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MCAP:02 Advisory Committee on Fisheries Management (ACFM) minutes from October 2004 meeting
MCAP:03 MCAP-MICC report from meeting (4–5 April 2005)
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A:02 Study Group on ICES Publication Practices regarding Ethical Concerns on the use of animals in scientific research [SGPPE]

**Fisheries Technology Committee (B)**

B:01 Workshop on Unaccounted Fishing Mortality [WKUFM]
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D:02 Study Group on Redfish Stocks [SGRS]
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D:03 Study Group on Redfish Stocks [SGRS]
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D:04 Workshop on Advanced Fish Stock Assessment Techniques [WKAFAT]
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D:05 International Bottom Trawl Survey Working Group [IBTSGW]

D:06 Study Group on Multispecies Assessments in the North Sea [SGMSNS]
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Study Group on the Estimation of Spawning Stock Biomass of Sardine and Anchovy [SGSBSA]

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Planning Group for Herring Surveys [PGHERS]

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Study Group on Salmon Scale Readings [SGSSR]
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Theme Session on Multidisciplinary Approaches to the Identification of Stock Structure of Small Pelagics: Implications for Assessment and Sustainable Management (K)

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<td>Lorenz Hauser, Gary R. Carvalho, and Emma M. C. Hatfield: Big questions on small fish: Conceptual, methodological and analytical challenges in the population identification of pelagic species</td>
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<td>Mark Dickey-Collas, Cindy van Damme, and Lotte Worsøe Clausen: Within stock structure and TACs: an investigation into the spawning origin of North Sea herring using otolith microstructure and the dynamics of Downs herring</td>
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<td>D. E. Hay and T. Beacham: Stock identification of eulachon (Thaleichthys pacificus), an anadromous smelt in the Pacific</td>
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K:15  **C. I. Zhang and D. E. Hay**: Stock identification of small pelagics: a different perspective from the western Pacific


K:17  **Ken MacKenzie, Pablo Abaunza, and Neil Campbell**: The use of parasites as biological tags in multidisciplinary stock identification studies of small pelagic fish

K:18  **Deirdre Brophy, Stefano Mariani, Maria E. Mannarelli, Gary R. Carvalho, Pauline King, and Emma M. C. Hatfield**: Complex population structure in juvenile Atlantic herring in Scottish west coast sea lochs: a multi-marker approach

K:19  **S. Mattiucci, P. Abaunza, and G. Nascetti**: Parasites of the genus Anisakis as “biological tags”: their genetic identification for horse mackerel stock definition in a multidisciplinary approach

K:20  **Daniel E. Ruzzante, Stefano Mariani, Dorte Bekkevold, Carl Andre, Henrik Mosegaard, Lotte A. W. Clausen, Thomas G. Dahlgren, William F. Hutchinson, Emma M. C. Hatfield, Else Torstensen, Jennifer Brigham, E. John Simmonds, Linda Laikre, Lena C. Larsson, René J. M. Stet, Nils Ryman, and Gary R. Carvalho**: Mixed stock analysis in a migratory pelagic fish, Atlantic herring (*Clupea harengus*) in the North Sea and adjacent areas

K:21  **Robin S. Waples**: Insights into stock structure of marine species: Opportunities and challenges

K:22  **Tiit Raid, Georges Kornilovs, and Heli Shpilev**: Stock diversity of herring in the Northern Baltic: is the separate assessment of herring natural stock units possible?

K:23  **Maria Antsalo, Aril Slotte, Dankert Skagen, and Øyvind Ulltang**: Abundance estimation of the western spawning stock component of the Northeast Atlantic mackerel (*Scomber scombrus*) with the use of Norwegian tagging data


**Theme Session on the Spatial Dimension of Ecosystem Structure and Dynamics (L)**

L:01  **Elizabeth T. Methratta and Jason Link**: Vital population rates across multiple spatial scales: A geostatistical analysis


L:03  **Aril Slotte, Arne Runde, Georg Skaret, Bjørn Erik Axelsen, Anders Fernø, Arne Johannessen, Leif Nøttestad, and Jan Torle Øvredal**: Spatial and temporal overlap and trophic interactions between Atlantic saithe (*Pollachius virens*) and Norwegian spring-spawning herring (*Clupea harengus*) on herring spawning grounds

L:04  **Xabier Irigoien, A. Urtizberea, L. Zarauz, M. Santos, Y. Sagarminaga, P. Alvarez, and A. Uriarte**: Factors affecting sardine and anchovy egg distribution in the Bay of Biscay

L:05  **Arne Johannessen, Leif Nøttestad, Bjørn Erik Axelsen, Anders Fernø, Rune Vabo, and Jan Torle Øvredal**: A natural "model" environment (MARE MINIMUM) for studies of ecosystem dynamics with emphasis on herring spawning dynamics
Tu H. Truong, Yue Jiao, Farhad Azadivar, and Brian J. Rothschild: SMAST Decision Support System: a spatially quantitative tool for ecosystem fisheries management

Jacob I. Nogueira and Kevin D.E. Stokesbury: Implications of marine protected areas on sea scallop recruitment in the Northwest Atlantic

Vlad Kostylev and Charles G. Hannah: Benthic habitat mapping: The habitat template approach

S.I. Rogers, P.D. Eastwood, C.A. Houghton, and C. Mills: Developing a UK framework for defining the spatial interactions between human activities in the marine environment

Jonathan Side and Paul Jowitt: Incorporating spatial dimension into descriptive fishery models

Fabio Pranovi: The source-sink model and the fishing disturbance: a dynamic perspective

Withdrawn


Withdrawn

Mathieu Woillez, Pierre Petitgas, Jacques Rivoirard, Jean Charles Poulard, and Nicolas Bez: Indices for capturing spatial pattern and change across years of a fish population: an application on European hake (Merluccius merluccius) in the Bay of Biscay

Leonie Robinson, Simon Greenstreet, and Gerjan Piet: The importance of including spatial dynamics in models of fisheries disturbance

Withdrawn


Beatriz Mendes: Spatial distribution of seven species captured by bottom trawling in Algarve (Portuguese southern coast): using multivariate geostatistical methods

S. Vaz, C. S. Martin, B. Ernande, F. Coppin, S. Harrop, and A. Carpentier: Using geostatistics to quantify annual distribution and aggregation patterns of fishes in the Eastern English Channel

James E. Overland and N. A. Bond: Upscaling unique ecosystem-climate relationships for the Bering Sea

Pierre Petitgas and Sandrine Vaz: Investigating the interaction between population spatial organisation and population dynamics using an age-structured multi-site matrix model on anchovy in Biscay

Esben Moland Olsen, W. Melle, S. Kaartvedt, J. C. Holst, and K. A. Mork: Distribution and feeding of herring (Clupea harengus) in the Norwegian Sea during spring, as determined from generalised additive models

A. Sinclair, K. Conway, and W. Crawford: Associations between bathymetric, geologic and oceanographic features and the distribution of the British Columbia groundfish trawl fishery
Sophie Bertrand, Erich Diaz, Boris Devitte, Gordon Swartzman, Arnaud Bertrand, and Mariano Gutiérrez: From Kelvin waves to fishers’ trajectories: evidences of multi-scale teleconnections in the Peruvian upwelling ecosystem

Evald Ojaveer and Margers Kalejs: The Baltic Sea as habitat

Aida Campos, Paulo Fonseca, Tereza Fonseca, and Joaquim Parente: Definition of fishing trip types in the bottom trawl fisheries off the Portuguese coast

Vadim A. Shtrik: The changes of marine algae flora and phytocenoses of Barents Sea (Russian coast) as the indicator of climatic fluctuations of North Atlantic region

Colm Lordan, Glen Nolan, Fiona FitzPatrick, and Richard Briggs: Using UWTV surveys to test conceptual ecosystem models of Nephrops population distributions

Michael C. Marino II and Kevin D. E. Stokesbury: Impact of sea star predation on sea scallops in marine protected areas on Georges Bank

Monika Haugland, Jens Christian Holst, Marianne Holm, and Lars Petter Hansen: Feeding of Atlantic salmon (Salmo salar L.) postsmolts in the Northeast Atlantic


Guillermo Boyra, Paula Alvarez, Unai Cotano, and Andres Uriarte: Spatial onset of anchovy recruitment in the Bay of Biscay: JUVENA surveys

Fátima Cardador, Maria de Fátima Borges, Corina Chaves, and Steve Groom: Hake (Merluccius merluccius L.) spatial and temporal recruitment variability as a key species in the Portuguese upwelling ecosystem

Evelina Lindén, Maiju Lehtiniemi, Sini Heino, and Markku Viitasalo: Predator-prey interactions in a changing habitat: examples from Baltic littoral planktivores

