# CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

# INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA

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Notre réf.:/Our ref.: D.1.a/84

October 1984

Dear Sirs,

Please find enclosed the documents requested - to the extent available - of 1984 Council Meeting papers.

If you require photocopies of papers which were not included in the set we are sending to you, please do not hesitate to inform us and we shall then forward them with an invoice to cover the cost of photocopying and mailing.

However, we wish to draw your attention to the following papers which were withdrawn or never received:-

Fish Capture Cttee:

B:6, B:9, B:11, B:13, B:17, B:20, B:22, B:26, B:39

B:40

Hydrography Cttee:

C:15

Statistics Cttee:

D:12

MEQC

E:5, E:15, E:24, E:25, E:32, E:33

Mariculture Cttee:

F:5, F:13, F:15, F:18

Demersal Fish Cttee:

G:8, G:21, G:23, G:28, G:35, G:38, G:39, G:41, G:51,

G:55, G:60, G:63, G:73, G:75, G:80

Pelagic Fish Cttee:

H:7, H:11, H:12, H:19, H:22, H:25, H:34, H:45, H:51,

H:54, H:55, H:57, H:65

Baltic Fish Cttee:

J:11, J:22, J:23

Shellfish Cttee:

K:14, K:16, K:17, K:24, K:27, K:31, K:51

Biol. Oceanography Cttee: L:2, L:3, L:21

Anacat Cttee:

M:7, M:8, M:10, M:18, M:26

Gen:papers

Gen:5, Gen:7, Gen:10, Gen:13 = Withdrawn

Yours faithfully ICES Secretariat

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

Gen:1 "Observers' reports from cooperating Organisations". "ICES activities in 1983/84". Gen:2 Mini-Symposium on "The Mid-1970s Anomaly". Gen:3 Gen:4 Mini-Symposium on "The Mid-1970s Anomaly". Withdrawn. Gen:5 Mini-Symposium on "The Mid-1970s Anomaly". Gen:7 Withdrawn. (Gen:87 Mini-Symposium on "The Mid-1970s Anomaly". "Poster Sessions", Gen:9 Gonter Gen:10 Withdrawn. Gen:11 Mini-Symposium on "The Mid-1970s Anomaly". Mini-Symposium on "The Mid-1970s Anomaly". Gen:13 Withdrawn. Mini-Symposium on "The Mid-1970s Anomaly". Gen:14 Mini-Symposium on "The Mid-1970s Anomaly". Gen:15 Mini-Symposium on "The Mid-1970s Anomaly". Gen:16 Gen:17 Mini-Symposium on "The Mid-1970s Anomaly". Mini-Symposium on "The Mid-1970s Anomaly". Gen:18 "Oceanographic Data Centres in the ICES Gen:19 community. 1984 issue". Gen:20 Mini-Symposium on "The Mid-1970s Anomaly". "Report of the ADP Working Group, Copenhagen, Gen:21 16-21 May 1984". "Advance Release of Tables 1-6 of Bulletin Gen: 22 Statistique, Vol. 68, 1983".

Gen:23

Gen:24

ctd.

"Abstracts from 'Ecological and ecotoxicological studies of benthos of the Southern

"Election of Committee Chairmen at the 72nd

Bight of the North Sea!".

Statutory Meeting" (E+F)



"On the Statutory Meeting: aims and means".

"ICES involvement in IREP".

"ICES ROSCOP Summary - Year 1975 (Code numbers as per ROSCOP form)".

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## Del - DELEGATES MEETINGS

Del:1*	"Audited accounts for 1982/83 with balance sheet per 31/10 1983".
Del:2*	"Preliminary report on the Administration $1983/84$ ".
Del:3*	"Reports of activities, 1983".
Del:4*	"Estimated accounts for the financial year 1983/84".
De1:5*	"Draft budget for the financial year 1984/85". (E+F)
Del:6*	"Draft forecast budget for the financial year 1985/86". (E+F) $$
Del:7*	"Elections and appointments by the Council at the 72nd Statutory Meeting". (E+F)
Del:8 Ref. Consultative Cttee	"Considerations concerning Statutory Meeting Programme".
De1:9*	"The 5th Dialogue Meeting".
Del:10*	"Conduct of scientific research under the new Law of the Sea regime".

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<sup>\*</sup> For Delegates only.

<sup>(</sup>E+F) = in English and French.

#### Fi - FINANCE COMMITTEE

Fi:1\*

ACFM:1\*

Agenda for the Finance Committee.

#### ACFM - ADVISORY COMMITTEE ON FISHERY MANAGEMENT

acFM:2\*

"Working Group time-table for 1985 and draft recommendations".

ACFM:3\*

"Brief report on the 10th Session

of IBSFC, Poland, 24 September -1 October 1984".

ACFM:4\* Draft Agenda for the 2nd 1984

Draft Agenda for the 2nd 1984 meeting of ACFM, 30 October - 7 November 1984".

Draft Agenda for the consultations con-

ACFM:5\* "Minutes of the 1st 1984 meeting of ACFM, 8-18 May 1984".

#### ACMP - ADVISORY COMMITTEE ON MARINE POLLUTION

ACMP:1%

Agenda for the Advisory Committee on

Marine Pollution.

<sup>\*</sup> For the relevant Committee only.

#### Pub - PUBLICATIONS COMMITTEE

Pub:1*	Agenda for the Publications Committee.
Pub:2*	"Review of the publications".
Pub:3*	"Sale of ICES publications during the last three years".
Pub:4*	"Journal du Conseil: Editor's report".
	Reference Paper to the Publications Committee
L:38	"Plankton Identification Sheets. Editor's report, 1983/84".
A:3*	"Publication status of scientific papers presented at Statutory Meetings".
Gen:25	"On the Statutory Meeting: aims and means".

#### A - CONSULTATIVE COMMITTEE

A:2*	"Norwegian Government proposal for the establishment of a Working Group on Harp and Hooded Seal Stocks in the Greenland Sea".
A:3* Ref. Pub.	"Publication status of scientific papers presented at Statutory Meetings".
A:4*	"List of recommendations from Fish Stock Assessment Working Group reports on scientific research".
A:5*	"Deadlines to be observed for delivery of reports and recommendations, 1984".

Committee.

Agenda for the Consultative

A:1\*

<sup>\*</sup> For the relevant Committee only.

#### B - FISH CAPTURE COMMITTEE

B:1		Report of Activities, 1983.	
B:2	G Thorsteinsson	"Recent developments in the Icelandic seine fishery".	
B:3		"Report of the Working Group on Fishing Technology and Fish Behaviour Hirtshals, 30 April - 2 May 1984".	
B:4		Theme Session on "Gear Selectivity".	
B:5		Theme Session on "Gear Selectivity".	
B:6		Withdrawn.	
B:7		"Report of the <u>ad hoc</u> Working Group on Artificial Bait and Bait Attractance, Hirtshals, 2-4 May 1984".	
B:8	Å Bjordal	"The effect of gangion floats on bait loss and catch rates in longlining".	
B:9	W Dickson	"Observations on cod gillnetting". Wie fledraum	lo'
B:10		Theme Session on "Gear Selectivity".	
B:11 Ref. G	T Johannessen	"Selectivity in the longline fishery for cod and haddock as a function of hook and bait size". Withdrawa at menu.	·¢
B:12		Theme Session on "Gear Selectivity".	
B:13		Withdrawn.	
B:14	Yu. V Kadilnikov and L A Cherevko	"Probability estimation of fish entrance from an active into guaranteed catching zone of midwater trawl by Monte Carlo methods".	1
B:15		Theme Session on "Gear Selectivity".	
B:16		Theme Session on "Acoustic Methods".	
B:17		Withdrawn.	
B:18		Theme Session on "Acoustic Methods".	
B:19		Theme Session on "Acoustic Methods".	
B:20		Withdrawn.	
B:21		Theme Session on "Acoustic Methods".	
B:22		Withdrawn.	
B:23		Theme Session on "Gear Selectivity".	
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## Fish Capture Cttee (ctd)

B:24		Theme Session on "Acoustic Methods".
B:25		Theme Session on "Multispecies Interactions".
B:26		Withdrawn.
В:27	M Kroeger	"Some results of flow measurements on a full-scale pelagic trawl".
B :28	A D F Johnstone and A M Mackie	"Investigations of bait acceptance by cod, Gadus morhua L.".
B:29 Ref. G	P A M Stewart	"Gill-net selectivity in the northeast Scottish inshore cod fishery".
B:30		Theme Session on "Gear Selectivity".
B:31 Ref. G	R A Rush and R S T Ferro	"Variation of towing speed during survey cruises with the GOV and Aberdeen 48ft trawls".
B:32		Theme Session on "Acoustic Methods".
B:33		Theme Session on "Acoustic Methods".
B:34		Theme Session on "Acoustic Methods".
B:35 Ref. J	P Suuronen and R Parmanne	"The Baltic herring trapnet fishery off the coast of Finland".
B:36		Theme Session on "Acoustic Methods".
B:37 Ref. K	J Waldemarsen and B Isaksen	"Siamese twin trawl developed in the Norwegian shrimp fishery".
B:38	J C Brabant et al.	"Dessin et conception des chaluts assistés par ordinateur".
B:39		Withdrawn.
B:40		Withdrawn.
B:41		Theme Session on "Acoustic Methods".
B:42 Ref. E	S J de Groot and W van der Hak	"Full scale tests on the interaction between bottom fishing gear and an 18-inch marine gas pipeline in the North Sea".
	Reference Pa	pers to the Fish Capture Committee
н:23	N Diner et al.	"Les petits pélagiques du Golfe de Gascogne en avril-mai 1984. Evaluation acoustique, répartition, biologie et milieu".

## Fish Capture Cttee Reference Papers (ctd)

H:57

Withdrawn.

H:63 O Hagström et al. "Report on the acoustic survey in ICES Division IIIa, 1982 and 1983".

K:4 "Report of the Working Group on Nephrops Stocks, Aberdeen, 5-8 June 1984".

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## C - HYDROGRAPHY COMMITTEE

C:1	G A Becker, H Frey and G Wegner	"North Sea surface temperature means 1971 to 1980 and their differences compared with ICES means (1905-1954)".
C:2		Theme Session on "Environmental Working Group Report Topics".
C:3		Theme Session on "Distribution and Abundance in Relation to Environment".
C:4		Theme Session on "Hydrobiological Variability".
C:5	G Kullenberg	"Observations of light scattering distributions in the transition zone to the Arctic Ocean".
c:6	G Kullenberg, T G Jensen and V Olsen	"The Jutland Current".
C:7	B Hansen and J Meincke	"The long-term coastal sea surface temperature observations at the Faroe Islands".
C:8 Ref. D	R H Gonter	"Correlation of atmospheric variables and sea surface temperature on the northwestern Atlantic continental shelf".
C:9	P J F Geerders	"The data and information system of the Indonesian-Dutch Snellius-II Expedition 1984-85".
C:10		Theme Session on "Physical and Chemical Fluxes".
C:11	H Weidemann	"A method for sub-surface tracer diffusion measurements and some experimental results".
C:12 Ref.L	G Kullenberg et al.	"A telemetering buoy system for biological oceanography measurements".
C:13	S H Fonselius	"Hydrographic periodicity in the bottom water of the Bornholm Basin".
C:14	A Svansson	"Long-term variations in the Kattegat hydrography".
°C:15	Withdrawn or mour scened	Theme Session on "Physical and Chemical Fluxes".
C:16	L Otto	"The variations of the salinity at the Dutch lightvessels in the Southern Bight of the North Sea".
		ctd.

