Ad Hoc Fisheries Innovation Workgroup
Highly Migratory Species Roadmap:
Exempted Fishing Permits Benchmarks and Evaluation Framework

Pacific Fishery Management Council

Monday, November 16, 2026

Items to be Covered

1. Background and Status of FIW Work
2. EFP Evaluation Framework
3. EFP Guidance and Materials Recommendations
4. Innovative Tools and Measures
5. Review and Status of the HMS Roadmap

Big picture: The FIW was charged with developing and refining Council procedures which help facilitate the more rapid creation of new HMS gears and achieve the goals of the HMS Roadmap.

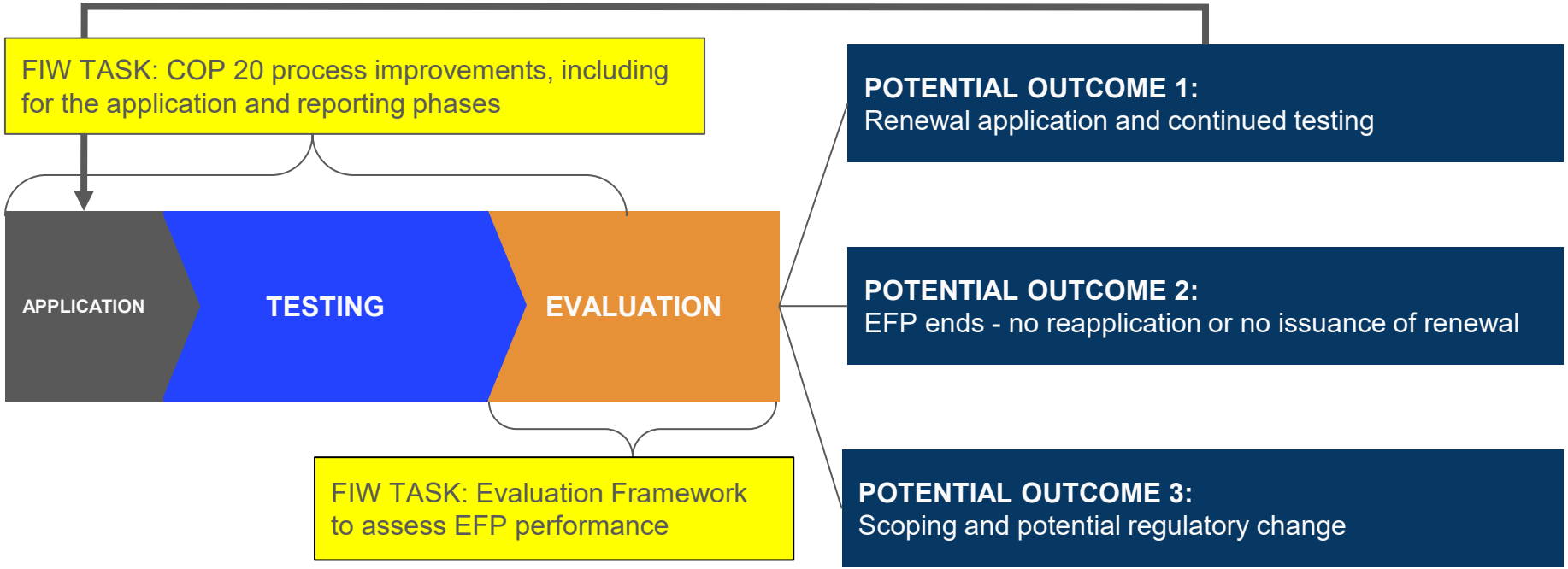
Completed FIW Tasks

- Modification of Council Operating Procedure 20 - HMS EFP process.
- Improvement of HMS EFP guidance.
- Development of HMS EFP performance goals and metrics to evaluate EFP performance.
- Consideration of the National Seafood Strategy as it pertains to HMS fisheries.
- Review of the draft HMS Roadmap, as appropriate.
- Discussion of relevant innovative fishery tools or measures needed to support a robust HMS fishery.