Bradley P. Harris and Kevin D. E. Stokesbury: Mapping benthic substrate along the northwest Atlantic Ocean continental shelf with underwater video surveys

Theme Session on Impact of External Forcing on Flows in Marine Trophic Networks (M)


Dave Schoeman, Anthony Richardson, Martin Edwards, and Reg Watson: Standing back and taking in the view: broad-scale impressions of pelagic ecosystem function

Andrés C. Milesi, Hugo Arancibia, and Sergio Neira: Simulating the effects of El Niño Southern Oscillation and fishing effort on the marine ecosystem of central Chile

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M:06 Maiju Lehtiniemi and Eveliina Lindén: Exotic predatory cladoceran Cercopagis pengoi adapts to the food chain as a competitor for mysid shrimps and food for planktivorous fishes

M:07 Kenneth Sherman and Porter Hoagland: Driving forces affecting resource sustainability in large marine ecosystems

M:08 John Steele, J. Bisagni, J. Collie, D. Gifford, M. Sieracki, and B. Sullivan: Constructing end-to-end budgets for shelf ecosystems


M:10 Withdrawn

M:11 Alida Bundy: On fishing and forcing: gauging the role of environmental and anthropogenic forces on the ecosystem dynamics of the eastern Scotian Shelf, Canada

M:12 Georg Skaret and Tony Pitcher: The impact of a fluctuating herring stock on the Norwegian Sea ecosystem


M:14 Withdrawn


M:16 Kathryn Lees, Steve Mackinson, Catherine Scott, and Chris Frid: Characterising climatic and ecological regime shifts in marine ecosystems

M:17 Howard Townsend: Modeling the influence of water quality on the Chesapeake Bay fisheries ecosystem

M:18 Sergio Neira and Hugo Arancibia: Simulating the effects of internal and external forcing in the trophic structure and energy flows in the upwelling system off central Chile

M:19 Villy Christensen: Evaluating environmental and anthropogenic impact on marine ecosystems: a cross-system comparison

M:20 Artūras Razinkovas, Juratė Lesutienė, and Rita Jankauskienė: The role of introduced Ponto-Caspian crustaceans in the Curonian lagoon ecosystem

M:21 James E. Overland, Jennifer Boldt, and Phyllis J. Stabeno: Multiple indicators track major ecosystem shifts in the Bering Sea

M:22 Sheila J. S. Heymans, S. Guénette, V. Christensen, and A. W. Trites: Changes in Gulf of Alaska ecosystems due to ocean climate change and fishing

M:23 Simone Libralato, Marta Coll, Sergi Tudela, Isabel Palomera, and Fabio Pranovi: Quantifying ecosystem overfishing with a new index of fisheries’ impact on marine trophic webs


Poster Analysing the variance partitioning on the effects of soak time, region and year in a Scottish mixed fishery
Kathryn Lees, Steve Mackinson, Catherine Scott, and Chris Frid: Driving ecological regime shifts in Ecopath models of the UK’s marine environment

Miina Karjalainen, Eveliina Lindén, Satu Viitasalo, and Markku Viitasalo: The effects of cyanobacteria on copepod production in the Gulf of Finland, Baltic Sea

**Theme Session on Elasmobranch Fisheries Science (N)**

Emma Jones, Doug Beare, Helen Dobby, and Kirsteen MacKenzie: Comparison of trends in long-term survey data for *Squalus acanthias* with a preliminary stock assessment for this species

N. Baumgartner, A. I. Arkhipkin, Z. N. Shcherbich, and P. Brickle: Age, growth and maturity of the broad nose skate, *Bathyraja brachyurops* (Fowler, 1910) and the gray tail skate, *Bathyraja griseoauda* (Norman, 1937) around the Falkland Islands

Mark Meekan and Mike Cappo: Non-destructive assessment of the effects of small-scale fisheries on tropical shark stocks

J. C. Mahè and J. C. Poulard: Spatial distribution and abundance trends of main elasmobranch species in the Bay of Biscay and Celtic Sea from bottom trawl surveys

Ron Heintz, Lawrence Schuafler, Mike Sigler, and Lee Hulbert: Fatty acid composition of sleeper shark (*Somniosus pacificus*) liver and muscle reveals nutritional dependence on planktivores

Niels Daan, Henk Heessen, and Remment ter Hofstede: North Sea elasmobranchs: distribution, abundance and biodiversity

Nils-Roar Hareide, Dominic Rihan, Myles Mulligan, Philip McMullen, Greta Garnes, Maurice Clark, Paul Connolly, Peter Tyndall, Robert Misund, Dag Furevik, Andrew Newton, Kjartan Høydal, Tom Blasdale, and Odd Børre Humborstad: A preliminary investigation on shelf edge and deepwater fixed net fisheries to the west and north of Great Britain, Ireland, around Rockall and Hatton Bank

Sarah Fowler and Charlotte B. Mogensen: Why hasn’t fisheries science enabled managers to implement precautionary elasmobranch management, and could other tools complement their efforts?

Persefoni Megalofonou, Dimitris Damalas, and G. De Metrio: Size, age and sexual maturity of blue shark, *Prionace glauca*, in the Mediterranean Sea

Withdrawn

Konstantin V. Dreventyak, A. V. Dolgov, K. M. Sokolov, E. V. Gusev, and A. A. Grekov: Skates in the Barents Sea: stock status and catch by fishing fleet

F. Serena, M. Barone, C. Mancusi, and A. J. Abella: Reproductive biology, growth and feeding habits of *Raja asterias* (Delaroche, 1809), from the north Tyrrhenian and Ligurian sea (Italy), with some notes on trends in landings


Vladimir Laptikhovsky, Alexander Arkhipkin, Paul Brickle, and Joost Pompert: Biology and fishery of rays, *Bathyraja brachiurops* and *B. griseoauda* around the Falkland Islands

Withdrawn
Emma Jones, Maurice Clark, Helen Dobby, Doug Beare, Nolwenn Trinkler, Finlay Burns, Francis Neat, Paul Fernandes, and Kevin Peach: The potential impact of commercial fishing activity on the ecology of deepwater chondrichthians from the west of Scotland


Bárbara Serra-Pereira, I. Figueiredo, P. Bordalo-Machado, I. Farias, T. Moura, and L. Serrano Gordo: Description of Portuguese mixed-fisheries with positive landings of Raja brachyura Lafont, 1873 and Raja montagui Fowler, 1910

Juan Carlos Quiroz and Rodrigo Wiff: Demographic analysis and exploitation vulnerability of beaked skate (Dipturus chilensis) off the Chilean austral zone

F. Serena, C. Mancusi, M. Barone, and A. J. Abella: Abundance and distribution of rays in the south Ligurian and north Tyrrhenian sea

Michael J. Gallagher and Conor P. Nolan: Age, growth and maturity of four commercial bathyraja species from the Falkland Islands’ Interim Conservation Zone

Graham Johnston and Maurice Clarke: Separation of species data from national landing figures


Edd Codling, Ciaran Kelly, and Maurice Clarke: Comparison of the effects of exploitation on theoretical long-lived fish species with different life-history strategies and the implications for management

Francesco Ferretti, Ransom A. Myers, Fabrizio Serena, and Paolo Sartor: Long-term dynamics of chondrichthyan fish community in the upper Tyrrenian Sea

F.A. Patokina and F.F. Litvinov: Food composition and distribution of elasmobranchs on the shelf and upper slope of the Eastern Central Atlantic

F. Litvinov and V.V. Laptikhovsky: The quantitative assessment of heterodonty in the blue shark Prionace glauca and its modification through the life history

Inês Farias, I. Figueiredo, B. Serra-Pereira, P. Bordalo-Machado, T. Moura, and L. Serrano Gordo: Diet comparison of four ray species [Leucoraja naevus (Müller & Henle, 1841); Raja brachyura (Lafont, 1873); Raja clavata (Linnaeus, 1758); and Raja montagui (Fowler, 1910)] caught along the Portuguese continental coast

Persefoni Megalofonou and A. Chatzispyrou: Observations on the biology and ecology of the deep sea shark, Centrophorus granulosus, in the eastern Mediterranean Sea

Rui Coelho, Ivone Figueiredo, Pedro Bordalo Machado, and Karim Erzini: Depth distribution of the velvet belly lantern shark, Etmopterus spinax, in southern Portugal

Theme Session on Connecting Physical-Biological Interactions to Recruitment Variability, Ecosystem Dynamics, and the Management of Exploited Stocks (O)


O:03 Yu. M. Lepesevich: Abundance of Northeast Arctic haddock year classes and its governing factors

O:04 K. Šwitek, A. Gallego, and M. Heath: Modeling the growth of sandeel larvae as a function of temperature and zooplankton concentration: “Do larvae eat temperature?”