Hydrography Cttee	(ctd)
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C:17	L Midttun	"Formation of heavy bottom water in the Barents Sea".
C:18	G Fuchs, K Jancke and J Meincke	"Observations of winter convection in the northeastern Atlantic".
C:19		Theme Session on "Hydrobiological Variability".
C:20	Sv. Aa. Malmberg	"Hydrographic conditions in the East Icelandic Current and sea ice in North Icelandic waters 1970-1980".
C:21		Theme Session on "Hydrobiological Variability".
C:22	H Siegel and T Seifert	"On the influence of the sea bottom on the spectral reflectance in the region of the Oder Bank (southern Baltic Sea)".
C:23	A Majewicz, A Grelowski and D Mountain	"Phenomenon of a sub-surface cyclonic eddy observed in the Baltic Sea, August 1983".
C:24		Theme Session on "Physical and Chemical Fluxes".
C:25	E Buch	"Time-series of temperature and salinity from the West Greenland fishing banks".
C:26	P Sloth and E Buch	"On the hydrography and watermass exchange of the Disko Bay".
C:27	D A Booth and D T Meldrum	"Drifting buoys in the Northeast Atlantic and Norwegian Sea".
C:28		Theme Session on "Physical and Chemical Fluxes".
C:29		Theme Session on "Environmental Working Group Report Topics".
C:30		Theme Session on "Environmental Working Group Report Topics".
C:31		Theme Session on "Environmental Working Group Report Topics".
C:32	E C Monahan, M C Spillane and E M Murphy	"Some inferences with respect to the surface currents off the northwest coast of Ireland".
C:33	ICES Hydrographer	"Progress Report on activities of the ICES Service Hydrographique".

ctd.

## Hydrography Cttee (ctd)

c: 34	Jens Smed	"Report on the 11th Session of the IOC Working Committee on International Oceanographic Data Exchange".
C: 35 Ref E and L		"Study Group Report: Specific terms of reference for a new Working Group on the Application of Aerospace Remote Sensing in Hydrobiological Monitoring".
c:36		"SCOR/ICES Working Group on North Atlantic Circulation (SCOR WG 68) - Report of meeting, Paris, 12-14 October 1983".
	Reference Papers t	o the Hydrography Committee
G:30	W G Smith and W W Morse	"Monthly distribution patterns of larval haddock, <u>Melanogrammus aeglefinus</u> , off northeastern United States 1977-82, with observations on transport in the Georges Bank region".
H:23	N Diner et al.	"Les petits pélagiques du Colfe de Gascogne en avril-mai 1984. Evaluation acoustique, répartition, biologie et milieu".
H:66	H Vilhjálmsson and J V Magnusson	"Report on the O-Group Fish Survey in Icelandic and East Greenland waters, August 1984".
H:68	H D Dooley	"Bottom temperature and salinity of the North Sea during the International Young Fish Survey 1984".
H:71		"Report on Joint Soviet-Icelandic investigations on hydrobiological conditions in the Norwegian Sea and Icelandic waters in May-June 1984".
L:12	J Lenz and A G Moigis	"In <u>situ</u> simulation of turbulence- induced vertical movement of phytoplankton cells in productivity studies by means of a 'Mixed layer incubator'".

### D - STATISTICS COMMITTEE

D:1		Theme Session on "Time Series Analysis".
D:2		Theme Session on "Statistics in Relation to Environmental Problems".
D:3		Theme Session on "Stock Assessment Methods".
D:4		Theme Session on " Stock Assessment Methods".
D:5		Theme Session on "Time Series Analysis".
D:6		Theme Session on "Time Series Analysis".
D:7		Theme Session on "Stock Assessment Methods".
D:8		Theme Session on "Stock Assessment Methods".
D:9		Theme Session on "Time Series Analysis".
D:10		Theme Session on "Statistics in Relation to Environmental Problems".
D:11		Theme Session on "Hydrobiological Variability".
D:12		Withdrawn.
D:13		Theme Session on "Time Series Analysis".
D:14		"Report of the Statistics Committee Liaison Working Group, Copenhagen, 21-22 May 1984".
D:15	J M Hoenig and D M Heisey	"Some uses of bias reduction matrices in fisheries surveys".
D:16	J M Hoenig and D M Heisey	"Generalized change-in-ratio methods for estimating population size".
D:17	ICES Statistician	"Progress Report 1983/84".
D:18*		"Report of the 12th Session of the Coordinating Working Party on Atlantic Fishery Statistics, Copenhagen, 25-31 July 1984".

ctd.

<sup>\*</sup> For the Statistics Committee only.

#### Statistics Cttee (ctd)

### Reference Papers for the Statistics Committee

C:8 R H Gonter

"Correlation of atmospheric

variables and sea surface temperature on the northwestern Atlantic con-

tinental shelf".

Gen:21

"Report of the ADP Working Group, Copenhagen, 16-21 May 1984".

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### E - MARINE ENVIRONMENTAL QUALITY COMMITTEE

E:1		Report of Activities (and an Addendum).
E:2		Theme Session on "Environmental Working Group Report Topics".
E:3		Theme Session on "Environmental Working Group Report Topics".
E:4		Theme Session on "Environmental Working Group Report Topics".
E:5		Withdrawn.
E:6	T Laevastu and F Fukuhara	"Oil on the bottom of the sea. A simulation study of oil sedimentation and its effects on the Bristol Bay ecosystem".
E:7		Theme Session on "Physical and Chemical Fluxes".
E:8	R J Law	"The continuous measurement of low concentrations of hydrocarbons in water using a towed fluorimeter".
E:9		Theme Session on "Physical and Chemical Fluxes".
E:10		Theme Session on "Physical and Chemical Fluxes".
E:11		Theme Session on "Statistics in Relation to Environmental Problems".
E:12 POSTER	D Perry and A Hebert	"Hematopoiesis and germ-line primordia of embryonic and larval fish".
E:13	A Crosby Longwell <u>et</u> <u>al.</u>	"Embryological, cyto-pathological and cytogenetic analyses of †74, †77 and †78 Atlantic mackerel eggs in the New York Bight".
E:14		Theme Session on "Physical and Chemical Fluxes".
E:15		Withdrawn.
E:16		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:17		Theme Session on "Environmental Working Group Report Topics".

## MEQC (ctd)

E = 18		Theme Session on "Environmental Working Group Report Topics".
E: 19	C Lima	"Assessment of the natural variability of the mercury content in three mussel populations along the Portuguese coast".
E:20	C Lima	"Mercury residues in commercial species of Crustacean from the Portuguese coast".
E:21		Theme Session on "Environmental Working Group Report Topics".
E:22	S Ray, V Jerome and J A Thorne	"Copper, zinc, cadmiun and lead in scallops ( <u>Placopecten magellanicus</u> ) from Chaleur Bay, New Brunswick".
E:23	P Michel	"Evolution de la contamination par les hydrocarbures du 'Gino'".
E:24		Withdrawn.
E:25		Withdrawn.
E:26		Theme Session on "Statistics in Relation to Environmental Problems".
E:27 Ref. N	R Schneider	"Concentrations of organochlorine residues in different tissues of crabeater seals, Adélie penguins, and McCormick's skuas from the Weddell Sea, Antarctic".
E:28		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:29		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:30 Ref. F	V Hilge, E Huschenbeth and U Harms	"Trace contaminants in catfish raised under intensive culture conditions".
E:31	A McIntosh, J Davies and P Mackie	"The levels of hydrocarbons in sedi- ments and biota in Sullom Voe".
E:32		Withdrawn.
E:33		Withdrawn.

MEQC (ctd)		
E:34		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:35		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:36		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
E:37	A M Ferreira and O G Castro	"Polychlorinated biphenyls and DDTs in hake (Merluccius merluccius) caught off the Portuguese coast".
E:38	R Mendes and C Vale	"Geographic variation of heavy metal contents in mussels (Mytilus gallo-provincialis) from the coastal area adjacent to the Tagus estuary, Portugal".
E:39		Theme Session on "Physical and Chemical Fluxes".
E:40		Theme Session on "Physical and Chemical Fluxes".
E:41 Ref. K	H Fischer	"Cadmium body burden/shell weight of mussels: a precise index for environmental monitoring".
E:42		Theme Session on "Environmental Working Group Report Topics".
E:43 Ref. N	E Helle and O Stenman	"Recent trends in levels of PCBs and DDT compounds in seals from the Finnish waters of the Baltic Sea".
E:44		Theme Session on "Physical and Chemical Fluxes".
E:45		Theme Session on "Physical and Chemical Fluxes".
E:46		Theme Session on "Statistics in Relation to Environmental Problems".

### Reference Papers to the Marine Environmental Quality Committee

B:42	S J de Groot	"Full scale tests on the interaction
	and W van der Hak	between bottom fishing gear and an 18-inch marine gas pipeline in the
		North Sea".

## MEQC

## Reference papers (ctd)

C:35		"Study Group Report: specific terms of Reference for a new Working Group on the Application of Aerospace Remote Sensing in Hydrobiological Monitoring".
K:30	R Meixner	"On a microalgal infection of Mytilus edulis".
L:19	J P Thomas et al.	"Biological Rate Measurements Working Group Report to the NOAA Quality Assurance Program".

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### F - MARICULTURE COMMITTEE

F:1		Report of Activities.
F:2 Ref. G	J C Holm and J Thorsen	"Preliminary results from stocking salmonid freshwater enclosures with flounder ( <u>Platichthys</u> <u>flesus</u> )".
F:3	H Ackefors, K Murray and H Rosenthal	"A European view on the Asian approach to modern aquaculture development".
F:4 Ref. M		"Report of the Working Group on Genetics, St. Andrews, Canada, 13-15 June 1984".
F:5		Withdrawn.
F:6	R F Lincoln and V J Bye	"The growth and survival of triploid rainbow trout (Salmo gairdneri) in seawater over the spawning period".
F:7	E B Hudson and D McGregor	"Evaluation of operating a broodstock and hatchery scheme to provide health accredited salmon stocks".
F:8		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
F:9 Ref. K	B Arie and J E Stewart	"Further developments in induction of resistance in <u>Homarus americanus</u> to the bacterial disease <u>Gaffkemia</u> ".
F:10	Dag O Berntsen et al.	"Studies on the chemical structure of cod egg choreon".
F:11		"List of Publications of Interest to the Mariculture Committee".
F:12	W Cheng and J Guillaume	"Etude de la nutrition phosphocalcique de la crevette japonaise ( <u>Penaeus</u> <u>japonicus</u> Bate)".
F:13	H L Kincaid	"Genetic selection for natural semi- annual spawning behaviour in rainbow trout". Withdrawn or never received
F:14 Ref. K	G Tige et al.	"Evolution de la situation épizootio- logique en Bretagne en 1983 suite au développement de <u>Bonamia</u> <u>ostreae</u> ".
F:15	A Longwell	"Current fish behaviour studies in U.S. of probable interest or importance to mariculturists". Withdraw of meyer received.
F:16 Ref. G	V Øiestad, P G Kvenseth and T Pedersen	"Mass-production of cod fry ( <u>Gadus morhua</u> L.) in a large basin in western Norway - a new approach".

