

Networking session Report

Aquaculture in ICES: from science to advice

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Introduction

ICES work on aquaculture is part of a wider portfolio of work that seeks to advance and share scientific understanding of marine ecosystems and the services they provide, and to use this knowledge to generate state-of-the-art advice for meeting conservation, management, and sustainability goals.

The purpose of this networking session was to facilitate wider engagement of experts to ICES advisory work on aquaculture, by introducing and explaining the advisory framework and relevant advisory products (overviews, special requests, and viewpoints). The different steps in the advisory process with opportunities to engage and contribute (as subject-matter experts, peer reviewers and advice drafters) were presented and discussed. The session also identified and discussed candidate topics for ICES aquaculture advice, together with discussions of the next ICES ecoregions for which aquaculture overview(s) could be produced.

Summary of key discussion points

This networking session revealed the strong support for ICES work in this area, and it highlighted the clear role that ICES holds as an advice provider on sustainable aquaculture.

The intended format of the session was to have a free-flowing discussion and exchange of ideas. We intentionally brought in a diversity of perspectives to provide context and structure. Debbi Pedreschi, Chair of Integrated Ecosystem Assessments Steering Group, shared her real-world experience in contributing to ICES Ecosystem Overviews as an expert, working group chair, and steering group chair. Ann Lisbeth, Aquaculture Steering Group Chair highlighted the value of ICES aquaculture science products, Henn Ojaveer described the Aquaculture Overviews as advice products, and Anne Cooper shared opportunities and methods to get involved with ICES aquaculture science and advice.

- Participants spoke passionately about the value that ICES brings as an international organization to sustainable aquaculture in Europe.

The Aquaculture Overviews give a broad view of what is happening in ICES ecoregions. What is evident here, is that because aquaculture is a national competency, there are different management systems in each country. Some would question the role for ICES in a topic that is a national issue. However, ICES, as an independent knowledge provider, has a huge role to play in this sphere as ICES provides a space where we can learn from each other and to share best practice. This is where ICES brings real value. As aquaculture experts we can work with the advice requesters to deliver advice that will help to raise the standards for aquaculture across Europe. What we need is requests for advice on best practices. While aquaculture is an activity of national competence, and every country is essentially managing the industry differently, it will benefit from an independent, international group of experts working by consensus to provide the best available information on best practices.

- Participants challenged ICES to improve our communication about aquaculture across all our expert groups as well as to advice requesters and stakeholders (incl. national level).

Aquaculture Overviews are now included in the MoUs and grant agreements with some advice requesters, a major step forward in terms of ICES visibility as a knowledge provider on aquaculture. Also, aquaculture is often a discussion topic at annual MIRIA and MIACO meetings. National delegates to ICES and SCICOM/ACOM members play very important role in communicating and promoting aquaculture activities in ICES in different fora.

- Experts proposed topics for advice where they thought they had the information and governments have a knowledge gap.

ICES develops new advice via two different mechanisms: i) special requests by advice requestors, and ii) ICES Viewpoints, developed at the prompting of the ICES expert community. For both advice types, ICES has procedures in place.

- What's the cost to benefit of investing national resources in an Aquaculture Overview? What is the value of an Aquaculture Overview or an Ecosystem Overview?

The Aquaculture Overviews (and the Ecosystem Overviews) are key products in the ICES approach to support Ecosystem Based Management. Aquaculture Overviews complement other ICES advice, providing supporting context and allowing users to understand the implications of sectoral decisions and impacts in a socio-ecological context. The benefit of investigating and including national data and knowledge into Aquaculture Overviews lies in the fact that this allows the user to compare, synthesise and interpret national information at a larger spatial scale (ecoregion level), which is spatial ecosystem assessment unit in ICES.

- Participants encouraged ICES to use the data collected via the DCF for aquaculture. And a potential viewpoint on social licence was brought forward.

The data use should be discussed at expert groups (incl. ICES workshops established for Aquaculture Overviews). Ideas for viewpoints are warmly welcomed and there is a process on how to handle these (via ACOM Vice Chair). Incorporation of socio-economic issues to ICES advice has increased recently and this trend will likely continue.

- ICES also needs to improve communication about aquaculture. Stock assessment groups should be working at the ecosystem level, yet these groups never speak about aquaculture. We need to make traction on the ecosystem approach at every level.

This is the role of the ICES Overviews (on Ecosystem, Fisheries and Aquaculture), which provide 'topic narrative' for each ecoregion and thereby, together set the broader ecosystem context for other, usually more focused ICES advice products. The 'more focussed products' also include advice on fishing opportunities. Beginning in 2023, conservation advice aspects are included in fishing opportunities advice sheets making thus the fishing opportunities advice more inclusive on ecosystem issues.

- Stakeholder involvement in aquaculture is a topic that ICES should explore.

When ICES began planning work for the Aquaculture Overviews, the Secretariat worked with ACOM and SCICOM members to distribute a survey to national-level stakeholders on their needs for advice

on aquaculture. The results of this survey were used to develop the structure and subjects presented in the Aquaculture Overviews. For example, this is why we see information on the impacts and opportunities of climate change as well as social and economic information and data in the overviews. The survey questions and summarized responses are published in ICES (2021¹). ICES will continue stakeholder engagement in all ICES advice, incl. in aquaculture.

Conclusions

This networking session worked to connect experts to one another and to ICES advice and science leadership to advance key activities in ICES aquaculture science and advice. The networking session was very useful to explain several workload and procedural issues related to science to advice transfer.

Feedback

Forty-three people attended the networking session, and we had a very free-flowing and active discussion among early career scientists, ICES delegates, past ACOM chairs, ACOM and SCICOM members, and expert group members. The discussions were very productive and ranged across a diverse range of key issues for ICES. The discussion encompassed both very specific science issues related to aquaculture, relevant processes/mechanisms in ICES and topics of potential advisory interests. Overall, this was a very productive session. It sparked a lot of enthusiasm among scientists working with aquaculture.

¹ ICES, 2021. Workshop on the Norwegian Sea Aquaculture Overview (WKNORAO). ICES Scientific Reports. 3:116. 87 pp. <https://doi.org/10.17895/ices.pub.9574>.

