

Beyond Recreation: When Fishing Motivations Are More than Sport or Pleasure



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Executive Summary

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) allows NOAA Fisheries to manage commercial and recreational fishing as separate activities. Yet, numerous studies in the Pacific Islands Region (PIR) have demonstrated this distinction is not clear-cut in practice. Further, policy definitions do not adequately cover other important concepts in the region, such as customary exchange, where the purpose is not sport or pleasure. One of the action items in the NOAA Fisheries 2019–2020 Pacific Islands Regional Recreational and Non-commercial Fishing Engagement Plan is to conduct a study that describes and characterizes fishing activities in the region that do not clearly meet the MSA definition of recreational fishing, and provide policy/management insights about these activities that are central to local fishing communities. This report synthesizes the outcomes of this study. Results demonstrate the relevance of non-commercial fishing and related concepts to other regions and nationally and identify information needs that can guide future coordinated social science research across regions.

In the PIR, the term *non-commercial fishing* has been adopted to describe fishing that is not considered commercial but also does not fit within the MSA definition of recreational fishing. Non-commercial fishing is typically described as an umbrella term, with recreational fishing as only one subset of activities. Key themes reiterated throughout this study include the role of fishing in local food systems (fishing for food), in community cohesion (fishing for culture), and as a leisure activity (fishing for fun). In addition, motivations in the PIR are dynamic and can shift between trips and even during the course of a single trip, with catch from the same trip used for multiple purposes, including commercial and non-commercial. Study participants from other regions identified many examples of mixed motivations within and between commercial and non-commercial fishing activities. They also noted that some fishing communities are starting to express similar feelings of exclusion and dissatisfaction related to blurred lines between commercial and charter fishing.

In our discussions of fishing categories, we identified important distinctions between activity/behavior and motivation/identity. From a regulatory approach, definitions are concerned with the activity or outcome of the activity with respect to fish stocks and commerce. Yet, the wording of the definitions and the way they have been applied to fishing communities have implications for identities and motivations. By aligning the categories of fishing identities and motivations with the overarching activities regulated under MSA we developed a framework that could be used to structure future studies. Specific information needs include systematic exploration of the following: the breadth and depth of these types of fishing across the nation, the extent to which fishing communities feel included in the current MSA regulatory framework, and implications for stock assessments, sustained community involvement, and procedural justice.

As noted by project participants, ideally NOAA would celebrate the diversity of uses of fish, ensuring that fisheries are managed to be inclusive of all fishing communities. Future investigations are needed to ensure the breadth of fishing traditions are honored and to answer core questions identified in this project: are all the fish being counted, are all the people who fish being counted, and do they feel like they count?

Introduction

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) allows NOAA Fisheries to manage *commercial* and *recreational* fishing as separate activities (16 U.S.C. § 1801 - 1891(d)). Yet, numerous studies in the Pacific Islands Region (PIR) have demonstrated this distinction is not clear-cut in practice and that policy definitions do not adequately cover other important concepts in the region, such as cultural exchange or expense fishing (e.g., see Glazier 2006; PIFG 2011; Severance et al. 2013; Madge et al. 2016; Chan and Pan 2017). Common examples of these blurred lines include the fisherman who takes friends and family members on a trip and sells enough upon return to pay for gas, bait, and ice. The fisherman who leaves the dock on a commercial trip, but catches fish that are better suited for sharing with the community than selling at the auction. The fisherman who takes a trip because he needs to provide fish for a party and sets aside the largest and most desirable fish from his catch for that purpose, but sells the rest, which is the majority of his catch. Recognizing the importance of these types of activities and associated motivations has led to the use of the term *non-commercial fishing* in the PIR.

What motivates people to fish is often complex and tied to social-ecological interactions, community and individual well-being, and cultural identity (Fedler and Ditton 1994; Poe et al. 2014; Young et al. 2016). As illustrated above, in the PIR some of these motivations do not fit neatly within the regulatory labels of commercial and recreational fishing. Managing social-ecological complexity—particularly from an ecosystem-based perspective—requires recognition of dynamic systems interactions and insight from multiple perspectives and knowledge systems (Ommer et al. 2012). Berkes (2012) and Patrick and Link (2015) suggest that ecosystem-based fisheries management must go beyond conventional practice to consider multiple perspectives and find creative ways to handle complexity. Analysis of cultural value and community well-being can benefit management by improving relevancy and understanding conflicting or collaborative interests (Kearney et al. 2007; Coulthard et al. 2011).

