

EXCERPTS FROM THE HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN

3.1 Management Unit Species (Actively Managed)

3.1.1 Background

The Plan Development Team and the Council examined a number of different criteria and alternatives for species to be included in the management unit. Public testimony covered a wide range of alternatives, from a relatively short list of target species in West Coast HMS fisheries, to a long list of species harvested by HMS fisheries. The Council assumed that species placed in the management unit would be candidates for active management, i.e., the fisheries for these species may need to be managed through the Council process resulting in Federal regulations to implement adopted management measures. The Council also understood that maximum sustainable or optimum yield (bio-analytically-based or proxy) is the basis of management and would have to be specified for each species in the management unit, and that a definition of overfishing is required. The Council considered various combinations of the following criteria for including species in the management unit, with the stipulation that any species that met the first three criteria would be strongly considered for inclusion:

1. the species occurs in the Pacific Council management area
2. the species occurs in West Coast HMS fisheries
3. the species is defined as highly migratory in the MSA or the Law of the Sea Convention
4. the species is important (moderate to high value) in the landings or to the fishery
5. the species is managed by the Western Pacific Fishery Management Council
6. sufficient data exists to calculate a bio-analytically based MSY, including a reasonable MSY proxy that is based, e.g., on catches and yields that are stable over time
7. the species occurs in fisheries which the Pacific Council wants to actively manage
8. the species possesses special biological characteristics (e.g., low productivity)

The MSA defines HMS as tuna species, marlin (*Tetrapturus* spp. and *Makaira* spp.), oceanic sharks, sailfishes (*Istiophorus* spp.) and swordfish (*Xiphias gladius*). The term “tuna species” includes albacore tuna (*Thunnus alalunga*), bigeye tuna (*T. obesus*), bluefin tuna (*T. thynnus* and *T. orientalis*), skipjack tuna (*Katsuwonus pelamis*), and yellowfin tuna (*T. albacares*). The inclusion of these definitions establishes the authority of the Secretary of Commerce to manage directly the above species in the Atlantic Ocean and Gulf of Mexico, without the need for a regional fishery management council FMP.

The United Nations Convention on the Law of the Sea, Annex I, defines “highly migratory species” to include: albacore tuna, bluefin tuna, bigeye tuna, skipjack tuna, yellowfin tuna, blackfin tuna (*Thunnus atlanticus*), little tuna (*Euthynnus alletteratus*; *E. affinis*), southern bluefin tuna (*T. maccoyii*), frigate mackerel (*Auxis thazard*; *A. rochei*), pomfrets (family Bramidae), marlins (*Tetrapturus angustirostris*; *T. belone*; *T. pfluegeri*; *T. albidus*; *T. audax*; *T. georgei*; *Makaira mazara*; *M. indica*; *M. nigricans*), sailfishes (*Istiophorus platypterus*; *I. albicans*), swordfish, sauries (*Scomberesox saurus*; *S. saurus scombroides*; *Cololabis saira*; *C. adocetus*),

dorado (*Coryphaena hippurus*; *C. equiselis*), oceanic sharks (*Hexanchus griseus*; *Cetorhinus maximus*; *Rhincodon typus*; family Alopiidae; family Carcharhinidae; family Sphyrnidae; family Lamnidae), and cetaceans (family Physeteridae; family Balaenopteridae; family Balaenidae; family Eschrichtiidae; family Monodontidae; family Ziphiidae; family Delphinidae).

Species in the management unit of the Pelagic Fisheries FEP adopted by the WPFMC are mahi-mahi/dolphinfish (*Coryphaena spp.*); marlin and spearfish (*Makaira spp.*, *Tetrapturus spp.*); oceanic sharks (family Alopiidae, family Carcharhinidae, family Lamnidae, family Sphyrnidae); sailfish (*Istiophorus spp.*); swordfish (*Xiphias sp.*); tuna and related spp. (*Allothunnus sp.*, *Auxis spp.*, *Euthynnus spp.*, *Gymnosarda sp.*, *Katsuwonus sp.*, *Scomber spp.*, *Thunnus spp.*); wahoo (*Acanthocybium sp.*); moonfish/opah (*Lampris sp.*); pomfret (family Bramidae); oilfish/walu (family Gempylidae).