O:05 H.-H. Hinrichsen and H. Baumann: Combining otolith microstructure analysis and hydrodynamic modeling: an approach to link Baltic sprat larval and juvenile growth to variability of the physical environment

O:06 Withdrawn

O:07 Åse Husebø, Aril Slotte, and Arild Folkvord: Growth differences in juvenile Norwegian spring-spawning herring (Clupea harengus L.) related to temperature conditions in the nursery areas

O:08 Åse Husebø, Erling Kåré Stenevik, Aril Slotte, Frode Vikebo, Arild Folkvord, and Petter Fossum: Size-selective mortality in Norwegian spring-spawning herring juveniles?

O:09 Enrique Portilla, Doug Beare, Eddie McKenzie, I. Gibbs, F. Burns, and Dave Reid: Small-scale variation on mackerel egg mortality over a high density patch

O:10 Thomas Neumann and Wolfgang Fennel: A method to represent vertical migration of zooplankton in 3D-Eulerian models

O:11 Withdrawn


O:13 Lauri Urho: Environmental changes and varying conditions shape reproduction limits and interactions in the Baltic fish community

O:14 Akihide Kasai and Kouset Komatsu: Transport and survival processes of eggs and larvae of jack mackerel in the East China Sea

O:15 Yoshiki Kato and Shingo Kimura: Effects of turbulence on the ingestion rate and survival rate of bluefin tuna, Thunnus thynnus, larvae

O:16 J. Portela, J. Wang, M. Sacau, G. J. Pierce, M. B. Santos, and X. Cardoso: Variability in the abundance of the argentine squid Illex argentinus in relation to environmental conditions on the high seas of the Patagonian Shelf

O:17 Benjamin Planque, Pascal Lazare, Marc Segond, Cyril Fonlupt, and Denis Robillard: Detection and historical reconstruction of mesoscale hydrographic features: an application to the Bay of Biscay continental shelf

O:18 U. Hochbaum, M. A. Peck, W. Kühn, M. A. St. John, and C. Schrum: Simulating the influence of climate variability on larval fish survival: An example using sprat (Sprattus sprattus) in the southern North Sea
T. Kristiansen, R. G. Lough, F. E. Werner, Ø. Fiksen, and L. J. Buckley: A comparison of larval cod (Gadus morhua) growth models applied to the Georges Bank and Norwegian Sea regions

Lewis S. Incze, Huijie Xue, Danya Xu, Yong Chen, Carl Wilson, David Greenberg, Robert Steneck, Minoru Kanaïwa, Peter Lawton, Randall Losier, Frederick Page, Richard Wahle, and Nicholas Wolff: Multiple grid-scale model for egg production, larval transport, recruitment and fishery production for lobsters in the Gulf of Maine

Laure Pecquerie, Pierre Petitgas, Martin Huret, and Alain Ménèsguen: Which time and spatial scales should be used to model anchovy seasonal distribution in the Bay of Biscay according to physical and biological conditions?

E.M. Karasiova and A.S. Zeeza: Inter-annual variability of sprat abundance at early ontogenetic stages in the Gdansk Deep of the Baltic Sea: retention contribution into high density aggregation formation


J. P. Jonasson, G. Thorarinsdottir, H. Eiriksson, and G. Marteinsdottir: The effects of environment and fishing on the abundance and condition of Iceland scallop in Breidifjordur


J. E. Stiansen, S. Sundby, A. Jenkins, and J. E. O. Nilsen: Swells as a turbulence source in shallow water

Øyvind Fiksen, F. Vikebo, T. Kristiansen, and S. Sundby: Drift and growth of larval Northeast Arctic cod emerging from behavioural rules

Corinna Schrum, Irina Alekseeva, and Michael St. John: Modelling zooplankton and characteristic larval feeding environments in the North Sea with an NPZD model

Andrei Makarchouk: Interannual and seasonal changes of the mortality rates of sprat eggs in the Gotland Basin (Eastern Baltic Sea)

Peter Munk, S. Jonasdottir, and H. A. Thomsen: The linkage between frontal hydrography and distributional patterns of meso-zooplankton and fish larvae

Mohamed Elzeir and Steve Hay: Investigating effect of circulation on jellyfish transport in the waters around Shetlands

A. I. Krysov and E.V. Sentryabov: Biological and hydrographic aspects of the Norwegian spring-spawning herring migration variations before and after collapse in the 20th century

Dimitrios Damalas, M. Apostolopoulou, C. Yannopoulos, and P. Megalofonou: Environmental, spatio-temporal and operational effects on long-line swordfish catch rates in the Eastern Mediterranean Sea

Pierre Petitgas, Pascal Lazure, and Patrick Grellier: Validation of a biophysical larvae drift, growth and survival model on anchovy in Biscay with a framework for its operational use

Pavel P. Chernyshkov, N. M. Timoshenko, and A. M. Siroti: Physical-biological factors affecting recruitment of small pelagic fish off the Northwest African coast

Alexander M. Siroti, S. N. Burykin, and P. P. Chernyshkov: Application of satellite altimetry for fisheries research

Andrei S. Krovnin and G. P. Moury: How climate affects year-class strength: case studies for three Northeast Atlantic commercial fish stocks
**O:38** J.F. Caddy, E. Wade, T. Surette, M. Hebert, and M. Moriyasu: Using an empirical traffic light procedure for monitoring and forecasting in the Gulf of St Lawrence fishery for the snow crab, *Chionoecetes opilio*

**O:39** B.E. Scott, J. Sharples, O. Ross, and K. Camphuysen: Hotspots: Marine top predator foraging habitat predicted from a detailed understanding of temporal and spatial oceanographic processes

**O:40** Mario Pinho, J. Gonçalves, and O. Melo: Abundance and potential fishing estimates of the deep-water red crab (*Chaceon affinis*) off the Azores

**O:41** Alexander Kempf, Jens Floeter, and Axel Temming: Importance of variations in 0-group fish predation mortalities for recruitment success and implications for fisheries management

**O:42** Francisco Leotte, M. Guerra, C. Silva, and M. J. Gaudêncio: Characterisation of bottom sediment on *Nephrops Norvegicus* (Decapoda: Nephropidae) grounds off the southwest and south-eastern coast of Portugal

**O:43** Jari-Pekka Pääkkönen, Sanna Rönkkönen, Miina Karjalainen, and Markku Viitasalo: Growth of juvenile three-spined stickleback (*Gasterosteus aculeatus*) sublethally exposed to harmful algal blooms in the Baltic Sea

**O:44** Konrad Thorsisson: The spawning of cod (*Gadus morhua* L.) in Eyjafjordur, N-Iceland and the survival of its larvae

**O:45** D. Demain, A. Gallego, E. Jones, and I. Priede: Temporal patterns of settlement and dietary changes of 0-group cod, haddock and whiting.


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**Theme Session on Regional Ecosystem Pilot Projects, Ecosystem Forecasting, and Operational Oceanography: Comparing and Contrasting Scientific Tools, Strategies, Outputs, and Applications (P)**

**P:01** Juha Flinkman: Developing techniques for operational zooplankton monitoring in the Baltic Sea: adapting a CPR (Continuous Plankton Recorder) for small-size brackish water zooplankton, and ensuring the compatibility of new CPR data and old WP-2 net data

**P:02** Wulf Greve: The biometeorological closure of the gap between trophic level modelling and the operative prognosis of population seasonality

**P:03** Andrew Kenny: An integrated ecosystem assessment of the North Sea – A pilot project

**P:04** Jake Rice, Co-authors from ESSIM and GOSLIM: Documentation needed for conducting and reporting on integrated ecosystem assessments

**P:05** Skip McKinnell and Ian Perry: Marine ecosystem reporting and analysis in PICES; from Shanghai to Acapulco to Honolulu and all points between!

