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Source: Pacific Science, 67(3):345-359. 2013.

Published By: University of Hawai'i Press

DOI: <http://dx.doi.org/10.2984/67.3.4>

URL: <http://www.bioone.org/doi/full/10.2984/67.3.4>

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Seafood and Society on O‘ahu in the Main Hawaiian Islands¹

Edward Glazier,^{2,6} Courtney Carothers,³ Nicole Milne,⁴ and Melissa Iwamoto⁵

Abstract: Social, cultural, economic, and environmental aspects of fishing are central considerations in contemporary fishery management decisions. Yet scientific research supporting such decisions around the United States has tended to focus primarily on environmental and economic aspects of marine fisheries. In this article we report on a project that was designed to improve understanding of social organizational aspects of fishing and potential intercommunity variability in patterns of seafood distribution in the Main Hawaiian Islands. Research methods included an extended period of ethnographic observation and in-depth interviews with networks of avid small-boat fishermen in two communities on the island of O‘ahu. Findings make clear that the pursuit and distribution of seafood products are important organizing features of local societies in Hawai‘i and that the nature and extent of selling, sharing, and consuming pelagic seafood vary between the study communities, indicating likely variation in the nature and extent of use of seafood landed elsewhere in the Islands. These findings ideally would be taken into account in any future policy-making processes that could result in new strictures on small-boat fisheries in this island region.

IN THIS ARTICLE we review select findings from a project that was designed to describe and analyze human dimensions of small-scale open-ocean fishing and distribution of pelagic seafood in the Main Hawaiian Islands (MHI).

The principal intent of the work was to document patterns of seafood distribution among fishermen and test the hypothesis that such patterns vary between island communities in relation to local sociocultural and economic conditions. The objectives of the research then, were to develop working relationships with avid boat-based fishermen in two island communities in order to generate a valid description of pertinent fishing activities and comparative analysis of seafood distribution, and disseminate project findings for use by marine resource managers and other persons with interests in small-boat fishing activities and use of pelagic seafood in the MHI.

The social and cultural significance of small-boat fishing and distribution and use of seafood are important considerations in the marine policy arena. This is true because decision makers in the United States must by law seek to sustain pelagic resources and fisheries while mitigating any deleterious human effects that could result from new regulations on fishing activities occurring in the nation’s Exclusive Economic Zone, which in Hawai‘i extends from 3 to 200 miles (4.8–321.8 km) offshore. The issues are not trivial. In Hawai‘i,

¹ This article is part of a special issue of *Pacific Science* (vol. 67, no. 3) on the Human Dimensions of Small-Scale and Traditional Fisheries in the Asia-Pacific Region, guest editors John N. (Jack) Kittinger and Edward W. Glazier. This research was graciously supported by the Pelagic Fisheries Research Program at the University of Hawai‘i at Mānoa. Manuscript accepted 10 October 2012.

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many thousands of residents are directly involved in open-ocean fishing activities, many hundreds of marine-related businesses support or benefit from such activities, and hundreds of thousands of residents and visitors consume locally landed seafood each day of the year. Pelagic fish, especially the tunas, are by far the most commonly landed and consumed species in the Hawaiian Islands (cf. Geslani et al. 2012).

MATERIALS AND METHODS

Social science research methods were used to describe and assess the activities of small-boat fleets operating from Wai‘anae (pop. 13,000 persons in 2010) on O‘ahu’s Leeward Coast, and from Hale‘iwa (pop. 4,000 in 2010) on the island’s North Shore (U.S. Census Bureau 2010). The methodology involved the following elements: archival research in various regional repositories; examination of previous analysis (Glazier 2002, 2007); in-depth interviews with fishermen and public officials regarding the subject fleets and communities; and nonobtrusive and participant observation of small-boat commercial, charter, recreational, and consumption-oriented operations at each study site. The principal focus of the interviews and observational research was on: (a) the manner and extent of interaction between fishermen, including at-sea cooperation and interpersonal transfer of knowledge about fishing and the marine environment; (b) the type, amount, and final disposition of pelagic seafood captured by the participating fishermen; and (c) social and cultural dimensions of fishing and consumption of pelagic seafood in familial and community settings.

Research participants were systematically identified through a social network sampling process wherein public officials familiar with the communities recommended initial contact with select individuals commonly known to be highly knowledgeable of fishing and related aspects of local society. Such persons were then interviewed and subsequently asked to identify other seasoned and knowledgeable fishermen with whom they regularly interact in the community. The process was repeated

until no new persons were named and a basic understanding of networks of interacting fishermen was generated. Readers are referred to Hanneman (2001) for a discussion of this method and its utility in social science research. The approach is particularly useful for identifying groups of interacting individuals who are knowledgeable of marine resources and the nature of their use by small maritime societies (cf. Glazier and Kittinger 2012).

We observed, discussed, and systematically documented fishing activities and distribution and use of seafood in and beyond the study communities. Interviews often led fishermen to invite the researchers to undertake fishing trips and to attend social gatherings. These events included pā‘ina (informal parties), baby and graduation lū‘au (celebratory meals), funerals, weddings, banquets, boat blessings, fishing tournaments, and boat club meetings. Observation and documentation of such functions were important because the events invariably prioritized use of locally caught seafood, patterns in the pursuit, distribution, preparation, and consumption of which were topics of central importance to the study.

RESULTS

Fishing Knowledge and Knowledgeable Fishermen

The social network sampling process made clear the identities of the most knowledgeable, experienced, and productive local fishermen in the two communities. This was validated through ethnographic observation and through discussions with long-time observers, such as harbormasters and elderly but still active fishermen.

An important concept in social network analysis is that of centrality. This is a measure of the strength of a given individual’s connectedness with others in a specific domain of human knowledge and behavior; in this case, knowledge of small-boat fishing in the deep sea surrounding O‘ahu. (Vessels used by captains involved in this study ranged from about 16 to 32 ft or 4.87–9.75 m length overall). Centrality is exemplified in Figure 1, wherein

