

Activity 9: Improving management with actionable science

Leaders: Kym Jacobson (USA), Peng Sun (P.R. China), Robert Wildermuth (USA)

Background

The highly dynamic nature of small pelagic forage communities (SPF) makes them difficult to survey and manage, yet their sustainable management is crucial for continued provision of seafood and ecosystem services. Activity 9 addresses how to develop management tools adapted to the challenges presented by SPF (*e.g.*, advancing management strategy evaluations) and metrics for better understanding of stock and ecosystem status through models or simulations and other studies that address ecosystem-based fisheries management (*e.g.*, incorporating ecosystem models in forage fish management). This activity is expected to provide actionable science and advice across systems and nations, and the best potential linkages (at present) between science–management–economics through work with models of intermediate complexity and end-to-end models that include fisheries as components. This Activity is a continuation of ongoing research from the initial phase of the WG during the 2020–2024 term.

Objectives of the activity for 2024–2028 [with links to WG’s ToR]

- Identify strategies tailored to management of SPF stocks (*ToR 4*);
- Refine and innovate decision-support tools to progress toward ecosystem-based management of SPF (*ToR 3 & 5*);
- Share developments and approaches across nations and regions for faster uptake of actionable science leading to tactical management advice (*ToR 1*).

Description of tasks

- Survey of fishing industry and management community to determine priority areas and research needs for SPF to address regulatory issues across national and regional jurisdictions (lead: Matt Baker);
- Comparative study on SPF-adapted management procedures, including novel assessment and monitoring strategies, ecosystem-informed advice pathways, and data deficient or qualitative approaches (lead: Dorota Szalaj);
- Management strategy evaluation of alternative assessment approaches for SPF (*e.g.*, dynamic reference points, ecosystem-informed assessments, management across jurisdictions, etc.);
- Coordinate assessment approaches with developments from Activity 8: *Short-term forecasts and long-term projections*;
- Convene a topic session at the ICES/PICES/FAO SPF Symposium in La Paz, May 4-8, 2026.
- Convene a ½ day workshop dedicated to addressing the first bullet point above – (1) what are, and how do we assess, management priorities for SPF, (2) what are new assessment and monitoring approaches that are or might be applied, (3) how are/might this data be applied to inform management and address industry/management priorities.

Deliverables and anticipated timeline

Deliverable/objective	Timeline
Survey of management needs	2025-2026
Convene topic session(s) and/or workshop(s) at 2026 SPF Symposium	May 2026
Review paper on adaptive management approaches for SPF	2027

Membership

Name	Institution	Email
Kym Jacobson	NOAA NMFS, USA	Kym.jacobson@noaa.gov
Robert Wildermuth	NOAA-SWFSC, USA	Robert.wildermuth@noaa.gov
Peng Sun	Ocean University of China, P.R. China	sunpeng@ouc.edu.cn
Matt Baker	North Pacific Research Board, USA	Matthew.Baker@nprb.org
Leire Ibaibarriaga	AZTI, Spain	libaibarriaga@azti.es
Jaclyn Cleary	Department Fisheries and Oceans, Canada	Jaclyn.Cleary@dfo-mpo.gc.ca
Alfonso Pérez	IEO-CSIC, Spain	Alfonso.perez@ieo.csic.es
Benoit Berges	WUR, The Netherlands	benoit.berges@wur.nl
Stefanie Haase	Thünen, Germany	stefanie.haase@thuenen.de
Brad Erisman	NOAA-SWFSC, USA	Brad.erisman@noaa.gov
Laura Wise	IPMA, Portugal	lwise@ipma.pt
Dorota Szalaj	IPMA, Portugal	Dorota.szalaj@ipma.pt
Ines Martins	IPMA, Portugal	inesciencemarine@hotmail.com
Niels Hintzen	Pelagic Freezer Trawler Association	nhintzen@pelagicfish.eu
Valerio Bartolino	SLU, Sweden	valerio.bartolino@slu.se
Salvador Lluch-Cota	CIBNOR, Mexico	slluch@cibnor.mx
Richard Nash	CEFAS, UK	Richard.nash@cefass.gov.uk
Isaac Kaplan	NOAA-NWFSC, USA	isaac.kaplan@noaa.gov
Carryn de Moor	UCT, South Africa	carryn.demoor@uct.ac.za
Wenbo Deng	Ocean University of China, P.R. China	Wenbo9706@gmail.com