Work Status and Items for Consideration at this Meeting

FIW Task	Date Completed	Council Action	For Consideration in Nov 2026?
Modification of COP 20 – HMS EFP process	Recommendations provided in March 2026	Modifications adopted in June 2026	No, complete
Improvement of HMS EFP guidance	Recommendations provided in March 2026	Guidance provided in April 2026 as part of Special Project 1	Yes
Development of HMS EFP goals and metrics to evaluate EFP performance	Status update provided in Nov 2025, draft framework provided in March 2026; final framework provided for Nov 2026	Provided guidance in Nov 2025 and March 2026	Yes
Consideration of the National Seafood Strategy as it pertains to HMS fisheries	Staff attachment “NMFS’s National Seafood Strategy and Alignment with the Draft HMS Roadmap” submitted at the June 2025 Council meeting	N/A	No, complete
Review of the draft HMS Roadmap, as appropriate	Recommendations provided in Nov 2025 and March 2026, and provided for Nov 2026	Modifications adopted in Nov 2025 and March 2026	Yes, for future direction
Discussion of relevant innovative fishery tools or measures needed to support a robust HMS fishery	Recommendations provided for Nov 2026	Pending review of recommendations	Yes

EFP Phases and Potential Outcomes



**Not intended to capture NMFS/Council roles in detail. The FIW's work is specific to the Council's role in the process.*

EFP Evaluation Process

- Overall Performance Goal, Definitions, and the Role of Benchmarks
- Economic Viability - Performance Metrics and Benchmarks
- Bycatch - Performance Metrics and Benchmarks
- EFP Evaluation Process and Schedule

Performance Goal

The overall performance goal is to support and test fishing practices that have the potential to be economically viable and consistent with National Standard 9 guidelines (identical to HMS Roadmap Goal B).

Key Definitions

Metric: a form or unit of measurement.

Benchmark: a point of comparison for providing broader context when evaluating the performance of EFPs and considering future regulatory actions and/or FMP amendments.

Role of Benchmarks

The framework includes a suite of metrics and benchmarks that are intended to be simple, understandable, and reflect economic and environmental conditions that are relevant to West Coast fishing and fisheries operations and markets.

<u>The FIW recommends that the Council use benchmarks in the following ways:</u>

- Benchmarks will be used to support Council consideration of whether to recommend NMFS renewal of HMS EFPs;
- Benchmarks may be used to support Council consideration of whether to recommend NMFS issuance of HMS EFPs, as appropriate; and
- Benchmarks will be used to support Council consideration and scoping of future regulatory actions and/or FMP amendments, including the potential to authorize new fisheries;
- Benchmarks are not regulatory in nature and will not be used as a basis for the Council to recommend that NMFS cancel EFPs during the permit period.

Economic Viability Performance Metrics

Economic Performance Metric	Type of Metric	Associated Benchmarks ?	Number of Benchmarks
Number and percentage of EFPs fished and renewed	Quantitative	No	N/A
EFP holders' view of economic viability	Qualitative	No	N/A
Gross profit	Quantitative	No	N/A
Catch per unit effort (CPUE)	Quantitative	Yes	7 (SWO = 3; All HMS = 4)
Ex-vessel revenue	Quantitative	No	N/A

Economic Viability Performance Metrics - Descriptions

- Number and percentage of EFPs fished and renewed: The number and percentage of EFPs that are fished and renewed; provides insight into continued interest in a fishing gear configuration, method, or practice.
- EFP holders' view of economic viability: Aimed at providing insight into economic viability by way of open-ended questions or conversations with EFP holders during Advisory Body meetings.
- Gross profit: The FIW is interested in information about gross profit as calculated by individual EFP holders, along with their formula for calculating crew costs. May be reported as revenue per day at sea and/or revenue per fishing season.
- CPUE: Standardized to allow comparison across fishing gear configurations, methods, or practices by using the number of individuals retained as the measure of catch and number of observed fishing days as the measure of effort.
- Ex-vessel revenue: The total dollar value of landings at first purchase and may be reported as revenue per day at sea and/or revenue per fishing season.