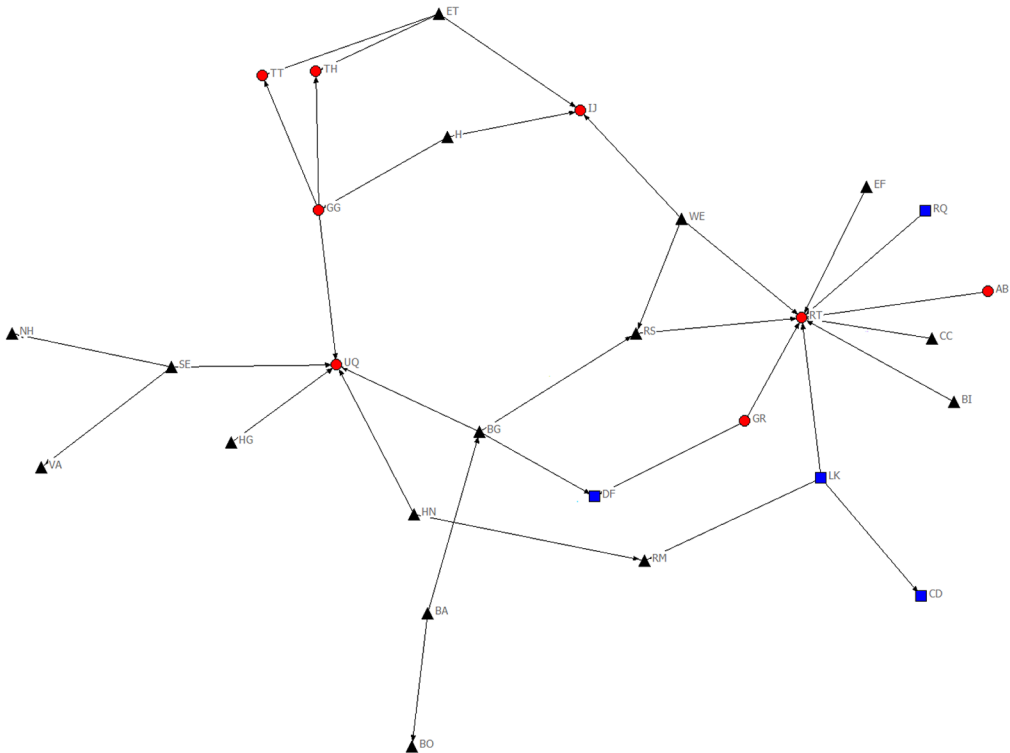


FIGURE 1. Depiction of knowledge-sharing network: Hale'iwa. Circles depict fishermen who sell the majority of their catch. Squares depict charter-boat operators. Triangles represent mixed-motivation and consumption-oriented fishermen.

a certain commercial fishing captain (here represented by initials RT) assumes a particularly centralized position in an otherwise diffuse Hale'iwa-based network (Freeman's degree centrality = 9.4 percent), indicative of his extensive peer-recognized knowledge of pelagic fishing.

Notably the most centralized captains in both networks are part- or full-time commercial fishermen. Given their dedication to fishing and their extensive experience and knowledge, it is often the case that successful commercial fishermen have achieved enhanced social status in their home communities (cf. Glazier 2007) and as such are often sought out for advice on a variety of matters related to fishing.

Various forms of information are reciprocally traded or freely shared between certain

fishermen in the respective networks. Some kinds of information are particularly important. This includes, but is not limited to: (a) the current status of the overall bite (the presence of feeding fish along a given part of the island or island district); (b) specifically where and when to find schools of pelagic fish and which environmental cues to look for; (c) which lures, bait, and/or gear configurations are working best in which locations; (d) the recent fishing-specific challenges and successes of locally respected fishermen; and (e) market prices currently being paid for various species. Such information was found to be so important among avid pelagic fishermen that it may be considered a highly valued social resource in itself. The level of detail communicated between the participants tends to differ based on the general nature of the

relationship and whether or not the fishermen share an interest in the outcome of a given trip.

Although the extent to which pelagic fishermen trade or share their knowledge and interact with others varies considerably, it can be said that true individualist-fishermen are rare in Hawai'i. Even the most aloof and reticent pelagic fishermen have been observed sharing certain information with others. Trip-specific information is typically communicated at sea by cell phone or VHF radio; and by phone, e-mail, and direct conversation at trip's end.

Generalized information is transferred in a variety of ways and places. In the case of the current research, such communication was often observed during fishing club meetings. Indeed, fishing hui (clubs or associations) enable avid fishermen in both Hale'iwa and Wai'anae to regularly engage in "talk story" sessions about recent fishing trips and to discuss fishery management policies, ocean access issues, fuel prices, regional and national economic problems, and other factors that affect the lives of all contemporary small-scale fishermen and their capacity to harvest seafood. Hui representatives sometimes interact with government agencies, discussing local interests and concerns with resource managers and bringing official information back to the fishermen.

Fishing club meetings, fishing tournaments, and informal gatherings also function as venues through which knowledge and cultural values can be shared between participants of various ages and levels of skill. These venues often facilitate intergenerational teaching of fishing techniques and navigational skills, discussion of ecological matters, and development of fishing strategies befitting current environmental conditions.

All commercial fishermen involved in this and related studies report a variety of economic challenges to the fishing operation and/or household economy. These challenges are amplified at times, and previous research (Glazier et al. 2009) clearly indicates an inverse relationship between the status of the region's economy and levels of participation in the state's small-boat commercial fisheries.

That is, participation tends to increase during periods of economic recession and diminish when reliably profitable employment options are available in other sectors. Availability of fish and market prices obviously also factor into this relationship. Economic imperatives can and often do force island fishermen into other forms of employment.

Cooperation among Fishermen

Although the sampling approach enabled identification of networks of interacting commercial, recreational, and consumption-oriented fishermen, it is notable that these operational distinctions often blur in reality. That is, many fishermen in Hawai'i often operate based on more than one motivation, and the outcome of a given trip often determines how it is most accurately characterized. For example, a Wai'anae-based fisherman may set out from the harbor with the intent of catching fish to sell, but a less than optimal catch or unfavorable prices at the marketplace may ultimately lead him to share and/or consume the catch. For the analytical purposes of this study, fishermen who regularly alternate between commercial and noncommercial motivations and outcomes were categorized accordingly.

The lines between captains depicted in Figures 2 and 3 indicate at-sea cooperative relationships reported by the fishermen during the interview process. As can be discerned from the figures, the network of fishermen in Hale'iwa is somewhat centralized in terms of extent of at-sea cooperative relationships (Freeman's degree centrality = 24%), while the network of fishermen in Wai'anae is relatively more diffuse in this regard (Freeman's degree centrality = 7%). Thus, the purposeful fishing-specific form of interpersonal cooperation at sea that is represented in the figures is relatively more extensive among fishermen in the Hale'iwa network. Additional research is needed to better understand this difference, although it may relate in part to the desirability of consistent interaction between the Hale'iwa captains given the perennially rough surface conditions that characterize the ocean along the tradewind-exposed North Shore.