**P:06** Joseph Arbour: Development of an Integrated Management Plan for the Eastern Scotian Shelf, Nova Scotia, Canada

**P:07** Odette Paramour, Leonie Robinson, Gerjan Piet, Stuart Rogers, and Jake Rice: Integrated ecosystem assessments for regional pilot projects

**P:08** Antonio Bode, Charo Carballo, Nicolás González, Jorge Lorenzo, Alejandra Roura, Manuel Varela, and Marta M. Varela: Trends in fertilization and phytoplankton biomass in a coastal upwelling ecosystem
P:09  Withdrawn

P:10  D. Mountain, G. Harrison, W. Gabriel, and S. Gavaris: GoMA GOOS: A GOOS Pilot Project in the Gulf of Maine Region


P:12  Lewis Incze, Evan Richert, Nicholas Wolff, and Thaddeus Wheeler: A biological component for the Gulf of Maine Ocean Observing System

P:13  Nicolas Dupont and Benjamin Planque: Plankton community structure and production indicators in the Bay of Biscay, using a Laser Optical Plankton Counter

P:14  Teunis Jansen, Lena Larsen, Henrik Kjems-Nielsen, and Steen Silberg: InterCatch: Fisheries and stock assessment data processing and documentation system

Poster

P:15  Gema Martínez, Luís González, Jesús Torres, and Juan M. Corchado: Forecasting system for fishing effort in Galician craft fleet

Theme Session on Advances in Reproductive Biology: Methodology and Applications for Fisheries Science (Q)

Q:01  Andrei Makarchouk: Interannual changes in the time of spawning of sprat in the Gotland Basin (Eastern Baltic Sea) in relation to the hydrographical conditions and the structure of spawning stock

Q:02  Withdrawn


Q:04  Gudrún Marteinsdóttir: Historical variation in reproductive output of cod in Icelandic waters


Q:06  Svetlana Pianova: Reproductive adaptations of haarder (Liza haematocheila) to the new environment of the Russian South Seas

Q:07  P. J. Wright: Temporal variation in reproductive investment of cod and haddock in the North Sea

Q:08  Holger Haslob, Jonna Tomkiewicz, and Hans-Harald Hinrichsen: Spatial and temporal variability in Baltic sprat (Sprattus sprattus balticus S.) batch fecundity

Q:09  Aisling Lannin, E. Rogan and P. Connolly: A bet hedging strategy for hake enables maximum viable egg production

Q:10  Richard D.M. Nash, Olav S. Kjesbu, Anders Thorsen, Merete Fonn, and Maria Krüger-Johnsen: The potential importance of the paternal contribution to the ‘Stock Reproductive Potential’ of North-East Arctic cod (Gadus morhua)

Q:11  Christian Jørgensen, Bruno Ernande, and Øyvind Fiksen: Fisheries-induced life history evolution reduces per-biomass egg production of the Northeast Arctic cod stock
Q:12  
Anders Thorsen, O. S. Kjesbu, and P. R. Witthames: Estimation of potential and realised fecundity of fish

Q:13  
Yvan Lambert, Olav S. Kjesbu, Gerd Kraus, Gudrun Mateinsdottir, and Anders Thorsen: How variable is the fecundity within and between cod stocks?

Q:14  
Jon Eigil Skjæraasen, T. Nielsen, and O. S. Kjesbu: Timing and determination of potential fecundity in Atlantic cod

Q:15  
H. Murua, P. Álvarez, M. Korta, and L. Motos: European hake, Merluccius merluccius, spawning biomass assessed by an egg production method in the Bay of Biscay

Q:16  
Rosario Domínguez, F. Saborido-Rey, and H. Murua: Effects of proximate composition on fecundity and reproductive potential of Merluccius merluccius (L., 1758) at the Galician Coast

Q:17  
Caroline Durif, Sylvie Dufour, and Pierre Elie: Impact of individual morphological and physiological characteristics on the sexual maturation of the European eel (Anguilla anguilla)

Q:18  
João Pereira, Ana Costa, and Silvia Lourenço: An integrated historic perspective of female fecundity of the common squid Loligo vulgaris from Portuguese waters

Q:19  
James Kennedy, Peter R. Witthames, and Richard D. M. Nash: Temporal and spatial variation in fecundity of Irish Sea plaice

Q:20  
Ed Trippel: Reproduction to recruitment to recovery? Significance of parental effects to marine fish stocks

Q:21  

Q:22  
Gudmundur J. Oskarsson and Christopher T. Taggart: When it comes to recruitment variation in Icelandic herring, it is the eggs of the repeat spawners that make the difference

Q:23  
Jonna Tomkiewicz and Gerd Kraus: Timing of Baltic cod spawning and spawner demography

Q:24  
Poster  
Isabel González Herraiz and A. C. Fariña: Approach to the realized fecundity of Nephrops norvegicus in the Porcupine Bank

Q:25  
Poster  
A. Alday, A. Uriarte, M. Santos, I. Martín, A. Martinez de Murguia, and L. Motos: Stageing and ageing the degeneration of postovulatory follicles for the Bay of Biscay anchovy (Engraulis encrasicolus)

Q:26  
Withdrawn

Q:27  
Withdrawn

Q:28  
Poster  
Else Torstensen: Maturity classifications in herring – results of an exchange of digital images of gonads

Q:29  
Poster  
Rosario Domínguez, María Korta, Hilario Murua, F. Saborido-Rey, and Iñaki Quincoces: Variability in size at maturity of European hake (Merluccius merluccius) at Bay of Biscay and Galician Coast

Q:30  
Poster  
Nuala McQuaid and Richard Briggs: Sexual maturity of male Nephrops norvegicus (L.) in the Irish Sea

Q:31  
Poster  
Konstantin V. Drevetnyak and A. I. Kluev: On fecundity of Sebastes viviparus from the North East Arctic

Q:32  
Poster  
Hans Gerritsen and D. McGrath: Improving the consistency in the assignment of maturity stages
Q:33 Fran Saborido-Rey, R. Dominguez, D. Garabana, and T. Sigurdsson: S. mentella maturity ogive in the Irminger Sea and Iceland waters

Q:34 Withdrawn

Q:35 Withdrawn

Q:36 Rosario Dominguez and F. Saborido-Rey: New atretic structures identified in ovary of European hake (Merluccius merluccius, L. 1758) in Galician coast

Q:37 Withdrawn

**Theme Session on Marine Mammals: Monitoring Techniques, Abundance Estimation, and Interactions with Fisheries (R)**

R:01 Sophie Smout and Ulf Lindstrøm: The multi-species functional response of northeast Atlantic minke whales

R:02 Withdrawn

R:03 Tiu Similä: Interactions between herring fishery and killer whales in northern Norway

R:04 Arnt-Børre Salberg, Garry B. Stenson, Tore Haug, and Kjell T. Nilssen: Estimation of harp seal pup production in the Greenland Sea using spatial analyses on aerial survey data

R:05 Grégoire Certain, Claire Pusineri, Vincent Ridoux, and Vincent Bretagnolle: Trophic interactions between fisheries and small delphinids in the Bay of Biscay


R:07 Debra Palka: Evaluating assumptions underlying a line transect analysis of a 2004 Northwest Atlantic shipboard abundance survey for cetaceans

R:08 Clare B. Embling, P. G. Fernandes, P. S. Hammond, F. Armstrong, and J. Gordon: Investigations into the relationship between pelagic fish and dolphin distributions off the west coast of Scotland

R:09 Mette Mauritzen, H. J. Skaug, N. Øien, and U. Lindstrøm: Distributions, competitive and trophic interactions of cetaceans along the Barents Sea shelf edge

R:10 Kjell T. Nilssen and Ulf Lindstrøm: Use and selection of prey by harp seals during summer in the northern Barents Sea

R:11 J.A. Learmonth, P. Luque, M.B. Santos, I. A. P. Patterson, R. J. Reid, N. J. Spencer, and G. J. Pierce: Mortality and pregnancy rates in harbour porpoises in Scotland (UK) as estimated from stranded animals


R:13 J. A. Learmonth, G. Stowasser, G. J. Pierce, and C. F. Moffat: Predator–prey interactions – does fatty acid analysis provide the answers?
Callan D. Duck and Beth L. Mackey: Recent changes in grey seal pup production in Scotland

M.B. Santos, G. J. Pierce, E. N. Ieno, M. Addink, C. Smeenk, and C. C. Kinze: Harbour porpoise (Phocoena phocoena) feeding ecology in the eastern North Sea


Mike Lonergan, Peter Reijnders, Sophie Brasseur, Kai Abt, Svend Tougaard, Michael Stede, and Dave Thompson: A comparison of the population dynamics of two harbour seal (Phoca vitulina) populations in the southern North Sea

G. B. Stenson and M. O. Hammill: Quantifying uncertainty in estimates of Atlantic cod (Gadus morhua) consumption by harp seals (Phoca groenlandica)

Olle Hjerne, K. Lundström, and O. Karlsson: Effects of grey seal (Halichoerus grypus) predation on Baltic Sea fish stocks and fisheries

Kevin Robinson: Environmental factors affecting the fine-scale distribution of minke whales (Balaenoptera acutorostrata) in a dynamic coastal ecosystem

C. D. MacLeod, G. J. Pierce, and M. B. Santos: An examination of the potential effects on toothed whales of body size reduction in prey species resulting from over-fishing

C. D. MacLeod: Using available but imperfect datasets for monitoring trends in cetacean populations: a novel niche-based approach

Ruth M. Casper, S. N. Jarman, B. E. Deagle, N. J. Gales, and M. A. Hindell: Comparing the utility of otoliths versus fish DNA in seal scats for estimating diet

James R. Gilbert: Alternative approaches to estimation of harbor seal numbers: the role of spatial scale

Helen Bailey and Paul Thompson: Quantitative analysis of dolphin movement paths and their relationship with foraging


S. J. Canning, P. G. Evans, M.B. Santos, R. J. Reid, and G. J. Pierce: Distribution of and habitat use of white-beaked dolphins (Lagenorhynchus albirostris) along the Aberdeenshire (UK) coastline, with new information on diet

Rebeca Lago, G. Martínez, L. González, and J. Torres: Study of the spatial distribution of cetaceans in Galician waters from sighting data collected on-board fishing boats using GIS and remote sensing techniques

M. B. Santos, G. J. Pierce, R. Fernández, A. López, J. A. Martínez, and E. N. Ieno: Variability in the diet of bottlenose dolphins (Tursiops truncatus) in Galician waters and relationship with prey abundance

Withdrawn

Louise Cunningham and Callan D. Duck: Variability in harbour seal counts during consecutive aerial surveys

Line Bang Christensen and Steven J. D. Martell: A stochastic framework for reconstructing historical marine mammal abundance from catch records and sparse abundance information: application to the Southern minke whale


R:35  Tore Haug, Kjell Tormod Nilsen, Lotta Lindblom, and Ulf Lindstrøm: Diets of hooded seals in coastal and drift ice waters along the east coast of Greenland

R:36  F. Marubini, G. J. Pierce, and P. G. Evans: What information on harbour porpoise distribution can be extracted from heterogenous datasets?

R:37  Raul Castro: BIZKAIZET: Cataloguing areas of interest for cetacean conservation in the Bay of Biscay

R:38  Withdrawn


Theme Session on Oil Spills in Marine Ecosystems: Impacts and Remediation (S)

S:01  Robin Law, Carole Kelly and Kevin Colcomb: Opportunities for at-sea response and beach clean-up to reduce the impact of oil spills: examples from the “Sea Empress” incident

S:02  T. Juntunen, T. Rosqvist, S. Kuikka, and J. Rytkönen: How to model the oil combating technologies and their impacts on ecosystem: a Bayesian networks application in the Baltic Sea

S:03  F. Sánchez, A. Serrano, F. Velasco, S. Parra, and I. Frutos: Monitoring the “Prestige” oil spill impacts on the northern Iberian shelf ecosystem

S:04  R. A Sueiro, S. Suárez, M. Araujo, and M. J. Garrido: Effects of bioremediation on mutagenicity of fuel oil coming from the “Prestige” spill: in situ experiments in Sorrizo’s Beach (NW Spain)

S:05  I. Olaso, F. Velasco, and I. Preciado: Seasonal variability of predator fish trophic levels before and after the “Prestige” oil spill

S:06  Concepción Martínez-Gómez, J. A. Campillo, J. Benedicto, B. Fernández , J. Valdés , I. García, and F. Sánchez: Biomarker responses in demersal fish from the northern Iberian shelf: Results one year after the “Prestige” oil spill

S:07  Ron A. Heintz: Chronic exposure to polynuclear aromatic hydrocarbons in natal habitats leads to decreased productivity and fitness in pink salmon populations


S:09  Kenneth Lee, Albert D. Venosa, and Francois Xavier Merlin: Marine oil spill bioremediation: field studies for development of operational spill response strategies

S:10  Lucia Viñas, Ángeles Franco, José-Antonio Soriano, and Juan-José González: PAH levels and evolution in water, sediments and biota after the “Prestige” oil spill


Robin Law, Carole Kelly, Patrick Roose, Jacek Tronczynski, Lucia Viñas, and Lynda Webster: Assessing the long-term impact of oil spills: an examination of recent incidents

J. C. Mendes, D. G. Johns, and A. J. Richardson: Assessing the impact of oil spillages on plankton using the Continuous Plankton Recorder (CPR) survey

Núria Jiménez, Sergi Diez, Jordi Sabaté, Marc Viñas, Josep M. Bayona, Joan Albaigés, and Anna M. Solanas: Enhanced biodegradation of the “Prestige” fuel oil: laboratory and field observations

Withdrawn

Hideaki Maki, T. Hiwatari, K. Kohata, and M. Watanabe: Crude oil bioremediation field experiment at a shore in the Sea of Okhotsk in Hokkaido, Japan

Withdrawn

Franck Laruelle and Ivan Calvez: Oil spill monitoring: analysis of similarities and differences in approaches and methodologies


Lucía Viñas, Ángeles Franco, José-Antonio Soriano, Inmaculada Alves, Jessica Bargiela, and Juan-Jose González: Evolution of the PAH content in commercial shellfish from Galicia (NW Spain) after the “Prestige” oil spill

Esther Abad, J. M. Bellido, A. Punzón, N. Pérez, and M. A. Ámez: Analysis of the Spanish trawl fleet spatial distribution during and post-“Prestige” oil spill by GIS simulations and real data

J. H. Pedersen and T. Kristiansen: Degradation of oil with regard to the Barents Sea

Stephen O'Neill and Ian. M. Davies: Microbial detection of hydrocarbon contamination in fish

I. Olaso, B. Villamor, F. Velasco, J. L. Gutiérrez-Zabala, and I. Preciado: May the “Prestige” oil spill have affected mackerel trophic structure?

Victoriano Valencia, Ángel Borja, Iñigo Muñika, and Andrea del Campo: Medium-term monitoring of polycyclic aromatic hydrocarbons in mussels of the estuaries of the Basque coast (NE Spain) following the “Prestige” oil spill

Z. Chen, K. Lee and S. Sultana: Oil fate during oil spills in the marine environment – mathematical modeling and future needs

J. S.-Landaluze, L. Bartolome, O. Zuloaga, and C. Cámara: A fast and simple extraction procedure for polycyclic aromatic hydrocarbons in marine biota: Application to mussel samples from the Cantabrian coast after the “Prestige” oil spill
**S:29 Poster**

Antonio Bode, Nicolás González, Jorge Lorenzo, Joaquin Valencia, Manuel Varela, and Marta M. Varela: Bacterioplankton activity off A Coruña (Galicia, NW Spain) after the “Prestige” oil spill in November 2002

**S:30 Poster**

Niranjan Deshpande, Subhashini Chandrasekar, George A. Sorial, and James W. Weaver: Dispersant effectiveness on oil spills – impact of environmental factors

**S:31 Poster**

Elsa Vázquez, Milagros Penela-Arenaz, Gonzalo Macho, and Esther Pérez-Fernández: Recruitment of cirripeds after “Prestige” oil spill on rocky shores of Galicia (NW Iberian Peninsula)

**S:32 Poster**

J. A. Soriano-Sanz, M.A. Franco Hernández, L. Viñas-Diéquez, B. Cambeiro-Cambeiro, J. Bargiela-Barros, C. González-Castro, and J. J. González-Fernández: Polycyclic Aromatic Hydrocarbons (PAHs) levels in cultivated and wild mussels from a Galician site (NW Spain) affected by the “Prestige” oil spill

**S:33 Poster**

Victoria Besada, Fernando Schultze, José Antonio Soriano, Lucia Viñas, Ángeles Franco, Bruno Cambeiro, and Juan José González: Levels and evolution of V, Ni and PAHs in mussels after the “Prestige” oil spill

**S:34 Poster**

Luis González, Gema Martínez, Rebeca Lago, and Jesús Torres: Evaluation of the impact of the “Prestige” oil spill using remote sensing and GIS techniques

**S:35 Poster**

Marie Russell, L. Webster, P. Walsham, G. Packer, E.J. Dalgarno, A.D. McIntosh, R. J. Fryer, and C.F. Moffat: The composition and concentration of hydrocarbons in the East Shetland Basin oil exploration and production area

**S:36 Poster**

Withdrawn

**S:37 Poster**

Iñigo Muxika, Víctor Valencia, and Ángel Borja: Effects of “Prestige” oil spill upon subtidal soft-bottom macrobenthic communities in the Basque continental shelf

**S:38 Poster**

A. D. McIntosh and A. E. Craig: Sensory assessment of hydrocarbon taint in fish and shellfish from the North Sea

**S:39 Poster**

A. Craig, A. F. Zuur, R. J. Fryer and I. M. Davies: Performance of sensory assessment panels for the detection of petrogenic taint in fish

**S:40 Poster**

Abdulwaheed S. Ahmed, Lynda Webster, Ian M. Davies, Pat Pollard, Marie Russell and Colin F. Moffat: Distribution of hydrocarbons in the Fladen Ground

**S:41 Poster**

Carl Van Colen, M. Vinex, and S. Degraer: Tidal flat macrobenthos resistance to medium-term emersion: the case of the “Tricolor” oil pollution prevention in the Zwin nature reserve (Belgium)

**S:42 Poster**

Ángeles Franco, Lucía Viñas, José-Antonio Soriano, Jessica Bargiela, Cristina González, and Juan-José González: Concentrations of polycyclic aromatic hydrocarbons (PAHs) in sediments on the Spanish Coast, one year after the “Prestige” fuel-spill

**Theme Session on Integrating/Implicating Genetics into Fisheries Management (T)**

**T:01** E. Verspoor, J. Gilbey, and D. Knox: Comparative phylogeography of salmonids in the British Isles: Implications for the management of biodiversity

**T:02** Filip Volckaert, Gregory Maes, and Martí Pujolar: Management implications of panmixia, introgression and a reduced reproductive potential – the case of the European eel

**T:03** William S. Davidson and Ben F. Koop: The potential of genomics research for fisheries management
Gary R Carvalho: Fisheries genetics and evolutionary thinking: reconciling theory with practice (“or what can genes tell us about how many fish we are likely to catch?”)

