

# Flow of Fish

## Summary Report

*Describing the flow of fish from ocean to plate on Hawai'i Island*



Aloha mai kakou,

We wish to wholeheartedly thank all of you who so graciously gave your time in assisting with the Flow of Fish Study, an effort to better understand how locally caught seafood is used on Hawai'i Island. Your insights are the foundation of this study and the results of this work will continue to inform projects aimed at increasing seafood security and sustainability on Hawai'i Island. We thank you for your contribution and hope you find this summary document of interest.

More information (and access to the full report) can be found at [www.kohalacenter.org](http://www.kohalacenter.org), [www.hawaiiifish.org](http://www.hawaiiifish.org), or emailing [marah.hardt@gmail.com](mailto:marah.hardt@gmail.com)

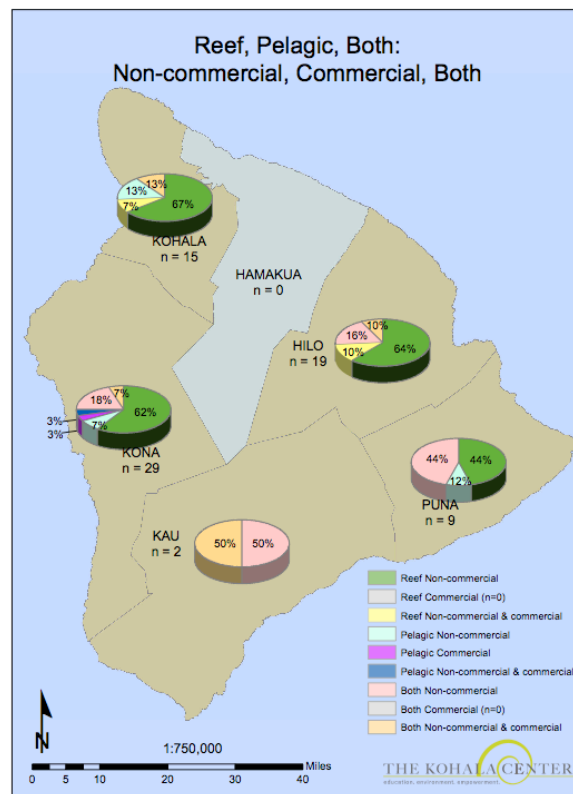


Figure 1. Types of fishers interviewed in each district.

### Project Description

The Flow of Fish study was born from the desire to help increase food-security on Hawai'i Island. Although local seafood is known to be an important part of local diet, there is currently little information about how locally caught seafood is consumed and/or distributed around the island.

The intent of this study was to listen to those who use and know the resource best in order to gather information about the movement of seafood from ocean to plate. The goals were to:

- (1) learn from practitioners, building positive relationships founded on trust
- (2) gather detailed data while protecting privacy of participants.

Interview Breakdown	
Interview type	Number of interviews
Fishers	74
Charter Boat captains	4
Restaurant Owners/Chefs	10
Retailers	8
Wholesalers/Distributors	2
Kupuna	4
Government/University experts	14

### Approach/Methods

We conducted 116 interviews —74 with fishers (ages 18 to over 75) lasting from 15 minutes to 3 hours.

Our focus was on non-commercial reef fishers, but as can be seen from Figure 1, we spoke with fishers from all categories.

Our approach was to listen and learn— no formal interview questionnaires were used. Based on our conversations, we constructed a database and plotted onto maps different aspects of fishing and fish flows. We also identified themes that emerged from the storytelling, including: a strong link between need for education and better enforcement; lack of success stories to support management ideas; and conflicting views on the philosophy of selling fish.

All data were aggregated at the level of district. We were unable to conduct enough interviews in Ka'u or Hamakua districts to draw conclusions at this time.

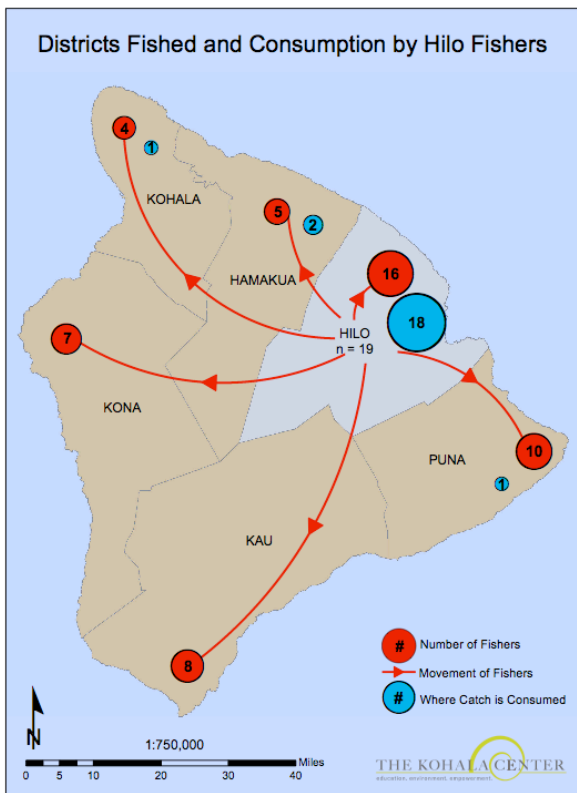


Figure 2. Movement of fishers and fish from Hilo district.

