

HMRFS Newsletter

The Hawai'i Marine Recreational Fishing Survey

Got Fish? A Brief History of HMRFS



Aloha mai kākou! Have you ever been interviewed by one of our surveyors while washing down your boat or fishing from your favorite shoreline spot? If you have, mahalo for your participation! Your contribution of recreational fishing information will ultimately help Hawai'i's resource managers make better management decisions.

If you have not been interviewed or are not familiar with the Hawai'i Marine Recreational Fishing Sur-

vey (HMRFS), here is a brief history of the project. In 1979, the National Marine Fisheries Service (NMFS) came to Hawai'i to conduct the Marine Recreational Fishing Statistical Survey (MRFSS). The project was soon discontinued, however, due to a lack of funding and other challenges. In 2001, under the collaborative efforts of the Western Pacific Regional Fisheries Management Council, the Hawai'i Division of Aquatic Resources (DAR)

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Food for Thought...

A 2006 survey conducted by the U.S. Fish & Wildlife Service estimated that 154,000 marine recreational fishers 16 years or older fished in Hawai'i. Of those fishers, 89,000 (58%) were Hawai'i residents and 65,000 (42%) were non-residents. In comparison, only 3,166 licensed commercial fishers fished in Hawai'i in 2006. Though the impact of one recreational fisher may be minimal, collectively, recreational fishers can have a significant impact on our fisheries.

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and NMFS, the project was brought back to the islands. Beginning in May 2001 with four surveyors collecting recreational fishing data, the project has since grown to 12 surveyors on five islands: O'ahu, Kaua'i, Maui, Moloka'i, and the Big Island. Let it be understood that none of the HMRFS staff are enforcement officers. Though we may provide information of and encourage compliance with current fishing regulations, we are ultimately dedicated to collecting recreational fishing information only.

Unlike commercial fisheries where commercial catch data is provided directly to DAR through the mandatory submission of monthly catch reports by all licensed commercial fishers, recreational fishing data is largely unaccountable. Due to the popularity and cultural significance that fishing provides for the people of Hawai'i, the HMRFS project is dedicated to monitoring and sustaining one of Hawai'i's most valuable natural resources...our seafood! By conducting routine interviews with both shoreline and private boat fishermen statewide, the project provides both State and Federal agencies with continuous baseline data on

recreational catch that is vital to the responsible management of Hawai'i's fishery resources. By integrating catch data (eg. species caught, length, weight and catch disposition) and effort data (eg. hours fished, areas fished, target species, gear types and fisher demographics) with U.S. Census data, estimates of fishing pressure and total landings of Hawai'i's various marine recreational fisheries are calculated and publicly posted via NOAA's website. Currently, NOAA is working on further improving the accuracy of the fishing effort data which will result in more accurate estimates of Hawai'i's recreational catch.

Thus far, the vast majority of the recreational fishing data for Hawai'i is collected by the HMRFS project. In order to manage our fisheries more effectively, the State needs to incorporate recreational fishing activities into the picture. The more interviews that we collect will, in turn, provide resource managers with a more accurate picture of what Hawai'i's recreational fishermen are doing. In the event a catch share program is initiated in Hawai'i, HMRFS data would provide the primary voice for Hawai'i's recreational fishing community. For more info on

catch shares, read the story *Why Participate?* on the next page... ♠



HMRFS Staff. Front row, left to right: Steve Kaneko, Nate Nam, Jason Chang, Tom Ogawa and Genesis "Jinx" Enos. Back row, left to right: John Dill, Matt Dill, Brian Esteban, Richard Beebe, Larry Spalding, John Burke, Gary Boteilho, Imiola Akutagawa and Patrick "Pepe" Conley.

Why Participate?



Photo: Scott Lawcett

Increasing attention on recreational fishing activities (including the charter boat sector) by the Federal government has resulted in multiple initiatives that may affect Hawai'i's non-commercial fishers in the near future. The reauthorization of the Magnuson-Stevens Fishery and Conservation Act in 2007 has rekindled efforts to reassess and improve upon the existing management strategies of US fisheries. Among those initiatives is a congressional mandate to set annual catch limits (ACL) for all federally-managed fishery species by 2011. Though the deadline may have been set prematurely, the motivation to set catch limits is still active and gaining momentum in other US coastal states. Simply put, an ACL is a cap or maximum allowable harvest, usually measured in total pounds landed, for a given species or species complex. An example of an ACL is the total allowable catch (TAC) of the deep-seven bottomfish here in Hawai'i. The federal ACL initiative

has further resulted in the establishment of the Catch Share Policy Task Force which will be dedicated to implementing catch share programs for all federal commercial and recreational fisheries. Catch share refers to management strategies that allocate portions of a fishery to groups and even to individuals. Under a catch share program, harvest quotas are allocated (sold) to different fishing groups within a particular fishery and closes the fishery when the ACL is reached.