3.1.2 Management Unit Species

The HMS FMP management unit includes:

Tunas:

- North Pacific albacore (*Thunnus alalunga*)
- yellowfin tuna (*Thunnus albacares*)
- bigeye tuna (*Thunnus obesus*)
- skipjack tuna (*Katsuwonus pelamis*)
- Pacific bluefin tuna (*Thunnus orientalis*)

Sharks:

- common thresher shark (*Alopias vulpinus*)
- shortfin mako or bonito shark (*Isurus oxyrinchus*)
- blue shark (*Prionace glauca*)

Billfish/Swordfish:

- striped marlin (*Tetrapturus audax*)
- swordfish (*Xiphias gladius*)

Other:

- dorado or dolphinfish (*Coryphaena hippurus*)

The management unit includes all five species of tuna which are important to commercial and recreational fisheries in the north Pacific (albacore, bluefin) and eastern tropical Pacific (yellowfin, bigeye, skipjack). Striped marlin is included because of its importance to the recreational fishery in California. Swordfish is a major target in commercial drift gillnet, harpoon and longline fisheries, and is pursued by anglers. Blue shark is an abundant bycatch species in drift gillnet and longline fisheries. It has been the target of some directed shark fisheries in the past, and currently is caught by anglers. Common thresher shark and shortfin mako shark are important species in the drift gillnet fishery and also are targeted by recreational fishers. Dorado is an important component of the suite of species targeted by recreational fishers, especially in southern California.

The species are to be managed aiming for consistency in both regional and international management. Since the MUS tunas and billfishes are fished ocean-wide and are already assessed or reviewed regularly at international forums, the Council's main task would be to ensure that their local management is neither inconsistent with, nor is abrogated by, international management. The more regionally distributed sharks not currently under international management require more direct, regional or local assessments of stock status and possibly regional management (common thresher and shortfin mako sharks). Where production potentials cannot be estimated accurately (e.g., because only small fractions of the stocks are taken), the species, as MUS, will still be regularly reviewed under Council guidance (e.g., dorado).

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3.3 Species Included in the FMP as Ecosystem Component Species

One of the reasons given for including EC species in an FMP is for data collection purposes. EC species are not considered "in the fishery" but Councils should consider measures to mitigate and minimize bycatch of these species, to the extent practicable, consistent with National Standard 9. MSY, OY, and other reference points (see Chapter 4) do not need to be specified for EC species. Identification of EC species will help the Council to track these species over time, periodically evaluate their status, and assess whether any management is needed under the FMP, in which case an EC species could be reclassified as a managed species. Identification of EC species also allows the Council to consider measures to minimize bycatch and bycatch mortality of EC species and to protect their associated role in the ecosystem.

EC species and prohibited species (see below and Section 6.3.4) are:

- Bigeye thresher shark (*Alopias superciliosus*)
- Common mola, *Mola mola*
- Escolar, *Lepidocybium flavobrunneum*
- Lancetfishes, Alepisauridae
- Louvar, *Luvarus imperialis*
- Pelagic sting ray, *Dasyatis violacea*
- Pelagic thresher shark (*Alopias pelagicus*)
- Wahoo, *Acanthocybium solandri*

Bigeye and pelagic thresher sharks are landed by the drift gillnet fishery but in small amounts compared to common thresher and mako sharks. Originally included in the FMP as managed species, largely because of concern that they have poor resilience to fishing, they were re-designated EC species under FMP Amendment 2, because of the low number caught in West Coast commercial and recreational fisheries.

EC species shared between all four Council FMPs, including the HMS FMP are:

- Round herring, *Etrumeus teres*
- Thread herring, *Opisthonema libertate*, *O. medirastre*
- Mesopelagic fishes of the families *Myctophidae*, *Bathylagidae*, *Paralepididae*, and *Gonostomatidae*
- Pacific sand lance, *Ammodytes hexapterus*
- Pacific saury, *Cololabis saira*
- Silversides, *Atherinopsidae*
- Smelts of the family *Osmeridae*

Pelagic squids (families: *Cranchiidae*, *Gonatidae*, *Histioteuthidae*, *Octopoteuthidae*, *Ommastrephidae* except Humboldt squid (*Dosidicus gigas*), *Onychoteuthidae*, and *Thysanoteuthidae*)

No directed commercial fisheries may begin for any shared EC species until and unless the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem.