

# Theme session A

## Fisher collected acoustic data (FCAD)

Convenors: Steve Barbeaux (USA) Martin Pastoors (the Netherlands) Sascha Fässler (the Netherlands)

Monday 19 September 2016, 15:00-19:00, Omega 2

### Monday 19 September 2016

15:00 Introduction to session

**CM Code:** A:571

**Title:** Acoustic data collected by fishing vessels on Chilean Jack mackerel aggregations and spatio-temporal patterns of abundance in the South Pacific region

**Authors:** Aquiles Sepúlveda, Nicolás Alegría

**Keywords:** Fishing vessels, acoustics, Jack mackerel, oceanographic events

**Presentation type:** Oral

**CM Code:** A:613

**Title:** Quantitative acoustic monitoring using fishing vessels in the northern region of the Humboldt Current system

**Authors:** Mariano Gutiérrez, Aníbal Aliaga, Salvador Peralta, Alex Zuzunaga, Edwin Yarleque (Hayduk), Emilio Méndez, Cynthia Vasquez, Ricardo Bernales, Ulises Munaylla, Francois Gerlotto

**Keywords:** Quantitative monitoring, acoustics, fishing vessels, management

**Presentation type:** Oral

**CM Code:** A:585

**Title:** Assessing prey distribution: A collaborative acoustic survey

**Authors:** J. Chawarski, A. Baukus, C. Brown, G. Sherwood, K. Wurtzell

**Keywords:** Acoustics, herring, forage, prey

**Presentation type:** Oral

**CM Code:** A:602

**Title:** Acoustic data obtained from a fishing vessel searching Chilean Jack mackerel at the high sea off South Central Chile during years 2009–2010

**Authors:** Nicolás Alegría, Aquiles Sepúlveda

**Keywords:** Acoustics, searching vessel, adaptive strategy, oceanographic events, ecosystem approach

**Presentation type:** Oral

**CM Code:** A:404

**Title:** Fifteen years of acoustic data from vessels of opportunity in the North Pacific

**Authors:** Steven J. Barbeaux, Martin Dorn, Taina Honkalehto, Paul von Szalay

**Keywords:** Acoustic vessels of opportunity, co-management, cooperative research, fisheries acoustics

**Presentation type:** Oral

**CM Code:** A:233

**Title:** The distribution of key species in the NDSF (Western Australia)

**Authors:** Sven Gastauer, Miles Parsons

**Keywords:** Fisheries acoustics, demersal fish, commercial data, optical measurements, TS estimates

**Presentation type:** Oral

**CM Code:** A:436

**Title:** Harnessing fishing vessel acoustics for stock assessment – 10 years later

**Authors:** Taina Honkalehto, Patrick Ressler, Jim Ianelli, Sarah Stienessen, Nathan Lauffenburger

**Keywords:** Acoustic backscatter, fishing vessels, walleye pollock, stock assessment

**Presentation type:** Oral

**CM Code:** A:343

**Title:** Variation of relative abundance and spatial distribution of Jack mackerel (*Trachurus murphyi*, Nichols, 1920) offshore in the South Central of Chile

**Authors:** Carolina Lang, Javier Legua Delgado, Alan Barraza Saez

**Keywords:** *T. murphyi*, reproductive period, fishing vessels data, spatial indexes, aggregations and eggs

**Presentation type:** Oral

**CM Code:** A:609

**Title:** Maintaining commitment: Best-practices in setting up industry-science partnerships that last and that matter

**Authors:** Steve Mackinson, R.L. Stephenson, M. Kraan, M.A. Pastoors

**Keywords:** Industry acoustics, collaboration, best practice, incentives

**Presentation type:** Oral

**CM Code:** A:548

**Title:** Monitoring of abundance and distribution of South Pacific Jack mackerel (*Trachurus murphyi*) in the Northern Humboldt current system using fishing vessels

**Authors:** Salvador Peralta, Mariano Gutiérrez, Aníbal Aliaga, Alex Zuzunaga, Edwin Yarleque, Emilio Méndez, Cynthia Vasquez, Ricardo Bernales, Ulises Munaylla, Francois Gerlotto

**Keywords:** Population, abundance, acoustics, fishing vessels, management

**Presentation type:** Oral

**CM Code:** A:466

**Title:** Counting and sizing of bluefin tuna schools by automated analysis of sonar images and data extracted from fishing vessels

**Authors:** Jon Uranga, Haritz Arrizabalaga, Maria Carmen Hernandez, Guillermo Boyra, Nicolas Goñi

**Keywords:** Sonar, fishing vessel data, automated analysis, school counting and sizing, bluefin tuna  
**Presentation type:** Oral

17:37	<p><b>CM Code:</b> A:633 <b>Title:</b> Key lessons learned from opportunistic acoustic data collection on board pelagic freezer-trawlers <b>Authors:</b> S.M.M. Fässler, M.A. Pastoors, B. Scoulding, S. Gastauer, P. Petitgas <b>Keywords:</b> Industry acoustics, calibration, opportunistic data collection, analyses, predator-prey <b>Presentation type:</b> Oral</p>
17:51	<p><b>CM Code:</b> A:552 <b>Title:</b> Comparison of the quantitative measure of fish abundance observed by fishing and scientific vessels in the northern region of the Humboldt Current system <b>Authors:</b> Anibal Aliaga, Salvador Peraltilla, Emilio Méndez, Mariano Gutiérrez, Ricardo Bernales, Ulises Munaylla, Alex Zuzunaga, Edwin Yarleque, Cynthia Vásquez, Francois Gerlotto <b>Keywords:</b> Quantitative monitoring, acoustics, fishing vessels, abundance <b>Presentation type:</b> Oral</p>
18:05	<p><b>CM Code:</b> A:608 <b>Title:</b> Development of an industry acoustic survey for 6a-7bc herring <b>Authors:</b> Pastoors, M.A., S.M.M. Fässler, S.M. Lusseau, E. Farrell, M. Clarke, S. Mackinson, A. Wiseman, M. Callaghan, V. Ohms <b>Keywords:</b> Industry acoustic survey, herring, west of Scotland <b>Presentation type:</b> Oral</p>
18:19	<p><b>CM Code:</b> A:341 <b>Title:</b> Modelled day-night biases in spatial structure of Jack mackerel (<i>Trachurus murphyi</i>) in Chile <b>Authors:</b> Jorge Paramo, Carolina Lang Abarzúa, Sergio Lillo Vega <b>Keywords:</b> Jack mackerel, diel fish school behavior, variogram, fishing vessels data <b>Presentation type:</b> Oral</p>
18:33	<p><b>CM Code:</b> A:193 <b>Title:</b> How can we gain? Potential ways to use opportunistic industry acoustic data to improve stock assessments and scientific advice <b>Authors:</b> V. M. Trenkel, M.A. Pastoors, P. Fernandes, S. Fässler <b>Keywords:</b> Adaptive survey design, opportunistic data collection, acoustic data <b>Presentation type:</b> Oral</p>
18:47	<p><b>Discussion and wrap-up</b></p>
19:00	<p><b>End of session</b></p>

## Theme session B

Predictably Irrational – a new scientific research field for the science underpinning marine-resource management

Conveners: Sarah B. M. Kraak (Germany) Dorothy J. Dankel (Norway)

Wednesday 21 September 2016, 08:30-10:00, Beta 2

Wednesday 21 September 2016, 10:30 - 13:30, Beta 2

### Wednesday 21 September 2016

08:40 Introduction to session

CM Code: B:500

Title: Risks associated with cognitive biases in fisheries management and policy making

08:45 Authors: Mike Fitzpatrick

Keywords: Cognitive biases, irrationality, mental models, fisheries policy

Presentation type: Oral

CM Code: B:344

Title: Nudging fishing behavior to optimize cod catches

09:00 Authors: E. van Helmond, N. Steins, C. Chen, B. Trapman, M. Kraan, J.J. Poos

Keywords: Catch quota management, fishing behaviour, nudging, technical measures, fisheries management, cod

Presentation type: Oral

CM Code: B:366

Title: A trip to reach the target: The labour supply of Swedish Baltic cod fishermen

09:15 Authors: Cecilia Hammarlund

Keywords: Behavioral economics, revenue, targeting labour supply

Presentation type: Oral

CM Code: B:428

Title: Using behavioral experiments to understand preferences with regard to risk, patience, and cooperation in Norwegian fisheries

09:30 Authors: Andries Richter, Florian Diekert, Linda Nøstbakken

Keywords: Risk, economic experiments, trust, cooperation, behavior

Presentation type: Oral

CM Code: B:361

Title: Monitoring networks in a common pool resource dilemma: experimental evidence on extraction, punishment and beliefs

09:45 Authors: Ganga Shreedhar, Alessandro Tavoni, Carmen Marchiori

Keywords: Common pool resources, social dilemma, monitoring, punishment, networks, beliefs

Presentation type: Oral

10:00 Coffee break

CM Code: B:648

Title: The Celtic Seas Partnership

10:30 Authors: Penny Wilson

Keywords: MSFD, Celtic Seas Partnership

Presentation type: Oral

CM Code: B:544

Title: Are we missing anything important? (presented by Sebastian Uhlmann)

10:45 Authors: Arne Kinds, Katrien Verlé

Keywords: Fisheries management, perceptions and beliefs, interviews, questionnaire, drivers

Presentation type: Oral

CM Code: B:524

Title: The influence of cryptic cognitive diversity on the productivity of scientific teams

11:00 Authors: Phillip Levin, Christian Möllmann, Steven Gray, Maria Claudia Lopez, Adrian Stier

Keywords: Mental model, fuzzy-logic cognitive mapping, behavioral economic experiment, Baltic Sea, diversity

Presentation type: Oral

CM Code: B:291

Title: INTERACTIVE SESSION Choice architecture.

11:15 Authors: Sarah B. M. Kraak, Dorothy J. Dankel

Keywords: behavioural economics, choice architecture,

Presentation type: Oral

CM Code: B:101

Title: Truth-telling to the Regulator? Evidence from a field experiment with commercial fishermen

11:45 Authors: Moritz A. Drupp, Menusch Khadavi, Martin F. Quaas

Keywords: Truth-telling, lying, field experiment, fishermen, regulation

Presentation type: Oral

CM Code: B:254

Title: A further study on truth-telling

12:00 Authors: Rudi Voss, Martin F. Quaas, Jörn O. Schmidt, Moritz A. Drupp, Marie C. Riekhof, Menush Khadjav, Catriona Clemmesen

Keywords: Professional identity, coin tossing, priming, management approaches, behavioural economics

Presentation type: Oral

	<p><b>CM Code:</b> B:293 <b>Title:</b> Carrot or stick? Experimental tests on a potential trade-off between effectiveness and compliance of alternative management approaches <b>Authors:</b> Sarah B. M. Kraak, Moritz A. Drupp, Martin Quaas <b>Keywords:</b> Behavioural economics, carrot versus stick, cheating, loss aversion, regulatory compliance <b>Presentation type:</b> Oral</p>
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12:15	<p><b>CM Code:</b> B:292 <b>Title:</b> To nudge or not to nudge: a debate on the ethical pros and cons of 'soft paternalism' <b>Authors:</b> Sarah B. M. Kraak, Nathalie Steins <b>Keywords:</b> Behavioural economics, ethics, manipulation, nudge, paternalism <b>Presentation type:</b> Oral</p>
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12:45	<p><b>Discussion</b></p>
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13:00	<p><b>End of session</b></p>
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## Posters

	<p><b>CM Code:</b> B:357 <b>Title:</b> Choice under risk, choice under uncertainty: Science advice meets behavioral science <b>Authors:</b> Dorothy J. Dankel <b>Keywords:</b> Climate modelling, climate change, catch tables, uncertainty, science-policy interface, decision-making under uncertainty, post-normal science, uncertainty communication, behavioural science, nudging, precautionary approach, sustainable development, fisheries quotas, TACs <b>Presentation type:</b> Poster</p>
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# Theme session C

## From individuals to ecosystems: their ecology and evolution

Convenors: Anna Kuparinen (Finland) Anne Maria Eikeset (Norway) Silva Uusi-Heikkilä (Finland)

Tuesday 20 September 2016, 10:00-13:00, Omega 2

Tuesday 20 September 2016, 15:00-16:30, Omega 2

Tuesday 20 September 2016, 17:00-18:00, Omega 2

Wednesday 21 September 2016, 08:30-10:00, Omega 2

Wednesday 21 September 2016, 10:30 -12:00, Omega 2

### Tuesday 20 September 2016

10:00 Introduction to session

CM Code: C:58

Title: A long-term perspective of the role and relevance of life-history questions in fisheries research

10:10 Authors: Paul J. B. Hart

Keywords: Life histories, growth, recruitment, sustainability

Presentation type: Oral

CM Code: C:259

Title: The relative impacts of early life conditions and maternal size effects in determining average fitness and population growth of pike

10:40 Authors: Yngvild Vindenes, Øystein Langangen, Ian J. Winfield, Asbjørn Vøllestad

Keywords: Maternal effects, early life effects, demography, life history, population dynamics, elasticity analysis, integral projection model

Presentation type: Oral

CM Code: C:470

Title: From traits to life history strategies: deconstructing fish community composition in European Seas

10:55 Authors: Laurene Pecuchet, Martin Lindegren, Manuel Hidalgo, Jon Sölmundsson, Marina Delgado, Heino Fock, Mark Payne

Keywords: Fish life history, communities, traits, trade-offs, environment

Presentation type: Oral

CM Code: C:152

Title: Spatio-temporal changes in life-history traits of the North Sea fish community under climate change and fishing

11:10 Authors: Esther Beukhof, Tim Spaanheden Dencker, Lauréne Pécuchet, Martin Lindegren

Keywords: Life-history traits, fish, community, North Sea, climate change, fishing

Presentation type: Oral

CM Code: C:56

Title: Assessing fishery and ecological consequences of alternate management options for multispecies fisheries using an ensemble approach

11:25 Authors: Robert B. Thorpe, Paul J. Dolder, Stuart A. Reeves, Peter Robinson, Simon Jennings

Keywords: LFI, mixed, multispecies, fisheries, North Sea, trade-off, risk, indicator, uncertainty

Presentation type: Oral

CM Code: C:283

Title: Exploring fish community stability in time and space using Taylor's Law

11:40 Authors: Matthew R. D. Cobain, Markus Brede, Clive Trueman

Keywords: Fluctuation scaling, mean-variance scaling, power law, community stability, aggregation, ecosystem metric

Presentation type: Oral

CM Code: C:403

Title: Ecosystem responses to changes in life-history parameters of key species in the Barents Sea

11:55 Authors: Cecilie Hansen, Ken Drinkwater, Anne Jähkel, Beth Fulton, Bec Gorton, Mette Skern-Mauritzen

Keywords: End-to-end models, Atlantis, Barents Sea, life history parameters, sensitivity study

Presentation type: Oral

CM Code: C:383

Title: Three decades of spatio-temporal patterns of taxonomic and functional diversity in the North Sea fish community

12:10 Authors: Tim Spaanheden Dencker, Martin Lindegren, Mark Payne

Keywords: Biodiversity, functional diversity, traits, life history traits, marine ecosystems, fishing pressure

Presentation type: Oral

CM Code: C:70

Title: Population differentiation and life history diversification: rapid and small scale?

12:25 Authors: Leif Asbjørn Vøllestad

Keywords: Population genetics, local adaptation, rapid evolution, gene flow, climate

Presentation type: Oral

CM Code: C:61

Title: Life-history correlates of depensation in marine fishes

12:40 Authors: Jeffrey A. Hutchings

Keywords: Depensation, Allee effects, recovery, population thresholds, life history

Presentation type: Oral

12:55 Discussion

13:00	Lunch break
15:00	<p><b>CM Code:</b> C:95  <b>Title:</b> Population dynamic models based on individual energy budgets lead to counterintuitive fisheries predictions  <b>Authors:</b> André M. de Roos, Floor Soudijn  <b>Keywords:</b> Size-structured population models, individual energetics, predator-prey interactions, population size-structure, ontogeny, food-dependent somatic growth  <b>Presentation type:</b> Oral</p>
15:15	<p><b>CM Code:</b> C:509  <b>Title:</b> Higher vulnerability and lower resilience of fish in estuaries worldwide matches higher exposure to human threats  <b>Authors:</b> Sofia Henriques, Marisa Batista, Henrique N. Cabral, Rita P. Vasconcelos  <b>Keywords:</b> Functional diversity, traits, biodiversity loss, ecosystem functioning, ecosystem services  <b>Presentation type:</b> Oral</p>
15:30	<p><b>CM Code:</b> C:72  <b>Title:</b> Demonstrating the influence of temperature dependent vital rates on fish abundances through hierarchical Bayesian models  <b>Authors:</b> Cecilia O'Leary, Janet Nye  <b>Keywords:</b> Modelling, Bayesian, temperature  <b>Presentation type:</b> Oral</p>
15:45	<p><b>CM Code:</b> C:57  <b>Title:</b> Late-in-life density-dependence: catching smaller fish for higher yields  <b>Authors:</b> Rob van Gemert, Ken Haste Andersen  <b>Keywords:</b> Density-dependence, fisheries, size-based modelling, reference points, management  <b>Presentation type:</b> Oral</p>
16:00	<p><b>CM Code:</b> C:214  <b>Title:</b> Life-history and ecosystem responses to non and size-selective perch fishing in a small forest lake  <b>Authors:</b> Mikko Olin, Satu Estlander, Leena Nurminen, Martti Rask, Hannu Lehtonen  <b>Keywords:</b> Perch, <i>Perca fluviatilis</i>, size-selective fishing, ecosystem effects  <b>Presentation type:</b> Oral</p>
16:15	<p><b>CM Code:</b> C:349  <b>Title:</b> How is ecosystem function in the Barents Sea responding to a warming Arctic?  <b>Authors:</b> André Frainer, Raul Primicerio, Magnus Wiedmann, Susanne Kortsch, Andrey Dolgov, Michaela Aschan  <b>Keywords:</b> Fish functional composition, functional traits, Barents Sea, warming waters  <b>Presentation type:</b> Oral</p>
16:30	Coffee break
17:00	<p><b>CM Code:</b> C:342  <b>Title:</b> Feeding and growth potential of Atlantic cod in the Baltic Sea in the wake of climate change  <b>Authors:</b> Stefan Neuenfeldt, Valerio Bartolino, Alessandro Orio, Ken Haste Andersen, Niels Gerner Andersen, Susa Niiranen, Ulf Bergström, Didzis Ustups, Maris Plikshs, Dana Uzars, Michele Casini  <b>Keywords:</b> Baltic cod, feeding, growth, density-dependence, climate change  <b>Presentation type:</b> Oral</p>
17:15	<p><b>CM Code:</b> C:290  <b>Title:</b> Phenological responses to climate and fishing – changes in maturation cycles and spawning time in a depleted cod population  <b>Authors:</b> Maris Plikshs, Christian Möllmann  <b>Keywords:</b> Condition, environmental change, growth, maturation, phenology spawning time, size-selective fishing  <b>Presentation type:</b> Oral</p>
17:30	Speed poster presentations
18:00	End of day
<b>Wednesday 21 September 2016</b>	
08:30	<p><b>CM Code:</b> C:63  <b>Title:</b> Ecosystem feedbacks of selective fishing and changes in fish life-histories  <b>Authors:</b> Anna Kuparinen, Alice Boit, Fernanda S. Valdovinos, Hélène Lassaux, Neo D. Martinez  <b>Keywords:</b> foodweb, life histories, fishing-induced evolution, ecosystem resilience  <b>Presentation type:</b> Oral</p>
08:45	<p><b>CM Code:</b> C:130  <b>Title:</b> Multi-decadal changes in spawning ground use in Northeast Arctic haddock: Climate or harvest induced?  <b>Authors:</b> Øystein Langangen, Kristina Ø. Kvile, Leif Chr. Stige, Natalia Yaragina, Frode B. Vikebø, Nils Chr. Stenseth, Geir Ottersen  <b>Keywords:</b> Haddock, spawning, harvesting, climate warming  <b>Presentation type:</b> Oral</p>
09:00	<p><b>CM Code:</b> C:566  <b>Title:</b> Fishing, fast growth, and climate variability increase the risk of collapse  <b>Authors:</b> Malin L. Pinsky, David Byler  <b>Keywords:</b> Cumulative impacts, ecosystem-based management, population dynamics, conservation, coupled social-ecological systems  <b>Presentation type:</b> Oral</p>
<b>CM Code:</b> C:270	