How does this affect Hawai'i's recreational fishers? A catch share program for heavily targeted species in local waters, both offshore as well as in-shore, is not unrealistic given the Fed's new incentives. Resource managers have traditionally incorporated fisheries data that have been collected over many years to assess the status of a particular fishery. If managers are to set recreational ACLs for some of Hawai'i's species in the future, they will most likely incorporate HMRFS data in the decision-making process. The interviews collected by HMRFS surveyors statewide are, in essence, the "voice" of Hawai'i's recreational fishers. The data collected by the HMRFS project will provide the "paints" needed to produce a "picture" of the recreational fisheries in Hawai'i; the

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more “paint” available means more detail and will thus result in a more accurate “picture” of our fisheries. For example, in the graphs below (see Figure 1), recreational catch estimates for yellowfin and bigeye tunas are summarized by total pounds landed by non-commercial fishers in Hawai‘i from 2003 to 2010. Data from the interview surveys as well as the telephone surveys were combined with US Census data to produce these “pictures” of our ‘ahi fishery. Other periodic surveys such as the Hawai‘i Recreational Fishing Expenditure Survey which assesses the social and economic importance of recreational fishing in Hawai‘i, would also contribute information used toward allocation decisions. Therefore, less participation with the HMRFS surveys and other related surveys limits the amount of information available for managers to make proper assessments and may ultimately result in less fish allocated to Hawai‘i’s recreational fishers in the future.

If you are one of Hawai‘i’s many recreational fishers, you are highly encouraged to participate with the HMRFS surveys. By not participating with the surveys, Hawai‘i’s recreational fishers may lose in the long run if and when recreational ACLs are imposed. For example, ‘ahi are among the most highly prized—and thus most valuable—catches by Hawai‘i’s recreational fishers. Typically, however, HMRFS surveyors are rarely given the opportunity to positively identify, measure and weigh the larger ‘ahi landed by recreational fishers due typically to the hassle of handling large fish or to the efforts of maintaining the minimum core temperature requirement for marketable fish kept in the same fish box. The result is that the recreational fishery for ‘ahi becomes

grossly underrepresented by many small “shibi” or juvenile ‘ahi (see Table 1 at the bottom of the next page). Less concern for minimum temperature requirements as well as relative ease of handling are the main reasons why these small fish are most commonly recorded. If a recreational ACL is imposed on ‘ahi in the future, the total catch (usually based on total pounds landed) of ‘ahi by recreational fishers will directly reflect what is recorded by HMRFS surveyors (ie. will be underestimated) and therefore the recreational allotment of ‘ahi will be much less than the actual total catch. Regardless, when the ACL is reached, the ‘ahi fishery would be closed to all for the rest of the season. The moral of the story is that participation with the survey today will help to ensure more accurate and thus better management decisions for the present as well as the future. ♠

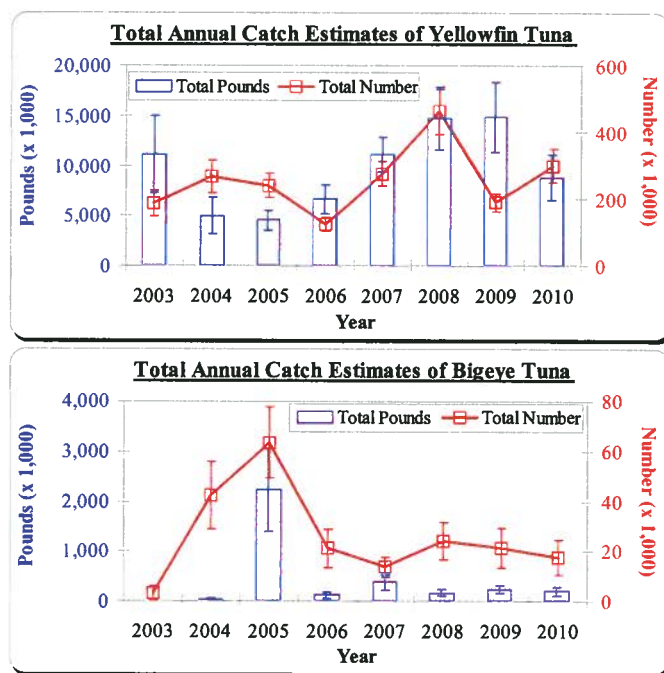


Figure 1. Total annual recreational catch estimates for yellowfin and bigeye tuna caught in Hawai‘i, calculated from HMRFS data. To learn more about the NOAA Fisheries recreational database, please visit their site at <http://www.countmyfish.noaa.gov/index.html>.