EFP Holders' Views on Economic Viability

Economic Viability Questions:

- Did you find this fishing gear configuration, method, or practice profitable?
  - If the fishing gear configuration, method, or practice was profitable, what do you think contributed to the success?
  - If the fishing gear configuration, method, or practice was not profitable, why do you think there were challenges?
- Would you continue to fish using this fishing gear configuration, method, or practice if allowed?
- Would this fishing gear configuration, method, or practice be viable as your sole fishing method?
  - If not, would this fishing gear configuration, method, or practice be valuable as an addition to your portfolio of fishing activities?
- If you did not find this fishing gear configuration, method, or practice profitable, what adaptations could improve its viability (e.g., location, bait, depth)?

CPUE Benchmarks

Performance Metric	Total # of Benchmarks	Species	Fisheries datasets	Time Horizon/Measure
CPUE	3	Swordfish	• Hawaii SSLL (east of 140°W longitude) • WC DGN • WC DSBG	9-year average*
	4	All HMS landings	• Hawaii SSLL (east of 140°W longitude) • Hawaii (east of 140°W longitude) and WC DSLL • WC DGN • WC DSBG	9-year average*

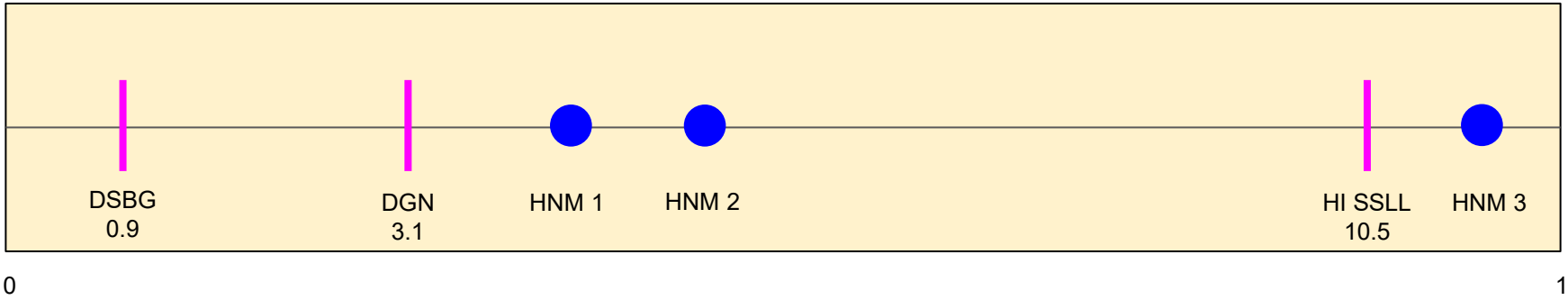
*The time frame from 2015 to 2023 represents the only overlapping period with available data for all the WC and HI gear types/fisheries.

CPUE Benchmarks

Average annual CPUE benchmarks from 2015 - 2023				
Performance Metric	**HI SSLL (east of 140°W longitude)**	**HI + WC DSLL (east of 140°W longitude)**	**WC DGN**	**WC DSBG**
CPUE (SWO)	10.5	N/A*	3.1	0.9
CPUE (All HMS)	14.6	32.1	9.3	1.0

*A DSLL benchmark for swordfish was not calculated since the fishery does not specifically target swordfish.