## Mariculture Cttee (ctd)

F:17		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
F:18		Withdrawn.
F:19	H Rosenthal	"Water quality in relation to simulated stocking density and its effect on rainbow trout".
F:20	H Rosenthal, K Chiba and G Krüner	"Daily fluctuations of water quality in a recircling system and its influence on the performance of a rotating Bionet biological filter".
F:21	J Krüner and H Rosenthal	"Nitrogen removal by biological denitrification in a recirculated fish culture system".
F:22	T Hansen and K R Torrissen	"Artificial hatching substrate and different time of transfer to start-feeding: effect on growth and protease activities of the Atlantic salmon(Salmo salar)".
F:23	0 J Torrissen	"Pigmentation of salmonids: factors affecting carotenoid deposition in rainbow trout (Salmo gairdneri)".
F:24	K R Torrissen and O J Torrissen	"Sexual maturation: effect on protease activities and carotenoid levels in Atlantic salmon (Salmo salar)".
F:25	O J Torrissen et al.	"Causes of variation in carcass traits of the Atlantic salmon $(\underline{Salmo} \ \underline{salar})$ ".
F:26	Y Ulgenes, O J Torrissen and T Hansen	"Effects of different rearing environ- ments on the mortality of Atlantic salmon broodstock and eggs".
F:27	Y Ulgenes and O J Torrissen	"Aluminium accumulation on eggs and hatching systems during the incubation period - an important cause of variable hatching success?".
F:28	T Hansen, O J Torrissen and Y Ulgenes	"pH adjustment of acid fresh water at Matre Aquaculture Station: experiences with previous and existing methods".
F:29	T Hansen	"Artificial hatching substrate: effect on yolk absorption, mortality and growth during startfeeding of the sea trout (Salmo trutta)".

## Mariculture Cttee (ctd)

F:30	T Hansen and O J Torrissen	"Artificial hatching substrates in the mass rearing of larval Atlantic salmon (Salmo salar)".
F:31		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
F:32	A L S Munro and J F Waddell	"Furunculosis: experience of its control in the sea-water cage culture of Atlantic salmon in Scotland".
F:33	I Huse et al.	"Intensive production of cod fry at Austevoll".
F:34		Theme Session on "Diseases of Marine Organisms and their Relation to Biological Effects including Pollution".
F:35		"Report of Working Group on Introductions and Transfers of Marine Organisms, Halifax, 17-19 May 1984".
F:36 tef. K	Th. Neudecker	"Overwintering of oysters ( <u>Crassostrea gigas</u> ) in the Federal Republic of Germany".
F:37	H Rosenthal	"Preliminary report on behaviour studies with eel and Tilapia under intensive culture conditions".

### Reference Papers to the Mariculture Committee

E:30	V Hilge, E Huschenbeth and U Harms	"Trace contaminants in catfish raised under intensive culture conditions".
K:9	D Bucke et al.	"A report on Bonamia ostreae in Ostrea edulis in the U.K.".
K:18	E W Rhodes and J C Widman	"Density-dependent growth of the Bay scallop, <u>Argopecten irradians</u> in suspension culture".
K:32	H Rosenthal	"Ranching of <u>Penaeus japonicus</u> in coastal waters: a case history".

#### G - DEMERSAL FISH COMMITTEE

G:1		Report of Activities.
G:2		Theme Session on "ACFM and Assessment Working Group Reports".
G:3		Theme Session on "ACFM and Assessment Working Group Reports".
G:4		Theme Session on "Multispecies Interaction".
G:5		Theme Session on "Stock Assessment Methods".
G:6	0 K Pálsson	"Studies on recruitment of cod and haddock in Icelandic waters".
G:7		Theme Session on "Multispecies Interaction".
G:8		Withdrawn.
G:9 POSTER Ref. H, J and M	B Morales-Nin	"Microstructure of the otoliths of teleost fishes".
G:10	P Ernst and G Haunschild	"Results of GDR Groundfish Surveys conducted in the Svalbard area since 1981".
G:11		Theme Session on "Distribution and Abundance in Relation to Environment".
G:12	H Dupouy et C Dilleman-Paule	"Relation entre la longueur totale et quelques mesures caractéristiques de la tête de la baudroie ( <u>Lophius piscatorius</u> )".
G:13	B R Howell and A P Scott	"Egg production of captive turbot".
G:14	B J Rothschild and S L Brunen- meister	"Temporal patterns in recruitment data".
G:15		Theme Session on "Stock Assessment Methods".
G:16		Theme Session on "Stock Assessment Methods".
G:17	M J Boon	"The U.K. megrim fishery in Sub-area VII: a preliminary analysis".

Demersal Fish C	ttee (ctd)	
G:18	D W Palmer	"Western English Channel sole: a com- parison of length and age data collected at English ports".
G:19	J K Hunton	"Temporal and spatial variations in abundance estimates from groundfish surveys".
G:20		Theme Session on "Distribution and Abundance in Relation to Environment".
G:21		Withdrawn.
G:22	I Peronnet et A Tétard	"Evolution pluriannuelle des nourricéries de poissons plats dans le secteur de la Baie de Somme".
G:23		Withdrawn.
G:24	A S Noskov et al.	"Abundance of larvae and assessment of the spawning redfish stock (Sebastes mentella Travin) of the Irminger Sea for 1982".
G:25		Theme Session on "Multispecies Interactions".
G:26	F Cardador	"Recruitment indices of hake in Portuguese continental waters (Division IXa)".
G:27		Theme Session on "Multispecies Interactions".
G:28		Withdrawn.
G:29	P Berrien	"Silver hake, <u>Merluccius bilinearis</u> , egg census and adult population estimates for 1979 and 1980 in waters off eastern United States".
G:30 Ref. C	W G Smith and W W Morse	"Monthly distribution patterns of larval haddock, <u>Melanogrammus aeglefinus</u> , off northeastern United States 1977-82, with observations on transport in the Georges Bank region".
G:31	T W McKenney et al.	"Distribution and abundance of <u>Citharichthys</u> <u>arctifrons</u> larvae in shelf waters off the northeastern United States, 1977-82".
G:32		Theme Session on "Multispecies Interactions".

## Demersal Fish Cttee (ctd)

G:33	O M Smedstad	"Report of the cruise of F/F 'Eldjarn' to East Greenland waters in November 1983".
G:34	A D Rijnsdorp	"On the growth of mature North Sea plaice".
G:35		Withdrawn.
G:36	J van Alphen and H J L Heessen	"Variations in length at age of North Sea cod".
G:37		Theme Session on "Multispecies Interactions".
G:38		Withdrawn.
G:39		Withdrawn.
G:40 Ref. H	A Kristiansen	"Report of the O-Group Surveys in Faroese waters 1981-84".
G:41		Withdrawn.
G:42	G Masson	"Bioécologie d'un poisson plat migrateur: le flet, <u>Platichthys</u> <u>flesus</u> L., dans l'estuaire de la Loire et ses milieux annexes".
G:43		Theme Session on "Multispecies Interactions".
G:44	J Dalen <u>et al.</u>	"Preliminary report of the Norwegian investigations on young cod and haddock in the Barents Sea during the winter 1984".
G:45	A Hylen and O Nakken	"Stock size of Northeast Arctic cod, estimates from survey data 1983/84".
G:46	O R Godø, K Randa and O M Smedstad	"Preliminary report of the Norwegian Groundfish Survey at Bear Island and West-Spitsbergen in the autumn 1983".
G:47	O R Godø, O Nakken and A Raknes	"Acoustic estimates of spawning cod off Lofoten and Møre in 1984".
G:48		Theme Session on "Distribution and Abundance in Relation to Environment".

	Cttee (ctd)	
G:49		Theme Session on "Stock Assessment Methods".
G:50	F Lamp and W Weber	"Further investigations on the discarding of cod in the German Bight by fishermen of the Federal Republic of Germany".
G:51		Withdrawn.
G:52	W R Bowering and W B Brodie	"Distribution of witch flounder in the northern Gulf of St. Lawrence and changes in its growth and sexual maturity patterns".
G:53		Theme Session on "Multispecies Interactions".
G:54		Theme Session on "Multispecies Interactions".
G:55		Withdrawn.
G:56		Theme Session on "Multispecies Interactions".
G:57	W Weber	"Variation of sole egg catches over $\chi^{\prime}$ a period of 24 hours".
G:58		Theme Session on "Fish Survey Methods".
G:59		Theme Session on "Fish Survey Methods".
G:60		Withdrawn.
G:61		Theme Session on "Stock Assessment Methods".
G:62		Theme Session on "Stock Assessment Methods".
G:63		Withdrawn.
G:64	J A Pereiro, X Pereiro and A Fernández	"An analysis of the historical catches of hake, 1936-1977, in Sub-areas IV, VI, VII and VIII".
G:65		Theme Session on "Stock Assessment Methods".
G:66	R M Cook	"Observations on the International O-Group Gadoid Survey indices".
G:67		Theme Session on "Distribution and Abundance in Relation to Environment".

## Demersal Fish Cttee (ctd)

G:68		Theme Session on "Density-dependent Relationships".
G:69	J R G Hislop et al.	"Report of the Working Group on International O-Group Gadoid Surveys in the North Sea".
G:70		Theme Session on "Density-dependent Relationships".
G:71	M M F Morais de Cunha	"Seasonal changes in the flounder ( <u>Platichthys flesus</u> <u>flesus</u> I. 1758) population of River de Aveiro (Vouga estuary), Portugal".
G:72 Ref. H	J Mejuto and A G Garcés	"Shortfin mako, <u>Isurus oxyrinchus</u> , and the porbeagle, <u>Lamna nasus</u> , associated with longline swordfish fishery in NW and N Spain".
G:73		Withdrawn.
G:74		"Report of the <u>ad hoc</u> Hake Otolith Working Group, La Rochelle, France, 28 May - 1 June 1984".
G:75	S A Shopka et al.	"Preliminary report of Groundfish Surveys in Icelandic waters in autumn 1983, spring and autumn 1984". Withdraway or never profiled.
G:76		Theme Session on "Multispecies Inter- actions".
G:77	W J Overholtz, M P Sissenwine and S H Clark	"Recruitment variability and its implications for managing and rebuilding the Georges Bank haddock stock".
G:78		"Report of the Planning Group on the 1984 Sole Egg Survey, Lowestoft, 5-7 December 1983".
G:79	Shibanov	"Some results of researches into the biology of redfish".
G:80		Withdrawn.

## Demersal Fish Cttee (ctd)

	Reference Papers for	the Demersal Fish Committee
B:11	T Johannessen	"Selectivity in the longline fishery for cod and haddock as a function of hook and bait size".
B:29	P A M Stewart	"Gill-net selectivity in the north- east Scottish inshore cod fishery".
B:31	R A Rush and R S T Ferro	"Variation of towing speed during survey cruises with the GOV and Aberdeen 48ft trawls".
F:2	J C Holm and J Thorsen	"Preliminary results from stocking salmonid freshwater enclosures with flounder ( <u>Platichthys</u> <u>flesus</u> )".
F:16	V Øiestad, P G Kvenseth and T Pedersen	"Mass-production of cod fry ( <u>Gadus</u> morhua) in a large basin in western Norway - a new approach".
н:36		"Preliminary report on the International O-Group Fish Survey in the Barents Sea and adjacent waters in August-September 1984".
H:42	A Sola and C Franco	"Ichthyoplankton survey of interesting commercial species of the Cantabric and Galician shelves (N-NW Spain)".
н:66	H Vilhjálmsson and J V Magnusson	"Report on the O-Group Fish Survey in Icelandic and East Greenland waters, August 1984".
L:9	G C Laurence et al.	"Small-scale spatial variability of plankton on Georges Bank with particular reference to prey organisms of larval cod and haddock".
L:13	N Daan, A D Rijnsdorp and G R van Over- beeke	"Predation of plaice and cod eggs by North Sea herring".

