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Author(s): Craig Severance , Robert Franco , Michael Hamnett , Cheryl Anderson , and Fini Aitaoto

Source: Pacific Science, 67(3):383-393. 2013.

Published By: University of Hawai'i Press

DOI: <http://dx.doi.org/10.2984/67.3.6>

URL: <http://www.bioone.org/doi/full/10.2984/67.3.6>

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# Effort Triggers, Fish Flow, and Customary Exchange in American Samoa and the Northern Marianas: Critical Human Dimensions of Western Pacific Fisheries<sup>1</sup>

Craig Severance,<sup>2,7</sup> Robert Franco,<sup>3</sup> Michael Hamnett,<sup>4</sup> Cheryl Anderson,<sup>5</sup> and Fini Aitaoto<sup>6</sup>

**Abstract:** This article draws on anthropological research and long-term observation of regional fisheries to examine sociocultural and resource management dimensions of small-scale and traditional fishing operations in American Samoa and the Commonwealth of the Northern Mariana Islands. Ethnographic and survey research were undertaken in both archipelagos with the principal objective of describing and analyzing the nature and extent of traditional and customary fishing activities and associated seafood distribution practices. The resulting description and analysis focus on factors that trigger fishing effort and facilitate distribution of seafood in extended family and community settings across the study regions. Research findings indicate the ongoing importance of seafood in dietary terms and in terms of social organization and cultural continuity; these are discussed in relation to two ongoing resource management issues in the western Pacific.

IN THIS ARTICLE we examine select social and cultural aspects of small-scale and traditional fishing in two island settings in the western Pacific. We begin by discussing key anthropological principles and by defining

terms of relevance to the study of seafood distribution in American Samoa and the Commonwealth of the Northern Mariana Islands (CNMI). We then proceed to review the nature and outcome of social science research conducted in the archipelagos in the late 1980s and mid-1990s and relate research findings to issues currently being addressed by federal agencies with resource management responsibilities in the region.

Natural resource economics plays an important role in the contemporary fishery management process. The market value of seafood, costs and earnings associated with fishing, and the financial impacts of new fishing regulations on fishing fleets are but some of the many useful dimensions of standard fishery economics. But in reality, such approaches are, of themselves, insufficient for examining transactions that occur apart from or in addition to contemporary market economies. Such transactions are common among small island societies in the western Pacific, where household inputs and outputs often involve extensive customary and reciprocal exchange of goods and labor.

An extensive anthropological literature makes clear the importance of the cooperative pursuit and customary/reciprocal exchange

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<sup>1</sup> 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 funded by the Western Pacific Regional Fishery Management Council (Contract No. 89-P-101) and the Pelagic Fisheries Research Program at the University of Hawai'i at Mānoa (Contract No. 2078). Manuscript accepted 4 December 2012.

<sup>2</sup> Department of Anthropology, University of Hawai'i at Hilo, Hilo, Hawai'i 96720.

<sup>3</sup> Office for Institutional Effectiveness, Kapi'olani Community College, Honolulu, Hawai'i.

<sup>4</sup> Research Corporation of the University of Hawai'i, Honolulu, Hawai'i.

<sup>5</sup> Social Science Research Institute, University of Hawai'i at Mānoa, Honolulu, Hawai'i 96720.

<sup>6</sup> Western Pacific Regional Fishery Management Council, 1164 Bishop Street, Honolulu, Hawai'i.

<sup>7</sup> Corresponding author (e-mail: sevc@hawaii.edu).

of wild food resources. The importance of these activities was noted by social scientists nearly a century ago. For instance, in describing the system of customary exchange used by Trobriand Islanders of the western Pacific in the early 1920s, renowned anthropologist Bronislaw Malinowski stated that "... we find a state of affairs where production, exchange, and consumption [of foods] are socially organized and regulated by custom, and where a special system of traditional economic values governs the activities [of the islanders] and spurs them on to efforts" (Malinowski 1921:15). Indeed, a key idea to be drawn from cultural and economic anthropology, and from the literature regarding traditional-historic island life in the Pacific, is that production and exchange of natural resources from the sea have long occurred both outside and partially within market-based economies, and that the social organizational features and cultural benefits of customary exchange were, and in many cases remain, essential aspects of life in the western Pacific.