09:15	<p><b>Title:</b> Fisheries-induced selection on fish personality traits – encountering the gear is a necessary, yet insufficient, condition for determining vulnerability to angling in three freshwater fish species in the wild</p> <p><b>Authors:</b> Christopher T. Monk, Robert Arlinghaus</p> <p><b>Keywords:</b> Behavioural selection, telemetry, perch, common carp, tench, fish personality</p> <p><b>Presentation type:</b> Oral</p>
09:30	<b>Speed poster presentations</b>
10:00	<b>Coffee break</b>
10:30	<p><b>CM Code:</b> C:387</p> <p><b>Title:</b> How do migratory populations persist under pressure?</p> <p><b>Authors:</b> Catalina Chaparro, André M. de Roos</p> <p><b>Keywords:</b> Migration, persistence, food abundance, cost of migration</p> <p><b>Presentation type:</b> Oral</p>
10:45	<p><b>CM Code:</b> C:452</p> <p><b>Title:</b> Angling-induced selection mediated by fish behaviour – implications for reproductive potential in Eurasian perch (<i>Perca fluviatilis</i>)</p> <p><b>Authors:</b> Laura Häkkinen, Pekka Hyvärinen, Nico Alioravainen, Anssi Vainikka</p> <p><b>Keywords:</b> Fisheries-induced evolution, fishing selectivity, behaviour, life history, reproduction</p> <p><b>Presentation type:</b> Oral</p>
11:00	<p><b>CM Code:</b> C:60</p> <p><b>Title:</b> The molecular mechanisms of fisheries-induced evolution</p> <p><b>Authors:</b> Silva Uusi-Heikkilä, Tiina Sävilammi, Erica Leder, Robert Arlinghaus, Craig R. Primmer</p> <p><b>Keywords:</b> Gene expression, fisheries-induced evolution, transcriptome sequencing, size selection, adaptation</p> <p><b>Presentation type:</b> Oral</p>
11:15	<p><b>CM Code:</b> C:66</p> <p><b>Title:</b> Exploring adaptive and plastic variability in growth and maturation for the cutlassfish <i>Trichiurus japonicus</i> in subtropical Pacific</p> <p><b>Authors:</b> Hui-Yu Wang, Mikko Heino</p> <p><b>Keywords:</b> Cutlassfish, countergradient growth, probabilistic maturation reaction norms, fisheries exploitation</p> <p><b>Presentation type:</b> Oral</p>
11:30	<b>Discussion and wrap-up</b>
12:00	<b>End of session</b>
<b>Posters</b>	
	<p><b>CM Code:</b> C:149</p> <p><b>Title:</b> Integrating interannual diet variability in ecosystem models</p> <p><b>Authors:</b> L. Lopez-Lopez, I. Preciado</p> <p><b>Keywords:</b> Diet variability, EwE, internal forcing, ecosystem stability</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:59</p> <p><b>Title:</b> Body reserves mediate trade-offs between life history traits: new insights in small pelagic fish reproduction</p> <p><b>Authors:</b> Pablo Brosset, Jean-Marc Fromentin, Claire Saraux</p> <p><b>Keywords:</b> Maternal effect, life history, trade-off, anchovy, sardine, NW Mediterranean</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:86</p> <p><b>Title:</b> Seasonal dynamics in the diet of pelagic fish species in the western Baltic Sea: are three-spined sticklebacks important food competitors for sprat and herring?</p> <p><b>Authors:</b> Eglė Jakubavičiūtė, Michele Casini, Linas Ložys, Jens Olsson</p> <p><b>Keywords:</b> Kalmar Sound, three-spined stickleback, sprat, herring, diet</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:109</p> <p><b>Title:</b> What can we learn about changes in coastal food web structure after the round goby invasion?</p> <p><b>Authors:</b> Artūras Skabeikis, Rasa Morkūnė, Andrius Šiaulys, Jūratė Lesutienė</p> <p><b>Keywords:</b> Round goby, blue mussel, long-tailed duck, food web, Baltic Sea</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:111</p> <p><b>Title:</b> Ticket to spawn: Using economic data to shed light on biological hypothesis</p> <p><b>Authors:</b> Leonie Färber, Leif Chr. Stige, Joël Durant, Florian K. Diekert, Øystein Langangen</p> <p><b>Keywords:</b> Spawning, NEA cod, size distribution, demographic effects, climate effects</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:167</p> <p><b>Title:</b> Can individual-based models of European seabass provide useful insights into the management of the European seabass (<i>Dicentrarchus labrax</i>)?</p> <p><b>Authors:</b> Kieran Hyder, Claire Beraud, Johan van der Molen, Leila Fonseca, , Ewan Hunter, Mike Armstrong</p> <p><b>Keywords:</b> Social-ecological models, marine policy, marine management</p> <p><b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> C:225</p>

**Title:** Using maturity data to determine the suitability of the timing of the Atlantic cod spawning closure in NAFO Subdivision 3Ps

**Authors:** R. M. Rideout, M. J. Morgan, J. Vigneau

**Keywords:** Cod, spawning, spawning closure, maturity, histology

**Presentation type:** Poster

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**CM Code:** C:287

**Title:** Habitat selection and phenotypic diversity in the anchovy of the Bay of Biscay

**Authors:** Pierre Petitgas, Patrick Grellier, Floriane Leseur

**Keywords:** Allozymes, otoliths, habitats, spatial distribution, anchovy

**Presentation type:** Poster

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**CM Code:** C:288

**Title:** How are pelagic fish populations impacted by food availability? An Individual-Based Modelling approach

**Authors:** Rob Boyd , Shovonlal Roy, Richard Sibly, Kieran Hyder, Robert Thorpe

**Keywords:** Pelagic fish, individual-based model, remote-sensing, bioenergetics

**Presentation type:** Poster

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**CM Code:** C:397

**Title:** Where are you going, cod?

**Authors:** Natalia Kulatska, Valerio Bartolino, Bjarki Elvarsson, Gunnar Stefansson

**Keywords:** Baltic Sea, cod, *Gadus morhua*, population dynamics, fisheries, spatio-temporal dynamics, migration patterns

**Presentation type:** Poster

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**CM Code:** C:423

**Title:** Interplay of stock productivity and fishing activity leading to fisheries collapse

**Authors:** Anna-Marie Winter, Andries Peter Richter, Anne Maria Eikeset

**Keywords:** Allee effect, productivity function, balanced harvesting, age-structured model

**Presentation type:** Poster

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**CM Code:** C:456

**Title:** Effects of life-history and fishing pressure on the genetic structure and effective population size through time: a tale on two coastal marine species

**Authors:** Sara M Francisco, Joana I. Robalo

**Keywords:** Population genetics, planktonic larval dispersion, temporal structure, effective population size, commercial vs non-commercial species

**Presentation type:** Poster

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**CM Code:** C:471

**Title:** Distribution and time-trends of life history strategies in the North Sea: a multi-trophic approach

**Authors:** Laurene Pecuchet, Mark Payne, Olivier Beauchard, Esther Beukhof, Philipp Brun, William Cheung, Tim Dencker, Daniel van Denderen, Priscilla Licandro, Gabriel Reygondeau, Anna Törnroos, Martin Lindegren

**Keywords:** life histories, multi-trophic, traits, trade-offs, climate

**Presentation type:** Poster

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**CM Code:** C:513

**Title:** Decoupling of otolith and somatic growth during migration of northern form Dolly Varden (*Salvelinus malma malma*)

**Authors:** Kimberly L. Howland, Christie Morrison, Colin Gallagher, Keith Tierney

**Keywords:** Life history, growth, otolith microchemistry, char, anadromous, resident

**Presentation type:** Poster

## Theme session D

### Ecosystem changes and impacts on diadromous and marine species productivity

Conveners: Timothy Sheehan (USA) Katherine Mills (USA) Mark Payne (Denmark)

Wednesday 21 September 2016, 12:00 - 13:30, Omega 2

Thursday 22 September 2016, 10:00 - 13:30, Omega 2

Thursday 22 September 2016, 15:00-16:30, Omega 2

Thursday 22 September 2016, 17:00-18:30, Omega 2

#### Wednesday 21 September 2016

12:00 Introduction to session

CM Code: D:534

Title: Impacts of climate and ecosystem change on fish and fisheries in the North Atlantic

12:05

Authors: Katherine E. Mills, Andrew J. Pershing, Timothy F. Sheehan, Mark Payne

Keywords: Climate, ecosystem conditions, fish, fisheries, North Atlantic

Presentation type: Oral

CM Code: D:124

Title: Environmental impacts on the marine ecosystems of the North Sea, highlights from a new book chapter

12:20

Authors: Geir Ottersen, Keith Brander

Keywords: North Sea, climate impact, ecology, NOSCCA

Presentation type: Oral

CM Code: D:347

Title: A Bayesian life cycle model to unravel changes in the marine productivity of Atlantic salmon population in the North Atlantic Ocean

12:35

Authors: M. Olmos, F. Massiot-Granier, E. Prévost, M. Nevoux, G. Chaput, E. Rivot

Keywords: Atlantic salmon, Bayesian hierarchical model, integrated population models, life cycle, population dynamics, life history traits

Presentation type: Oral

CM Code: D:455

Title: Meta-analysis of freshwater productivity: a contribution to the modeling of Atlantic salmon (*Salmo salar*) population dynamics at the scale of stock complexes

12:50

Authors: F. Massiot-Granier, V. Bret, M. Olmos, E. Prévost, G. Chaput, E. Rivot

Keywords: Atlantic salmon, stock recruitment, freshwater productivity, hierarchical modeling, Meta-analysis

Presentation type: Oral

CM Code: D:413

Title: Impact of rapid warming on cod stocks in the Gulf of Maine

13:05

Authors: Andrew J. Pershing, Michael A. Alexander, Lisa A. Kerr, Arnault Le Bris, Katherine E. Mills, Janet A. Nye, Nicholas R. Record, Graham D. Sherwood, Andrew C. Thomas

Keywords: Cod, climate, Gulf of Maine, North Atlantic

Presentation type: Oral

13:20 Panel discussion

13:30 End of day

#### Thursday 22 September 2016

CM Code: D:614

Title: Length of Atlantic salmon smolt and their subsequent marine survival

10:00

Authors: Stephen Gregory, Rasmus Lauridsen, William Beaumont, William Riley

Keywords: Atlantic salmon, smolt, length, survival, environmental variables, sea surface temperature

Presentation type: Oral

CM Code: D:531

Title: Climate and ecosystem influences on fish body size and growth

10:15

Authors: Katherine E. Mills, Andrew J. Pershing, Timothy F. Sheehan

Keywords: Climate impacts, ecosystem conditions, body size, growth

Presentation type: Oral

CM Code: D:115

Title: Environmentally-driven fluctuations in condition factor of adult Gulf Menhaden (*Brevoortia patronus*) in the northern Gulf of Mexico

10:30

Authors: Grant D. Adams, Robert T. Leaf

Keywords: Gulf Menhaden, *Brevoortia patronus*, relative condition factor, environmental drivers, Mississippi River discharge, El Niño southern oscillation, generalized additive model, hierarchical linear model

Presentation type: Oral

CM Code: D:236

Title: Changing trophic structure and energy dynamics in the Northwest Atlantic influences Atlantic salmon abundance

10:45

Authors: Timothy F. Sheehan, Mark D. Renkawitz, Katherine E. Mills, Heather J. Dixon, Rasmus Nygaard

Keywords: Northwest Atlantic, Greenland, Atlantic salmon, capelin, diet, food quality, energy density

Presentation type: Oral

11:00	<p><b>CM Code:</b> D:384  <b>Title:</b> Individual trajectories and population dynamics shape life history of Atlantic salmon  <b>Authors:</b> Catalina Chaparro, Andre M. de Roos  <b>Keywords:</b> Atlantic salmon, migration, population dynamics, life-history traits  <b>Presentation type:</b> Oral</p>
11:15	<p><b>Discussion</b></p>
11:30	<p><b>CM Code:</b> D:394  <b>Title:</b> Ecosystem effects on productivity of northern shrimp in the Gulf of Maine: hypotheses for a population collapse  <b>Authors:</b> Anne Richards, Michael Fogarty, Margaret Hunter, Kimberly Hyde, John O'Reilly  <b>Keywords:</b> marine productivity, temperature effects, NAO, northern shrimp, early life survival, bloom phenology, match-mis-match, predation  <b>Presentation type:</b> Oral</p>
11:45	<p><b>CM Code:</b> D:594  <b>Title:</b> Ecological and management implications of climate change induced shifts in phenology of coastal fish and wildlife species in the Northeast region  <b>Authors:</b> A. Jordaan, M. Staudinger, K. Alexander  <b>Keywords:</b> Climate, phenology, migration, trophic mismatches  <b>Presentation type:</b> Oral</p>
12:00	<p><b>CM Code:</b> D:53  <b>Title:</b> Spatially-resolved influence of temperature and salinity on stock and recruitment variability of commercially important fishes in the North Sea  <b>Authors:</b> Anna Akimova, Ismael Nunez-Riboni, Alexander Kempf  <b>Keywords:</b> North Sea, temperature, salinity, commercially important fishes, recruitment, stock biomass  <b>Presentation type:</b> Oral</p>
12:15	<p><b>CM Code:</b> D:191  <b>Title:</b> Effect of juvenile distribution and environment on Northeast Arctic haddock  <b>Authors:</b> Joël M. Durant, Geir Ottersen  <b>Keywords:</b> Population growth, haddock, distribution, demographic effects, climate effects  <b>Presentation type:</b> Oral</p>
12:30	<p><b>CM Code:</b> D:529  <b>Title:</b> Is it too hot for Summer? Identifying the impact of spatial oceanographic anomalies (sea surface temperature) on the Summer flounder (<i>Paralichthys dentatus</i>) in the U.S. Mid-Atlantic Bight  <b>Authors:</b> Samar Deen, Patrick Sullivan  <b>Keywords:</b> Summer flounder, ocean warming  <b>Presentation type:</b> Oral</p>
12:45	<p><b>CM Code:</b> D:597  <b>Title:</b> Bioclimate envelope model to evaluate impacts of climate change on <i>Placoplecten magellanicus</i> in the Gulf of Maine  <b>Authors:</b> Mike Torre, Kisei Tanaka, Yong Chen  <b>Keywords:</b> Bioclimate envelope, sea scallops, habitat suitability  <b>Presentation type:</b> Oral</p>
13:00	<p><b>Panel discussion</b></p>
13:15	<p><b>Lunch break</b></p>
15:00	<p><b>CM Code:</b> D:137  <b>Title:</b> Predatory impact on Patagonian squid after sudden range expansion of Argentine squid  <b>Authors:</b> Alexander Arkhipkin, Tomasz Zawadowski, Zhanna Shcherbich, Andreas Winter  <b>Keywords:</b> <i>Doryteuthis gahi</i>, Falkland Islands, <i>Illex argentinus</i>, predation, recruitment  <b>Presentation type:</b> Oral</p>
15:15	<p><b>CM Code:</b> D:216  <b>Title:</b> Human-induced changes in the functioning of marine food webs: towards less productive and more unstable ecosystems?  <b>Authors:</b> Aurore Maureaud, Didier Gascuel, Mathieu Colléter, Deng Palomares, William W.L. Cheung  <b>Keywords:</b> Fishing and climate change impacts, transfer efficiency, food webs functioning, ecosystem productivity, trophodynamic approach  <b>Presentation type:</b> Oral</p>
15:30	<p><b>CM Code:</b> D:536  <b>Title:</b> Going with the flow: Employing network analysis to explore Northeast US shelf ecosystem consequences of alternative anadromous forage biomass scenarios.  <b>Authors:</b> Beatriz S. Dias, Adrian Jordaan  <b>Keywords:</b> Anadromous fish, marine ecosystem, network analysis  <b>Presentation type:</b> Oral</p>
15:45	<p><b>CM Code:</b> D:595  <b>Title:</b> What four years of ecosystem modeling using historical data has told us about changes to the northwestern Atlantic ecosystem  <b>Authors:</b> A. Jordaan, E. S. Klein, K. Alexander, W. B. Leavenworth, S. Mattocks, B. Dias, M.G. Frisk  <b>Keywords:</b> Historical ecology, ecosystem function, fisheries yields  <b>Presentation type:</b> Oral</p>

	<b>CM Code:</b> D:406 <b>Title:</b> Integrating the effects of environmental variability in models of population dynamics of Atlantic herring stocks in the Gulf of St. Lawrence, Canada <b>Authors:</b> Thomas Doniol-Valcroze, Stéphane Plourde, Caroline Lehoux, Peter S Galbraith, Martin Castonguay <b>Keywords:</b> Physical environmental conditions, zooplankton dynamics, Atlantic herring, statistical catch-at-age models, recruitment, Gulf of St. Lawrence <b>Presentation type:</b> Oral
16:00	<b>CM Code:</b> D:618 <b>Title:</b> Understanding and adapting to effects of climate change on groundfish stocks and stock assessments <b>Authors:</b> J. Kritzer, J.P. Kritzer, S.L. Smith, M. Burden, C. Costello, E. Klein, T. Mangin, R. O'Boyle <b>Keywords:</b> Climate change, harvest control rules, groundfish, stock assessment, retrospective <b>Presentation type:</b> Oral
16:15	<b>Coffee break</b>
17:00	<b>CM Code:</b> D:284 <b>Title:</b> Multispecies modelling with correlated Gaussian processes priors <b>Authors:</b> Marcelo Hartmann, Geoffrey R. Hosack, Richard M. Hillary, Jarno Vanhatalo <b>Keywords:</b> Ricker model, stock-recruitment relationship, Weaver Creek spawning channel, Gaussian process models, Bayesian nonparametrics <b>Presentation type:</b> Oral
17:15	<b>CM Code:</b> D:540 <b>Title:</b> Adaptive fishery management strategies under climate change <b>Authors:</b> Chris Costello, Steve Gaines, Ben Halpern, Tracey Mangin, Renato Molina, Dan Ovando, Kent Strauss <b>Keywords:</b> Upside model, stock distribution, quota allocation, harvest control rules, climate change <b>Presentation type:</b> Oral
17:30	<b>Panel discussion</b>
17:45	<b>Discussion and wrap-up</b>
18:30	<b>End of session</b>
<b>Posters</b>	
	<b>CM Code:</b> D:181 <b>Title:</b> Marine protected areas limit the spread of the invasive tunicate <i>Didemnum vexillum</i> on Atlantic sea scallop <i>Placopecten magellanicus</i> habitat on Georges Bank <b>Authors:</b> Katherine Kaplan, Patrick Sullivan, Deborah Hart <b>Keywords:</b> Biological invasions, fisheries, essential fish habitat, vessel-towed underwater camera system, invasive ascidians <b>Presentation type:</b> Poster
	<b>CM Code:</b> D:205 <b>Title:</b> Mitigating the impact of hydropower plants on diadromous species: Latvenergo AS (Latvia) experience <b>Authors:</b> Latvenergo AS, Alona Bolonina <b>Keywords:</b> Hydropower, the Daugava River, Atlantic salmon, diadromous species <b>Presentation type:</b> Poster
	<b>CM Code:</b> D:251 <b>Title:</b> Sea trout ( <i>Salmo trutta</i> L.) restocking in Latvia <b>Authors:</b> Ilze Rutkowska, Ruta Medne <b>Keywords:</b> Thyroid hormones, morphology, smoltification, silvering <b>Presentation type:</b> Poster
	<b>CM Code:</b> D:289 <b>Title:</b> Smoltification hormone level changes in Salmons subjected for restocking in Latvia <b>Authors:</b> Ruta Medne, Santa Purvina, Ilze Rutkowska <b>Keywords:</b> salmon, restocking, hormone <b>Presentation type:</b> Poster
	<b>CM Code:</b> D:482 <b>Title:</b> Development and application of a generic method to assess species exploratory potential under climate change: focus on the exploration phase of anadromous fish <b>Authors:</b> Felix Massiot-Granier, Rougier Thibaud, Lambert Patrick, Rosebery Juliette, Rochard Eric, Lassalle Géraldine <b>Keywords:</b> Climate change, range shift, exploration phase, participative method, composite metric, migratory species <b>Presentation type:</b> Poster

## Theme session E

### The emerging science of ecological multimodel inference for informing fisheries management

Conveners: Phillip Levin (USA) Stefan Neuenfeldt (Denmark) Tessa Francis (USA)

Tuesday 20 September 2016, 15:00-16:30, Beta 2

Tuesday 20 September 2016, 17:00-18:00, Beta 2

#### Tuesday 20 September 2016

15:00 Introduction

**CM Code:** E:415

**Title:** A multi-model approach to incorporating traditional ecological knowledge and human dimensions into Pacific herring management: an Ocean Modeling Forum case study

**Authors:** Tessa B Francis, Phillip S. Levin

**Keywords:** forage fish, herring, ecosystem-based management, human dimensions, TEK

**Presentation type:** Oral

**CM Code:** E:395

**Title:** Performance of catch-only models and ensembles at providing management guidance for unassessed data-limited fish stocks

**Authors:** Jessica C. Walsh, Sean Anderson, Ernesto Jardim, Cólín Minto, Olaf Jensen, James Thorson, Jamie Afflerbach, Giacomo Chato Osio, Mark Dickey-Collas, Kristin Kleisner, Catherine Longo, Elizabeth Selig, Katherine Papacostas, John Kittinger, Andrew Rosenberg, Andrew Cooper

**Keywords:** super-ensemble, catch-only model, management strategy evaluation, data-limited, value of information

**Presentation type:** Oral

**CM Code:** E:662

**Title:** What would happen if we were to stop fishing in the North Sea? A model ensemble approach

**Authors:** Michael A. Spence, Paul G. Blackwell, Julia L. Blanchard

**Keywords:** Model ensemble, Bayesian analysis, Uncertainty analysis

**Presentation type:** Oral

**CM Code:** E:443

**Title:** Identifying robust approaches for projecting North Pacific groundfish population dynamics using multiple models for linkages between recruitment and the environment

**Authors:** Ashley E. Weston, Gavin Fay, Carey McGilliard

**Keywords:** Gulf of Alaska, climate change, fisheries management, stock assessment, model selection

**Presentation type:** Oral

16:25 Discussion

16:30 Coffee break

**CM Code:** E:656

**Title:** The collective story: communicating results of divergent projections under climate change

**Authors:** Kirstin Holsman, Kirstin Holsman, Jim Ianelli, André Punt, Kerim Aydin, Anne Hollowed

**Keywords:** multi-model inference, climate change, multi-species stock assessment models, ecosystem based management

**Presentation type:** Oral

**CM Code:** E:325

**Title:** Using multi models to design multi-annual management plans. The experience of the North Sea and European Western Waters

**Authors:** Ernesto Jardim, Arina Motova, Finlay Scott, Iago Mosqueira

**Keywords:** multi-annual, management, models, North Sea, Celtic Sea, West of Scotland, Western Channel, Bay of Biscay, Iberian waters, FCube, FLBEIA, Ecopath with Ecosim, SIMFISH, FISHRENT, IAM, a4a, SSFDYN, CFP, Europe

**Presentation type:** Oral

17:40 Discussion

18:00 End of session

# Theme session F

Integrated ecosystems assessment and decision support to advance ecosystem-based fisheries management

Conveners: John Pope (UK) Lena Bergström (Sweden) Melania Borit (Norway)

Monday 19 September 2016, 15:00-19:00, Omega 1

Tuesday 20 September 2016, 10:00-13:00, Omega 1

Tuesday 20 September 2016, 15:00-16:30, Omega 1

## Monday 19 September 2016

### 15:00 Introduction

**CM Code:** F:140

**Title:** Is the Gulf of Cadiz ready for the ecosystem approach? A perspective from the southernmost European Atlantic regional sea

**Authors:** Marcos Llope

**Keywords:** Gulf of Cadiz, Guadalquivir estuary, ecosystem approach, nursery, anchovy, tradeoffs, stakeholders, fisheries, agriculture, aquaculture, hydropower, shipping, mining, irrigators, dredging, dam

**Presentation type:** Oral

**CM Code:** F:560

**Title:** Characteristics of Modelling Fisheries as Socio-Ecological Complex Adaptive Systems

**Authors:** Alexander Holdgate, Melania Borit

**Keywords:** Complex Adaptive System, fisheries Management, modelling; socio-ecological system, systematic literature review

**Presentation type:** Oral

**CM Code:** F:183

**Title:** Understanding the pathways and roles of scientific information: A critical step in operationalizing ecosystem-based fisheries management (EBFM)

**Authors:** Suzette S. Soomai

**Keywords:** science-policy interface, information use, decision-making, communication, ecosystem-based fisheries management

**Presentation type:** Oral

**CM Code:** F:483

**Title:** Collecting fisheries data – the move of industry from passive to active partners in collecting and analysing data.