### H - PELAGIC FISH COMMITTEE

H:1		Report of Activities.
H:2	F C Stott	"The growth of <u>Cetorhinus</u> <u>maximus</u> (Gunnerus) - a reply to a criticism".
Н:3		Theme Session on "ACFM and Assessment Working Group Reports".
н:4		Theme Session on "Density-dependent Relationships".
H:5		Theme Session on "Stock Assessment Methods".
н:6	L D Panasenko	"Feeding of the Barents Sea capelin".
H:7		Withdrawn.
H:8		Theme Session on "Distribution and Abundance in Relation to Environment".
H:9	V A Ermolchev et al.	"Results of blue whiting investigations in spring 1983".
H:10 Ref. L	K V Kochnev	"Efficiency of spawning of Atlanto- Scandian herring in 1983".
H:11		Withdrawn.
H:12		Withdrawn.
H:13		Theme Session on "Stock Assessment Methods".
H:14		Theme Session on "Fish Survey Methods".
Н:15	B M Thompson	"The Western mackerel spawning stock estimate, 1983".
н:16	P 0 Johnson and R J Wood	"Results of English acoustic surveys undertaken in the Southern Bight and eastern English Channel in November 1983 and February 1984".
H:17	P 0 Johnson	"Report on the sprat sampling from ICES Young Fish Surveys undertaken in February-March over the years 1979-83".
H:18	R J Wood and P O Johnson	"Results of an English acoustic survey undertaken in the west central North Sea during August 1983".
н:19		Withdrawn.

## Pelagic Fish Cttee (ctd)

H:20	L S Mariduena	"Histological development of the ovary of mackerel (Scomber scombrus L.)".
H:21	L S Mariduena	"Observations in the maturity, effects of gonads preservation and daily spawning cycle of mackerel (Scomber scombrus L.)".
H:22		Withdrawn.
H:23	N Diner et al.	"Les petits pélagiques du Golfe de Gascogne en avril-mai 1984. Evaluation acoustique, répartition, biologie et milieu".
Н:24		Theme Session on "Distribution and Abundance in Relation to Environment".
Н:25		Withdrawn.
н:26	M F Borges	"Evaluation of the results on horse mackerel ( <u>Trachurus trachurus</u> L.) of a series of Young Fish Surveys in the Portuguese waters (Sub-area IX)".
Н:27		Theme Session on "Multispecies Interactions".
H:28		Theme Session on "Multispecies Interactions".
Н:29	R Grainger, E Barnwall and A Cullen	"Herring larval surveys in the Celtic Sea and Division VIIj in 1983/84".
H:30		Theme Session on "Density-dependent Relationships".
н:31	A Corten	"Report on the International Young Fish Survey in the North Sea, Skagerrak and Kattegat in 1984: Herring".
H:32		Theme Session on "Multispecies Interactions".
H:33	A Eltink	"Mean length and weight changes during spawning of western mackerel in 1981-83".
H:34		Withdrawn.
н:35		Theme Session on "Stock Assessment Methods".

## Pelagic Fish Cttee (ctd)

н:36		"Preliminary report of the Inter- national O-Group Fish Survey in the Barents Sea and adjacent waters in August-September 1984".
H:37		Theme Session on "Distribution and Abundance in Relation to Environment".
н:38		Theme Session on "Fish Survey Methods".
Н:39	I Røttingen	"Investigations on the 1983 year class of Norwegian spring-spawning herring".
H:40		Theme Session on "Multispecies Interactions".
H:41	E Torstensen	"Sprat spawning in two fjord areas of western Norway in 1982 and 1983".
H:42 Ref. G	A Sola and C Franco	"Ichthyoplankton survey of interesting commercial species of the Cantabric and Galician shelves (N-NW Spain)".
H:43		Theme Session on "Density-dependent Relationships".
H:44		Theme Session on "Distribution and Abundance in Relation to Environment".
н:45		Withdrawn.
н:46	H Rosenthal, D Klumpp and J Willführ	"Influence of sperm density on herring egg fertilisation".
н:47		Theme Session on "Stock Assessment Methods".
H:48		Theme Session on "Distribution and Abundance in Relation to Environment".
н:49	L S Gordo and M B Martins	"On some biological characteristics of mackerel (Scomber scombrus L.) from the west continental coast of Portugal".
н:50	M B Martins and L S Gordo	"On the comparison of Spanish mackerel (Scomber japonious Houttuyn 1780) from Gorringe Bank and Peniche (Portuguese coast)".
н:51		Withdrawn.

Pelagic Fish Ct	ttee (ctd)	
H:52		Theme Session on "Distribution and Abundance in Relation to Environment".
н:53	;	Theme Session on "Distribution and Abundance in Relation to Environment".
H:54		Withdrawn.
H:55		Withdrawn.
н:56	D W McKay	"Sprat larvae off the east coast of $ \bigvee$ Scotland".
н:57		Withdrawn.
н:58		Theme Session on "Fish Survey Methods".
н:59	A Saville and P W Rankine	"A report on the ICES Herring Larval Surveys in the North Sea and adjacent waters in 1983-84, including a re-examination of past herring larval data".
H:60	R S Bailey	"Progress report on the establishment of a Sprat Biology Workshop".
н:61		Theme Session on "Density-dependent Relationships".
н:62	M R Heath	"Report on an acoustic survey carried out in the northern part of Division VIa on herring and mackerel".
H:63 Ref. B	O Hagström et al.	"Report on the Acoustic Survey in ICES Division IIIa, 1982 and 1983".
н:64	M Giedz	"A comparison of otolith width of blue whiting from Porcupine Bank and Rockall Bank".
н:65		Withdrawn.
H:66 Ref. C and G	H Vilhjálmsson and J V Magnússon	"Report on the O-Group Fish Survey in Icelandic and East Greenland waters, August 1984".
н:67		"Report on the Coordinated Acoustic Survey on Blue Whiting in the Norwegian Sea, August 1984".

#### Pelagic Fish Cttee (ctd)

H:68 Ref. C	H D Dooley	"Bottom temperature and salinity of the North Sea during the Inter- national Young Fish Survey 1984".
н:69		"Report of the Working Group on Herring Larval Surveys South of 62°N, Aberdeen, 11-15 June 1984".
H:70		Theme Session on "Fish Survey Methods".
H:71 Ref C and L		"Report on Joint Soviet-Icelandic investigations on hydrobiological conditions in the Norwegian Sea and Icelandic waters in May-June 1984".

Reference Papers for the Pelagic Fish Committee

#### G:38 Withdrawn. Withdrawn. G:39 G:40 A Kristiansen "Report of the O-Group Surveys in Faroese waters 1981-84". G:72 J Mejuto and "Short-fin mako, Isurus oxyrinchus, A G Garcés and porbeagle, Lamna nasus, associated with longline swordfish fishery in NW and N Spain". J:34 N Jönsson and "Mortality of tagged and untagged A Scabell herring in net-cages". M Klinkhardt "A simple method for estimating the J:35 and E Biester herring eggs". N Daan, "Predation of plaice and cod eggs by L:13 North Sea herring". A D Rijnsdorp and G R van Overbeeke "First feeding of larval herring at

low food concentrations".

P Munk and

T Kiørboe

L:15

## J - BALTIC FISH COMMITTEE

J:1		Report of Activities.
J:2		Theme Session on "Time Series Analysis".
J:3		Theme Session on "Fish Survey Methods".
J:4		Theme Session on "Density-dependent Relationships".
J <b>:</b> 5	N Schulz and B Vaske	"Analysis of bottom-trawl surveys in Mecklenburg Bay and Arkona Basin in view of the assessment of herring and cod in ICES Sub-divisions 22 and 24".
J:6		Theme Session on "Fish Survey Methods".
J:7	D Kästner, R Oeberst and K Haman	"Preliminary results of a joint hydro- acoustic sprat survey by the USSR and GDR in the Baltic in May 1984".
J:8		Theme Session on "Gear Selectivity".
J:9	O Bagge and E Steffensen	"The total mortality of cod in the Baltic 1982-84, as estimated from bottom-trawling surveys".
J:10	O Bagge	"Danish discards in the cod fishery in the Baltic 1981-84".
J:11		Withdrawn.
J:12	R A Aps and K Kh. Lotman	"'Natural tags' of sprat in the Gulf of Finland".
J:13		Theme Session on "Distribution and Abundance in Relation to Environment".
J:14		Theme Session on "Distribution and Abundance in Relation to Environment".
J:15	G Otterlind	"Notes on garfish in the Baltic".
J:16		Theme Session on "Distribution and Abundance in Relation to Environment".
J:17	A Müller and O Bagge	"The occurrence of cod eggs and the size of fish eggs in Bornholm Basin".
J:18		Theme Session on "Stock Assessment Methods".
J:19	E Aro et al.	"The abundance of 0-group Baltic herring off the coast of Finland in 1979-83".

## Baltic Fish Cttee (ctd)

J:20		Theme Session on "Stock Assessment Methods".
J:21	R Parmanne and V Sjöblom	"Abundance of sprat eggs and larvae in the northern Baltic in 1982 and 1983".
J:22		Withdrawn.
J:23		Withdrawn.
J:24		Theme Session on "Stock Assessment Methods".
J:25	W Grygiel	"Differences in morphology and growth of otoliths of juvenile herring taken on various fishing grounds in the southern Baltic".
J <b>:</b> 26	J Porebski	"Investigations of the spring-spawning herring, <u>Clupea harengus</u> L., larvae in the Pomeranian Bay in April-June 1982".
J:27	M Kosior	"Cod biomass of the 1976 year class in the southern Baltic and its share in Polish catches.
J:28	B Draganik and J Kuczyński	"Growth of flounder and its otoliths in the first year of life".
J:29		Theme Session on "Density-dependent Relationships".
J:30 Ref. L	S K Grimm and T Herra	"Spawning cycles of southern Baltic fishes based on surveys of eggs and larvae".
J:31		"Planning Group for Hydroacoustic Survey in the Baltic, Copenhagen, 2-3 April 1984".
J:32	F Halling and J Salmi	"Abundance of autumn-spawning herring larvae off the coast of Finland in 1981-83".
J:33	E Biester	"Occurrence of herring larvae along the outer coastline of the German Democratic Republic in spring and summer".
J:34 Ref. H	N Jönsson and J Scabell	"Mortality of tagged and untagged herring in net-cages".
J:35 Ref. H and L	M Klinkhardt and E Biester	"A simple method for estimating the age of herring eggs".

## Baltic Fish Cttee (ctd)

J:36

"Publications of interest to the Baltic Fish Committee 1983".

#### Reference Papers to the Baltic Fish Committee

B:35	P Suuronen and R Parmanne	"The Baltic herring trapnet fishery off the coast of Finland".
L:25	B Christiansen	"Population dynamics of copepods in the Schlei Fjord, western Baltic".