Social scientists have recently examined human dimensions of marine fisheries in the western Pacific, with attention to the social-organizational role of fishing and seafood in island communities (Allen and Bartram 2008, Glazier 2009, Levine and Allen 2009, Hardt 2011). Such studies have the potential to contribute to the contemporary fishery management process by providing resource managers with an expanded understanding of the dietary, sociocultural, and economic importance of fishing and seafood in various social contexts. Research of this nature can be further tailored to inform specific fishery management decisions (Pickering and Gist 2011, Severance 2011).

Four basic terms and associated concepts are defined here to provide context for subsequent discussion of management-relevant human dimensions research conducted in American Samoa and the CNMI. The term "effort triggers" is operationally defined here as the set of social needs, obligations, and requests that are the motivation to make a trip. Ceremonial, religious, and cultural expecta-

tions and obligations are important effort triggers.

The phrase "fish flow" was adapted for the region by economist and long-time regional fishery management specialist Dr. Paul Callaghan to summarize the culturally important processes through which seafood is distributed among social networks of fishermen and island residents around the western Pacific. As noted by Sibert (2006), fish flow was determined to be a high-priority research topic with potential for enhancing fishery management decisions carried out by the Western Pacific Regional Fishery Management Council (referred to here as the regional fishery Council), one of the eight region-specific entities responsible for managing fisheries in the federal jurisdiction waters of the United States.

The phrase "customary exchange" has been used in a variety of anthropological contexts to describe the transaction of wild foods for goods, labor, and/or cash, where such transactions are grounded in the evolving traditional practices of indigenous persons with cultural roots in a given community. Here the phrase is used in relation to the noncommercial sharing or giving of fish for social purposes. Such exchange can in some cases be altruistic or obligatory, but more often it is reciprocal and generalized in nature, wherein the gift or favor is returned without overt calculation of value or timing. Such exchanges are especially important in social terms and occur in specific cultural contexts outside the commercial marketplace (Severance 2010).

As defined here, "tradition" and traditional practices are deeply rooted in the cultural past, even if they do not precisely mirror the past in terms of contemporary materials, methods, or cultural values. It should be noted that although tradition and culture are always in flux, core practices do indeed often relate to those of the past. Thus, although contemporary indigenous islanders may use modern types of fishing gear, for instance, the way such gear is currently being used often relates to ecological knowledge and fishing practices that were developed and used in the distant past.

## MATERIALS AND METHODS

*American Samoa Field Research*

Ethnographic fieldwork was conducted on Tutuila and in the Manu'a Islands in American Samoa in 1989 to examine practices of pelagic fishermen and the mechanics of localized customary trade of seafood among members of the region's small-scale fishing fleets. The research began with a series of informal interviews with knowledgeable fishermen; results were used to develop a formal survey instrument for eliciting aspects of the fisherman's knowledge of the marine environment, his approach to fishing and distribution of seafood, and his resource management preferences (Severance and Franco 1989).

The 1989 fieldwork also enabled identification of locally important pelagic and other marine resources. Photographic images of such resources were shown to fishermen during interviews to stimulate discussion of: (1) their knowledge about the species; (2) when and how much of the species in question was last captured; and (3) when the species in question was last formally distributed at a village-level ceremony and to what extent. The interviewees were also given blank paper cutouts in the shape of *atu* (*Katsuwonus pelamis* [skipjack tuna]), blue marlin (*Makaira nigricans*), giant trevally (*Caranx ignobilis*), various sharks, and other large species; they were also asked to draw and name parts of the creatures that would be suitable for consumption in cultural ceremonies. A total of 34 fishermen was interviewed using these techniques: approximately half of the population of pelagic fishermen then active in American Samoa. Officials at the American Samoa Department of Marine and Wildlife Resources (DMWR) guided the research team to the islands' most avid fishermen and provided translation services as needed.

Additional fieldwork was conducted in American Samoa between 1996 and 1997. This work began with extensive in-depth interviews with fishermen and public officials. The resulting data were used to develop a survey instrument with which to: (a) develop valid demographic profiles of Samoan fisher-

men; (b) identify preferences for how marine resources should be managed; (c) gauge expectations for the future quality of the local fishing experience; and (d) assess patterns of giving and sharing of seafood through customary forms of distribution and exchange, the focus of this article. The survey was administered in English and/or Samoan, as appropriate.