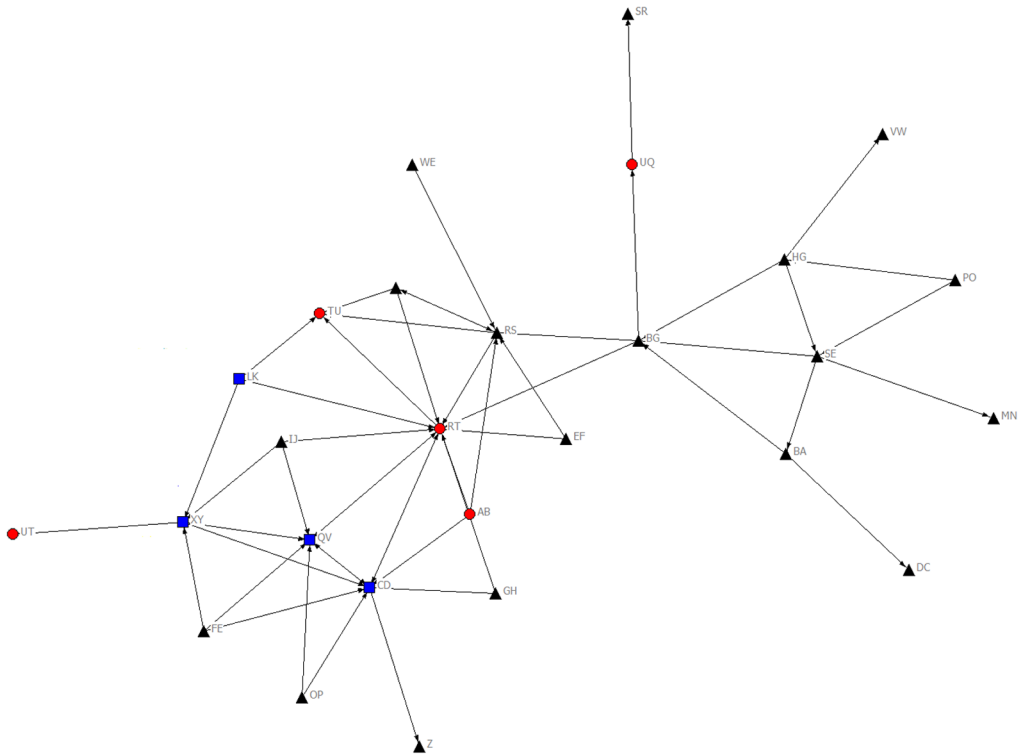


FIGURE 2. Network of cooperating Hale'iwa-based fishing captains. Circles depict fishermen who sell the majority of their catch. Squares depict charter-boat operators. Triangles represent mixed-motivation and consumption-oriented fishermen.

Although both areas are seasonally exposed to large swells, surface conditions along the Leeward Coast (Wai'anae side) are typically relatively smooth and therefore easier and safer to navigate.

In reality, essentially all of the fishermen participating in this study regularly cooperate with one or more of their peers. Cooperation is more regular among some fishermen, but readiness to assist friends and relatives in their fishing endeavors is common and widespread. Certain members of each network also regularly collaborate in certain ventures, in some cases pooling labor and/or fiscal resources in order to conduct fishing tournaments; facilitate the marketing of fish; organize, host, or otherwise contribute to familial and community celebrations at which seafood is served; assist elderly members of their social groups;

conduct at-sea funerals; repair fishing vessels and/or gear; and transport fish to the auction house or retail markets in Honolulu.

Local Patterns of Use and Distribution of Seafood

Fishermen involved in full-time commercial fishing activities naturally tend to sell the vast majority of fish landed during each successful trip. As is common practice in the Hawaiian Islands, most fish caught by charter-boat operators also is typically retained by the captain for sale at the marketplace (rather than given to the patrons, as in other regions of the United States). Personal consumption and sharing of seafood occurs on a regular basis among both commercial and charter fishermen in Hawai'i, although the need to recover costs obviously requires that most of

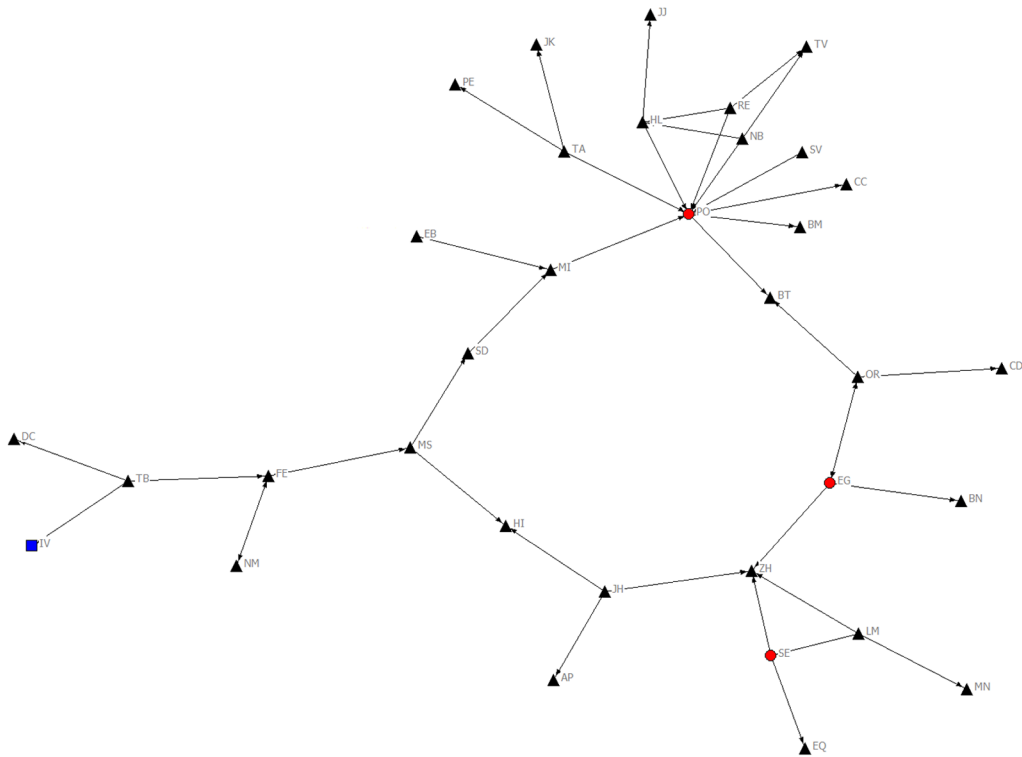


FIGURE 3. Network of cooperating Wai'anae-based fishing captains. Circles depict fishermen who sell the majority of their catch. Squares depict charter-boat operators. Triangles represent mixed-motivation and consumption-oriented fishermen.

the catch and certainly the most valuable fish are sold. As a point of reference, government data indicate that during 2007 commercial fishermen landed over 400,000 pounds (~181,437 kg) of seafood in the offshore zone most directly adjacent to both Hale'iwa and Wai'anae.

Sharing of seafood is indeed extensive in Hawai'i. Hospital et al. (2011:iv) found that 97% of 343 small-boat pelagic fishermen surveyed in 2007 and 2008 “participate in fish sharing networks with friends and relatives, and more than 62 percent consider the fish they catch to be an important source of food for their family.” Sharing of natural resources is a common aspect of social and economic interaction in certain communities on each of the main islands and can of itself be considered an organizing element of local society in

general (cf. McGregor 2007:18). Sharing is typically reciprocal in nature, though return of the gift or favor is typically delayed and need not be fully equivalent in type or value. In anthropological terms, this arrangement is known as generalized reciprocity. Other wild foods such as meat from wild boar and deer, limu (various seaweeds), and 'opihi (*Cellana* spp.) are also regularly shared in certain Hawai'i communities. One Native Hawaiian part-time commercial fisherman involved in the study expressed the importance of sharing food from the perspective of the indigenous culture, asserting that when a fisherman or hunter shares his harvest with others, “the mana (divine power, gathered in so doing) goes with him.” McGregor (2007:18) reports that most Native Hawaiian cultural practitioners believe that sharing of natural resources

is rewarded with fortunate harvesting in the future.

Individual decisions about how to use or distribute seafood vary extensively based on the needs at hand. Decisions to sell, keep, and/or share tend to be influenced by the size, quality, and quantity of fish that have been landed, and by cultural factors such as those described earlier, current market prices for the species in question, and pressing familial or community requirements for seafood, such as an imminent birthday or holiday. Certain species tend to be in great demand during the winter holiday season, and prices may be particularly high if availability is limited. These include 'ahi (*Thunnus albacares* [yellowfin tuna]), po' o nui (*Thunnus obesus* [bigeye tuna]), and bottomfish species such as onaga (*Etelis coruscans* [ruby or long-tail red snapper]) and 'opakapaka (*Pristipomoides* spp. [Hawaiian pink snapper]).

Some noteworthy differences in patterns of pelagic seafood distribution were detected between sampled fishermen in Hale'iwa and Wai'anae (Figure 4). The Hale'iwa network involved 28 captains: four full-time commercial fishermen, three charter operators, and 21 mixed-motivation fishermen (14 part-time commercial operators and seven consumption/recreation-oriented fishermen). Full-time commercial fishermen in the

Hale'iwa network reported selling 86% of all pelagic fish during the year before the study, sharing 9%, and consuming 5%. Hale'iwa-based charter fishermen reported selling 93% and consuming and/or sharing 7%. The part-time commercial group reported selling 67%, sharing 27%, and consuming 6%. Finally, the consumption/recreation-oriented group reported selling no fish, sharing 56%, and consuming 44%. Of note, Hale'iwa-based fishermen who distributed fish to others typically did so across a relatively extensive geographic range that included numerous locations on the opposite side of O'ahu (Figure 5).

The overall situation was quite different among the Wai'anae network, which involved 24 fishermen: five full-time commercial captains, one charter operator, and 18 mixed-motivation fishermen (five part-time commercial fishermen and 13 consumption/recreation-oriented fishermen). The full-time commercial captains collectively reported selling 69% of pelagic fish landed the previous year, sharing 18%, and consuming 13%. The sole charter operator adopts the locally atypical policy of giving some fish to his clients; and most of the pelagic fish he retains is shared with members of his 'ohana (extended family). The part-time commercial captains reported selling 38%, sharing 46%,

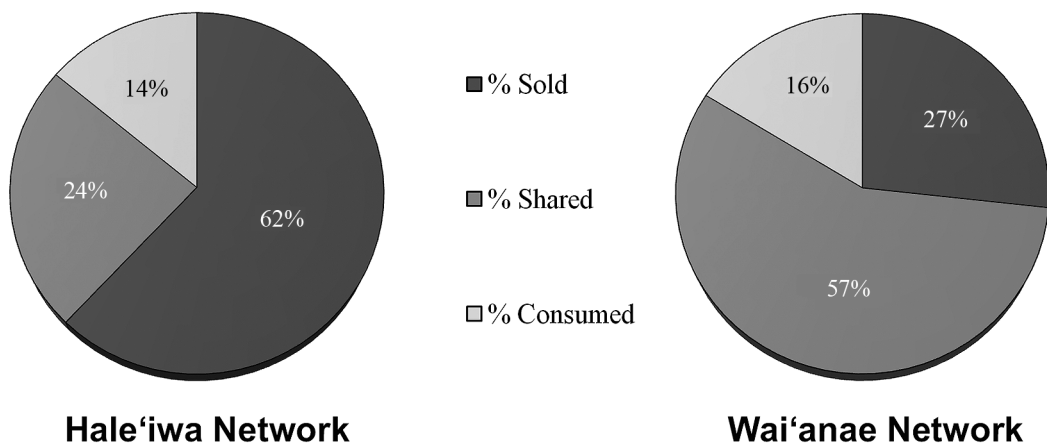


FIGURE 4. Use of pelagic seafood during the preceding year as reported by participating captains in 2008.

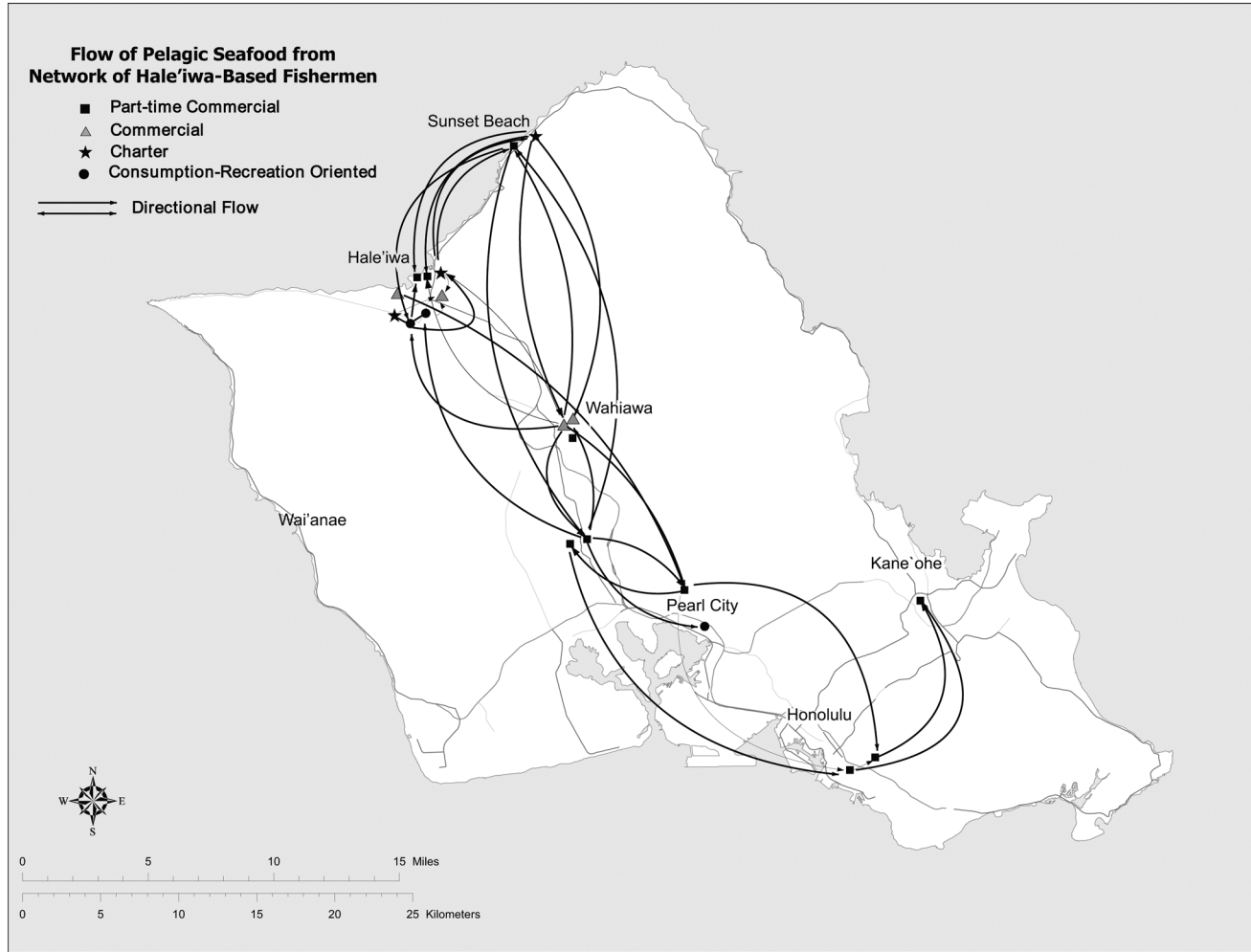


FIGURE 5. Spatial distribution of seafood landed by captains in the Hale'iwa-based fishing network.

and consuming 16% of fish landed the previous year. The consumption/recreation-oriented group reported selling no fish, sharing 67%, and consuming 33%.

In sum, relatively less overall sale of fish and a higher percentage of sharing seafood with family and friends were noted among members of the Wai'anae network. Moreover, although Wai'anae-based fishermen distributed seafood to Honolulu and elsewhere on the island, the majority of landings tended to be distributed within a more restricted geographic range than noted among the Hale'iwa network (Figure 6).

DISCUSSION

Intercommunity Variation and Similarities

We posit that, apart from differences in the structure of the networks and the personalities of the fishermen, observed differences in patterns of seafood distribution in this case relate to three principal factors. First, the greater extent of selling noted among the Hale'iwa fishermen relates to the fact that Hale'iwa has become an important tourist destination with various opportunities for fishermen to sell their products to local restaurateurs. Numerous Hale'iwa-based fishermen also transport their catch to the public auction in Honolulu. In contrast, opportunities for local sale of seafood are less common in Wai'anae, and fishermen in the Wai'anae network report carrying their fish to the auction block relatively less frequently. Notably, the trip to "town" (Honolulu) is relatively more direct and quicker from Hale'iwa than from Wai'anae.

Second, patterns of residence vary considerably between the networks. Although roughly half of the fishermen in the Hale'iwa network reside in Hale'iwa and nearby areas of the North Shore of O'ahu, the remainder retain a close affiliation with Hale'iwa but actually reside in various small towns and neighborhoods in central O'ahu. Some such captains moor their vessels at the Hale'iwa boat harbor, and others transport them to the harbor boat ramp by trailer. This is unlike the situation among fishermen in the Wai'anae

network, almost all of whom reside within a few miles from the harbor. Given a tendency among all fishermen involved in this study to share seafood with friends and relatives in their home communities, the pattern of distribution of shared fish is accordingly more spatially diffuse among the Hale'iwa network and relatively more geographically restricted among the Wai'anae network.

Finally, there are differences in economic and cultural context. Based on the results of the 2010 decennial census, nearly 15% of Wai'anae families reported income levels below the poverty threshold. Just over 7% of Hale'iwa families reported this status, with similar rates reported in the central O'ahu communities in which certain fishermen in the Hale'iwa network reside. Median household income was \$63,408 in Wai'anae, and \$74,384 in Hale'iwa, with similar values reported in central O'ahu communities (U.S. Census Bureau 2011). All areas are ethnically mixed, though 45% of residents reported two or more racial ancestries in Wai'anae, while only 31% of Hale'iwa residents did so. Finally, nearly 45% of Wai'anae residents reported Native Hawaiian or other Pacific islander ancestry, and 26% of Hale'iwa residents reported this heritage, with lower percentages reported in the central O'ahu communities (U.S. Census Bureau 2010).

Although sharing of fish occurs extensively across the study areas, sharing may play a more vital role in ensuring food security in Wai'anae. Native Hawaiian heritage is important in this analysis in that there is a well-developed capacity among this group to maintain and evolve traditional knowledge and customary values amid the social and economic pressures of modern capitalism (cf. Glazier 2002, 2007, McGregor 2007, Andrade 2008). Sharing of fish and other natural resources, and use of such resources in localized systems of reciprocity and customary exchange are particularly notable in this context (Severance 2010, Glazier and Kittinger 2012).

There also are important similarities between the study communities. For example, regardless of place of residence on O'ahu, fishermen who were born or raised in the