One of the action items in the NOAA Fisheries 2019–2020 Pacific Islands Regional Recreational and Non-Commercial Fishing Engagement Plan is to conduct a study that describes and characterizes fishing activities in the region that are not clearly recreational under the MSA (such as customary exchange or expense fishing) and provide policy/management insights about these non-commercial activities that are central to local fishing communities. To this end, NOAA’s Pacific Islands Fisheries Science Center (PIFSC) engaged in a series of activities, culminating in a panel discussion and 1-day workshop as part of the NOAA Fisheries Recreational Fisheries Initiative Annual Meeting and 2-hour session at the NOAA Fisheries Human Dimensions Face to Face Meeting. This report synthesizes the outcomes of those efforts.

The MSA defines *commercial fishing* as “...fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade” and *recreational fishing* as “...fishing for sport or pleasure” (16 USC § 1802). In 1998, a Pacific Islands Gamefish Tournament Symposium was hosted by the Western Pacific Regional Fishery Management Council (Council) in Honolulu, HI (Miller et al. 2001). In what became a seminal moment, Noah Idechong, a statesman from Palau, observed “We don’t teach our children to play with our food.” Further discussion at the symposium initiated reflection in the PIR on fishing activities that are neither commercial nor recreational, as defined by the MSA. The main purpose

of these activities may not be related to food per se (e.g., fishing to maintain cultural traditions). However, the phrase “We don’t play with our food” is often used as shorthand in the PIR for the idea that the MSA definition of recreational fishing does not adequately capture the full range of culturally important fishing practices that occur outside of sale, barter, or trade.

As a result, PIFSC, the Council and several academics have explored these ideas in a number of ways. In 1999, the Council convened a Recreational Fishing Task Force and commissioned a review of non-commercial fishing literature, in part to address definitional problems related to recreational and other types of fishing (Glazier 1999). A number of studies in the 1980s and 1990s had already noted challenges in classifying fishermen in the region (for review, see PIFG 2011; Allen 2013). Since 2007, PIFSC surveys targeting both commercial and non-commercial fishers have included questions asking respondents to classify themselves with respect to identity and motivations as well as report on disposition of fish (e.g., amount sold and retained for other purposes). These surveys consistently document a disconnect between fisher attitudes and perceptions of their fishing behavior relative to existing regulatory frameworks (for example, see Hospital et al. 2011; Hospital and Beavers 2012, 2014a, 2014b; Chan and Pan 2017). Additional studies have emphasized the ongoing importance of seafood in terms of diet, social organization, lifestyle, and cultural continuity (e.g., see Allen and Bartram 2008; Levine and Allen 2009; Allen and Amesbury 2012; Allen 2013; Glazier et al. 2013; Severance et al. 2013).

These ideas began to be more formally codified in response to directives found in the Presidential Proclamations establishing Marine National Monuments (MNM) in the region, which included terms ranging from sustenance fishing, to traditional indigenous fishing, to non-commercial fishing (Proclamation No. 8031, 3 *CFR*, 2007, Proclamation No. 8335-8337, 3 *CFR*, 2010, Proclamation No. 9478, 3 *CFR*, 2017). In 2010, the term *non-commercial fishing* was defined for fisheries in the Western Pacific as “...fishing that does not meet the definition of commercial fishing,” and in 2013 the definition was expanded to, “...fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence, traditional indigenous, and recreational fishing” (50 *CFR* § 665.12). In 2017, the U.S. District Court ruled that regulations developed under the MSA must preserve and protect American Samoan cultural fishing practices, although cultural fishing was not defined (*Territory of American Samoa v. NMFS, et al.*, 16 cv 95, D. HI, 2017).

In discussions related to the MSA reauthorization, the Marine Fisheries Advisory Committee (MAFAC) Recreational Fishing Working Group recommended adding definitions for subsistence and customary exchange. The final MAFAC recommendations defined subsistence fishing as, “...fishing in which the fish or marine resources harvested from waters customarily fished by that community are intended for personal, family, or community consumption or traditional uses through sharing or customary exchange,” and customary exchange as, “...the nonmarket exchange of marine resources between fishermen and community residents, including family and friends, for goods, and/or services for cultural, social, or religious reasons” (MAFAC 2014, p.1).

A similarly broad definition of subsistence fishing was included in a bill to amend the MSA introduced to Congress in 2017, although the bill did not pass the Senate:

“... ‘subsistence fishing’ means fishing in which the fish harvested are intended for customary and traditional uses, including for direct personal or family consumption as food or clothing; for the making or selling of handicraft articles out of nonedible byproducts taken for personal or family consumption, for barter, or sharing for personal or family consumption; and for customary trade” (Strengthening Fishing Communities and Increasing Flexibility in Fisheries Management Act, H.R. 200, 115th Congress).

