COMMON OCEANS PROGRAM

PARTNERSHIP FOR SUSTAINABILITY AND BIODIVERSITY IN THE OCEAN AREAS BEYOND NATIONAL JURISDICTION

DSF Project: Updates relevent to the North Pacific Ocean

NPFC-2025-SC10-OP01

By Tony Thompson

Deep-sea fisheries project

gef

NPFC SC meeting
16-19 December 2025

Implementing Agency

FAO

Executing Agency

GFCM

Partners

RFMOs

GFCM, NAFO, NEAFC, NPFC, SEAFO, SIOFA, SPRFMO

Government

NOAA

Science advisory body

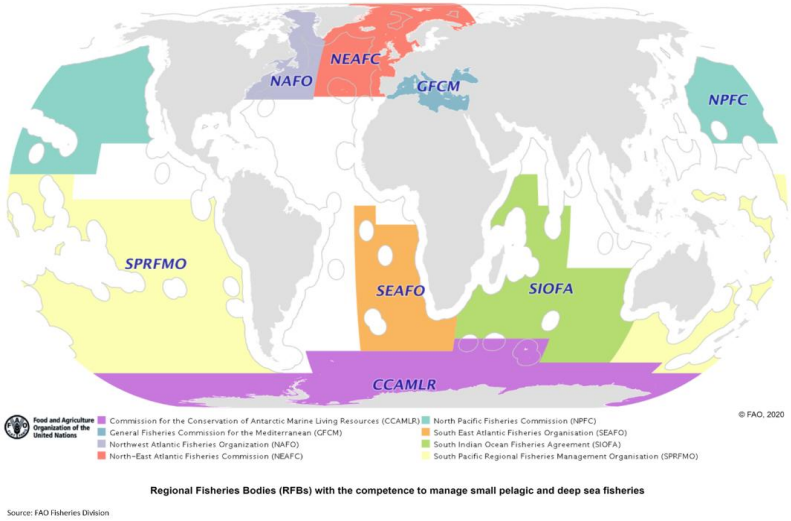
ICES

Private sector

SIODFA, ICFA

Duration

2022 - 2027



Regional Fisheries Bodies (RFBs) with the competence to manage small pelagic and deep sea fisheries

Source: FAO Fisheries Division

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Applying the Ecosystem Approach to Fisheries Management in the ABNJ Symposium 11-13 March 2025

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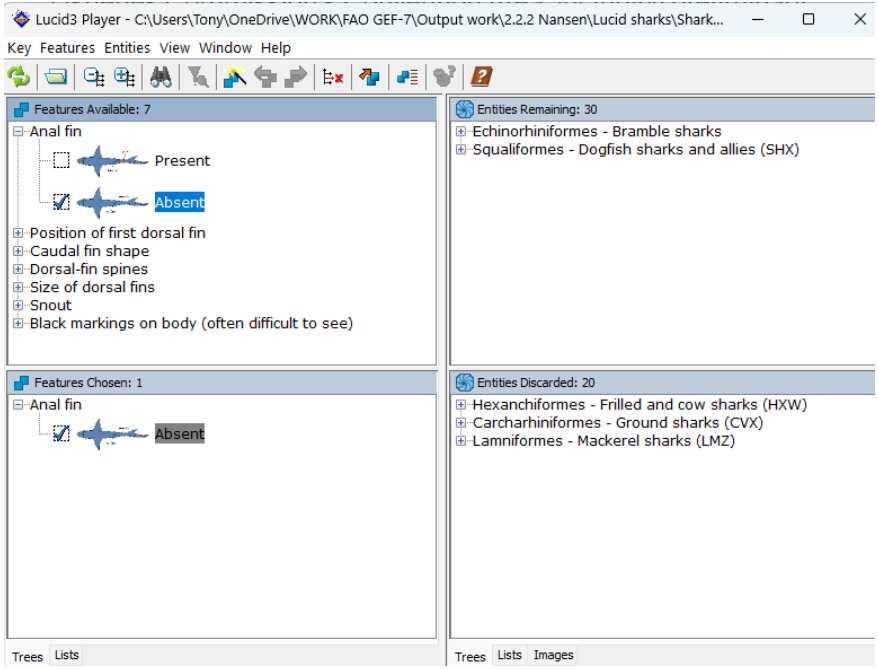
Some conclusions from the EAFM symposium