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## K - SHELLFISH COMMITTEE

K:1		Report of Activities.
K:2	F Redant	"An indexed bibliography on the common shrimp, <u>Crangon crangon</u> (Linnaeus, 1758), complementary to Tiews, 1967".
K:3	F Redant and R De Clerck	"Diurnal variations in cpue and length composition of the catches in a <u>Nephrops</u> directed fishery in the central North Sea".
K:4 Ref. B		"Working Group on <u>Nephrops</u> Stocks, Aberdeen, 5-8 June 1984".
K:5		Theme Session on "Gear Selectivity".
K:6		"Publications of interest to the Shellfish Committee, 1983".
K:7	J F Wickins and T W Beard	"Micro-tagging lobsters ( $\underline{\text{Homarus}}$ gammarus L.) - preliminary results".
K:8	B E Spencer, M J Akester and I Mayer	"Growth and survival of seed oysters in outdoor pumped upwelling systems supplied with fertilised seawater".
K:9 Ref. F	D Bucke et al.	"A report on <u>Bonamia</u> <u>ostreae</u> in <u>Ostrea</u> <u>edulis</u> in the <u>U.K."</u> .
K:10		Theme Session on "Stock Assessment Methods".
K:11		Theme Session on "Density-dependent Relationships".
K:12	B P Shimko	"Ageing biological peculiarities of Todarodes sagittatus (Lamarck)".
K:13	R Dijkema and J Bol	"Monitoring of concentration and size of larvae of the European flat oyster  O. edulis L. and spatfall intensity in a marine lake in the SW Netherlands. Preliminary results from 1979 to 1983".
K:14		Withdrawn.
K:15		Theme Session on "Stock Assessment Methods".
1	A R Rodriguez Viffedraum or nevel received A R Rodriguez	"La croissance de la palourde <u>Venerupis</u> <u>decussata</u> (L.) dans les conditions naturelles de la zone intertidal du Rio Carreras (SO Espagne)".
K:17	A R Rodriguez	"Comparaison des rendements des cultures de <u>Venerupis</u> <u>decussata</u> sous filet et sans filet en milieu ouvert".

# Shellfish Cttee (ctd)

K:18 Ref. F	E W Rhodes and J C Widman	"Density-dependent growth of the Bay scallop, <u>Argopecten irradians</u> <u>irradians</u> , in suspension culture".
K:19	Kr. Fr. Wiborg, J Gjøsæter and I M Beck	"The squid <u>Gonatus fabricii</u> (Lichtenstein). Investigations in the Norwegian and western Barents Seas June-September 1982 and 1983".
к:20	Kr. Fr. Wiborg and I M Beck	"The squid, <u>Todarodes sagittatus</u> (Lamarck). Investigations in Norwegian coastal and bank waters, July 1983 - January 1984, and west of the British Isles, March-April 1984".
K:21	A Hylen and P Øynes	"Norwegian investigations on the deep sea shrimp ( <u>Pandalus borealis</u> ) in the Barents Sea in April/May 1984 and in the Spitsbergen area in July 1984".
K:22		Theme Session on "Stock Assessment Methods".
K:23		Theme Session on "Stock Assessment Methods".
K:24		Withdrawn.
K:25		Theme Session on "Stock Assessment Methods".
к:26		Theme Session on "Density-dependent Relationships".
K:27		Withdrawn.
K:28		Theme Session on "Stock Assessment Methods".
K:29	A R Cascalho and I Arrobas	"Parapenaeus longirostris (Lucas, 1846) from the south Portuguese coast: data on its fishery and observations on some biological characteristics".
K:30 Ref. E	R Meixner	"On a microalgal infection of Mytilus edulis".
K:31		Withdrawn.
K:32 Ref. F	H Rosenthal	"Ranching of <u>Penaeus japonicus</u> in coastal waters: a case history".
K:33	N Bailey	"Some aspects of reproduction in Nephrops".
K:34		Theme Session on "Distribution and Abundance in Relation to Environment".
		ctd.

ctd.

# Shellfish Cttee (ctd)

K:35		Theme Session on "Stock Assessment Methods".
к:36		Theme Session on "Gear Selectivity".
K:37	P Hillis	"Compositional changes in the Nephrops catch in the western Irish Sea, 1969-84".
K:38	D Latrouite et al.	"Fécondités individuelles et par recrue du homard européen ( <u>Homarus gammarus</u> ) des côtes françaises".
K:39		Theme Session on "Gear Selectivity".
K:40	G A Chouinard	"Growth of the sea scallop ( <u>Placopecten magellanicus</u> ) on the Tormentine Bed, Northumberland Strait, Canada".
K:41	M Moriyasu	"Molting season and growth of molt of lobsters in Malpeque Bay, Prince Edward Island, Canada".
K:42	M Moriyasu	"La perte de pince chez le homard de l'estuaire de la rivière Bideford, Ile-du-Prince-Edouard, Canada".
K:43	G Y Conan, D R Maynard and Y J Chiasson	"Recapture rates for lobsters first captured by trapping vs diving".
K:44	G Y Conan, D R Maynard and J Cormier	"Preliminary density estimates of snow crab, <u>Chionoecetes</u> <u>opilio</u> , by underwater television".
K:45	G Y Conan <u>et al.</u>	"Monitoring the foraging activity of lobsters and associated species by underwater television".
к:46	G Y Conan et D R Maynard	"Reconnaissance aérienne de l'effort de pêche pour la pêcherie de homards dans la partie nord du détroit de Northumber- land. Variations annuelles et variations saisonnières de la distribution spatiale de l'effort de pêche. Essai d'évaluation de l'effort déployé".
K:47	D R Maynard and G Y Conan	"Preliminary monitoring of short-term movements for lobsters ( <u>Homarus</u> <u>americanus</u> ) in the Bideford River, Prince Edward Island, using ultrasonic telemetry".
K:48	G Y Conan <u>et</u> <u>al.</u>	"Diving and underwater television observations on Nephrops norvegicus in Bantry Bay, Ireland".

Shellfish Cttee	(ctd)	
K:49		Theme Session on "Stock Assessment Methods".
K:50 Ref. L	J A Lindley	"Continuous plankton records: seasonal variations in the distribution and abundance of larvae of the edible crab (Cancer pagurus L.) in the seas around the British Isles".
K:51	J H Sundet	"A short review on the biology and fishery of the squid Todarodes sagittatus". If the bound secured
K:52	I Arrobas and A R Cascalho	"New contribution to the knowledge about biology and fishery of <u>Aristeus antennatus</u> (Risso, 1816) of the south Portuguese coast".

# Reference Papers for the Shellfish Committee

B:37	J W Waldemarsen and B Isaksen	"Siamese twin trawl developed in the Norwegian shrimp fishery".
E:32		Withdrawn.
E:41	H Fischer	"Cadmium body burden/shell weight of mussels: a precise index for environmental monitoring".
F:9	B Arie and J E Stewart	"Further developments in induction of resistance in <u>Homarus</u> <u>americanus</u> to the bacterial disease <u>Gaffkemia"</u> .
F:14	G Tige et al.	"Evolution de la situation épizootiolo- gique en Bretagne en 1983 suite au développement de <u>Bonamia</u> <u>ostreae"</u> .
F:36	Th. Neudecker	"Overwintering of oysters ( <u>Crassostrea gigas</u> ) in the Federal Republic of Germany".
G:33	O M Smedstad	"Report on the cruise of F/F 'Eldjarn' to East Greenland waters in November 1983".

# L - BIOLOGICAL OCEANOGRAPHY COMMITTEE

L:1		Report of Activities (plus Addendum).
L:2		Withdrawn.
L:3		Withdrawn.
L:4	N G Teplinskaya and O N Dudarenko	"The bacterioplankton of the Barents and Kara Seas".
L:5		Theme Session on "Hydrobiological Variability".
L:6		Theme Session on "Hydrobiological Variability".
L:7	S S Drobysheva and L D Panasenko	"On consumption of the Barents Sea euphausiids".
L:8		Theme Session on "Hydrobiological Variability".
L:9 Ref. G	G C Laurence et al.	"Small-scale spatial variability of plankton on Georges Bank with particular reference to prey organisms of larval cod and haddook".
L:10		Theme Session on "Hydrobiological Variability".
L:11	A G Moigis and J Lenz	"Comparison between silica- and quartz-glass bottles in measuring primary productivity under <u>in situ</u> conditions in the Kiel Fjord, western Baltic".
L:12 Ref. C	J Lenz and A G Moigis	"In <u>situ</u> simulation of turbulence- induced vertical movement of phyto- plankton cells in productivity studies by means of a 'Mixed Layer Incubator'".
L:13 Ref. G and H	N Daan, A D Rijnsdorp and G R van Overbeeke	"Predation of plaice and cod eggs by $\ensuremath{\bigvee}$ North Sea herring".
L:14	D Maurer, E His et R Robert	"Observations sur le phytoplancton du bassin d'Arcachon en période éstivale. Rôle potentiel dans la nutrition des larves de <u>Crassostrea</u> <u>gigas"</u> .
L:15 Ref. H	P Munk and T Kiørboe	"First feeding of larval herring at low food concentrations".
L:16		Theme Session on "Hydrobiological Variability".
L:17		Theme Session on "Hydrobiological Variability".
		ctd.

# Biol. Oceanography Cttee (ctd)

L:18	P Theodórsson	"Penetration correction of Geiger counting and on-board determination of primary productivity".
L:19 Ref. E	J P Thomas et al.	"Biological Rate Measurements Working Group Report to the NOAA Quality Assurance Program".
L:20		Theme Session on "Hydrobiological Variability".
L:21		Withdrawn.
L:22		Theme Session on "Fish Survey Methods".
L:23		Theme Session on "Stock Assessment Methods".
L:24	R Böttger	"The effect of formalin fixation on the dry weight of copepods, with special reference to <u>Eurytemora affinis</u> (Poppe, 1880)".
L:25 Ref. J	B Christiansen	"Population dynamics of copepods in the Schlei Fjord, western Baltic".
L:26	E Eleftheriou and D J Basford	"Comparison of methods used for the study of the epibenthic macrofauna (Agassiz trawl) and underwater television".
L:27		Theme Session on "Hydrobiological Variability".
L:28	H Renk, S Ochocki and J Nakonieczny	"Diel fluctuations of chlorophyll and carotenoids in phytoplankton of the Baltic Sea".
L:29	J Warzocha	"Bottom macrofauna communities in the southern Baltic".
L:30	J Kalinowski	"Distribution and stock of krill, <u>Euphausia</u> <u>superba</u> Dana, in December 1983 and January 1984 before and during the Second International Biomass Expe- riment I (SIBEX I)".
L:31		Theme Session on "Fish Survey Methods".
L:32	Z Witek <u>et</u> al.	"Macrozooplankton in the Drake Passage and Bransfield Strait during early summer of 1983-1984 (Biomass - SIBEX)".
L:33	Z Ringer	"Phytoplankton of the southern Baltic in 1982-83".

# Biol. Oceanography Cttee (ctd)

L:34 POSTER	J C Gamble	"Simultaneous rearing of herring and cod larvae in the Loch Ewe enclosures".
L:35		Theme Session on "Multispecies Interactions".
L:36		Theme Session on "Environmental Working Group Report Topics".
L:37		"Working Group on Larval Fish Ecology, Hirtshals, 25-27 June 1984".
L:38 Ref. Pub.	G A Robinson	"Plankton Identification Sheets. Editor's Report, 1983/84".
L:39		Theme Session on "Distribution and Abundance in Relation to Environment".
L:40		Theme Session on "Fish Survey Methods".

# Reference Papers for the Biological Oceanography Committee

C:12	G Kullenberg et al.	"A telemetering buoy system for biological oceanography measurements".
C:35		"Study Group Report: Specific terms of reference for a new Working Group on the Application of Aerospace Remote Sensing in Hydrobiological Monitoring".
H:10	K V Kochnev	"Efficiency of spawning of Atlanto- Scandian herring in 1983".
н:71		"Report on Joint Soviet-Icelandic investigations on hydrobiological conditions in the Norwegian Sea and Icelandic waters in May-June 1984".
J:30	S K Grimm and T Herra	"Spawning cycles of southern Baltic fish based on surveys of eggs and larvae".
J:35	M Klinkhardt and E Biester	"A simple method for estimating the age of herring eggs".
K:50	J A Lindley	"Continuous plankton records: seasonal variations in the distribution and abundance of larvae of the edible crab (Cancer pagurus L.) in the seas around the British Isles".