A total of 58 fishermen responded to the survey. By 1996, this was thought to be slightly less than half of the then-active population of pelagic fishermen residing in American Samoa. A key feature of the survey research involved follow-up interviews conducted by staff members of the DMWR. These involved highly focused discussions about recent fishing trips and use and distribution of the catch. Follow-up interviews served to document a total of 80 fishing trips.

Finally, the Samoan project leader developed a secondary research protocol to use while participating in village ceremonies. The protocol enabled project analysts to trace the fish that had been contributed for use at the ceremonies to the point of origin among the local community of fishermen. A total of 18 ceremonies or celebrations were analyzed in this way.

*Commonwealth of the Northern Marianas Field Research*

Research similar to that described for American Samoa was undertaken on Saipan, Tinian, and Rota in the CNMI in 1997. The effort began with a series of informal interviews with public officials and seasoned small-vessel fishermen. The resulting information was used to develop a survey instrument with which to: (a) develop descriptive profiles of active pelagic fishermen residing in the islands; (b) assess their perspectives on various fishery management issues; and (c) assess patterns of distribution of harvested seafood, especially in relation to cultural events such as fiestas, marriages, weddings, and so forth. A total of 69 surveys was completed. This was slightly more than half the population of pelagic fishermen known to be active in

the CNMI. The entire effort was coordinated with research then being conducted by another research team on Guam. Similar research protocols were used in both studies (cf. Rubinstein 2001, Pinhey et al. 2006).

## RESULTS

### *Results of Fieldwork in American Samoa*

Ethnographic research conducted in American Samoa made patently clear the ongoing social and cultural importance of fishing and seafood among members of small island societies in the Samoan archipelago. This was summarily and emphatically expressed by a Samoan high chief, who stated that “fish is culture” in American Samoa and that the primary impetus for fishing in the region is cultural rather than commercial.

In-depth interviews indicated that a number of chiefs continued to be served in the traditional manner by *tautai* (master fishermen), who, in turn, maintained fishing vessels to obtain seafood for various ceremonial events. Notably, the harvested seafood was, in some cases, being transacted within chief-led *aiga*. *Aiga* are corporatelike bilateral extended family groupings that involve the extensive influence of *matai* (titled men), church ministers, and other respected persons.

The need for seafood for use in ceremonies and customary exchange was found to underlie much of the fishing effort being undertaken in the region, and the ultimate distribution of the harvest was found to occur within well-developed kin networks. This finding is compatible with findings of ethnographic work recently conducted in the region by Impact Assessment, Inc. (unpubl. data). The social importance of sharing and distributing resources such as fish, cash, fine mats, and so forth is well documented in the ethnographic literature (for example, see Franco [1991]). That literature and these findings show that when distributed, fish, along with money and other resources, move through a complex, culturally embedded kinship and exchange system that supports the food needs of kinsmen, the status of both *matai* and minister, and the continuity and strength of *Fa'a Samoa*, the “Samoan Way.” Customary exchange was and continues to be facilitated through a variety of cultural values in American Samoa, a selection of which is provided in Table 1.

Results of interview work involving use of photographs and shapes of fish species demonstrated the particular importance of *atu* to resident fishermen. An example of how *atu* are presented and distributed in ceremonial settings in American Samoa is depicted in Figure 1. Of note, project researchers ob-

TABLE 1  
Cultural Values Associated with Customary Exchange in American Samoa

Term	Definition	Note
<i>Fa'alavelave</i>	<i>noun</i> , mutual assistance to kinsmen in times of need, particularly for ceremonial events; <i>verb</i> , to provide, providing . . .	Assistance can assume the form of food from land or sea, labor, money from overseas labor markets, and so forth
<i>Tautua</i>	<i>noun</i> , service to the kin group and <i>matai</i> ; <i>verb</i> , to serve, serving . . .	Samoan proverb, <i>The route to authority is through service</i> , emphasizes that Samoans must serve their kin to rise in respect and authority and become <i>matai</i> in the future
<i>Fesoasoani</i>	<i>verb</i> , to help out; a less formal, more individualized form of assistance	Response to a less-serious need than in the case of <i>fa'alavelave</i>
<i>Toonai</i>	<i>noun</i> , ceremonial meal served after Sunday service; fish is expected	Ministers, <i>matai</i> , other village leaders, and important visitors reaffirm cultural and spiritual solidarity
<i>Fa'ataualofa</i>	<i>verb</i> , to give away or sell material items such as seafood at a reduced price to friends or kin; a form of reciprocity	One means of achieving, sustaining, or expressing a mutually beneficial social relationship