CPUE Benchmarks for Swordfish

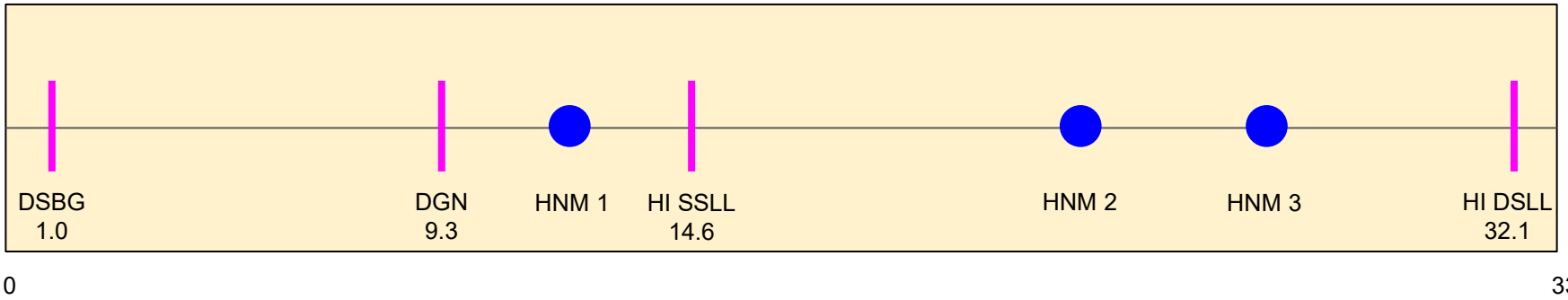


Hypothetical New Method (HNM) results for CPUE

CPUE Benchmark

Visuals are for broad illustration purposes and not intended to be scaled precisely. Longline benchmark calculated from data east of 140°W longitude. A DSLL benchmark for swordfish was not calculated since the fishery does not specifically target swordfish.

CPUE Benchmarks for All HMS



Hypothetical New Method (HNM) results for CPUE

CPUE Benchmark

Visuals are for broad illustration purposes and not intended to be scaled precisely. Longline benchmarks calculated from data east of 140°W longitude. DSLL includes Hawaii and West Coast.

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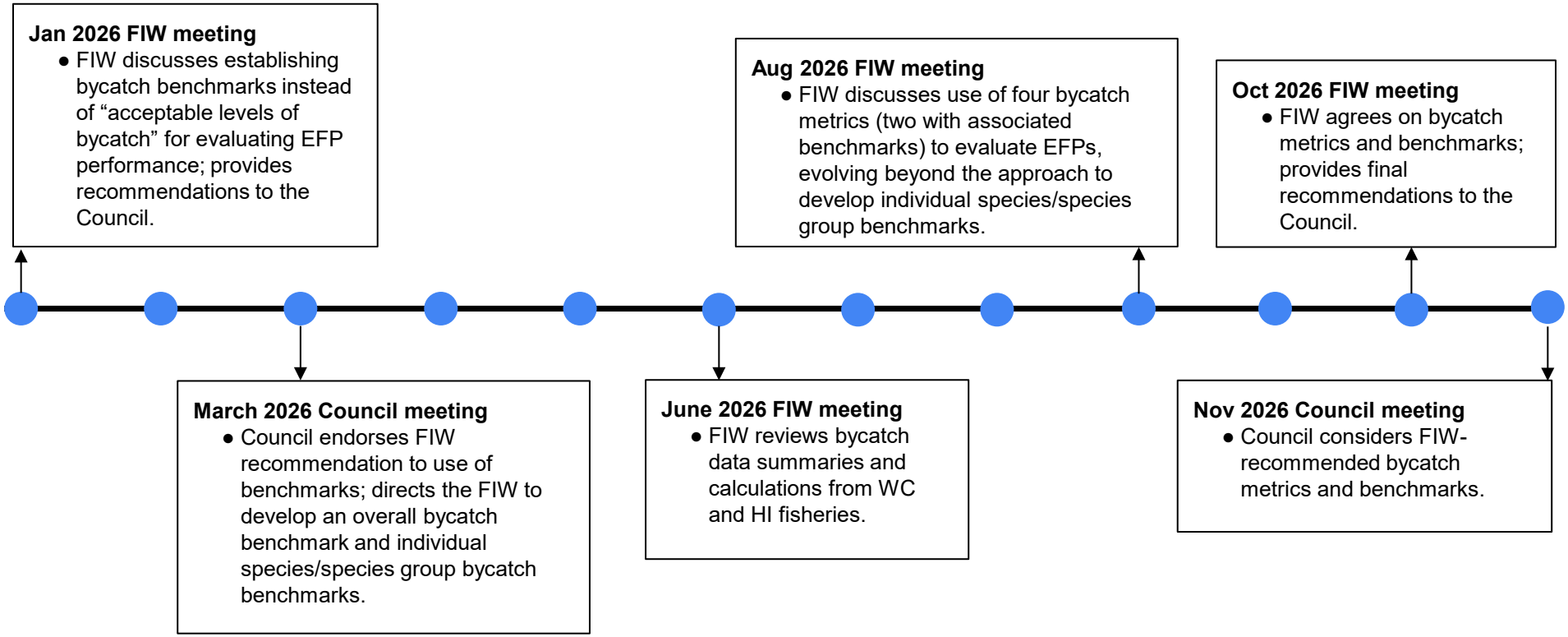
HMS Roadmap - Key Focus on Bycatch

