Skate Nursery HAPC Designation in the Eastern Bering Sea

ABSTRACT

Skates exhibit unique life history strategies and depend on high juvenile survivorship and recruitment for sustained populations. Skate nurseries are areas of exceptional skate productivity and critical for successful skate reproduction. The protracted embryo development (7 years) and low fecundity substantially increase the exposure of embryos to predation and disturbances at nursery sites. In 2010, six skate nursery areas were proposed as Habitat Areas of Particular Concern (HAPCs) in response to a Request for Proposals (RFP) by the North Pacific Fisheries Management Council (NPFMC). Specifically, HAPCs are geographic areas that fall within the distribution of Essential Fish Habitat (EFH) for species managed under a Fishery Management Plan (FMP). The six HAPCs are comprised of 8 skate nursery sites for three of the most abundant skate species in the EBS: Aleutian (Bathyraja aleutica), Alaska (B. parmirostris), and Bering (B. interrupta) skates. After public review, the NPFMC choose to designate the six HAPCs, request NMFS monitor these HAPCs for changes in egg density, and add skate research and monitoring to their Research Priorities list. Lastly, no protective measures, such as gear or area restrictions were taken at any of the six HAPCs, for close monitoring of disturbances causing detrimental effects (i.e. fishing, diving, dredging). We believe the habitat designation will provide, at least, a broader understanding of the importance of these sites and emphasize the need for further research and monitoring to ensure healthy skate populations and sustainable fisheries as designated under the Magnuson-Stevens Fishery Conservation and Management Act.

The purpose of HAPCs is to focus conservation, management, and research efforts on subsets of EFH that are especially important ecologically for federally managed fish. The HAPC designation alone does not confer additional protection or restrictions to an area, but helps to focus EFH conservation, management, and research priorities. HAPC designation is a valuable way to acknowledge areas where we have detailed information on ecological function and habitat vulnerability, indicating a greater need for conservation and management. In some instances the Council and NMFS may develop fishery management measures to conserve the habitat within the HAPC. HAPCs are a subset of EFH that deserve special attention because they provide extremely important ecological functions and/or are especially vulnerable to degradation. For instance, HAPC designation may be warranted for areas that play a vital role in the reproductive cycle of a managed species (e.g., group spawning sites) or areas that contain a rare habitat type (e.g., habitats that may be sensitive to disturbance from fishing or other human activities). A Council may designate an area as a HAPC for one or more of the following reasons: (1) the habitat provides important ecological functions; (2) the habitat is sensitive to human-induced environmental degradation. Development activities are, or will be, stressing the habitat. The habitat type is rare. Additionally, a Council may establish HAPC priorities based on concerns for any particular habitat area, i.e. Areas of Skate Egg Concentration.

The recognition of these sites as HAPCs highlights the importance of this essential fish habitat for conservation, providing a platform for closer monitoring of disturbances causing detrimental effects (i.e. fishing, diving, dredging). We believe the habitat designation will provide, at least, a broader understanding of the importance of these sites and emphasize the need for further research and monitoring to ensure healthy skate populations and sustainable fisheries as designated under the Magnuson-Stevens Fishery Conservation and Management Act.

PRIMARY SKATE NURSERY PUBLICATIONS


HAPC INFORMATION


SUGGESTED READING FOR FURTHER INFORMATION ON ESSENTIAL FISH HABITAT