Stefano Mariani, William F. Hutchinson, Emma M.C. Hatfield, Daniel E. Ruzzante, E. John Simmonds, Thomas G. Dahlgren, Carl Andre, Dorte Bekkevold, Jennifer Brigham, Else Torsen, and Gary R. Carvalho: Microsatellite analysis of North Sea herring spawning aggregations

Ellen Kenchington: The effects of fishing on the genetic diversity of non-target benthic species

Einar Eg Nielsen and Michael Møller Hansen: Historical, present and future application of genetics for sustainable management of the Atlantic cod

Ulf Dieckmann and Mikko Heino: Fisheries-induced evolution: Toward the evolutionarily sustainable management of living marine resources

C. T. Taggart, G. Oskarsson, A. McPherson, C. Reiss, K. Smedbol, and R. Stephenson: Challenging population genetics in stock attributes in a stock-comparative manner: can we gain new insights for advanced management of Atlantic herring fisheries?


Philippe Lenfant, Pierre Petitgas, Carlos Gonzalez, and Patrick Grellet: Tracking individual variability in Bay of Biscay anchovy population using genetics and otolith analysis to understand the mechanisms of population maintenance

Poster

C.T. Taggart, E. Kenchington, B. Nakashima, J. Lawlor, and L. Hamilton: The application of molecular genetics to assess scale-dependent (cm to 1000 km) population structure in capelin

Poster

Yuri V. Gerasimov and Oleg M. Lapshin: Behaviour of homozygous bream (Abramis brama L.) with different peroxidase alleles in the operation zone of active fishing gears

Anna Was, Karen McCrann, and Elizabeth Gosling: Genetic structure of blue whiting (Micromesistius poutassou) from the North-East Atlantic

Anna Was, Magdalena Podolska, Gary Carvalho, and Roman Wenne: Genetic characteristics of herring catches from the southern Baltic

Magnus Stefánsson: Population structure of the redfish species Sebastes mentella within the Northern Hemisphere: Irminger Sea and the Icelandic shelf

M. O’Sullivan, P.J. Wright, E. Verspoor, David Knox, and S. Piertney: Absence of spatial and temporal genetic differentiation at microsatellite loci in north east Atlantic anglerfish (Lophius piscatorius)

A.-B. Florin, J. Höglund, and T. Aho: Genetic variation and stock identification of flatfishes in the Baltic Sea


I. M. Davies, U. Barg, and E. Black: Progress report on GESAMP/ICES initiative on environmental risk analysis for coastal aquaculture
Theme Session on Acoustic Techniques for Three-dimensional Characterization and Classification of the Pelagic Ecosystem (U)

U:01 Steven J. Barbeaux, Martin Dorn, Jim Ianelli, and John Horne: Visualizing Alaska pollock (*Theragra chalcogramma*) aggregation dynamics

U:02 Francois Gerlotto, S. Bertrand, N. Bez, and M. Gutierrez: Communication inside anchovy schools: a way to facilitate fast 3-D changes in school morphology and structure in response to predation, as observed using multibeam sonar on anchovy aggregations in Peruvian waters

U:03 Withdrawn

U:04 Aril Slotte, Rolf Korneliussen, and Dankert Skagen: Three-dimensional distribution of Northeast Atlantic mackerel in the northern North Sea during autumn related to ambient temperature

U:05 Andrzej Orlowski: Acoustic information applied to implement environmental studies in the Baltic

U:06 Julian M. Burgos and John K. Horne: Characterizing the spatial distribution of a semi-demersal gadoid

U:07 John K. Horne: Seeing sound: visualizing acoustic backscatter from fish

U:08 Withdrawn

U:09 Matthew P. Wilson: Directions in three- and four-dimensional acoustic data visualisation and analysis

U:10 Arnaud Bertrand, Mariano Gutiérrez, François Gerlotto, Pepe Espinoza, Sophie Bertrand, Jesús Ledesma, Roberto Quesquén, and Luis Alza: How does fish habitat suitability shape the 3-D spatial organisation of anchovy across scales?

U:11 Frédéric Ménard, J. J. Lévenez, M. Potier, J. F. Ternon, F. Baurand, O. Maury, and F. Marsac: Acoustic characterization of tropical tuna prey in the Western Indian Ocean in relation to local environmental conditions

U:12 Hideaki Tanoue, A. Hamano, and T. Komatsu: Three-dimensional distributions of pelagic fish detected with an echo-sounder and environmental parameters around the seamount, Hachirigase, in the Sea of Japan

U:13 Mikhail L. Zaferman: Fine structure of fish aggregations: methods of study, effect on acoustic characteristics and fishing gear catchability


U:15 Mathieu Doray, Erwan Josse, Stéphanie Mahévas, and Pierre Petitgas: 3-D acoustic characterization of the spatial and temporal dynamics of large pelagic fish aggregations around moored Fish Aggregating Devices in Martinique (Lesser Antilles)

U:16 Cathy Goss: The effect of seabed topography on the distribution of components of the pelagic ecosystem found off the coast of the sub-Antarctic island of South Georgia

U:17 R. J. Korneliussen and E. Ona: Detection of spatial distribution of acoustic categories

U:18 John Breslin, Paul Connolly, Noel Dumortier, Edward Fahy, Fiona Fitzpatrick, Veronique Jegat, Angela Morando, Terry McMahon, Glenn Nolan, Francis O’Beirn, Fabio Sacchetti, David Stokes, and Guy Westbrook: Employing nested survey techniques to identify the relationships between benthic and pelagic environments within a 3-dimensional framework
Akira Hamano and Hideaki Tanoue: The three-dimensional GIS using sonar information for coastal fisheries

Juan Zwolinski, Paulo Oliveira, and Yorgos Stratoudakis: Visualisation of coastal internal waves in plankton scattering layers during fisheries acoustic surveys

S. M. Kasatkina, V. F. Ivanova, and Yu. V. Kadilnikov: Analysis of spatial distribution characteristics of fishing species as the important factor in stock management

Mariano Gutierrez, Andres Chipollini, Luis Vasquez, and Francois Gerlott: Anchovy and munida spatio-temporal dynamics and interactions of diel cycles of aggregation

Withdrawn

Juan Zwolinski, Paul G. Fernandes, and Yorgos Stratoudakis: Uncertainty in acoustic estimation of abundance in an unstable multi-species environment

Carlos J. Robinson and Jaime Gómez-Gutiérrez: Tidal front dynamics and Pacific sardine aggregations in Bahia Magdalena, south west coast of Baja California, México

Viacheslav A. Ermolchev and T. M. Sergeeva: TS measurement of capelin (Mallotus villosus) in situ at 38 kHz frequency in the Barents Sea

Withdrawn

Bo Lundgren and J. Rasmus Nielsen: Direct spectral calibration of an experimental wideband echosounder. Procedures and results

Viacheslav A. Ermolchev: On measurements of cod target strength in situ in the Barents and Norwegian Seas

Martin J. Cox and Andrew S. Brierley: Planned observations of interactions between Antarctic krill “Euphausia superba” and predators using a multi-beam sonar

Theme Session on Fishers’ Perceptions and Responses in Management Implementation (V)

Paul Marchal and Floor Quirijns: The influence of management, market and fish stocks density on fishermen’s foraging

Joseph E. Powers: MSY, bycatch and minimization to the “extent practicable”

William A. Karp and Karl Haflinger: Intended and unintended consequences: Fisher responses to bycatch reduction requirements in the Alaska groundfish fisheries

Steven Mackinson, Robert Brown, Jeroen van der Kooij, Hazel Curtis, Mike Myers, and Ross Leach: Mind games: Cognitive mapping of fishers’ knowledge and perceptions on the impacts of wind farms on fisheries

John H. Annala and Laura T. Singer: Comparison of collaborative fisheries research in New England and New Zealand

Dick Ferro and Rob Kynoch: Information collected on Scottish commercial fishing gear and its use in fisheries management

Päivi Haapasaaari, Timo P. Karjalainen, and Kalle Reinikainen: Commitment to salmon: using Bayesian modeling to create a sustainable fisheries management tool based on commitment of fishermen
Cristina Pita: Fishers’ perception on local support to the fishing activity and attitudes towards a new management regime

T. L. Catchpole, T. S. Gray, and C. L. J. Frid: A multidisciplinary study of discarding in North Sea fisheries

Paul Marchal, Benoît Caillart, Ole Eigaard, Olivier Guyader, Ane Iriondo, Fanny Le Fur, Paul Prellezo, Jacques Sacchi, and Marina Santurtun: A retrospective analysis of technical creeping: trends, determinant factors and effects

Withdrawn

Jari-Pekka Pääkkönen, Miina Karjalainen, Maiju Lehtiniemi, Jonna Engström-Öst, and Markku Vitasalo: Harmful blooms of cyanobacteria: A threat to fishermen’s livelihood in the Baltic Sea?