## Results

Although we require more interviews to draw firm conclusions, several patterns have emerged thus far:

- ◆ Most fish are caught and consumed within the home district of the fisher
- ◆ A third to over half of fishers in each district also fish in neighboring districts along the coast—but very few consume their fish there, leading to significant fish flows across districts (see Kona and Hilo example, Fig. 2 & 3).
- ◆ Reef/shore based fishers appear more mobile than pelagic/boat fishers
- ◆ There appears to be more movement of fishers from the east side to the west side

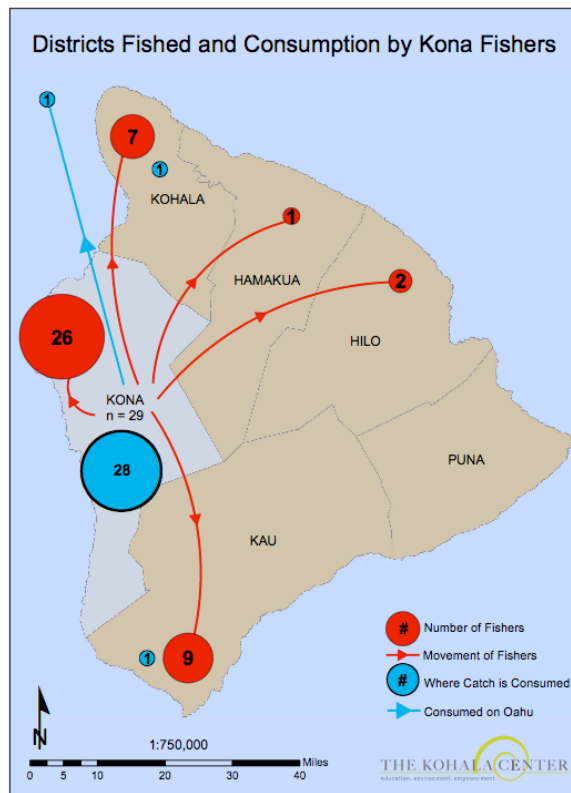


Figure 3. Movement of fishers and fish from Kona.

- ◆ There was no flow between Puna and Kohala districts
- ◆ The vast majority of fishers share at least some of their catch (see Fig 4).
- ◆ Very little fish appears to leave the island
- ◆ Almost all fishers (90%) who sell also giveaway or trade some of their catch
- ◆ Target species for each district differed (though this may be a result of low sample size).
- ◆ More than half the fishers interviewed fish more than 3 but less than 7 times a month.
- ◆ More than 75% of fishers used two or more kinds of gear (rod and reel shore-based and spear fishing shore-based were the most common in all districts)

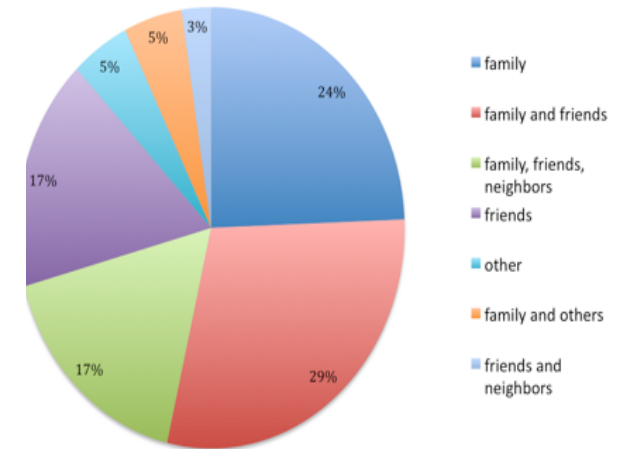


Figure 4. Distribution of catch by fishers

## Key Findings

Word of mouth referrals increased over time and proved an effective way of engaging participants. This approach requires more time but leads to stronger, more positive relationships that can serve as strong foundations for future work.

Sharing catch is integral—and extends beyond family. Many fishers noted that sharing with those in need in their community was an important aspect of their fishing practice.

Movement of reef fish outside of commercial markets does take place, but appears variable over space and time.

More research is needed to determine how much local seafood contributes to individual diets, but it appears a significant component for fishers and their families.

This is a Kohala Center study supported by the Hawaii Fish Trust, a program of Conservation International. See [www.hawaiifish.org](http://www.hawaiifish.org) for details on continuing projects.