

50-year anniversary of Johan Hjort 201

CHALLENGING THE SCIENTIFIC LEGACY OF JOHAN HJORT:

Time for a new paradigm in marine research?

Bergen, Norway 12-14 June 2019









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- Conveners: Olav Sigurd Kjesbu (Institute of Marine Research (IMR), Bergen, Norway); Vera Schwach (Nordic Institute for Studies in Innovation, Research and Education (NIFU), Oslo, Norway); Jennifer Hubbard (Ryerson University, Toronto, Canada); Iain M. Suthers (University of New South Wales (UNSW), Sydney, Australia)
- Scientific Steering Committee: *Gregory Ferguson-Cradler* (University of Bergen, Bergen, Norway); *Bronwyn M. Gillanders* (University of Adelaide, Adelaide, Australia); *Brian R. MacKenzie* (DTU Aqua, Technical University of Denmark, Copenhagen, Denmark); *Tom J. Miller* (Chesapeake Biological Laboratory, University of Maryland, Solomons, USA) and *Helen Rozwadowski* (University of Connecticut (UConn), Groton, USA).
- **Publication plan:** Contributions will be published in *ICES Journal of Marine Science*. Note that manuscripts can be submitted at any time between the first call for papers, 1 October 2018 (see below), and the deadline, 3 months after the conference, i.e. 14 September 2019.
- Deadlines and registration: Early registration and abstract submission from 1 October 2018; final registration and abstract submission on 15 April 2019 at https://www.hi.no/conferences/JohanHjort/ Manuscripts can be submitted to ICES Journal of Marine Science from the time early registration starts at https://academic.oup.com/icesjms/pages/General_Instructions

The symposium

In 2019 we celebrate the 150-year anniversary of Johan Hjort (1869–1948), who introduced the fundamental theory for fisheries science with his concepts of the roles played by strong and weak year classes in population structure and productivity. Since then a wide range of new methods and approaches have emerged, but today's knowledge of factors such as recruitment, connectivity and migration dynamics is still vague and thereby makes stock projections uncertain. Moreover, the urge to broaden the standard routines in stock management to embrace today's holistic views, including ecosystem approaches to fisheries and on-going changes in the marine environment, requires an interdisciplinary cooperation. In order to move forward, the current situation asks for a profound shift in our approach, and a search for new ideas and a new scientific framework.

To investigate the history and the present and to explore new directions in a free and creative atmosphere – in the spirit of Hjort – we invite marine researchers and historians of marine science to gather in this Bergen symposium, at the place where Hjort launched his paradigm-changing publication in 1914.

We argue that by integrating data, information and perspectives from a range of scientific fields, we will be able to reach a more advanced understanding of marine life as well as the practice of marine science in the past and present. Challenging the scientific legacy of Johan Hjort will be a truly interdisciplinary event, and bring historians together with marine and fisheries scientists. The majority of the sessions will include plenary sessions and contain contributions from different fields.



Bergen, at Johan Hjort's time. Hand coloured photo of the city, as viewed from Fløien around 1903.

Opening session

"Johan Hjort (1914): a Classic to Honour and Challenge". This session will introduce the aims and ambitions for this symposium, but also to remember, examine and challenge the classics in marine research, with a particular focus on Hjort 1914.

Opening keynote speaker: Professor *Ray Hilborn*, University of Washington, Seattle, USA



Scientific legacy, theories and study species

In this session we aim to explore theories, traditions and long trends in fisheries investigations. Any fish stock in the world could be addressed. We have selected four commercially important categories of stocks to exemplify current and long trends in fisheries research and advice to be presented as keynotes by outstanding fisheries/marine scientists. Each keynote will be followed by complementary presentations (oral and poster), but with flexibility to create stimulating and, perhaps controversial, discussions. This session will cover issues including vital rates (bioenergetics, natural mortality, growth, recruitment), intra- and interspecific stock dynamics, and how to implement environmental stressors in the era of ocean observing and climate change. Synthesis work rather than studies on specific topics will be given priority, especially those addressing progress in science and "what now" issues.

Keynote speakers:

- Head of Research Group, Akinori Takasuka, National Research Institute of Fisheries Science, Japan Fisheries Research and Education Agency, Yokohama, Japan (Revising Density-Dependent Effects on TEP)
- Senior Research Scientist, *Karen Evans*, CSIRO, Hobart, Tasmania, Australia (tunas)
- Senior Research Scientist, *Robert L. Stephenson*, DFO, St Andrews Biological Station, Canada (herring)
- Science Leader/Principal Scientist *Timothy M. Ward*, SARDI, Henley Beach, Adelaide, Australia ("small pelagics")
- Principal Scientist Svein Sundby, IMR, Bergen, Norway (The Recruitment Enigma)

On the shoulders of the giants of marine science

When should fisheries science revisit the past, and where should it search for new answers? This session examines and challenges the intellectual heritage and suggest ways forward. We want paper which search for a deeper insight in the present stage of scientific basis, and encourage search for new ideas and scientific framework.

