

Local focus may maximize Hawaii's yellowfin tuna stock

The 2006 re-authorized Magnuson-Stevens Fishery Conservation and Management Act requires federally managed species to be regulated under annual catch limits. Highly migratory species, such as tuna and billfish, are exempted if they are subject to conservation and management measures by an international regional fishery management organization. Recent research, however, has led some Hawaii folks to question the "highly migratory" nature of yellowfin tuna caught locally.

The tagging studies indicate that nearly 90 percent of the 1- to 2-year-old yellowfin tuna (i.e. those weighing 15 to 30 pounds¹) sampled in Hawaii were locally spawned. They also show that the vast majority of the yellowfin do not leave Hawaiian waters throughout their lifetime.

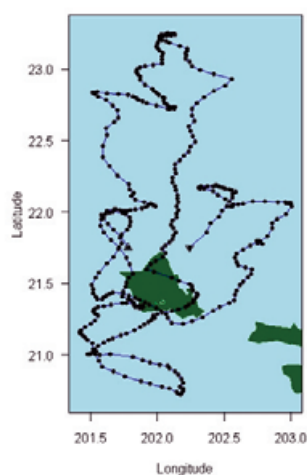
This research suggests that Hawaii's fishermen cannot rely on large influxes of yellowfin tuna from other regions to maintain their catch rates and replace harvest stocks. So maximizing the production from the "local stock" makes sense. How can this be done?

One option is to increase the minimum harvest size of commercially landed yellowfin. The current legal size for sale is 3 pounds. Yellowfin at this weight are about 16 inches in length and eight months old. They are not sexually mature, and their natural mortality rate (i.e., mortality not related to fishing) is quite high.

Natural mortality rates of Hawaii yellowfin drop to their lowest levels when the tuna are about 10 pounds (about 24 inches). If not caught by fishermen, many of the yellowfin at this size will survive and grow. They will not be lost to natural mortality nor will they migrate.

Once they reach two years old (30 pounds), they will quickly grow to reproductive size and contribute to local spawning and stocks.

The Western Pacific Regional Fishery Management Council (WPRFMC) conducted an informal poll at the Hawaii Fishing and Seafood Festival and the Fishermen's Forum held in conjunction with the 155th Council



Tagging and tracking studies show that most yellowfin tuna do not leave Hawaiian waters throughout their lifetime.

¹. 1 pound = 0.45 kg; 1 inch = 2.54 cm



Satellite tagging of a 90-pound yellowfin tuna (image: Bruno Leroy).

meeting in October 2012 in Honolulu. People cast their vote on their preferred minimum commercial harvest size for yellowfin tuna. During the Fishing Festival, 259 votes (mostly from the general public) were cast. At the Fisherman's Forum, 63 votes (mainly from fishermen) were cast. Both groups agreed that the 3-pound minimum commercial harvest size is too small and that a larger size category should be used as the standard in Hawaii.

During the first half of 2013, the Council has worked in collaboration with National Marine Fisheries Service staff and a video filmmaker to draft a script for an educational video on yellowfin minimum size. The video will likely be developed in collaboration with the State of Hawaii's Department of Land and Natural Resources, as this agency develops the policy and rules for local fishery landings in Hawaii. In the interim, the Council re-affirmed its commitment to facilitating discussions on yellowfin minimum size and the science behind a potential increase in the minimum landed weight for commercial fisheries.

Source: *Pacific Islands Fisheries News, Summer 2013* <http://www.wpcouncil.org/2013/09/17/summer-2013-pacific-islands-fishery-newsletter/>

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