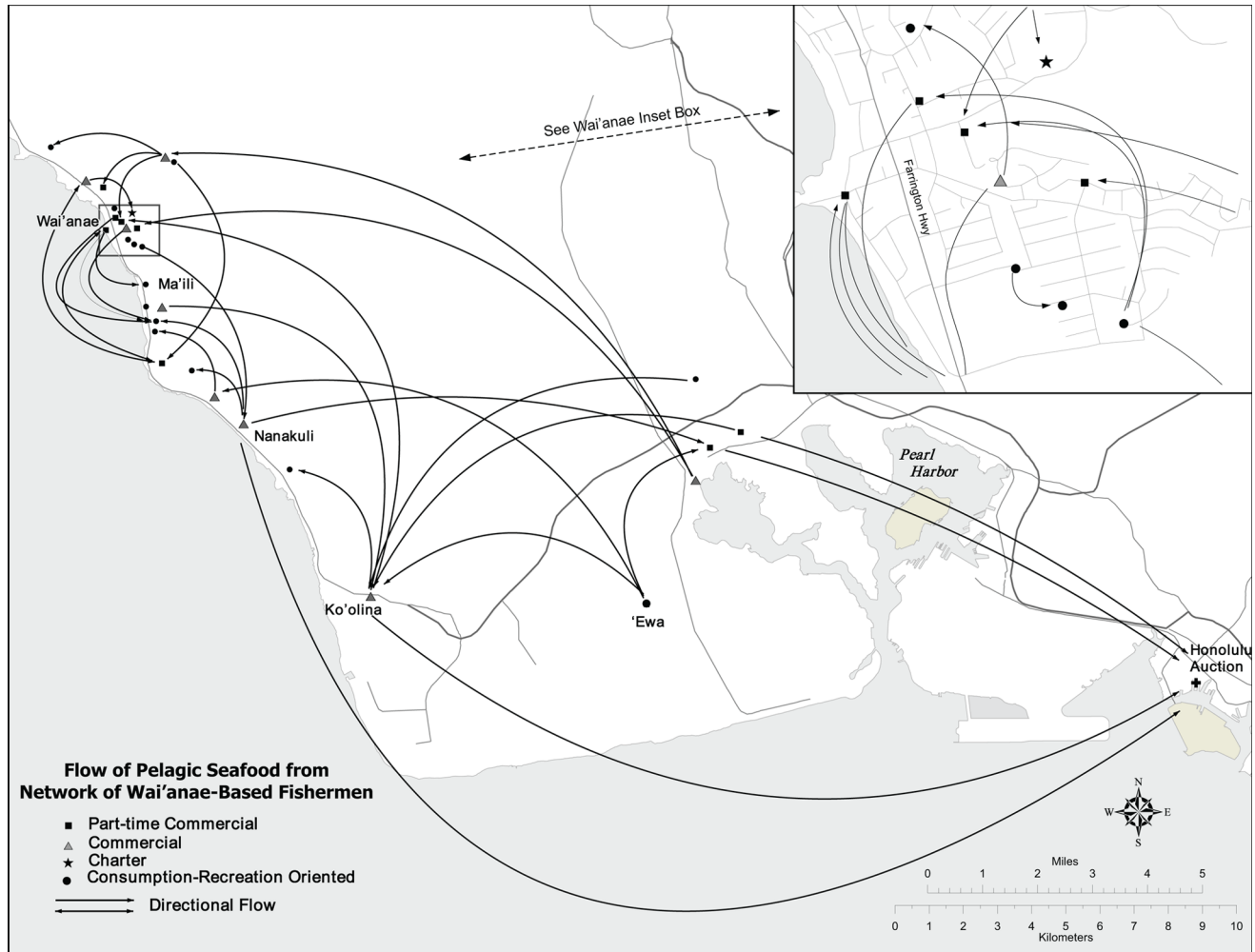


FIGURE 6. Spatial distribution of seafood landed by captains in the Wai'anae-based fishing network.

Islands very typically state awareness of traditional Hawaiian values that emphasize the importance of: (a) the 'ohana, or extended family, and contributing to it in some fashion; (b) kōkua, or cooperation with others to achieve specific goals; (c) mahele, or sharing goods or services with others; and (d) mālama, or stewardship of family, self, land, and sea. There certainly are exceptions, of course, but a great deal of social activity among local residents in many communities around Hawai'i is influenced by these values, as can be observed in the act of fishing, in activities that support local fishermen and fishing fleets, and in the sharing and consumption of seafood.

Fishing and Seafood as Organizing Elements of Local Society

This study makes clear that fishermen in Hawai'i regularly interact and cooperate to achieve various goals that extend beyond the individual to the extended family and larger society, thereby serving to organize aspects of that society. Another important finding of this study is that seasoned fishermen tend to be well respected in their home communities. This relates to widespread understanding of the skill and fortitude involved in fishing on the open ocean around the most remote and swell-exposed archipelago on earth, and because the fishermen capture and transact a product that is a valued part of the local diet and an essential ingredient of successful social gatherings. Ongoing observation of fishermen and discussions with local people other than fishermen make this abundantly clear.

Pursuing seafood, especially by boat, requires considerable investment of time, money, metabolic energy, and cooperative social involvement. Success at sea yields individual and collective benefits, such as a direct source of high-quality protein and other nutrients; dietary materials for commercial sale, reciprocal exchange, traditional consumptive use, or altruistic giving; and potentially enhanced relationships among the harvesters and between the fishermen and those benefiting from the results of their labor. All aspects of fishing involve people and their time and

resources, and, as such, the activities logically and demonstrably play a role in organizing society and furthering local customs and ways of life.

To lend empirical substance to the assertion that fishing and the distribution of seafood are important organizing elements of social life in Hawai'i, we provide a descriptive account of one of the fishing trips taken by project ethnographers during the course of the project (see following Appendix). The description is focused on the nature of interaction between a particularly seasoned and knowledgeable captain, his crew, and the marine environment, and the ultimate disposition and use of the catch in the home community. Each of these elements is intended to facilitate, through observation-based description, an improved understanding of how seafood generally "flows" from point of capture to point of consumption, and how this process contributes to social life in a real-time setting in the Hawaiian Islands. The narrative takes on the qualities of a "story." But the content is empirical, and although a single trip is described here, long-term observation (cf. Glazier 2007) makes clear that hundreds of trips with similarly mixed motivations and evolving outcomes are undertaken from boat ramps and harbors on O'ahu and the neighbor islands each day of the year. Fishing techniques can differ, of course, and rates of selling, sharing, and consuming pelagic seafood have been shown to vary between the communities examined in the current study. Yet the basic act and purpose of small-boat fishing is quite similar across the Islands. The principal goal is to capture fish for people to eat. Dedicated commercial fishermen often report that they derive satisfaction from providing the public with high-quality seafood, and it is typically the case that such captains also enjoy sharing part of their catch with others. A recreational experience pervades noncommercial small-boat fishing in Hawai'i, but the activity is best described as holoholo lawai'a: an enjoyable means of harvesting food from the sea. The catch-and-release recreational objectives that are popular on the continent are largely absent here.

CONCLUSIONS

In this paper we have examined select aspects of the capture, distribution, and consumption of pelagic seafood among networks of active fishermen on the island of O'ahu in the Hawaiian archipelago. The research illustrates: (a) how local supply of seafood is mediated through complex interpersonal and societal interactions; (b) how and why the end product is valued in market settings; and (c) how and why it is distributed and used in ways that are not readily expressed solely in terms of a market economy. Sale of seafood certainly is important among select participants, and some of the fishermen in the study networks rely extensively on fishing-related income. But it is instructive that, even among full-time fishermen, it is consistently the case that a portion of the catch is consumed and/or shared with others. Thus, although the extent and spatial patterns of selling and sharing seafood have been found to vary between the study communities, all fishermen in both networks take part in some combination of the following: (a) extensive consumption of seafood in extended family settings; (b) frequent pursuit of seafood for use in social celebrations; (c) reciprocal sharing of seafood with others; (d) commercial sale of seafood, wherein a portion of the proceeds are reinvested into both the fishing operation and the household economy; and (e) altruistic gifting of seafood products.

