

Attachment 3: Habitat Areas of Particular Concern (HAPCs) Rationale

The first examination of the potential for designating HAPCs with the initial adoption of the Highly Migratory Species (HMS) Fishery Management Plan (FMP) resulted in the conclusion that HAPCs were not warranted for HMS. The main functions of HMS essential fish habitat (EFH) as feeding and nursery grounds were well established at that time (Tricas 1979; Bedford 1992). The FMP indicated the need for more research on “shark pupping grounds, key migratory routes, feeding areas, and areas of concentration of large adult females.” At the time of this publication, the available data do not point to a focused pupping ground for sharks. Nosal et al. (2019) reported that the nursery ground for blue sharks was actually larger than previously reported. The available electronic tagging data across species reveals no specific migratory pathway within the U.S. Exclusive Economic Zone (EEZ). The North Pacific Transition Zone, along which species such as albacore and bluefin tuna migrate, is not within the U.S. EEZ as the California Current extends beyond 200 nm. While it is hard to pinpoint exactly when and where fish are feeding, diet and electronic tracking data reveal HMS forage across taxa and habitats and thus, forage broadly in the highly dynamic California Current. Thus, no defined geographic location where feeding occurs has been identified. The sparse data on the occurrence and location of large females do not advance our understanding of their habitat or distribution. The designations of EFH have been further refined based on a better understanding of HMS biology, but the primary functions that the EFH serve remain the same.

The EFH regulations (50 CFR 600 Subpart J) state that FMPs should identify specific types or areas of habitat within EFH as HAPCs based on one or more of the following considerations (i – iv below, italicized):

(i) The importance of the ecological function provided by the habitat.

EFH off the U.S. West Coast is suitable for HMS to meet specific ecological functions including spawning, breeding, feeding, or growth to maturity. For all management unit species that occur in the EEZ as juveniles and subadults (all species except for dolphinfish, striped marlin, and skipjack), the EFH serves as a feeding ground and would be considered important for growth to maturity. While some species can be found near bathymetric features such as banks, they also forage more broadly on the deep scattering layer and on frontal features that are dynamic in time and space. The nursery habitat for the shark species covers a broad area, and no particular region within this area has been identified as being of special importance. While it is presumed that the common thresher and shortfin mako sharks are breeding in the EEZ, this is difficult to document and no particular region or discrete area has been identified. For the other species, spawning or breeding grounds are not typically in the EEZ.

(ii) The extent to which the habitat is sensitive to human-induced environmental degradation.

Human-induced activities, other than climate change, are not likely to negatively impact the deep scattering layer or the presence and ecological function of frontal features. Impacts to benthic habitat or features over small spatial scales, such as associated with wind energy or aquaculture, would be expected to have a negligible impact given the breadth of prey species and habitats across which HMS forage and the geographic scale of both foraging habitat and nursery grounds.

(iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type.

The HMS EFH review did not indicate any HMS habitat types that would be particularly stressed by human development activities. The deep scattering layer, and presence and ecological function of frontal features are not typically stressed by development activities. Impacts to benthic habitat or features over small spatial scales such as associated with wind energy or aquaculture, would be expected to have a negligible impact on feeding or growth to maturity given the breadth of species and habitats across which HMS forage and the geographic scale of both foraging habitat and nursery grounds.

(iv) The rarity of the habitat type.

The HMS EFH review did not identify any EFH components that would be considered rare.