The broader view of recreational fishing is reflected to some degree in the National Saltwater Recreational Fishing Policy (NOAA Fisheries 2015) and Modernizing Recreational Fisheries Management Act (Pub. L. 115–405, §1(a), Dec. 31, 2018, 132 Stat. 5355, codified at 16 U.S.C. § 1801 note), however it is still unclear to what extent underlying concepts identified in the PIR exist or are deemed important in other regions. This study investigated these ideas through a series of activities:

- Semi-structured interviews to clarify core concepts;
- Compilation of national and regional policy definitions;
- Panel discussion and workshop at the National Recreational Fisheries Initiative Annual Meeting, August 22 and 23, 2019;
- Two-hour Session at the National Human Dimensions Face-to-Face meeting, September 18, 2019.

Our analysis of these activities revealed the relevance of these ideas to other regions and nationally, as well as information needs that can guide future coordinated social science research across regions.

Methods

The study utilized a series of methods to explore the following questions: How do core non-commercial fishing concepts identified in the PIR resonate with other regions? How do they fit within the fisheries management system under the MSA? What are related social science needs? The study progressed iteratively, with each activity building on the next and including additional questions and relevant literature as offered by participants in each stage.

Semi-structured Interviews

The first author conducted 12 interviews, 6 with individuals instrumental in developing and promoting the term non-commercial fishing in the PIR, and 6 with leaders in the region and in national programs relevant to application of the concept at a national level. Individuals were initially suggested by the PIFSC socioeconomics team and additional suggestions were solicited through the interviews via snowball sampling, in which initial interviewees identified others who met the criteria of the study (Given 2008). Interviews were conducted in person or via phone from February 15-March 8, 2019. Written and/or verbal informed consent was received from all interviewees, following the standards outlined in the Declaration of Helsinki (World Medical Association 2013).

Interviewees were provided project background and an open-ended interview guide (Appendix A). The interview guide was used to provide initial focus to the interview; however, interviewees' experience and interest guided the discussion. Questions were not always asked in the same way or in the same order, but rather were used as sideboards to ensure that all topics of interest were covered. Interviews were audio recorded and detailed notes were taken during the interviews, with additional details written up after the interviews. Recordings were not transcribed but were used as reference for clarification and additional details during analysis.

The first author reviewed interview notes and recordings and synthesized into broad themes, questions, and insights to guide future discussions. Findings were presented at the annual Society for Applied Anthropology (SfAA) meeting in March 2019. Interviewees reviewed the presentation and observations from the SfAA discussions, which were used to focus the workshop discussions.

Compilation of definitions in law and policy for the Pacific Islands Region

While many ideas related to non-commercial fishing have been codified through various regulations and policies, they had not yet been compiled in one place. Therefore, we collected and reviewed law and policy documents that included any terminology related to aspects of non-commercial fishing relevant to the PIR. These included definitions at the national, regional, and local level. We worked closely with the Pacific Islands Regional Office (PIRO) Marine National Monuments Program team to identify relevant documents and determine how best to present information. Definitions and usage are summarized in tables that also note consistencies and inconsistencies (Appendix B).

Panel discussion and workshop at the NOAA Fisheries National Recreational Fisheries Initiative Annual Meeting, August 22 and 23, 2019

The NOAA Fisheries National Recreational Fisheries Initiative Team held its annual meeting in Honolulu, HI and supported inclusion of this topic in the agenda. The Southeast Region initially suggested the topic, as they are working with a researcher who is exploring very similar ideas related to subsistence fishing. We received a grant from the national program to support travel to include other social scientists and stakeholders in these discussions. A panel discussion was held as part of the official meeting on August 22 and a one-day optional workshop was held on August 23.

The purpose of the panel discussion was to introduce core concepts related to the range of non-commercial fishing activities and policy implications and provide a foundation for an extended discussion on this topic during the workshop on the following day. Kirsten Leong (Social Scientist, PIFSC) provided a presentation with a brief overview of the topic, building off the SfAA presentation and compilation of law and policy documents. Sean Meehan (Recreational Fishing Coordinator, Southeast Fisheries Regional Office) then served as moderator, guiding the group through an open discussion that began to identify universal commonalities and regional characteristics of non-commercial fishing activities initially identified in the PIR. Other panelists included Sarah Wise (Social Scientist, Alaska Fisheries Science Center), Chris Hawkins (Social Scientist and former PIRO and Council staff), and Kalani Quiocho (Native Hawaiian Program Specialist, Papahānaumokuākea Marine National Monument).