**Authors:** Magnus L Johnson, Mike Cohen, Jane Sandell, Michael Roach, Mike Park, Annie Hooper, Dale Rodmell

**Keywords:** fisheries science partnerships, co-management, data collection

**Presentation type:** Oral

### 16:05 Discussion

### 16:20 Break

**CM Code:** F:244

**Title:** Decision support framework for EAFM

**Authors:** Rahikainen, M., Nielsen Nolde, K., Ballesteros, M., Laerke, B., Chapela, R.

**Keywords:** ecosystem approach to fisheries management, decision support framework

**Presentation type:** Oral

**CM Code:** F:370

**Title:** Towards an ecosystem approach to fisheries management: participatory planning and decision support for the West coast of Scotland mixed fisheries

**Authors:** Kåre Nolde Nielsen, Alan Baudron, Natalia Serpetti, Sheila Heymans, Mika Rahikainen and Paul Fernandes

**Keywords:** Ecosystem approach to fisheries management, decision support, mixed fisheries, Ecopath with Ecosim, stakeholders

**Presentation type:** Oral

**CM Code:** F:323

**Title:** Measuring good fisheries governance: Indicators, tools and stakeholders

**Authors:** Ixai Salvo, Svein Jentoft, Petter Holm, Jahn Petter Johnsen, Antonio G. Allut

**Keywords:** fisheries, governance, indicators, stakeholders, engagement, assessment, measurement

**Presentation type:** Oral

### 17:10 Discussion

### 17:40 Break

**CM Code:** F:572

**Title:** An ecosystem-level redundancy analysis decision tool to inform the integrated ecosystem assessment indicator selection process

**Authors:** Joshua P Kilborn, Michael Drexler, Corey Ridings

**Keywords:** Indicator selection, ecosystem based fisheries management, IEA, RDA

**Presentation type:** Oral

**CM Code:** F:489

**Title:** Lessons learned: Successes and pitfalls in IEA methods

**Authors:** Saskia A. Otto, Jörn Schmidt, Geir Ottersen, Edda Johannessen, and Christian Möllmann

**Keywords:** knowledge exchange, ICES IEA working groups, method review, SWOT analysis

**Presentation type:** Oral

**CM Code:** F:391

**Title:** Identifying Leading Indicators of Shifts in Marine Ecosystems

18:15	<b>Authors:</b> Kendra Karr, Carrie Kappel, Mary Donovan, Mary Hunsicker, <b>Keywords:</b> early warning indicators, regime shifts, EBFM, sustainability, multi-species management <b>Presentation type:</b> Oral
18:30	<b>CM Code:</b> F:671 <b>Title:</b> Introducing the pOOAO - A concept for aggregating indicator assessments. <b>Authors:</b> Wolfgang Niklaus Probst <b>Keywords:</b> integration; aggregation; integrated ecosystem assessments; good environmental status; probabilistic aggregation rule; Marine Strategy Framework Directive; MSFD, One-out-all-out; OOOA; probabilistic One-out-all-out; pOOAO <b>Presentation type:</b> Oral
18:45	<b>Discussion</b>
19:00	<b>End of session</b>
<b>Tuesday 20 September 2016</b>	
10:00	<b>Introduction</b>
10:05	<b>CM Code:</b> F:328 <b>Title:</b> A trait-based assessment towards understanding long-term changes in ecosystem functioning: the Central Baltic Sea as a case study <b>Authors:</b> Martin Lindegren, L. Pécuchet, B. Weigel, M. Nordström, S.A. Otto, Z. Zagrodska, R. Kleis, R. Frelat, T. Blenckner, C. Möllmann, L. Bergström, L. Uusitalo <b>Keywords:</b> traits, trait-based approach, ecosystem functioning, regime shifts, integrated ecosystem assessments, ecosystem-based management <b>Presentation type:</b> Oral
10:20	<b>CM Code:</b> F:312 <b>Title:</b> A response to the challenge of including the human dimension in integrated ecosystem assessment – Baltic salmon and clupeid examples <b>Authors:</b> Päivi Haapasaari, Laura Uusitalo, Lena Bergström, Outi Heikinheimo, Heikki Peltonen, Atso Romakkaniemi <b>Keywords:</b> causal relationship, conceptual model, foodweb, social-ecological system, social indicators <b>Presentation type:</b> Oral
10:35	<b>CM Code:</b> F:310 <b>Title:</b> The future of Baltic salmon: using participatory modelling to predict the effects of climate change on salmon and adapt new goals and management strategies <b>Authors:</b> Kelsey Hartikainen, Samu Mäntyniemi, Päivi Haapasaari <b>Keywords:</b> Baltic salmon, climate change, participatory modeling, Bayesian methods <b>Presentation type:</b> Oral
10:50	<b>CM Code:</b> F:488 <b>Title:</b> Cumulative effect assessments in marine ecosystems: a review of methods and best practices <b>Authors:</b> Samuli Korpinen, Jesper H Andersen <b>Keywords:</b> cumulative effect assessment, human activities, anthropogenic pressures <b>Presentation type:</b> Oral
11:05	<b>CM Code:</b> F:82 <b>Title:</b> ODEMM in the Celtic Seas: a qualitative IEA with decision support tools <b>Authors:</b> Debbi Pedreschi, David Reid <b>Keywords:</b> ODEMM, risk assessment, Celtic Seas, decision support, communication tools, integrated ecosystems assessment. <b>Presentation type:</b> Oral
11:20	<b>Discussion</b>
11:35	<b>Break</b>
11:45	<b>CM Code:</b> F:629 <b>Title:</b> Applying an ecosystem and risk-based approach towards an integrated assessment of benthic habitat communities at a regional seas scale <b>Authors:</b> Sophie A. M. Elliott , Laurent Guérin, Cristina Vina-Herbon, Bryony Meakins, Roland Pesch, Alberto Serrano. <b>Keywords:</b> ecosystem-based fisheries management, MSFD, indicators, integrated assessment. <b>Presentation type:</b> Oral
12:00	<b>CM Code:</b> F:537 <b>Title:</b> SYMBIOSES: a practical risk management tool to integrate fisheries and hydrocarbon activities in the Lofotens and Barents Sea, Norway <b>Authors:</b> Daniel Howell, Jolynn Caroll Frode Vikebo <b>Keywords:</b> ecosystem, fisheries, oil, oil spill, integrated management <b>Presentation type:</b> Oral
12:15	<b>CM Code:</b> F:215 <b>Title:</b> Integrated ecosystem model of Icelandic waters <b>Authors:</b> Erla Sturludottir, Christopher David Desjardins, Kai Logemann, Gudrun Marteinsdottir and Gunnar Stefansson <b>Keywords:</b> Atlantis, ecosystem model, Icelandic waters <b>Presentation type:</b> Oral

**CM Code:** F:577

<b>12:30</b>	<b>Title:</b> Exploring the effects of different management scenarios for the Icelandic gadoid fishery <b>Authors:</b> Bjarki Þór Elvarsson, Saga Guðmundsdóttir, Sveinn Agnarsson, Jónas R. Viðarsson <b>Keywords:</b> gadget, multi-criteria analysis, ecosystem models <b>Presentation type:</b> Oral
<b>12:45</b>	<b>Discussion</b>
<b>13:00</b>	<b>Lunch</b>
<b>15:00</b>	<b>CM Code:</b> F:278 <b>Title:</b> Integrating environmental change and socio-economic considerations into operational fish stock advice <b>Authors:</b> Christian Möllmann, Anna Gårdmark, Hans-Harald Hinrichsen, Scott Large, Bärbel Müller-Karulis, Stefan Neuenfeldt, Niclas Norrström, Jörn Schmidt, Maciej Tomczak, Rudi Voss <b>Keywords:</b> Eastern Baltic cod, Integrated Advice, environmental indicators, short-term predictions, socio-economics <b>Presentation type:</b> Oral
<b>15:15</b>	<b>CM Code:</b> F:518 <b>Title:</b> Nash equilibrium can resolve conflicting maximum sustainable yields in multispecies fisheries management <b>Authors:</b> Niclas Norrström, Michele Casini, Noél M.A. Holmgren <b>Keywords:</b> cod, herring, sprat, Baltic Sea, multispecies, MSY, reference points <b>Presentation type:</b> Oral
<b>15:30</b>	<b>CM Code:</b> F:243 <b>Title:</b> Decision support approach for management of the Baltic multi-species fishery <b>Authors:</b> Rahikainen, M., Bartolino, V., Bauer, B., Tomczak, M.T., Horbowy, J. <b>Keywords:</b> decision support, Bayesian Influence Diagram, multi-species management <b>Presentation type:</b> Oral
<b>15:45</b>	<b>CM Code:</b> F:90 <b>Title:</b> Development of a simple delay difference model of the North Sea Multispecies Fishery System as a module for decision support to EBFM <b>Authors:</b> John Pope <b>Keywords:</b> , Decision Support Modules, Tradeoffs, Multispecies Fisheries, Size Based Models. <b>Presentation type:</b> Oral
<b>16:00</b>	<b>Discussion</b>
<b>16:30</b>	<b>End of session</b>
<b>Posters</b>	
<b>CM Code:</b> F:103	<b>Title:</b> Some problems of providing area based advice modules for Decision Support to EBFM <b>Authors:</b> John G. Pope <b>Keywords:</b> EBFM, decision support modules, area disaggregated, moment based size models. <b>Presentation type:</b> Poster
<b>CM Code:</b> F:665	<b>Title:</b> Integrated analysis of several biological/hydrological components and cod stomach data in the Gdansk Basin of the Baltic Sea <b>Authors:</b> Victoria Amosova, Alexander Zezera, Anastasia Karpushevskaya, Igor Karpushevskiy, Faina Patokina, Marina Dmitrieva <b>Keywords:</b> Baltic Sea, cod, integrated ecosystem analysis, physiological parameters, abiotic and biotic drivers <b>Presentation type:</b> Poster
<b>CM Code:</b> F:131	<b>Title:</b> Danish seine - Ecosystem effects of fishing <b>Authors:</b> Thomas Noack, Ludvig Krag, Niels Madsen <b>Keywords:</b> Alternative gears, fish behavior, gear technology, sea bottom impacts <b>Presentation type:</b> Poster
<b>CM Code:</b> F:133	<b>Title:</b> Integrated Ecosystem Assessment in support of ecosystem based fisheries management in the Irish Sea - a case study with cod ( <i>Gadus morhua</i> ). <b>Authors:</b> S.E. Beggs, M.G. Lundy <b>Keywords:</b> Irish Sea, IEA, EBFM, gadus morhua, <b>Presentation type:</b> Poster
<b>CM Code:</b> F:163	<b>Title:</b> Improving fisheries management by increasing selectivity: Results from the CelSelect project <b>Authors:</b> Marianne Robert , Fabien Morandieu, Marion Fiche <b>Keywords:</b> landing obligation, mixed fisheries, Celtic Sea, selectivity, generalized linear mixed models, fishermen and scientists collaboration <b>Presentation type:</b> Poster
<b>CM Code:</b> F:185	<b>Title:</b> Evidence-based and industry-driven ecosystem management approach of a dynamic scallop fishing ground <b>Authors:</b> G. Lambert, L.G. Murray, H. Hinz, J.G. Hiddink, H. Lincoln, N. Hold, G. Cambie, M.J. Kaiser <b>Keywords:</b> BACI experiment, fishing impact, marine protected areas, natural disturbance, scallop dredging, seabed recovery, stakeholder engagement <b>Presentation type:</b> Poster

**CM Code:** F:187

**Title:** Testing and improving the fit of quadratic yield surfaces used to provide an interface between biological and economic EBFM modules

**Authors:** John G. Pope

**Keywords:** EBFM, multispecies Schaefer models, interface biological and economic.

**Presentation type:** Poster

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**CM Code:** F:192

**Title:** Spatio-temporal effects of environmental drivers and fishing in a Baltic Sea ecosystem

**Authors:** Barbara Bauer, Valerio Bartolino, Ayoe Hoff, H. E. Markus Meier, Piotr Margoński, Bärbel Müller-Karulis, Mika Rahikainen, Sofia Saraiva, Jan Warzocha, Janina Kownacka, Jeroen Steenbeek, Maciej T. Tomczak

**Keywords:** ecospace, fisheries, eutrophication, simulation model, spatial management

**Presentation type:** Poster

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**CM Code:** F:203

**Title:** Seal-fisheries interactions in the Baltic Proper

**Authors:** David Costalago, Bauer, Barbara; Tomczak, Maciej T.; Lundström, Karl; Winder, Monika.

**Keywords:** halichoerus grypus, ecopath with ecosim, marine mammals, Baltic Sea, ecosystem-based fisheries management, ecosystem services

**Presentation type:** Poster

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**CM Code:** F:226

**Title:** Managing fisheries in the context of an integrated marine policy: the importance of spatial issues

**Authors:** Pierre Petitgas, Bruno Ernande (IFREMER, France), Eider Andonegi (AZTI, Spain), Gianna Fabi (CNR-ISMAR, Italy), Kostas Kapiris (HCMR, Greece), Ana Leocadio (DEFRA, UK), Giuseppe Scarcella (CNR-ISMAR, Italy)

**Keywords:** Ecosystem approach, Integration, Spatial, Policy

**Presentation type:** Poster

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**CM Code:** F:250

**Title:** Ecosystem-based fisheries management using Portfolio theory: an application to the Basque inshore fishery.

**Authors:** Itsaso Carmona, Alberto Ansuategi Jose Manuel Chamorro Marta Escapa Mari Carmen Gallastegui Arantza Murillas Raúl Prellezo

**Keywords:** Ecosystem-based fisheries management, portfolio theory, inshore fleet, precautionary principle.

**Presentation type:** Poster

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**CM Code:** F:260

**Title:** Making the Ecosystem Based Fisheries Management operational for management support in the Bay of Biscay: analyzing the effects of the implementation of the Landing Obligation at an ecosystem level.

**Authors:** Eider Andonegi, Raúl Prellezo

**Keywords:** Ecosystem Based Fisheries Management, Bay of Biscay, ecosystem models, landing obligation

**Presentation type:** Poster

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**CM Code:** F:318

**Title:** Integration of genetic data on fisheries management models. The European hake case.

**Authors:** J.M. Martínez-Vázquez, S. Cerviño F. Velasco M. Pérez

**Keywords:** European hake, stock, management, genetics

**Presentation type:** Poster

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**CM Code:** F:327

**Title:** A data analytics framework for ecosystem-based fisheries management

**Authors:** David Currie, Enda Howley, Jim Duggan

**Keywords:** data analytics, data integration, decision support

**Presentation type:** Poster

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**CM Code:** F:354

**Title:** Determining seasonal target species assemblages of bottom otter trawlers from fishing effort and commercial species distributions

**Authors:** Pierre Bourdaud, Morgane Travers-Trolet, Youen Vermand, Paul Marchal

**Keywords:** fishing effort, target species assemblages, seasonality, time series analyses, Eastern English Channel

**Presentation type:** Poster

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**CM Code:** F:356

**Title:** Stochastic Multi-species model for fish stock assessment in the Celtic sea

**Authors:** Jonathan Rault, Marianne Robert, Dorothée Kopp, Lionel Pawlowski

**Keywords:** multispecies stock assessment and advise, stochastic and Bayesian modeling, Celtic Sea, stomach contents

**Presentation type:** Poster

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**CM Code:** F:367

**Title:** Productivity changes across the Baltic Sea – linking abiotic changes to lower trophic level dynamics

**Authors:** Torres MA, Otto, S.A., Suikkanen, S., Haas, B., Ikauniece, A., Möllmann, C., Peltonen, H., Putnis, I., Wesslander, K., Bergström, L.

**Keywords:** Baltic Sea, long-term trends, foodwebs, human impacts, environmental changes, climate change, regime shifts, phytoplankton, zooplankton

**Presentation type:** Poster

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**CM Code:** F:401

**Title:** What's on cod's menu?

**Authors:** Natalia Kulatska, Valerio Bartolino, Håkan Wennhage, Bjarki Elvarsson, Gunnar Stefansson

**Keywords:** Baltic Sea, cod, herring, sprat, population dynamics, ecosystem modeling, EBFM, fisheries, predator-prey interactions  
**Presentation type:** Poster

**CM Code:** F:459

**Title:** Estimating fishery dynamic and its relation to changing environments to support ecosystem-based fisheries management

**Authors:** Kasatkina S., Gasyukov P.

**Keywords:** multivariable fishery and environmental time-series data, long-term trends and regime shifting

**Presentation type:** Poster

**CM Code:** F:505

**Title:** Cetaceans and fishermen compatibility: potential competition between common dolphins, minke whales and the Portuguese purse seine fishery.

**Authors:** Laura Wise, Isidora Katara, Ana Marçalo, Sílvia Monteiro, Jorge Santos, José Vingada, Alexandra Silva

**Keywords:** resource competition, short-beaked common dolphin, minke whale, purse-seine, spatial overlap, dietary overlap

**Presentation type:** Poster

**CM Code:** F:554

**Title:** 50 shades of grey – The colours of ICES stock assessments

**Authors:** Rüdiger Voss, Eske C. Evers Jörn O. Schmidt

**Keywords:** stock assessment, variability, ecoregion

**Presentation type:** Poster

**CM Code:** F:623

**Title:** The one-out-all-out approach (OOAO)

**Authors:** Wolfgang Nikolaus Probst

**Keywords:** integration, aggregation, integrated ecosystem assessments, good environmental status, probabilistic aggregation rule, Marine Strategy Framework Directive (MSFD), one-out-all-out, (OOAO), probabilistic one-out-all-out (pOOAO)

**Presentation type:** Poster

**CM Code:** F:649

**Title:** The Celtic Seas Partnership

**Authors:** Penny Wilson

**Keywords:** MSFD, Celtic Seas Partnership

**Presentation type:** Poster

**CM Code:** F:224

**Title:** Trophic modeling for integrated ecosystem assessment: from diagnosis to ecosystem-based advice for fisheries management

**Authors:** Hernvann, Pierre-Yves., Moullec, Fabien., Gascuel, Didier.

**Keywords:** Fishing impact, Ecosystem-based fisheries management, Trophic modeling, Ecopath with Ecosim, EcoTroph, Scenarios simulation, Landing Obligation

**Presentation type:** Poster

**CM Code:** F:305

**Title:** Resilience and regime shifts in the Mediterranean biota associated with sea warming

**Authors:** Paris Vasilakopoulos, Dionysios E. Raitsos, Evangelos Tzanatos, Christos D. Maravelias

**Keywords:** climate change, FAO landings, integrated assessment, threshold GAMs, tipping points

**Presentation type:** Poster

## Theme session G

The inshore challenge – management of recreational and commercial fisheries accounting for social benefits, economic value, and biological sustainability

Conveners: Kieran Hyder (UK) Harry Strehlow (Germany) Estanis Mugerza (Spain) Maria Spedicato (Italy)

Thursday 22 September 2016, 10:00-13:00, Omega 1

Thursday 22 September 2016, 15:00-16:30, Omega 1

Thursday 22 September 2016, 17:00-18:30, Omega 1

Friday 23 September 2016, 09:00-10:30, Omega 1

### Thursday 22 September 2016

10:00 Introduction to session

CM Code: G:168

Title: Recreational sea angling – a European perspective

10:10

Authors: Kieran Hyder, Simon Weltersbach, Keno Ferter, Bryony Townhill, Mike Armstrong, Harry V. Strehlow

Keywords: recreational sea fishing, integrated marine management

Presentation type: Oral

CM Code: G:258

Title: Small scale, big deal: Sampling catches from European small-scale fisheries

10:25

Authors: S. Demanèche, M. Armstrong, E. Mugerza, M. Adamowicz, S. Carlshamre, E.D. Clarke, G. Dingsør, J. Egekvist, A.C. Fernandes, M. Kovsars, S. Nimmegegers, D. Norkus, H. Otterå, D. Reis, J. Rodriguez, L. Saks, S. Schembri, M. Spegys, S. Stoetera, S. Vandemaele, J.H. Vølstad, G. Włodzimierz, H. Gerritsen, N. Prista

Keywords: Small-scale fleets (SSF) dimension and importance in European countries, Data quality indicators, Estimation of transversal variables, discards and fleet-based biological variables, Sampling strategy, Sampling best practices, CFP, Marine Spatial Planning.

Presentation type: Oral

CM Code: G:578

Title: Developing a sentinel longline/jig survey for groundfish species in the eastern Gulf of Maine.

10:40

Authors: Mattie Rodrigue, Yong Chen

Keywords: Eastern Gulf of Maine, groundfish, inshore, sentinel survey

Presentation type: Oral

CM Code: G:195

Title: Fisheries diversity in the Mediterranean: the Italian monitoring programme for the assessment of productivity and ecological sustainability of inshore fisheries

10:55

Authors: R.F. Sabatella, E.C. Sabatella, P. Accadia, D. Pinello, P. Carbonara, G. Lembo, M.T. Spedicato, A. Lucchetti, A. Ligas, M. Sbrana

Keywords: Data collection, small scale fishery, Mediterranean sea, sustainability indicators

Presentation type: Oral

CM Code: G:610

Title: A comprehensive approach to assessing and monitoring marine recreational fisheries

11:10

Authors: Martin Cryer, Neville Smith

Keywords: recreational fisher, amateur fisher, harvest estimation, catch monitoring, systems approach, machine learning tool

Presentation type: Oral

CM Code: G:179

Title: A Bayesian network approach to predict survival of caught-and-released fish

11:25

Authors: Sebastian S. Uhlmann, Michael W. Davis, Keno Ferter, Harry Strehlow, Marc Simon Weltersbach, Hugues Benoît, Mike Breen, Thomas Catchpole, Jochen Depestele, Steven J. Cooke, Graham D. Raby, Matt K. Broadhurst, Steven J. Kennelly

Keywords: unaccounted post-release mortality, fuzzy logic, discard ban

Presentation type: Oral

CM Code: G:510

Title: Establishing the location of fishing activities within Scottish inshore areas using AIS technology

11:40

Authors: Mark James, John Thompson, Kyla Orr, Alison McKnight

Keywords: scotland, inshore, automatic identification system, vessel activity

Presentation type: Oral

CM Code: G:631

Title: Using GIS to localize the fishing activity of small vessels targeting European hake in the Adriatic sea as a basis for spatial management

11:55

Authors: Spedicato, M.T., Carbonara, P., Facchini, M.T., Zupa, W., Lembo, G.

