

Co-sponsored Symposia Resolutions

Co-sponsored Symposia Resolutions	i
Resolutions approved in 2023	2
Baltic Sea Science Congress (21–25 August 2023)	2
Second International Symposium on Plastics in the Arctic and Sub- Arctic Region (22–23 November 2023).....	9
Future-proofing surveys: integrating probability and non- probability methods in fisheries (8–10 July 2025).....	16
Aqua2024 (26–30 August 2024)	26
Resolutions approved in 2022	35
From Echosounders to the Cloud: Transforming Acoustic Data to Information (27-30 March 2023).....	35
Effects of human impacts on marine functional connectivity (22-25 May 2023).....	43
Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic (Spring 2024)	50
7th Zooplankton Production Symposium (17-21 March 2024)	57
Oceans Past 2024: Historical perspectives on human-ocean interactions: deep understandings for informing ocean futures (10-14 June 2024).....	63
Resolutions approved in 2021	71
Ecosystem Effects of Climate Change on the World's Ocean 5 (ECCWO-5) (17-21 April 2023).....	71
Resolutions approved 2016	78
Marine Socio-EcologicAl Systems - MSEAS 2020: Navigating global change in the marine environment with socio-ecological knowledge (Dates to be confirmed - 2024)	78

Resolutions approved in 2023

Baltic Sea Science Congress (21–25 August 2023)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2023-01-01

End Date: 2023-12-31

Symposium Title (max 280 characters)

Baltic Sea Science Congress

Symposium Conveners (max 5)

Full Name	Institute	Email	Country
Kai Myrberg	Finnish Environment Institute	Kai.Myrberg@syke.fi	Finland
Jari Haapala	Finnish Meteorological Institute	jari.haapala@fmi.fi	Finland
Maren Voss	Leibniz Institute for Baltic Sea Research Warnemünde	voss@io-warnemuende.de	Germany
Vibeke Huess, Denmark.	Danish Meteorological Institute	vibeke.huess@dmi.dk	Denmark
Anda Ikauniece, Latvia	Latvian Institute for Aquatic Ecology	anda.ikauniece@lhei.lv	Latvia

Symposium Website URL (if known)

<https://www.syke.fi/projects/bssc2023>

Scientific Justification (max 1500 characters)

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

The purpose of the Congress is to bring together scientists working on issues related to the Baltic Sea Region to present the most recent research and to discuss status, trends and the future of the Baltic Sea as well as future research needs. The specific focus is on the UN Decade of Ocean Science for Sustainable Development. The Baltic Sea Science Congress 2023 is a part of the Finnish National Implementation Plan for the UN Decade of Ocean Science.

In addition to discussion on recent scientific results, the conference facilitates discussion on status, trends, and the future of the Baltic Sea and its catchment area. This forms a part of the global ocean studies, planning of joint research activities and interaction among science and society.

The conference sessions thus cover a wide range of topics according to the objectives of Decade of Ocean Science in the Baltic Sea.

The conference is multidisciplinary and it has common panels for policy and decision makers. We aim at a common conference memo "the science we need for the Baltic Sea we want". This means knowledge exchange between marine scientists in order to contribute to informed society and policy decisions for sustainable management of the Baltic Sea today and future.

We also invite the sharing of research from other coastal seas that is of general relevance to the topic of the Congress. In particular, we encourage presentations focusing on coastal and marginal seas that contribute to the UN Decade of Ocean Science for Sustainable Development.

In general level the BSSC2023 supports the idea of ICES Strategy "We are committed to better understanding marine ecosystems and securing the benefits that people derive from them."

The Congress is strongly linked to science priorities in ICES strategy. BSSC2023 discusses processes in Baltic Sea ecosystem and impact of human being to ecosystems. New technologies and observational systems are discussed in a special workshop.

Symposium Dates (yyyy-mm-dd)	
Start Date: 2023-08-21	End Date: 2023-08-25

Venue (specific place such as the conference centre)	Expected Number of Participants
Scandic Marina Congress Center	c 400

City/Town	Country
Helsinki	Finland

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The conference sessions thus cover a wide range of topics according to the objectives of Decade of Ocean Science in the Baltic Sea:

1. A clean Baltic Sea
2. A healthy and resilient Baltic Sea
3. A productive Baltic Sea
4. A predictive Baltic Sea
5. A safe Baltic Sea
6. An accessible Baltic Sea
7. An inspiring and engaging Baltic Sea

There will be organised a high-level panel discussion at the opening session, including a press conference.

There will be organised an open session for the public where the Ocean Decade and Baltic Sea issues are discussed and introduced.

For young scientists, there will be organized a special session and social programme for the evening. This is organised by Dr. Lydia White, University of Helsinki. (lydia.white@helsinki.fi)

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)**Contributions by ICES Representatives (max 1500 characters)**

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

ICES representatives are welcome to the BSSC as session chairs and to scientific committee.

Many members of the scientific committee have been involved in ICES work- Kai Myrberg (Syke) is to be nominated as a new ICES Delegate of Finland.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

- 1) 5000 EUR for ECS support
- 2) ICES endorsement, thus the use of ICES logo
- 3) A professional officer from ICES secretariat to participate in the organisation e.g. Scientific Steering Committee
- 4) Advertisement through ICES Comms team

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Finnish Environment Institute (Syke) and Finnish Meteorological Institute (FMI)
Ministry of Foreign Affairs of Finland will fund the working time for Syke's FMI's personnel.
The City of Helsinki will support the Congress by organising a Reception.

The BSSC procedure is officially a part of UN:s Ocean Dcecade and its is supervised by the Prime Minister's Office in Finland.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify): Tbd
- No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

The science we need for the Baltic Sea we want

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Sharing evidence

Priority 2: Identifying needs

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Observation and exploration

Priority 2: Conservation and management science

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

Geographic Focus (select one or more)

Non-geospecific

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions

- Adriatic Sea
- Aegean-Levantine Sea
- Arctic Ocean
- Atlantic, Northeast (FAO area 27)
- Azores
- Baltic Sea
- Barents Sea

Areas outside ICES Ecoregions and Adjacent Ecoregions

- Arctic Sea (FAO area 18)
- Atlantic, Antarctic (FAO area 48)
- Atlantic, Eastern Central (FAO area 34)
- Atlantic, Northwest (FAO area 21)
- Atlantic, Southeast (FAO area 47)
- Atlantic, Southwest (FAO area 41)
- Atlantic, Western Central (FAO area 31)

<input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)
--	--

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

<input checked="" type="checkbox"/> Baltic Marine Environment Protection Commission (HELCOM)
<input type="checkbox"/> Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)
Arctic Networks
<input type="checkbox"/> Arctic Monitoring and Assessment Programme (AMAP)
<input type="checkbox"/> Conservation of Arctic Flora and Fauna (CAFF)
<input type="checkbox"/> International Arctic Science Committee (IASC)
<input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs)
<input type="checkbox"/> Mediterranean Science Commission (CIESM)
<input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO)
<input type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other
<input type="checkbox"/> European Aquaculture Society (EAS)
<input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	
Finnish Environment Institute (Syke)	
Finnish Meteorological Institute (FMI)	

ICES Secretariat to complete the information below

Unique Identifier
Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
2023/SYM/SCICOM01

Resolution Parent (select one)
Symposia should generally select SCICOM.
SCICOM

Professional Officer (if relevant)	Supporting Officer (if relevant)
Eirini Glyki	-

Secretariat Comments (max 500 characters)
Only include essential comments that can be made public and must stay with the resolution.

Second International Symposium on Plastics in the Arctic and Sub-Arctic Region (22–23 November 2023)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)	
Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.	
Start Date: 2023-01-01	End Date: 2023-12-31

Symposium Title (max 280 characters)
Second International Symposium on Plastics in the Arctic and Sub-Arctic Region

Symposium Conveners (max 5)			
Full Name	Institute	Email	Country
Magnús Jóhannesson	Former Director, Arctic Council Secretariat	magjoh@simnet.is	Iceland
Hrönn Jörundsdóttir	Director General, Icelandic Food and Veterinary Authority	hronn.jorundsdottir@mast.is	Iceland
Henrik Enevoldsen	IOC UNESCO	h.enevoldsen@bio.ku.dk	Denmark
Embla Eir Oddsdóttir	Director, Icelandic Arctic Cooperation Network	embla@arcticiceland.is	Iceland

Symposium Website URL (if known)
https://www.arcticplastics.is/

Scientific Justification (max 1500 characters)
Describe the aims, objectives, and anticipated outcomes of the symposium <u>and</u> the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.
Plastic pollution is of ever-growing concern. It is a well-known fact that plastic litter is omnipresent in our environment and the eventual sink for plastic waste is the world oceans. Even in the Arctic region plastic pollution is widespread. There is now a great urgency for actions to stem the plastic tide. Recently, the United Nations Environment Assembly adopted a broad negotiating mandate for a new legally binding international agreement to end plastic pollution. The new

agreement is expected to include provisions to promote national and international cooperative measures to reduce plastic pollution in the marine environment.

The aim is to gather scientific and local knowledge on plastic pollution and discuss ways and means to reduce the impact of plastics on Arctic ecosystems.

The planned symposium will build on the foundation of science of the first symposium and produce information and advice for decision makers. The symposium aims for exchange of views and updates of knowledge from various sources. The symposium will evaluate the present extent and nature of plastic pollution in the Arctic and Sub-Arctic regions and discuss its impact on ecosystems and communities. The origin of plastic litter, how it is transported to or in the Arctic and Sub-Arctic region and how breakdown processes are affecting the status of pollution will also be addressed.

Finally, the symposium will focus on possible mitigation methods and how they can be implemented and provide useful input to the ongoing negotiations on an international agreement on plastic pollution, and to other ongoing relevant international work to support protection of the marine environment.

A high-level scientific steering committee has been established to assist in developing the program of the symposium.

Symposium Dates (yyyy-mm-dd)	
Start Date: 2023-11-22	End Date: 2023-11-23

Venue (specific place such as the conference centre)	Expected Number of Participants
Reykjavík Concert Hall and Conference Center	300-400

City/Town	Country
Reykjavík	Iceland

Comments on dates, venue, location, and participants (max 500 characters) For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

Symposium Programme (max 1500 characters) Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.
The draft program is available 15 June 2023 The Scientific Steering Committee has decided on tentative themes for the symposium which has been announced in connection with call for abstracts. They are:

1. Monitoring and assessment of plastic pollution in the Arctic.
2. Methodological developments to determine macro, micro and nano plastics.
3. Sources and transport of plastic in the Arctic and sub-Arctic.
4. Impacts of marine litter in the Arctic (environmental, economic and social).
5. Arctic challenges and solutions for improved waste management.
6. Tackling plastic pollution: international collaboration, policies, best practices and novel developments from around the world.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

AFWG, WGSHP

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

Wojciech Wawrzynski, Head of Science Department is in the Scientific Steering Committee

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

- 1) 5000 EUR for ECS support
- 2) ICES endorsement, thus the use of ICES logo
- 3) A professional officer from ICES secretariat to participate in the organisation e.g. Scientific Steering Committee
- 4) Advertisement through ICES Comms team

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Financial support from the Nordic Council of Ministers.

