

# [Main Menu](#)

## Theme Session G

### Practical advice for implementing marine policy: combining ecosystem and societal indicators in stock and ecosystem assessments

Conveners: Gavin Fay (USA), Eva-Lotta Sundblad (Sweden), Scott Large (USA), and David Goldsborough (the Netherlands)

CM Code	Oral Presentations	
<a href="#">G: 01</a> <a href="#">Oral</a>	<b>Title:</b>	Structuring Societal Information for the Marine Strategy Framework Directive
	<b>Authors:</b>	Anders Grimvall, Eva-Lotta Sundblad, Lena Gipperth
	<b>Keywords:</b>	Marine Strategy Framework Directive, actors, behaviour, programmes of measures
<a href="#">G: 02</a> <a href="#">Oral</a>	<b>Title:</b>	Social Indicators of Fishing Community Vulnerability and Resilience: An Emergent Method for Fisheries Social Impact Assessment in the United States
	<b>Authors:</b>	Lisa L. Colburn and Michael Jepson
	<b>Keywords:</b>	social indicators, social vulnerability and fisheries social impact assessment
G: 03 Oral	<b>Withdrawn</b>	
<a href="#">G: 04</a> <a href="#">Oral</a>	<b>Title:</b>	Social indicators of community-level vulnerability for the West Coast
	<b>Authors:</b>	Norman, Karma; Miller, Stacey; Hoelting, Kristin; Kasperski, Stephen
	<b>Keywords:</b>	ecosystem management, California Current communities, social indicators
<a href="#">G: 05</a> <a href="#">Oral</a>	<b>Title:</b>	Actor-oriented societal indicators of man-made eutrophication of marine environments
	<b>Authors:</b>	Eva-Lotta Sundblad, Anders Grimvall and Lena Gipperth
	<b>Keywords:</b>	Societal-indicators, Actors,our, Marine Strategy Framework Directive
<a href="#">G: 06</a> <a href="#">Oral</a>	<b>Title:</b>	Understanding artisanal fishery reality of Fonseca's Golf: socio-economic indicators and technical advice for a basic management
	<b>Authors:</b>	Duarte Fernández-Vidal*, Ana Tubío, Diana Fernández-Márquez and Ramón Muiño
	<b>Keywords:</b>	social-economic indicators, participatory methods, artisanal fisheries, management, technical advice, LEK.

<b>CM Code</b>	<b>Oral Presentations</b>	
G: 07 Oral	<b>Withdrawn</b>	
<a href="#">G: 08</a> <a href="#">Oral</a>	<b>Title:</b>	Combining Indicators for Policy Implementation? Let Form Follow Function
	<b>Authors:</b>	Jake Rice
	<b>Keywords:</b>	Ecosystem Indicators, Management objectives, risk management, integration
<a href="#">G: 11</a> <a href="#">Oral</a>	<b>Title:</b>	Propagation of Uncertainties in Fisheries Science for Advice: the case for Confidence Interval Harvest Control Rules (CI-HCRs)
	<b>Authors:</b>	Dorothy J. Dankel, Sondre Aanes, Jon Helge Vølstad
	<b>Keywords:</b>	stock assessment, harvest control rules, confidence intervals, uncertainty communication, hidden uncertainties, unknown knowns, science for policy advice, fisheries models, technoscience, technofeminism
<a href="#">G: 16</a> <a href="#">Oral</a>	<b>Title:</b>	Using Performance Indicators to Evaluate U.S. Fisheries
	<b>Authors:</b>	Ayeisha Brinson, Eric Thunberg
	<b>Keywords:</b>	catch shares; performance indicators; economics
G: 17 Oral	<b>Withdrawn</b>	
<a href="#">G: 18</a> <a href="#">Oral</a>	<b>Title:</b>	Fuel use in fishing- an important indicator for sustainable fisheries
	<b>Authors:</b>	Ziegler, F., Hornborg, S.
	<b>Keywords:</b>	LCA, fuel use, fisheries management, trawling
<a href="#">G: 19</a> <a href="#">Oral</a>	<b>Title:</b>	Using Bayesian belief networks to disclose interactions between small-scale fisheries and offshore aquaculture developments off south-east Portugal
	<b>Authors:</b>	Jorge Ramos, Miguel Neves dos Santos, Miguel Caetano
	<b>Keywords:</b>	Bayesian belief networks (BBN), fishing communities, offshore aquaculture, small-scale fishermen, socioeconomic indicators
<a href="#">G: 20</a> <a href="#">Oral</a>	<b>Title:</b>	Towards a Shark and Ray Management Plan for the North Sea : the role of stakeholder participation
	<b>Authors:</b>	P.A. Walker, I. Kingma and M. van de Water
	<b>Keywords:</b>	sharks and rays; MSFD; stakeholder participation; management plan
G: 21 Oral	<b>Title:</b>	Providing advice in small-scale fisheries: The key role of the "Barefoot Fisheries Advisors" in the Co-managed TURF system of Galicia
	<b>Authors:</b>	Gonzalo Macho, Inés Naya, Juan Freire, Sebastián Villasante and José Molares
	<b>Keywords:</b>	Barefoot Fisheries Advisors, Small-scale fisheries, Co-management, Scientific advice, Knowledge collectors and translators