What Kine, Yellowfin or Bigeye?

Although we prefer to see and verify the species of fish that you catch as well as record lengths and weights which helps us characterize Hawai‘i’s recreational fishery more accurately, we do understand when you just don’t have the time. In the event a surveyor cannot verify your catch, they will ask you *what you caught, how many and what you will do with your catch*. Due to the similarities between yellowfin and bigeye tuna, we have provided you with some information to help you determine the species of your tuna. Your help in distinguishing between the two ‘ahi species is vital to the management of our offshore pelagic fishery. Please note that these characteristics are general guidelines and that fish size and freshness may affect some of the characteristics presented. Pictures and info from *A Handbook for the Identification of Yellowfin and Bigeye Tunas in Fresh Condition* by David Itano, Pelagic Fisheries Research Program (2004). ♠

yellowfin tuna (top-right):

- regular pattern of closely-spaced silvery lines & dots from tail to chest
- body elongate, narrower
- pectoral fins shorter, wider & stiffer
- center of trailing edge of tail forms a distinct notch (bottom-right)
- finlets bright yellow without black edges (bottom-right)



bigeye tuna (middle-right):

- irregular pattern of widely-spaced silvery lines & dots
- body deep, more rounded
- pectoral fins longer, narrower, more flexible & more pointed at tips
- center of trailing edge of tail relatively flat (bottom-right)
- finlets bright yellow with black edges (bottom-right)

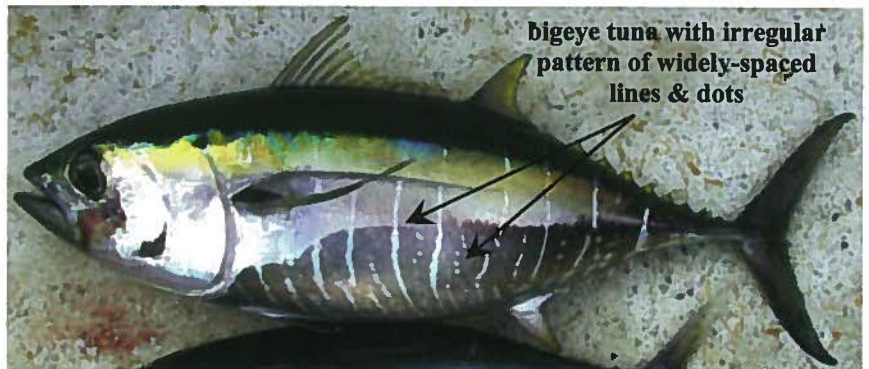
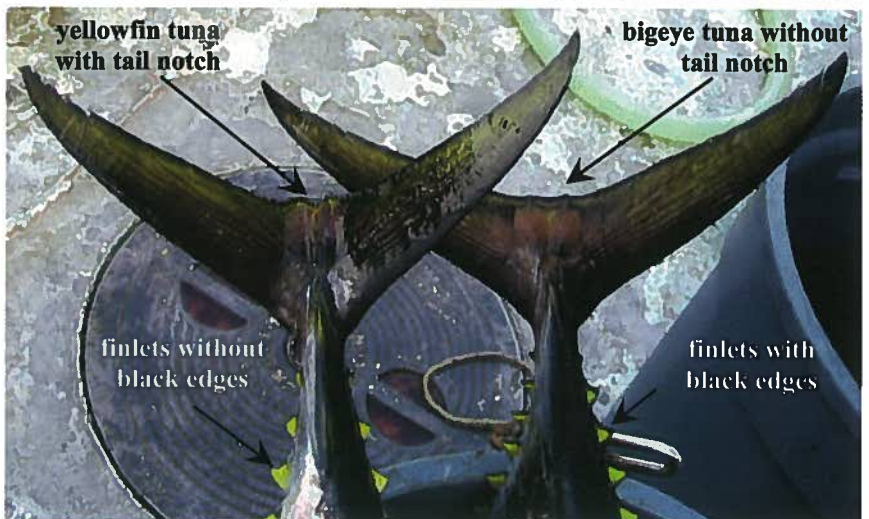
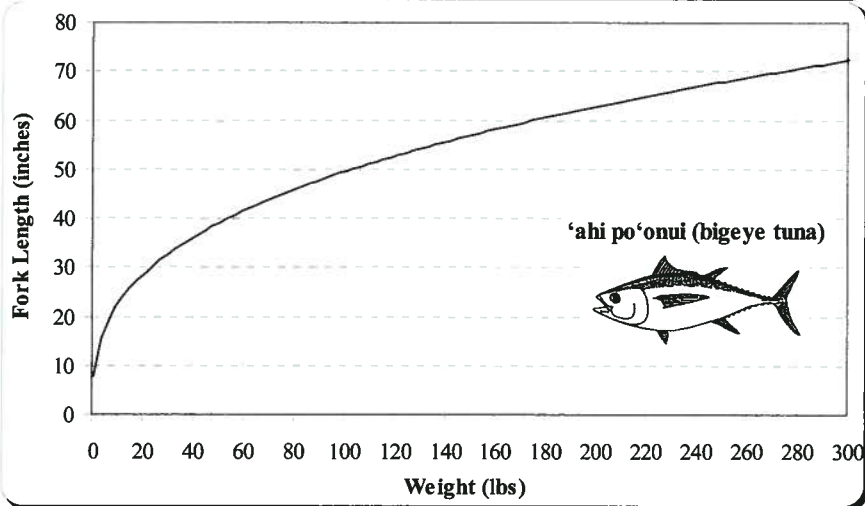
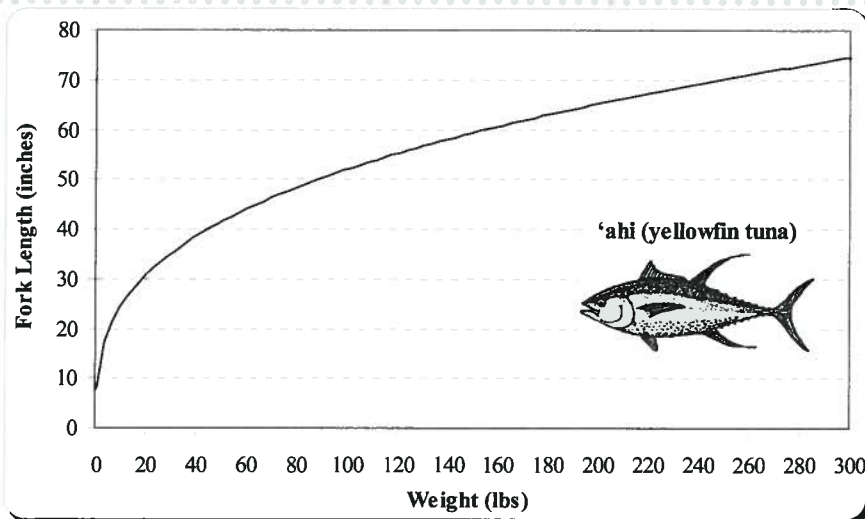