Based on the findings of this study, it can be said that the local realities of the seafood supply and demand equation in Hawai'i are variable, complex, and replete with sociocultural and dietary importance. Small-boat fishing in the open ocean clearly remains an important organizing aspect of local society in the Hawaiian Islands, and locally landed seafood is valued in a variety of ways and for a variety of purposes. Ideally, this paper will contribute to the body of information needed by marine resource managers and policy makers to make informed decisions regarding: the sustainability of the region's pelagic resources; opportunities for small-boat fishermen in Hawai'i to pursue such resources for commercial and noncommercial purposes;

and the best interests of consumers residing in communities that exhibit differing social, demographic, and economic conditions and patterns of use of pelagic seafood.

ACKNOWLEDGMENTS

We offer a warm thanks to the many O'ahu fishermen and family members who contributed their time and energy to make this project a success, and to the following individuals who graciously supported the work in a variety of ways: Paul Sensano, Hale'iwa harbormaster; William Aila, Wai'anae harbormaster; John Sibert, Kevin Weng, Dodie Lau, and David Itano, Pelagic Fisheries Research Program, University of Hawai'i at Mānoa; John Petterson, Impact Assessment, Inc.; and Stewart Allen, NOAA Pacific Islands Fisheries Science Center, Human Dimensions Research Program.

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- many local residents. The harbor parking lot is nearly empty at this hour. But as the light grows in the eastern sky, a variety of old cars, trucks, and vans filters into the lot. A couple of elderly Filipino men are already fishing for mullet (*Mugil cephalus*) at harbor's edge.
- Keone typically fishes with two assistants. Thomas is Keone's son, and James is a family friend and retired carpenter who has been fishing on the *Ana Malia* for about 10 years. Thomas takes on other sorts of work around the island when he is not fishing.
- The first task this morning is to capture baitfish in a swell-protected area near the harbor. The crew deploys a seine net from a small skiff, encircling the bait until enough is captured for the trip. Today the crew finds sardines (*Sardinella marquesensis*) rather than the preferred nehu (*Stolepborus purpureus* [anchovies]). Uncle Keone says that although the sardines are sufficient for his style of fishing for aku (*Katsuwonus pelamis* [skipjack tuna]), they tend to dart off when scattered behind the vessel, whereas nehu tend to stay with the boat, thereby more effectively attracting the tuna. The captain uses a pump system to spray water on the surface behind the vessel. When used in conjunction with live bait, this simulates a feeding frenzy and further attracts the targeted species of fish. The men have some 200 pounds [91 kg] of sardines to work with today. This method of fishing is similar to that used by the commercial aku fleets around the Hawaiian Islands during much of the twentieth century (see Wilson 2011).
- As additional preparations are made for departure, a middle-aged local man approaches the dock and makes a request for some fish when the boat returns. "I'm parked right over there," he says with a smile.
- The crew finishes loading nine 50-pound [22 kg] bags of ice that were purchased the night before from a fellow in town who specializes in ice sales. The tank is topped off with fuel from the harbor pump. Once started, the inboard engine vibrates the entirety of the 32-foot [9.75 m] vessel, making it difficult to hear over the mechanical churning. The boat itself may well be the most seasoned in the harbor, and this is apparent despite a recent painting.
- James starts unpacking some of the bamboo aku poles and unravels a well-worn black tarp, securing it tautly above the fish hold on the stern deck. The tarp has a large gusseted hole in its center. When the crewmen later fling aku onto the slick material, the fish slide through the hole and into the icy brine that fills the hold below.
- As *Ana Malia* steams out of the harbor and begins the roughly 15-mile [24 km] voyage toward the state-maintained fish-aggregating device we will refer to as buoy 12, Keone shouts "looks choppy out there!" He seems to have some uncertainty about making the bumpy trip north and decides to call his friend Richard, who has been fishing around the buoy for the last couple of days. Richard is one of the most active commercial fishermen in the area, and the information he provides clearly is much valued by Keone. Richard says there are good-sized aku running at the buoy,

Appendix

Participant Observation of a Live-Bait Aku Trip Aboard the *Ana Malia*, May 2007^a

Roosters call as the sun begins to rise above the boat harbor. There are large cumulus clouds to the south, and the air is still, unlike yesterday when particularly strong trade winds kept many boats in port. Uncle Keone (John, in Hawaiian) sits in a truck in front of his boat. A hand-painted sign near an adjacent vehicle reads Akule For Sale. Akule is *Selar crumenophthalmus* or bigeye scad, a neritic-pelagic species savored by

some in the 12-pound [5.4 kg] range. This convinces Keone that the trip is likely to be worth the effort and expense. Uncle says he often calls Richard for this sort of information and that Richard is generally happy to share it, at least with his close friends.

Quartering a northeast trade swell at around 7 knots [13 km/hr], it takes about an hour and a half to reach the general destination of buoy 12. At one point, midway through the voyage, Keone notices a flock or “pile” of birds off to the west and turns in their direction, calling out to Thomas to turn on the water jet and begin spreading the sardines. The captain says that the ‘iwa birds (*Fregata minor* [great frigatebird]) that are currently flying around the boat indicate the presence of mahimahi (*Coryphaena hippurus* [dolphinfish or dorado]), rather than aku. The traditional avian indicator of aku (the “aku bird”) is noio kōhā (*Anous stolidus* [brown noddy]). Neither aku nor mahimahi rise to the surface, and after a time the men continue onward.

Ana Malia reaches buoy 12 just before 9 a.m. The air smells fishy and there is much activity here: aku birds alternately lift and dive, and the surface roils with baitfish and larger predators. Thomas and James stand barefoot at the stern with poles in hand, each of which is rigged with a short but stout piece of monofilament and a small reflective lure attached to the eye of a large barbless hook. The men are visibly tense and attentive. Keone puts the vessel in neutral and leaves the helm to fling handfuls of sardines over the stern, bringing a rush of aku to the surface. Biting at anything that flashes, the fish mistake the shiny rig for bait and strike with great force. Thomas and James react accordingly, setting the hook and deftly leveraging the creatures upward and backward over their shoulders. A distinct forward flicking motion releases the fish onto the tarp and into the icy hold.