The purpose of the 1-day workshop was to build off of experience in the PIR to explore how core non-commercial fishing concepts resonate in other regions, their fit within the fisheries management system under the MSA, and related social science research needs (Appendix C). We invited researchers and stakeholders who have been instrumental in developing and promoting the term and NOAA staff who regularly work with these stakeholders to engage with the regional recreational fishing coordinators on the topic. We started with overview presentations by Kirsten Leong, Sarah Wise, and Noëlle Boucquey (Assistant Professor of Environmental Studies, Eckerd College), followed by a large group discussion, breakout groups, and a synthesis discussion. During the large group discussion, Ed Watamura (Waialua Boat Club) read a testimony he had prepared for gubernatorial candidates that eloquently describes important characteristics of fishing in the region that do not neatly adhere to policy definitions (Appendix D:). Due to sustained interest in the large group discussion and concern that there may not be the right mix of participants for in-depth examination of regional differences, we modified the original agenda to extend the large group discussion and hold the small group discussions after lunch. To set the stage for small group discussions, Craig Severance (retired anthropologist and member of many Council working groups, including Chair of the Social Science Planning Committee) prepared a skit to illustrate the blurred lines between recreational and non-commercial fishing in practice. He played the part of Captain 1, and Ed Watamura (Waialua Boat Club) and Jim Hori (Lokahi Fishing) played the parts of Captain 2 and the Samoan crew, respectively (see Appendix E for full script). Groups then discussed their experiences with non-commercial fishing activities on the west coast of the United States, east coast, and Caribbean. Each group included participants from the focal regions as well as stakeholders or staff from Hawai‘i who have been thinking about broader ways to approach what recreational fishing could encompass.

Two-hour Session at the NOAA Fisheries National Human Dimensions Face-to-Face Meeting, September 18, 2019

Federal social scientists from all regions of NOAA Fisheries met September 17–19, 2019, to discuss priorities and projects that would benefit from a coordinated national approach. Two hours were set aside for the topic of non-commercial/recreational fishing. In preparation for the workshop, representatives for each region summarized known:

- Examples where existing terminology is problematic or inadequate (and alternate terms that are used), especially for meeting management objectives
- Studies that document these challenges
- Examples where these concepts are codified in law, regulations/policy, best practices, lawsuits, etc.
- Knowledge of any policy windows where NOAA social scientists are/will be asked to provide input on relevant new/updated policy or regulations within a certain timeframe

For the session, Kirsten Leong again provided a background presentation to ensure all participants had a common point of reference. Regional representatives also provided an overview of the information they had collected. Based on feedback from the recreational fishing coordinators, the focus of the discussion was broadened to include fishing activities that do not fit well with the definitions for any types of fishing, including *charter fishing* (fishing from a vessel carrying a passenger for hire...who is engaged in recreational fishing, 16 U.S.C. § 1802). Participants then brainstormed other types of fishing in their regions that could add to the discussion and grouped them as related more to commercial, recreational, or charter fishing. Sarah Wise then facilitated a discussion identifying core underlying dimensions of interest for further review and synthesis.

Results

This study identified a number of insights into perceived inconsistencies with the official federal fishing definitions and the confusion they may cause that were initially identified in the PIR (e.g., see PIFG 2011). Rather than provide separate results from each study activity, we grouped related findings and suggestions for additional informational needs from all activities considered together.

We start with key observations about the relationship between non-commercial and recreational fishing that have been identified in the PIR. These topics were used to initiate the broader discussions with the Recreational Fishing Coordinators and Human Dimensions Specialists at each of the key workshops, which further identified blurred definitions within the other main categories of fishing, commercial, and charter. The discussions also identified core policy implications for which additional information would be needed as well as practical considerations related to gathering that information or further examining policy.

Throughout the results below, we italicize terms for the types of fishing when we are referencing official legal or policy definitions. When these terms are used more colloquially or more broadly, they are not italicized. Labels for other categories may be suggested or used in studies but are not yet codified in law or policy or are used inconsistently. These also are not italicized. In addition, we refer to anyone who provided input for the project as participants or project participants, whether they participated through formal interviews, in synthesis of policy definitions, or at one of the workshops. Finally, the literature referenced is not exhaustive but rather represents studies that project participants were already aware of in their regions. It is likely that many other studies exist that could be relevant to future inquiry, especially for regions outside of the PIR, once the focus of that inquiry is better defined.

Non-commercial fishing as an umbrella term

The initial scope of the study was to examine fishing that is not commercial but also does not fit within the MSA definition of recreational fishing. In the PIR, the term non-commercial fishing has been adopted to serve this purpose. The term is typically described as an umbrella term that allows for inclusion of fishing motivations, activities, and identities that are not acknowledged in the federal definitions of *recreational*, *commercial*, or *charter* fishing. Key themes reiterated throughout this project include the role of fishing in local food systems, in community cohesion, and as a leisure activity. Each of these core ideas include multiple considerations, which we discuss as fishing for food, fishing for culture, and fishing for fun.

