement
L:100 Ref.G	B. Ellertsen and P. Solemdal	Spawning strategy and a mechanism for adaptive larval production in Arcto-Norwegian cod
L:101 <u>Poster</u>	K.W. Estep and F. Rey	Interactive computer taxonomy of marine algae

L:102 T. Noji and Protistan associations with fecal pellets Poster K. Estep L:103 C. Noji, Benthic activity and respiration in a northern Norwegian Poster T. Noji and fjord in late autumn K.-G. Barthel Ref. Mini-Symp. L:104 J.A. Runge Egg production rates of <u>Calanus finmarchicus</u> in the Gulf Sess.V of St. Lawrence L:105 List of publications of interest to the Biological Oceanography Committee, 1989 L:106 J.A. Morrison, Mass mortality of spring spawning herring eggs in J.C. Gamble Ref.H Scottish waters and C. Shand L:107 A. Corten Efficiency measurements of Gulf III and HAI plankton samplers in a towing tank L:108 S. Alshuth Respiration and excretion rates of copepods from the Northwest Atlantic Ocean T.: 109 M.R. Roman and Size distribution analysis of zooplankton biomass using Sess.V A.L. Gauzens image analysis L:110 Withdrawn. L:111 Report of the Editor of the Plankton Identification Ref.Pub Sheets L:112 J. Csirke Simplified trophic interactions in the Northern Patagonia and Bonaerensis area in the Southwest Atlantic Sess.Q Poster S. Barnard Trophic dynamics in a gravel pit lake ecosystem L:113 Sess.0 Poster L:114 Withdrawn. R. de Paula E Fisheries productivity modelling of Maputo Bay, L:115 Mozambique Sess.Q Silva et al. Poster L:116 J.A. Browder Trophic flows and organic matter budget, Gulf of Mexico Sess.0 continental shelf Poster

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### REFERENCE PAPERS FOR THE BIOLOGICAL OCEANOGRAPHY COMMITTEE

C:28, C:36, G:27, G:50, H:18, H:19, H:20, H:25, H:26, H:27, H:29,

J:10, J:23, K:6, K:7, Poll:7

# M - ANADROMOUS AND CATADROMOUS FISH COMMITTEE

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M:1		Report of Activities, 1989
M:2		Report of the Study Group on the Norwegian Sea and Faroes Salmon Fishery, Copenhagen, 12-15 March 1990
M:3		Report of the Study Group on the North American Salmon Fisheries, Halifax, Nova Scotia, 26 February - 2 March 1990
M:4		ICES Compilation of Microtag, Finclip, and External Tag Releases in 1989
M:5	E.D. Houde and L.G. Morin	Temperature effects on otolith daily increment deposition in striped bass and white perch
M:6	V.A. Anokhina and N.K. Vorobieva	Comparative characteristics of developing eggs and early life stages of Atlantic salmon ( <u>Salmo salar</u> L.) from different rivers
M:7	T.K. Lebskaya <u>et</u> <u>al</u> .	Dynamics of biochemical indices for reared juveniles of Atlantic salmon ( <u>Salmo salar</u> L.) during smoltification
M:8	A.V. Zubtchenko, A.F. Sharov and O.G. Kuzmin	Atlantic salmon of the River Tuloma as the salmon stock index of the Barents Sea basin
M:9	A.F. Sharov	Simulation model of Atlantic salmon population
M:10		Withdrawn.
M; 10		HI CHAIANN.
M:11		List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989
M: 11 M: 12	M. Hildén and S. Kuikka	List of publications related to the interests of the
M:11 M:12 Sess.	S. Kuikka R. Trzebiatowski	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in
M:11 M:12 Sess. S	S. Kuikka R. Trzebiatowski	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in Finland Efficiency of stocking small streams with the sea trout
M:11 M:12 Sess. S M:13	S. Kuikka R. Trzebiatowski and J. Domagala C. Eriksson	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in Finland Efficiency of stocking small streams with the sea trout ( <u>Salmo trutta</u> L.) hatch of different age Experimental tagging of young salmon ( <u>Salmo salar</u> L.) and sea-trout ( <u>Salmo trutta</u> L.) with different types of
M:11 M:12 Sess. S M:13 M:14	<ul> <li>S. Kuikka</li> <li>R. Trzebiatowski and J. Domagala</li> <li>C. Eriksson</li> <li>V.A. Pepper and</li> </ul>	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in Finland Efficiency of stocking small streams with the sea trout ( <u>Salmo trutta</u> L.) hatch of different age Experimental tagging of young salmon ( <u>Salmo salar</u> L.) and sea-trout ( <u>Salmo trutta</u> L.) with different types of the Carlin tag Coded wire microtagging of Atlantic salmon ( <u>Salmo salar</u>
M: 11 M: 12 Sess. S M: 13 M: 14 M: 15	<ul> <li>S. Kuikka</li> <li>R. Trzebiatowski and J. Domagala</li> <li>C. Eriksson</li> <li>V.A. Pepper and M.F. O'Connell</li> </ul>	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in Finland Efficiency of stocking small streams with the sea trout ( <u>Salmo trutta L.</u> ) hatch of different age Experimental tagging of young salmon ( <u>Salmo salar L.</u> ) and sea-trout ( <u>Salmo trutta L.</u> ) with different types of the Carlin tag Coded wire microtagging of Atlantic salmon ( <u>Salmo salar</u> L.) in Newfoundland, Canada A model of survival and growth of striped bass larvae,
M: 11 M: 12 Sess. S M: 13 M: 14 M: 15 M: 16	<ul> <li>S. Kuikka</li> <li>R. Trzebiatowski and J. Domagala</li> <li>C. Eriksson</li> <li>V.A. Pepper and M.F. O'Connell</li> <li>E.J. Chesney</li> </ul>	List of publications related to the interests of the Anadromous and Catadromous Fish Committee, 1989 The analytical hierarchy process as a tool for analysing the perceptions of the salmon management problem in Finland Efficiency of stocking small streams with the sea trout ( <u>Salmo trutta</u> L.) hatch of different age Experimental tagging of young salmon ( <u>Salmo salar</u> L.) and sea-trout ( <u>Salmo trutta</u> L.) with different types of the Carlin tag Coded wire microtagging of Atlantic salmon ( <u>Salmo salar</u> L.) in Newfoundland, Canada A model of survival and growth of striped bass larvae, <u>Morone saxatilis</u> , in the Potomac Riover, 1987 Relative decline of sample total weight in seawater