Key note speaker: Killam Memorial Chair/Professor *Jeffrey A. Hutchings*, Dalhousie University, Halifax, Canada

The making of fisheries scientists

Here we turn to the fisheries scientists of today. This session explores how their cultural and disciplinary backgrounds shaped their decisions to go into this research field. Which factors influenced their choice of career and topics; how did the personal ambitions and creativity impact fisheries science? Did fisheries collapses, environmental crises or "role models" play a part?

Chair and moderator: Professor *Jennifer Hubbard*, Ryerson University, Toronto, Canada

Science and management, an uneasy pair?

This session examines how science influenced fisheries management decisions and fisheries policy, and the ways fisheries policy and management shaped fisheries/marine science. We welcome presentations (and papers) from marine scientists as well as managers emphasizing the value of past and on-going fisheries research in their daily operational decisions.

Key note speaker: Researcher *Dorothy Jane Dankel*, University of Bergen, Bergen, Norway

When historians meet marine scientists

This is a special dialogue between historians and invited marine scientists. The goal is to investigate the past, present and to explore potential new directions. We plan to send out questions beforehand. The session may include questions and comments from the public.

Chair and moderator: Associate Professor *Helen Rozwadowski*, University of Connecticut, Groton, USA

Johan Hjort and the Bergen he saw

A photo exhibition of the life and work of Johan Hjort in Bergen will be part of the symposium. Research Professor *Vera Schwach* will introduce the exhibition. It will include a "marine science walk": *Across Bergen*, in the footsteps of Johan Hjort. The aim is to visit important historical sites for marine research. In addition, we offer the opportunity to visit the IMR research vessel *Johan Hjort* (picture below).



Registration and accommodation

Venue

Hotel Scandic Bergen City, Håkonsgaten 2-7, Bergen https://www.scandichotels.com/

Participants

~150 scholars and scientists

Registration fee

NOK 4000 (~410 Euro, ~500 US Dollar, currency rates as of August 2018); NOK 2000 for students. The fee includes Welcome Reception with canapés on Tuesday 11 June 1900-2200 hrs; hot lunches and coffee breaks (with cakes/fruit) during the symposium; refreshments at the Poster session; a marine scientific walk in Bergen, tickets for the Fløibanen (the funicular); conference dinner at Fløien Restaurant; a complimentary bag including the book of abstracts; a visit onboard IMR's research vessel *Johan Hjort* with snack provided.

Support to early-career scientists

ICES and ICHO co-sponsorship include financial support for early-career scientists (in addition to the already lowered registration fee). This grant can be used to cover up to five nights at Hotel Scandic Bergen. A short application including a few lines about the applicant as well as the abstract should be sent to the coconveners by <u>olav.kjesbu@imr.no</u> as soon as possible and no later than 1 March 2019.

Accommodation

A number of number of rooms are reserved at Hotel Scandic Bergen City, Bergen: double rooms can be shared by two persons for the same price as for a single room, currently 1260 NOK per night. Breakfast is included. Booking should be done through the above link to the hotel.

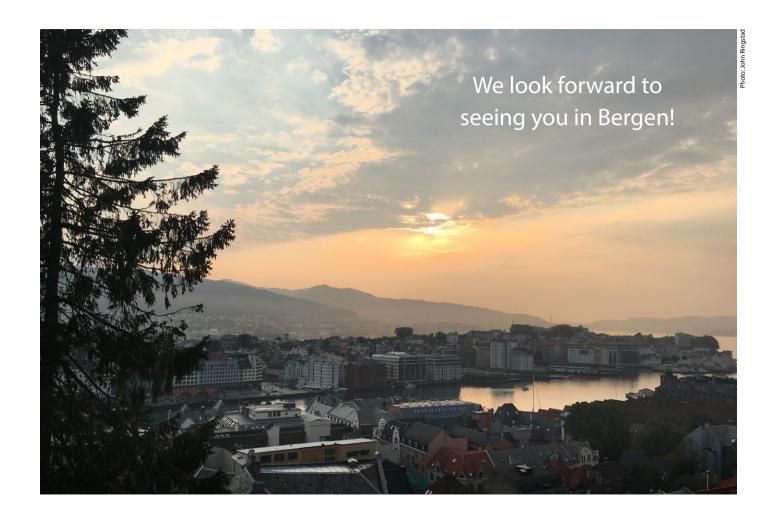
In addition to Hotel Scandic Bergen City, Bergen offers a variety of opportunities for accommodation; for more information about this, your travel to Bergen and the city in general, please go to www.visitbergen.com. Please be aware of that Bergen is a popular tourist destination, hence book your room well in advance.

About the weather

Please note that rain is common in Bergen, and the city has streets with cobblestones. The symposium will include walking outdoors, so please bring good walking shoes and proper outerwear.

Local Organizing Committee

Olav Sigurd Kjesbu; Vera Schwach; Andreas Angerman; Kathrin Gjerdevik; Anne Karin Hufthammer; Thassya C. dos Santos Schmidt; Martina Stiasny; Gunnar Sætra; Maik Tiedemann, Kari Østervold Toft and Monica Tolleshaug.





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