CM Code	Oral Presentations	
<a href="#">G: 22</a> <a href="#">Oral</a>	<b>Title:</b>	Practical application of food web indicators in a fisheries context
	<b>Authors:</b>	Stuart Rogers, Jason Link & Mark Dickey-Collas
	<b>Keywords:</b>	food web; structure; function; resilience
<a href="#">G: 23</a> <a href="#">Oral</a>	<b>Title:</b>	Environmental impacts of a demersal freeze trawler on a fishing trip basis
	<b>Authors:</b>	Ziegler, F., Groen, E., Hornborg, S., Bokkers, E., Karlsen, K.M., de Boer, I.J.M.
	<b>Keywords:</b>	LCA, fuel use, fisheries management, trawling
<a href="#">G: 24</a> <a href="#">Oral</a>	<b>Title:</b>	Spatio-temporal biodiversity indicators for monitoring common objectives of the German Maritime Spatial Plan and the Marine Strategy Framework Directive
	<b>Authors:</b>	Seidel, Henrike and Stelzenmüller, Vanessa
	<b>Keywords:</b>	Ecological indicators, spatio-temporal analysis, biodiversity, functional traits analysis, demersal finfish, Marine spatial planning, MSFD, policy objectives
<a href="#">G: 25</a> <a href="#">Oral</a>	<b>Title:</b>	The Large Fish Indicator in North Sea waters: Does it respond to the recent decline in fishing?
	<b>Authors:</b>	Antonios Stamoulis, Hans Polet, Els Torreele and Adriaan D. Rijnsdorp
	<b>Keywords:</b>	indicators, Large Fish Indicator (LFI), MSFD, North Sea, EAFM, demersal fish community
G: 26	<b>Withdrawn</b>	
<a href="#">G: 27</a> <a href="#">Oral</a>	<b>Title:</b>	How to be "good" Comparing methods to assess time series of ecological indicators
	<b>Authors:</b>	Wolfgang Nikolaus Probst
	<b>Keywords:</b>	indicator assessment; ecological indicator, time series analysis, trend-based assessment, breakpoint analysis
G: 28 Oral	<b>Title:</b>	Incorporating ecological and societal indicators to identify ecosystem reference points in response to multiple pressures
	<b>Authors:</b>	Scott I. Large, Gavin Fay, Kevin Friedland, Jason S. Link
	<b>Keywords:</b>	Ecosystem thresholds, EBFM, Gradient Forest, The IndiSeas Project
G: 29 Oral	<b>Title:</b>	Detection of unique multispecies demersal-fish communities in high-diversity systems and modeling the impact of environment on their stability
	<b>Authors:</b>	Joshua P Kilborn, David L Jones, Ernst B Peebles
	<b>Keywords:</b>	multispecies community dynamics, environmental drivers, minimum spanning tree, dissimilarity profile, groundfish trawl survey
<a href="#">G: 30</a> <a href="#">Oral</a>	<b>Title:</b>	Ecosystem models for fisheries management: finding the sweet spot
	<b>Authors:</b>	Jeremy S. Collie, Louis W. Botsford, Alan Hastings, Isaac C. Kaplan, John L. Largier, Patricia A. Livingston, Éva Plagányi, Kenneth A. Rose, Brian K.
	<b>Keywords:</b>	ecosystem-based management, fisheries, marine, model complexity, trade-off