March 2024: Council adopts HMS Roadmap goals: Support and test fishing practices that have the potential to be economically viable and consistent with National Standard 9 guidelines (HMS Roadmap Goal B). National Standard 9 of the Magnuson-Stevens Act requires the Council to minimize bycatch to the extent practicable.

June 2024: Council organizes the HMS Roadmap Workshop: The search for fishing methods that are economically viable and have acceptable levels of bycatch (especially of protected species) was a central theme.

Nov 2024: Council forms the Ad Hoc FIW: The “development of HMS EFP performance goals (including acceptable bycatch and metrics to evaluate EFP performance)” is a key task within the FIW’s charge.

Bycatch: FIW Work and Council Guidance Timeline



Bycatch Performance Metrics

Bycatch Performance Metric	Type of Metric	Associated Benchmarks ?	Number of Benchmarks
Priority bycatch-to-catch ratio	Quantitative	Yes	4
Overall bycatch-to-catch ratio	Quantitative	Yes	4
Protected species interactions	Quantitative	No	N/A
Ten species most frequently released dead	Quantitative	No	N/A

Bycatch-to-Catch Ratios

1. Metric based on a list of priority bycatch species. Focused largely on highly vulnerable and protected species. The metric would be: total number of individuals released dead (from the list of priority bycatch species) per year divided by total number of individuals retained per year, averaged over nine years.
2. Metric based on all bycatch species. Includes all species released dead. The metric would be: total number of individuals released dead (all bycatch species) per year divided by total number of individuals retained per year, averaged over nine years.

Bycatch-to-catch benchmarks developed from data from a variety of fisheries with different levels of production and bycatch over a nine-year period:

- HI SSLL fishery (east of 140° W longitude)
- HI and WC DSLL fishery (east of 140° W longitude)
- WC DGN
- WC DSBG