M:20	I.C. Russell <u>et al</u> .	Recoveries of coded wire microtags from salmon caught at West Greenland in 1989
M:21	I. Borzecka, E. Ikonen and I. Torvi	Attempts of using the discriminant function based on scale structure of Baltic salmon to distinguish between the wild and hatchery-reared smolts
M:22	M. Hildén	Salmon stocks and management advice – assessing the assessment reports
M:23	W.S. Davidson <u>et al</u> .	A polymorphism in the ribosomal RNA genes distinguishes Atlantic salmon ( <u>Salmo salar</u> L.) from North America and Europe

REFERENCE PAPERS FOR THE ANADROMOUS AND CATADROMOUS FISH COMMITTEE

D:17, F:51, F:55, F:64, F:75

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N:1		Report of Activities, 1989
N:2	R. Duguy	Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France en 1989
N:3	R. Duguy	Variation de fréquence chez les Cétacés échoués sur les côtes de France au cours des 10 dernières années 1980- 1989
N:4 <u>Poster</u>	V.A. Potelov	The abundance and state of the stock of harp seals and hooded seals in the Greenland Sea
N:5	J. Sigurjónsson and T. Gunnlaugsson	Distribution and abundance of cetaceans in Icelandic and adjacent waters during sightings surveys July-August 1989
N:6	T. Haug <u>et al</u> .	Harp seal ( <u>Phoca groenlandica</u> ) invasions in north Nor- wegian coastal waters: a preliminary report on age composition and feeding habits
N:7		Withdrawn.
	H. Martins, Malcolm Clarke and P. Pascoe	Squid in the diet of sperm whales off the Azores
N:9	G. Garcia- Castrillo <u>et al</u> .	Les mammifères marins du nord de l'Espagne en 1989
N:10	I. Christensen, T. Haug and N. Øien	A review of the distribution, migrations, food, repro- duction, exploitation and present abundance of humpback whales ( <u>Megaptera novaeangliae</u> ) in the Northeast Atlan- tic
	K.T. Nilssen, P.E. Grotnes and T. Haug	The effect of invading harp seals ( <u>Phoca groenlandica</u> ) on local coastal fish stocks of North Norway
N:12 Ref.E	O. Stenman and A. Tissari	Organochlorines in Baltic seals in 1980s
N:13	0. Stenman	Les populations de phoques dans le Golfe de Finlande au cours des années 1980
N:14 Ref.E Sess.T		Report of the Joint Meeting of the Working Group on Baltic Seals and the Study Group on the Effects of Con- taminants on Marine Mammals, Stockholm, 14-17 May 1990
N:15		List of publications of interest to the Marine Mammals Committee, 1989
N:16		Withdrawn.

N:17 RefG+	R.R. Lick H	First record of fish intermediate hosts of <u>Contra- caecum</u> spp. larvae, probably <u>C. osculatum</u> . Rudolphi 1802, an anisakine nematode maturing in pinnipeds, in the German Wadden Sea
N:18	J. Beard et al.	YoNAH: years of the North Atlantic humpback whale. A proposal for discussion

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N:19

Withdrawn.