<b>CM Code</b>	<b>Oral Presentations</b>	
<a href="#">G: 31</a> <a href="#">Oral</a>	<b>Title:</b>	Use and advice on incorporating ecosystem indicators In the stock assessment of North Atlantic swordfish
	<b>Authors:</b>	Michael J. Schirripa
	<b>Keywords:</b>	swordfish, stock assessment, ecosystem indicators, advice considerations
<a href="#">G: 32</a> <a href="#">Oral</a>	<b>Title:</b>	Evaluating projection methodology for Northwest Atlantic groundfish with consideration of biological assumptions and environmental influence
	<b>Authors:</b>	E.N. Brooks and C.M. Legault
	<b>Keywords:</b>	Retrospective forecast, projection methodology, projection time horizon, environmental driver
<a href="#">G: 33</a> <a href="#">Oral</a>	<b>Title:</b>	A state-space age-structured assessment model that accommodates environmental effects on demographic parameters and biological reference points
	<b>Authors:</b>	Timothy J. Miller and Saang-Yoon Hyun
	<b>Keywords:</b>	space models, stock assessment, environmental effects
G: 34 Oral	<b>Title:</b>	Moving Towards Multi Species Integrated management
	<b>Authors:</b>	Rosa Mato Amboage and José-María Da-Rocha, Santiago Cerviño
	<b>Keywords:</b>	mixed fisheries, harvesting control rules, overfishing risk
<a href="#">G: 35</a> <a href="#">Oral</a>	<b>Title:</b>	Simple As Necessary approach to the Baltic Sea holistic assessment
	<b>Authors:</b>	Oleg P. Savchuk and Maciej T. Tomczak
	<b>Keywords:</b>	Baltic Sea, fishery and eutrophication, modeling
<a href="#">G: 36</a> <a href="#">Oral</a>	<b>Title:</b>	Incorporating species interactions in a statistical catch-at-age model of the Georges Bank fish community
	<b>Authors:</b>	Kiersten L. Curti, Jeremy S. Collie, Christopher M. Legault, Jason S. Link
	<b>Keywords:</b>	multispecies model, ecosystem approach to fisheries, population dynamics
<a href="#">G: 37</a> <a href="#">Oral</a>	<b>Title:</b>	Reading the crystal ball: using multi-species stock-assessment models to predict climate-driven changes to recruitment, mortality, and biological reference points for Bering Sea (USA) fisheries.
	<b>Authors:</b>	Kirstin K. Holsman*, Kerim Aydin, James Ianelli, Anne Hollowed, Albert Hermann
	<b>Keywords:</b>	Climate change, multi-species, stock assessment models, predator-prey, trophic interactions, Alaska, groundfish
<a href="#">G: 38</a> <a href="#">Oral</a>	<b>Title:</b>	Towards operational assessments: selection, vetting, and standardized analysis of ecosystem indicators for the Northeast US Large Marine Ecosystem
	<b>Authors:</b>	S. Gaichas, J. Link, J. Hare, M. Fogarty, P. Pinto da Silva, G. DePiper, J. Courneane, J. Manderson, S. Lucey, M. Lowe, S. Large, G. Fay
	<b>Keywords:</b>	ecosystem indicators, integrated ecosystem assessment, risk assessment, Northeast US Large Marine Ecosystem