# M - ANADROMOUS AND CATADROMOUS FISH COMMITTEE

M:l		Report of Activities (with an Annex).
M:2	C Mills	"The results of a questionnaire on sea trout (Salmo trutta L.) rearing techniques in Europe".
M:3		Theme Session on "Stock Assessment Methods".
M:4	E Ikonen and H Auvinen	"Migration of salmon in the Baltic Sea based on Finnish tagging experiments".
M:5	E Ikonen and H Auvinen	"Migration of sea trout stocks in the Baltic Sea on the basis of Finnish tagging experiments".
M:6		Theme Session on "Stock Assessment Methods".
M:7		Withdrawn.
M:8		Withdrawn.
M:9		"Report of the meeting of the Study Group of the North Atlantic Salmon Working Group at Tórshavn, 27-30 March 1984".
M:10		Withdrawn.
M:11	D G Reddin, W M Shearer and R F Burfitt	"Intercontinental migrations of Atlantic salmon $(\underline{Salmo} \ \underline{salar} \ L.)$ ".
M:12	D G Reddin, R F Burfitt	"Identification of North American and European Atlantic salmon (Salmo
	and P B Short	salar L.) caught off West Greenland in 1982-83".
M:13	D G Reddin and R F Burfitt	salar L.) caught off West Greenland
M:13 M:14	D G Reddin and	<ul> <li>salar L.) caught off West Greenland in 1982-83".</li> <li>"A new feeding area for Atlantic salmon (Salmo salar L.) to the east of the Newfoundland and Continental</li> </ul>
	D G Reddin and	salar L.) caught off West Greenland in 1982-83".  "A new feeding area for Atlantic salmon (Salmo salar L.) to the east of the Newfoundland and Continental Shelf".  Theme Session on "Stock Assessment

## Anacat. Cttee (ctd)

M:17	J R G Hislop and A F Youngson	"A note on the stomach contents of salmon caught by longline north of the Faroe Islands in March 1983".
M:18		Withdrawn.
M:19	G Struthers	"Comparison of survival rates of Atlantic salmon smolts which by-pass or migrate through a high-head hydro-electric power station (30m)".
M:20	G Struthers and D Stewart	"A report on the composition of the adult salmon stock of the upper river Tummel, Scotland, and the evaluation of the accuracy of a closed-channel resistivity counter".
M:21	G Struthers	"Comparison of adult salmon returns in the river Tay net- and coble and rod fisheries from salmon smolt tagging experiments in two tributaries of the river Tay, Scotland".
M:22	D W Hay	"The relationship between redd counts and the numbers of spawning salmon in the Girnock Burn (Scotland)".
M:23		Theme Session on "Stock Assessment Methods".
M:24	W M Shearer	"The relationship between both river and sea age and return to home waters in Atlantic salmon".
M:25		"Report of the Atlantic Salmon Scale-Reading Workshop, Aberdeen, Scotland, 23-28 April 1984".
M:26		Theme Session on "Stock Assessment Methods". Wifhdrawn or marger to ceived.
M:27	E T Baum et al.	"Recaptures of Atlantic salmon tagged and released in Maine rivers".
M:28	T R Porter and J A Ritter	"Possible causes of low abundance of Atlantic salmon in Canada - 1983".

## Reference Paper to the Anadromous and Catadromous Fish Cttee

F:4 "Report of the Working Group on Genetics, St. Andrews, Canada, 13-15 June 1984".

## N - MARINE MAMMALS COMMITTEE

N:1		Report of Activities.
N:2	S G Brown	"Whale marking in the North Atlantic Ocean, 1979-1982".
N:3	A Bjørge	"Parasitic nematodes in stomachs of grey seals, <u>Halichoerus grypus</u> , and common seals, <u>Phoca vitulina</u> , along the Norwegian coast".
N:4	R Duguy	"Cétacés et pinnipèdes trouvés sur les côtes françaises de la Manche et de l'Atlantique en 1983".
N:5	F Jean-Caurant et R Duguy	"Données nouvelles sur la fréquence de <u>Stenella coeruleoalba</u> dans le nord-est Atlantique".
<b>N:</b> 6	E Hussenot	"Nouvelles données sur l'élaboration du statut de <u>Grampus griseus</u> sur les côtes de France".
N:7	D Prieur	"Reproduction du phoque gris de France durant l'hiver 1983-84. Nouvelles réflexions sur le statut de l'espèce".
N:8		"Publications of interest to the Marine Mammals Committee, 1983".
N:9	K Ronald et al.	"Preliminary investigations into calcium and phosphorus composition of the cementum and dentine of grey seal and hooded seal teeth using SEM and energy-dispersive X-ray spectrometry".
	Reference Papers for	the Marine Mammals Committee
E:27	R Schneider	"Concentrations of organochlorine

		residues in different tissues of crabeater seals, Adélie penguins, and McCormick's skuas from the Weddell Sea, Antarctic".
E:43	E Helle and O Stenman	"Recent trends in levels of PCBs and DDT compounds in seals from the Finnish waters of the Baltic Sea".

# THEME SESSION ON " DISEASES OF MARINE ORGANISMS AND THEIR RELATION TO BIOLOGICAL EFFECTS INCLUDING POLLUTION

Chairman: Dr D Møller

E:16	C Marcaillou-Le Baut et P Lassus	"Intoxications diarrhéiques par les coquillages sur les côtes françaises en 1983. Implication du <u>Dinophysis</u> acuminata comment agent responsable".
E:28	S Mellergaard and E Nielsen	"Preliminary investigations on the eastern North Sea and Skagerrak dab ( <u>Limanda</u> <u>limanda</u> ) populations and their diseases".
E:29	S Mellergaard and E Nielsen	"Preliminary investigations on the eastern North Sea and Skagerrak plaice ( <u>Pleuronectes platessa</u> ) populations and their diseases".
E:33		Withdrawn.
E:34	E Dyner et al.	"A preliminary evaluation of some diseases found in certain species of the Baltic Sea fishes".
E:35	K Lisińska	"External pathological changes in fish in the southern Baltic".
E:36	D Waluga	"Introductory results of research concerning etiology of cod $(\underline{Gadus} \ \underline{morhua})$ diseases in the Baltic Sea".
F:8	D Bucke and S W Feist	"Histological changes in livers of dab $(\underline{\text{Limanda}}\ \underline{\text{limanda}}\ L_{\bullet})$ ".
F:17		"Report of Seagoing Workshop on Methodology of Fish Disease Surveys, 3-12 January 1984, R/V 'Anton Dohrn'".
F:31	A H McVicar	"Objectives and constraints in sampling marine fish diseases".
F:34		"Report of the Working Group on the Pathology and Diseases of Marine Organisms, Halifax, 14-16 May 1984".

## THEME SESSION ON "ENVIRONMENTAL WORKING GROUP REPORT TOPICS"

## Chairman: Professor A D McIntyre

C:2	"Report of the Marine Chemistry Working Group, Rostock, Warnemünde, 20-23 February 1984".
C:29	"Report of the Working Group on Marine Data Management, Copenhagen, 15-18 May 1984".
C:30	"Report of the Working Group on Oceanic Hydrography, Oban, United Kingdom, 22-23 May 1984".
C:31	"Report of the Working Group on Shelf Seas Hydrography, Oban, United Kingdom, 24-25 May 1984".
E:2	"Report of the Working Group on Marine Sediments in Relation to Pollution, Rostock, Warnemünde, 22-24 February 1984".
E:3	"Report of the Joint Meeting between the Marine Chemistry Working Group and the Working Group on Marine Sediments in Relation to Pollution, Rostock, Warnemünde, 22 February 1984".
E:4	"Report of the Working Group on Marine Pollution Baseline and Monitoring Studies in the North Atlantic, Lisbon, 28 February - 2 March 1984".
E:17	"Report of the Meeting of the ICES/SCOR Working Group on the Study of Pollution of the Baltic, Copenhagen, 10-12 April 1984".
E:18	"Report of the Meeting of the Study Group on Patchiness Investigations in the Baltic Sea, Copenhagen, 9 April 1984".
E:21	"Report of the Second Meeting of the Working Group on Pollution-Related Studies in the Skagerrak and Kattegat, Copenhagen, 28-29 May 1984".
E:42	"Report of the Special Meeting on the Causes, Dynamics and Effects of Exceptional Marine Blooms and Related Events, Copenhagen, 4-5 October 1984". (Will be available Tuesday 9 October.)
L:36	"Third Report of the Benthos Methodics Working Group, Hirtshals, 15-18 May 1984".

# THEME SESSION ON "MULTISPECIES INTERACTIONS"

Chairman: Dr J Harwood

Assess:20*		"Ad hoc Multispecies Assessment Working Group, Copenhagen, 18-22 June 1984".
B:25	N J Bax et al.	"NORFISK - an ecosystem simulation model for studies on fish stocks off the coast of Norway".
G:4	J G Shepherd	"A promising method for the assessment of multispecies fisheries".
G:7	I Ya. Ponomarenko and N A Yaragina	"Seasonal, local and year-to-year variations in the feeding of Barents Sea cod on shrimp".
G:23		Withdrawn.
G:25	P Sparre	"A computer program for estimation of food suitability coefficients from stomach content data and multispecies VPA".
G:27	R Bowman and R Eppi	"Diet and consumption of spiny dogfish in the Northwest Atlantic".
G:32	E B Cohen, G C Laurence and W G Smith	"The role of starvation and predation in regulating year class strength in several fish stocks on Georges Bank".
G:37		"Report of the Meeting of the Coordinators of the Stomach Sampling Project 1981, IJmuiden, 19-23 March 1984".
G:43	E Ursin et al.	"Stomach evacuation rates of Atlantic cod ( <u>Gadus morhua</u> ) estimated from stomach contents and growth rates".
G:53	G Lilly	"Predation by Atlantic cod on shrimp and crabs off northeastern Newfoundland in autumn of 1977-82".
G:54	W R Bowering, D G Parsons and G Lilly	"Predation on shrimp ( <u>Pandalus borealis</u> ) by Greenland halibut ( <u>Reinhardtius</u> <u>hippoglossoides</u> ) and Atlantic cod ( <u>Gadus morhua</u> ) off Labrador".
G:56	K Sunnan&	"Stomach contents of cod, haddock and saithe on the Møre coast in 1982 and 1983".

ctd.

 $<sup>\</sup>mbox{\ensuremath{\mbox{\#}}}$  Also allocated to Theme Session on "ACFM and Assessment Working Group Reports".

# Theme Session on "Multispecies Interactions" (ctd)

G:76	H W van der Veer, M J N Bergman and J J Zijlstra	"Predation by newly settled 0-group plaice ( <u>Pleuronectes platessa</u> L.) by crustacea in a continental tidal nursery area, the Wadden Sea".
H:27	R Bowman, J Warzocha and T Morris	"Trophic relationship between Atlantic mackerel and American sand lance".
H:28	M Pennington	"Estimating the average food consumption by fish in the field from stomach contents data".
H:32	H Balfoort	"Experiments on digestion rate of herring larvae in fish stomachs".
н:40	G Hubold	"Stomach contents of Antarctic silver- fish, <u>Pleurogramma antarcticum</u> , from the southern and eastern Weddell Sea (Antarctica)".
J:22		Withdrawn
L:35	Yu. V Kadilnikov and A S Myskov	"A mathematical model predator/prey and distribution of biological organisms of different trophic levels in aquatic space".