Mini:1 A. Eleftheriou Planning and execution of the North Sea Benthos Survey and C. Heip

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- Mini:2 A. Künitzer The benthic infauna of the North Sea: species distriet al. bution and assemblages
- Mini:3 I. Kröncke Macrofauna standing stock of the Dogger Bank. A comparison: 1950-1954 versus 1985-1987
- Mini:4 H.L. Rees Spatial and temporal trends in the benthos and sediments <u>et al</u>. in relation to sewage sludge disposal off the northeast coast of England
- Mini:5 U. Niermann Oxygen deficiency in the southeastern North Sea in summer 1989
- Mini:6 A. Eleftheriou The sedimentary environment of the North Sea
- Mini:7 P.F. Kingston Impact of offshore oil production installations on the benthos of the North Sea
- Mini:8 R. Huys and Meiofauna of the North Sea Benthos Survey C. Heip
- Mini:9 G. Duineveld Geographical variation in the epifauna of the southern and North Sea and adjacent regions G.J. van Noort
- Mini:10 C. Heip
   Statistical analysis and trends in biomass and diversity

   et al.
   of North Sea macrofauna
- Mini:11 M. Bergman Direct effects of commercial beamtrawl fishing on et al. benthic fauna in the North Sea

#### REFERENCE POSTER FOR THE MINI-SYMPOSIUM

L:103	C. Noji,	Benthic activity and respiration in a northern Norwegian
Poster	T. Noji anđ	fjord in late autumn
	K.G. Barthel	

#### PAPERS AND POSTERS FOR THEME SESSIONS

The Consumption Rate in Marine Fish (O) Convener: Mr. H. Sparholt, (Denmark) F:8, G:3, G:6, G:11, G:16, G:17, G:18, G:19, G:22, G:31, G:34, G:35, G:36, G:51, G:63, G:69, J:15

Remote Sensing Applications in Monitoring Programmes (P) Convener: Dr R. Dörffer (Federal Republic of Germany)

B:13, C:11, C:12, C:14, C:15, C:29, C:33 (Poster), C:37, C:41, C:42, E:19, H:9, K:14, L:94

<u>Poster Session on Trophic Models of Marine Ecosystems(Q)</u> Conveners: Dr D. Pauly (Federal Republic of Germany) and Mr V. Christensen (Denmark)

G:4, H:36, K:19, L:28 to and including L:47, and L:50 to and including L:73, L:112, L:113, L:115, L:116

Acoustic Methods (R) Convener: Dr J.Traynor (USA)

B:2, B:4, B:9, B:10, B:11, B:12, B:21, B:22, B:23, B:24, B:30, B:31, B:33, B:38,
B:40, B:41, B:49, B:50, J:26, L:12, L:17 (Ref. from Session V: L:81)

<u>ACFM and Associated Working Group Reports</u> (S) Convener: Mr. D. de G. Griffith, (Ireland)

Assess:1 to Assess:25 included, and Assess:28 and 29; G:10, G:70, H:3, H:21,

M:12

ACMP and Related Working Group Reports (T) Convener: Mr J. Jakobsson (Iceland) Poll:1 to and including Poll:7; C:8, E:28, F:12, F:13, N:14

Fishing Gear Selectivity (U) Convener: Mr D.N. MacLennan (UK)

B:3, B:14, B:26, B:27, B:28, B:34, B:46, G:54, G:55

Recent Developments in the Measurement of Zooplankton Production Rates and Biomass Characteristics (V) Conveners: Dr J. Gamble (UK) and Mr H. Skjolddal (Norway)

L:10, L:15, L:25, L:26, L:27, L:74, L:75, L:77, L:78, L:79, L:80, L:81 (Ref. to Session R), L:83, L:84, L:104, L:109

### ACFM - ADVISORY COMMITTEE ON FISHERY MANAGEMENT

ACFM:1\* Agenda, ACFM Consultations at the 1990 Statutory Meeting, 3 October 1990

ACFM: 2\* Draft Agenda, ACFM, 30 October - 7 November 1990

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ACFM:3\* Draft Proposal from ACFM: Terms of Reference for ACFM and Assessment Working Groups in 1991