<b>CM Code</b>	<b>Oral Presentations</b>	
<a href="#">G: 39</a> <a href="#">Oral</a>	<b>Title:</b>	Environmental risk assessments in the context of marine spatial management: Current approaches and some perspectives from the German EEZ of the North Sea
	<b>Authors:</b>	Stelzenmüller, V, Fock, H.O., Gimpel, A., Seidel, H., Diekmann, R., Probst, W.N., Callis, U.; Bockelmann, F. , Neumann, H., Kröncke, I.
	<b>Keywords:</b>	Bayesian believe network, disturbance indicator, fishing frequency, GIS, marine spatial planning
<a href="#">G: 40</a> <a href="#">Oral</a>	<b>Title:</b>	Broadening the perspective on fisheries management actions: assessing resource use and environmental impacts from seafood products
	<b>Authors:</b>	Sara Hornborg and Friederike Ziegler
	<b>Keywords:</b>	LCA, sustainable development, fuel use, fisheries management
<a href="#">G: 41</a> <a href="#">Oral</a>	<b>Title:</b>	Evaluation of spatial management scenarios supporting an ecosystem-based approach to MSP - the German case
	<b>Authors:</b>	Antje Gimpel, Vanessa Stelzenmüller
	<b>Keywords:</b>	Geographic information system-based multi criteria evaluation (GIS MCE), German EEZ, Marine spatial planning (MSP), Spatial management scenario, Species distribution model (SDM)
G: 42 Oral	<b>Title:</b>	Investigating spatial and demographic indicator-based Harvest Control Rules for the Eastern English Channel mixed fisheries
	<b>Authors:</b>	Sigrid Lehuta Paul Marchal Youen Vermard
	<b>Keywords:</b>	Harvest Control Rules, Spatial indicators, Demographic indicators, Simulation study, Mixed fishery, Eastern Channel
G: 43 Oral	<b>Title:</b>	Management performance of ecological indicators in the Northeast US: evaluation using a whole-of-system model
	<b>Authors:</b>	Gavin Fay, Jason S. Link, Robert J. Gamble, Rebecca Gorton, Scott I. Large, Elizabeth A. Fulton
	<b>Keywords:</b>	Management Strategy Evaluation, Atlantis, ecosystem-based fisheries management, Northwest Atlantic, ecosystem modeling
G: 44	<b>Withdrawn</b>	
<a href="#">G: 45</a> <a href="#">Oral</a>	<b>Title:</b>	Designing stable management strategies: linking ecosystem biodiversity, catches, and stakeholder preferences for stability
	<b>Authors:</b>	José-María Da-Rocha, Javier García Cutrín, Julia Touza, Julia Torralba
	<b>Keywords:</b>	stakeholder preferences, biodiversity, HCR
<a href="#">G: 46</a> <a href="#">Oral</a>	<b>Title:</b>	Translating the stock assessments into socio-economic effects
	<b>Authors:</b>	Jose L. Santiago, Juan C. Surís-Regueiro, Julia Torralba-Cano
	<b>Keywords:</b>	EAFM, socio-economic effects, input-output, fisheries