Keywords: multiannual management plans, European hake, Adriatic Sea, gear interaction, GIS

Presentation type: Oral

CM Code: G:175

Title: Open source monitoring platform for small commercial fisheries

12:10

Authors: Gorka Gabiña, Iñaki Quincoces, Oihane C. Basurko

Keywords: open source platform, inshore vessel monitoring, GPS data, fishing effort, fuel consumption, win-win, sustainability

Presentation type: Oral

CM Code: G:512

Title: Development of a platform for fine scale spatial assessment of fishing activities around Scotland

12:25

Authors: Mark James, Tania Mendo, John Thompson, Kyla Orr, Alison McKnight

Keywords: inshore, automatic identification system, database management; spatio-temporal data

**Presentation type:** Oral

**CM Code:** G:211

**Title:** The value of fishing contest on monitoring fish communities and recreational fishing selectivity

**12:40**

**Authors:** Jordi Boada, Ana Gordoa

**Keywords:** sport fishing, recreational fishing, fish community, species distribution, Spain

**Presentation type:** Oral

**13:00**

**Lunch break**

**CM Code:** G:285

**Title:** Surveying 2.0 - Using remote cameras to monitor a highly specialized recreational fishery in the Baltic Sea

**15:00**

**Authors:** Marc Simon Weltersbach, Frederik Kaiser, Harry V. Strehlow

**Keywords:** Atlantic salmon, fisheries management, fishing effort, recreational fishing, small-scale fisheries, survey design

**Presentation type:** Oral

**CM Code:** G:208

**Title:** Strengthening regional cooperation in small scale and recreational fisheries data collection (FishPi)

**15:15**

**Authors:** Lucia Zarauz, Mike Armstrong, Estanis Mugerza, Eider Andonegi, Patrik Börjesson, Hugo Mendes, Ana Moreno.

**Keywords:** small-scale fisheries, recreational fisheries, regional coordination, data collection

**Presentation type:** Oral

**CM Code:** G:332

**Title:** Small-scale fisheries in the Adriatic Sea: fishing strategies and eco-ethology of target species

**15:30**

**Authors:** Fabio Grati, Aladzuz, Azzurro, Bolognini, Carbonara, Çobani, Deda, Domenichetti, Dragičević, Dulčić, Đurović, Ikica, Joksimovic, Marceta, Matić-Skoko, Lembo, Santojanni, Spedicato, Stagličić, Vrgoč, Zerem, Arneri, Ceriola, Milone

**Keywords:** Adriatic Sea, FAO AdriaMed, small-scale fisheries, set gears, shared stocks

**Presentation type:** Oral

**CM Code:** G:245

**Title:** Consequences of catch-and-release angling for black bream *Spondyliosoma cantharus*, during the parental care period: implications for management

**15:45**

**Authors:** A. Pinder, R.J. Veltrop, S.J. Cooke, R.J. Britton

**Keywords:** Recreational angling; stock exploitation; spawning; fisheries management; nest guarding; reflex impairment

**Presentation type:** Oral

**CM Code:** G:306

**Title:** An ecosystem-based approach to define small scale fisheries management plans in the Bay of Biscay

**16:00**

**Authors:** Arantza Murillas-Maza, Estanis Mugerza, Luis Arregi

**Keywords:** Ecosystem Approach, Small Scale fishing, Management plan

**Presentation type:** Oral

**16:15**

**Discussion**

**16:30**

**Coffee break**

**CM Code:** G:329

**Title:** Does temporary closure of lobster (*Homarus gammarus*) grounds due to windfarm construction highlight a new approach to management of crustacean stocks?

**17:00**

**Authors:** Michael Roach, Mike Cohen, Domino Joyce, Andy Revill, Magnus Johnson

**Keywords:** Homarus gammarus, crustacean, fisheries, offshore wind farm, management

**Presentation type:** Oral

**CM Code:** G:194

**Title:** The “Menaide” small scale driftnets: an example of selective and traditional fisheries, sustaining the economy of small coastal villages in Italy

**17:15**

**Authors:** Paolo Sartor, P. Carbonara, G. Lembo, A. Lucchetti, R.F. Sabatella, M. Sbrana, M.T. Spedicato

**Keywords:** small scale fisheries, Mediterranean Sea, anchovy, driftnets, SWOT analysis, fishery management.

**Presentation type:** Oral

**CM Code:** G:299

**Title:** Local fishing communities and nature based tourism: shrimp fisheries and whale watching in Baja, Mexico

**17:30**

**Authors:** Alberto Ansategui, Duncan Knowler, Tobias Schwoerer, Salvador García-Martínez

**Keywords:** Local fishing communities, whale watching, valuation

**Presentation type:** Oral

**CM Code:** G:591

**Title:** Using environmental, social and economic criteria in the allocation of inshore fishing opportunities (Withdrawn)

**17:45**

**Authors:** Griffin Carpenter, Chris Williams

**Keywords:** MCDA, Article 17, nephrops, seabass

**Presentation type:** Oral

**18:00**

**Discussion**

**18:30**

**End of day**

**Friday 23 September 2016**

**CM Code:** G:237

09:00	<p><b>Title:</b> Fishing ports as a critical scale for coastal Mediterranean fisheries: Characterization using multiple socio-economic criteria  <b>Authors:</b> George Tserpes, Evangelos Tzanatos, Konstantinos Skarvelis  <b>Keywords:</b> typology, fishing port, small-scale fisheries, tourism, diversification activities  <b>Presentation type:</b> Oral</p>
09:15	<p><b>CM Code:</b> G:308  <b>Title:</b> Participatory bio-economic modelling of a small-scale trap fishery for Plesionika narval (Decapoda, Pandalidae) in the eastern Mediterranean Sea  <b>Authors:</b> Paris Vasilakopoulos, Christos D. Maravelias, Kostas Kapiris, Aikaterini Anastasopoulou, Chris Smith, Stefanos Kalogirou  <b>Keywords:</b> dodecanese, management plan, MEFISTO, participatory management, sustainability  <b>Presentation type:</b> Oral</p>
09:30	<p><b>CM Code:</b> G:493  <b>Title:</b> An individual based model of fisher behaviour for management scenario prediction in the Isle of Man scallop fishery  <b>Authors:</b> Jennifer Shepperson, Lee Murray, Steven Mackinson, Ewen Bell, Michel Kaiser  <b>Keywords:</b> fisheries, individual based model, patch choice behaviour, pattern oriented modelling, fisher participation  <b>Presentation type:</b> Oral</p>
09:45	<p><b>CM Code:</b> G:223  <b>Title:</b> Assessing the capability and willingness of skippers towards fishing industry-led data collection  <b>Authors:</b> Stephen C. Mangi, Samantha Smith, Thomas Catchpole  <b>Keywords:</b> English inshore sector, fishery dependent data, self-sampling, fully documented fisheries  <b>Presentation type:</b> Oral</p>
10:00	<p><b>CM Code:</b> G:485  <b>Title:</b> Development of a predictive model of shell disease for inshore lobster fisheries: A case study in Long Island Sound  <b>Authors:</b> Kisei Tanaka, Samuel Belknap, Jared Homola, Yong Chen  <b>Keywords:</b> American lobster, generalized additive model, Long Island Sound, epizootic shell disease  <b>Presentation type:</b> Poster</p>
10:02	<p><b>CM Code:</b> G:199  <b>Title:</b> Monitoring approaches of recreational fisheries in France under the Marine Strategy Framework Directive  <b>Authors:</b> Amélie Régimbart, Jérôme Baudrier, Eric Foucher, Manuel Bellanger  <b>Keywords:</b> recreational fisheries, monitoring approaches, stock assessment, Marine Strategy Framework Directive  <b>Presentation type:</b> Poster</p>
10:04	<p><b>CM Code:</b> G:355  <b>Title:</b> Economic gains from invasive species in the Gökova Bay: A small scale fishing experiment  <b>Authors:</b> Celal Ateş, Murat Çelik, Sezgin Tunca, Hasan Cerim  <b>Keywords:</b> Lessepsian migration, climate change, economics, small scale fishery, Gökova Bay  <b>Presentation type:</b> Poster</p>
10:06	<p><b>CM Code:</b> G:465  <b>Title:</b> A study on the seafood consumer behaviours: Diyarbakir province example  <b>Authors:</b> Mehmet Aydin, Yaşam Odabaşı, Sezgin Tunca  <b>Keywords:</b> consumer behaviors, seafood consumption, Diyarbakır  <b>Presentation type:</b> Poster</p>
10:08	<p><b>CM Code:</b> G:481  <b>Title:</b> Developing a sampling scheme to evaluate Norwegian marine recreational fisheries - a case study in the Oslofjord  <b>Authors:</b> Keno Ferter, Alf Ring Kleiven, Jonathan Edward Colman, Thrond Oddvar Haugen, Stian Stensland, Harry Vincent Strehlow, Marc Simon Weltersbach, Jon Helge Vølstad  <b>Keywords:</b> Recreational fishing, fisheries management, survey design, telephone survey, roving creel survey, human dimensions  <b>Presentation type:</b> Poster</p>
10:10	<p><b>CM Code:</b> G:209  <b>Title:</b> Recreational Marine fishing in Spain: a survey plan for a global approach  <b>Authors:</b> Ana Gordoa, Jordi Boada  <b>Keywords:</b> Spain, recreational fishing, survey, stakeholders  <b>Presentation type:</b> Poster</p>
10:12	<p><b>CM Code:</b> G:173  <b>Title:</b> The recreational fishery in Greece. A comparison to the small scale fishery  <b>Authors:</b> Kostas Kapiris, Stefanos Kavadas  <b>Keywords:</b> recreational fishery, Greece, small scale fishery  <b>Presentation type:</b> Poster</p>
10:14	<p><b>CM Code:</b> G:222  <b>Title:</b> Review of evidence on the impacts of under 10m and over 10m fishing fleets in England, UK  <b>Authors:</b> Stephen C. Mangi, Tristian Southall, Leila Fonseca    <b>Keywords:</b> Inshore fisheries assessment, social and economic impacts, data, inshore and offshore fleets  <b>Presentation type:</b> Poster</p>
10:16	<p><b>CM Code:</b> G:252  <b>Title:</b> Quantifying catches of the sport fishing community along the Maltese coast.  <b>Authors:</b> Sandra Agius Darmanin, Adriana Vella  <b>Keywords:</b> Sport fishing, coastal fish communities, conservation, Malta</p>

**Presentation type:** Poster

**CM Code:** G:157

**Title:** Dynamics of eel stock and landings in Latvia with a special emphasis on recovery program

**Authors:** Janis Birzaks, Janis Bajinskis, Kaspars Abersons, Eriks Aleksejevs

**Keywords:** European eel, anguilla anguilla, restocking

**Presentation type:** Poster

**CM Code:** G:202

**Title:** Are systems approaches an effective tool for integrated marine management – the case of the European seabass (*Dicentrarchus labrax*)

**Authors:** Hannah Tidbury, Kieran Hyder

**Keywords:** European seabass, integrated marine management, systems dynamics

**Presentation type:** Poster

**CM Code:** G:462

**Title:** Economic Value of Recreational Fishing in Foça and Gökova MPAs

**Authors:** Sezgin Tunca, Marko Lindroos, Lone Grønbæk Kronbak

**Keywords:** recreational fishing, economic value, travel cost, marine protected areas

**Presentation type:** Poster

**10:24 Discussion**

**10:30 End of session**

## Theme session H

**Looking backwards to move ahead: how the wider application of new technologies to interpret scale, otolith, statolith and other biomineralised age-registering structures could improve management of natural resources**

Convenors: Ewan Hunter (UK) Vladimir Laptikhovsky (UK) Philip Hollyman (UK)

Thursday 22 September 2016, 15:00-16:30, Alfa

Thursday 22 September 2016, 17:00-18:30, Alfa

Friday 23 September 2016, 09:00-10:30, Alfa

Friday 23 September 2016, 11:00-13:00, Alfa

Friday 23 September 2016, 14:00-17:00, Alfa

### Thursday 22 September 2016

15:00 Introduction

CM Code: H:207

Title: Biogenic carbonate records environmental variation in sulfur isotopes

15:05

Authors: Zoe Doubleday, John Cliff, Chris Izzo, Bronwyn Gillanders

Keywords: biogeochemical marker, sulfur isotopes, carbonate, diet, otolith

Presentation type: Oral

CM Code: H:83

Title: Ageing of cephalopods using hard structures

15:30

Authors: F.V.Lishchenko, A.V. Lishchenko

Keywords: cephalopods, hard structures, age determination, statoliths, beaks, lenses, vestigial shells

Presentation type: Oral

CM Code: H:538

Title: Juvenile river herring (*Alosa* species) otoliths identify spawning runs in coastal watersheds with poor nursery habitat

15:45

Authors: Daniel H. Zapf, Roger A. Rulifson

Keywords: otolith, elemental signatures, critical habitat, alosinae, river herring

Presentation type: Oral

CM Code: H:128

Title: Fish eye lenses allow us to see into the past, revealing geographic histories that can be compared to otolith trace-metal profiles

16:00

Authors: J. Granneman, A.A. Wallace, G.S. Ellis, D.J. Hollander, E.B. Peebles

Keywords: eye, otolith, Gulf of Mexico, isotope, metal, red snapper

Presentation type: Oral

CM Code: H:584

Title: Can otolith elemental composition reveal special events in the life history of a deep-sea species?

16:15

Authors: Inês Farias, Sílvia Pérez-Mayol, Miquel Palmer, Beatriz Morales-Nin, Ivone Figueiredo

Keywords: *Aphanopus carbo*, otolith elemental composition, LA-ICPMS, migratory dynamics

Presentation type: Oral

16:30 Coffee break

CM Code: H:547

Title: Assigning nursery habitats in Atlantic Goliath Groupers (*Epinephelus itajara*) using non-lethal analyses of fin rays

17:00

Authors: Orian E. Tzadik, David L. Jones, Ernst B. Peebles, Christopher C. Koenig, Christopher C. Stallings

Keywords: essential nursery habitat, fin ray chemistry, chemical maps, natural tags, trace element analysis, chemical fingerprints

Presentation type: Oral

CM Code: H:189

Title: Estuarine retention and production of striped bass larvae: A mark-recapture experiment

17:15

Authors: David H. Secor, Edward D. Houde, Loren L. Kellogg

Keywords: estuary, frontal regions, larval retention, salt front, larval mark recapture

Presentation type: Oral

CM Code: H:388

Title: Contingent structure of Northwest Atlantic mackerel evaluated using otolith stable isotopes

17:30

Authors: S.G. Redding, L. Cooper, D.H. Secor

Keywords: Atlantic mackerel, otolith, stable isotopes, Northwest Atlantic, population structure, contingents, natal origin

Presentation type: Oral

CM Code: H:204

Title: Ageing early life stages of *Octopus vulgaris*. Effect of temperature

17:45

Authors: Catalina Perales-Raya, Manuel Nande, Aurora Bartolomé, Caminón Gestal, Juan José Otero, Pablo García-Fernández, Eduardo Almansa

Keywords: early life, age, microstructure, beaks, cephalopod, octopus, paralarvae, temperature

Presentation type: Oral

CM Code: H:398

Title: Evidence of multidecadal recruitment in the ocean quahog, *Arctica islandica* in the western Atlantic Ocean

18:00

Authors: Sara M. Pace, Eric N. Powell, Roger Mann

Keywords: ocean quahog, population age frequency, recruitment, age-length key

Presentation type: Oral

18:15	<p><b>CM Code:</b> H:104  <b>Title:</b> Additive and synergistic impacts of fishing and warming on the growth of a temperate marine fish  <b>Authors:</b> John Morrongiello  <b>Keywords:</b> otolith biochronology, growth, harvest, density dependence, phenotypic change, thermal performance  <b>Presentation type:</b> Oral</p>
18:30	<p><b>CM Code:</b> H:454  <b>Title:</b> Effects of climate on cod life history and ecology along a temperate-arctic gradient  <b>Authors:</b> Hector Andrade, Bryan Black, Jane Godiksen, Will Ambrose, William Locke, Michael Carroll, Audrey Geffen  <b>Keywords:</b> chronology, life-history traits, latitudinal gradient, otolith microchemistry  <b>Presentation type:</b> Oral</p>
18:45 <b>End of the day</b>	
<b>Friday 23 September 2016</b>	
09:00	<p><b>Recap</b></p>
09:05	<p><b>CM Code:</b> H:426  <b>Title:</b> Can squid statoliths and pens provide useful information for fisheries management?  <b>Authors:</b> Graham Pierce, Lee C Hastie, Sansanee Wangvoralak, Jessica Jones, Alexander Arkhipkin  <b>Keywords:</b> squid, age, growth, assessment, fishery management  <b>Presentation type:</b> Oral</p>
09:30	<p><b>CM Code:</b> H:110  <b>Title:</b> Climate-driven synchrony of marine and terrestrial ecosystems in northwest Australia  <b>Authors:</b> J. Ong, A.N. Rountrey, J. Zinke, J.J. Meeuwig, P.F. Grierson, A.J. O'Donnell, S.J. Newman, J.M. Lough, M. Trougan, M.G. Meekan  <b>Keywords:</b> growth chronology, El Niño Southern Oscillation, environmental drivers of growth, tree-ring, otolith, coral core  <b>Presentation type:</b> Oral</p>
09:45	<p><b>CM Code:</b> H:286  <b>Title:</b> Validating the relationship between metabolic rate and otolith carbon isotopes in an iconic Australian fish species  <b>Authors:</b> Jasmin Martino, Zoe Doubleday, Anthony Fowler, Bronwyn Gillanders  <b>Keywords:</b> otolith, carbon isotopes, tissue chemistry, respirometry, metabolic rate, physiology  <b>Presentation type:</b> Oral</p>
10:00	<p><b>CM Code:</b> H:302  <b>Title:</b> Boundary based stock classification: Expert otolith readers outperform automated outlining methods  <b>Authors:</b> J. Mapp, M. Fisher, E. Hunter  <b>Keywords:</b> Otolith, Classification, Stock, Expert reader, Automation.  <b>Presentation type:</b> Oral</p>
10:15	<p><b>CM Code:</b> H:219  <b>Title:</b> Optimizing otolith <math>^{18}\text{O}</math> values for shelf-scale determination of provenance in a migratory flatfish  <b>Authors:</b> Audrey M. Darnaude, Camille Albouy, Anna M. Sturrock, Clive N. Trueman, Ewan Hunter  <b>Keywords:</b> fish migration, oxygen, stable isotopes, natural tag, plaice, North Sea  <b>Presentation type:</b> Oral</p>
10:30	<p><b>Coffee break</b></p>
11:00	<p><b>CM Code:</b> H:75  <b>Title:</b> Fish scales as non-lethal analogues to otoliths: reconstructing migrations across salinity gradients with geochemical proxies in alternative structures  <b>Authors:</b> Benjamin D. Walther, Matthew Seeley  <b>Keywords:</b> migration, scales, isotopes, trace elements, biominerals  <b>Presentation type:</b> Oral</p>
11:25	<p><b>CM Code:</b> H:257  <b>Title:</b> Strontium marking young eel for restocking in Sweden – preliminary results on a full scale implementation.  <b>Authors:</b> Håkan Wickström  <b>Keywords:</b> anguilla anguilla, restocking, otolith, marking, strontium, growth, management  <b>Presentation type:</b> Oral</p>
11:40	<p><b>CM Code:</b> H:74  <b>Title:</b> A novel approach to estimate natural and fishery related mortality of the common whelk, <i>Buccinum undatum</i> (L) using shell size distributions and age readings  <b>Authors:</b> V. Laptikhovsky, C. Barrett, C. Firmin, P. Hollyman, A. Lawler, R. Masefield, R. McIntyre, D. Palmer, M. Soeffker, M. Parker-Humphreys.  <b>Keywords:</b> whelk, buccinum, mortality, age, Celtic Sea  <b>Presentation type:</b> Oral</p>
11:55	<p><b>CM Code:</b> H:54  <b>Title:</b> Slave to the rhythm: Can seasonal signals in otolith microchemistry be used as a tool for age estimation?  <b>Authors:</b> Karin Hüssy, Franziska Heidemann, Hans-Harald Hinrichsen, Lasse Marohn, Joachim Gröger, Karin E. Limburg  <b>Keywords:</b> otolith, age estimation, microchemistry, Baltic Sea  <b>Presentation type:</b> Oral</p>
<b>CM Code:</b> H:277 <b>Title:</b> The statoliths of the whelk <i>Buccinum undatum</i> : a new age determination tool.	

