



Western and
Central Pacific
Fisheries
Commission

BMIS

Relevance to WCPFC Decision-Making and the Effect of AI

Larissa Fitzsimmons · Simon Nicol

WCPFC-SC22-2026-EB-WP-05

Scientific Committee, Twenty-Second Regular Session

11–19 August 2026 · Apia, Samoa (Hybrid)

An established, curated bycatch knowledge base

Launched online in 2011, developed by WCPFC to support its responsibilities under international agreements for bycatch in WCPO tuna and billfish fisheries.

FAO Common Oceans (ABNJ) funding enabled a major expansion and global redevelopment, with a site relaunch in 2017.

Covers highly migratory species of special interest: seabirds, sharks and rays, marine turtles and marine mammals.

bmis-bycatch.org

2011

Launched online

5

Tuna RFMOs covered

4

Bycatch species groups

4,300

Reference pages

What WCPFC gets from the BMIS

1 Equitable access to science

CCMs with limited science capacity access the same curated evidence base as well-resourced delegations.

2 Cross-RFMO coherence

Rapid, coherent comparison of bycatch CMMs across all five tuna RFMOs.

3 CMM development & review

Supports the development, implementation and ongoing review of conservation and management measures.

4 AI compatibility

Content structured so it can be parsed, summarised and referenced by AI systems — but this needs member direction.

Equitable access to science among CCMs

Small island developing state CCMs and participating territories often have limited dedicated capacity in bycatch mitigation, management or stock assessment science.

The BMIS gives them the same curated evidence base as well-resourced delegations — supporting more substantive engagement across SC, TCC and Commission processes.

Discoverability through WCPFC

WCPFC links to the BMIS from its Key Documents library and its Sustainability / Bycatch pages.

An existing user base

- Fisheries managers
- National agencies
- WCPFC CCMs
- NGOs and industry
- Other RFMOs
- Research scientists

Global coverage enables cross-RFMO coherence

The BMIS makes it easier for WCPO managers, researchers and policy workers to:

- a Identify gaps in current WCPFC bycatch CMMs that are addressed by measures in other tuna RFMOs
- b Connect with the research and management decisions of other tuna RFMOs
- c Provide a single, consistently maintained system that reduces the risk of conflicting technical advice to industry
- d Support the development of harmonised management and mitigation guidance across tuna RFMOs, where practical

Why the BMIS works for CMM development

Global

All ocean basins, all five tuna RFMOs

Structured

Organised by references, techniques, regulations, management

Comprehensive

Spans the four HMS bycatch groups of interest to WCPFC

Grey literature

RFMO working and information papers, poorly indexed elsewhere

Mitigation-focused

Techniques and their efficacy; promotes best-practice advice

Analytical

Access to meta-analyses, e.g. circle hooks and bait type

Multi-disciplinary

Sensory biology to gear testing to economic and social analysis

Current

Ongoing updates — traplines, eDNA, climate change, marine pollution

Efficient

Less time trawling scattered literature; encounter adjacent-field ideas

Two routes into AI answers

LLMs draw on content by two distinct routes. Their relative importance varies by platform.

Training data

Inclusion in the material used to train a model.

Live retrieval

Retrieval of indexed web pages at the time a query is answered.

Can AI replace the BMIS

AI performs best when it accesses structured, curated and scientifically credible information. The BMIS meets this need. It is one of few comprehensive, structured knowledge bases focused on bycatch mitigation in tuna fisheries.

Retiring the BMIS will increase the necessity for CCMs to evaluate the accuracy and reliability of information they derive from AI tools. This will likely raise the need for small island developing state CCMs and participating territories to build their own expertise.

Crawler and bot traffic: a genuine conundrum

From October 2025 the BMIS saw a dramatic rise in automated traffic — systematic crawling of all reference pages, seconds per page. SPC deployed Cloudflare in March 2026 to block most of it.

The case for blocking

- Distorts the usage statistics previously used to report BMIS impact
- Crawlers can slow web-based information systems
- In some cases they create IT security risks

The cost of blocking

- No downtime and no impact on real users was observed
- Harvesting supports LLM training and wider dissemination
- Blocking would likely compromise reach through AI-powered search

Redevelopment plans and resourcing

Planned minor update — USD 10,000

- Visual refresh, particularly the Home page
- Dynamic section highlighting new references, techniques and regulations
- Add Bluesky and LinkedIn; remove Twitter/X
- Multi-select on references; description field in regulations CSV export
- Fix administrative modules on the back end

Future work should improve search functionality — particularly references and regulations — and modernise the visual design.

Resourcing

Resources for curation and maintenance expired in June 2026.

USD 42,000

current yearly budget to curate, maintain and administer the
BMIS

RECOMMENDATIONS

SC22 is requested to consider the value WCPFC derives from the BMIS. If SC22 considers it a required WCPFC resource, then:

1

Endorse an annual WCPFC budget of USD 42,000

to support curation, maintenance and administration of the BMIS.

2

Request SPC and the WCPFC Secretariat to develop a crawler/bot policy (if the BMIS is to remain a WCPFC activity)

for WCPFC web resources. Blocking protects analytics and mitigates risk; it also prevents harvesting by AI models and would likely compromise dissemination through AI-powered search. SPC has blocked as a precaution pending guidance.