CM Code	Oral Presentations	
<a href="#">G: 47</a> <a href="#">Oral</a>	<b>Title:</b>	A Bio-economic Model of European Fleets
	<b>Authors:</b>	Griffin Carpenter, Aniol Esteban
	<b>Keywords:</b>	Bio-economic model, socio-economic indicators, MSY, ecosystem-based management
G: 48 Oral	<b>Title:</b>	Trading yield against precautionarity and the need for stability in the fishing sector
	<b>Authors:</b>	Mikael van Deurs, Anna Rindorf, Morten Vinther, Henrik Mosegaard and Lotte Worsøe
	<b>Keywords:</b>	MSE, stability, precautionarity, sandeel, sprat
<a href="#">G: 49</a> <a href="#">Oral</a>	<b>Title:</b>	Modelling the spatio-temporal interplay between North Sea saithe ( <i>Pollachius virens</i> ) and multiple fleet segments for management evaluation
	<b>Authors:</b>	Simons Sarah Laura, Döring Ralf, Temming Axel
	<b>Keywords:</b>	fleet dynamics, socio-economics, spatial structure, stock assessment, population dynamics
<a href="#">G: 50</a> <a href="#">Oral</a>	<b>Title:</b>	Assessing the relative importance of economic valuation, ecological and socio-economic ecosystem indicators: a multi-criteria application to Australian coastal development
	<b>Authors:</b>	Jean-Baptiste Marre, Olivier Thebaud, Sean Pascoe, Sarah Jennings, Jean Boncoeur
	<b>Keywords:</b>	
<a href="#">G: 51</a> <a href="#">Oral</a>	<b>Title:</b>	Choosing a response when supporting information is contradictory and stakeholders disagree
	<b>Authors:</b>	Deirdre E. Duggan, Keith D. Farnsworth, Sarah B. M. Kraak, Dave G. Reid, and Dorothy, J. Dankel
	<b>Keywords:</b>	uncertainty, fisheries science, post-normal science, paradigm shift, communication framework, NUSAP
<a href="#">G: 52</a> <a href="#">Oral</a>	<b>Title:</b>	Managing ecosystems of the high seas of the Southern Ocean practicing consensus-based decision-making
	<b>Authors:</b>	Jessica Nilsson, Marcus Haward, Elizabeth Fulton & Craig Johnson
	<b>Keywords:</b>	Antarctica, ecosystem-based management, CCAMLR, by-catch mitigation, Southern Ocean, consensus-based management
G: 53 Oral	<b>Title:</b>	Fish are Normal, Fisheries are Post-Normal: A Post-Normal Science characterization of quantifying uncertainty in datasets by using the NUSAP approach
	<b>Authors:</b>	Dorothy J. Dankel
	<b>Keywords:</b>	uncertainty, fisheries science, post-normal science, paradigm shift, communication framework, NUSAP
<a href="#">G: 54</a> <a href="#">Oral</a>	<b>Title:</b>	Linking information use to societal contexts in ecosystem-based management: knowledge interaction and policy-integration at different scales of EU fisheries governance
	<b>Authors:</b>	Sebastian Linke and Alfred Sandström
	<b>Keywords:</b>	fisheries co-management; information use; knowledge interaction; policy analysis

<b>CM Code</b>	<b>Posters</b>	
G: 09 Poster	<b>Title:</b>	Assessing the ecological footprint of commercial fisheries using a spatially explicit semi-quantitative risk assessment for New Zealand deepwater fish stocks
	<b>Authors:</b>	Charles Edwards & Alistair Dunn
	<b>Keywords:</b>	by-catch; deepwater; swept-area; risk; impact assessment
<a href="#">G: 10 Poster</a>	<b>Title:</b>	An evaluation of the use of the Traditional Ecological Knowledge of the fishers in the management of their fisheries: the case of the Galician purse seine fleet
	<b>Authors:</b>	Pablo Pita, Duarte Fernández-Vidal and Ramón Muiño
	<b>Keywords:</b>	Purse seine, log-book, data-logger, TEK, mapping
G: 12 Poster	<b>Title:</b>	The times they are a-changin': the radical and successful transformation of the artisanal shellfisheries in Galicia
	<b>Authors:</b>	Gonzalo Macho, Sebastián Villasante, Inés Naya, Juan Freire, Emilio Abella, José Manuel Parada, Antonio García-Allut, Ricardo Arnaiz, Elsa Vázquez, Jo
	<b>Keywords:</b>	Small-scale fisheries governance, Community-based management, Co-management, territorial tenure rights
G: 13 Poster	<b>Title:</b>	A Generic Matrix tool for identifying key regional pressure-impact links in marine management
	<b>Authors:</b>	Kryvenko O., Churilova T., Suslin V., Mazik K., Barnard S., Papadopoulou K.N., Smith C.J., Moncheva S., Patricio J., Bisel K.C., Solaun O., Elliott M.,
	<b>Keywords:</b>	Pressure Assessment, biodiversity, marine management, MSFD
<a href="#">G: 14 Poster</a>	<b>Title:</b>	Impact of management measures, fish prices and stock abundance in the fleet dynamics of the otter-trawlers operating in Galician-Cantabrian Sea fishing ground
	<b>Authors:</b>	M. P. Sampedro, I. González Herraiz, A.C. Fariña, J. Castro, D. Garabana
	<b>Keywords:</b>	fleet dynamics, Cantabrian Sea, fish price, management measures, stock abundance
G: 15 Poster	<b>Withdrawn</b>	