**12:10** **Authors:** Phil Hollyman, Simon R. Chenery, EIMF, David Righton, Melanie J. Leng, Chris A. Richardson  
**Keywords:** statolith, buccinum undatum, gastropod, SIMS, age determination  
**Presentation type:** Oral

**CM Code:** H:99  
**Title:** Marginal increment analysis of fish otoliths: new insights across a range of species  
**12:25 Authors:** K. Mahé, M. Ethereton, J.L. Dufour, R. Elleboode, K. Sévin, H. de Pontual, B. Ernande  
**Keywords:** otolith, validation, age, marginal increment analysis  
**Presentation type:** Oral

**CM Code:** H:246  
**Title:** Environmental reconstructions from fish otoliths indicate change over decadal and centennial time scales  
**12:40 Authors:** Bronwyn M. Gillanders, Christopher Izzo, Zoe A. Doubleday, Morgan C. F. Disspain  
**Keywords:** chemical chronology, palaeoenvironmental reconstruction, element, otoliths, LA ICP-MS  
**Presentation type:** Oral

**13:00** **Lunch**

**CM Code:** H:474  
**Title:** Networks of biochronologies for environmental monitoring and climate reconstruction  
**14:00 Authors:** Paul Butler, Ariadna Purroy Albet, Stella Alexandroff, Irene Ballesta, Fabian Bonitz, Juan Estrella-Martínez, Amy Featherstone, Stefania Milano, Maria Pyrina, Tamara Trofimova, Liqiang Zhao  
**Keywords:** Arctica islandica, Glycymeris glycymeris, biochronology, marine climate, North Atlantic Ocean, environmental monitoring, bivalve mollusc  
**Presentation type:** Oral

**CM Code:** H:530  
**Title:** Are otoliths effective environmental monitoring tools for coastal zone management?  
**14:25 Authors:** Audrey J. Geffen  
**Keywords:** pollution monitoring, vaterite, coastal zone management  
**Presentation type:** Oral

**CM Code:** H:561  
**Title:** Reconstructing environmental history of water off the southern coast of Sicily with bomb radiocarbon validated longevity coupled with trace elements analysis in otoliths of Dentex gibbosus (Sparidae)  
**14:40 Authors:** S. Vitale, A.H. Andrews, S. Genovese, M. Sprovieri, P. Rizzo, S. Gancitano, A. Bonanno, F. Fiorentino  
**Keywords:** age validation, carbon-14, trace elements, Mediterranean, sparidae  
**Presentation type:** Oral

**CM Code:** H:125  
**Title:** Direct methods in age and growth studies of cephalopods  
**14:55 Authors:** A.I. Arkhipkin  
**Keywords:** age, growth, techniques, cephalopods  
**Presentation type:** Oral

**CM Code:** H:316  
**Title:** Otolith microchemistry: A tool to solve a mystery of the Baltic Sea flounder (*Platichys flesus*)  
**15:10 Authors:** Ustups Didzis, Samson, Melvin Armand, Florin, Ann-Britt, Nissling, Anders, Zilniece, Dace, Limburg, Karin  
**Keywords:** flounder, Baltic Sea, otoliths, microchemistry  
**Presentation type:** Oral

**15:25** **Discussion**

**CM Code:** H:68  
**Title:** Automatic recognition of otoliths which have a high shape similarity  
**15:40 Authors:** Youssef El Habouz, Youssef Es-saady, Mostafa El yassa, Driss Mammass, Fathallah Nouboud, Alain Chalifour, Khalid Manchih  
**Keywords:** fish, otoliths, shape analysis, otolith recognition, classification, normal angles , Fourier descriptors, 8-connected contour  
**Presentation type:** Poster

**CM Code:** H:84  
**Title:** Morphological changes of otoliths during the growth of icefish *Pseudochaenichthys georgianus*, *Chaenocephalus aceratus* and *Champscephalus gunnari*  
**15:43 Authors:** Ryszard Jacek Traczyk  
**Keywords:** SGI, ANI, otolith shape, age of icefish, Antarctic fish  
**Presentation type:** Poster

**CM Code:** H:146  
**Title:** Population of the Commander squid (*Berryteuthis magister*) in the area of the Northern Kuril Islands: age and life cycle reconstruction  
**15:46 Authors:** F.V. Lishchenko, A.V. Lishchenko, V.A. Bizikov, M.A. Zuev  
**Keywords:** Cephalopoda, Berryteuthis magister, age determination, life cycle, statoliths, Northern Kuril Islands  
**Presentation type:** Poster

**15:49** **Mini break**

**CM Code:** H:303  
**Title:** Stock identification of *Sprattus sprattus* within Irish waters using otolith microstructure  
**15:52 Authors:** Claire Moore, Deirdre Brophy, Maurice Clarke, Rick Officer

**Keywords:** otolith, sprattus sprattus, microsturture, larval origin

**Presentation type:** Poster

**CM Code:** H:377

**Title:** Assessing life-cycle and longevity of cold water octopods (Cephalopoda: Octopoda) using growth marks on hard body structures

**15:55**

**Authors:** Richard Schwarz, Hendrik Jan T. Hoving, Uwe Piatkowski, Thorsten Reusch

**Keywords:** octopods, cold water, growth, longevity, beaks, stylets

**Presentation type:** Poster

**CM Code:** H:379

**Title:** You can't swim from the past! Using otolith micro-chemistry to explore range-expansion in gilthead seabream

**15:58**

**Authors:** Jen Lewis, Frank van Veen, Ewan Hunter, Regan Early, Julian Metcalfe

**Keywords:** otolith microchemistry, trace elements, fisheries, habitat, climate change, range expansion

**Presentation type:** Poster

**CM Code:** H:396

**Title:** Synchrony of climate and fish growth patterns based on multidecadal otolith biochronology of the short-lived European flounder (*Platichthys flesus*)

**16:01**

**Authors:** Szymon Smoliński, Zuzanna Mirny

**Keywords:** climate, biochronology, otolith, Baltic Sea, European flounder, fish growth

**Presentation type:** Poster

**CM Code:** H:414

**Title:** Age validation and growth rate of larval and early juvenile pike (*Esox lucius* L.)

**16:04**

**Authors:** Dariusz P. Fey, Martyna Greszkiewicz, Adam M. Lejk

**Keywords:** otoliths, daily increments, deposition periodicity, fish growth

**Presentation type:** Poster

**CM Code:** H:473

**Title:** Assessing differences in climate responses between the fourth millennium BP and the present day in *Glycymeris glycymeris* at St Kilda, Scotland

**16:07**

**Authors:** Stella J. Alexandroff, James D. Scourse, Paul G. Butler

**Keywords:** bivalves, oxygen isotopes, North Atlantic, growth rates, archive

**Presentation type:** Poster

**CM Code:** H:532

**Title:** The use of strontium stable isotope ratios to infer juvenile European Sea Bass (*Dicentrarchus labrax*) estuarine fidelity and movement within high estuarine habitats

**16:10**

**Authors:** Thomas Stamp, Libby Ross, Tim Robbins, Shaun Plenty, Martin Attrill, Emma Sheehan

**Keywords:** stable isotope, strontium, European Bass (*Dicentrarchus labrax*)

**Presentation type:** Poster

**CM Code:** H:542

**Title:** Back-casting of adult striped bass otoliths using a random forests model to determine critical coastal nursery habitats

**16:12**

**Authors:** Coley S. Hughes, Roger A. Rulifson

**Keywords:** moronidae, otoliths, elemental signatures, statistical model, critical habitat

**Presentation type:** Poster

**CM Code:** H:549

**Title:** Chemical archives in fishes beyond otoliths: A review on the use of other body parts as chronological recorders of microchemical constituents for expanding interpretations of environmental, ecological, and life-history changes

**16:15**

**Authors:** Orian E. Tzadik, Joseph S. Curtis, Jennifer E. Granneman, Benjamin N. Kurth, Timothy J. Pusack, Amy A. Wallace, David J. Hollander, Ernst B. Peebles, Christopher D. Stallings

**Keywords:** diet, migration, trophic ontogeny, isoscape, element map, calcified structures, fish anatomy, element chronology

**Presentation type:** Poster

**CM Code:** H:625

**Title:** A preliminary test of post-depositional changes in naturally incorporated trace elements in the scales of one group of anadromous Atlantic salmon (*Salmo salar* L.)

**16:18**

**Authors:** Vidar Moen, Belinda Flem

**Keywords:** fish scales, Atlantic salmon (*Salmo salar* L.), post-depositional changes in naturally incorporated trace elements

**Presentation type:** Poster

**CM Code:** H:626

**Title:** Multiple alizarin immersion marking of juvenile sea trout *Salmo trutta* m. *trutta* L. otoliths as a practice in the stocking program

**16:21**

**Authors:** Adam M. Lejk, Andrzej Martyniak

**Keywords:** salmonids, fluorochromes, alizarin red S, batch marking, Łeba River

**Presentation type:** Poster

**16:24**

**Discussion time**

**17:00**

**End of session**

# Theme session I

Seasonal-to-decadal prediction of marine systems: opportunities, approaches, and applications (co-sponsored by PICES)

Conveners: Mark Payne (Denmark) Desirée Tommasi (USA) Alistair Hobday (Australia)

Monday 19 September 2016, 15:00-19:00, Alfa

Tuesday 20 September 2016, 10:00-13:00, Alfa

Tuesday 20 September 2016, 15:00-16:30, Alfa

## Monday 19 September 2016

15:00 Welcome and introductory remarks

CM Code: I:253

Title: Decadal-scale forecasting of climate drivers for marine applications

Authors: Alistair Hobday, Jim Salinger, Richard Matear, Terry O'Kane, James Risbey, J. Paige Eveson, Elizabeth A Fulton, Ming Feng, Eva E. Plaganyi, Elvira Poloczanska, Andrew Marshall, Peter A. Thompson

Keywords: climate variability, risk management, models, future

Presentation type: Oral

CM Code: I:652

Title: Skilful near term predictions over the North Atlantic region

Authors: Daniela Matei

Keywords: climate prediction

Presentation type: Oral

CM Code: I:190

Title: Seasonal forecasting for decision support in marine fisheries and aquaculture

Authors: Claire M. Spillman, Alistair J. Hobday, Jason R. Hartog, J. Paige Eveson

Keywords: climate variability, seasonal forecasting, risk management, salmon, tuna, prawn

Presentation type: Oral

CM Code: I:239

Title: NOAA Coral Reef Watch's Probabilistic Seasonal Prediction of Shallow-Water Coral Bleaching Thermal Stress for Informing Management Decisions

Authors: Gang Liu, C. Mark Eakin, Mingyue Chen, Arun Kumar, Jacqueline L. De La Cour, Erick F. Geiger, Scott F. Heron, William J. Skirving, Kyle V. Tiran, Alan E. Strong

Keywords: coral reef, coral bleaching, outlook, risk, stress, sea surface temperature, Coral Reef Watch

Presentation type: Oral

CM Code: I:543

Title: Value of ocean prediction to fisheries management

Authors: Desirée Tommasi, Charles Stock

Keywords: climate prediction, seasonal forecast, decadal forecast, fisheries management

Presentation type: Oral

CM Code: I:527

Title: Seasonal forecast of the timing of the Maine lobster fishery

Authors: Katherine E. Mills, Andrew J. Pershing

Keywords: forecasting, seasonal, lobster, climate adaptation

Presentation type: Oral

16:45 Sanity break

CM Code: I:330

Title: Multi-annual forecasts of Bluefin tuna habitat and distribution in the North Atlantic

Authors: Mark R. Payne, Daniela Matei, Brian R. MacKenzie

Keywords: bluefin tuna, seasonal-to-decadal prediction, biological forecasting, operational ecology, North Atlantic

Presentation type: Oral

CM Code: I:262

Title: Uncovering the environmental processes driving a seasonal migratory species characterized by strong inter annual fluctuations

Authors: Cecilia Pinto, Morgane Travers-Trolet Youen Vermaud

Keywords: INLA, inter annual variation, mullus surmuletus, random effects, seasonal migrations, spatio-temporal models

Presentation type: Oral

CM Code: I:132

Title: Suitability maps to show potential areas of high concentrations of unwanted catch. Can they be a new tool to aid fisheries management?

Authors: Smaragda Despoti , K.I. Stergiou, V. Vassilopoulou, A. Machias, A. Kallianiotis, V.D. Valavanis, M. Giannoulaki

Keywords: unwanted catch grounds, suitability maps, bottom trawl fishery, generalized additive models, Eastern Mediterranean, satellite environmental parameters

Presentation type: Oral

CM Code: I:276

Title: Forecasting the spawning distribution of blue whiting (*Micromesistius poutassou*)

Authors: Anna K. Miesner, Mark R. Payne

Keywords: environmental niche model/species distribution model, blue whiting, spawning distribution, forecasting, survey-design

Presentation type: Oral

	<b>CM Code:</b> I:421 <b>Title:</b> Collaborative nowcasting of seascape dynamics to develop models for accurate estimates of past and future availability of fish to fisheries and fisheries independent surveys
18:00	<b>Authors:</b> John P Manderson <b>Keywords:</b> Nowcasting seascape dynamics, fishing industry-science partnerships, fishery dependent monitoring, macroecological field methods, model development, integrated ocean observing system <b>Presentation type:</b> Oral
18:15	<b>Discussion</b>
18:45	<b>End of the day</b>
<b>Tuesday 20 September 2016</b>	
10:00	<b>Day two introductory remarks</b>
	<b>CM Code:</b> I:240 <b>Title:</b> The Predictability and Prediction Horizon of Population Dynamic Trajectories
10:10	<b>Authors:</b> Anna-Simone Frank, Sam Subbey <b>Keywords:</b> Time-series, predictability, forecast, forecast horizon, stage-structured, biomass <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:242 <b>Title:</b> Deriving Causal Drivers of Population Dynamics on Different Time Scales
10:25	<b>Authors:</b> Hiroko Solvang, Sam Subbey Anna-Simone Frank <b>Keywords:</b> Time-series, modeling, prediction, uncertainty, climate, fisheries dynamics, predator-prey <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:298 <b>Title:</b> When and how can we apply environmental indices that covary with stock dynamics? - A North Sea sandeel case study
10:40	<b>Authors:</b> Mikael van Deurs, Lotte Worsøe, Brian R. MacKenzie, Martin Lindegren <b>Keywords:</b> sandeel, North Sea, recruitment, forecasting, climate, zooplankton <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:351 <b>Title:</b> Investigating Hjort's second hypothesis - how to predict the part who is lost for recruitment?
10:55	<b>Authors:</b> Kjersti Opstad Strand, Frode Vikelø, Svein Sundby <b>Keywords:</b> biophysical model, pelagic juvenile transport, offspring loss, circulation pattern, weather events, recruitment mechanisms <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:655 <b>Title:</b> Assessing the Role of Environmental Factors on Baltic Cod Recruitment, a Complex Adaptive System Emergent Property
11:10	<b>Authors:</b> Dionysis Krekoukiotis, Dionysis Krekoukiotis, Artur Palacz and Michael St. John <b>Keywords:</b> Baltic cod, recruitment, artificial neural networks <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:272 <b>Title:</b> Applying north Atlantic climate-oceanographic models for forecasting European eel recruitment
11:25	<b>Authors:</b> Brian R. MacKenzie, Daniela Matei, Mark R. Payne <b>Keywords:</b> European eel, recruitment, dynamics, climate, temperature, forecasting, modelling <b>Presentation type:</b> Oral
11:40	<b>Sanity break</b>
	<b>CM Code:</b> I:628 <b>Title:</b> Four years on: Insights on forecasting a fish stock decline
11:55	<b>Authors:</b> Juan P. Zwolinski , Juan P. Zwolinski and David A. Demer <b>Keywords:</b> Fish production, PDO, regime shift, harmonic regression <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:601 <b>Title:</b> Ecosystem dynamics and the development of stock-specific scientific advice for fisheries management in the USA
12:10	<b>Authors:</b> Patrick D Lynch, Richard D Methot, Stacey Miller, Kristan Blackhart, Kathleen Szleper, Stephen K Brown <b>Keywords:</b> stock assessment, ecosystem dynamics, climate change <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:654 <b>Title:</b> Predicting Fisher Behavior under Changing Policies, Economics, and Environmental Conditions
12:25	<b>Authors:</b> Alan C. Haynie <b>Keywords:</b> fisher behavior, fleet dynamics, fisheries management, Bering Sea <b>Presentation type:</b> Oral
	<b>CM Code:</b> I:486 <b>Title:</b> Which environmental and human indicators best predict fish community status?
12:40	<b>Authors:</b> Danielle Dempsey, Wendy C. Gentleman, Mariano Koen-Alonso, Pierre Pepin <b>Keywords:</b> ecosystem based fisheries management, ecosystem indicators, neural network analysis, multivariate multiple regression, Grand Bank, Georges Bank <b>Presentation type:</b> Oral

12:55 Lunch break

15:00 Discussion section and future directions introduction

**CM Code:** I:653

**Title:** Future Directions in Seasonal-to-Decadal prediction of marine ecosystems

**15:10 Authors:** Mark Payne, Alistair Hobday, Desiree Tommasi

**Keywords:** ENSO, US West Coast, California Current, El Nino, biological forecasting

**Presentation type:** Oral

15:25 Break-out group discussions

16:00 Plenary discussions and summing up

# Theme session J

## What is a good pelagic habitat?

Convenors: Mark Dickey-Collas (ICES) Abigail McQuatters-Gollop (UK) Verena Trenkel (France)

Friday 23 September 2016, 09:00-10:30, Beta 2

Friday 23 September 2016, 11:00-13:00, Beta 2

### Friday 23 September 2016

#### 09:00 Introduction to session

CM Code: J:234

Title: Indicators and metrics: What can they contribute to define and monitor pelagic habitats?

09:10

Authors: V. Trenkel, M. Dickey-Collas, A. McQuatters-Gollop

Keywords: MSFD, pelagic habitat, metrics, surveillance indicators, reference points

Presentation type: Oral

CM Code: J:386

Title: Phytoplankton: supporting a good pelagic habitat

09:30

Authors: Jacqueline Fiona Tweddle, Matthew Gubbins, Beth E. Scott

Keywords: primary producers, phytoplankton, ecosystem services, patchiness, marine management

Presentation type: Oral

CM Code: J:432

Title: Better understanding of the state of pelagic habitat through the assessment of plankton functional and phylogenetic diversities

09:45

Authors: A. Aubert, I. Rombouts, F.A. Artigas, A. MacQuatters-Gollop

Keywords: pelagic habitat, plankton, indices, MSFD, diversity, functional diversity, traits, phylogeny

Presentation type: Oral

CM Code: J:573

Title: Mapping the ecological status of the fish community in the pelagic habitat: spatio-temporal trends of size-based indicators in the Baltic Sea

10:10

Authors: Michele Casini, Filip Käll, Manon Sorais, Niklas Larson

Keywords: pelagic habitat, acoustic surveys, food-web indicators, ecosystem state, spatial and temporal variability, MSFD

Presentation type: Oral

#### 10:30 Coffee break

CM Code: J:490

Title: On the lookout for suitable indicators for the Baltic pelagic food web - a potential evaluation framework

11:00

Authors: Saskia A. Otto, Martina Kadin, Michele Casini, Maria A. Torres, Anna Gårdmark, Magnus Huss, Ingo Fetzer, Thorsten Blenckner

Keywords: zooplankton and fish indicators, MSFD Descriptor 4, Central Baltic Sea

Presentation type: Oral

CM Code: J:169

Title: Social-ecological systems in practice – understanding the potential for use in UK marine policy and management (Withdrawn)

11:10

Authors: Kieran Hyder, Hannah Tidbury, Tiziana Luisetti

Keywords: social-ecological models, marine policy, marine management

Presentation type: Poster

CM Code: J:555

Title: Improvement of estimating kilka as the key species of ecosystem in the Caspian Sea

11:13

Authors: Parviz Zare, Kasatkina Svetlana

Keywords: fisheries acoustic

Presentation type: Poster

CM Code: J:590

Title: Supertrait size: suitable, easy-to-measure ecological indicators based on size

11:16

Authors: Tim Dukeck, Norbert Rohlf, Christian Möllmann, Marc Hufnagl

Keywords: size diversity, biodiversity, zooplankton size, normalized biomass size spectrum, English Channel

Presentation type: Poster

#### 11:19 Discussion and wrap-up

#### 13:00 End of session

## Theme session K

Making marine sediment extraction sustainable by mitigation of related processes with potential negative impacts

Conveners: Ad Stolk (the Netherlands) Keith Cooper (UK) Michel Desprez (France)

Friday 23 September 2016, 11:00-13:00, Omega 1

Friday 23 September 2016, 14:00-17:00, Omega 1

### Friday 23 September 2016

**CM Code:** K:641

**Title:** Introduction session

**11:00**

Make marine sediment extraction sustainable by mitigation of related processes with potential negative impacts

**Authors:** Ad Stolk

**Keywords:** marine sediment extraction, effect monitoring, resource mapping

**Presentation type:** Oral

**CM Code:** K:494

**Title:** Robust Marine Protected Area designation through the use of marine aggregate sector environmental data

**11:15**

**Authors:** Ian Reach, Stuart Lowe, Mark Russell, Andrew Bellamy, Joseph Holcroft, Louise Mann, Dafydd Lloyd Jones, Rob Langman

**Keywords:** Marine Protected Areas, nature conservation, aggregate dredging, North Sea, data, knowledge, information, designation,

palaeochannel, sandbanks, Ross worm, Sabellaria spinulosa reef, black bream, Spondylisoma cantharus

**Presentation type:** Oral

**CM Code:** K:431

**Title:** Quantifying the resource potential of Quaternary sands on the Belgian Continental Shelf: a 3D voxel modelling approach

**11:30**

**Authors:** Vasileios Hademenos, Lars Kint, Tine Missiaen, Jan Staflou, Vera Van Lancker

**Keywords:** resource estimation, 3D voxel model, North Sea, sand extraction, sustainability

**Presentation type:** Oral

**CM Code:** K:417

**Title:** Identifying, assessment and adaptive environmental management of environmental effects between UK dredging areas and herring Clupea harengus spawning habitat

**11:45**

**Authors:** Ian Reach, Phil Latto, Dafydd Lloyd Jones, Rob Langman, Caroline Chambers, Iain Warner, Mark Russell

**Keywords:** herring, Clupea harengus, North Sea, spawning area, aggregate dredging, gravel beds, geography, data, knowledge, information, environmental impact, adaptive management

**Presentation type:** Oral

**CM Code:** K:639

**Title:** Marine sand and gravel extraction for Helsinki harbor – monitoring the impact of the extraction works

**12:00**

**Authors:** Jyrki Hämäläinen

**Keywords:** Helsinki, marine aggregate, sand, gravel, extraction, monitoring

**Presentation type:** Oral

**CM Code:** K:640

**Title:** Large scale sand extraction. Monitoring effects on morphology and ecosystem

**12:15**

**Authors:** Ad Stolk

**Keywords:** large scale sand extraction, effect monitoring, suspended matter, recolonization, underwater noise

**Presentation type:** Oral

**CM Code:** K:638

**Title:** Combining measured and visually observed granulometric characteristics in updatable voxel models of seabed sediment

**12:30**

**Authors:** Sytze van Heteren

**Keywords:** seabed-sediment maps

**Presentation type:** Poster

**CM Code:** K:412

**Title:** MSFD-compliant investigative monitoring of the effects of intensive aggregate extraction on a far offshore sandbank, Belgian part of the North Sea

**12:35**

**Authors:** V.R.M. Van Lancker, M. Baeye, D. Evangelinos, G. Montereale-Gavazzi, N. Terseleer, D. Van den Eynde

**Keywords:** Marine Strategy Framework Directive, sediment plumes, gravel beds, North Sea

**Presentation type:** Poster

**12:40**

**Discussion**

**13:00**

**Lunch break**

**14:00**

**CM Code:** K:317

**Title:** Impact of dredging activity on the distribution and diet of demersal fish species in a commercial marine aggregate extraction site of the eastern Channel (Dieppe, France)

**Authors:** Michel Desprez

**Keywords:** marine aggregate extraction, demersal fish, habitat diversity, trophic relationships

**Presentation type:** Oral

**14:15**

**CM Code:** K:94

**Title:** Ecosystem based design rules for sand extraction sites

**Authors:** Maarten de Jong, Martin Baptist, Bas Borsje, Daan Rijks

**Keywords:** deep sand extraction, macrozoobenthos, hydrodynamics, ecosystem

**Presentation type:** Oral

	<b>CM Code:</b> K:380 <b>Title:</b> Relation between dredging intensity and frequency and its impact on a benthic sandy habitat <b>Authors:</b> Annelies De Backer, Kris Hostens <b>Keywords:</b> macrobenthos, dredging intensity, structural and functional characteristics, Belgian part of the North Sea <b>Presentation type:</b> Oral
14:30	<b>CM Code:</b> K:315 <b>Title:</b> The role of extraction strategy on the recovery of biological communities in two French sites of marine aggregate extraction in the eastern Channel. Management implications for sustainability <b>Authors:</b> Michel Desprez <b>Keywords:</b> marine aggregate extraction, benthos and fish recovery, eastern Channel, sustainability <b>Presentation type:</b> Oral
14:45	
15:00	<b>Discussion</b>
15:15	<b>CM Code:</b> K:172 <b>Title:</b> Marine aggregate dredging: a new monitoring approach to meet the needs of the Marine Strategy Framework Directive <b>Authors:</b> Keith Cooper, Jon Barry, Claire Mason <b>Keywords:</b> aggregate, dredging, benthos, macrofauna, sediments, recovery, monitoring, sea-floor integrity <b>Presentation type:</b> Oral
15:30	<b>CM Code:</b> K:617 <b>Title:</b> Optimization of monitoring and modelling frameworks to mitigate negative effects of aggregate extraction, Belgian part of the North Sea <b>Authors:</b> Nathan Terseleer, M. Roche, K. Degrendele, D. Van den Eynde, V.R.M. Van Lancker <b>Keywords:</b> monitoring, modelling, resource mapping, management plan, sustainable extraction, Marine Strategy Framework Directive <b>Presentation type:</b> Oral
15:45	<b>CM Code:</b> K:469 <b>Title:</b> Minimisation of the impact of sand extraction on the Belgian part of the North Sea by the introduction of a newly defined reference surface. <b>Authors:</b> Koen Degrendele, Marc Roche <b>Keywords:</b> sand extraction, sustainable, reference surface, minimization of impact <b>Presentation type:</b> Oral
16:00	<b>CM Code:</b> K:346 <b>Title:</b> Changes in bottom shear stress, due to aggregate extraction, in the area of the Hinder Banks (Belgian Continental Shelf) <b>Authors:</b> Dries Van den Eynde, Matthias Baeye, Michael Fettweis, Frederic Francken, Vera R.M. Van Lancker <b>Keywords:</b> bottom shear stress, Marine Strategy Framework Directive, modelling, sustainable extraction <b>Presentation type:</b> Oral
16:15	<b>CM Code:</b> K:275 <b>Title:</b> Developments in cumulative impact assessment from a marine minerals extraction view <b>Authors:</b> Jan A. van Dalfsen <b>Keywords:</b> mineral extraction, cumulative impacts assessment <b>Presentation type:</b> Oral
16:30	<b>Discussion and wrap up</b>
17:00	<b>End of session</b>

# Theme session L

Integration challenges in maritime spatial planning – approaches, science gaps, and communication demands

Conveners: Andreas Kannen (Germany) Matt Gubbins (UK) Michael Gilek (Sweden)

Tuesday 20 September 2016, 17:00-18:00, Omega 1

Wednesday 21 September 2016, 08:30-10:00, Omega 1

Wednesday 21 September 2016, 10:30-13:00, Omega 1

## Tuesday 20 September 2016

17:00 Introduction to session

CM Code: L:241

Title: Integration in Baltic Sea MSP: What role does it really play?

Authors: Fred Saunders, Michael Gilek, Björn Hassler, Ralph Tafon, Kira Gee, Jacek Zaucha

Keywords: marine spatial planning, integration, social science, Baltic Sea Region, transnational

Presentation type: Oral

CM Code: L:156

Title: Quality of cross-border collaboration in maritime spatial planning – an evaluation framework

Authors: Riku Varjopuro, Gunnar Lindberg, Janne Rinne, Heidi Lusenius

Keywords: maritime spatial planning, cross-border collaboration, evaluation, quality management

Presentation type: Oral

CM Code: L:619

Title: Towards integration and transnational collaboration in Baltic Marine Spatial Planning – Lessons learned from the Baltic Scope project

Authors: Andrea Morf, Alberto Giacometti, Michael Kull, John Moodie

Keywords: Baltic Sea, Baltic Scope, integration, lessons learned, marine spatial planning, transnational collaboration

Presentation type: Oral

18:00 End of day

## Wednesday 21 September 2016

CM Code: L:186

Title: Marine spatial planning as a tool to enable adaptive governance: implications for practice and evaluation

Authors: Lucy Greenhill

Keywords: marine spatial planning, adaptive management, adaptive governance, dialogue, sustainability

Presentation type: Oral

CM Code: L:447

Title: Ocean-scape designing by vectors of citizen's consciousness: a practical case study from the Tokyo Bay of Japan

Authors: Hiroaki Sugino, Nobuyuki Yagi, Yutaka Michida

Keywords: ocean-scape designing, citizen's consciousness, forging consensus, free-writing questionnaire, text mining

Presentation type: Oral

CM Code: L:586

Title: Integrating effective fisheries consultation in marine spatial management

Authors: Andrew Minkiewicz, Richard Robins

Keywords: marine spatial planning, maritime spatial planning, fisheries consultation, best management practices, stakeholder integration, conflict resolution

Presentation type: Oral

CM Code: L:620

Title: Identifying risk and opportunities resulting from multiple activities under a changing climate: A case study in the South and East Marine Plan Areas, UK

Authors: Silvana Birchenough, Simon Jude, Andrew Gill, Stephen Dye, Paul Buckley, Bryony Townhill, John, K. Pinnegar

Keywords: marine spatial planning, climate change, risks, opportunities, human activities.

Presentation type: Oral

CM Code: L:360

Title: Using Species Distribution Models to predict king scallop (*Pecten maximus*) distribution along the East coast of Scotland

Authors: Stanley Mastrandonis, Andronikos Kafas, Anne McLay, Lynda Blackadder, Helen Dobby, Laura Williamson, Beth Scott

Keywords: SDM, king scallop, marine spatial management, machine learning algorithms

Presentation type: Oral

CM Code: L:437

Title: Assessing the significance of fishing and natural disturbance at local scales

Authors: S.F. Walmsley, R. Blyth-Skyrme, D. Rodmell, W. Lart, P.S. Weller, N.K. Dewey, D.O. Lambkin, and F.G. O'Neill

Keywords: fishing disturbance, natural disturbance, fishing impacts, numerical modelling

Presentation type: Oral

10:00 Coffee break

CM Code: L:570

Title: Ecosystem based approach in MSP development – Latvian case study

Authors: Solvita Strake, Ingrida Purina, Madara Alberte

Keywords: Ecosystem based approach, MSP, Baltic Sea

**Presentation type:** Oral

10:45	<p><b>CM Code:</b> L:45 <b>Title:</b> Developing an estuarine planning support system: a case study for the Humber Estuary, Eastern England <b>Authors:</b> Jemma-Anne Lonsdale, Mike Elliott, Keith Weston <b>Keywords:</b> ecosystem goods and services, estuarine planning framework, estuary, Humber <b>Presentation type:</b> Oral</p>
11:00	<p><b>CM Code:</b> L:562 <b>Title:</b> The risks of ignoring culture ecosystem services from marine planning <b>Authors:</b> Rachel Shucksmith, Charlotte Slater <b>Keywords:</b> cultural ecosystem services, marine spatial planning <b>Presentation type:</b> Oral</p>
11:15	<p><b>CM Code:</b> L:279 <b>Title:</b> Incorporating stakeholders' values in marine spatial planning process <b>Authors:</b> Mirka Laurila-Pant, Annukka Lehikoinen, Samu Mäntyniemi, Riikka Venesjärvi <b>Keywords:</b> stakeholder involvement, social values, cultural values, marine spatial planning <b>Presentation type:</b> Oral</p>
11:30	<p><b>CM Code:</b> L:604 <b>Title:</b> Interpolating fishing vessel tracks to improve representation of the use of marine space by commercial fisheries in marine spatial planning <b>Authors:</b> Mailly Billet, Andronikos Kafas, Bruce Buchanan, Ian Davies, Matt Gubbins, Coby Needle, Beth Scott <b>Keywords:</b> vessel monitoring systems, marine spatial planning, fishing effort, vessel track interpolation <b>Presentation type:</b> Oral</p>
11:45	<p><b>CM Code:</b> L:592 <b>Title:</b> Opportunities for improving inclusion of fisheries-based knowledge in marine spatial management practices <b>Authors:</b> Anne Hawkins, Melissa Garren <b>Keywords:</b> marine spatial planning, maritime spatial planning, traditional knowledge, multi-use conflicts, cumulative impacts <b>Presentation type:</b> Oral</p>
12:00	<p><b>CM Code:</b> L:114 <b>Title:</b> Individual Stress Level Analyses (ISLA) communicate impact of spatial management options on national or local fisheries communities to decision makers <b>Authors:</b> Torsten Schulze, Katell Hamon, Katharina Schulte, Francois Bastardie, Niels Hintzen <b>Keywords:</b> fishing effort, spatial management options, loss of fishing grounds, fisheries revenues <b>Presentation type:</b> Oral</p>
12:15	<p><b>CM Code:</b> L:575 <b>Title:</b> Spatio-temporal modelling of fishing effort pattern after displacement due to offshore wind developments using INLA <b>Authors:</b> A. Kafas, J. B. Illian, I. M. Davies, B. E. Scott <b>Keywords:</b> Integrated Nested Laplace Approximation, Gaussian Markov Random Fields, fisheries, displacement, offshore wind <b>Presentation type:</b> Oral</p>
12:30	<p><b>CM Code:</b> L:210 <b>Title:</b> Integrating Quality Management into the Maritime Spatial Planning processes: Estonian case <b>Authors:</b> Robert Aps, Mihhail Fetissov, Madli Kopti, Henn Ojaveer <b>Keywords:</b> Maritime Spatial Planning, Quality Management System, Baltic Sea fishery, performance monitoring, quality evaluation <b>Presentation type:</b> Oral</p>
12:45	<p><b>Discussion and wrap-up</b></p>
13:00	<p><b>End of session</b></p>
<p><b>Posters</b></p>	
	<p><b>CM Code:</b> L:588 <b>Title:</b> Role of MSP in securing investments in offshore wind: application of process quality management tool <b>Authors:</b> Ivana Lukic <b>Keywords:</b> process quality management, MSP, integration, offshore wind <b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> L:645 <b>Title:</b> The Celtic Seas Partnership <b>Authors:</b> Penny Wilson <b>Keywords:</b> MSFD, Good environmental status, Celtic Seas Partnership <b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> L:385 <b>Title:</b> Incorporating ecosystem function into MPA Network planning <b>Authors:</b> M. R. Anderson, M. Koen-Alonso, R. Gregory, N. Wells <b>Keywords:</b> ecosystem function, MPA Network, spatial planning and non-spatial features <b>Presentation type:</b> Poster</p>
	<p><b>CM Code:</b> L:91 <b>Title:</b> Helping fishers to reduce discards: a spatial approach <b>Authors:</b> Maria Grazia Pennino, Raul Vilela, Xulio Valeiras, Jose M. Bellido</p>

**Keywords:** discards, RAC-BRT, stakeholder integration.

**Presentation type:** Poster

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**CM Code:** L:333

**Title:** Mapping science into management: The CFP connection

**Authors:** Ernesto Jardim, Iago Mosqueira, Finlay Scott, Chato Osio, John Casey, Maurizio Gibin, Norman Graham, Ken Patterson

**Keywords:** CFP, management, scientific advice, policy decision, management units, biological entity

**Presentation type:** Poster

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**CM Code:** L:621

**Title:** Incorporating ecosystem function into MPA Network planning

**Authors:** M. Robin Anderson, M. R. Anderson, M. Koen-Alonso, R. Gregory, N. Wells

**Keywords:** ecosystem function, MPA Network, spatial planning and non-spatial features

**Presentation type:** Poster

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**CM Code:** L:314

**Title:** The Amsterdam Effect: multiple stakeholder cooperation for successful management of sharks and rays

**Authors:** Paddy Walker, Irene Kingma, Dale Rodmell

**Keywords:** landing obligation, group-TAC, prohibited species, spatial management, tagging, sharks and rays, multiple stakeholders, social ecological model

**Presentation type:** Poster

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# Theme session M

The role of zooplankton in exploited ecosystems: top-down and bottom-up stresses on pelagic food webs

Convenors: Angus Atkinson (UK) Webjoern Melle (Norway) Piotr Margoński (Poland)

Thursday 22 September 2016, 10:00-13:00, Beta 2

Thursday 22 September 2016, 15:00-16:30, Beta 2

Thursday 22 September 2016, 17:00-18:30, Beta 2

## Thursday 22 September 2016

10:00 Introduction

CM Code: M:642

Title: Sensitivity of marine copepods to bottom-up and top-down forcing

Authors: Rubao Ji

Keywords: plankton, copepods, modeling, top-down, bottom-up

Presentation type: Oral

CM Code: M:576

Title: Primary productivity – an important structuring variable in marine plankton food webs

Authors: Tore Johannessen

Keywords: primary productivity, predator-prey synergism, zooplankton, phytoplankton, nanoflagellates, bacteria, phages, nutrient cycling, eutrophication

Presentation type: Oral

CM Code: M:139

Title: Recent change in the long-term dynamics of copepods influence the pelagic food web structure in the Gulf of Riga

Authors: Gunta Rubene, Didzis Elferts, Ivars Putnis

Keywords: Baltic Sea, copepods, Eurytemora affinis, Limnocalanus macrurus, herring, pelagic foodweb

Presentation type: Oral

CM Code: M:480

Title: Impact of cyanobacteria on the mesozooplankton trophic structure and amino acid metabolism in the Central Baltic Sea

Authors: Elvita, Dirk Wodarg, Iris Liskow, Detlef Schulz-Bull, Natalie Loick-Wilde

Keywords: stable isotopes, compounds-specific isotope analysis, amino acids, trophic structure, diazotrophic nitrogen, foodwebs, Central Baltic Sea

Presentation type: Oral

CM Code: M:448

Title: Potential impact zooplankton prey preferences on the estimation of mesoscale zooplankton processes.

Authors: Richard B. Rivkin, M. Robin Anderson

Keywords: foodweb, phytoplankton, ingestion, microzooplankton, zooplankton

Presentation type: Oral

CM Code: M:151

Title: The structure and some features of the mathematical model for study of the influence food preferences of zooplankton on the dynamic behaviour of N-P-Z-D plankton food web

Authors: Konstantin Podgornyj, Olga Dmitrieva

Keywords: mathematical modeling, plankton food webs, N-P-Z-D model, types of dynamic regimes, bifurcations, periodic and chaotic oscillations

Presentation type: Oral

CM Code: M:261

Title: Long-term dynamics of small copepods in a coastal area of the Baltic Sea

Authors: Riina Klais, Saskia Otto, Marilyn Teder, Mart Simm, Henn Ojaeveer

Keywords: Eurytemora affinis, Acartia spp., Pärnu Bay (Gulf of Riga), hydroclimate forcing, predation

Presentation type: Oral

CM Code: M:376

Title: The role of zooplankton as central trophic level in the “wintery” English Channel: environmental drivers, size and herring larvae from 1988 to 2016

Authors: Tim Dukek, Norbert Rohlf Christian Möllmann Marc Hufnagl

Keywords: size-spectrum, English Channel, herring larvae, long-term time-series analysis, bottom-up effects

Presentation type: Oral

CM Code: M:267

Title: Large scale ocean connectivity and body size

Authors: Ernesto Villarino, Watson, Gasol, Salazar, Acinas, Estrada, Massana, Giner, Pernice, Olivari, Citores, Corell, Rodriguez - Ezpeleta, Jönsson, Acuña, Molina, Gonzalez-Gordillo, Cuesta, Agusti, Fraile-Nuez, Arrieta, Mayol, Duarte, Irigoien, Guillem, Chust

Keywords: Malaspina, body-size, connectivity, global, β-diversity, oceanic, pelagic

Presentation type: Oral

CM Code: M:65

Title: A statistical regression approach to estimate zooplankton mortality rates

Authors: Kristina Øie Kvile, Leif C. Stige, Irina Prokopchuk, Øystein Langangen

Keywords: Calanus finmarchicus, mortality, predation, statistical regression approach, top-down control, vertical life table

Presentation type: Oral

<b>12:40</b>	<b>CM Code:</b> M:374 <b>Title:</b> Zooplankton in the Baltic Sea food web – testing indicator parameters using signal detection theory <b>Authors:</b> Susanna Jernberg, Maiju Lehtiniemi, Laura Uusitalo <b>Keywords:</b> zooplankton, indicator, mean size, abundance, copepods, signal detection theory <b>Presentation type:</b> Oral
<b>13:00</b>	<b>Lunch</b>
<b>15:00</b>	<b>CM Code:</b> M:364 <b>Title:</b> The role of temperature as a proxy for prey availability <b>Authors:</b> Dafne Eerkes-Medrano, Kathryn B. Cook Peter J. Wright <b>Keywords:</b> temperature, food web, kittiwakes, Rissa tridactyla, sandeel, Ammodytes marinus, Calanus finmarchicus, Calanus helgolandicus <b>Presentation type:</b> Oral
<b>15:15</b>	<b>CM Code:</b> M:231 <b>Title:</b> Intraguild predation of Atlantic mackerel on early life stages of anchovy and sardine <b>Authors:</b> Eneko Bachiller, Elsa Cuende, Paula Álvarez, Almudena Fontán, Naiara Rodriguez-Ezepeleta, Unai Cotano <b>Keywords:</b> Scomber scombrus, intraguild predation, ichthyoplankton, spatial overlap, stomach contents, metagenetics <b>Presentation type:</b> Oral
<b>15:30</b>	<b>CM Code:</b> M:176 <b>Title:</b> Clupeids in the Irish Sea: Evidence of food mediated density-dependent control of an abundant forage species <b>Authors:</b> S.E. Beggs, P.J. Schon, I. McCausland <b>Keywords:</b> Sprattus sprattus, condition factor, Irish Sea, density-dependent growth <b>Presentation type:</b> Oral
<b>15:45</b>	<b>CM Code:</b> M:622 <b>Title:</b> Population cycles of Antarctic krill <b>Authors:</b> Alexey Ryabov , A. M. de Roos, B.Meyer, S.Kawaguchi, B.Blasius <b>Keywords:</b> Euphausia superba, population cycles, ontogenetic models <b>Presentation type:</b> Oral
<b>16:00</b>	<b>CM Code:</b> M:159 <b>Title:</b> Zooplankton and fish: revealing key processes in predator–prey dynamics in the Barents Sea <b>Authors:</b> Leif Chr. Stige, Kristina Ø. Kvile, Øystein Langangen <b>Keywords:</b> zooplankton, capelin, species interactions, time series, Bayesian state space analysis <b>Presentation type:</b> Oral
<b>16:15</b>	<b>Discussion</b>
<b>16:30</b>	<b>Coffee break</b>
<b>17:00</b>	<b>CM Code:</b> M:337 <b>Title:</b> Diet and consumption of zooplankton by polar cod <i>Boreogadus saida</i> (Lepechin, 1774) in the Barents Sea <b>Authors:</b> Irina Prokopchuk <b>Keywords:</b> polar cod, feeding, consumption, zooplankton, the Barents Sea <b>Presentation type:</b> Oral
<b>17:15</b>	<b>CM Code:</b> M:352 <b>Title:</b> Offshore Wind Farms in the North Sea: Is there an effect on the zooplankton community? <b>Authors:</b> Dominik Auch <b>Keywords:</b> offshore wind farms, zooplankton, triaxus, video plankton recorder, meroplankton <b>Presentation type:</b> Oral
<b>17:30</b>	<b>CM Code:</b> M:630 <b>Title:</b> A view from the south: use of composite time series data to determine how recruitment and mortality modulate krill population size. <b>Authors:</b> Angus Atkinson, , Simeon Hill, Sevrine Sailley, John Bruun, Volker Siegel, Evgeny Pakhomov, Debbie Steinberg, Katrin Schmidt, Christian Reiss, So Kawaguchi <b>Keywords:</b> Antarctic krill, Southern Ocean, southern annular mode, recruitment, mortality <b>Presentation type:</b> Oral
<b>17:45</b>	<b>CM Code:</b> M:220 <b>Title:</b> Quantification of plankton and fish in offshore wind farms using a novel multibeam echosounder approach. <b>Authors:</b> Dominik Gloe <b>Keywords:</b> planktivorous fish, zooplankton, top-down, offshore wind farm, multibeam echosounder <b>Presentation type:</b> Poster
<b>17:47</b>	<b>CM Code:</b> M:477 <b>Title:</b> Decapod larval communities of the Mediterranean and Atlantic basins <b>Authors:</b> Rita F. T. Pires, Maria Pan, Ignácio A. Catalán, Laura Prieto, A. Miguel P. Santos, Cláudia Faria, Susana Ferreira, Antonina dos Santos <b>Keywords:</b> decapoda, larval transport, connectivity, Algarve, Mediterranean Sea, Strait of Gibraltar <b>Presentation type:</b> Poster
	<b>CM Code:</b> M:497 <b>Title:</b> Size-selective microzooplankton grazing on the phytoplankton in the Curonian Lagoon (SE Baltic Sea)