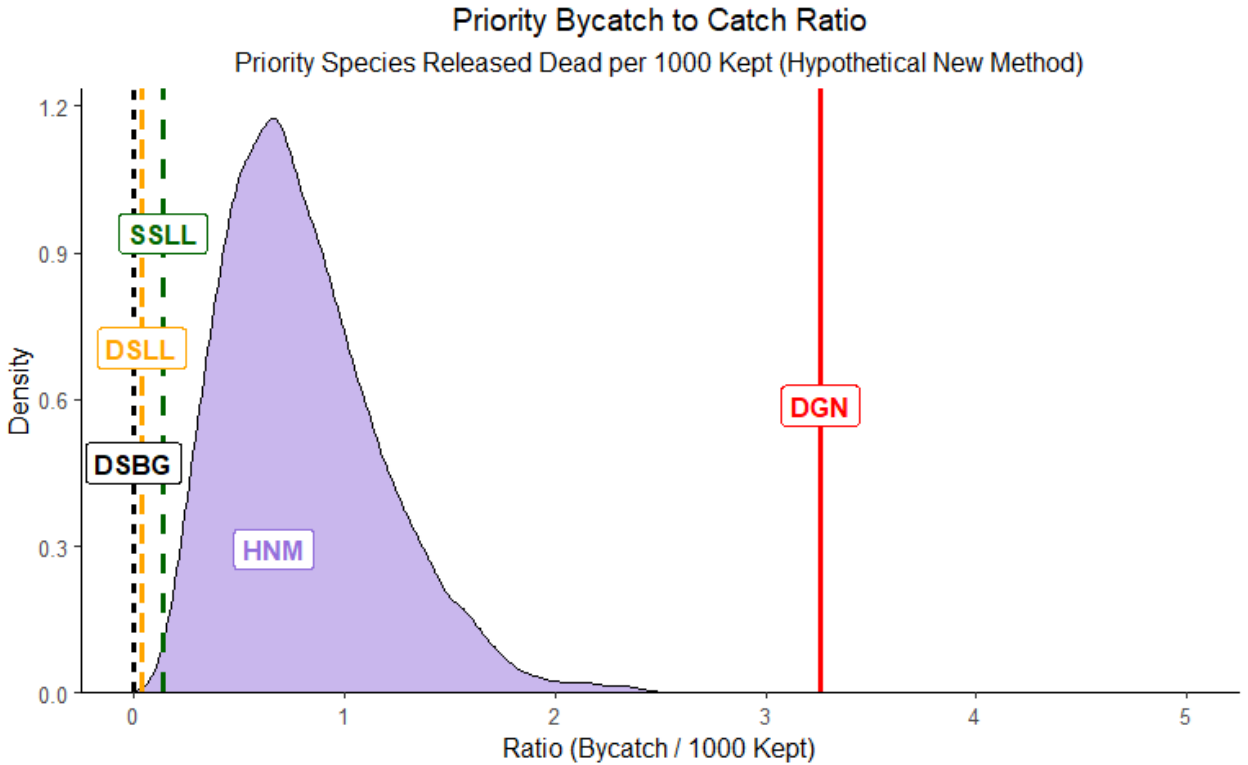
Priority List of Bycatch Species

- **Sharks**
  - White shark
- **Marine Mammals**
  - Bottlenose dolphin
  - Risso's dolphin
  - Common dolphin (long-beaked)
  - Northern right whale dolphin
  - Pacific white-sided dolphin
  - Fin whale
  - Humpback whale
  - Gray whale
  - Short-finned pilot whale
  - Minke whale
  - Sperm whale
  - Guadalupe fur seal
- **Sea Turtles**
  - Leatherback turtle
  - Loggerhead turtle
  - Olive ridley turtle
  - Green turtle
- **Seabirds**
  - Short-tailed albatross

