



FORAGE FISH: ALASKA POLLOCK

BACKGROUND

A common thread linking marine predators in western Alaska is their reliance on Alaska (walleye) pollock (*Theragra chalcogramma*), a prolific hake-like member of the cod family whose range extends across the North Pacific Rim from Puget Sound to the Sea of Japan. Pollock is the dominant fish prey in the eastern Bering Sea, and is widely consumed at every stage of its life cycle by mammals, birds and fishes.

Groundfish predators of pollock include some of the most abundant and most highly valued species in the Bering Sea and Gulf of Alaska: Pacific halibut, Greenland turbot, arrowtooth flounder, flathead sole, Pacific cod, and sablefish, as well as Pacific sandfish, shortspine thornyhead, great sculpin, and Alaska skate.

Major marine mammal predators of pollock include the endangered Steller sea lion, depleted northern fur seal, depleted Pacific harbor seal, spotted and ribbon seals in the Bering Sea, as well as harbor and Dall's porpoises, fin, minke and humpback whales. Seabird predators of pollock include some world's largest nesting colonies of kittiwakes, murrelets, and puffins in the Pacific Ocean, in addition to fulmars, guillemots, cormorants, shearwaters, murrelets and auklets.

ALASKA POLLOCK FISHERY

Pollock were long regarded as a commercially worthless "scrap" fish by American fishermen, who targeted salmon, halibut, herring and crab. Pollock's potential as a cheap and plentiful protein source was only realized in the early 1960s when Japanese factory trawlers introduced a process for reducing pollock's white flesh into a protein paste called *surimi*. In the 1990s, as cod stocks in the North Atlantic collapsed from overfishing, pollock became a popular whitefish substitute for cod in the global seafood trade. Today pollock is widely marketed in Asia, Europe and North America as surimi (imitation crabmeat), fast food fish fillets and frozen fish sticks; in addition, there is a highly lucrative market for pollock roe (fish eggs).

ALASKA POLLOCK MANAGEMENT

While fishery officials point proudly to the enormous yields and revenues generated by the Alaska pollock fishery as proof of its sustainability, the National Research Council recognized nearly a decade ago that several regions where pollock were once abundant are heavily exploited. With the Aleutian Basin and Aleutian Islands closed to pollock fishing due to low abundance, and the Gulf of Alaska experiencing historic low pollock abundance, fully 96% of all pollock caught off Alaska are now taken from the eastern Bering Sea.

The effects of these trends on pollock predators in the ecosystem could be devastating. Thus far the North Pacific Fishery Management Council has not effectively addressed the pollock fishery in an ecosystem context. But the National Marine Fisheries Service has implicated the fishery in the decline of threatened and endangered species such as the Steller sea lion.

CURRENT ALASKA POLLOCK POLICY ISSUES

The abundance of Bering Sea pollock has declined steadily since 2003 under intense fishing pressure and is now estimated to be at the lowest level since 1980, when the stock was recovering from the first wave of foreign trawling during the 1970s. The projected 2008 Bering Sea pollock abundance will be the lowest in the history of the U.S.-managed fishery, and the proposed 2008 fishery quota of 1 million tons (2.2 billion pounds) could drive the stock to collapse. Using a more conservative approach based on $F_{40\%}$ instead of F_{MSY} , the 2008 fishery quota would be half that amount. Given the risk of a fishery catastrophe and ecological havoc caused by the loss of the most important forage fish in the Bering Sea, NMFS should require a far more precautionary approach.

Council: North Pacific Fishery Management Council

Links to Resources: National Research Council. The Bering Sea Ecosystem. National Academy Press (1996): p. 212-213; <http://foragefish.org/pollock.html> for fishery area management map and historical catch data.

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The Marine Fish Conservation Network is the largest national coalition solely dedicated to promoting sustainable management of marine fish and wildlife, and our oceans. The Network, made up of almost 200 environmental groups, commercial and recreational fishing associations, aquariums, and marine science organizations, uses its distinct voice and the best available science to educate policymakers, the fishing industry, and the public about the need for sound marine conservation and best marine management practices.