S6 MEQ/FIS Topic Session
Marine spatial planning in support of integrated management - tools, methods, and approaches

Co-Sponsored by NOWPAP

Co-Convenors: Glen Jamieson (Canada), Vladimir Shulkin (NOWPAP, Russia) and Chang-Ik Zhang (Korea)

Marine spatial planning is receiving support from a growing number of PICES member countries as a means to develop a strategic approach to offshore ocean usage and resolve spatial conflict issues. While the concepts of integrated management (IM) and supporting marine spatial planning (MSP) are now often referred to at the policy level, there is generally only a vague and patchy understanding of how they might be practically implemented. The most obvious elements of MSP include marine protected or spatially regulated areas designed to meet one or more objectives of IM. This requires identifying and mapping marine features and processes, along with human activities and associated pressures and impacts. The session aims to explore the latest thinking and developments in MSP. Contributions are therefore invited on practical examples of MSP approaches or on any of its sub-components, including: 1) role of MSP in achieving IM objectives - success stories and problem areas to avoid in practical implementation of MSP; 2) criteria for identifying, mapping and assessing (based on observations and/or predictions) cumulative impacts of multiple human activities, including theoretical developments on community sensitivity, resilience and other features of ecological significance (*e.g.*, mapping of human activities/impacts using spatially-resolved data or model predictions); and 3) criteria and guidelines used to design and locate MPAs to meet cross-sectoral IM objectives, *i.e.* not just fisheries or nature conservation objectives; included in this are theoretical considerations on interconnectivity amongst these areas. We are particularly interested in practical examples of marine planning or management systems or processes that bring together any combination of the above.

Friday, October 30 (9:00-17:40)

9:00 ***Introduction by Convenors***

9:05 **Erik Olsen and Fanny Douvere (Invited)**
Marine spatial planning: A practical approach to ecosystem-based management (S6-6009)

10:05 **Michio J. Kishi, Ayaka Sakamoto and Kenta Awa**
Basic idea on ecosystem based management for aquaculture and artificially released chum salmon (S6-5686)

10:25 ***Cofee / tea break***

10:50 **Brett R. Dumbauld**
Managing estuarine resources at the landscape scale in Willapa Bay, Washington and similar U.S. West Coast estuaries (S6-5824)

11:10 **Jong-Deuk Bang, Jung-Pyo Hong, Sang Un Park, Jung-Yeong Lee, Jae-Yeong Lee, Im-Gi Jeon and Jong-Hun Na**
Marine enhancement program in Korean Peninsula: Introduction of marine ranching programs (S6-5685)

11:30 **Hidemasa Yamamoto**
Procedures for assessment of eutrophication status developed by NOWPAP CEARAC (S6-5571)

11:50 **Ivan S. Arzamastsev**
Zoning of Far Eastern Seas for integrated nature management (S6-5527)

12:10 **Blake E. Feist, Carolina Parada, Kevin E. See and David A. Armstrong**
Using ROMS ocean circulation models to predict the range expansion of non-indigenous European green crab (*Carcinus maenas*) along the west coast of North America (S6-5959)

12:30 ***Lunch***

14:00 **Anatoly Kachur (Invited)**
Marine spatial planning in support of integrated management in North West Pacific Region – tools, methods, and approaches (S6-5766)

14:50 **David Nicolson, Natalie Ban, Julie Beaumont, Karin Bodtker, Christopher Bos, Tanya Bryan, Andrew Day, Glen Jamieson, Lynn Lee, Greg MacMillan, Glen Rasmussen, Charlie Short, Bruce Turris and Karen Topelko**
Generating information to support integrated marine planning: Advantages and challenges of a collaborative approach (S6-5960)

15:10 **Ian M. Dutton, Kerrie Wilson and Hedley Grantham**
Making marine spatial planning real: Bridging the gap from planning to action (S6-5972)

15:30 ***Coffee / tea break***

15:50 **Robinson Mugo, Sei-Ichi Saitoh, Akira Nihira and Tadaaki Kuroyama**
Spatial prediction of skipjack tuna catch rates from remote sensing and geo-statistical approaches: Some tools for fisheries spatial planning and management in the western North Pacific (S6-5764)

16:10 **Vladimir Shulkin**
Spatial zoning of the sea coastal areas by the land-based influences as a part of ICARM (S6-5521)

16:30 **Ning Lin, Nanyan Huang, Wenbin Xu and Qian Wang**
Evaluation of marine function zoning: Research and practice in China (S6-5626)

16:50 **Li-Feng Lu, Yasumasa Miyazawa, Kazuo Nadaoka, Sergey M. Varlamov and Aditya R. Kartadikaria**
Responses of surface current and temperature to the local wind and tidal forcing within Sekisei Lagoon, Japan and their application to the regional coral reef connectivity (S6-5909)

17:10 **Erik Olsen**
Marine spatial planning in Norway: Lessons learned from developing and implementing integrated management plans for the Norwegian and Barents seas (S6-6008)

17:30 ***Discussion***

17:40 ***Session ends***