Fishing for food

Fishing for food was often discussed under the label subsistence, which typically referred to providing food for consumption by immediate family members. In Pacific island nations, marine resources have long played a critical role as a food source, enabling early voyagers to settle new islands and continuing a central role in contemporary diets and culture (Allen 2013). In the PIR, subsistence is defined in the Archipelagic Fishery Ecosystem Plans as, “Fishing to obtain food for personal and/or community use rather than for profit sales or recreation” (Western Pacific Regional Fishery Management Council 2009 a, b, c, d). The related idea of food security was sometimes alluded to, although generally not mentioned directly.

Many appreciated that the term subsistence was familiar and has been used in other regions. Yet, even though the term is used in the MSA in National Standard 8 (50 U.S.C. § 600.345), it is not defined in national law or policy. Others were concerned that subsistence may be assumed to apply only to indigenous groups, federally recognized tribes, or other groups with specific legal standing (e.g., Alaska residents) due to precedent in other states. For example, in Alaska the state passed its first subsistence statute in 1978. The law defined subsistence as “customary and traditional uses” of fish and wildlife, determined through eight criteria. It also highlighted the continuing role of subsistence activities and wild resources in sustaining long-established ways of life in Alaska. The federal government adopted final subsistence management regulations for Federal public land and waters in 1999 and state subsistence law set a priority for subsistence use over all other uses of fish and wildlife for rural Alaskans.¹ The Federal Subsistence Management Program was established as a multi-agency effort to provide the opportunity for a subsistence way of life by rural Alaskans on Federal public lands and waters while maintaining healthy populations of fish and wildlife.² Alaska also has managed a separate halibut subsistence fishery since 2003 (68 FR 18145). In these contexts, subsistence has a specific legal meaning that may not translate directly to other regions.

The permitting system for Papahānaumokuākea MNM includes subsistence fishing in state waters (0–3 nm offshore) as well as a category of *sustenance fishing* in federal waters (3–200 nm offshore). Sustenance fishing may be permitted as a secondary activity to another main permitted activity, and all fish must be caught and eaten within the monument boundaries. Some considered sustenance fishing to be a more accurate term than subsistence, because they believed that subsistence implied poverty, low social status or relying on fish for survival. This negative reaction to the term subsistence was also seen in the southeast region in the study presented by Noëlle Boucquey. Her research found that approximately 75% of urban fishers kept and ate their catch, 20% could be classified as food-insecure, and 10% specifically indicated that fishing helped prevent them from going hungry (Boucquey and Fly 2019). Yet, subsistence fishing was not seen as an adequate descriptor, as no fishers self-identified as such. Similar studies of urban fishing in Los Angeles and Washington DC have identified potential food security coping measures for already at-risk or marginalized populations (Pitchon and Norman 2012; Anacostia Watershed Society 2013). In the southeast region, Vietnamese commercial shrimp fishermen testified during the BP oil spill that many families were low income and kept part of their commercial catch for subsistence, yet the claims process did not account for those losses (NAACP 2011). Further, a survey of recreational fishers in the northeast region found that compared to those who took trips solely for recreation, a higher percentage of those who took trips for other reasons consumed self-caught marine resources, relied on marine resources as a cost-saving food source, and were minority or low income (Steinback et al. 2009).

Another study documented the value of recreational fishing harvest to food security and nutrition in both developed and developing countries across the globe (Cooke et al. 2018). In the United States, the northwest region includes a category *personal use* in commercial landings reports, encompassing practices such as home packs kept by vessel crew, which have also been noted in the northeast region. A study by Poe et al. (2015) examined personal use records in the

¹ <https://www.doi.gov/subsistence/library/history>

² <https://www.doi.gov/subsistence>

Northwest as evidence of subsistence within the commercial fishery and documented that while 85% of personal use harvests were from tribal landings, the remaining 15% were from nontribal fishing operations. Further, they found that personal use harvests were not reliably driven by profit maximization, suggesting the importance of alternate economies, such as community share systems, and seafood gifts.

Fishing for culture

In addition to food, the terms subsistence and personal use were also used to describe other activities related to another important aspect of non-commercial fishing in the PIR, community cohesion. Participants noted that some island communities do not have the same volume and variety of terrestrial sources of protein available to populations on larger landmasses. Marine resources continue to have a central role in many island cultures. For example, Native Hawaiian culture is intimately linked to the natural world, and in ancient times nearly every member of the population regularly participated in some form of fishing (Maly and Maly 2003 a, b). In the Hawaiian cultural context, the consumption of natural resources is part of a relationship of reciprocity that ensures the rights and responsibilities to steward and care for the environment. Therefore, fishing is cultural subsistence and reflects a traditional way of life based on cultural values. This relationship is acknowledged by the State of Hawai‘i Department of Land and Natural Resources in the designation of Community-based Subsistence Fishing Areas (HRS §188-22.6). Cultural subsistence includes many cultural attributes such as traditional ecological knowledge, oral histories, spiritual and religious beliefs, and diet. A study in American Samoa and the Commonwealth of the Northern Mariana Islands also documented the continued contemporary importance of seafood not only in dietary terms, but also in terms of social organization and cultural continuity, and quoted a Samoan high chief who stated, “Fish is culture” (Severance et al. 2013). This sentiment was reiterated by interviewees in the Hawai‘i Bottomfish Heritage Project (Calhoun et al. 2020) as well as in a study on cultural fishing in American Samoa (Kleiber and Leong 2018). The Council’s guiding principles also recognize the importance of island cultures and traditional fishing practices.³

Many related practices noted by interviewees and throughout this project, also included the following:

- the importance of sharing fish to support social networks, especially taking care of those who were older or could no longer fish, or via food pantries;
- fishing with family members to maintain generational and cultural ties;
- fishing as a contribution to celebrations including weddings, graduations, first birthday lū‘au,⁴ fiestas, and other ceremonies.

Severance et al. (2013) identified many of these practices as examples of customary exchange, where unlike barter or trade there is not an expectation for an immediate exchange of goods or services. Rather, immediate benefits may be an increase in social standing or social networks, with an understanding of delayed reciprocity resulting in unspecified benefits in the future. *Customary exchange* may be permitted as a non-commercial fishing activity in Rose Atoll

³ <http://www.wpcouncil.org/wp-content/uploads/2019/05/Council-Guiding-Principles.pdf>

⁴ Hawaiian feast. Pukui MK, Elbert SH. 1986. Hawaiian Dictionary. Honolulu: University of Hawai‘i Press.

MNM, the Marianas Trench MNM, and the Pacific Remote Island Areas MNM, but has not been adopted in policy elsewhere in the PIR or more broadly (Appendix B).

Cultural ties to fish were noted in other regions as well, especially in Alaska and the northwest region where salmon and other marine species feature prominently in indigenous cultural traditions, iconography, and mythology (Close et al. 2002; Carothers et al. 2010). The cultural significance of fishing for indigenous communities within the Pacific Northwest and Alaska is well documented (for some examples, see Moss 2016; Gauvreau et al. 2017). Researchers have recently detailed the importance of subsistence fishing practice among commercial fishers. Examining the catch and distribution of commercial harvests in California and Washington, researchers found subsistence harvest varied across ports from 10 to 33% of the relative total catch, supporting diverse fishing economies (Poe et al. 2015). Donkersloot and Carothers (2016) identified the importance of commercial fisheries in local food-sharing networks in rural Alaska, which brought fishermen higher social status. They also found that commercial fishing was integral to the reproduction of local social and family relationships, identities, and cultural values.

In addition, a study in Puerto Rico found that coastal resource foragers (populations who gain a significant part of their livelihood by gathering and fishing) reported higher quality of life and well-being (including community ties) than populations who did not directly depend on local coastal resources for income, even with lower material income (García-Quijano et al. 2015). Their interviewees noted that “Fishing allows and facilitates sharing...Fishing facilitates our community relationships” (García-Quijano et al. 2015, p. 160). As in the PIR, the researchers noted the importance of the reciprocity-based portion of the coastal resource foraging economy, especially as a buffer from outside economic influence.

NOAA social scientists also mentioned other links between fishing or harvesting marine resources linked to local cultural practices, such as salt cod or grouper for Christmas Eve meals, clambakes in New England, and African American and other ethnically diverse groups that utilize party boats to fish for large gatherings such as fish fries. They were not able to do an exhaustive literature search in the timeframe of this project, but believed that many more such examples exist and/or could be documented.

Responsibility to maintain such cultural connections is related to National Standard 8, which requires NOAA to take into account the importance of fishery resources to fishing communities and provide for their sustained participation (50 U.S.C. §600.345). Multiple studies have documented impacts to local fishing cultures due to broad demographic and societal changes. There is concern about further loss due to the increase in average age of commercial fishermen (Cramer et al. 2018). Highlighting the need for social science in climate change studies, Crate (2011) argues for “the development of critical collaborative, multisited ethnography,” which she terms “climate ethnography” (Crate 2011, p. 175). In the U.S. context, Khakzad and Griffith (2016) link practice with material culture, claiming that fishing underscores a community’s sense of place and thus sociocultural wellbeing. Examining recreational fishing communities in Australia, van Putten (2017) and co-authors suggest that climate adaptation is linked to cultural ties to fishing. As noted by Donkersloot and Carothers (2016), sustaining fisheries is about more than just sustaining the fish; fisheries also sustain a community’s economic base, heritage, food systems, and social structures. Similarly, in a testimony to gubernatorial candidates (Appendix

D), Ed Watamura described fish as the common thread that binds citizens of Hawai‘i, culturally entwining society with the sea and its bounties and bringing joy not only to the people who fish, but also more broadly throughout fishing communities. Improving understanding of underlying fishing motivations can better align management strategies among fishing communities.

Fishing for fun

In the PIR, fishing that meets the MSA definition of *recreational fishing* (for sport or pleasure) is recognized as an important activity. Indeed, in a 2015 survey targeting non-commercial fishers in Hawai‘i, 51% identified fishing purely for recreational purposes (only sport or pleasure) as their primary motivation (Madge et al. 2016). However, as illustrated in the previous sections, project participants emphasized that fishing for fun does not adequately represent the full range of fishing activities that do not involve sale of fish. Participants explained that the narrow MSA definition could be viewed by many as exclusive, irrelevant or wasteful.

First, participants collectively described a cultural archetype of a recreational fisher as someone who participates in fishing as a sport or hobby during their leisure time, is predominantly engaged in catch and release fishing, and may participate in tournaments. In other words, this is the image participants thought that most people have in their mind when they hear the term “recreational fishing.” In contrast, in the PIR the cultural archetype for fishing that does not focus on commercial sale strongly revolved around the various aspects of fishing for food and culture described above. While participants acknowledged they derived pleasure out of these activities, they did not identify with the recreational fisher archetype. They noted as a further complication that commercial fishing could also be pleasurable. The cultural archetypes and the assumptions associated with them led many to believe that recreational fishing was too exclusive of a term. Individual reactions ranged from mild annoyance or dissatisfaction to offense. Some reported a history of public anger around the term in the PIR. Others have noted that labeling fishing activity as sport or pleasure can trivialize how and why people fish (PIFG 2011). The term “non-commercial fishing,” in contrast, was described as more inclusive, encompassing the other types of fishing that many viewed as unacknowledged or overlooked in existing MSA definitions.

There was also concern that fishers who did not identify with the MSA definitions might view requirements for reporting or opportunities for engaging in recreational fishing management as irrelevant. As one interviewee noted, “It’s difficult to impose restrictions on a constituency that doesn’t exist in their own minds.” Another project participant described a specific example in American Samoa, where local fishermen indicated that they did not participate in tournaments because they believed the tournaments were only for tourists. At minimum, if people do not see themselves as recreational fishers, their voices could go unheard in regulatory processes or management decisions. At worst, there was concern about underreporting catch, putting at risk NOAA’s ability to accurately assess stocks. Hawai‘i is the only coastal state in the United States without a mandatory non-commercial marine fishing registry, permit, or license system, and efforts to establish one have consistently met with resistance (The Study Group on the Feasibility of a Non-Commercial Marine Registry, Permit, or License System for Hawai‘i 2016). The situation is similar in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI) and makes it particularly challenging to assess the full scale of participation in non-commercial fishing.

Finally, some project participants emphasized the importance of utilizing resources in Pacific Island cultures, where catch and release could be seen as wasteful. They also noted that catch and release fishing did not rely on having a fish in hand to fulfill many recreational fishing motivations (e.g., practicing skill, socializing, enjoying being on the water). The phrase “we don’t play with our food” was often used to contrast catch and release with the other important roles that fish play in local food and cultures that project participants felt were underrepresented. While this phrase appeared to be used in the PIR to assert unrecognized identities, project participants observed that in other regions, the phrase was often interpreted as an attack on the archetypal recreational fisher identity.

Project participants were unsure how widespread dissatisfaction ran with the term recreational fishing. As previously noted, a majority of non-commercial fishers surveyed in Hawai‘i identified pure recreation as their primary motivation (Madge et al. 2016). They also reported that the most important reason affecting rate of their fishing activity was availability of leisure time. Participants reported that in other regions where the term non-commercial fishing has not been used and the cultural archetype of a recreational fisher is more dominant, attempts to introduce non-commercial fishing language were met with confusion. Some questioned whether it would be easier to broaden the concepts associated with recreational fishing rather than introduce another term altogether. Although many may feel included in the recreational terminology, others believed that continuing to use a limited and exclusive term might further estrange an important sector of the broader fishing community.