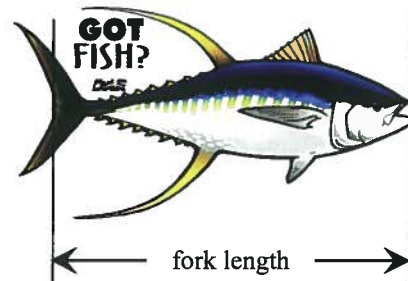
Table 1. Average size (inches, fork length) of tunas caught recreationally in both State and Federal waters of Hawai‘i (YFT=yellowfin tuna, BET=bigeye tuna, NA=data not available).

Year	YFT	BET
2003	32.1	NA
2004	21.9	29.5
2005	24.2	26.7
2006	22.5	20.1
2007	29.2	21.0
2008	27.9	31.9
2009	22.4	31.9
2010	26.6	25.2





Got BIG fish? Here's a simple alternative to weighing your next prized tuna catch without breaking your back! To begin, measure (in inches) the fork length (see diagram below) of your yellowfin or bigeye tuna. Next, find your length on the y-axis (left-hand side of the chart) then use a straight-edge to trace that length across the chart until you cross over the curved line on the graph. At that intersection, use the straight edge to then trace a line down to the x-axis (bottom of the chart) where you will find the approximate weight of your fish (data adapted from Nakamura and Uchiyama 1966). ♣



To measure the fork length, place the end of your tape measure at the tip of the fish's nose then extend the tape to the fork of the tail. Be sure to keep the tape measure tight and try to keep the tape from actually touching the fish or you may overestimate the weight. For the "gorillas," you will need two people to perform the measurement, one at each end of the tape measure.

For more information about the project, please visit our website at <http://hawaii.gov/dlnr/dar/hmrfs.html>. Your questions or comments are important to us so please let us know!

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