But these particular aku are formidable. Thomas’ first fish breaks his pole [!], and thus a sturdier set of double-rigged poles is retrieved from a pilothouse closet. The two men cast the short lines and then, in coordinated fashion, slowly drag the hook and lure just or at below the surface. The process is repeated until a fish is hooked. Each time James gets hana pa’a (hooked up), Thomas encourages him by shouting “Up, Bruddah James, up, up, up!”

Another small boat is also working around buoy 12. Keone knows the captain, and thus initially he deems it acceptable when the vessel approaches the *Ana Malia* to take part in the action. At times the visiting captain comes a bit too close for comfort in the rolling sea. This complicates Keone’s efforts to fish and navigate freely, but he stays calm, later explaining that he wants to maintain a good relationship with all the captains in the area, no matter their level of experience. This relates in part to his accepting personality and also to a bit of prudence: Keone knows that any given captain, including himself, may well need the at-sea assistance of others at some point in time.

The bite dies off not long after the noon hour, and Keone decides to motor in. Thomas and James have pulled a fair number of fish aboard: about eight or nine shibi

(small ‘ahi) along with the initial round of aku. But the captain says the bite was pretty slow, and that he will stop to fish again along the way if birds so indicate (“we check ‘em, yeah?”). The vessel is slowed to a drift at another buoy on the return trip. Sharks ply the surface there, however, and Keone says that aku won’t surface when sharks are at hand. But the men continue to fish, managing to catch two sizeable kawakawa (*Euthynnus affinis* [false albacore]).

Keone uses his cell phone to call his wife, locally known as Auntie Gladys. He gives Gladys a brief account of the trip and an estimated time of arrival at the harbor. Auntie takes care of much of the business end of the fishing operation. She arranges for the sale of fish at the harbor and ensures that this part of the operation meets state requirements; she completes and submits commercial fishing trip reports for the government; she pays the crew; she handles the taxes.

Back at the harbor, several local men gather under a large, shade-bearing monkeypod tree (*Samanea saman*) that arcs above a portion of the harbor parking lot. The friends share various pūpū (appetizers), including food such as poke (cubed raw tuna) or other suitable seafood such as he’e (*Octopus cyanea*, also locally known as tako), served with various marinades. They talk story and laugh and talk more story. Word about Uncle Keone’s catch reaches the group by literal rather than figurative wireless, and a little while later, one of the men mentions an upcoming birthday party in this particular social circle. “Eh, you know what,” he says softly and with what can only be described as a wry and knowing smile, “maybe we get some fresh sashimi for Kawika’s party . . . ?” The others also smile knowingly (“yeah, bruddah!”). Sure enough, at some point during the selling and distribution of fish from *Ana Malia*’s place of mooring, Gladys takes a whole shibi over to the kāne (men) under the tree. She has chosen a fish that is less than optimal for sale because its underside reveals two round bites from a cookiecutter shark (*Isistius brasiliensis* [cigar shark]). The cookiecutter shark is problematic because it sometimes nips at fish that have been hooked, thereby reducing marketability. But this makes no difference to the men, since there is plenty of good meat remaining on the fish. Members of the group were observed consuming the gifted fish at the birthday pā’ina a couple of days later.

The afternoon sun beats down on the harbor, but Auntie Gladys avoids the rays and glare under a large hat and behind dark sunglasses. Customers are a mix of visitors who have heard about dockside sale of fish, and local residents who often come to purchase fresh seafood at a bargain rate. Today there is a set rate for all species; the exact price is not disclosed here, but a good deal for the buyer is made possible by the absence of a middleman broker. Later, Gladys says that profit from today’s trip was minimal but that during “the bite” a considerable amount of money can be made. Of note, the average shibi caught on this trip was about 20 to 25 pounds [9.7–11.3 kg], though some were larger. This was Uncle’s third fishing trip subsequent to the heavy swell season, which began to

ebb about 4 weeks ago. During the first trip, the men set out to and did catch a few nice tuna; these were used for a friend’s grandson’s lū‘au. The men did not catch any fish during the second trip.

Many people come to buy fish from Auntie Gladys: families, single adults, groups of women, kids. Sometimes Gladys puts out a sign that reads: Fresh Fish for Sale. Today the sign is not up, but she still has plenty of customers. People look to see if the *Ana Malia* is out when they drive by during the day, and they seem to have a good sense of when to expect Uncle Keone back in the harbor. One young woman comes by for talk story with Auntie Gladys and to buy fish for her brother’s lū‘au. She buys 40 pounds [18 kg] in total, much of which is to be sliced up for poke and sashimi. The next day, the woman’s brother brings leftovers from the lū‘au to share at the picnic table near Uncle’s boat.

When Keone calls Richard to discuss the results of the trip, Richard says he would like to trade one of the mahimahi he caught the previous day for one shibi, so that he can prepare some ‘ahi sashimi for himself and his wife and friends. Uncle Keone agrees, and the next day he filets the traded mahimahi and gives it to James, who, in turn, eats the fish with his large family. A shibi is held out for Captain Richard because he provided the information Keone needed to confidently head out to buoy 12. Uncle Keone and Gladys keep one of the midsized shibis, as does Thomas. Ten of the fish are sold: two aku, two kawakawa, and six shibi. The money so earned will pay for the trip.

Of particular note in this description of a typical small-scale commercial fishing trip in Hawai‘i is the fact

that a substantial portion of the catch, 26% in this case, was either (a) consumed by the captain and crew and their respective families at home; (b) shared with others; or (c) traded, in this case for other pelagic seafood. Also notable is Uncle’s assertion that this proportion fairly approximates that of his average trip and average year in total. That is, roughly 80% of Keone’s catch reportedly is sold during a given year; 10% is shared with others in the community; and 10% is taken home by captain and crew.

The fish are all gone, the vessel and gear have been washed with fresh water and readied for the next trip, and the sun begins to sink toward the horizon. Keone finally sits down, his arms still spotted with sardine scales. Someone asks Uncle when he plans to go out again. “Maybe Monday,” he says, “never know, yeah? No more bait, no can go.” Suddenly a woman named Auntie Shirley arrives with her husband Ray, a local Japanese-Filipino-Hawaiian man and a seasoned fisherman in his own right. Their kids run down to the water as Uncle Ray unloads a cooler from the back of a pickup truck. He lifts the lid and pulls out a plate of homemade smoked marlin from a shelf suspender above a slurry of ice and canned drinks. It seems a pā‘ina is coming together in a natural way this late Friday afternoon: pau hana (no more work). George Kealoha brings boiled peanuts, and his wife has made some tako poke. There is haupia (solidified coconut pudding) for desert. A young man begins to strum his ‘ukulele and melody fills the air.

⁴ Pseudonyms are used in the account, and certain information is restricted to protect the fishermen.