HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT
ON FISHERY ECOSYSTEM PLAN FIVE-YEAR REVIEW

The Highly Migratory Species Management Team’s (HMSMT’s) review focused on the HMS-related sections of 3.3.3 and 3.5.2.3 in the Ecosystem Working Group I.3.a Report 1. After discussion, the HMSMT recommends the following edits be incorporated into these sections (Note all recommended edits are highlighted, with additions underlined and retractions in strikethrough text):

3.5.2.3 HMS FMP

1) FMP designates EFH for each species within the FMP, with sub-designations for the different life stages of those species. EFH designations for some HMS’ life stages are temperature-based, recognizing those species’ habits of associating with certain temperature ranges, regardless of where those temperatures may occur in any given season or year. [HMS]

2) Environmentally-based time-and-area closures to minimize and mitigate sea turtle, shark, and marine mammal bycatch: NMFS-trained observers on vessels. Sea turtle protections include swordfish pelagic shallow-set longline fishery prohibited; prohibition on light stick possession for pelagic longline vessels operating west of 150° W. long.; seasonal area closures for large-mesh drift gillnet (the Pacific Leatherback Conservation Area; Southern Loggerhead closure during El Niño events); equipment and requirements for the safe handling and release of incidentally-caught turtles; mandatory sea turtle and marine mammal training for skipper and crew in the large-mesh drift gillnet fishery. Marine mammal protections: Pacific Offshore Cetacean Take Reduction Plan requires gear modifications on large-mesh drift gillnet gear (pinger and gear depth requirements). Mainland area closures include a complete closure of the fishery off California February 1-April 30, within 75 nm May 1-August 14, and within 25 nm December 15-January 31 the following year to mitigate shark bycatch; east of a line approximating 1,000 fm off of Oregon; and other discrete area closures along the California coast, as well as around the Channel Islands. State regulations to reduce marine mammal bycatch using time/area closures. [Sea turtles, marine mammals]

3) Seabird bycatch minimization and mitigation measures: pelagic longline gear configuration and setting requirements, offal discharge requirements, equipment and handling requirements for bringing incidentally-caught short-tailed albatross onboard, and resuscitating and releasing when possible. [Seabirds]

5) HMS permitting and record-keeping requirements for U.S. vessels operating in the EEZ and on the high-seas and landing HMS in U.S. ports. [HMS]

6) Selected commercial fishery vessel monitoring system (VMS) requirements to better-enforce closed areas and other regulations. [HMS]

7) Mandatory observer program to gather total catch data from commercial fisheries. [HMS, salmon, CPS, groundfish]

9) Nation-wide marine mammal bycatch mitigation standards for imports. dolphin-safe tuna requirements. [Marine mammals]
### 3.3.3 Mid- to High Trophic Level Fishes and Invertebrates [mostly FMP species]

#### Table 3-2. Species in the HMS FMP.

<table>
<thead>
<tr>
<th>Group</th>
<th>Common Name</th>
<th>Scientific Name Species</th>
<th>FMP Management Unit Species (MUS)</th>
<th>FMP Ecosystem Component Species (ECS)</th>
<th>Prohibited Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunas</td>
<td>North Pacific albacore</td>
<td>Thunnus alalunga</td>
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<tr>
<td></td>
<td>Yellowfin tuna</td>
<td>Thunnus albacares</td>
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<tr>
<td></td>
<td>Bigeye tuna</td>
<td>Thunnus obesus</td>
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<tr>
<td></td>
<td>Skipjack tuna</td>
<td>Katsuwonus pelamis</td>
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<tr>
<td></td>
<td>Pacific bluefin tuna</td>
<td>Thunnus orientalis</td>
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<tr>
<td>Sharks</td>
<td>Common thresher shark</td>
<td>Alopias vulpinus</td>
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<tr>
<td></td>
<td>Shortfin mako or bonito shark</td>
<td>Isurus oxyrinchus</td>
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<td></td>
<td>Blue shark</td>
<td>Prionace glauca</td>
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<td>Soupfin shark</td>
<td>Galeorhinus galeus</td>
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<td>Salmon shark</td>
<td>Lamna ditropis</td>
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<td>Great white shark</td>
<td>Carcharodon carcharias</td>
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<td></td>
<td>Basking shark</td>
<td>Cetorhinus maximus</td>
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<td>Sleeper shark</td>
<td>Squaliformes spp</td>
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<td></td>
<td>Bigeye thresher shark</td>
<td>Alopias superciliosus</td>
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<tr>
<td></td>
<td>Pelagic thresher shark</td>
<td>Alopias pelagicus</td>
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<tr>
<td></td>
<td>Megamouth shark</td>
<td>Megachasma pelagio</td>
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<tr>
<td>Billfish</td>
<td>Striped marlin</td>
<td>Tetrapturus audax</td>
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<tr>
<td></td>
<td>Swordfish</td>
<td>Xiphas gladius</td>
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<td>Group</td>
<td>Common Name</td>
<td>Scientific Name Species</td>
<td>FMP Management Unit Species (MUS)</td>
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<tr>
<td></td>
<td><strong>Black seabass</strong></td>
<td><em>Centropristis striata</em></td>
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<tr>
<td></td>
<td><strong>White seabass</strong></td>
<td><em>Atractoscion nobilis</em></td>
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<td></td>
<td><strong>Yellowtail</strong></td>
<td><em>Seriola lalandi</em></td>
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<td></td>
<td>Dorado or dolphinfish</td>
<td><em>Coryphaena hippurus</em></td>
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<td>Common mola</td>
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<td>Escolar</td>
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<td>Lancetfishes</td>
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<td></td>
<td>Pelagic stingray</td>
<td><em>Dasyatis violacea</em></td>
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<td></td>
<td>Wahoo</td>
<td><em>Acanthocybium solandri</em></td>
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<td></td>
<td>Opah</td>
<td><em>Lampris sp.</em></td>
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</table>

*Opah is not an MUS, ECS, or prohibited species of the HMS FMP, but is a marketable species caught during HMS fishery operations.

Page 23 in *Ecosystem Working Group 1.3.a Report 1*: In addition, management of HMS directed fisheries also requires minimizing the bycatch of protected high profile species, such as sea turtles, seabirds, and marine mammals.

PFMC
03/08/21