17:49	<b>Authors:</b> Evelina Grinienė, Harri Kuosa <b>Keywords:</b> Ciliates, pico- and nanophytoplankton, dilution experiments, phytoplankton pigments, predator-prey interactions <b>Presentation type:</b> Poster
17:51	<b>CM Code:</b> M:517 <b>Title:</b> Diel Vertical Migration in Zooplankton: Looking for the Optimal Survival Strategy <b>Authors:</b> Anastasia Nikishina, Andrew Morozov, Ludmila Artemieva <b>Keywords:</b> zooplankton diel vertical migration, optimal strategy modelling, copepods <b>Presentation type:</b> Poster
17:53	<b>CM Code:</b> M:526 <b>Title:</b> Zooplankton diversity in Lisbon Bay: seasonal variation and temporal changes in the Portuguese upwelling system <b>Authors:</b> Raquel Marques, João Pastor, Cátia Bartilotti, Rita F. T. Pires, Ana Teresa Pereira, Inês Dias, Lígia Sousa, Antonina dos Santos <b>Keywords:</b> Zooplankton, gelatinous, coastal, species succession, Portugal <b>Presentation type:</b> Poster
17:55	<b>CM Code:</b> M:593 <b>Title:</b> Overfishing of planktivorous fishes and eutrophication may have the same impact on the structure of marine planktonic food webs <b>Authors:</b> Tore Johannessen <b>Keywords:</b> primary productivity, plankton, planktivores, eutrophication, overfishing, energy flow <b>Presentation type:</b> Poster
17:57	<b>CM Code:</b> M:475 <b>Title:</b> Is there a longitudinal plankton abundance gradient in the Levantine? Lessons from Continuous Plankton Recorder preliminary results. <b>Authors:</b> Rana Abu Alhaija, Carlos Jimenez <b>Keywords:</b> Continuous Plankton Recorder, Levantine, Mediterranean, biodiversity <b>Presentation type:</b> Poster
17:59	<b>CM Code:</b> M:479 <b>Title:</b> Food from above: Distribution of zooplankton over a deep water coral community in the Eastern Mediterranean Sea <b>Authors:</b> Rana Abu Alhaija, Carlos Jimenez, Covadonga Orejas <b>Keywords:</b> foodweb, deep water corals, zooplankton, Levantine, Mediterranean, Cyprus <b>Presentation type:</b> Poster
18:01	<b>CM Code:</b> M:112 <b>Title:</b> Trophic control in the Guadalquivir estuary and neighbouring waters of the Gulf of Cadiz <b>Authors:</b> G.F. Carvalho-Souza, M. Llope, F. Baldó, C. Vilas, P. Drake, E. González-Ortegón <b>Keywords:</b> anchovy, mysids, time-series, environmental and anthropogenic drivers <b>Presentation type:</b> Poster
18:03	<b>Discussion</b>
18:30	<b>End of session</b>

## Theme session N

Long-term phytoplankton trends in the ICES area: regional distribution, bloom dynamics and response to environmental drivers

Conveners: Alexandra Kraberg (Germany) Eileen Bresnan (UK) Marie Johansen (Sweden)

Friday 23 September 2016, 14:00-17:00, Beta 2

### Friday 23 September 2016

14:00 Introduction

**CM Code:** N:281

**Title:** High-resolution monitoring of toxic dinoflagellate species and their biogeographic distribution in the North Atlantic and Polar Seas

**Authors:** Johanna Hessel, Pim Sprong, Urban Tillmann, Bernd Krock, Katja Metfies

**Keywords:** microalgae monitoring, toxic dinoflagellates, rRNA biosensor

**Presentation type:** Oral

**CM Code:** N:135

**Title:** Phytoplankton phenology on the decadal scale: lessons from Helgoland Roads, North Sea

**Authors:** Mirco Scharfe, Karen H. Wiltshire

**Keywords:** phytoplankton, phenology, species-specific differences, climate variability, North Sea, Helgoland Roads time-series

**Presentation type:** Oral

**CM Code:** N:382

**Title:** The use of the IOC-ICES-PICES Harmful Algal Event Database (HAE-DAT) to detect spatial and temporal trends in harmful algal bloom events in UK waters

**Authors:** Eileen Bresnan, Keith Davidson, April McKinney, Steve Milligan, Catherine Belin, Henrik Enevoldsen

**Keywords:** harmful algae, paralytic shellfish toxins, amnesic shellfish toxins, HAE-DAT

**Presentation type:** Oral

**CM Code:** N:434

**Title:** Interannual Chlorophyll a Variability During 2004-2015 in The Eastern part of the Gulf of Finland with Remote Sensing and In-Situ Data

**Authors:** Ekaterina Kochetkova

**Keywords:** chlorophyll a, Remote sensing, in-situ data, eastern part of the Gulf of Finland

**Presentation type:** Poster

**CM Code:** N:381

**Title:** The spring diatom bloom in Scottish waters; regional differences and interannual variation

**Authors:** Eileen Bresnan, Sheila Fraser, Lyndsay Brown, Pablo Leon Diaz, Kathryn Cook, Sarah Hughes, Pam Walsham, Lynda Webster

**Keywords:** phytoplankton, spring bloom, diatoms, Skeletonema

**Presentation type:** Oral

**CM Code:** N:71

**Title:** Seasonal phytoplankton blooms in the North Atlantic linked to the overwintering strategies of copepods

**Authors:** Kevin D. Friedland, Nicholas R. Record, Rebecca G. Asch, Trond Kristiansen, Vincent S. Saba, Ken Drinkwater, Stephanie Henson, Robert T. Leaf, Ryan E. Morse, David G. Johns, Scott I. Large, Solfrid S. Hjøllo, Janet A. Nye, Mike A. Alexander, Rubao Ji

**Keywords:** phytoplankton bloom, phenology, North Atlantic, zooplankton, temperature, diapause

**Presentation type:** Oral

**CM Code:** N:484

**Title:** Phytoplankton community and controlling factors of primary production in the Gulf of Riga (Baltic Sea)

**Authors:** Iveta Jurgensone, Atis Labucis, Ieva Bārda, Anda Ikauniece

**Keywords:** Baltic Sea, Gulf of Riga, environmental changes, phytoplankton, primary production, *Myrionecta rubrum*

**Presentation type:** Oral

**CM Code:** N:331

**Title:** How skilful are projections of plankton distribution shifts in a changing climate?

**Authors:** Philipp Brun, Thomas Kiørboe, Priscilla Licandro, Mark R. Payne

**Keywords:** climate change, comparative model performance, continuous plankton recorder, copepod, diatom, dinoflagellate, future prediction, positive predictive value, species distribution model, true skill statistic

**Presentation type:** Oral

**CM Code:** N:545

**Title:** Long-term biogeography of key phytoplankton groups in the North Sea in relation to environmental factors and hydrography

**Authors:** Alexandra C. Kraberg, Mirco Scharfe, Eileen Bresnan, Marie Johansen, Claire Widdicombe

**Keywords:** phytoplankton, long-term dynamics, biogeography

**Presentation type:** Oral

**CM Code:** N:605

**Title:** What are Marine Ecological Time Series telling us about the ocean? A status report

**Authors:** Kirsten Isensee, Todd O'Brien, Laura Lorenzoni, Luis Valdes

**Keywords:** phytoplankton, zooplankton, climate change, time series, observation

**Presentation type:** Oral

**CM Code:** N:247

**Title:** SEA TEMPERATURE RISE, CHANGE IN EUTROPHICATION, AND PHYTOPLANKTON COMPOSITION (1987-2013) IN THE SYLT-RØMØ BIGHT, NORTH SEA; GERMANY

**16:03**      **Authors:** Johannes Rick, Malte Elbrächter, Bryan Manly, Karen Wiltshire

**Keywords:** phytoplankton composition, time-series, North Sea

**Presentation type:** Oral

**16:18**      **Integrating molecular methods into long-term plankton observations.**

**16:33**      **Discussion**

**17:00**      **End of the day**

# Theme session O

"When is enough, enough?" Methods for optimising, evaluating, and prioritising of marine data collection (co-sponsored by PICES)

Conveners: J.H. Vølstad (Norway) Mike Armstrong (UK) Marie Storr-Paulsen (Denmark) Robyn Forrest (Canada)

Tuesday 20 September 2016, 17:00-18:00, Alfa

Wednesday 21 September 2016, 08:30-10:00, Alfa

Wednesday 21 September 2016, 10:30-13:00, Alfa

Thursday 22 September 2016, 10:00-13:00, Alfa

## Tuesday 20 September 2016

17:00 Presentation of theme session by the conveners

CM Code: O:519

Title: Custom-tailored or fit for multi-purpose? Options for (re)designing North Sea fisheries surveys

17:15 Authors: Anne Sell, Julia Wischnewski, Holger Haslob & Francisco Marco-Rius

Keywords: Survey design, stratification, allocation

Presentation type: Oral

CM Code: O:166

Title: Effect of shortening haul durations on a survey's species richness estimates (to be presented by Verena Trenkel)

17:30 Authors: M. Moriarty, A.F. Sell, V. M. Trenkel, Y. Vérin, S.P.R. Greenstreet

Keywords: IBTS, species richness, MSFD, body size, North Sea

Presentation type: Oral

CM Code: O:564

Title: Beyond cod and haddock: challenges for optimizing bottom trawl surveys for ecosystem monitoring

17:45 Authors: V. Trenkel, L. Pawlowski M. Robert

Keywords: IBTS, survey design, community, monitoring

Presentation type: Oral

18:00 End of the day

## Wednesday 21 September 2016

CM Code: O:491

Title: Quantifying optimal sampling effort for estimating recruit abundance for juvenile anadromous alewife

08:30 Authors: Matthew T. Devine, Allison H. Roy, Andrew R. Whiteley, Adrian Jordaan

Keywords: anadromous alewives, sampling effort, stock assessment, uncertainty

Presentation type: Oral

CM Code: O:177

Title: Identification of optimal sub-sampling approach for video trawl survey analysis

08:45 Authors: Travis M. Lowery, Greg R. DeCelles, Kevin D.E. Stokesbury

Keywords: underwater camera, flatfish, Georges Bank, trawl survey

Presentation type: Oral

CM Code: O:435

Title: Using simulation to assess the effects of various sampling schemes on estimates of population characteristics of fish from bottom-trawl surveys

09:00 Authors: Paul M. Regular, Fran Mowbray

Keywords: length and age distribution, simulation, spatial correlation, stratified analysis, statistical assessment models, survey design

Presentation type: Oral

CM Code: O:521

Title: Data quality in fisheries science

09:15 Authors: L Duboca, N Billet, J Vigneau, A Vastel, N Goascoz, A Cornou, S Démanèche, J Weiss, M Merzereaud, A Pout, L Clark, M

Armstrong, C Chen, K Mahe, M Hansson, A Ribeiro Santos, E Velasco, C Stransky

Keywords: data quality, fishery data, R, fishPi, opensource

Presentation type: Oral

CM Code: O:235

Title: Optimizing otoliths sampling design in fishery-independent surveys for stock assessments

09:30 Authors: Gwladys Lambert, Thomas Hesler, Pete Hulson, Anne Hollowed

Keywords: ageing error, age composition, fishery-independent data collection, length-stratified sampling, otoliths, simple random sampling, stock assessment

Presentation type: Oral

09:45 Discussions

10:00 Coffee break

CM Code: O:511

Title: Evaluating bias in an observer and self-sampling discard programme

10:30 Authors: Chun Chen, Ruben Verkempynck, Edwin van Helmond, Sebastian Uhlmann, Karin van der Reijden

Keywords: discard sampling, bias estimation, self-sampling

Presentation type: Oral

10:45	<p><b>CM Code:</b> O:170  <b>Title:</b> Modeling length distribution by commercial size category to estimate species catch length composition for stock assessment  <b>Authors:</b> M. Azevedo, C. Silva , J.H. Vølstad  <b>Keywords:</b> commercial size categories, landings, length composition, Portugal  <b>Presentation type:</b> Oral</p>
11:00	<p><b>CM Code:</b> O:142  <b>Title:</b> Statistical analysis of the sampling design: FishPi case study on the biological sampling of the European hake fishery  <b>Authors:</b> Jose Castro, Nuno Prista, Lucia Zarauz, Jose Rodriguez, Manuela Azevedo, Laurent Dubroca, Alastair Pout, Joao Pereira, Chun Chen, Hans Gerritsen, Jon Elson, Ana Ribeiro, Patrik Börjesson, Kirsten Birch Håkansson, Sofie Nimmegeers  <b>Keywords:</b> sampling design, simulation analyses, fisheries data collection, regional sampling plans, North-Eastern Atlantic  <b>Presentation type:</b> Oral</p>
11:15	<p><b>CM Code:</b> O:407  <b>Title:</b> Alternative sample designs for the deployment of observers in the North Pacific  <b>Authors:</b> Craig Faunce  <b>Keywords:</b> sampling design evaluation, simulation, sample allocation, performance metrics, observer programs, fishery analyses  <b>Presentation type:</b> Oral</p>
11:30	<p><b>CM Code:</b> O:589  <b>Title:</b> Which species to sample? An objective method for the selection of species when sampling fish on a market.  <b>Authors:</b> Liz Clarke, Alastair Pout, Stephanie Sweeting, Fanyan Zeng, Lynette Ritchie, Peter Clark, Mandy Gault, Harriet Cole  <b>Keywords:</b> sampling design, demersal fish, simulation, species selection, market sampling  <b>Presentation type:</b> Oral</p>
11:45	<p><b>CM Code:</b> O:106  <b>Title:</b> Optimizing data collection processes for industry collected gear selectivity data  <b>Authors:</b> Tiago Malta, Jordan Feekings, Bent Herrmann, Ludvig Ahm Krag  <b>Keywords:</b> selectivity, industry collected data, catch comparison, stochastic simulations  <b>Presentation type:</b> Oral</p>
12:00	<p><b>CM Code:</b> O:263  <b>Title:</b> Evaluating regional designs for the on-shore sampling of North Sea demersal fisheries  <b>Authors:</b> Alastair Pout, Liz Clarke, Ana Ribeiro Santos, Jon Elson, Patrik Börjesson, Mary Christman, Kirsten Birch Håkansson, Marie Storr-Paulsen  <b>Keywords:</b> sampling design, demersal fish, North Sea, simulation model, design effect, regional sampling, fishPi  <b>Presentation type:</b> Oral</p>
12:15	<p><b>CM Code:</b> O:583  <b>Title:</b> Optimising sampling intensity though observation, not simulation: An example from an at-sea, demersal fishery sampling programme  <b>Authors:</b> Pieter-Jan Schön, Mathieu G Lundy  <b>Keywords:</b> sampling-at-sea, catch estimates, sampling design, optimisation  <b>Presentation type:</b> Oral</p>
12:30	<b>Discussions on commercial catch sampling</b>
13:00	<b>End of session</b>
<b>Thursday 22 September 2016</b>	
10:00	<p><b>CM Code:</b> O:265  <b>Title:</b> How do surveys' variances affect the assessment and management of the Bay of Biscay anchovy?  <b>Authors:</b> Andres Uriarte, Sonia Sanchez, Leire Ibaibarriaga  <b>Keywords:</b> research survey, observation error, assessment error, simulation study, MSE, anchovy  <b>Presentation type:</b> Oral</p>
10:15	<p><b>CM Code:</b> O:228  <b>Title:</b> Improving the analytical assessment of fish stocks by providing parameters of data quality via InterCatch  <b>Authors:</b> Jose Castro, Laurent Dubroca, Jose Rodriguez, Eva Velasco, Paz Sampedro  <b>Keywords:</b> fishery-dependent data, quality parameters, stock assessment, InterCatch  <b>Presentation type:</b> Oral</p>
10:30	<p><b>CM Code:</b> O:100  <b>Title:</b> Impact of splitting decisions on reported aggregated catch of two sympatric redfish (<i>Sebastes</i> spp) species on stock status and harvest advice  <b>Authors:</b> Daniel E. Duplisea  <b>Keywords:</b> redfish, uncertainty, splitting, joint assessment  <b>Presentation type:</b> Oral</p>
10:45	<p><b>CM Code:</b> O:198  <b>Title:</b> Definition of sampling priorities using Global Sensitivity Analysis and Management Strategy Evaluation  <b>Authors:</b> Dorleta Garcia, Raul Prellezo  <b>Keywords:</b> global sensitivity analysis, management strategy evaluation, sampling  <b>Presentation type:</b> Oral</p>
	<p><b>CM Code:</b> O:238  <b>Title:</b> Evaluation of sampling designs for data-limited populations of Pacific salmon in Canada</p>

11:00	<b>Authors:</b> Carrie Holt <b>Keywords:</b> sampling design, Pacific salmon, uncertainty, closed-loop simulation, metapopulation dynamics <b>Presentation type:</b> Oral
11:15	<b>CM Code:</b> O:136 <b>Title:</b> Can less be more? Effects of reduced frequency of surveys and stock assessments <b>Authors:</b> Fabian Zimmermann, Katja Enberg <b>Keywords:</b> stock assessment, scientific surveys, uncertainty, fisheries management <b>Presentation type:</b> Oral
11:30	<b>CM Code:</b> O:229 <b>Title:</b> Calculating the economic benefits from the fisheries research surveys from indirect methodologies <b>Authors:</b> Raul Prellezo <b>Keywords:</b> Research surveys, Value of information, indirect methodologies <b>Presentation type:</b> Oral
11:45	<b>CM Code:</b> O:353 <b>Title:</b> Inferring the annual, seasonal and spatial distributions of marine species from combined research and commercial vessels' catch rates <b>Authors:</b> Pierre Bourdaud, Morgane Travers-Trolet, Youen Vermand, Xochitl Cormon, Paul Marchal <b>Keywords:</b> spatial distribution, seasonality, commercial data, survey data, Eastern English Channel <b>Presentation type:</b> Oral
12:00	<b>CM Code:</b> O:127 <b>Title:</b> Little data, big impact: using simple data protocols to achieve real-time management goals <b>Authors:</b> Brooke L. Wright, Catherine E. O'Keefe, Steven X. Cadrin <b>Keywords:</b> bycatch, cooperative management <b>Presentation type:</b> Oral
12:15	<b>CM Code:</b> O:117 <b>Title:</b> Geostatistical index standardization improves the performance of stock assessment model: an application to northern shrimp in the Gulf of Maine <b>Authors:</b> Jie Cao, James T. Thorson, R. Anne Richards, Yong Chen <b>Keywords:</b> abundance index standardization, delta-generalized linear mixed model, Gaussian random field, spatial modeling, size-structured assessment model <b>Presentation type:</b> Oral
12:30	<b>CM Code:</b> O:611 <b>Title:</b> When is necessary, already available? <b>Authors:</b> Joel Vigneau, Laurent Dubroca, Youen Vermand, Anne-Sophie Cornou, Sébastien Démanèche, Jérôme Weiss <b>Keywords:</b> fishery data, R, CREDO, data compilation <b>Presentation type:</b> Oral
12:45	<b>Discussions on "value of information"</b>
13:00	<b>End of session</b>
<b>Posters</b>	
	<b>CM Code:</b> O:612 <b>Title:</b> ptx : data compilation at the edge of automation <b>Authors:</b> Laurent Dubroca, L Dubroca, J Vigneau, A Cornou, S Démanèche, J Weiss, M Merzereaud, Y Vermand, M-Rolland, C Villanuova, I Shlaich, L Pawłowski, M Robert, M Lissardy, G Morandeau, M Drogou, SFifas, H Gadenne, P Lorance, C Saraux, T Rouyer, F Gontran <b>Keywords:</b> data compilation, fishery data, ptx, CREDO, R, opensource, statistical learning <b>Presentation type:</b> Poster
	<b>CM Code:</b> O:145 <b>Title:</b> Strategic use of uncertainty: Regional comparison of fisheries cooperation in the North Pacific and Northeast Atlantic <b>Authors:</b> Robert Blasiak, Jessica Spijkers <b>Keywords:</b> uncertainty, fisheries, comparative study, North Pacific, Northeast Atlantic <b>Presentation type:</b> Poster
	<b>CM Code:</b> O:81 <b>Title:</b> Integrating molecular methods into long-term plankton observations <b>Authors:</b> Rowena Fay Stern, Alex Kraberg, Katja Metfies <b>Keywords:</b> plankton, long-term ecological research sites, molecular, microscopy, survey <b>Presentation type:</b> Poster
	<b>CM Code:</b> O:569 <b>Title:</b> Presenting the MarinEye project –Development and validation of a prototype for multitrophic oceanic monitoring <b>Authors:</b> C. Bartolotti, A. dos Santos, R. Marques, A. Silva, C. Churro, S. Cotrim, H. Ribeiro, A. Mucha, M. Carvalho, C. Almeida, I. Azevedo, S. Ramos, T. Borges, S. Leandro, A. Dias, E. Silva, H. Ferreira, I. Dias, J. Almeida, L. Torgo, N. Dias, P. Jorge, A. Martins, C. Magalhães <b>Keywords:</b> optical sensors, autonomous filtration system, high resolution imaging, acoustic, integrated marine monitoring <b>Presentation type:</b> Poster
	<b>CM Code:</b> O:69 <b>Title:</b> Best-practice for long-term observations of total suspended particulate matter in coastal marine environments <b>Authors:</b> Rolf Riethmüller, Michael Fettweis, Romaric Verney

**Keywords:** monitoring methodology, suspended particulate matter, turbidity, long-term time-series  
**Presentation type:** Poster

**CM Code:** O:148

**Title:** How does minimum sampling size relate to statistical power in stomach content analysis?

**Authors:** L. Lopez-Lopez, I. Preciado

**Keywords:** stomach content sampling, diet, minimum sampling size, statistical power, multivariate analysis

**Presentation type:** Poster

**CM Code:** O:410

**Title:** REDUS - an integrated approach to quantifying and communicating uncertainty in stock assessment and management advice

**Authors:** Erik Olsen, Jon Helge Vølstad, Knut Korsbrekke, Espen Johnsen, Nils Olav Handegard, Gulborg Søvik, Daniel Howell, Cecilie Hansen

**Keywords:** stock assessment, uncertainty, survey design, MSE, harvest control rules

**Presentation type:** Poster

**CM Code:** O:440

**Title:** Technological tools for optimising data collection and management

**Authors:** Inês Farias, Aida Campos, Artur Rocha, Gabriel David, Guida Camacho, João Castro, Miriam Tuaty Guerra, Ricardo Amorim, Victor Henriques, Antonina dos Santos