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## THEME SESSION ON "ACFM AND ASSESSMENT WORKING GROUP REPORTS"

Chairman: Mr O J Østvedt

Assess:1	"Report of the Mackerel Working Group, Copenhagen, 6-13 September 1983".
Assess:2	"Report of the Blue Whiting Assessment Working Group, Copenhagen, 15-22 September 1983".
Assess:3	"Report of the Arctic Fisheries Working Group, Copenhagen, 15-22 September 1983".
Assess:4	"Report of the Atlanto-Scandian Herring and Capelin Working Group, Copenhagen, 25-28 October 1983".
Assess:5	"Report of the Working Group on Cod Stocks off East Greenland, Copenhagen, 18-24 January 1984".
Assess:6	"Report of the Working Group on Redfish and Greenland Halibut in Region 1, Copenhagen, 22-27 February 1984".
Assess:7	"Report of the Saithe (Coalfish) Working Group, Copenhagen, 29 February - 6 March 1984".
Assess:8	"Report of the Mackerel Working Group, Copenhagen, 28 February - 6 March 1984".
Assess:9	"Report of the Industrial Fisheries Working Group, Copenhagen, 7-13 March 1984".
Assess:10	"Report of the North Sea Roundfish Working Group, Copenhagen, 12-24 March 1984".
Assess:11	"Report of the Baltic Salmon and Trout Assessment Working Group, Copenhagen, 25-31 March 1984".
Assess:12	"Report of the Herring Assessment Working Group for the Area South of 62°N, Copenhagen, 20-30 March 1984".
Assess:13	"Report of the Working Group on Assessment of Demersal Stocks in the Baltic, Copenhagen, 2-11 April 1984".
Assess:14	"Report of the Working Group on Assessment of Pelagic Stocks in the Baltic, Copenhagen, 2-13 April 1984".
Assess:15	"Interim Report of the Division IIIa Demersal Stocks Working Group".

Assess:17 "Report of the Working Group on the Assessment of  $\underline{Pandalus}$  Stocks, Copenhagen, 14-16 February 1984".

Assess:16

"Report of the Working Group on North Atlantic Salmon, Aberdeen, 28 April - 4 May 1984".

## Theme Session on "ACFM and Assessment Working Group Reports" (ctd)

Assess:18		"Report of the <u>ad hoc</u> Study Group on Assessment of Stocks in Sub-areas VII and VIII, Nantes, 27-30 March 1984".
Assess:19*		"Report of the Working Group on Methods of Fish Stock Assessments, Copenhagen, 11-15 June 1984".
Assess:20**		"Ad hoc Group, Copenhagen, 18-22 June 1984".
Assess:21		"Report of the Irish Sea and Bristol Channel Working Group, Copenhagen, 26 June - 5 July 1984".
Assess:22*	Ø Ulltang	"Review of the handling of predation data and data on eventual changes in weight at age and age at first maturity".
Assess:23		"Comments by ACFM on the stock assessments June 1983 - April 1984".
G:2		"Report of the Workshop on Ageing of Redfish, Bremerhaven, 13-17 February 1984".
G:3		"Report on the Joint NAFO/ICES Study Group on Biological Relationships of the West Greenland and Irminger Sea Redfish Stocks, Copenhagen, 21 February 1984".

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<sup>\*</sup> Also allocated to Theme Session on "Stock Assessment Methods".

<sup>\*\*</sup> Also allocated to Theme Session on Multispecies Interactions".

## THEME SESSION ON "HYDROBIOLOGICAL VARIABILITY"

Chairman: Dr K Sherman

C:4	V V Rossov <u>et</u> <u>al.</u>	"Variations of hydrological and hydrobiological conditions at the 24 hour anchor station in the Polar front zone in the Barents Sea".
C:19	V Olsen, B Lundgren and P Iversen	"A compact eight channel continuous flow analyzer for shipboard use".
C:21	N Michelchen	"Interannual upwelling variations off NW-Africa and the influence of the 'southern oscillation'".
D:11	B L Norcross, H M Austin and S K LeDuc	"A statistical model of climatic factors affecting recruitment of Atlantic croaker (Micropogonias undulatus)".
L:5	I V Borkin	"Distribution of Polar cod larvae off West Spitsbergen".
L:6	E M Kostrichkina and A K Yurkovsky	"On the application of oceanological and meteorological data in prognosing the abundance (biomass) of zooplankton in the Baltic Sea".
L:8	M Berman, J R Green and K Sherman	"Applications of image analysis to the marine ecosystem studies".
L:10 POSTER	H G Marshall	"A comparison of the seasonal distribution and concentration of major phyto-plankton species over the northeastern continental shelf of the USA".
L:16	K Richardson, T Kierboe and V Christensen	"Phyto/zooplankton distribution and activity in relation to hydrography in a frontal region off Skagen (Denmark) in April 1984".
L:17	Sv. Aa. Malmberg	"A note on climate, hydrobiological investigations and fish recruitment in Icelandic waters in 1958-83".
L:20	T Thórdadóttir	"Primary production north of Iceland in relation to water masses in May-June 1970-80".
L:27	R Jones and E W Henderson	"Nutrient recycling after the spring bloom, and soluble production as a source of food for zooplankton".

# THEME SESSON ON "GEAR SELECTIVITY"

## Chairman: Mr G Thorsteinsson

B:4	D B Bennett	"Irish Sea and Celtic Sea mesh assessments".
B:5	B Claesson	"Meshing in pelagic herring trawls".
B:10	B Isaksen	"Experiments with vertical side-sorting panels in Norwegian shrimp trawls, 1982-83".
B:12	C W West, J W Valdemarsen and B Isaksen	"Preliminary tests of a shrimp-fish separator section for use in shrimp trawls".
B:15	V K Korotkov	"Fish behaviour in a catching zone and influence of bottom trawl rig elements on selectivity".
B:23	E Nielsen and S Mellergaard	"The influence of different trawl riggings on species composition and on catches of diseased flatfish".
B:26		Withdrawn.
B:30	J H B Robertson	"Square mesh codend selectivity for haddock (Melanogrammus aeglefinus (L.)) and whiting (Merlangius merlangus (L.)) in a Scottish seine net".
J:8	H G Haberstroh	"Results of selectivity investigations on cod-ends in the trawl fishery for herring in the Baltic".
K:5	D B Bennett	"A review of Irish Sea $\underline{\text{Nephrops}}$ mesh selection".
K:27		Withdrawn.
к:36	P Hillis	"Further experiments with a double cod-end Nephrops trawl".

## MINI-SYMPOSIUM ON "THE MID-1970s ANOMALY"

Chairman: Professor J Meincke

Gen:3	R R Dickson and J Blindheim	"On the abnormal hydrographic conditions in the European Arctic during the 1970s".
Gen:4	R R Dickson et al.	"An investigation of the earlier great salinity anomaly of 1910-1913 in waters west of the British Isles".
Gen:6	T Laevastu, R Marasco and J Ingraham	"The effects of cyclic temperature anomalies on the fluctuations of fish stocks".
Gen:8 POSTER	R R Dickson, A J Lee and R Jones	"Poster Session on the occurrences of the great salinity anomaly of the 1970s at the western approaches of the English Channel".
Gen:10		Withdrawn.
Gen:11	T Gammelsrød	"Cold and warm periods at weathership station $\ensuremath{\mathrm{M}}\xspace$ .
Gen:12	A Corten	"The recruitment failure of herring in the central and northern North Sea in the years 1974-78, and the mid-1970s hydrographic anomaly".
Gen:13		Withdrawn.
Gen:14	Sv. Aa. Malmberg	"A note on the Seventies anomaly in Icelandic waters".
Gen:15	H Loeng and L Midttun	"Climatic variations in the Barents Sea during the 1970s".
Gen:16	H Gjøsæter and H Loeng	"Distribution and growth of capelin in the Barents Sea in relation to water temperature in the period 1974-83".
Gen:17	R A Clarke	"Changes in the western North Atlantic during the decade beginning in 1965".
Gen:18	H A Martin, H D Dooley and W M Shearer	"Ideas on the origin and biological consequences of the 1970s salinity anomaly".
Gen:20	O Nakken and A Raknes	"On the geographical distribution of Arctic cod in relation to the distribution of bottom temperatures in the Barents Sea 1977-84".

## THEME SESSION ON "TIME SERIES ANALYSIS"

Chairman: Dr K Paine

D:1	H M Austin, D F Evans and B L Norcross	"Time series analyses as a means of examining long-term biological and environmental data sets".
D:5 POSTER	M D Nicholson	"Some applications of CUSUM techniques in fisheries research".
D:6	T A Hosmer	"Bivariate time series models of mean monthly temperatures on the Atlantic continental shelf".
D:9	R Johnston	"Multicollinearity in analysing the relationship between extended fisheries jurisdiction and seafood trade".
D:12		Withdrawn.
D:13	M J Fogarty	"Temperature/yield relationships for the Maine American lobster ( <u>Homarus</u> <u>americanus</u> ) fishery: a time series analysis".
J:2	B K Evtyukhova et al.	"The use of correlational and regression analyses in prognosing the herring year classes strengths in the Gulf of Riga".

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## THEME SESSION ON "ACOUSTIC METHODS"

## Chairman: Mr G Thorsteinsson

в:16	H Lassen and B Lundgren	"A mobile hydroacoustical integrator".
B:17		Withdrawn.
B:18	E Ona	"In <u>situ</u> observations of swimbladder compression in herring".
B:19	E Ona	"Tilt angle measurements on herring".
B:20		Withdrawn.
B:21	K G Foote, F H Kristiansen and H Solli	"Trial of a new, split-beam echo sounder".
B:22		Withdrawn.
B:24	D S Miller and C R Stevens	"Calibration of time-varied gain function in a hydroacoustic data collection system".
B:32	E J Simmonds	"The effect of mounting the equivalent beam angle of acoustic survey trans-ducers".
B:33	E J Simmonds, I B Petrie and F Armstrong	"An automated system of echo-sounder calibration using computer-controlled 3-wire suspension for standard targets".
B:34	J I Edwards et al.	"Herring, mackerel and sprat target strength experiments with behavioural observations".
B:36	A Orlowski	"Multichannel echo integration and its application for determining the relationship between fish distribution and environment conditions".
B:41		"Working Group on Fisheries Acoustic Science and Technology, Hirtshals, 2-4 May 1984".

## THEME SESSION ON "DENSITY-DEPENDENT RELATIONSHIPS"

## Chairman: M. A Maucorps

G:35		Withdrawn.
G:68	R M Cook and D W Armstrong	"Density effects on the recruitment and growth of North Sea haddock and whiting".
G:70	R S Bailey and P A Kunzlik	"Variation in growth and mortality rates of Norway pout, <u>Trisopterus</u> <u>esmarkii</u> (Nilsson)".
H:4	A C Burd	"Density-dependent growth in North Sea herring".
H:30	J Molloy	"Density-dependent growth in Celtic Sea herring".
Н:43	J Jakobsson and O Halldórsson	"Changes in biological parameters in the Icelandic summer-spawning herring".
н:61	A Saville <u>et al.</u>	"Variations in growth of herring in the Shetland area and to the west of Scotland in relation to population abundance".
J:4	O Rechlin	"Results of investigations of growth in length of Western Baltic spring-spawning herring in dependence on stock size and catch in number".
J:29	J Horbowy	"The dependence of the Baltic cod growth on food resources and stock density".
K:11	J T Addison and R C A Bannister	"Stock, recruitment and the long-term dynamics of populations of the lobster (Homarus gammarus L.)".
K:26	S A Murawski and M J Fogarty	"A spatial yield model for bivalve populations accounting for density-dependent growth and mortality".