The Government of Iceland will host the symposia, with the financial support of the Nordic Council of Ministers.

Partners of the event:

- the Oslo and Paris Commission (OSPAR)
- the International Oceanographic Commission (IOC) of UNESCO
- the University of the Arctic (UArctic)
- the International Arctic Science Committee (IASC)
- the Polar Institute of Wilson Center
- GRID-Arendal, the Center for the Ocean and the Arctic
- Center for the Oceans and the Arctic, UiT the Arctic University of Norway
- the Nature Institute of Greenland

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify): Maybe IJMS
- No publication intended

General Information**Resolution Status (select one)** **New resolution**

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

 Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

The aim is to gather scientific and local knowledge on plastic pollution and discuss ways and means to reduce the impact of plastics on Arctic ecosystems.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)	
Priority 1: Identifying needs	Priority 2: Sharing evidence

ICES Science Plan Priorities (select up to two if relevant to this resolution)	
Priority 1: Impacts of human activities	Priority 2: Conservation and management science

Additional Comments (if required, max 500 characters)
Restrict comments to those that are required to understand and review this resolution <u>and</u> for which there is no existing box on the form (e.g., request for a special resolution term duration).

Geographic Focus (select one or more)

<input type="checkbox"/> Non-geospecific Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).
--

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input checked="" type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input checked="" type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input checked="" type="checkbox"/> Greenland Sea <input checked="" type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input checked="" type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input checked="" type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

 No close links to other organisations**United Nations Organisations and Programmes**

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

- Baltic Marine Environment Protection Commission (HELCOM)
- Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)

Arctic Networks

- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- International Arctic Science Committee (IASC)
- Protection of the Arctic Marine Environment Working Group (PAME)

Scientific Intergovernmental Organisations (IGOs)

- Mediterranean Science Commission (CIESM)
- North Atlantic Marine Mammal Commission (NAMMCO)
- North Pacific Marine Science Organization (PICES)

Other

- European Aquaculture Society (EAS)

Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)

The University of the Arctic (UArctic)	UiT the Arctic University of Norway
the Polar Institute of Wilson Center	the Nature Institute of Greenland
GRID-Arendal, the Center for the Ocean and the Arctic	the Government of Iceland
Nordic Council of Minister	

ICES Secretariat to complete the information below

Unique Identifier

Include the auto-generated identifier when the approved resolution is added to the resolution database.

2023/SYM/SCICOM02

Resolution Parent (select one)

Symposia should generally select SCICOM.

SCICOM

Professional Officer (if relevant)

Eirini Glyki

Supporting Officer (if relevant)

-

Secretariat Comments (max 500 characters)

Only include essential comments that can be made public and must stay with the resolution.

--

Future-proofing surveys: integrating probability and non-probability methods in fisheries (8–10 July 2025)

Resolution Form: Symposium



Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.

Resolution Term (yyyy-mm-dd)

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2024-01-01

End Date: 2025-12-31

Symposium Title (max 280 characters)

Future-proofing surveys: integrating probability and non-probability methods in fisheries

Symposium Conveners (max 5)

Full Name	Institute	Email	Country
Annica de Groot	Swedish University of Agricultural Sciences	annica.isaksson.de.groote@slu.se	Sweden
Stephen Taylor	Government of Western Australia	Steve.Taylor@dpird.wa.gov.au	Australia
Kieran Hyder	Cefas	kieran.hyder@cefas.gov.uk	UK
Estanis Mugerza	AZTI	emugerza@azti.es	Spain
Henrik Pärn	Swedish University of Agricultural Sciences	henrik.parn@slu.se	Sweden

Symposium Website URL (if known)

Not known.

Scientific Justification (max 1500 characters)

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

Probability-based survey designs are becoming increasingly expensive and difficult to implement, especially for offsite surveys where responses to mail and telephone surveys have declined. In recent years, non-probability-based or convenience approaches have developed quickly, particularly driven by access to people through social media. In combination with advances in analytical methods, non-probability-based approaches have been shown to generate robust population level estimates (e.g. election exit polls). Integrating probability and non-probability-based approaches has the potential to improve spatiotemporal resolution of commercial and recreational fisheries surveys in a cost-effective manner and generate robust outcomes. However, it is unclear how best to integrate the different methods in a fisheries context.

The overall objective of the symposium is to bring together scientists to assess the potential to integrate probabilistic and non-probabilistic methods in fisheries surveys. This will involve assessment of state of the art, and synthesis of existing examples from fisheries. Approaches to overcome key issues and limitations in these methods will be identified, leading to cost-effective and robust estimates of catch that are suitable for management purposes. Recommendations will be developed to inform the future direction for integrating sampling methods, including research priorities. The overall aims will be:

- To assess how probability and non-probability methods are being integrated.
- To identify examples of integration within commercial and recreational fisheries.
- To investigate how these approaches can be used to balance cost, precision, and accuracy.
- To highlight research priorities and make recommendations for implementation in fisheries.

The anticipated outcomes will be a greater shared understanding of how fishing surveys can be undertaken to provide high quality information for management purposes. A special edition publication is planned (see below). The intended forum, with a global audience of experts, is relevant to the following areas identified in the ICES Strategic Plan: essential data for science and advice; evidence for decision-making; and working together.

As the main objective of our proposed event is to share knowledge between scientists on how to integrate probability and non-probability methods in fisheries. We therefore think it fits better as a symposium than a workshop. The event will offer a unique possibility to exchange knowledge, experiences and lessons learned from applying different methods and techniques. The expected outcome is a spur of new ideas and methods development, rather than recommendations.

Symposium Dates (yyyy-mm-dd)	
Start Date: 2025-07-08	End Date: 2025-07-10

Venue (specific place such as the conference centre)	Expected Number of Participants
The Institute of Marine Research (a part of The Swedish University of Agricultural Sciences)	50

City/Town	Country
Lysekil	Sweden

Comments on dates, venue, location, and participants (max 500 characters)
<p>For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.</p>
<p>The venue is the Institute of Marine Research (Swedish University of Agricultural Sciences) in Lysekil, a picturesque city situated on the west coast of Sweden. Lysekil is a popular tourist destination, especially in the summer. This is hardly surprising since it is located in an area full of culture history (such as some famous rock carvings), with a beautiful archipelago and deep forests. The possibilities for outdoor activities are unlimited, including for instance fishing, hiking, rock climbing, swimming and kayaking. There is also a saltwater aquarium well worth a visit.</p> <p>The symposium proposal is supported by the board of the institute and the symposium will be hosted free of charge. The institute is beautifully located in central Lysekil, right next to the sea. It can accommodate up to 80 participants in one meeting room. If needed, it is also possible to book a larger meeting room in a nearby building. The technical equipment for conducting hybrid meetings is available.</p> <p>Lysekil has several nice hotels, all within walking distance of the Institute of the Marine Research.</p> <p>Lysekil is located about 70 km north of Gothenburg, the second largest town in Sweden. It is easy to reach Gothenburg, either by train (e.g. several trains each day from Copenhagen) or by plane to its international airport. From Gothenburg, there is a direct bus to Lysekil.</p>

The proposed dates and duration of the symposium are tentative and will be agreed by the scientific organising committee in the context of other conferences and workshop alongside the ICES calendar to maximise attendance. Training and/or excursions will add to the total length of the event.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

We propose to bring together scientists from across the globe to assess how to integrate probability and non-probability survey methods in fisheries in a way that generates robust, efficient, and cost effective data for decision-making. Topics for the symposium program include:

- Off-site and on-site surveys methods.
- Novel methods for data collection (e.g. apps, social media).
- Non-probability methods and analytical methods.
- Assessment
- Integrating probability and non-probability survey methods.
- Future developments in survey design and opportunities they create.

We aim to organise a variety of different activities to encourage broad engagement and generate useable outputs. This will include a normal program of invited and selected talks (keynote, standard, speed) and posters. Invited speakers will be selected from both within and outside fisheries to understand state of the art and challenges. We will have engaging debates on key issues for integration of survey methods that take a variety of different forms (e.g. discussion sessions, panel sessions, workshops, voting session, hackathon). It is anticipated that several training sessions and workshops will also be offered (e.g. short course on the R package Survey, for analysing complex survey data). In addition to the formal sessions, we will set up mixer and networking sessions, and host a conference dinner.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

This theme is closely aligned with the Working Group on Recreational Fisheries Surveys (WGRFS), Working Group on Commercial Catches (WGCATCH), and the Working Group on Technology Integration for Fishery Dependent Data (WGTIFD) which are part of the Advisory Committee and Science Committee Steering Group on Data Science and Technology (DSTSG). It will also feed ACOM

through the assessment groups where fisheries catch data are important parts of the pressure on resource (e.g. WGCSE, WGBIE, WGNSSK, WGBYC).

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

A scientific steering group will be set up including the organisers, key members of the ICES community, and international experts in the field. Members of this committee will contribute to the development of the programme, identify relevant keynote speakers, generate interest through their networks, select presentations, and chair sessions.

All the organisers are already involved with ICES groups, so ICES participation will be central to success. We will engage with other key experts from a broad range of ICES groups to ensure representation across ICES in the symposium.

We will investigate mechanisms and aim to provide support for ECRs and scientists from LMIC countries alongside opportunities for remote attendance through a hybrid approach to broaden participation.

We will aim to ensure diverse representation in all activities, encourage different modes of participation to support inclusivity that allows all voices to be heard, livestream and allow online participation if possible at the venue; and require that all materials are accessible.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

The following support is requested of ICES:

- To provide and maintain the registration and abstract submission facilities.

- To promote the symposium via website news and social media posts.
- To host the symposium website.
- To permit use of the ICES logo on all symposium documentation and advertising
- To provide 10.000EUR in financial support for participation of Early Career Scientists

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Venue will be free of charge, so is a contribution in-kind. If we are successful with the application, we will explore funding opportunities from other organizations and companies to sponsor the symposium or provide travel bursaries.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify): Special issue of IJMS
- No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

This symposium will bring together global experts to assess the potential to integrate probabilistic and non-probabilistic methods and how they can be used to support cost effective and robust future fisheries surveys.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Assuring quality

Priority 2: Incorporating innovation

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Observation and exploration

Priority 2: Emerging techniques and technologies

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

None.