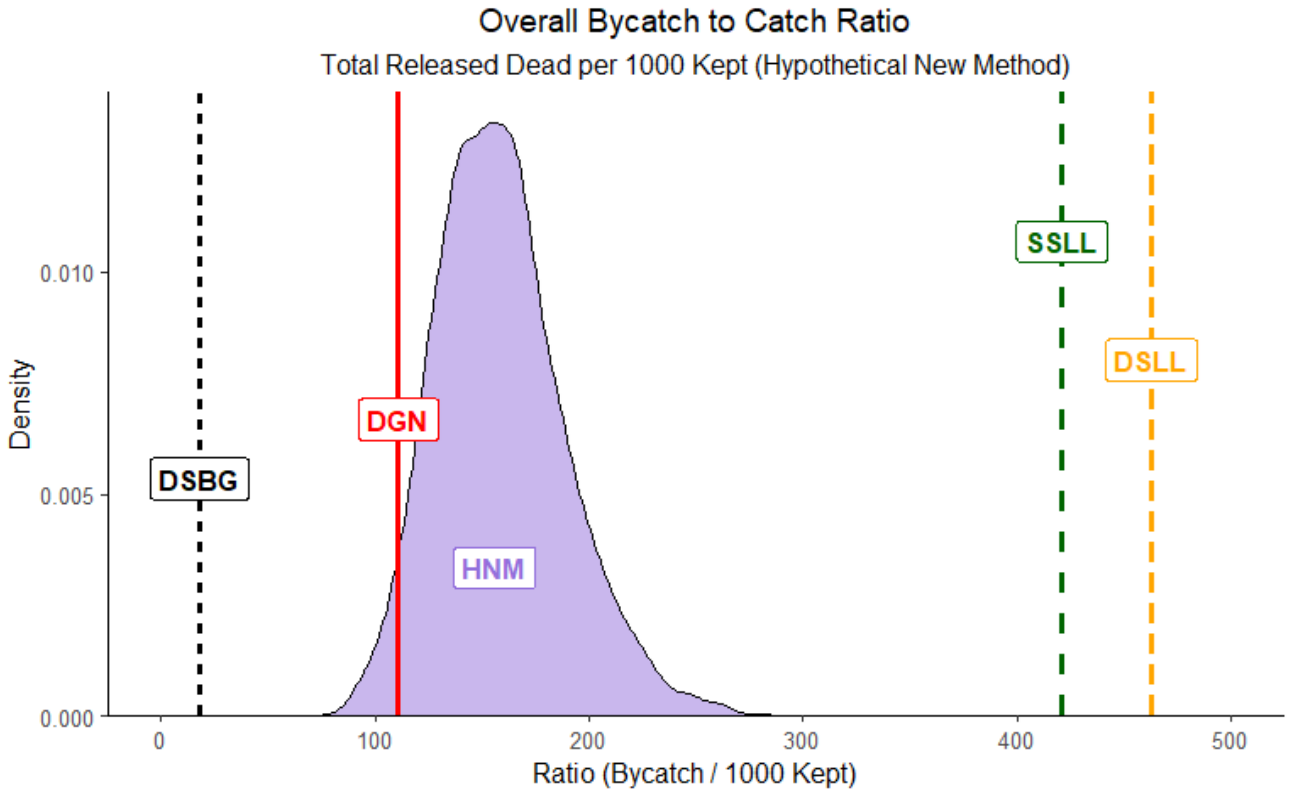
Bycatch-to-Catch Ratios

Averages of annual bycatch-to-catch benchmark calculations from 2015 - 2023 (per 1,000 individuals retained)				
Performance Metric	**HI SSLL (east of 140°W longitude)**	**HI + WC DSLL (east of 140°W longitude)**	**WC DGN**	**WC DSBG**
Average annual bycatch-to-catch ratio (list of priority bycatch species)	0.14	0.04	3.26	0.00
Average annual bycatch-to-catch ratio (all species)	421	463	111	18

Priority Bycatch-to-Catch Metric: Hypothetical New Method



Overall Bycatch-to-Catch Metric: Hypothetical New Method



Additional Bycatch Performance Metrics

- Protected Species Interactions: The Council would request that NMFS provide information about any interactions with species listed under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA), including the total number of interactions and disposition (e.g., released injured or dead) based on observer data.

- Ten Species Most Frequently Released Dead: The Council would request that NMFS provide a list based on observer data of the ten species most frequently released dead. For each species, NMFS would provide the total number of individuals released dead and list the species in descending order by the number of individuals released dead.

Bycatch Performance Metrics

Bycatch Performance Metric	Type of Metric	Associated Benchmarks ?	Number of Benchmarks
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Protected species interactions	Quantitative	No	N/A
Ten species most frequently released dead	Quantitative	No	N/A

EFP Guidance and Materials Recommendations

FIW recommendations:

- Direct Council staff to support NMFS in developing materials:
  - Could include infographics (e.g., flow charts or timelines) and FAQs
  - Council staff will also update Council resources such as the EFP landing page and HMS Roadmap-related documents.
- Direct the HMSAS and HMSMT to schedule time at their in-person meetings for applicants to informally discuss potential ideas for EFPs and receive feedback.