- dsRFMOs generally don't cover the social and economic components
- Ecological component includes retained spp, discarded/ETP spp, and ecosystems
- RFMOs are already implementing many aspects of the ecosystem component EAFM
- Science (strong to weak) – target spp ➔ discards ➔ ecosystems
- Few RFMO have EAFM frameworks and roadmaps
- Few long-term management plans and targets - even for target spp
- Science-management joint meetings will help
- Managers may benefit from an RFMO-specific EAFM guidance document

Deepwater sharks

- Key submitted at SC09 for demersal sharks (NPFC-2024-SC09-OP05)
- Key submitted at SC10 for pelagic sharks (NPFC-2025-SC10-OP02)
- These are “paper” dichotomous keys
- Is there a wish from SC to convert these to a digital key?



Mapping deep-sea fishing effort in ABNJ

There are a range of data products that provide global overviews of fishing effort, however, there is no global overview that provides a consistent view of the spatial extent (distribution) and intensity (effort) of bottom fishing in ANBJ.

There are ‘fishery footprints’ available from RFMOs, that reflect areas in which bottom fishing has occurred, however, these do not show the relative level of fishing taking place in those areas.

Aim to produce a contemporary and definitive reference for the global extent and intensity of deep-sea bottom fisheries
(at a time when there is a great deal of interest in this topic).

Mapping deep-sea fishing effort in ABNJ

Effort is measured in 'vessel-days"

A vessel-day is recorded when a vessel conducted at least one fishing operation in a 24-hour period in a **1º latitude by 1º longitude cell**,

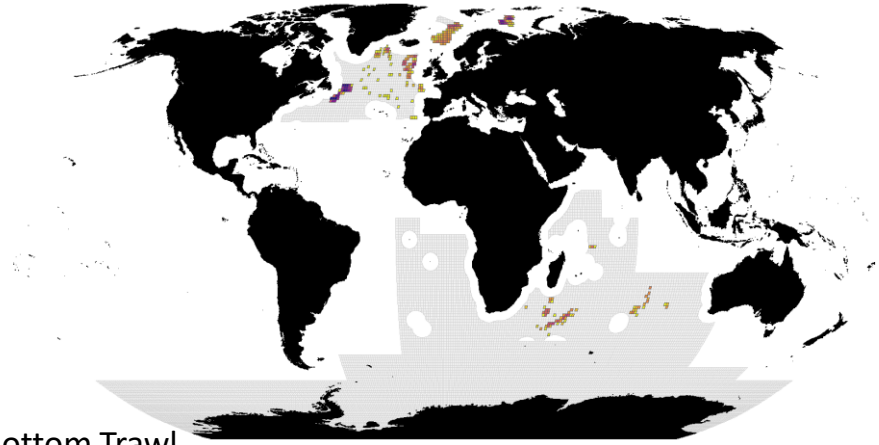
The number of vessel-days would then be summed for each calendar year for that cell for each of the **last 5 years**.

Fishing effort is measured separately for static (demersal longline, pots and gill nets) and mobile (bottom trawl) fishing gear.

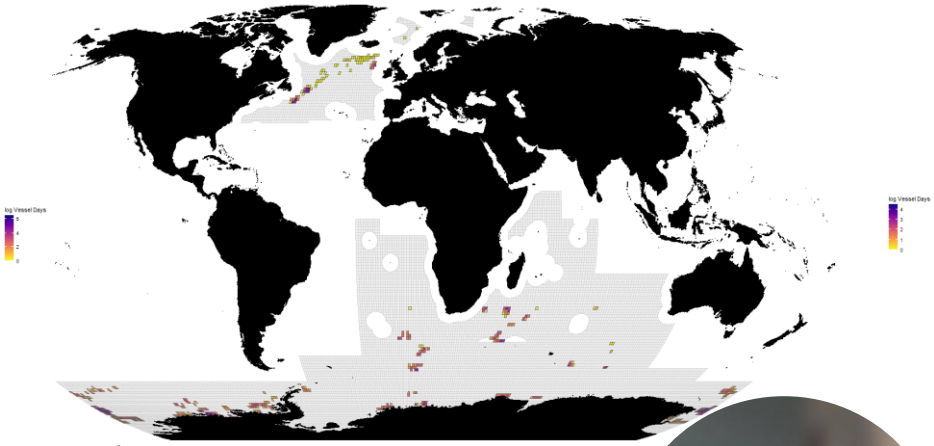
There is no data included on the composition of the fishing effort by vessel or Memb