Geographic Focus (select one or more) **Non-geospecific**

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions

Adriatic Sea

Aegean-Levantine Sea

Areas outside ICES Ecoregions and Adjacent Ecoregions

Arctic Sea (FAO area 18)

Atlantic, Antarctic (FAO area 48)

<input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)
---	--

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)

<input type="checkbox"/> Northwest Atlantic Fisheries Organization (NAFO)
Regional Sea Conventions
<input type="checkbox"/> Baltic Marine Environment Protection Commission (HELCOM)
<input type="checkbox"/> Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)
Arctic Networks
<input type="checkbox"/> Arctic Monitoring and Assessment Programme (AMAP)
<input type="checkbox"/> Conservation of Arctic Flora and Fauna (CAFF)
<input type="checkbox"/> International Arctic Science Committee (IASC)
<input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs)
<input checked="" type="checkbox"/> Mediterranean Science Commission (CIESM)
<input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO)
<input checked="" type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other
<input type="checkbox"/> European Aquaculture Society (EAS)
<input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	
Angler associations (e.g. European Angler Association)	
Recreation fishing app companies (e.g. FishBrain)	
Commercial fishing organisations	

ICES Secretariat to complete the information below

Unique Identifier

Include the auto-generated identifier when the approved resolution is added to the resolution database.

2023/SYM/SCICOM03

Resolution Parent (select one)

Symposia should generally select SCICOM.

SCICOM

Professional Officer (if relevant)

Eirini

Supporting Officer (if relevant)

Marta

Secretariat Comments (max 500 characters)

Only include essential comments that can be made public and must stay with the resolution.

Aqua2024 (26–30 August 2024)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2023-06-24

End Date: 2025-06-23

Symposium Title (max 280 characters)
Aqua2024

Symposium Conveners (max 5)			
Full Name	Institute	Email	Country
Alistair Lane	European Aquaculture Society	alistair@aquaeas.eu	Belgium
John Cooksey	World Aquaculture Society	worldaqua@was.org	USA

Symposium Website URL (if known)
https://www.was.org

Scientific Justification (max 1500 characters)
Describe the aims, objectives, and anticipated outcomes of the symposium <u>and</u> the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.
<p>Aquaculture is a high-priority topic for ICES as we seek 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.</p> <p>As our knowledge science and technology increases, so does aquaculture's potential to transform our food systems to mitigate climate impacts and enhance food safety and security in a manner that is financially feasible and ecologically sustainable.</p> <p>Every six years, the European Aquaculture Society (EAS) and the World Aquaculture Society (WAS) work together to organise a global AQUA event, incorporating the EAS and WAS annual events. Past AQUAs were held in Nice (2000), Florence (2006), Prague (2012) and Montpellier (2018).</p> <p>AQUA 2024 will take place from August 26-30 at the Bella Centre in Copenhagen. The event will comprise a scientific conference, trade exhibition, industry forums, workshops, student events and receptions. It will highlight the latest aquaculture research and innovation to underpin continued growth of this exciting seafood production sector. It will be a showcase for ICES aquaculture science and advice, helping us build our network, advance our scientific knowledge, connect with decisionmakers, and further increase our profile in this sector on a local, national, regional and global stage.</p>

Symposium Dates (yyyy-mm-dd)	
Start Date: 2024-08-26	End Date: 2024-08-30

Venue (specific place such as the conference centre)	Expected Number of Participants

Bella Centre	3500
--------------	------

City/Town	Country
Ørestad	Denmark

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

Dates and venue are confirmed.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The programme will be developed around 11 themes with subthemes, specifying the area of research and activity. Special topics identified are i) Education, extension and technology transfer, ii) Aquaculture policy and regulations, iii) Horizon 2020 projects and work programme, iv) Promoting multi-stakeholder contributions to international cooperation on sustainable solutions for aquaculture development in South-East Asia.

Partners can suggest additional special topics and special sessions. The event is attracting a high number of industry partners, the exhibitors fair will attract many practitioners and the industry will also arrange business meetings and seminars. Early Career Professionals are specifically encouraged to contribute and special events will be organized. The role of women in aquaculture will be highlighted in special sessions and events. Field trips to aquaculture facilities will be organized with the local organizing committee.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

This theme is closely aligned with the Aquaculture Steering Group and all Aquaculture-related Working Groups. It also links to the Strategic Initiative for the Integration of Early Career Scientist.

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

ICES will contribute to the Local Organizing Committee and be represented in the Scientific Steering Committee. Members of the community are invited to contribute to the conference programme as session chairs and panel members of special sessions. The Strategic Initiative for the Integration of Early Career Scientists will be contacted to help develop and contribute to the Early Career Professional events.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

The following support is requested of ICES:

- To permit use of the ICES logo on all symposium documentation and advertising.
- To promote the symposium via website news and social media posts.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

The conference will create income through exhibitor booths and various sponsorships.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify):
- No publication intended

General Information

Resolution Status (select one) **New resolution**

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

 Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

Aqua24 will highlight the latest aquaculture research and innovation to underpin the continued growth of the sector and the science to inform decision-making.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Sharing evidence

Priority 2: Evolving advice

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Seafood production

Priority 2: Sea and society

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

None.

Geographic Focus (select one or more) **Non-geospecific**

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea	<input type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87)

<input type="checkbox"/> Oceanic Northeast Atlantic	<input type="checkbox"/> Pacific, Southwest (FAO area 81)
<input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

- Baltic Marine Environment Protection Commission (HELCOM)
- Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)

Arctic Networks

- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- International Arctic Science Committee (IASC)
- Protection of the Arctic Marine Environment Working Group (PAME)

Scientific Intergovernmental Organisations (IGOs)

- Mediterranean Science Commission (CIESM)
- North Atlantic Marine Mammal Commission (NAMMCO)
- North Pacific Marine Science Organization (PICES)

Other

- European Aquaculture Society (EAS)
- Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	
World Aquaculture Society (WAS)	
European Aquaculture Technology and Innovation Platform (EATIP)	

ICES Secretariat to complete the information below

Unique Identifier

Include the auto-generated identifier when the approved resolution is added to the resolution database.

2023/SYM/SCICOM04

Resolution Parent (select one)

Symposia should generally select SCICOM.

SCICOM

Professional Officer (if relevant)

Anne Cooper

Supporting Officer (if relevant)

-

Secretariat Comments (max 500 characters)

Only include essential comments that can be made public and must stay with the resolution.

--

Resolutions approved in 2022

From Echosounders to the Cloud: Transforming Acoustic Data to Information (27-30 March 2023)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2022-01-01

End Date: 2023-12-31

Symposium Title (max 280 characters)

From Echosounders to the Cloud: Transforming Acoustic Data to Information

Symposium Conveners (max 5)

Full Name	Institute	Email	Country
Michael Jech	NOAA	michael.jech@noaa.gov	USA
Anne Lebourges-Dhaussy	IRD	anne.lebourges.dhaussy@ird.fr	France
Gayle Zydlewski	University of Maine	gayle.zydlewski@maine.edu	USA

Symposium Website URL (if known)

We do not have a website yet.

Scientific Justification (max 1500 characters)

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

The goal of this symposium is to facilitate exchange among the spectrum of scientists and engineers who develop acoustic instrumentation, collect data, and transform those bytes to information critical for conserving fisheries and ecosystems. Many institutions count their datasets in

terabytes or time series in decades, and monitor many facets of the ecosystem. The fisheries and plankton acoustics community continues to develop and evaluate new acoustic instrumentation and package them with other sensors on crewed and remote/autonomous platforms to observe components of the ecosystem that until now have been too expensive or impossible to monitor. In response to this meteoric increase in data, the community has evolved to integrate multiple data streams to address ecosystem science using “big data” analytics such as artificial intelligence and machine learning to form information used by resource managers and policymakers. This information provides for well-managed ecosystems that allow us to utilize the resources while allowing everyone to enjoy the ecosystem. The published proceedings from this conference will reflect the spectrum of science and engineering that are the foundation of observing ecosystems acoustically and the continued evolution of analytics.

This symposium directly addresses the ICES Emerging Technologies and Techniques and Observation and Exploration science priorities, and provides input to the Ecosystem Science and Seafood Production science priorities.

Symposium Dates (yyyy-mm-dd)	
Start Date: 2023-03-27	End Date: 2023-03-30

Venue (specific place such as the conference centre)	Expected Number of Participants
Holiday Inn	300

City/Town	Country
Portland, Maine	USA

Comments on dates, venue, location, and participants (max 500 characters)
For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.
We have the dates reserved and upon acceptance of the symposium will be locking into those dates with a security deposit. We anticipate about 300 participants.

Symposium Programme (max 1500 characters)
Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The symposium programme will consist primarily of oral presentations and poster sessions. We plan to schedule about 32 presentations per day (four presentations per hour) for a total of about 120-130 presentations over the course of the four days. Depending on submissions, the remaining abstracts will be designated as posters.

In addition to participant presentations/posters, we will also feature three keynote speakers. These speakers will be selected based on input from the scientific steering committee and we intend to have them speak on “higher level” topics. For example, rather than an overview of acoustic technologies, we would like to have speakers provide guidance on what information is needed to manage ecosystems for resource utilization or other societal needs of aquatic environments where advanced technologies can provide information.

An opening reception on the first night and a banquet on the third night are planned. We also are looking into networking sessions sponsored by technology companies.

We intend to have four theme sessions, tentatively titled:

1. Organism Detection: Models, Measures, and Classification
2. Advancements in Acoustic Devices, Platforms, and Combined Technologies
3. Data Integration: Analytics
4. Data Integration: Application to Ecosystem, Conservation, and Society

WGFAST will hold a meeting on the day immediately following the symposium. In the past, this meeting has typically been on the order of a few hours in duration with about 40-50 participants.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

Direct connections to WGFAST and DSTSG. We intend to advertise the symposium to other expert groups under EOSG, EPDSG, and FRSG, and IEASG.

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

ICES representatives will assist and be responsible for all aspects of the "scientific" components of the symposium. By this we mean ICES (mostly WGFAST) members and external partners will serve as conveners, session chairs, award judges; will participate in session and program planning, and

selection of keynote speakers; and will assist with selecting abstracts for oral or poster presentations, and the selection, review, and editing of manuscripts for the symposium proceedings. The conveners have made it a priority to select early career scientists to participate on the scientific steering committee as they have fresh insights to the science of fisheries acoustics. We also intend to have four people per theme session who will contribute to the scientific and technical aspects of the sessions. At this time, we have 9 confirmed to participate on the steering committee.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

We request ICES support for:

1. Secretariat resources for hosting the symposium website and promoting the symposium.
2. Funds for early career scientists (10,000 Euro). We are prioritizing early career scientists to participate on our scientific steering committee and any reduction in fees and/or travel expenses will be appreciated.
3. Use of the ICES logo on all symposium documentation and advertising.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

- The University of Maine will support registration, abstract submission, and coordinating the finances including processing of payments for conference expenses.
- IRD may fund the participation of southern countries' students (applications are due around October 2022).
- We are pursuing funds from NOAA to cover the costs of the venue and AV support. We anticipate these funds to total about \$35,000 USD. These funds would lessen the burden on the registration fee.
- We have \$12,000 confirmed from sonar manufacturers and software vendors that will be used for the social events. We anticipate more revenue from exhibitors as we announce the symposium.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

Publication intended (specify): We will be selecting a journal soon and are looking into an alternative to IJMS for publication of the proceedings. *Frontiers in Marine Science*, *Progress in Oceanography*, and *American Society of Limnology and Oceanography* are a few of the alternative journals we are exploring. The consensus of the WGFAST members after the 2015 symposium was that a traditional “proceedings” format was preferable to a traditional “journal” format that is required by IJMS.

No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

This symposium highlights the evolution of collecting sonar data with advanced technologies and transforming those bytes using “Big Data” analytics into information used to conserve fisheries and ecosystems.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Incorporating Innovation

Priority 2: Choose an item.

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Emerging techniques and technologies

Priority 2: Observation and exploration

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

This symposium will be the 8th in the series of fisheries acoustics symposia sponsored by ICES. Historically, the interval between symposia has been 5-7 years, but in this case, it will be at least eight years since the last symposium in 2015. These symposia are important milestones in the evolution of fisheries acoustics as they highlight the state-of-the art research at the time of each symposium.

Geographic Focus (select one or more)

Non-geospecific

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea	<input type="checkbox"/> Arctic Sea (FAO area 18)
<input type="checkbox"/> Aegean-Levantine Sea	<input type="checkbox"/> Atlantic, Antarctic (FAO area 48)
<input type="checkbox"/> Arctic Ocean	<input type="checkbox"/> Atlantic, Eastern Central (FAO area 34)
<input type="checkbox"/> Atlantic, Northeast (FAO area 27)	<input type="checkbox"/> Atlantic, Northwest (FAO area 21)
<input type="checkbox"/> Azores	<input type="checkbox"/> Atlantic, Southeast (FAO area 47)
<input type="checkbox"/> Baltic Sea	<input type="checkbox"/> Atlantic, Southwest (FAO area 41)
<input type="checkbox"/> Barents Sea	<input type="checkbox"/> Atlantic, Western Central (FAO area 31)
<input type="checkbox"/> Bay of Biscay and the Iberian Coast	<input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58)
<input type="checkbox"/> Black Sea	<input type="checkbox"/> Indian Ocean, Eastern (FAO area 57)
<input type="checkbox"/> Celtic Seas	<input type="checkbox"/> Indian Ocean, Western (FAO area 51)
<input type="checkbox"/> Faroes	<input type="checkbox"/> Mediterranean and Black Sea (FAO area 37)
<input type="checkbox"/> Greater North Sea	<input type="checkbox"/> Pacific, Antarctic (FAO area 88)
<input type="checkbox"/> Greenland Sea	<input type="checkbox"/> Pacific, Eastern Central (FAO area 77)
<input type="checkbox"/> Icelandic Waters	<input type="checkbox"/> Pacific, Northeast (FAO area 67)
<input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea	<input type="checkbox"/> Pacific, Northwest (FAO area 61)

<input type="checkbox"/> Norwegian Sea	<input type="checkbox"/> Pacific, Southeast (FAO area 87)
<input type="checkbox"/> Oceanic Northeast Atlantic	<input type="checkbox"/> Pacific, Southwest (FAO area 81)
<input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)

<input type="checkbox"/> North Atlantic Salmon Conservation Organization (NASCO) <input checked="" type="checkbox"/> North East Atlantic Fisheries Commission (NEAFC) <input checked="" type="checkbox"/> Northwest Atlantic Fisheries Organization (NAFO)
Regional Sea Conventions <input type="checkbox"/> Baltic Marine Environment Protection Commission (HELCOM) <input type="checkbox"/> Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)
Arctic Networks <input type="checkbox"/> Arctic Monitoring and Assessment Programme (AMAP) <input type="checkbox"/> Conservation of Arctic Flora and Fauna (CAFF) <input type="checkbox"/> International Arctic Science Committee (IASC) <input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs) <input type="checkbox"/> Mediterranean Science Commission (CIESM) <input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO) <input type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other <input type="checkbox"/> European Aquaculture Society (EAS) <input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	
Acoustical Society of America	
European Acoustical Society	

ICES Secretariat to complete the information below

Unique Identifier

Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
2022/SYM/SCICOM02

Resolution Parent (select one)
Symposia should generally select SCICOM.
SCICOM

Professional Officer (if relevant)	Supporting Officer (if relevant)

Secretariat Comments (max 500 characters)
Only include essential comments that can be made public and must stay with the resolution.

Effects of human impacts on marine functional connectivity (22-25 May 2023)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)	
Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.	
Start Date: 2022-01-01	End Date: 2023-12-31

Symposium Title (max 280 characters)
Effects of human impacts on marine functional connectivity

Symposium Conveners (max 5)			
Full Name	Institute	Email	Country

Lucía López López	CN IEO-CSIC	lucia.lopez@ieo.es	Spain
Manuel Hidalgo	CN IEO-CSIC	jm.hidalgo@ieo.es	Spain
Susanne Tanner	University of Lisbon	setanner@fc.ul.pt	Portugal
Ant Türkmen	Ecological Research Society	turkmen@me.com	Turkey
Maria Beger	University of Leeds	m.beger@leeds.ac.uk	UK

Symposium Website URL (if known)

Scientific Justification (max 1500 characters)
Describe the aims, objectives, and anticipated outcomes of the symposium <u>and</u> the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.
<p>Triggered by marine organism movements, marine functional connectivity (MFC) is a dynamic ecosystem property which sustains multiple ecological functions and marine ecosystem services through the spatio-temporal fluxes of nutrients, biomass, genes, and species. In the last decade, research has focused on understanding the drivers of MFC and its role at the ecosystem level, but a critical lack of knowledge on how MFC will respond to current and future human impacts persists. Filling this research gap is paramount to design effective strategies for conservation, management and sustainable development.</p> <p>The objective of this symposium is to gather the latest research on MFC changes under anthropogenic pressures, including the ubiquitous effects of global warming (e.g. increase in water temperature and extreme weather events, changes in oceanic circulation, etc.) but also regional human activities modifying marine habitats and ecosystems (e.g. fishing, offshore wind farms, shipping, aquaculture, etc.). Emphasis will be placed on describing the effects on connectivity of a wide range of human activities at different scales, pinpointing cumulative impacts where possible, and showcasing adaptive management strategies. These objectives align with several of ICES priorities, such as (1) advancing ecosystem science, and particularly connectivity research, (2) exploring pressures on the marine environment that modify its structure and function and (3) advising on options for adaptation and mitigation.</p> <p>This symposium aims to bring together a large number of experts in this emerging field, to exchange knowledge and experience, and to gather high-quality research articles for a special issue of ICES JMS, which will help to shape research directions and highlight management needs in the short to medium term.</p>

Symposium Dates (yyyy-mm-dd)	
Start Date: 2023-05-22	End Date: 2023-05-25

Venue (specific place such as the conference centre)	Expected Number of Participants
Cineteatro Municipal João Mota	100

City/Town	Country
Sesimbra	Portugal

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

While dates are tentative, we plan to hold the Symposium in Sesimbra, Portugal in May 2023. We are also considering an alternative venue, at the University of the Balearic Islands (UIB) in Mallorca (Spain). UIB has two large assembly halls that can accommodate 100 participants. We are currently discussing the details for the two options, along with some practical considerations, but we can confirm at this stage that venue rental will be free of charge in either case.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The symposium will be structured in six sessions, each of them lasting half a day. The first 1.5 days will focus on changes in MFC in response to human activities, while the last day will focus on management strategies to mitigate changing MFC and uncertainty in MFC forecasts. The proposed sessions are:

- 1- Pervasive human impacts on the environment and trends in MFC
- 2- Response of MFC to environmental extremes and accidental human impacts
- 3- Human impacts on species phenology and seasonality of MFC
- 4- Poster session and cultural activity (TBC)
- 5- Protecting connectivity hubs and corridors at sea and at the land-sea interface
- 6- Management strategies to mitigate human impacts on MFC

After the symposium we will hold a one-day workshop, aiming to advance the production of descriptors of Marine Functional Connectivity applicable to diverse taxa, regions and habitats, and encompassing the lifetime movements of marine organisms. This is a first essential step to generate generic descriptors of connectivity at ecological- and policy-relevant scales. It will allow this field to progress from patterns to processes, to identify monitoring priorities regarding MFC, and to help promote the use of MFC data to predict future changes in marine ecosystems and their socio-economic consequences.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

We anticipate interest from working group participants of the WGCEAM and WGCOMEDA, and also participants of the following Steering Groups: Integrated Ecosystem Assessments, Human Activities, Pressures and Impacts, and Ecosystem Processes and Dynamics.

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

Many members of the ICES community are leading the organization community as conveners (e.g. Lucía Lopez from WGCOMEDA or Susanne Tanner from SIMWG) including an alternate ICES representative from SCICOM (Manuel Hidalgo). In addition, other members of the ICES community and part of the Sea-Unicorn Cost action will be part of the scientific committee of the symposium (e.g. Audrey Darnaude at CRNS, Anna Sturrock at the University of Essex, Maria Beger at the University of Leeds and Filip Volckaert at KU Leuven). Those will be also involved in scientific and organizing committees, awards committee and early career support.

As regards to other ICES Representatives, Antonina dos Santos (Portugal), Lidia Yebra and Francisco Velasco (Spain), and Debbi Pedreschi (IEASG chair) will be also part of the scientific committee, supporting as well the awards committee for early career scientists. We anticipate that other ICES representatives, including the HAPISG and EPDSG Steering Group chairs, will be invited and welcome to be involved in the scientific committee and other activities.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

We request from ICES:

10000€ to offer travel grants to early career researchers and for ECR awards for best presentation and best poster (as judged by the award committee). With this amount we aim at funding participation of at least 10 ECRs. A member of the ICES Secretariat will be asked to help with the selection process for travel grants.

Hosting of the registration platform for symposium participants.

Symposium promotion via the ICES website news section and social media posts via the ICES social media channels. The conveners will come up with a hashtag for the conference promotion. The symposium website will be hosted by the Sea-Unicorn COST ACTION at www.sea-unicorn.com.

Use of ICES logotype for the main conference website and any promotional material. The logotype will be placed along with other conference sponsors.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Estimated total cost: 40000 €

Committed support

Additional financial support for the symposium will be provided by the EU COST Action n°CA-19107 (UN Ocean Decade Action n°221) "SEA-UNICORN: Unifying approaches to Marine Connectivity for Improved Resource Management for the Seas", which will contribute with 10000€ to

support the local organizers, which will be used to book the venue and provide session refreshments.

In addition, Sea-Unicorn will provide financial support (maximum 35000€) to reimburse travel and accommodation fees, for session chairs and keynote speakers, but also for some members of the SEA-UNICORN network, selected following a number of criteria that promote thematic, geographic and gender balance. Sea-Unicorn will also provide the website conference hosting.

The Venue provider (either the Sesimbra municipality or the University of the Balearic Islands) will participate in the conference sponsorship in kind, by providing access to the conference venue free of charge.

Pending support

10000 € from ICES to support early career scientists (this resolution)

Once we set the conference venue, we will try to request additional funding from the local organiser, the municipality and/or regional government.

Conference attendance will be free of charge, as the organisation costs will be covered by the Sea-Unicorn financial support to the local organisers.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

Publication intended (specify): ICES Journal of Marine Science

No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

The symposium "Effects of human impacts on marine functional connectivity" will explore how the fluxes of nutrients, biomass, genes and species due to the movements of marine organisms are altered by human activities, and what management options are available to maintain connectivity and thus preserve ecosystem functions and services.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)**Priority 1:** Incorporating innovation**Priority 2:** Evolving advice**ICES Science Plan Priorities (select up to two if relevant to this resolution)****Priority 1:** Choose an item.**Priority 2:** Choose an item.**Additional Comments (if required, max 500 characters)**

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

Geographic Focus (select one or more)**x Non-geospecific**

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

- Baltic Marine Environment Protection Commission (HELCOM)
- Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)

Arctic Networks

- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- International Arctic Science Committee (IASC)
- Protection of the Arctic Marine Environment Working Group (PAME)

Scientific Intergovernmental Organisations (IGOs)

- Mediterranean Science Commission (CIESM)
- North Atlantic Marine Mammal Commission (NAMMCO)
- North Pacific Marine Science Organization (PICES)

Other

- European Aquaculture Society (EAS)
- Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	

ICES Secretariat to complete the information below

Unique Identifier

Include the auto-generated identifier when the approved resolution is added to the resolution database.

2022/SYM/SCICOM01

Resolution Parent (select one)

Symposia should generally select SCICOM.

SCICOM

Professional Officer (if relevant)	Supporting Officer (if relevant)

Secretariat Comments (max 500 characters)

Only include essential comments that can be made public and must stay with the resolution.

Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic (Spring 2024)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)	
Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.	
Start Date: 2023-01-01	End Date: 2024-12-31

Symposium Title (max 280 characters)

Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic

Symposium Conveners (max 5)			
Full Name	Institute	Email	Country
Lis L. Jørgensen	IMR	lislin@hi.no	Norway
Libby Logerwell	NOAA	libby.logerwell@noaa.gov	USA

Symposium Website URL (if known)
<p>The website for the Spring 2024 (preferably in April) conference is under development: https://www.pame.is/projects-new/ecosystem-approach-to-management/ea-conferences/433-third-international-science-and-policy-conference-on-implementation-of-the-ecosystem-approach-to-management-in-the-arctic</p> <p>The past websites are available here: 2016 (Fairbanks, Alaska): https://www.pame.is/projects/ecosystem-approach/ea-conferences/ea-conference 2019 (Bergen, Norway): https://www.pame.is/projects/ecosystem-approach/ea-conferences#session-1-integrated-ecosystem-assessment</p>

Scientific Justification (max 1500 characters)
<p>Describe the aims, objectives, and anticipated outcomes of the symposium <u>and</u> the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.</p> <p>The Ecosystem Approach to Management (EA) is a widely adopted management principle that requires integrated management across sectors of human activities to achieve sustainable use of natural resources while maintaining the integrity of the ecosystem. The EA approach has been acknowledged, defined and adopted by the Arctic states working under the Arctic Council. In 2013 (Kiruna Declaration), the Arctic Council agreed that there was a need for periodic reviews of EA implementation in the Arctic to exchange information on integrated assessment and management experiences.</p> <p>This conference will bring together experts and practitioners to examine the scientific, policy and indigenous understanding and experience of the ecosystem approach to management in the eighteen Large Marine Ecosystems of the Arctic and corresponding terrestrial areas. Topics to be addressed include elements such as Integrated Ecosystem Assessment, Objectives, Advice as well as national policies. The content will focus on three specific objectives: (1) Benchmark the status of implementation of EA in the Arctic, (2) Present innovative examples of best practices in EA implementation, and (3) Identify priorities for future collaboration on EA implementation in the Arctic Themes.</p> <p>Proceedings from the conference will be presented to the Arctic Council Ministerial meeting.</p>

Symposium Dates (yyyy-mm-dd)	
Start Date: Click or tap to enter a date.	End Date: Click or tap to enter a date.

Venue (specific place such as the conference centre)	Expected Number of Participants

FRAM centre	100
-------------	-----

City/Town	Country
Tromsø	Norway

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

The 3-day conference will be held in Tromsø in Spring 2024 during the Norwegian chairmanship of the Arctic Council in cooperation with the High North Research Centre for Climate and the Environment (FRAM Centre) and the Arctic Council Secretariat.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The programme is under development and will focus on:

(1) Benchmark the status of implementation of EA in the Arctic, (2) Present innovative examples of best practices in EA implementation, and (3) Identify priorities for future collaboration on EA implementation in the Arctic Themes.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

We anticipate that following WGs and SG can contribute to the symposium:

WGICA
 WGIBAR
 WGINOR
 WGIEAGS
 WGIEANBS-CS
 AFWG
 IEASG

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

The chairs of WGICA (Lis Lindal Jørgensen) and WGIEANBS-CS (Libby Logerwell) are already assisting with the planning of this symposium. We expect that other members of the ICES community, including members of the groups listed above, will participate in the conference and serve on the planning board, scientific and organising committees, and as theme session chairs, and suggest potential keynote speakers from the ICES community.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

10,000 Euros to support the participation of Early Career Scientists and Indigenous knowledge holders (a panel including a member of the ICES Secretariat will be established to select grantees)

Use of the ICES logo and promotion on social media

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Current:

- (1) Norwegian Institute of Marine Research will host the conference (ref: science director Geir Huse)
- (2) PAME Secretariat will host the symposium website, including coordinating the registration and processing of abstracts and publish the conference program and report

Pending:

Norwegian Government and the Arctic Council secretariate will likely support renting of localities, food, other facilities

Still to be requested: NOAA

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify): Conference Report to be published on the PAME website.
 No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

The Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic Large Marine Ecosystems will review advancements, identify main obstacles to implementation, and discuss solutions. Scientists and managers are invited to discuss ways to operationalize the progression of ecosystem approaches from idea to implementation and to further develop and update the integration of the diversity of the ecosystem, human activities and the people of the Arctic.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)**Priority 1:** Evolving advice**Priority 2:** Identifying needs**ICES Science Plan Priorities (select up to two if relevant to this resolution)****Priority 1:** Ecosystem science**Priority 2:** Impacts of human activities**Additional Comments (if required, max 500 characters)**

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

ICES was a co-sponsor for the 2019 Second EA International Conference. The report is available here: <https://www.ices.dk/news-and-events/Documents/Symposia/Symposia%20Report%202019.pdf>

Geographic Focus (select one or more) **Non-geospecific**

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions

- Adriatic Sea
- Aegean-Levantine Sea
- Arctic Ocean
- Atlantic, Northeast (FAO area 27)
- Azores
- Baltic Sea
- Barents Sea
- Bay of Biscay and the Iberian Coast
- Black Sea
- Celtic Seas
- Faroes
- Greater North Sea

Areas outside ICES Ecoregions and Adjacent Ecoregions

- Arctic Sea (FAO area 18)
- Atlantic, Antarctic (FAO area 48)
- Atlantic, Eastern Central (FAO area 34)
- Atlantic, Northwest (FAO area 21)
- Atlantic, Southeast (FAO area 47)
- Atlantic, Southwest (FAO area 41)
- Atlantic, Western Central (FAO area 31)
- Indian Ocean, Antarctic and Southern (FAO area 58)
- Indian Ocean, Eastern (FAO area 57)
- Indian Ocean, Western (FAO area 51)
- Mediterranean and Black Sea (FAO area 37)

<input checked="" type="checkbox"/> Greenland Sea	<input type="checkbox"/> Pacific, Antarctic (FAO area 88)
<input checked="" type="checkbox"/> Icelandic Waters	<input type="checkbox"/> Pacific, Eastern Central (FAO area 77)
<input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea	<input type="checkbox"/> Pacific, Northeast (FAO area 67)
<input checked="" type="checkbox"/> Norwegian Sea	<input type="checkbox"/> Pacific, Northwest (FAO area 61)
<input checked="" type="checkbox"/> Oceanic Northeast Atlantic	<input type="checkbox"/> Pacific, Southeast (FAO area 87)
<input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Pacific, Southwest (FAO area 81)
	<input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

- Baltic Marine Environment Protection Commission (HELCOM)
- Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)

Arctic Networks

- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)

<input checked="" type="checkbox"/> International Arctic Science Committee (IASC)
<input checked="" type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs)
<input type="checkbox"/> Mediterranean Science Commission (CIESM)
<input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO)
<input checked="" type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other
<input type="checkbox"/> European Aquaculture Society (EAS)
<input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	

ICES Secretariat to complete the information below

Unique Identifier
Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
2022/SYM/SCICOM05

Resolution Parent (select one)
Symposia should generally select SCICOM.
SCICOM

Professional Officer (if relevant)	Supporting Officer (if relevant)

Secretariat Comments (max 500 characters)
Only include essential comments that can be made public and must stay with the resolution.

7th Zooplankton Production Symposium (17-21 March 2024)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.

**Resolution Term (yyyy-mm-dd)**

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2023-01-01**End Date:** 2024-12-31**Symposium Title (max 280 characters)**

7th Zooplankton Production Symposium

Symposium Conveners (max 5)

Full Name	Institute	Email	Country
Anthony Richardson	University of Queensland and CSIRO	Anthony.Richardson@csiro.au	Australia
Kerrie Swadling	University of Tasmania	K.swadling@utas.edu.au	Australia
Sophie Pitois	Cefas	sophie.pitois@cefas.co.uk	UK
Sonia Batten	PICES	sonia.batten@pices.int	Canada
Akash Sastri	DFO	Akash.Sastri@dfo-mpo.gc.ca	Canada

Symposium Website URL (if known)**Scientific Justification (max 1500 characters)**

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

Zooplankton play a pivotal role in polar, temperate and tropical marine ecosystems as well as in global biogeochemical cycles. They function as prey for commercially harvested fish, as grazers of primary production, and as drivers of carbon and nutrient cycles. Their population and community dynamics, including their growth, mortality, distribution, and diversity, structure the ecosystem. Zooplankton species may be a target for commercial harvesting, including Antarctic krill and other midwater species. Consequences of increasing exploitation of resources at lower trophic levels is still poorly understood and require urgent, multidisciplinary research. At the same time, a changing environment influences their dynamics. Climate change is profoundly impacting marine ecosystems through changes in zooplankton. A combination of new technologies and techniques, together with classical in situ and laboratory studies and targeted modelling studies, is required to understand changing ecosystems. In response to the need to understand zooplankton dynamics, their sensitivity to change, and the resultant effects on ecosystems, ICES and PICES are holding the 7th International Zooplankton Production Symposium as a forum to discuss zooplankton and their role in the global ecosystem.

