

Ecosystem-based Management of US Pacific Pelagic Fisheries



The Pacific Pelagic Fishery Ecosystem Plan (FEP) was developed by the Western Pacific Regional Fishery Management Council to regulate the harvests of pelagic species by US vessels operating in the offshore waters of the central and western Pacific Ocean. Because ecosystems vary overtime, this ecosystem-based approach to fisheries management is adaptive and takes into account ecosystem knowledge and uncertainties, considers multiple external influences (domestic and international), and strives to balance diverse social objectives.

Ecosystem Issues

- Climate change and its impacts on the ocean's primary productivity areas
- Fishing impacts on bycatch, forage fish and protected species
- Non-fishing activities leading to pollution, nutrient loading and ocean acidification
- Marine debris

Management Structure and Community Participation

The Pacific Pelagic FEP fosters collaboration with territorial, federal and international governments and non-government organizations to address the social, cultural, economic, biological, ecological and other scientific issues related to successful ecosystem management.

The FEP also facilitates enhanced involvement in the decision-making process by communities, especially those who rely on the environment for their livelihood, social relations, cultural identity and nutrition. The bottom-up approach begins with recommendations received during public meetings and through several advisory groups, including recently established Regional Ecosystem Advisory Committees, which focus on land-based impacts on the marine ecosystem.



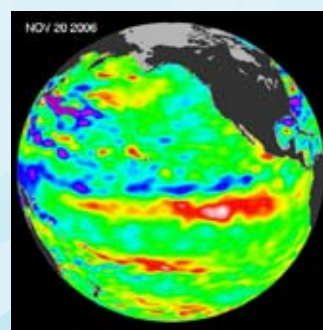
The Council actively participates in the development and implementation of international

agreements and research regarding marine resources. The most important international issues for the Pacific Pelagic FEP are the international management of highly migratory species (particularly tunas) and conservation of protected species (especially, sea turtles and whales).



Management Objectives

1. *Maintain biologically diverse and productive marine ecosystems and foster the long-term sustainable use of marine resources in an ecologically and culturally sensitive manner through the use of a science-based ecosystem approach to resource management.*
2. *Provide flexible and adaptive management systems that can rapidly address new scientific information and changes in environmental conditions or human use patterns.*
3. *Improve public and government awareness and understanding of the marine environment in order to reduce unsustainable human impacts and foster support for responsible stewardship.*
4. *Encourage and provide for the sustained and substantive participation of local communities in the exploration, development, conservation, and management of marine resources.*
5. *Minimize fishery bycatch and waste to the extent practicable.*
6. *Manage and co-manage protected species, habitats and areas.*
7. *Promote the safety of human life at sea.*
8. *Encourage and support appropriate compliance and enforcement with all applicable local and federal fishery regulations.*
9. *Increase collaboration with domestic and foreign regional fishery management and other governmental and non-governmental organizations, communities, and the public at large to successfully manage marine ecosystems.*
10. *Improve the quantity and quality of available information to support marine ecosystem management.*



During El Nino, warm water (red) spreads from the Western Pacific toward the east. The result is a rise in sea surface temperature and a drastic decline in primary productivity in the Eastern Pacific Ocean, which adversely affects the higher trophic levels of the food chain, including commercial fisheries.

Pacific Pelagic Fisheries

Tuna fisheries in the Pacific Ocean catch about 2.7 million mt of fish, with US fisheries catching about 5% of the total. Most of the catch is taken by fleets of high seas longliners and purse seiners from Japan, Taiwan, Korea and the nations of Central and South America.

About 400 US albacore trollers, based at West Coast ports, fish in the North Pacific and land about 12,000 to 14,000 mt. Some vessels from this fleet fish seasonally for albacore in the South Pacific, catching up to 1,500 mt.



Jurisdictional areas of the international Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC). Orange dots indicate where fisheries are managed by the Western Pacific Regional Fishery Management Council.

The largest US fishery in terms of tonnage landed is the purse-seine fishery. Skipjack tuna is the dominant catch (over 60,000 to 200,000 metric tons annually).

The Hawaii longline fishery, with about 125 vessels, set shallow to catch swordfish and deep to catch bigeye tuna. Yellowfin tuna, mahimahi (dorado), ono (wahoo), marlin, opah (moonfish) and monchong (pomfret) are also commercially valuable catches.

The American Samoa longline fleet of about 30 vessels fishes for albacore, which is landed to two tuna canneries in American Samoa.

Trolling and handlining are the largest commercial fisheries in terms of participation and include charter or for-hire fishing vessels. Annual catches are modest and dominated by yellowfin and bigeye tuna in Hawaii and skipjack in Guam, the Northern Mariana Islands and American Samoa. Other commonly caught troll catches include mahimahi, wahoo and blue marlin. Trolling is the most common recreational pelagic fishery in the US Pacific islands.

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Ecosystem-based Management of Fisheries in the US Pacific Islands

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