



## Interim working group e-evaluation

Following interim meetings multi-annual working groups can undertake an e-evaluation rather than provide a report with no science content. The approach to e-evaluation provides sufficient information for the secretariat and steering group chairs to assess whether the working group is on track and to identify and rectify any concerns that need to be addressed. When multi-annual working groups do produce a report in the “ICES Scientific Reports” series from interim meetings they also provide an e-evaluation.

The e-evaluation should be completed within 10 working days of the end of each interim working group meeting. Ideally, the e-evaluation is completed by the chair(s) towards the end of the working group meeting with input from working group members.

In addition to completing the e-evaluation, please make sure to include a *List of Participants* from the meeting (section 9).

### 1) Working group information

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<b>Expert group name</b>	Working Group Sustainable Pelagic Forage Communities (Jointly operating with PICES WG-53)
<b>Resolution code</b>	2023/MT/EPDSG08
<b>Names of chairs</b>	Rebecca Asch, USA  Susana Garrido, Portugal
<b>Year of term</b>	1/3
<b>Year of evaluation</b>	2024
<b>Meeting venue(s) and dates during evaluation year</b>	25 October 2024, PICES Annual Meeting, Honolulu, HI, USA, 51 participants [25 in-person, 26 remote]
<b>Name(s) of person(s) completing form</b>	Rebecca Asch, USA; Chris Rooper, Canada; Susana Garrido, Portugal

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### 2) General summary of progress at meeting: (300 word limit)

This was the initial meeting of the second term of WGSPF. Participants met for one full day at the Imin Conference Center at the University of Hawaii prior to the start of the 2024 PICES Annual Meeting. Since several participants were new to this group, we started the meeting with introductions and a description of each

participant's research interests. This was followed by a presentation by Chris Rooper (PICES co-chair, Canada) who described the working group's terms of reference and deliverables. Next Ryan Rykaczewski (former PICES co-chair of WGSPF, USA) presented the history of international collaboration in small pelagic fish (SPF) research, with an emphasis on outcomes from the 2022 SPF Symposium held in Lisbon, Portugal. Rebecca Asch (ICES co-chair, USA) provided an overview of the accomplishments of the 12 working group activities during the first term of WGSPF. Also, during this time, Isaac Kaplan presented an overview of a soon-to-be submitted manuscript related to Working Group Activity 9 (Networks, vulnerability, and opportunities of dependent human communities). This was followed by an extended discussion of new working group activities for the 2024-2027 period, including call for new activity leaders. While there is interest in continuing several of our previous activities, we received suggestions for multiple new activities and also brainstormed about areas of intersection and integration across activities. We plan to revise our proposed list of working group activities based on this feedback and will present these ideas to the ICES community during an intersessional meeting to be held in Lisbon in February 2025. Our working group meeting ended with a discussion of the plans for the 2026 SPF Symposium scheduled to take place in La Paz, Mexico (led by Motomitsu Takahashi, PICES co-chair, Japan).

**3) Follow up required** (state yes or no and if yes state if follow-up is required with steering group chair, secretariat or both)

No

#### 4) Progress made in relation to term of reference

ToR	ToR Description (copy from resolution)	Progress in relation to ToR (maximum 200 words per ToR)	Status of term of reference (select not started/ on track/ behind schedule/ ahead of schedule/ completed)
a	Foster international and interdisciplinary collaboration to establish similar study frameworks and comparative analyses of forage species, their ecology, and fisheries.	Our meeting participants represented 15 countries and many different scientific disciplines (e.g., climate science, biological oceanography, marine ecology, fisheries science, social science, marine-ecosystem management). Discussion of new working group activities will form the basis for multiple collaborative and comparative research projects on forage species.	On track
b	Assess recent progress on understanding fluctuations of forage species (abundance, distribution, diversity, and characteristics) and their impacts on the structure and function of ecosystems, particularly upper trophic levels.	At the 25 October 2024 meeting, we decided to submit a proposal for a joint session at the 2025 PICES Annual Meeting in Yokohama, Japan to be co-sponsored by PICES Section on Marine Birds and Mammals (S-MBM). This conference session proposal is being led by WGSPF members Jim Ruzicka (USA) and Brian Hunt (Canada) and will focus on observed and modeled linkages between forage species and upper trophic levels.	On track

c	Identify, prioritize, and recommend research most needed to advance our knowledge and capacity to forecast ecosystem responses to changes in forage species.	There is interest in continuing WG Activity 7 on improving short-term forecasts and long-term projections. Robert Wildermuth (USA) and Stefan Koenigstein (Germany) expressed interest in potentially leading this activity. One potential product discussed during our brainstorming session is a review of best practices for making long-term projections based on the experiences of the Future Seas program.	On track
d	Recommend strategies for studying and monitoring socio-ecological systems and improving ecosystem-based management to contribute to the sustainable harvest of forage species.	One cross-cutting activity discussed at our 25 October 2024 meeting is to develop a survey of managers and fishing industry professionals to identify their greatest interests and needs for research and how these needs vary between countries and sectors. Other research and synthesis topics related to ecosystem-based management and socio-ecological systems that were highlighted at the 25 October meeting include: management of transboundary stocks, incorporating indigenous knowledge and perspectives into SPF research and management, use of game theory to optimize the economics of SPF fisheries, and improving understanding of human vulnerability in communities dependent on SPF fisheries. Isaac Kaplan (USA), Kym Jacobson (USA), Matt Baker (USA) and Stefan Koenigstein (Germany) expressed interest in leadership roles related to these topics.	On track
e	Describe how climate change and other anthropogenic factors impact forage species and examine how these factors will affect economies, nutrition of human communities, aquaculture, fishery portfolios, and/or transboundary management, and recommend options for adaptation.	In addition to the continuation of existing WGSPF focused on climate change, we discussed the need to develop a new activity related to other anthropogenic impacts on SPF. Such impacts include microplastic pollution, noise disturbances, other types of persistent pollutants, saltwater intrusion on habitats used by anadromous forage species, and wind energy impacts on fish habitat.	On track
f	Organize a joint ICES/PICES/FAO symposium on forage species	We informed WGSPF members about current plans for the symposium. Also the WGSPF co-chairs used this meeting as an opportunity to further plan who to invite to the scientific steering committee (SSC) for this symposium.	On track