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# THEME SESSION ON "STATISTICS IN RELATION TO ENVIRONMENTAL PROBLEMS" Chairman: Dr K Paine

D:2 POSTER	J F Heltshe and J Rosen	"Bootstrapping diversity indices: a method for using diversity indices as indicators of change in the marine environment".
D:10	H Pieters and H B Becker	"Time-related change of organic and inorganic nitrogen and other inter-relationships in the southern North Sea off the Dutch coast: a statistical analysis".
E:11	S Chang and A Crosby Longwell	"Examining statistical associations of malformation, cyto-pathology and cyto- genetic abnormality of Atlantic mackerel embryos with indicator levels of environmental contaminants in the New York Bight".
E:24		Withdrawn.
E:26	Gueng Ho Kim and R N Reid	"Multivariate determination of dumping- related impacts on benthic macrofauna community structure-analysis of New London (CT, USA) dredged material dumpsite data base".
E:46	J F Uthe	"Report on the <u>ad hoc</u> Statisticians' Workshop on Contaminant Trend Monitoring in Fish Stocks, Halifax, 31 January - 2 February 1984".

## THEME SESSION ON "PHYSICAL AND CHEMICAL FLUXES"

Chairman: Professor J Meincke

C:10	R J Chapman	"North Sea nutrient sampling in 1984 by the Fisheries Laboratory, Lowestoft, in support of C.Res.1976/4:6 and C.Res.1978/4:2".
C:15	M S Fedoch and J C Munday Jr.	"The occurrence of turbid nearshore waters of the Northeast United States as detected by LANDSAT".
C:24	J Backhaus	"Estimates of the variability at low frequency currents and flushing times of the North Sea".
C:28	H Dahlgaard et al.	"Radio/Caesium transport from the Irish Sea via the North Sea and the Norwegian coastal current to East Greenland: transport times and dilution factors".
E:7	G Kullenberg	"The Nantes Symposium and Workshop on Contaminant Fluxes through the Coastal Zone: a summary report".
E:9	S Rowlatt et al.	"Sewage sludge dumping and the com- position of sediments and suspended particulate matter in the eastern Irish Sea".
E:10	W C Phoel, J P Thomas and J W Duggan	"Changes in oxygen consumption by the seabed of the New York Bight Apex, 1974-83".
E:14	S S Berman <u>et</u> <u>al.</u>	"A proposal for an intercomparison of methods for the determination of metals in suspended particulate material in seawater".
E:25		Withdrawn.
E:39	G Topping and J M Bewers	"A proposal for the inclusion of surveys of metals in seawater in the 1985 ICES Baseline Study of Contaminants in the Oslo Commission and NAFO areas".
E:40	D Cossa and P Courau	"Report of Section 4-Round Robbin Inter- calibration for total mercury in sea- water".
E:44	S S Berman	"ICES 7th Round Intercalibration for trace metals in biological Tissue. ICES 7/TM/BT (Part 1).Preliminary report".
E:45	G Topping and S S Berman	"ICES Quality Assurance Programme. Proposals and timetable for 2nd part of ICES 7th Trace Metal Intercomparison Exercise for Biological Tissue".

## THEME SESSION ON "STOCK ASSESSMENT METHODS"

Chairman: Mr D de G Griffith

D:3	J G Pope	"The performance of short-cut methods for catch forecasts".
D:4	S Stevens	"A method for weighting the residuals in separable VPA".
D:7	T Sigurdsson	"A new method for smoothing length distributions and sharpening peaks due to different year classes".
D:8	S Hanna	"Statistical analysis of fleet behaviour in multispecies fisheries".
G:5	J G Shepherd	"Status quo catch estimation and its use in fishery management".
G:15	R Millner	"Predicting North Sea flatfish recruitment from Young Fish Surveys".
G:16	J G Pope and J G Shepherd	"On the integrated analysis of catch at age and groundfish survey or cpue data".
G:49	P Lewy and E Hoffmann	"Estimation of year class strength of plaice in the Kattegat, 1980-83".
G:61	J A Pereiro and P Pallarés	"Consequences of introducing errors in the values of input parameters in the length distribution analysis (R Jones), as applied to the Northern stock of hake".
G:62	J A Pereiro	"Estimation of fishing mortality in the 'Northern' stock of hake from length distribution analysis (R Jones), using 6 years' average catch per length class (1977-82)".
G:63		Withdrawn.
G:65	J A Pereiro and A Fernández	"Some correlations between cpue series of hake (Northern stock)".
H:5	A C Burd and T J Hulme	"Prediction of herring recruitment from IYHS data".
H:13	O Hagström	"Separation of young herring index in spring- and autumn-spawned components in the Skagerrak-Kattegat area".
H:35	M Sinclair et al.	"Stock assessment problems in Atlantic herring ( <u>Clupea harengus</u> ) in the Northwest Atlantic".

# Theme Session on "Stock Assessment Methods" (ctd)

н:47	0 Moura	"Application of the Bhattacharya's method to the resolution of a pilchard length distribution off the Portuguese coast into their Gaussian components".
J:18	R Parmanne and V Sjöblom	"The abundance of spring-spawning Baltic herring larvae in the seas around Finland in 1982 and 1983 and the corre- lation between the zooplankton abundance and the herring year class strength".
J:20	R Parmanne and V Sjöblom	"Distribution of Baltic herring off the coast of Finland in 1981 and 1982 according to VPA and cpue data".
J:24	E Aro and V Sjöblom	"Fishing effort and catch per unit effort of cod in Finnish fisheries in 1976-82".
K:10	R C A Bannister and J T Addison	"The effect on yield and biomass per recruit of changes in fishing mortality and size at first capture in the fisheries for lobster, Homarus gammarus L., in England and Wales".
K:14		Withdrawn.
K:15	R K Mohn, G Robert and D L Roddick	"Status and harvesting strategies for Georges Bank scallop stock (NAFO SA 5Ze)".
K:22	G Jamieson	"Summary of the North Pacific Workshop on Recent Advances in Stock Assessment and Management of Invertebrates, May 7-10, 1984, Nanaimo, B.C., Canada".
K:23	M J Fogarty and S A Murawski	"An evaluation of two delayed recruitment models for Crustacean fisheries".
K:25	A M T Lange, M P Sissenwine and E D Anderson	"Yield analysis for the long-finned squid, $\underline{\text{Loligo}}$ $\underline{\text{pealei}}$ (LeSueur)".
K:28	M J Figueiredo	"Attempts to estimate growth and natural mortality of $\underline{\text{Nephrops}}$ off the Portuguese coast".
K:35	T R W Howell and D I Fraser	"Observations on the dispersal and mortality of the scallop ( $\underline{\text{Pecten}}$ $\underline{\text{maximus}}$ )".
K:49	G Y Conan	"Do the assumptions commonly used for modelling populations of finfish apply to Shellfish species?".
L:23	W Nellen	"An approach for a hypothesis on the fecundity of bony fish".

# Theme Session on "Stock Assessment Methods" (ctd)

M:3	P Gros et P Prouzet	"Modèle stochastique de l'évolution des captures de saumon de printemps sur l'Aulne de 1973 à 1980".
M:6	B Hansen	"Assessment of a salmon stock based on long-line catch data".
	M F O'Connell, E G M Ash and N M Caines	"Factors affecting the expenditure of effort in the commercial Atlantic salmon (Salmo salar L.) fishery in Conception Bay, Newfoundland".
M:23	W M Shearer	"The natural mortality at sea for North Esk salmon".
M:26	C Ph. Goodyear	"A population simulation model for Atlantic salmon".
Assess:1	9*	"Report of Working Group on Methods of Fish Stock Assessments, Copenhagen, 11-15 June 1984".
Assess:22	2* Ø Ulltang	"Review of the handling of predation data and data on eventual changes in weight at age and age at first maturity".

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<sup>\*)</sup> Also allocated to Theme Session on "ACFM and Assessment Working Group Reports".

# THEME SESSION ON "FISH SURVEY METHODS"

Chairman: Dr J Netzel

G:58	H-P Cornus	"Stratification of North Sea cod standard area based on long-term density distribution of 1-group cod from 1969 to 1982".
G:59	H-P Cornus	"Stratification of East Greenland trawlable area based on 1980-83 density distribution of cod".
G:60		Withdrawn.
н:14	S Arbault, P Camus et R Chevalier	"Estimation de la production d'oeufs de maquereau au cours de la campagne 'Thalassa' (21 juin - 18 juillet 1983) à partir d'un échantillonage stratifié".
H:38	S A Iversen and T Westgård	"Mackerel egg investigations in the North Sea".
H:58	P Hopkins	"Improving the efficiency and precision of mackerel egg production estimates".
H:70	J G Pope and L Woolner	"An investigation of the precision of the 1983 Western mackerel egg survey".
J:3	N Brielmann	"On the analysis of larvae of the Rügen spring herring for estimating the Ogroup in ICES Sub-regions 22 and 24".
J:6	N Schulz and W Grygiel	"First results of intercalibration of young fish trawls used in the Baltic Sea by GDR and Poland".
L:22	P Munk and V Christensen	"Distribution of herring larvae at Aberdeen Bank, Buchan Area, September 1983".
L:31	T Herra and S K Grimm	"Comparison of effectiveness of Bongo and Hensen nets in ichthyoplankton sampling".
L:40	J Scabell and N Jönsson	"A quantitative method for obtaining defined samples of spawn-bearing substrate".

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# THEME SESSION ON "DISTRIBUTION AND ABUNDANCE IN RELATION TO ENVIRONMENT"

## Chairman: Mr B Vaske

C:3	T Laevastu	"The magnitude of the effects of temperature anomalies on the fish stocks as compared to the effects of fishing".
G:11	R De Clerck	"Tagging results of mature dab in the Southern Bight".
G:20	L Woolner	"Catch regions of the North Sea and their relation to depth and benthic regions".
G:48	O R Godø	"Immigration and emigration of cod in the spawning areas Lofoten and Møre".
G:67	A W Newton	"Scottish saithe tagging experiments in the North Sea and in Division VIa".
H:8	A C Shevchenko	"Peculiarities of blue whiting feeding migrations in the Norwegian Sea in summer 1983".
H:24	S Sveinbjörnsson, O S Astthorsson and Sv. Aa. Malmberg	"Blue whiting feeding migration in relation to environmental conditions in the area between Iceland and Faroes in June 1983".
Н:37	S A Iversen and R Ljøen	"Norwegian sprat investigations in the North Sea in later years".
H:44	R Sohöne	"Investigations on blue whiting in the North Sea, west of the British Isles, off Faroe Islands and in the Iceland/ East Greenland area in February/March 1984".
H:48	O Moura and G A dos Santos	"Relating pilchard abundance to solar activity".
H:52	K MacKenzie and S Mehl	"The cestode parasite <u>Grillotia angeli</u> as a biological tag for mackerel in the eastern North Atlantic".
Н:53	K MacKenzie, R Smith and H H Williams	"Aspects of the biology of <u>Grillotia</u> angeli (Dollfus, 1969) (Cestoda: Trypanorhyncka) and its use as a biological tag for mackerel and other fish".
J:13	G Otterlind	"Cod migration and transplantation experiments".

Theme Session o	on "Distribution and A	undance in Relation to Environment (ctd)
J:14 G	Otterlind	"On fluctuations of the Baltic cod stock".
J:16 G	Otterlind	"The Rügen herring in Swedish waters, with some general remarks on herring population problems".
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K:34 C J Chapman "Relationships between temperature and Scottish Nephrops landings".
L:39 P C Reid "Year-to-year changes in zooplankton biomass, fish yield and fish stock in the North Sea".

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