Symposium Dates (yyyy-mm-dd)**Start Date:** 2024-03-17**End Date:** 2024-03-21

Venue (specific place such as the conference centre)	Expected Number of Participants
Hotel Grand Chancellor	350

City/Town	Country
Hobart, Tasmania	Australia

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

This symposium was postponed to 2024 due to COVID-19. The venue is provisionally booked. It has 5 conference rooms, a capacity of 1000 people, and is close to a range of accommodation options of varying prices, the Waterfront, and the restaurant precinct. Hobart is the main centre of marine science in Australia, with several marine scientific organisations nearby including CSIRO, the Institute of Marine and Antarctic Science, and the Australian Antarctic Division.

The 6th Zooplankton Production Symposium 2016 in Bergen was attended by ca. 400 participants. The travel to Hobart might deter some European and North American participants, but we hope for a strong showing from Asian countries.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

This will be a 5-day symposium with a potential workshop day targeted towards students and ECS on the Sunday before the official start of the conference. Each morning will open with a keynote presentation followed by oral sessions. Theme sessions will be decided once the steering committee is in place later this year (by Oct 2022). There will be 1 or 2 poster sessions scheduled in the evening to promote mixing of the participants.

Potential overall schedule:

Sunday am - Workshops and training targeted at students and ECS

Sunday night – Icebreaker

Monday am - Opening ceremony

Mon night – Poster session 1

Tue night – Poster session 2 (if needed)

Wed am - Workshops

Wed night – Afternoon excursion

Thu night – Conference dinner

Friday - Closing ceremony with prizes for posters and orals for students and ECSs

Potential daily schedule will start with a plenary talk, followed by theme session presentations.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

WGZE will have a strong input into the scientific content of the symposium

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

The symposium is jointly organized and sponsored with PICES. Sophie Pitois, a chair of WGZE, will be one of the conveners. A Scientific Steering Group will be established with members nominated by the ICES Working Group on Zooplankton (WGZE), the relevant PICES Committees, and the local organising committee in Australia.

Organising this Symposium is one of the WGZE current ToRs; there will therefore be strong input to the scientific content from WGZE members, who will also be encouraged to submit proposals for theme sessions and workshops, attend the conference as participants, presenters and session chairs. Members of the WGZE will also be on the Scientific Steering Group.

Staff from the ICES Secretariat will participate in the symposium organising committee and in the panel selecting early career scientist travel grantees.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

The registration and abstract submission facilities, as well as the symposium website will be provided by PICES Secretariat.

ICES is requested to:

- 1- Provide 10,000 euros to support travel and subsistence of early career scientists.
- 2- ICES Secretariat staff to provide input on general coordination of the symposium and scientific input to the program in collaboration with PICES, the local organising committee, and the Scientific Steering Group.
- 3- Permit the use of ICES logo on all symposium documentation and advertising

A representative of the Secretariat will be invited to the conveners monthly online meetings. Attendance of ICES Secretariat staff at the conference as well as the ICES leadership or a national delegate to open the conference is highly desirable.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

A Conference fee will be imposed to cover the lion's share of the expenses. Additional funding will be sought from the co-sponsoring partners and from other local and national sponsors.

The budget is currently being developed...

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify): The ICES Journal of Marine Science is requested for the publication of the proceedings. Conveners agree to the 15-month turnaround schedule for publication.
- No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

We are excited to announce the 7th Zooplankton Production Symposium for March 2024 in Hobart, Australia. Since our last symposium in 2016, new technologies have been developed to aid the collection of zooplankton information, leading to further understanding on the impact of climate change and other anthropogenic pressures on pelagic environments. Zooplankton enthusiasts are invited to share their latest research on areas of science related to the role of zooplankton in marine ecosystems around the world, from polar to tropical environments.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Sharing evidence

Priority 2: Choose an item.

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Ecosystem science

Priority 2: Observation and exploration

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

--

Geographic Focus (select one or more)
 Non-geospecific

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

 No close links to other organisations
United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)

<input checked="" type="checkbox"/> UN Environment (UNEP) <input checked="" type="checkbox"/> UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)
European Commission and its Agencies <input type="checkbox"/> European Commission (EC) <input type="checkbox"/> European Environment Agency (EEA) <input type="checkbox"/> European Fisheries Control Agency (EFCA) <input type="checkbox"/> Joint Research Council (JRC) <input type="checkbox"/> Regional Coordination Groups (RCGs) <input type="checkbox"/> Statistical Office of the European Communities (EUROSTAT)
Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs) <input type="checkbox"/> General Fisheries Commission in the Mediterranean (GFCM) <input type="checkbox"/> International Commission for the Conservation of Atlantic Tunas (ICCAT) <input type="checkbox"/> North Atlantic Salmon Conservation Organization (NASCO) <input type="checkbox"/> North East Atlantic Fisheries Commission (NEAFC) <input type="checkbox"/> Northwest Atlantic Fisheries Organization (NAFO)
Regional Sea Conventions <input type="checkbox"/> Baltic Marine Environment Protection Commission (HELCOM) <input type="checkbox"/> Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)
Arctic Networks <input type="checkbox"/> Arctic Monitoring and Assessment Programme (AMAP) <input type="checkbox"/> Conservation of Arctic Flora and Fauna (CAFF) <input type="checkbox"/> International Arctic Science Committee (IASC) <input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs) <input type="checkbox"/> Mediterranean Science Commission (CIESM) <input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO) <input checked="" type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other <input type="checkbox"/> European Aquaculture Society (EAS) <input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	

ICES Secretariat to complete the information below

Unique Identifier Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
--

2022/SYM/SCICOM04	
Resolution Parent (select one) Symposia should generally select SCICOM.	
SCICOM	
Professional Officer (if relevant)	Supporting Officer (if relevant)
Secretariat Comments (max 500 characters) Only include essential comments that can be made public and must stay with the resolution.	

Oceans Past 2024: Historical perspectives on human-ocean interactions: deep understandings for informing ocean futures (10-14 June 2024)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd) Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.	
Start Date: 2023-01-01	End Date: 2024-12-31

Symposium Title (max 280 characters) Oceans Past 2024: Historical perspectives on human-ocean interactions: deep understandings for informing ocean futures.
--

Symposium Conveners (max 5)			
Full Name	Institute	Email	Country
Ruth Thurstan	University of Exeter	r.thurstan@exeter.ac.uk	UK
Gesche Krause	Alfred Wegener Institute Helmholtz Center for Polar and Marine Research	gesche.krause@awi.de	Germany

Symposium Website URL (if known) www.oceanspast.org

Scientific Justification (max 1500 characters)

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

Aims: The Oceans Past Initiative (OPI) works to understand the past interactions of maritime societies with marine ecosystems, their influences upon ecosystem dynamics and health and repercussions on human systems. This goal aligns with ICES Science Plan to advance “understanding of marine ecosystems [and] effects of human activities” and generate “evidence on the state and sustainable use of our seas”.

Objectives: OP2024 will cover scales of past exploitation/consumption patterns of living marine resources; changing human-ocean interactions through time and their social-ecological consequences; targets for ecosystem-based management; societal benefits gained from healthy marine ecosystems, and; trajectories and repercussions of management interventions on marine social-ecological systems. We will showcase efforts to enhance data availability and access in line with best practice by groups such as ICES Data Centre.

Outcomes: OP2024 will continue the successful run of interdisciplinary meetings that bring together a growing global network of researchers to generate a fuller system understanding of our interactions with oceans through time, outcomes, and likely future trajectories of marine system health and societal needs.

Relevance: OP2024 informs several ICES Science Priorities: Ecosystem Science [advancing understanding of marine ecosystem dynamics], Impacts of Human Activities [quantifying effects of human activities on marine ecosystems and services], Observation and Exploration [tracking past changes and extending datasets], Seafood Production [quantifying past production and corresponding impacts on resilience] and Sea and Society [mapping societal benefits of marine ecosystems through time].

Symposium Dates (yyyy-mm-dd)	
Start Date: 2024-06-10	End Date: 2024-06-14

Venue (specific place such as the conference centre)	Expected Number of Participants
University of Exeter's Cornwall Campus	70

City/Town	Country
Penryn, Cornwall	United Kingdom

Comments on dates, venue, location, and participants (max 500 characters)

For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.

Dates for OP2024 are tentative but are most likely to take place in June 2024, as this aligns well with term dates (for conference room availability on campus) and avoids peak holiday season (for accommodation availability in Penryn and Falmouth). If this month is unavailable, we will aim for May or early July of that same year. Expected duration is 5 days.

Symposium Programme (max 1500 characters)

Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.

The symposium programme will include the following sessions, each with a series of oral/poster presentations followed by a moderated group discussion.

- Charting past exploitation and consumption of living marine resources through time
- Changing human-ocean interactions and their social and ecological consequences
- Past oceans and present-day targets for ecosystem-based management
- Understanding the societal benefits gained from healthy marine ecosystems, past and present
- Trajectories and outcomes of management interventions for sea and societies
- Past oceans for future policy
- Transformations in marine resource utilisation and valuation (i.e., technical development of fishing technologies, aquaculture, etc.): role and effects on social-ecological system perspectives

Training and ECR activities:

- Historical data archiving: best practices for enhancing availability and access of your data
- Mixed methods approaches: analysis of qualitative and quantitative data
- Early Career Session: enhancing interdisciplinary networks
- Early Career Session: generating cross-disciplinary mentorship opportunities
- Early Career Session: interdisciplinary working and publishing - tips and tricks
- Early Career Awards: Best talk, Best poster, Best interdisciplinary approach (prize will be a book or similar)

Workshops: The lead convenor will explore opportunities with the WGHIST chairs for hosting the annual meeting of the ICES Working Group on the History of Fish and Fisheries immediately before or after the conference to maximise attendance at both meetings.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

WGHIST

DIG (to be approached)

SIHD (to be approached)

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

The lead convenor will explore opportunities for ICES representatives to be involved in the following:

- A session chair or keynote speaker on the 'Applications of historical data to marine management policy: challenges and opportunities'

- Assistance with the selection of researchers for Early Career Support and to ensure parity of support across disciplines, member states, gender...
- Help with identifying training sessions/subjects of potential interest to ECRs would be much appreciated - we will also have feedback from the Oceans Past 2022 conference ECR sessions to learn from.
- Involvement on the conference planning board, if time and of interest.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include specifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

We seek support from ICES and other professional organizations for financial support to 1) subsidise attendance costs of early career researchers from ICES-member countries, 2) support an early career network event and 3) support an early career keynote speaker to attend. We note that OPI's members come in part from social science and humanities disciplines, which have fewer grant opportunities and lower budgets to work with for international travel. Successful inclusion of these groups is critical to the OPI and ICES goals of encouraging interdisciplinary collaborations and understanding and supporting action towards sustainable marine social-ecological systems.

We therefore request 10,000 Euros from ICES to strengthen the participation of early career researchers and ECR keynote speakers. These funds will be used to: 1) subsidise registration, subsistence and accommodation costs for ECRs from ICES member countries (5000€), 2) support an ECR networking event during the conference (3000€) and, 3) subsidise travel costs for an early career keynote speaker to attend (2000€).

