Symposium Announcement

Rediscovering pelagic biodiversity: Progress, promise, and challenges of metabarcoding of microbes to mammals



Convenors: Ann Bucklin (University of Connecticut, USA) and Bengt Karlson (Swedish Meteorological and Hydrological Institute, Sweden) Sponsor: Scientific Committee for Ocean Research (SCOR); MetaZooGene Working Group (SCOR WG157)

Svenska Mässan, Swedish Exhibition & Congress Centre, Gothenburg, Sweden September 13, 2019

| Start | End | Authors (Presenter in Bold) | Title of Presentation |
|-------|-------|--|--|
| 8:00 | 8:45 | Registration & Coffee | |
| 8:45 | 9:00 | Welcome to the Symposium | Ann Bucklin and Bengt Karlson |
| 9:00 | 9:05 | Introduction to Session I | Session I: Diversity of the pelagic assemblage |
| 9:05 | 9:20 | Katja T.C.A. Peijnenburg, Le Qin Choo, Alice Burridge, Lisette Mekkes, Deborah Wall-Palmer, Erica Goetze | Diversity and evolution of pteropods along latitudinal transects in the Atlantic Ocean |
| 9:20 | 9:35 | Leocadio Blanco-Bercial | Annual cycle of mesozooplankton in the Sargasso Sea |
| 9:35 | 9:50 | Carolina E. González, Erica Goetze, Rubén Escribano | Genetic structure and endemism in the cosmopolitan copepod Pleuromamma abdominalis in the Southeast Pacific |
| 9:50 | 10:05 | Junya Hirai, Kiyotaka Hidaka, Satoshi Nagai, Yugo Shimizu, Tadafumi Ichikawa | Metabarcoding analysis of planktonic copepods in the Kuroshio region off the southern coast of Japan |
| 10:05 | 10:20 | Deborah Wall-Palmer, Katja T.C.A. Peijnenburg | Raising awareness of the atlantid heteropods (Gastropoda, Pterotracheoidea) - calcifying holoplanktonic predators. |
| 10:20 | 10:35 | Henna Savela, Sanna Suikkanen, Anke Kremp | Seed banks as reservoirs of diversity driving evolutionary dynamics and persistence of Baltic phytoplankton in a changing environment – the RESERVOIR project |
| | | Coffee Break | |
| | | Introduction to Session II | Session II: Data and database resources |
| 11:05 | 11:20 | Ryuji Machida, Matthieu Leray, Nancy Knowlton | GenBank is a reliable resource for 21st century biodiversity research |
| 11:20 | 11:35 | Li Chaolun, Wang Minxiao, Cheng Fangping, Wang Xiaodong | Assessment of metabarcode as advanced tools |
| 11:35 | 11:50 | Todd D. O'Brien | MZGdb: The MetaZooGene database |
| 11:50 | 12:05 | Johannes Alneberg, Christin Bennke, Sara Beier, Carina Bunse, Christopher Quince, Karolina Ininbergs, Lasse Riemann, Martin Ekman, Klaus Jürgens, Matthias Labrenz, Jarone Pinhassi, Anders F. Andersson | A comprehensive catalogue of Baltic Sea bacterioplankton genomes |
| 12:05 | 13:15 | Lunch on Site | |
| 13:15 | 13:20 | Introduction to Session III | Session III: Exploring the potential of metabarcoding |
| 13:20 | 13:35 | Sergio Stefanni, Diana Catarino, Elio Biffali, Raimondo Pannone, Andrea Tarallo, Clara Loureiro, Ana Martins, David Stankovič | A "cold case" of metabarcoding analysis unravel hidden mesozooplankton diversity at two Azorean seamounts and neighboring island slopes (NE Atlantic) |
| 13:35 | 13:50 | Tatiana Neretina, Glafira Kolbasova, Anna Zhadan, Nikolai Neretin, Ksenia Kosobokova, Alexander Tzetlin | ITS sequences in marine invertebrates metabarcoding |
| 13:50 | 14:05 | Paola G. Batta-Lona, Joel K. Llopiz, Annette Govindarajan, Ann Bucklin | Metabarcoding analysis of salp diets and trophic relationships in mesopelagic food webs |
| 14:05 | 14:20 | David Stanković, Diego Borme, Valentina Tirelli, Alberto Pallavicini, Sergio Stefanni | A DNA metabarcoding approach to diet comparison in two sympatric pelagic fish in the Adriatic Sea – European sardine (<i>Sardina</i> <i>pilchardus</i>) and European anchovy (<i>Engraulis encrasicolus</i>) |
| 14:20 | 14:35 | Masaki Miya | Environmental DNA metabarcoding enables a data-driven approach for fish community research in large spatial and temporal scales |
| 14:35 | 15:00 | Coffee Break | , _ , |
| 15:00 | 15:15 | Bengt Karlson, Markus Lindh, Anders F. Andersson | Metabarcoding identifies previously unknown diversity of pelagic Cyanobacteria in the Baltic Sea and the Kattegat and the Skagerrak. |
| 15:15 | 15:30 | Ann Bucklin, Jennifer M. Questel, Bo Reese, Nancy J. Copley, Peter H. Wiebe | Time-series analysis of zooplankton diversity of the NW Atlantic continental shelf based on 18S rRNA metabarcodes |