Mette Termansen and Alberto Ansuategi: Economic analysis of marine reserve creation: an agent-based simulation model

Murdoch McAllister: Evaluating the impacts of bycatch on implementation uncertainty and the definition of reference points

Withdrawn

Fernando González-Laxe: Mechanisms and evaluation indicators in fisheries management


Sarah B. M. Kraak, Loes J. Bolle, and Adriaan D. Rijnsdorp: Uncertainty in the determination of biomass reference points for North Sea plaice: The influence of assumptions about discards, weight, maturity and stock-recruitment relationships

Cyprian Kapasa, Isaac Malasha, and Doug Wilson: Experience-based knowledge and fisheries management in the Mweru-Luapula system, Zambia

Martin Pastoors: Evaluating fisheries management advice for some North Sea stocks: is bias inversely related to stock size?

Withdrawn

Thorolfur Matthiasson: Possible stakeholder conflicts in quota-regulated fisheries

Kate Johnson, Mark Baine, Climis Davos, Joanna Henley, and Jonathan Side: Resolving conflicts in selecting a programme of fisheries science investigation

Stéphanie Mahévas and Dominique Pelletier: Simulation designs to compare management scenarios using ISIS-Fish V2.0: application to a demersal mixed fishery in the Bay of Biscay

Leili Järv, Ahto Järvik, and Tiit Raid: Can the technical regulatory measures restore the local fish stocks? Case study of the perch (Perca fluviatilis L.) stocks in the Riga Bay and the Western-Estonian Archipelago


V:28 Pekka Salmi: Small-scale fishers’ perceptions about fisheries governance and other stakeholder groups

V:29 Juhani Salmi and Pekka Salmi: Governance of the Baltic salmon fishery – Fishers’ views

V:30 R. Quentin Grafton and Tom Komпас: The payoffs from marine reserves in a stochastic environment; shocks, rents and resilience

V:31 Kalle Reinikainen, Timo P. Karjalainen, and Päivi Haapasaari: Applying Bayesian modeling to social sciences: methodological perspective


Theme Session on Rebuilding Programmes for Threatened Fish Populations (W)

W:01 Andrew A. Rosenberg and Charlotte B. Mogensen: How can rebuilding plans achieve the objective of recovery for overfished stocks?

W:02 Philip Johnston, Graham Savidge, and Derek Mc Cullan: Strangford Lough – A unique opportunity for a coastal sea-trout fishery in the British Isles

W:03 Ted Potter (CEFAS) and Peter Hutchinson (NASCO): The use of stock rebuilding programmes in the precautionary management of salmon stocks

W:04 Ron Fricke: Marine protected areas as a tool to rebuild both commercial and threatened fish stocks

W:05 Catherine G.J. Michielsens, S. Kuikka, P. Haapasaari, S. Kulmala, A. Romakkaniemi, and J. Erkinaro: Interdisciplinary probabilistic network to examine the possibility to restore potential Baltic salmon rivers

W:06 Ralf Thiel, Helmut M. Winkler, Philip Riel, and Renate Neumann: Survey of river and sea lampreys in German waters of the Baltic Sea – basis of successful rebuilding programmes

W:07 Timo P. Karjalainen, Päivi Haapasaari, and Kalle Reinikainen: Commitment – an indicator of fishers’ support to salmon stock recovery program?

W:08 Polina Levontin and Murdoch McAllister: Evaluating management options for Baltic salmon (Salmo Salar) using species-tailored operating models in a generic simulation framework

W:09 Igor Studenov: Estimation of total allowable catch of Atlantic salmon using precautionary approach principles

W:10 E. J. Simmonds: Comparison of two periods of North Sea herring stock management; success, failure and the value of management

W:11 Tim King, Tim Sheehan, Dave Reddin, Russell Brown, John Kocik, and Barbara Lubinski: A decade of determining the continent-of-origin of Atlantic salmon collected at west Greenland with microsatellite DNA: A review of the findings and a look at what the future holds for molecular genetic methods of mixed-stock assignment

W:12 Philip McGinnity and Niall O’Maoileidigh: Rebuilding Irish salmon stocks: a genetic perspective

W:13 Withdrawn

W:14 Andrew B. Cooper and René Taudal Poulsen: The importance of historical baselines to fisheries management – An abundance estimate of ling (Molva molva) in the northeastern North Sea, 1872
Eckhard Bethke: A rebuilding and recovery plan for Baltic ground-fish stocks by long-term profit maximization

Rebecca Whitlock and M. McAllister: Developing a Bayesian mark-recapture modelling framework to inform stock recovery and rebuilding strategies for long-lived, anadromous species

Withdrawn

Withdrawn

Alvaro J. Abella, Michela Ria, and Fabrizio Serena: Usefulness of legal size for the recovery of a European hake stock in a Northwestern bottom trawl fishery

Theme Session on Mitigation Methods for Reduction of Marine Mammal and Sea Turtle Bycatch in Fisheries (X)

Bruno Diaz López: Interactions between bottlenose dolphins with trammel nets in the Sardinia Island


Simon Northridge, Dave Sanderson, and Alice Mackay: The net effect: understanding how porpoise bycatches occur when you cannot see them


Petri Suuronen, Pekka Jounela, and Russell B. Millar: Interactions between seal stocks, salmon stocks and harvest controls of the salmon fishery in the Gulf of Bothnia

Edmund Ceurstemont and Dominic Rihan: Design of an Interactive Acoustic Deterrent to prevent bycatch of cetaceans in pelagic trawl fisheries

Saifullah A. Jaaman, Yuhana U. Lah-Anyi, and Graham J. Pierce: Incidental catches of marine mammals in fisheries in Sabah and Sarawak waters, East Malaysia


R. Caslake: Trial of acoustic deterrents (‘porpoise pingers’) for prevention of porpoise (Phocoena phocoena) bycatch in static net fisheries

Bruno Diaz López: Interaction between bottlenose dolphins and fish farms: could there be an economic impact?

C. T. Taggart, A. Serdynska, T. Johnston, K. Smedbol, L. Harris, and R. Stephenson: Estimating the time and space relative probabilities of right whale and fishing gear entanglement in the Scotia Fundy region of the North West Atlantic

Sara Königson, Arne Fjälling, and Sven-Gunnar Lunneryd: Impact of grey seals in the herring gillnet fishery along the Swedish Baltic coast

Petri Suuronen, Antti Siira, and Tiina Kauppinen: Design principles of seal-safe salmon trap-net

Arne Fjälling: Estimation of hidden seal-inflicted losses in the Baltic Sea set trap salmon fisheries
Gustav Björnstad and Arne Fjälling: Obstacles to prevent grey seals (Halichoerus grypus) from entering static fishing gear

Arne Fjälling, Magnus Wahlberg, and Håkan Westerberg: Acoustic Harassment Devices (AHD) at salmon trapnets in the Baltic Sea

Dick de Haan, B. van Marlen, D. Burggraf, and J. B. van Duyn: Field tests of two cetacean barrier designs rigged in a pelagic trawl: effects on trawl-geometry and catch efficiency of target fish

Jorge M. S. Goncalves, J. Araujo, L. Bentes, P. Monteiro, R. Coelho, M. Corado, and K. Erzin: Evaluation of survivorship of fish that have escaped through a demersal purse seine

Simon Northridge, Alice Mackay, Terry Cross, Dave Sanderson, and Richard Woodcock: Investigations into dolphin bycatch in a pelagic trawl fishery

R. Caslake: Trial of acoustic deterrents (‘porpoise pingers’) for prevention of porpoise (Phocoena phocoena) bycatch in static net fisheries

Theme Session on an Interactive Forum with the Fishing Industry (Y)

Ian Tuck, Anne McLay, and Nick Bailey: Incorporating fishers’ data into the fisheries management process – a Scottish perspective

F. J. Quirijns, A. D. Rijnsdorp, O. A. van Keeken, and J. J. Poos: The use of fine-scaled fisheries data for estimation of bias in North Sea plaice and sole CPUE by ICES retangle

Rachel M. Gallant: Northeast Consortium: Fishermen and scientists taking stock

Withdrawn

Dmitri Vasilyev: Positive impact from fishing industry to stock assessment modelling

Mike Armstrong, Doug Beveridge, John Cotter, Andrew Revill, and Carl O’Brien: Fisheries Science Partnership programmes off the NE and SW coasts of England and in the Irish Sea: experiences gained and future directions

Theme Session on How to Improve Environmental Monitoring and Biological Studies – Integrating Ecology and Statistics (Z)

Catherine Longo, Simon P. R. Greenstreet, Helen Fraser, and Graham J. Pierce: Can size-spectra reveal the impact of fisheries on biodiversity?