We also seek support from the ICES Comms team in advertising the conference across social media channels and the ICES website, and in identifying courses or events that may be of interest to Oceans Past conference attendees e.g., ECS training courses/organisers that have previously received positive feedback.

Finally, we seek the use of the ICES logo on symposium websites, social media and communications to early career scientists.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

The majority of conference costs will be borne by participant registration fees and by the vast majority of participants self-funding their travel and accommodation.

Fisheries Society of the British Isles - to be requested

University of Exeter - to be requested

In-kind support from currently funded projects e.g., ERC Synergy Project SEACHANGE, based at Exeter.

If the timeline permits, fellowship applications (such as the European Research Council Consolidator Grants) will include a request for conference support.

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

- Publication intended (specify):
 No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

The Oceans Past Conference brings together scientists and humanities researchers from around the world to better understand our past interactions with oceans, the changes that subsequently occurred and the consequences for ecosystems and human health, with the aim to inform future policy.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Choose an item.

Priority 2: Choose an item.

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Impacts of human activities

Priority 2: Sea and society

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

Geographic Focus (select one or more)

Non-geospecific

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea <input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37) <input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

 No close links to other organisations**United Nations Organisations and Programmes**

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)

<input type="checkbox"/> European Environment Agency (EEA) <input type="checkbox"/> European Fisheries Control Agency (EFCA) <input type="checkbox"/> Joint Research Council (JRC) <input type="checkbox"/> Regional Coordination Groups (RCGs) <input type="checkbox"/> Statistical Office of the European Communities (EUROSTAT)
Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs) <input type="checkbox"/> General Fisheries Commission in the Mediterranean (GFCM) <input type="checkbox"/> International Commission for the Conservation of Atlantic Tunas (ICCAT) <input type="checkbox"/> North Atlantic Salmon Conservation Organization (NASCO) <input type="checkbox"/> North East Atlantic Fisheries Commission (NEAFC) <input type="checkbox"/> Northwest Atlantic Fisheries Organization (NAFO)
Regional Sea Conventions <input type="checkbox"/> Baltic Marine Environment Protection Commission (HELCOM) <input type="checkbox"/> Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)
Arctic Networks <input type="checkbox"/> Arctic Monitoring and Assessment Programme (AMAP) <input type="checkbox"/> Conservation of Arctic Flora and Fauna (CAFF) <input type="checkbox"/> International Arctic Science Committee (IASC) <input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs) <input type="checkbox"/> Mediterranean Science Commission (CIESM) <input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO) <input type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other <input type="checkbox"/> European Aquaculture Society (EAS) <input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	

ICES Secretariat to complete the information below

Unique Identifier Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
2022/SYM/SCICOM03

Resolution Parent (select one) Symposia should generally select SCICOM.
SCICOM

Professional Officer (if relevant)	Supporting Officer (if relevant)

Secretariat Comments (max 500 characters) Only include essential comments that can be made public and must stay with the resolution.

Resolutions approved in 2021

Ecosystem Effects of Climate Change on the World's Ocean 5 (ECCWO-5) (17-21 April 2023)

Resolution Form: Symposium

Review the ICES Symposium Guidelines for Conveners before submitting this resolution form. Once approved, all resolution information on this form will be publicly available on the ICES website.



Resolution Term (yyyy-mm-dd)

Select a 2-year term. Start date is January 1 of the year before the symposium. End date is December 31 of the symposium year.

Start Date: 2022-01-01

End Date: 2023-12-31

Symposium Title (max 280 characters)

Ecosystem Effects of Climate Change on the World's Ocean 5 (ECCWO-5)

Symposium Conveners (max 5)

Full Name	Institute	Email	Country
Geir Huse	Institute of Marine Research	geir.huse@hi.no	Norway
Jörn Schmidt	ICES	joern.schmidt@ices.dk	Denmark

Symposium Website URL (if known)

www.pices.int/ECCWO-5

Scientific Justification (max 1500 characters)

Describe the aims, objectives, and anticipated outcomes of the symposium and the relevance of the symposium to the ICES Science, Advisory, and/or Strategic Plans.

The International Symposium "Ecosystem Effects of Climate Change on the World's Ocean 5 (ECCWO-5)" will bring together experts from around the world to better understand climate effects on ocean ecosystems and how adaptation and mitigation measures could look like and been implemented. The symposium is continuing the successful series of ECCWO symposia over the last years.

The Symposium will:

Highlight the latest information on how oceans are changing, what is at risk and how to respond; Identify key knowledge gaps; Promote collaborations; and stimulate the next generation of science and actions.

The Symposium will include:
 Theme sessions, presentations, and posters
 Opportunities for post-meeting workshops
 Special events for early career scientists
 Exhibit Opportunities
 Networking sessions

An objective for this Symposium is to present current research results and to facilitate the uptake of these new results in other analyses, including (but not restricted to) the forthcoming Assessment Report (AR7) of the IPCC. The symposium will also feed into the UN Decade of Ocean Science for Sustainable Development and address the SDGs, specifically SDGs 13 and 14. We plan a Special Volume from the symposium. The symposium is highly relevant to the science plan priorities of ICES including ecosystem science, impacts of human activities, seafood production and sea and society. It is also very relevant to the ICES/PICES Strategic Initiative on Climate Change Impacts on Marine Ecosystems.

Symposium Dates (yyyy-mm-dd)	
Start Date: 2023-04-17	End Date: 2023-04-21

Venue (specific place such as the conference centre)	Expected Number of Participants
TBD	500 (physical participation, more options for remote participation)

City/Town	Country
Bergen	Norway

Comments on dates, venue, location, and participants (max 500 characters)
For example, if any of the symposium details are tentative, provide potential dates (month/year), expected duration (# of days), venue(s) and location(s) under consideration.
The symposium will commence on the 10th of April 2023 and go on for a total of five days. The location will be Bergen and tentatively the Radisson SAS hotel at the historic Bryggen area is the venue. Alternatively, there are other potential venues including the Grieghall. Remote participation will be facilitated.

Symposium Programme (max 1500 characters)
Briefly describe the symposium programme, including any pre- or post-symposium workshops, training, early career activities, and other coordinated events.
Steering structure As in the previous symposium (ECCWO-4, https://meetings.pices.int/meetings/international/2018/climate-change/scope) in Washington DC, ECCWO-5 will be arranged jointly by ICES, PICES, IOC and FAO. There will be one convener appointed per organisation. The steering committee will be appointed by the conveners. The IMR will be the local host for the meeting.

Plenary Sessions

Morning plenary sessions to provide overarching keynote presentations and to introduce topics for the concurrent sessions to be convened on the same day.

Topic sessions

Concurrent Topic Sessions every day, following the morning plenary session. There will be 12-15 topic sessions. Sessions themes and chairs will be decided by steering committee and conveners.

Workshops

In addition to the Topic Sessions there will be Workshops on 17-18 April where themes and chairs will be proposed by attendants.

The One Ocean Expedition

The tall ship Statsraad Lehmkuhl will return from its 19 months long circumnavigation of the world's ocean - the One Ocean Expedition ([One Ocean Expedition - Statsraad Lehmkuhl 2021-2023](#)). The expedition is part of the programme of the UN Decade for Ocean Science, and will include a scientific sampling programme. In association with the homecoming of SL there will be several ocean conferences focusing on industry issues, research, and sea & society. Symposium participants will be invited to take part in the ocean conferences which will take place the weekend and the week following ECCWO.

We will include specific activities for Early Career Scientists and add measures to ensure Diversity, Equity and Inclusion Throughout the Symposium.

Acronym(s) of ICES Expert Groups, Strategic Initiatives, Steering Groups, Operational Groups, and Other Groups Contributing to the Symposium (optional)

SCICOM, SICCOME, SIHD

Contributions by ICES Representatives (max 1500 characters)

How will ICES representatives contribute to the planning and organisation of the symposium? For example, members of the ICES community may be conveners, session chairs, serve on the planning board, scientific and organising committees, assist with the selection of plenary speakers, awards, and early career support. Additionally, if ICES representatives are already involved in the symposium, please provide this information.

Jörn Schmidt and Wojciech Wawrzynski have taken part in the planning. Geir Huse, a Norwegian delegate to ICES has been leading the local arrangements from IMR. It is expected that many researchers from the ICES community will attend the meeting as participants and theme session conveners, and some will also be invited to be members of the steering committee and as keynote speakers.

Resource Request (max 1500 characters)

Before completing this section, conveners should read the ICES Symposium Guidelines for Conveners outlining the types of financial, coordination, and technical support that can be provided by ICES. List below all items requested of ICES to support this symposium. This must include spe-

cifics of any financial request, assistance with early career support applications, symposium registration, advertising, and/or website and virtual conference hosting, plans to use the ICES logo, etc. Clearly identify and describe requests that will require any time of ICES Secretariat staff such as coordination and technical support. This information is required so that the ICES Secretariat can assess its ability to fulfil these requests.

The Symposium requests financial support to support attendance of Early Career Scientists. The webpage as well as registration will be handled by PICES.

Support in advertising would be highly appreciated.

The attendance of the Secretariat Staff, the SCICOM Chair and the ICES President will place an additional financial burden on the Secretariat.

Additional Funding Sources (max 1500 characters)

List all current, pending, and to be requested support from other sources.

Current:

The Institute of Marine Research, Bergen, Norway

To be requested:

The Research Council of Norway

PICES

IOC

FAO

The Committee for Resource Research (Norway)

University of Bergen

City of Bergen

The European Commission

..

Plans for Publication of the Proceedings

Specify potential publication outlet(s) below. For specific information on publishing proceedings in the ICES Journal of Marine Science (IJMS), refer to the ICES Symposium Guidelines.

Publication intended (specify): A special issue will be produced from the symposium. ICES Journal of Marine Science will be contacted shortly in this regard.

No publication intended

General Information

Resolution Status (select one)

New resolution

This resolution has not been previously approved by the Advisory Committee (ACOM), Science Committee (SCICOM), and/or ICES Council.

Amendment to an approved resolution

This is a change to a currently active resolution that has been previously approved. Common amendments include changes to conveners, updates to symposium dates and venue, and term extensions following unavoidable delays.

One-Sentence Summary (max 280 characters)

Describe the central purpose of this resolution written for non-experts for use on the ICES website and social media. Use active voice, plain language with simple words that convey meaning, and avoid jargon.

ICES supports symposium on ecosystem effects of climate change on the world's ocean.

ICES Advisory Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Choose an item.

Priority 2: Choose an item.

ICES Science Plan Priorities (select up to two if relevant to this resolution)

Priority 1: Ecosystem science

Priority 2: Impacts of human activities

Additional Comments (if required, max 500 characters)

Restrict comments to those that are required to understand and review this resolution and for which there is no existing box on the form (e.g., request for a special resolution term duration).