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| 15:30 | 16:15 | Poster Speed Talks (3 minutes each) | Session I Posters: Diversity of the pelagic assemblage |
| | 1 | Eileen Bresnan, Catherine Collins, Rowena Stern, Joe Taylor | The use of metabarcoding to investigate the microbial and fungal communities at the Scottish Coastal Observatory monitoring site at Stonehaven in the north east of Scotland |
| | 2 | Monika Mioduchowska, Anna Iglikowska, Agata Weydmann-Zwolicka | HIDEA – Hidden diversity of plankton in the European Arctic |
| | 3 | Lotte J. Bouwman, Alice Burridge, Jaap de Boer, Catharina M.H. de Weerd, Erica Goetze, Katja T.C.A. Peijnenburg | Linking juvenile and adult pteropods from the Atlantic Ocean through DNA barcoding, with special attention to the elusive Pseudothecosomata |
| | 4 | S.S. Gunasekara, R.R.P.K. Jayasinghe , JO. Krakstad, A. Totland, H.M.P. Kithsiri | Evaluation of historical changes in coastal fisheries of Sri Lanka using length-based indicators |
| | 5 | Björn Källström , Erik Selander, Thomas Dahlgren, Annette Govindarajan, Carina Östman | The toxic and cryptogenic clinging jellyfish Gonionemus sp. (Hydrozoa, Limnomedusae) on the Swedish west coast |
| | • | | Session II Posters: Exploring the potential of metabarcoding |
| | 6 | Melissa Wojcicki, Sarah Glancy, Joel K. Llopiz, Ann Bucklin | Discovering food web interactions in the ocean twilight zone: metabarcoding analysis of the diet of mesopelagic fishes |
| | 7 | Joëlle van der Sprong, Katja T.C.A. Peijnenburg | Cryptic species in open ocean holozooplankton - are they real? |
| | 8 | E.A. Ershova, O.S. Wangensteen, C. Barth-Jensen, K. Praebel | A step towards quantitative metabarcoding of zooplankton communities |
| | | | Session III Posters: Data and database resources |
| | 9 | Maria Prager, Diego Brambilla, Daniel Lundin, Anna Rosling, Jeanette Tångroth, Anders F. Andersson | Mobilizing sequence-based observations into Biodiversity Atlas Sweden: An Open-Science effort to make metabarcoding data easier to process, publish and re-use |
| | 10 | Alexandra Frenzel, Paola G. Batta-Lona, Peter H. Wiebe, Todd O'Brien, Ann Bucklin | DNA barcoding the Euphausiacea: taxonomic and biogeographic analysis using COI |
| | 11 | Deborah Wall-Palmer, Katja T.C.A. Peijnenburg | Shelled Heteropod Identification Portal (planktonic.org) |
| | 12 | Hobaek, A. and Falkenhaug, T. | Building Barcode Libraries of Norwegian microcrustaceans |
| 16:15 | 17:00 | Discussion Session | Discussion leaders: Anders Andersson and Katja Peijnenburg |
| 17:00 | 18:00 | Poster Session and Reception | |

The MetaZooGene Symposium Program and Abstracts can be found online at the SCOR WG157 MetaZooGene website (see <u>https://metazoogene.org/</u>).

This symposium is associated with UNESCO - Intergovernmental Oceanographic Commission (IOC) and International Council for the Exploration of the Sea (ICES) 2019 Annual Science Conference (*September 9-12, 2019 in Gothenburg, Sweden*)

See: http://www.ices.dk/news-and-events/asc/asc2019/Pages/default.aspx