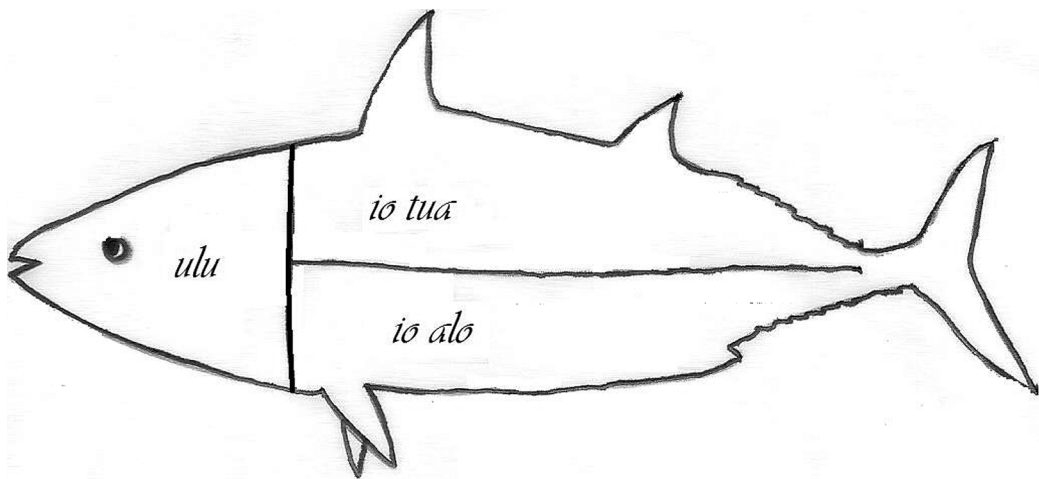


FIGURE 1. Depiction of *atu* as presented and distributed in ceremonial settings in American Samoa. (From Severance and Franco 1989.)

served formal ceremonial distribution of *atu* and fine mats in an American Samoa village in 1996; this form of customary exchange continues to occur in contemporary American Samoa (U. R. Tulafono and L. S. Halleck, 2012, pers. comm.).

The American Samoa survey research and follow-up work involved a directed focus on patterns of distribution and use of the harvest during the year before the research. Of note, there often was substantial overlap in response to questions about the distribution of the catch. This likely is the outcome of the facts that: (a) locally landed seafood is pursued for a variety of purposes and is dynamically distributed in a variety of ways that do not lend to strict accounting procedures; and (b) customary trade of seafood often involves generalized reciprocity, which inherently does not lend to formalized accounting of what has been given and/or what is returned. These points are important findings in and of themselves.

Accounting challenges notwithstanding, participating fishermen were able to present a valid, if general, reckoning of how their seafood was distributed during the year before the survey. These results are summarized in Figure 2. As such, the 1996 American Samoa survey data indicate that although 42 of the 58

fishermen participating in the project sold at least half of their catch, only three fishermen sold that volume of harvest in formal cash-based transactions to buyers at the local cannery. Another 21 participants reported selling at least half of their catch to buyers at local restaurants or retail markets. The remaining 18 fishermen reported selling at least half of their catch as *fa'ataualofa*; that is, as a reduced-price commodity to friends and kin.

With regard to the portion of the previous year's harvest that was not sold, 23 of the 58 respondents reported that half or more of the unsold harvest was consumed in their immediate households; 35 reported contributing half or more for use at ceremonies and other cultural events; and 14 reported giving away half or more to friends and/or extended family members. Notably, with regard to fish that was given away, 12 fishermen reported contributing half or more as *tautua* (service); 25 reported giving half or more as *fa'alavelave* (mutual assistance to kin); and 19 reported giving half or more as *fesoasoani* (help out).

Follow-up interviews revealed that for every 10 fish caught during the year before the study, six were sold and four were used for consumption or customary exchange. Disposition of the catch varied by species: nearly 95% of the harvested albacore (*Thunnus*



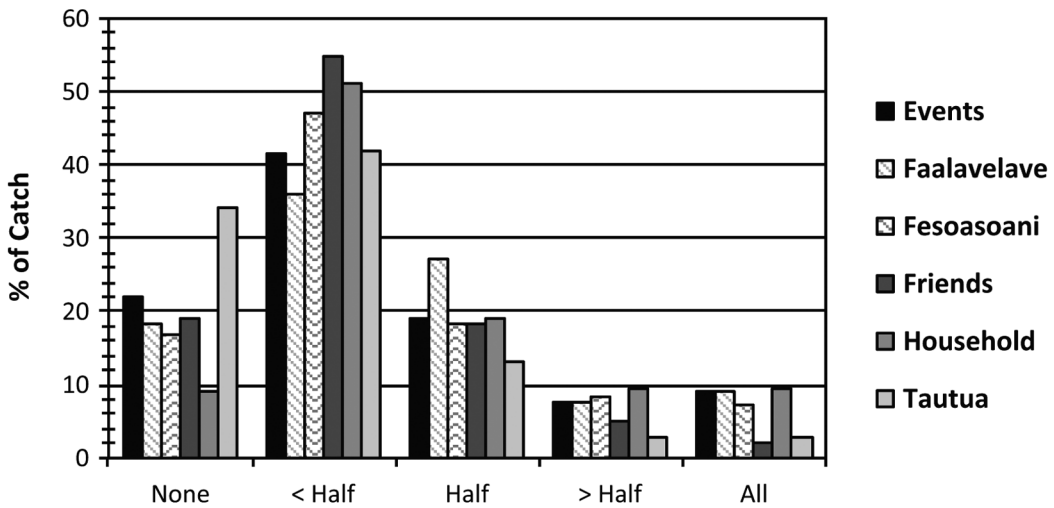


FIGURE 2. Percentage of catch distributed to cultural categories.

*alalunga*) were sold to the local cannery, and roughly 86% of the harvested *atu* were sold as *fa'ataualofa* (give/sell at reduced price).

Regarding fish that were *not* sold, more *atu* were given away for *fa'alavelave* (mutual assistance) and *to'onai* (Sunday meal) than were eaten in the fishermen's households. Nearly half was frozen for consumption by household members or for sharing at a later date. The pattern of distribution of *asiasi* (*Tbunnus albacares* [yellowfin tuna]) was similar, although this species was used more frequently than *atu* in *tautua* (service) exchanges. Roughly one-third of the *asiasi* in the unsold category was distributed for *fa'alavelave*, *to'onai*, and *fesoasoani*. Relatively little *asiasi* was eaten in the fisherman's household, and nearly half was frozen. Considering the unsold portion of all species in total, 13% was consumed by the fisherman's immediate family; 21% was distributed as *fa'alavelave*; 20% was distributed for *fesoasoani*, *tautua*, or *to'onai*; and 46% was frozen for various customary uses at a later date.

#### *Results of Fieldwork in the Commonwealth of the Northern Marianas*

The principal focus of field research conducted in the Northern Marianas was on the

nature and extent of harvest distribution during the year before the research. Participants were asked to estimate how much of their catch was sold, consumed at home, given away to family and friends, and/or contributed for use at family or community events. As depicted in Figure 3, eight respondents reported selling all of their catch, 22 reported selling three-fourths of their catch, 31 reported selling less than half their catch, and eight reported selling none of their catch. The vast majority of respondents reported selling enough fish to cover operating costs but with the underlying motivation of home consumption and sharing with extended family and friends. Fish were sold at local restaurants, retail markets, and hotels.

As was the case in American Samoa, traditional and customary use of seafood was observed to be both common and of great importance to residents of the Northern Mariana Islands. Many fishermen in the region are indigenous Chamorros, whose seafaring ancestors reached and colonized the islands in the distant past (see Russell 1998). Chamorros adopted the tenets of Roman Catholicism after contact with Spanish explorers in the sixteenth century, while also retaining elements of their own cosmology and way of life. Contemporary Chamorros continue to relate their

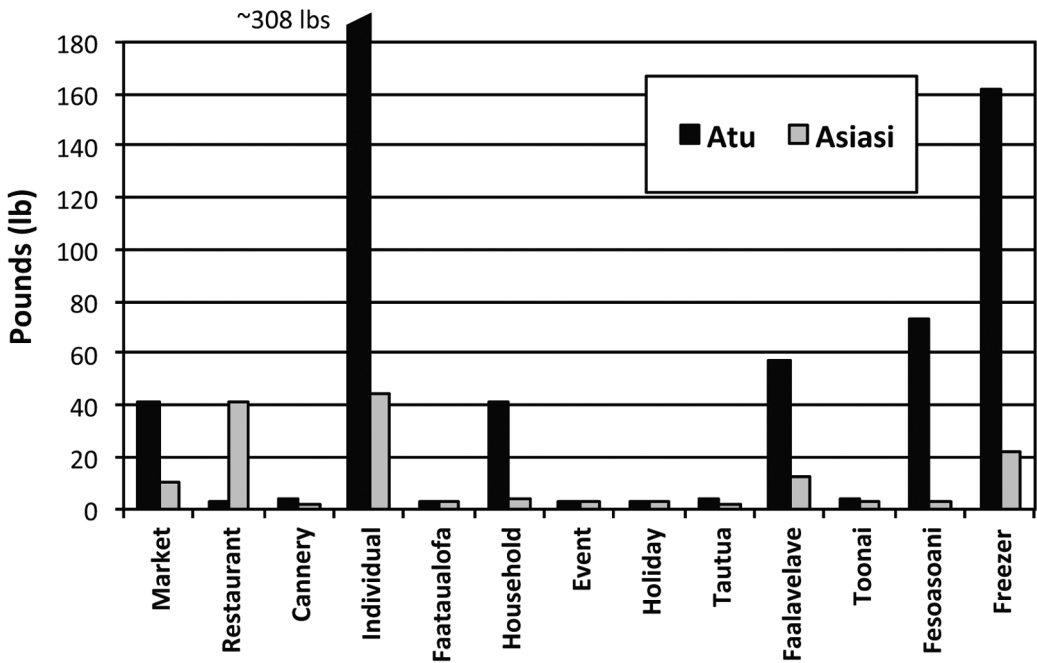


FIGURE 3. Pounds of *atu* and *asiasi* distributed during the past year by event/mode, based on 80 pelagic fishing trips (1 pound = 0.373 kg).

TABLE 2  
Frequency Distribution: Use of Catch in the Commonwealth of the Northern Marianas

Percentage of Catch	Number of Interviewees Reporting Each Type of Use			
	Sold	Consumed at Home	Given to Family and/or Friends	Contributed for Cultural Event
0	8	7	7	24
25	15	38	39	30
50	16	13	18	13
75	22	6	5	2
100	8	5	0	0
Total <i>n</i>	69	69	69	69

fishing activities to both the traditional lunar calendar and the calendar of Roman Catholicism, and they perpetuate and evolve traditional knowledge about the marine environment. Thus, the pursuit and use of seafood in the CNMI are often deeply related to indige-

nous knowledge and practices of the past, and to age-old Christian practices and events that are imbedded with religious meaning in the present.

Lent and Easter are particularly important holidays for many residents of the CNMI, and extensive fishing effort is undertaken around these and other holidays, and in association with weddings, funerals, baptisms, first communions, and confirmations. Moreover, because many Roman Catholics do not consume red meat during the 40 days of Lent, and because fish is a popular alternative, fishing effort is particularly intensive during that period.

Survey data indicate that, at the time of the study in the late 1990s, about 65% of the interviewees regularly contributed fish to family or church-related fiestas. When asked to rate which ceremonial events most clearly required seafood, Saipan fishermen ranked funerals first, and fishermen on Rota and Tinian ranked baptisms and funerals as equally important. Because a patron saint is associated



with each community in the islands, the birthday of the saint in question also stimulates ceremony and celebration and, hence, local fishing activity.

The ongoing importance of seafood as sociocultural and dietary components of ceremonies and celebrations cannot be overstated in this context. This is evinced by findings from the 1990s research and by fisheries-specific ethnographic work recently conducted on Saipan, Rota, and Tinian by Impact Assessment, Inc. (unpubl. data). As noted by one leading fisherman who participated in the 1990s study, "if there is no fish [for consumption at a family or community event], it's not beautiful, it's not special, it's not successful." Although a variety of species of fish assume local importance in the CNMI, skipjack tuna is the principal focus of small-boat fishing efforts in the CNMI.

#### DISCUSSION

The research findings provided here elucidate the nature and extent of the customary and traditional flow of seafood in the island settings of American Samoa and the CNMI. Although the data were collected some years ago, recently conducted research (Impact Assessment, Inc., unpubl. data) indicates continuity in local cultural values and the continued social and dietary importance of sharing and giving of seafood in both island areas.

Although commercial fishing is an important source of income to certain fishermen in American Samoa and the CNMI, it is often the case that the proceeds from sale of seafood and the seafood itself are used to maintain a style of fishing that prioritizes social benefits rather than profit. Indeed, when locally landed seafood flows into a given island community in response to cultural and ceremonial needs, the sharing and gifting of that food simultaneously reinforces cultural identity, generates food security, and forges and maintains beneficial social relationships. The value of these activities and behaviors might eventually be expressed in dollar terms, but such translation would need to be preceded by sufficient description, classification, and quantification of the nature and extent of seafood

distribution, as provided here. It may also be that certain aspects of the distribution of seafood in island societies in the Pacific do not readily lend to economic valuation (cf. McCormack 2010) but must rather be described and analyzed in terms of inherent social benefits and cultural meanings.

Two contemporary fishery management issues serve to demonstrate the utility of basic qualitative and quantitative description regarding fish flow, customary exchange, and other traditional and contemporary aspects of small-scale fishing in the western Pacific. The first issue relates to constraints on the small-scale harvest of marine resources of special value to islanders in American Samoa and the CNMI; the second to area-specific fishing closures that have a bearing on the course of some small-scale fishing operations in the study areas.

By way of background, management of marine fisheries in the flag islands of the western Pacific is guided by regional fishery ecosystem plans (FEPs). These are developed by the regional fishery Council and are reviewed and implemented by the NOAA National Marine Fisheries Service. In keeping with the intent of overarching mandates such as the National Environmental Policy Act (NEPA), and the Magnuson-Stevens Fishery Management and Conservation Act, among others, FEP objectives foster biodiversity and long-term sustainable use of marine resources through management measures that minimize any deleterious effects on human populations. Valid description of what is at stake in management-related decision-making processes (in this case, small-scale and traditional fishing activities and customary exchange of seafood) is of clear utility in the fishery ecosystem planning context (Western Pacific Regional Fishery Management Council 2010). Indeed, as specified by federal policies and mandates, resource managers must consider the human benefits of fishing and seafood, and potential or actual constraints on such benefits, when addressing current and future policy issues.

There are many sources of potential constraint on successful small-scale fishing activity. For instance, oceanic regime shifts, natu-

ral changes in pelagic ecosystems, and other changes in the physical environment can alter the availability or abundance of fish populations. Anthropogenic activities and pressures obviously can also affect fish populations, and, notably, only this source of change can be “managed” by government agencies. Small-scale and traditional fisheries are also affected by economic factors such as fuel costs and by the many challenges presented by the marine environment.

An important fishery management issue is now beginning to emerge in association with increasing pressure on tuna resources in much of the tropical and temperate regions of the Pacific Ocean. All of the tuna species are extensively pursued by a variety of fleets in the Pacific, and skipjack are harvested in especially large volumes by purse-seine vessels. Skipjack are not currently thought to be overfished, but following Harley (2011), foreign purse-seine fleets operating outside the federal jurisdiction waters of American Samoa and the CNMI may be contributing to contraction of the species’ range. Any further international pressure on the resource, any unforeseeable environmental changes, or any future management-related misallocation of the resource between nations may ultimately reduce the amount of skipjack available for traditional and customary uses in the U.S. flag islands of the western Pacific. In the context of international fisheries management, the situation renders data regarding the pursuit and use of skipjack and other pelagic species particularly important. Indeed, data regarding the use of skipjack among small-scale and traditional fleets in American Samoa and the CNMI suggest that the social, cultural, economic, and local dietary value of these species is quite high.