Geographic Focus (select one or more) **Non-geospecific**

Select non-geospecific when the resolution is not closely focused on a specific geographic region (e.g., symposium focused on techniques or processes).

ICES Ecoregions and Adjacent Ecoregions	Areas outside ICES Ecoregions and Adjacent Ecoregions
<input type="checkbox"/> Adriatic Sea <input type="checkbox"/> Aegean-Levantine Sea <input type="checkbox"/> Arctic Ocean <input type="checkbox"/> Atlantic, Northeast (FAO area 27) <input type="checkbox"/> Azores <input type="checkbox"/> Baltic Sea <input type="checkbox"/> Barents Sea <input type="checkbox"/> Bay of Biscay and the Iberian Coast <input type="checkbox"/> Black Sea <input type="checkbox"/> Celtic Seas <input type="checkbox"/> Faroes <input type="checkbox"/> Greater North Sea	<input type="checkbox"/> Arctic Sea (FAO area 18) <input type="checkbox"/> Atlantic, Antarctic (FAO area 48) <input type="checkbox"/> Atlantic, Eastern Central (FAO area 34) <input type="checkbox"/> Atlantic, Northwest (FAO area 21) <input type="checkbox"/> Atlantic, Southeast (FAO area 47) <input type="checkbox"/> Atlantic, Southwest (FAO area 41) <input type="checkbox"/> Atlantic, Western Central (FAO area 31) <input type="checkbox"/> Indian Ocean, Antarctic and Southern (FAO area 58) <input type="checkbox"/> Indian Ocean, Eastern (FAO area 57) <input type="checkbox"/> Indian Ocean, Western (FAO area 51) <input type="checkbox"/> Mediterranean and Black Sea (FAO area 37)

<input type="checkbox"/> Greenland Sea <input type="checkbox"/> Icelandic Waters <input type="checkbox"/> Ionian Sea and the Central Mediterranean Sea <input type="checkbox"/> Norwegian Sea <input type="checkbox"/> Oceanic Northeast Atlantic <input type="checkbox"/> Western Mediterranean Sea	<input type="checkbox"/> Pacific, Antarctic (FAO area 88) <input type="checkbox"/> Pacific, Eastern Central (FAO area 77) <input type="checkbox"/> Pacific, Northeast (FAO area 67) <input type="checkbox"/> Pacific, Northwest (FAO area 61) <input type="checkbox"/> Pacific, Southeast (FAO area 87) <input type="checkbox"/> Pacific, Southwest (FAO area 81) <input type="checkbox"/> Pacific, Western Central (FAO area 71)
---	---

Close Links to Other Organisations (if relevant)

Select scientific cooperation, agreements, partnerships, and other close links from the list below. Other links can be specified at the bottom of this table, but restrict your list to pertinent organisations that are closely associated with this resolution.

No close links to other organisations

United Nations Organisations and Programmes

- European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)
- Food and Agriculture Organization of the United Nations (FAO)
- International Maritime Organization (IMO)
- International Sea bed Authority (ISA)
- Secretariat of the Convention on Biological Diversity (CBD)
- UN Environment (UNEP)
- UN Education, Scientific, and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC)

European Commission and its Agencies

- European Commission (EC)
- European Environment Agency (EEA)
- European Fisheries Control Agency (EFCA)
- Joint Research Council (JRC)
- Regional Coordination Groups (RCGs)
- Statistical Office of the European Communities (EUROSTAT)

Regional Fisheries Organisations and Management Organisations (RFOs/RFMOs)

- General Fisheries Commission in the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- North Atlantic Salmon Conservation Organization (NASCO)
- North East Atlantic Fisheries Commission (NEAFC)
- Northwest Atlantic Fisheries Organization (NAFO)

Regional Sea Conventions

- Baltic Marine Environment Protection Commission (HELCOM)
- Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR)

Arctic Networks

- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- International Arctic Science Committee (IASC)

<input type="checkbox"/> Protection of the Arctic Marine Environment Working Group (PAME)
Scientific Intergovernmental Organisations (IGOs)
<input type="checkbox"/> Mediterranean Science Commission (CIESM)
<input type="checkbox"/> North Atlantic Marine Mammal Commission (NAMMCO)
<input checked="" type="checkbox"/> North Pacific Marine Science Organization (PICES)
Other
<input type="checkbox"/> European Aquaculture Society (EAS)
<input type="checkbox"/> Integrated Marine Biosphere Research project (IMBeR)

Other Organisations(s) not listed above (if relevant)	

ICES Secretariat to complete the information below

Unique Identifier
Include the auto-generated identifier when the <u>approved</u> resolution is added to the resolution database.
RES-2

Resolution Parent (select one)
Symposia should generally select SCICOM.
Choose an item.

Professional Officer (if relevant)	Supporting Officer (if relevant)

Secretariat Comments (max 500 characters)
Only include essential comments that can be made public and must stay with the resolution.

Resolutions approved 2016

Marine Socio-Ecological Systems - MSEAS 2020: Navigating global change in the marine environment with socio-ecological knowledge (Dates to be confirmed - 2024)

DUE TO COVID-19 VIRUS OUTBREAK, THE SYMPOSIUM HAS BEEN POSTPONED; PLEASE VISIT THE [ICES SYMPOSIUM WEBPAGE](#) FOR INFORMATION AND NEW DATES.

2016/3/SSGIEA07 A Symposium on “**Marine Socio-Ecological Systems - MSEAS 2020: Navigating global change in the marine environment with socio-ecological knowledge**” will be held in 2020, in Yokohama, Japan with Rich Little (Australia, SPICES), Marloes Kraan (Netherlands, ICES), Mitsutaku Makino (Japan, PICES), Doug Lipton (US, ICES) and Keith Criddle (US, PICES) as Conveners.

A Scientific Steering Group will be established to assist the Conveners in planning the Symposium, with suggested participation of Jan Jaap Poos (Netherlands), Olivier Thebaud (France), Alan Haynie (USA), Jörn Schmidt (Germany), Ingrid van Putten (Australia), Evangelia Drakou (Netherlands), Eva Plaganyi (Australia), Katell Hamon (Netherlands), Sophie Gourguet (France).

Symposium coordinators: Alex Bychkov (PICES), Alondra Sofia Rodriguez (ICES)

Supporting Information

Priority: Policy and decision-makers responsible for activities that affect the marine environment must weigh how to adapt to or mitigate the impacts of human activity across a range of spatial and jurisdictional scales (global, national, regional to local) and time frames (near-term, long-term, infinite). The marine environment as a source of foods, energy, minerals, environmental services, and vector for maritime transit is an essential component of the world economy. Investments in “blue growth” are escalating across the globe, supported by well-established economic sectors (shipping, fishing and seafood processing, coastal aquaculture, coastal tourism, conventional exploitation of oil and gas, etc.) and emerging sectors (kinetic and thermal energy, deep-sea oil, gas, and mineral resources, blue-water aquaculture, marine biotechnologies, etc.). The challenge is to enable current and future growth of maritime activities, while ensuring their long-term sustainability from ecological, economic and social points of view. This challenge implies managing human impacts on marine ecosystems and, in turn, managing the impacts of ecological changes on coastal populations, industries and society at-large. This requires extension of traditional disciplinary and interdisciplinary scientific methods and development of new trans-disciplinary approaches to better integrate policy and decision making systems and to better account for risk and uncertainty, evolving social preferences, and environmental justice. Development of new decision support tools that are robust to the current uncertainties in our understanding and limits to the predictive ability of social-ecological system models has been identified by the World Economic Forum and OECD as one of the most important emerging areas of science. This was also the focus of the MSEAS 2016 symposium, which sought to establish an inter-disciplinary, international dialogue on how to include human dimensions within research, science and management efforts intended to support the long-term management of marine and coastal ecosystems.

Considerable progress has been made in characterizing the options available to policy and decision makers, visualizing synergies and tradeoffs of activities in the marine environment. Central challenges include: identifying the spectrum of economic, social and ecological values and objectives of society, and understanding the hierarchical dynamic nature of the human and biophysical systems, all in the context of high u

certainty. Simulation models offer a way to evaluate the robustness of alternative adaptive decision-making systems in the context of a highly uncertain decision-making environment.

Building on the success of the MSEAS 2016 symposium, MSEAS 2020 will bring together experts from around the world, from a range of disciplinary areas to focus on the science to support integrated planning and decision making for the marine environment. It will characterize the spectrum of “user specifications” for decision support from relevant policy-makers, from local to national scales; match these needs with the most appropriate assessment and evaluation approaches; and identify the major multidisciplinary and technical challenges that need to be addressed in order to deliver robust policy and decision making systems for different decision making contexts (e.g., local government, regional planning, national/international policies) in the marine environment.

In summary, the objectives of this symposium will be to:

1. Provide a focused international forum for the presentation and discussion of frontier research on marine social-ecological systems.
 2. Foster closer collaboration among biophysical, economic and social, decision-support researchers and policy-makers.
 3. Review the theoretical and technical strengths and weaknesses of current social-ecological models.
 4. Identify short-term opportunities for increased cross fertilization of cross-disciplinary/cross-domain approaches and longer-term strategic research directions, including potential case studies.
-

Scientific justification: The symposium will focus on the integrated assessment of multiple ocean uses across sectors, including: fisheries, renewable energy, coastal development, oil and gas, transport, and the need for conservation. Emphasis will be on the methodological and empirical challenges involved in including the human dimensions in integrated ecosystem assessments. As was highlighted during MSEAS 2016, exploring tools to specifically evaluate coupled social-ecological systems is sorely needed, is timely, and is just beginning to be done.

Understanding these complex social-ecological systems is a challenging new area of research that combines multidisciplinary, interdisciplinary and transdisciplinary components. The integrated marine focus is relatively new, as previous research efforts have either been terrestrially focused or dealt primarily with single sectors.

Resource requirements: Primary funding will be achieved through registration fees, as is typical. The conveners will seek additional sponsorship from participating institutions and other agencies which have active interest in the topic. These funds will be used to support keynote speakers, participation of postgraduate students and early career scientists, and to support publication.

Participants: There is increasing global interest in this topic which we expect to be reflected in participation from scientists and practitioners from Asia, Europe, North America, and Australasia. In addition, the scope of the symposium with its multi-disciplinary and multi-sectoral focus will ensure considerable interest. We would anticipate that around 200-250 delegates will attend.

Secretariat facilities: The conveners requested PICES support for advertisement, pre-planning, development of a web page and management of registration, and the general organisation of the symposium. ICES support is thus requested for advertising mainly.

Financial: The conveners humbly request ICES to contribute €10,000 to fund travel support for early career scientists. (approved by SCICOM pending Council allocation of funding in November 2018)

Linkages to other organizations: Linkages to other organisations will pursued, including PICES, IMBER, IIFET, Belmont Forum, Future Earth and others

Publication proceedings After communication with the local organizer, the journal 'Fisheries Science' has been approached for the proceedings