Jean-Charles Poulard and Verena M. Trenkel: How to improve environmental monitoring and biological studies – integrating ecology and statistics


F. Smedes, I. M. Davies, and R. Fryer: Pragmatic estimation of uncertainty in normalized concentrations of contaminants in sediments

Rob Fryer, Judy Dobson, Alistair McIntosh, Brian Miller, and Lynda Webster: Redesign of the UK National Marine Monitoring Programme for contaminants in sediment
Robert Aps, R. Tamsalu, T. Kollo, T. Kullas, and V. Zalesny: Application of modeling to Baltic environmental monitoring design

Joel Vigneau and Stéphanie Mahévas: A new statistic for sampling design investigation: an application to length-structured landings sampling

B. Fagerholm, F. Franzén, G. Sandberg, and K. Söderberg: Eelpout (Zoarces viviparus), an useful bio-indicator in coastal fish monitoring

Withdrawn

Joachim P. Gröger, Rodney Roundtree, and Uffe Høgsbro Thygesen: Geolocation of Cape Cod Bay cod using tidal information

Joel McCollin and Aileen Shanks: An assessment of the efficiency of ballast water exchange

Ahto Järvik, Tenno Drevs, Leili Järv, Tiit Raid, and Andres Jaanus: Monitoring of the impact of Muuga Port activities on fish communities and fishery in Muuga Bay in 1994–2004: difficulties in results definition and needs for method improvement

Massoud A.H. Saad and Nadia B. El-Sayed: Dissolved oxygen and organic matter in a harbor and a bay in Egypt receiving organic pollutants from different sources

Lotta Fyrberg: SEA-SEARCH – Your gateway to oceanographic and marine data and information in Europe

E. Bresnan, R. Fryer, S. Fraser, N. Smith, A. Scott, N. Brown, E. Smith, and L. Stobo: A statistical examination of the ability of phytoplankton monitoring to act as an indicator of toxin accumulation in the blue mussel (Mytilus edulis)

T. Kristiansen, D. S. Daniellsen, E. Svendsen, and E. Aas: Year-to-year variation and quantification of German Bight Water in the Skagerrak and Kattegat in the years 1996–2000

Theme Session on Cod in a Changing Climate (AA)

Joël M. Durant, Dag Ø. Hjermann, Nils Chr. Stenseth, and Grégory Beaugrand: Match-mismatch and threshold in the North Sea cod recruitment

Matthias Schaber, Daniel Stepputtis, Hans-Harald Hinrichsen, and Gerd Kraus: Distribution of adult cod (Gadus morhua L.) in the Central Baltic Sea in relation to hydrographic conditions based on hydro-acoustic single-fish detection

Lawrence C. Hamilton: The human dimensions: Demographic impacts of fisheries decline

C. J. Fox, on behalf of the PGEGGS/PLACES consortium: Results from the 2004 ichthyoplankton survey of the North Sea

Geir Ottersen and Douglas P. Swain: The impact of climate on distribution and migration of Atlantic cod (Gadus morhua)

Keith Brander: Relevance of the Cod and Climate Change programme to the assessment and management of cod stocks

Hans-Joachim Rätz, Christoph Stransky, and Josep Lloret: Abundance, condition and growth of Atlantic cod (Gadus morhua L.) off Greenland 1982–2004

S. Holmes and P. Wright: Regional variability in cod dynamics in the North Sea and West of Scotland and its implications to management
AA:09  *P. Pepin and H.-H. Hinrichsen*: An overview of the state of knowledge of the transport of cod eggs and larvae

AA:10  *Mike Heath and Greg Lough*: A review of the biological oceanography of cod early life stages


AA:12  *Ken Drinkwater and H. Loeng*: Physical oceanography of Atlantic cod habitats

AA:13  *Ken Drinkwater*: The response of Atlantic cod (*Gadus morhua*) to future climate change

AA:14  *V. Buehler and F. J. Jochem*: How an oscillating environment may influence cod (*Gadus morhua*) growth and survival during the initial stages and possible consequences to the future recruitment

AA:15  *Fritz Köster, Michael J. Fogarty, and Anne Johanne Tang Dalsgaard*: Cod recruitment and climate change – a comparative approach

AA:16  *Anne Maria Eikeset, Dag Ø. Hjermann, Erin Dunlop, Nils Chr. Stenseth, Geir Ottersen, Esben M. Olsen, and Ulf Dieckmann*: Fisheries-induced evolution in the Northeast Arctic cod

AA:17  *Brian J. Rothschild and Svein Sundby*: History of cod and climate research in the North Atlantic – past, present, and future


AA:19  *Gudrun Marteinsdottir, Daniel Ruzzante, and Einar Eg Nielsen*: History of the North Atlantic cod stocks

AA:20  *Jason Link, Bjarte Bogstad, Henrik Sparholt, and George Lilly*: The role of cod in the ecosystem

AA:21  *E. Júlíusson*: Recruitment and stock size for some cod stocks

Poster

AA:22  *Dag Ø. Hjermann, Anne Maria Eikeset, Geir Ottersen, and Nils Christian Stenseth*: Climatic effects filtered through the food web affect the dynamics of Arcto-Norwegian cod

AA:23  *Victor L. Tretyak*: Adaptive relation between life cycle parameters of Northeast Arctic cod

Poster

**Theme Session on an Ecosystem Approach to Fisheries Management: Worked Examples (BB)**

BB:01  *Jason Link, Michael Fogarty, Jon Brodziak, William Overholz, Thomas Noji, Steven Murawski, and Fredrik Serchuk*: A case history of ecosystem considerations for science supporting fishery management in the Northeast US

BB:02  *Robert Y. George*: Ecosystem-based fisheries management for *Lophelia* Reef HAPC at the northern-most “Agassiz Coral Hills” at bathyal depths off Cape Lookout, North Carolina


BB:04  *Luis Ridao Cruz*: An Ecosim model for the Faroe Islands ecosystem

Chris Frid, Odette Paramor, and Catherine Scott: A North Sea fisheries ecosystem plan: delivering an ecosystem-based approach?

Withdrawn

Robert J. Brock: Understanding the ocean in order to support decision-making: An introduction to NOAA’s 5-year research plan and 20-year research vision

Withdrawn

Tony Smith, David Smith, Jeremy Prince, Ian Knuckey, Margot Sachse, Sonia Talman, Pascale Baelde, Terry Walker, Gerry Geen, and Peter Franklin: Application of MSE methods at “whole of fishery” level to evaluate alternative EBFM strategies for a large complex fishery in Australia

Simone Libralato, Marta Coll, Alberto Santojanni, Cosimo Solidoro, Enrico Arneri, and Isabel Palomera: Comparison between trophic models of protected and fishing areas for an ecosystem approach to fisheries in the Adriatic Sea

Lynne Shannon: EAF in South Africa

Philippe Cury and Manuel Barange: Promotion, implementation and communication of the EAMR (Ecosystem Approach to Marine Resources): the Eur-Oceans approach

Souad Kifani, A. Faraj, and H. Masski: Ecosystem approach to fisheries management: The Moroccan upwelling resources case

Marie-Joëlle Rochet, Verena Trenkel, Jean-Charles Poulard and Jacques Bertrand: The Combined Indicator Trends method to translate indicators into a diagnostic on fishing impact useful for fisheries management

Hugo Arancibia and Sergio Neira: Predation on common hake (Merluccius gayi) by jumbo squid (Dosidicus gigas) in central Chile (33°–39°S)

Sergio Neira and Hugo Arancibia: Role of predation in the collapse and recovery of two Galatheid crustaceans in central Chile (33°S–39°S)

M. Sinclair and R. O’Boyle: The management of human impacts on the benthic communities of the Scotian Shelf: A case study on ecosystem-based management

Chris Frid, Paddy Walker, Stuart Rogers, and Jake Rice: Including ecosystem consideration into ICES advice