**Keywords:** database management system, collection, storage, semi-automated, open access, seamount

**Presentation type:** Poster

**CM Code:** O:430

**Title:** Performance of alternative assessment methods for Pacific Cod (*Gadus macrocephalus*) in British Columbia: a difficult-to-age species with highly uncertain productivity

**Authors:** Robyn E. Forrest

**Keywords:** fishery reference points, harvest control rule, closed-loop simulation, *Gadus macrocephalus*, density-dependent mortality, delay-difference model

**Presentation type:** Poster

**CM Code:** O:206

**Title:** The end of reporting deadlines? Optimising dataflow by harvesting – a case study using open source REST-server technology from SMHI in corporation with ICES

**Authors:** Patrik Strömberg, Nils Nixelius, Arnold Andreasson

**Keywords:** data harvesting, REST, abundance, data, open source, environmental, monitoring, open access, API

**Presentation type:** Poster

# Theme session P

Arctic ecosystem services: challenges and opportunities (co-sponsored by AMAP and EU-PolarNet)

Conveners: Candace Nachman (USA) Susanne Kortsch (Norway)

Tuesday 20 September 2016, 10:00-13:00, Beta 2

## Tuesday 20 September 2016

### 10:00 Introduction

**CM Code:** P:450

**Title:** Modelling spatio-temporal variation of surface hydrography in an Arctic shelf sea

**Authors:** Jussi Mäkinen, Jarno Vanhatalo

**Keywords:** spatio-temporal, Arctic shelf sea, surface hydrography, Bayesian inference, uncertainty

**Presentation type:** Oral

**CM Code:** P:502

**Title:** Structure and resilience of the benthic food web across the Canadian Arctic Ocean and the Chukchi sea.

**Authors:** Noémie Friscourt, Christian Nozais, Philippe Archambault

**Keywords:** Canadian Arctic, Chukchi sea, benthos, stable isotopes, Ice Proxy, IP25, trophic structure, resilience

**Presentation type:** Oral

**CM Code:** P:433

**Title:** Regional heterogeneity in climate change impacts on the living marine resources of the Arctic.

**Authors:** Anne B. Hollowed, Wei Cheng, Harald Loeng, Elizabeth Logerwell, Franz Mueter, James Reist

**Keywords:** climate change, ocean temperature, projections, commercial fisheries, vulnerability

**Presentation type:** Oral

**CM Code:** P:178

**Title:** Cod response to past and current warm phases in the seas of Iceland, a time series analysis

**Authors:** Marcos Llope, Niall McGinty, Joël Durant, Leif C. Stige, Guðrún Marteinsdóttir, Nils Chr. Stenseth

**Keywords:** Arctic cod, regime shifts, trophic control, thresholds

**Presentation type:** Oral

**CM Code:** P:644

**Title:** Climate change impacts on the ecosystem services of Arctic cod (*Boreogadus saida*)

**Authors:** Benjamin J. Laurel, Louise A. Copeman

**Keywords:** climate change, thermal sensitivity, Polar cod, lipids, bioenergetics, biogeography

**Presentation type:** Oral

**CM Code:** P:129

**Title:** Pink salmon as sentinels for climate change in the Arctic

**Authors:** Ed Farley, Wess Strasburger, Jeanette Gann, Kris Cieciel (presented by Candace Nachman)

**Keywords:** Pink salmon, Arctic, integrated ecosystem surveys

**Presentation type:** Oral

**CM Code:** P:248

**Title:** A Bioeconomic Model of Ocean Acidification Challenges in the Baffin Bay/Davis Straight Shrimp Fishery

**Authors:** Brooks A. Kaiser, Lars Ravn-Jonsen

**Keywords:** Baffin Bay/Davis Straight shrimp fishery, ocean acidification, bio-economic modelling

**Presentation type:** Oral

**CM Code:** P:268

**Title:** Socio-economic impacts of ocean acidification and warming on Barents Sea Cod

**Authors:** Martina H. Stiasny, Martin Hänsel, Catriona Clemmesen, Flemming Dahlke, Felix H. Mittermayer, Martin Quaas, Thorsten Reusch, Daniela Storch, Rudi Voss

**Keywords:** Atlantic cod, ocean acidification, climate change, early life stages, recruitment

**Presentation type:** Oral

**CM Code:** P:647

**Title:** SYMBIOSES: a practical risk management tool to integrate fisheries and hydrocarbon activities in the Lofotens and Barents Sea,

Norway

**Authors:** Daniel Howell, Jolynn Caroll, Frode Vikebo

**Keywords:** ecosystem, fisheries, oil, oil spill, integrated management

**Presentation type:** Oral

**CM Code:** P:280

**Title:** Towards quantitative oil spill risk assessment in the Arctic sea areas

**Authors:** Maisa Nevalainen, Inari Helle, Jarno Helle

**Keywords:** Arctic, oil spill, food web, functional groups, uncertainty, risk assessment

**Presentation type:** Oral

**CM Code:** P:445

**Title:** Benthic non-indigenous species in ports of the Canadian Arctic: risks associated with global warming and shipping activity

**Authors:** Kimberly Howland, Jesica Goldsmith, Philippe Archambault, David Barber, Guillem Chust, George Liu, Jennifer Lukovich, Chris McKinsey, Ernesto Villarino

**Keywords:** shipping, climate change, benthic invertebrates, nonindigenous species, species distribution modelling  
**Presentation type:** Oral

**CM Code:** P:559

**Title:** Unique insights from historical fisheries survey logbooks in the Arctic

**Authors:** John K. Pinnegar, Bryony L. Townhill, Georg H. Engelhard

**Keywords:** archive, survey, Svalbard, cod, capelin, climate change

**Presentation type:** Oral

**CM Code:** P:405

**Title:** The Missing Middle: The Need for International Collaboration to Fill Gaps in Central Arctic Ocean Science

**Authors:** Henry P. Huntington, Thomas Van Pelt, Hyoung Chul Shin

**Keywords:** Central Arctic Ocean, fisheries, food web, international collaboration, ecology

**Presentation type:** Oral

**CM Code:** P:624

**Title:** Ballast water of domestic ships as a pathway for the introduction of non-indigenous mesozooplankton in coastal Nunavik, Canada

**Authors:** Pascal Tremblay , André Rochon, Gesche Winkler, Kimberly Howland, Nathalie Simard, Sarah Bailey

**Keywords:** ballast water discharge, non-indigenous species, mesozooplankton, Canadian Arctic, Deception Bay, Port of Quebec, domestic vessels, voluntary ballast water exchange, Strait of Belle Isle, Strait of Jacques Cartier

**Presentation type:** Poster

**CM Code:** P:122

**Title:** An overview of the adequacy of Arctic sea basin data

**Authors:** Belinda J. Kater, Nathalie Steins, Martine J. van den Heuvel-Greve, Peter Thijssse, CJ Beegle-Krause, Oscar Bos, Bart Grasmeijer, Le Griffin, Eline van Onselen, Harriet van Overzee, Gerjan Piet, Andrea Sneekes, Arjan Tuijnder, Pepijn de Vries, Jan Tjalling van der Wal

**Keywords:** Arctic Sea, marine, data, fisheries, offshore wind farms, marine protected areas, climate change, river input, bathymetry, alien species, oil spills, coasts

**Presentation type:** Poster

**CM Code:** P:556

**Title:** Trophodynamics of Atlantic cod (*Gadus morhua*) on the Greenland continental shelf 2006-2010 and Spitsbergen 2010

**Authors:** Karl-Michael Werner, Sophia Kochalski, Jerome Chladek, Corinna Schendel, Heino O. Fock

**Keywords:** Greenland, Spitsbergen, trophodynamics, climate change

**Presentation type:** Poster

**12:40** Discussion

**13:00** End of session

# Theme session Q

Harvest control rules: beyond FMSY for an ecosystem approach to fisheries?

Convenors: Didier Gascuel (France) Lisa Borges (Belgium) Dave Reid (Ireland)

Monday 19 September 2016, 15:00-19:00, Beta 2

## Monday 19 September 2016

### 15:00 Introduction

**CM Code:** Q:495

**Title:** New Harvest Control Rules for minimizing the impact of fishing in Europe

**Authors:** Didier Gascuel, Rainer Froese

**Keywords:** harvest control rules, stock status, fishing impact, selectivity, ecosystem approach

**Presentation type:** Oral

**CM Code:** Q:77

**Title:** Evaluating progress to restore EU fish populations in line with the CFP

**Authors:** Markus Knigge

**Keywords:** Reference points, maximum sustainable yield, common fisheries policy, ICES

**Presentation type:** Oral

**CM Code:** Q:359

**Title:** Are FMSY ranges a promising or a dangerous option?

**Authors:** Clara Ulrich, Anna Rindorf

**Keywords:** MSY ranges, mixed fisheries

**Presentation type:** Oral

**CM Code:** Q:55

**Title:** The application of pretty good yield ranges to the North Sea multispecies fishery

**Authors:** Robert B. Thorpe, Simon Jennings

**Keywords:** pretty good yield (PGY), maximum sustainable yield (MSY), ensembles, multispecies, mixed fisheries, precautionary, stock impairment

**Presentation type:** Oral

**CM Code:** Q:102

**Title:** The MSY objective: the EU's progress so far, and raising the bar

**Authors:** Liane Veitch, Heather Hamilton, Jenni Grossmann

**Keywords:** Common Fisheries Policy, maximum sustainable yield, fisheries management, environmental law

**Presentation type:** Oral

### 16:25 Discussion

**CM Code:** Q:340

**Title:** Targeting sustainable salmon fisheries – what to aim at?

**Authors:** Maija Holma, Marko Lindroos, Soile Oinonen, Atso Romakkaniemi

**Keywords:** management regimes, reference points, bioeconomic modeling, salmon fisheries, MSY, MEY

**Presentation type:** Oral

**CM Code:** Q:118

**Title:** Fisheries management under uncertainty using a hybrid instrument

**Authors:** Helge Berglann

**Keywords:** asymmetric information, uncertainty, harvest control rule, hybrid instruments, individual transferable quota, dynamic optimization

**Presentation type:** Oral

**CM Code:** Q:147

**Title:** A multi-stock harvest control rule as a step towards an ecosystem based fisheries management

**Authors:** Dorleta Garcia, Raul Prellezo, Agurtzane Urtizberea, Sonia Sanchez

**Keywords:** ecosystem based fishery management, harvest control rule, landing obligation, mixed-fisheries.

**Presentation type:** Oral

**CM Code:** Q:541

**Title:** Beyond Fmsy in the Barents Sea and beyond

**Authors:** D. Howell, G. Dingør, Å. Fotland, B. Planque, A. Aglen, M. Bernreuther, A. Russikh, A. Chetyrkin, R. Tallman, E. Hallfredsson, S. Mehl, S. Tarakanov, Y. Kovalev, N. Yaragina, T. Vollen, D. Vasiliyev, A. Harbitz, A. Staby, B. Bogstad

**Keywords:** beyond Fmsy, Barents Sea, AFWG, HCR

**Presentation type:** Oral

**CM Code:** Q:393

**Title:** Effects of herring fishing strategies on a modelled Northeast Pacific ecosystem

**Authors:** Szymon Surma, Tony J. Pitcher

**Keywords:** herring, Pacific herring, *Clupea pallasi*, forage fish, Northeast Pacific, British Columbia, Canada, ecosystem model, Ecopath with Ecosim, EwE, management strategy evaluation, MSE, harvest control rules, HCR, ecosystem-based fisheries management, EBFM, precautionary approach, reference points, Blim, Fttarget, FMSY

**Presentation type:** Oral

**CM Code:** Q:533

**Title:** Effects of trophic and technical interactions on the definition of MSY reference points in a mixed-fisheries ecosystem

17:50	<b>Authors:</b> Morgane Travers-Trolet, Pierre Bourdaud, Youen Vermaud <b>Keywords:</b> FMSY, mixed fisheries, trophic interactions, ecosystem model <b>Presentation type:</b> Oral
18:05	<b>CM Code:</b> Q:504 <b>Title:</b> Ecological implications of the Landing Obligation on balanced harvesting in Mediterranean fisheries <b>Authors:</b> M. Hidalgo, L. Rueda, B. Guijarro, E. Massutí, A. Quetglas <b>Keywords:</b> balance harvesting, European hake, discard ban, Mediterranean Sea, size spectra <b>Presentation type:</b> Oral
18:20	<b>CM Code:</b> Q:525 <b>Title:</b> A time-integrated approach to evaluating fishery management performance <b>Authors:</b> Sarah R. Stein, Patrick D. Lynch, Richard D. Methot <b>Keywords:</b> stock Assessment, time-series, ecosystem approach <b>Presentation type:</b> Poster
18:25	<b>CM Code:</b> Q:378 <b>Title:</b> Aged and children first! Challenges in the development of a new selectivity concept for trawl fisheries <b>Authors:</b> Stefanie Haase, Juan Santos, Annemarie Schütz, Bernd Mieske, Daniel Stepputtis <b>Keywords:</b> exploitation pattern, size selection, demersal trawl, cod, bellshape, Baltic Sea <b>Presentation type:</b> Poster
18:30	<b>CM Code:</b> Q:144 <b>Title:</b> Developing an assessment framework for Goose Barnacles ( <i>Pollicipes polymerus</i> ) incorporating advancements in technology and local ecological knowledge in Clayoquot Sound off the west coast of Canada <b>Authors:</b> Candace Picco, Alex Gagne <b>Keywords:</b> Goose Barnacles, stock assessment, harvest control, biomass estimation, indigenous <b>Presentation type:</b> Poster
18:35	<b>CM Code:</b> Q:119 <b>Title:</b> Interaction between seabirds and trawlers: preliminary insights from the Bay of Biscay <b>Authors:</b> Arkaitz Pedrajas, Maite Louzao, Iñaki Oyarzabal, Iñigo Krug, Mikel Basterretxea, Jon Ruiz <b>Keywords:</b> seabirds, discards, trawlers, fishing policies, Bay of Biscay <b>Presentation type:</b> Poster
18:40	<b>Discussion and wrap up</b>
19:00	<b>End of session</b>

## Theme session R

### Integrating humanities and social sciences into marine ecosystem management - first steps

Conveners: David Goldsborough (the Netherlands) Jörn Schmidt (Germany) Patricia M. Clay (USA)

Friday 23 September 2016, 09:00-10:30, Omega 2

Friday 23 September 2016, 11:00-13:00, Omega 2

Friday 23 September 2016, 14:00-17:00, Omega 2

#### Friday 23 September 2016

09:00 Introduction

**CM Code:** R:643

**Title:** Evolution of integration of Human Dimensions into WGNARS - challenges and possibilities.

**Authors:** Patricia M. Clay , Geret DePiper, Sarah Gaichas, Patricia Pinto da Silva

09:05

**Keywords:** Northwest Atlantic regional sea, integrated ecosystem assessment, integrating human dimensions, ICES indicator framework

**Presentation type:** Oral

**CM Code:** R:553

**Title:** Towards the development of a process based model of the human dimension; a systems approach to fisheries management

09:20

**Authors:** M. Drexler, R.M. Bailey, E. Carella, M.G. Burgess, S. Saul, C. Dorsett, M. Clemence-McCann, S. Wilcox, R. Cabral, R.L. Axtell, B.

Owashi, C. Costello, S.D. Gaines, A. Merkl

**Keywords:** human dimension, socioeconomic objectives, tradeoffs, fisher behavior, agent based model

**Presentation type:** Oral

**CM Code:** R:143

**Title:** Building an assessment framework for the Goose Barnacle fishery off the west coast of Vancouver Island: Melding analytical methods with indigenous local knowledge

09:35

**Authors:** Alex Gagne, Candace Picco

**Keywords:** Goose Barnacles, local knowledge, management, indigenous, First Nation Goose Barnacles; Local Knowledge; management; indigenous; First Nation Goose Barnacles; Local Knowledge; management; indigenous; First Nation

**Presentation type:** Oral

**CM Code:** R:650

**Title:** The Celtic Seas Partnership

09:50

**Authors:** Penny Wilson

**Keywords:** MSFD Celtic Seas Partnership

**Presentation type:** Oral

**CM Code:** R:326

**Title:** Measuring good fisheries governance: Indicators, tools and stakeholders

10:05

**Authors:** Ixai Salvo, Svein Jentoft, Petter Holm, Jahn P. Johnsen, Antonio G. Allut

**Keywords:** fisheries, governance, indicators, stakeholders, engagement, assessment, measurement

**Presentation type:** Oral

10:20

**Discussion**

10:30

**Coffee break**

**CM Code:** R:402

**Title:** Science for an ecosystem approach: dilemmas in advisory processes

11:00

**Authors:** Sebastian Linke, Kåre Nolde Nielsen, Petter Holm

**Keywords:** science-policy interactions, scientific advice, credibility, legitimacy, ecosystem approach

**Presentation type:** Oral

**CM Code:** R:442

**Title:** Uncovering social and ecological changes in recreational fisheries using popular media

11:15

**Authors:** Ruth H Thurstan, John M Pandolfi

**Keywords:** ecological change, digital media, fishing, historical ecology

**Presentation type:** Oral

11:30

**CM Code:** R:89

**Title:** The Carrot, not the Stick; co-design, testing and buy-in of stakeholders for Real-time incentive fisheries management

**Authors:** Debbi Pedreschi, Hannes Hoffle, Sarah Kraak, Amos Barkai, Keith Farnsworth, David Reid

**Keywords:** real-time incentives, fisheries management, stakeholder engagement, management strategy evaluation

**Presentation type:** Oral

11:45

**CM Code:** R:218

**Title:** Food consumption as driver of nutrient inputs into marine environments

**Authors:** Anders Grimvall, Are Vallin, Eva-Lotta Sundblad

**Keywords:** societal drivers, food, eutrophication pressure

**Presentation type:** Oral

**CM Code:** R:528

**Title:** Futures for the use of Baltic herring catch in 2040

12:00	<b>Authors:</b> M. Pihlajamäki, S. Sarkki, T.P. Karjalainen <b>Keywords:</b> Baltic Sea scenarios, Baltic herring fisheries, food security and safety, ecosystem-based management <b>Presentation type:</b> Oral
12:15	<b>CM Code:</b> R:603 <b>Title:</b> Tracking underutilized species in Rhode Island, U.S. – Understanding fish as food, not just commodity <b>Authors:</b> Dawn M. Kotowicz, Azure Cybler, Elin Torell, Kristine Beran <b>Keywords:</b> social science, ecosystem understanding, underutilized species <b>Presentation type:</b> Oral
12:30	<b>Discussion</b>
13:00	<b>Lunch break</b>
14:00	<b>CM Code:</b> R:464 <b>Title:</b> Understanding financial risk for fishers and the role of diversification <b>Authors:</b> Sanmitra Gokhale <b>Keywords:</b> risk management, income diversification, fisheries <b>Presentation type:</b> Oral
14:15	<b>CM Code:</b> R:599 <b>Title:</b> Social and natural science integration in the Bering Sea Project: an economist's perspective <b>Authors:</b> Alan C. Haynie <b>Keywords:</b> interdisciplinary research, Bering Sea, fisheries economics <b>Presentation type:</b> Oral
14:30	<b>CM Code:</b> R:409 <b>Title:</b> Strong connections, loose coupling: understanding environmental and social influences on commercial fisheries and subsistence harvests in the Bering Sea ecosystem, Alaska <b>Authors:</b> Henry P. Huntington, Alan Haynie <b>Keywords:</b> Bering Sea, commercial fisheries, subsistence, human-environment connections, ecosystem studies <b>Presentation type:</b> Oral
14:45	<b>CM Code:</b> R:322 <b>Title:</b> Justification theory to explore socio-cultural values related to fish and fisheries: Baltic salmon and herring cases <b>Authors:</b> Sivi Ignatius, Päivi Haapasaari <b>Keywords:</b> common good, human pressure, justification theory, ecosystem-based management <b>Presentation type:</b> Oral
15:00	<b>CM Code:</b> R:581 <b>Title:</b> How to integrate fishermen knowledge and participation to improve the management advice of a deep-sea artisanal fishery <b>Authors:</b> Inês Farias, Teresa Moura, Nuno Veiga, Neide Lagarto, Ivone Figueiredo <b>Keywords:</b> deep-sea fishery, fishermen, self-sampling, co-design <b>Presentation type:</b> Oral
15:15	<b>Discussion</b>
15:30	<b>CM Code:</b> R:425 <b>Title:</b> Balancing Ecology, Economy and Society in two Pioneering Marine National Parks in Scandinavia – Assessing institutional designs and perceived sustainability outcomes five years after establishment <b>Authors:</b> Andrea Morf, Annica Sandström, Sverker C. Jagers <b>Keywords:</b> institutional design, marine protected areas, national parks, participation, ecosystem based management, sustainable development <b>Presentation type:</b> Oral
15:45	<b>CM Code:</b> R:520 <b>Title:</b> Using modeling approach and fishermen's knowledge to define suitable habitat for cusk (Brosme brosme) and evaluate potential economic impacts of conservation <b>Authors:</b> Jocelyn Runnebaum, Yong Chen <b>Keywords:</b> habitat mapping, quantifying suitable habitat, fishermen's knowledge, economic impacts <b>Presentation type:</b> Oral
16:00	<b>CM Code:</b> R:468 <b>Title:</b> The Role of Scientific Advice in Political Decision Making <b>Authors:</b> Esther Schuch <b>Keywords:</b> TAC, scientific advice, uncertainty, decision making <b>Presentation type:</b> Poster
16:05	<b>CM Code:</b> R:256 <b>Title:</b> Global protein demand, marine fish production, and trade-flows in the world of 2050 <b>Authors:</b> Julia Hoffmann, Katrin Kamin, Linda Kleemann, Christian Möllmann, Martin F. Quaas, Jörn O. Schmidt, Guilherme A. Stecher, Justiniano Pinto, Rudi Voss <b>Keywords:</b> food security, shared socio-economic pathways (SSPs), global bio-economic modeling, demand, global trade <b>Presentation type:</b> Poster
16:10	<b>CM Code:</b> R:596 <b>Title:</b> Coastal municipal governance and marine ecosystem management integration: (Withdrawn) <b>Authors:</b> Erika Lagzdina, Raimonds Ernsteins, Ivars Kudrenickis, Janis Ulme, Anita Lontone, Janis Kaulins

**Keywords:** marine/ coastal management, stakeholders, local development  
**Presentation type:** Poster

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16:15 Discussion

17:00 End of the day

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