# ASSESSMENT WORKING GROUPS REPORTS 1990

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Assess:1	Report of the Working Group on Multispecies Assessment of Baltic Fish, Moscow, 4-8 September 1989
Assess:2	Report of the Irish Sea and Bristol Channel Working Group, Copenhagen, 13-19 September 1989
Assess:3	Report of the Blue Whiting Assessement Working Group, Copenhagen, 13-19 September 1989
Assess:4	Report of the Arctic Fisheries Working Group, Copenhagen, 19-28 September 1989
Assess:5	Report of the Atlanto-Scandian Herring and Capelin Working Group, Copenhagen, 16-20 October 1989
Assess:6	North Sea Flatfish Working Group, Copenhagen, 20-26 October 1989
Assess:7	Report of the Roundfish Working Group, Aberdeen, 12-14 October 1989.
Assess:8	Report of the Working Group on Harp and Hooded Seals, Bergen, 16–19 October 1989
Assess:9	Report of the Working Group on Assessment of <u>Pandalus</u> Stocks, Copenhagen, 12-16 February 1990
Assess:10	Report of the Division IIIa Demersal Stocks Working Group, Copenhagen. 28 February - 6 March 1990
Assess:11	Report of the Working Group on North Atlantic Salmon, Copenhagen, 15-22 March 1990
Assess:12	Report of the Working Group on Cod Stoks off East Grenland, Hamburg, 21-27 February 1990
Assess:13	Report of the Industrial Fisheries Working Group, Copen- hagen, 20–27 March 1990
Assess:14	Report of the Herring Assessment Working Group for the Area South of 62 <sup>°</sup> N, Copenhagen, 27 March - 6 April 1990
Assess:15	Report of the Working Group on Methods of Fish Stock Assessments, Nantes, 10-17 November 1989
Assess:16	Report of the Working Group on <u>Nephrops</u> , Nantes, 21-28 March 1990
Assess: 17	Report of the Working Group on Assessment of Demersal Stocks in the Baltic, Copenhagen, 17-26 April 1990
Assess:18	Report of the Working Group on Assessment of Pelagic Stocks in the Baltic, Copenhagen, 17-26 April 1990
Assess:19	Report of the Mackerel Working Group, Copenhagen, 24 April - 2 May 1990

- Assess:20 Report of the North-Western Working Group, Copenhagen, 1-8 May 1990
- Assess:21 Report of the Baltic Salmon and Trout Assessment Working Group, Copenhagen, 7-14 March, 1990
- Assess:22 Report of the Working Group on the Assessment of the Stocks of Hake, Copenhagen, 1-10 May 1990
- Assess:23 Report of the Working Group on Fisheries Units in Sub-areas VII and VIII, Nantes, 13-20 June 1990
- Assess:24 Report of the Working Grup on the Assessment of Sardine, Horse mackerel, and Anchovy, Copenhagen, 20-29 June 1990
- Assess:25 Report of the Working Group on Multispecies Assessments of Baltic Fish, Gdynia, 6-10 August 1990
- Assess:26 Transferred to 1991.
- Assess:27 Transferred to 1991.
- Assess:28 Report of the Special Meeting of the Multispecies Assessment Working Group, Bergen, 23-27 April 1990
- Assess:29 ACFM comments on stock assessment working group reports: a supplement (for working groups) to the ACFM minutes of November 1989 and May 1990

## ACMP - ADVISORY COMMITTEE ON MARINE POLLUTION

ACMP:1*	Agenda for the Advisory Committee on Marine Pollution - Consultations Meeting, 3 October 1990
ACMP:2*	Work Programme from the Oslo and Paris Commissions
ACMP: 3*	Requests from the Helsinki Commission
ACMP:4*	Tasks for Study/Working Groups reporting to ACMP
ACMP:5*	Report on the Statistical Analysis of CMP Data on Conta- minants in Fish Liver and Mussels
ACMP:6*	Critical Review of Contaminants in Sediments
ACMP:7*	Results of the ICES Baseline Study on Trace Metals in Coastal and Shelf Waters

\*For the relevant Committee only.

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## POLLUTION-RELATED WORKING GROUP REPORTS

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Poll:1 Ref. C and E	Report of the Marine Chemistry Working Group, Copenhagen, 12-16 February 1990
Poll:2 Ref. C and E	Report of the Working Group on the Baltic Marine Environ- ment, Tallinn, 10-12 April 1990
Poll:3 Ref. E	Report of the Working Group on Marine Sediments in Relation to Pollution, Lisbon, 3-6 April 1990
Poll:4 Ref. E	Report of the Working Group on the Biological Effects of Contaminants, Nantes, 24-27 April 1990
Poll:5 Ref.E	Report of the Working Group on Environmental Assessments and Monitoring Strategies, Charlottenlund, Denmark, 23–27 April 1990
Poll:6 Ref. D + E	Report of the Working Group on the Statistical Aspects of Trend Monitoring, Copenhagen, 30 April - 4 May 1990
Poll:7 Ref.F + L	Report of the Working Group on Phytoplankton and the Management of their Effects, Oban, Scotland, 3-7 April 1990