### 5) Are changes to any term of reference required\* (yes/no)

\*NB: Changes to existing ToR are subject to approval by the Science Committee

No

**6) Please enter proposed rewording of any term of reference in the following table.**

ToR	Reworded ToR (maximum 60 words)	Justification for proposed changes
a		
b		
c		
d		

**7) Next meeting: location and dates**

We plan to hold an intersessional meeting during 25-27 February 2025 in Lisbon, Portugal, which will be hosted by the Instituto Portugues do Mar e da Atmosfera. This plan has been presented to and approved by the PICES Science Board and Governing Council. The goals of this meeting will be to:

- (1) Continue to develop the working group structure and projects, with an emphasis on soliciting feedback from ICES working group members. Due to time zone differences, ICES members were only able to participate in the morning half of our 25 October 2024 meeting, which limited their contribution to discussion of future working group directions. The February 2025 meeting provides an opportunity to obtain additional feedback from the ICES community.
- (2) Discuss the logistics and program of the 2026 international symposium in La Paz

**8) Please submit one or more science highlights that came out of your latest expert group meeting. Please read the guidelines for submitting science highlights [here!](#) The following template may be used for submitting science highlights via this form or to the [ICES Science Highlights SharePoint page](#).**

Your name:	Isaac Kaplan and Felipe Quezada Escalona
Your email:	isaac.kaplan@noaa.gov, felipequezada@udec.cl
Your home institution and country:	NOAA (USA) and Univ. de Concepción (Chile)
Name of ICES expert group(s) associated with this highlight:	WGSPF
<p>Provide below a short summary paragraph (typically 200-300 words) describing your science highlight.</p> <p>Some questions to address in your summary:</p> <p>What question/challenge/problem was (or will) be addressed?</p> <p>What was discovered/achieved/solved?</p> <p>What is the expected significance/impact of the discovery/achievement/solution?</p> <p>What will follow?</p>	

<p>Members of the ICES Small Pelagic Fish Working Group (WGSPF) met on October 25th with their counterparts from PICES WG53, prior to the PICES annual meeting. New efforts within the Working Group will begin to strengthen the focus on social science, and the human dimension of fisheries for forage fish such as anchovies, sardine, herring, myctophids and squid. Related to this focus, the October 25th meeting included a summary of a manuscript in progress that examines the response of fishers, managers, and fishing communities to fluctuations in small pelagic species over the last several decades. The manuscript, led by Felipe Quezada Escalona, considers how users and managers have adapted to fluctuations in small pelagic fish, related to shifts in fish distribution, boom/bust dynamics, and changes in fish size and quality. The work draws from 11 global case studies, including from Europe, Mauritania, South Africa, Peru, Japan, and North America. The case studies summarize socioeconomic impacts on fishing communities, and also uncover adaptations such as diversified portfolios and international catch agreements that may be increasingly necessary solutions in the future. The immediate next step by the coauthor is submission of the final manuscript; however, the Working Group will continue to research socio-economic aspects of small pelagic fisheries, both in the ICES region and with PICES partners in the Pacific.</p>	
<p>Provide below a 1-2 sentence explanation of how this work is related to your expert group(s) (e.g., a direct product of the expert group, information that has been key to supporting the expert group analyses, etc.)</p> <p>This work was a product of the ICES/PICES 2022 Small Pelagic Fish Symposium, and subsequent efforts during WGSPF meetings in 2024. This manuscript contributes to WGSPF Task Force 2, Activity 9 (Socio-ecological Analysis).</p>	
<p>Check the relevant science priorities from the ICES science plan:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> X Ecosystem Science</li> <li><input type="checkbox"/> Impacts of human activities</li> <li><input type="checkbox"/> Observation and exploration</li> <li><input type="checkbox"/> Emerging techniques and technologies</li> <li><input type="checkbox"/> Seafood production</li> <li><input checked="" type="checkbox"/> X Conservation and management science</li> <li><input checked="" type="checkbox"/> X Sea and society</li> </ul>	
<p>Please list any related documents and references such as DOIs for publications, web links, images, etc. When possible, please upload these supporting documents to the SharePoint folder along with this template.</p>	<p>Manuscript in prep</p>
<p>List the name(s) and email(s) of any additional expert group members and/or other key people that we may want to contact regarding this science highlight suggestion.</p>	<p>Susana Garrido, WG chair. <a href="mailto:susana.garrido@ipma.pt">susana.garrido@ipma.pt</a></p>

Additionally, if you also plan to work with your institution's communications team on this science highlight, please let us know here.	Jennifer Beckensteiner, coauthor. <a href="mailto:jennifer.beckensteiner@univ-brest.fr">jennifer.beckensteiner@univ-brest.fr</a> , <a href="mailto:jennifer.beckensteiner@gmail.com">jennifer.beckensteiner@gmail.com</a>
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## 9) List of Participants

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