A second management issue of contemporary contention relates to fishing regulations associated with newly established Marine National Monuments (MNM) in the study regions. These were designated by Executive Order in 2009. Regulations associated with the Rose Atoll MNM in American Samoa and the Islands Unit of the Marianas Trench MNM in the CNMI bear important implications for small-scale and traditional fishermen

in both archipelagos. Of particular note, current regulations allow for certain types of traditional, subsistence, and recreational fishing but prohibit any commercial sale of fish captured within monument boundaries. Given the involvement of American Samoa and CNMI fishermen in interactive and dynamic market and nonmarket economic and social transactions, barring the sale of fish harvested by small-scale and traditional fishermen within monument boundaries is suggestive of marine policy that is not compatible with the actual nature of the fisheries in question.

The problem is, in large part, one of legal definition. Federal fishery management agencies are bound to definitions provided in the Magnuson-Stevens Act (see Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Part 104-297, Section 3, p. 4), which asserts that commercial fishing activities involve seafood that “enters commerce through sales, trade or barter.” This definition may be appropriate to fisheries conducted elsewhere in the nation, but it does not reflect the parameters of small-scale and traditional fishing activities as these are conducted around American Samoa, the CNMI, and elsewhere in the western Pacific. This is true because: (1) unique sociocultural and economic circumstances are associated with sale of seafood and use of the proceeds among many small-scale and traditional fishermen in the study areas; and (2) “trade” and “barter,” as expressed in federal policy, are wholly unlike customary exchange as it is practiced in the study areas.

Regarding the preceding point (1), logistical challenges render fuel and other costs associated with traveling to and fishing within monument boundaries generally prohibitive for small-scale and traditional fishermen unless some reimbursement can be achieved through limited sale of fish in the marketplace. The regional fishery Council has proposed regulations that, if approved, would allow for limited cash reimbursement for trip expenses as an element of customary exchange; this would allow fishermen to continue a limited amount of traditional fishing activity in the newly designated monuments

(Western Pacific Regional Fishery Management Council draft amendment to Fishery Ecosystem Plan, unpubl. data). Notably, opposition to establishment of the monuments was and continues to be expressed by local fishermen and village leaders in American Samoa and the CNMI (Western Pacific Regional Fishery Management Council 2006, 2009). This is an important point because, as noted by the National Research Council (2001), Christie (2004), and others, lack of local support for marine protected areas such as marine monuments often leads to social problems and to reduced probability that reserve-related conservation goals and objectives will ultimately be met.

Regarding the preceding point (2), trade and barter imply immediate calculation of what will be returned as part of the exchange, often within a short time frame and often with motive of material gain. By contrast, transacting fish through customary exchange does not involve negotiation of what may be given back, a specific time frame, or motivation of material gain. Rather, the principal underlying motivation is to maintain good standing in a traditional system of social norms and cultural values. Sharing or giving seafood does yield benefits, but these are social rather than commercial in nature: the participant may enlarge his social network, enhance his status and reputation in the community, and/or eventually receive some uncalculated return of goods or services. Sahlins (1974) made a distinction here between generalized and balanced reciprocity. Balanced reciprocity does involve some expectation of a return gift of some equivalency but with flexibility in timing and degree of equivalency. Generalized reciprocity, which is common in the study areas, does not involve negotiation, and expectations or demands for return are culturally offensive. Thus, although cash derived from sale of fish may be used in customary exchange, the transaction is often part of a system of generalized reciprocity that is wholly different from market-based commercial fishing typified in other contemporary settings in the United States and as defined in existing federal policy.

In conclusion, the data and discussion presented here demonstrate the continuing importance of fishing and distribution of seafood in American Samoa and the CNMI. Such activities are critical human dimensions of life in the region: they constitute essential sources of food security and serve as organizing elements of island society. Given the importance of the principles and processes described in this article, it is our hope that persons representing national and international fishery management bodies will increasingly seek and utilize the methods, data, and analytical insight available through cultural anthropology and other similarly indispensable social science disciplines.

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