Mapping deep-sea fishing effort in ABNJ

NAFO☺, NEAFC☺, SEAFO☺, SIOFA☺, SPRFMO☺, NPFC☺, CCAMLR ☺



Bottom Trawl



Longline

Mapping deep-sea fishing effort in ABNJ

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Example data

We were requesting a data product not the raw data to make that product.

Year	Gear Code	Gear Type	Lon(1deg)	Lat(1deg)	Vessel Days
2023	LLS	Longline	54.5	-35.5	1
2023	LLS	Longline	80.5	-52.5	1
2023	LL	Longline	80.5	-53.5	2
2023	OTB	Bottom trawls	61.5	-10.5	2
2023	TB	Bottom trawls	62.5	-10.5	1

Data-limited assessment methods (with ICES)

Presentations at WKLIFE XIV include:

- Alfonsino/armourhead assessments (Kota Sawada (NPFC), Satoi Arai (NPFC), Takehiro Okuda (SEAFO, SIOFA))
- Toothfish/sablefish (Tim Earl (CCAMLR), Takehiro Okuda (SEAFO), Roberto Sarralde (SEAFO, SIOFA, SPRFMO)

Workshop schedule:

- WKLIFE XIV which took place in the Azores on 1-5 September 2025
- A workshop in Tokyo (tentative February/March 2026)
- A workshop in Europe (probably in August 2025)
- WKLIFE XV meeting (provisionally at FAO in Rome)

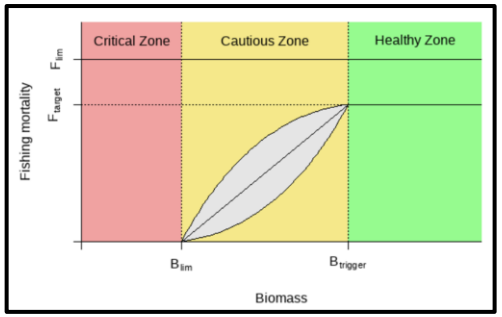
Climate change

CC effect	Mitigation
Affect fish distributions	Spatial monitoring of fishery (VMS)
Liley reduce productivity (fish yields) in most regions	Improve stock management to ensure biomass is *c*.Bmsy
Increase recruitment variability	More variable catches between years
Affect associated (ETP) species distributions	Monitor spp distributions (VMEs, seabirds, etc)
Open up new fishing areas	Adaptive management. Costs for industry.
Change interactions	Monitoring of interactions. Regular EIA, etc.
SC advice	More uncertain
Increase resource demands (humans, science, difficult decisions)	Increased Commission and science workloads
Require more adaptive management and emergency measures	Increased Commission workload

Precautionary Approach - more than fish stocks – close links with EAFM

Apply the precautionary approach to (UNFSA Art 6):

- protect and preserve the marine environment - impacts of fishing activities on non-target and associated species
- Caution when information is uncertain
- Improve techniques for dealing with risk and uncertainty
- Absence of information shall not be used as a reason for postponing or failing to take measures



DSF Projects next steps … 2026-2027

- VME publication on methods used by commercial fishing vessels to identify VMEs
- Precautionary approach publication
- EAFM/CC/PA in-person workshop
- Data-limited assessment methods workshops and involvement of NPFC (with ICES)
- Final report on mapping bottom fisheries (and metadata submission)
- Deepwater shark digital key – requires NPFC request