Relevant Innovative Tools and Measures

The FIW recommends that the Council:

- Establish and maintain a web page (in coordination with NMFS) with key resources to support HMS fishery participants interested in EFP opportunities.
- Establish and maintain a web page with information regarding grants and other sources of funding to support innovation, cooperative research, marketing opportunities, relevant state and federal programs, and other resources.
- Encourage the HMSAS to remain active in tracking, developing, and sharing resources and information related to gear innovation.

Review and Status of the HMS Roadmap

The FIW recommends that the Council:

- Incorporate the framework into the Roadmap.
- Task the HMSMT with reviewing the HMS Roadmap and adding updates and/or annotations reflecting progress completed through the FIW process.

1. Explore and Establish Management Strategies and Objectives	a. Evaluate the need for developing bycatch monitoring, performance metrics, and finfish retention rates for managing HMS fisheries and EFPs. (Also supports EFP Framework Development)
	b. Develop benchmarks for bycatch of identified species or species groups released dead to be used in evaluation and management of HMS EFPs. (Also supports EFP Framework Development)
	c. Define harvest goals for target HMS within the international context and consistent with catch or effort limits to which the United States has agreed.
	d. Evaluate the harvest levels and market demand of HMS to develop a list of priority species for development of alternative fishing practices.
	e. Consider use of individual accountability management approaches.
	f. Promote resilience in community-level benefits from HMS fisheries. i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions, including climate change.
	f. Promote resilience in community-level benefits from HMS fisheries. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions, including climate change.
2. Develop EFP Framework	a. Facilitate the use of EFPs to expand options for HMS fisheries to more fully access underutilized HMS stocks.
	b. Develop EFP guidance, including Council application preferences, application review criteria, and gear performance metrics to meet Council management and data needs.
	c. Support the development of EFPs utilizing new approaches to achieve economic viability balanced with conservation objectives.
	d. Facilitate the use of EFPs which expand on existing gear types, to explore alternative fishing practices or management strategies for increased HMS production while limiting bycatch.
3. Develop Fishery Management Decision-support Tools and Analyses	a. Document sources of U.S. swordfish supply, considering all domestic and foreign caught HMS and the potential to mitigate conservation impacts and reduce the seafood trade deficit.
	b. Support ongoing efforts to develop and implement electronic monitoring.
	c. Explore the use of dynamic ocean modeling tools, such as EcoCast, as part of an individual accountability-based management strategy.
	d. Evaluate overall net economic benefits of HMS fisheries operations.
	e. Consider impacts of potential competing current and future marine uses (i.e. offshore wind, aquaculture, etc.) in HMS fisheries management.
	f. Develop an index of multispecies fishery production as a metric for comparing HMS harvest methods and evaluate bycatch relative to this index.
4. Continue DGN Fishery Monitoring	a. For each June Council meeting while the drift gill net fishery is allowed, continue to report annual drift gillnet fishery bycatch estimates against performance metrics for specified marine mammals and sea turtles, and monitor annual finfish retention rate and observed take of specified species.

Summary: FIW Recommendations to the Council

Overall recommendations (see Supplemental FIW Report 1 for detailed recommendations):

- EFP Evaluation Framework: Adopt the framework; direct Council staff to work with NMFS and the HMSMT to implement the framework.
- Updates to the HMS Roadmap: Incorporate the framework into the Roadmap; task the HMSMT with reviewing the HMS Roadmap and adding updates and/or annotations reflecting progress completed through the FIW process.
- HMS EFP guidance and materials: Direct Council staff to support NMFS in developing materials and update relevant Council resources; direct the HMSAS and HMSMT to reserve time at their meetings for potential applicants to informally discuss EFP ideas.
- Relevant innovative tools and measures: Direct Council staff to develop web page(s) with key resources for HMS fishery participants interested in EFP opportunities; encourage the HMSAS to remain active in tracking, developing, and sharing resources.