Mixed motivations

While this study was initially designed to focus on dimensions of non-commercial fishing, discussions inevitably included reference to commercial fishing, both in contrast to non-commercial activities and to illustrate the difficulty in cleanly separating the two. In the PIR, these mixed motivations have been clearly documented in studies of both commercial and non-commercial fishing. For example, in a survey of commercial marine license holders in Hawai‘i who had fished and sold at least one fish in 2013, the majority did not define themselves as full-time commercial, and 11% defined themselves as pure recreational (Chan and Pan 2017). In addition, 28% of the self-identified pure recreational fishers sold fish. Similarly, in a survey of non-commercial fishers in Hawai‘i, almost half identified primary motivations other than sport or pleasure, and 9% identified their primary motivation as expense fishing, where they sell some catch to recover expenses (Madge et al. 2016). The potential for multiple combinations of motivations were described in interviews conducted by Miller (1996) and the description of Western Pacific fishing fleets and fishery profiles, includes commercial fishing contributions to food, culture, and fun (Markrich and Hawkins 2016).

Project participants reiterated that motivations in the PIR are dynamic and can shift within and between trips, with catch from the same trip used for multiple purposes, including commercial and non-commercial. These observations have been reported in other studies (e.g., see Allen 2013). An interviewee in the Hawai‘i Bottomfish Heritage Project described the tradeoffs he considers when determining how much to sell or keep from a given trip:

“I guess it depends on the amount of catch, too. Since we live [far from the fish auction], if I catch less than 50 pounds or 80 pounds, then a lot of times I know it’s still worth a lot of money, but sometimes it’s not worth the trip to town to drop it off. So that’s when -- and if the prices are low at the time and you’ve got to weigh it out in your head, if the prices are a little low right now, I don’t have that much, now is a good time to take care of people that take care of you” (Ebisui Spotlight Video, Hawai‘i Bottomfish Heritage Projects)

In addition, as noted in previous sections, commercial fishers in other regions also play a role in maintaining food systems, community cohesion, and may enjoy their fishing activities. It is unclear the degree to which the mixed motivations described in the PIR occur in other regions. For example, fishery councils on the East Coast used to allow recreational sales but have since disallowed this activity. Participants believed that if this activity were allowed again, many would participate, but allocation between commercial and recreational sectors could be challenging.

Fishing as identity vs. activity

Some project participants observed that MSA definitions were designed to regulate activities and are predominantly about end-state behaviors and what people do with fish, but the language of the definitions and their implementation have come to be associated with identities tied to motivations and reasons for fishing. One participant stated explicitly that in the Pacific Islands, fishing is “who we are, not what we do.” Others acknowledged that it is difficult to regulate motivations, but were still uncomfortable with sale of any fish being associated with commercial fishing as a concept.

This discomfort again appeared to be linked to cultural archetypes. For commercial fishing, project participants described a cultural archetype that primarily revolved around profit motive. As one stated, “when motivation is for profit, you can call it commercial.” Others identified the stereotype (a simplified cliché of an archetype) of a commercial fisherman as a “strictly profit-oriented hard-charging kind of image that ... ‘They’re in it just to make money, they don’t care about the resource.’” Participants were particularly uncomfortable with this stereotype being associated with members of Pacific Islands small-boat fleets who may sell fish to offset costs but who are not making a profit. While these activities are regulated as commercial fishing, they felt it was inappropriate to categorize those smaller sales in the same way as when fishing is a primary source of income.

Participants from other regions mentioned that they utilize tiered permit systems, which could be a way to acknowledge the different motivations and identities related to sale of fish. Studies in the PIR support such a tiered approach. For example, a 2011 survey in Hawai‘i found that most respondents disagreed with categorizing the sale of one fish as commercial fishing and overwhelmingly believed there are levels of commercial fishing (PIFG 2011). Surveys in the PIR have started to regularly include three categories to describe sale of fish: full-time commercial, part-time commercial, and recreational expense (e.g., see PIFG 2011; Chan and Pan 2017).

⁵ Available at <https://voices.nmfs.noaa.gov/collection/hawaii-bottomfish-heritage-project>

Project participants also noted that in other regions for-hire fleets were starting to express feelings of exclusion. They also don't fit neatly under the definitions of recreational and commercial fishing. The MSA definition of *charter fishing* is "...fishing from a vessel carrying a passenger for hire ... who is engaged in recreational fishing" (16 U.S.C. § 1802). However, numerous hybrid approaches are emerging related to sale of a fishing experience, many of which utilize commercial shares. In the northeast region, people pay for the experience to go out with commercial fishermen and pull lobster traps. In Alaska, a short-term, 7-day commercial fishing crew license allows passengers on cruise ships and others to pay for the experience to work on a commercial fishing boat. In the southeast region, this type of activity was labeled a "catch shares experience," and any fish caught were considered part of the captain's commercial share. Others noted that it sounded like a farm stay or dude ranch type of experience, and some have called it "dude fishing." There was a sense that some of these activities may be emerging among small-boat commercial operators who are no longer able to compete, so they have started to switch to for-hire activities. Others noted that for-hire party boats could serve purposes of community cohesion by allowing community groups, church groups, or extended families to spend time together and catch fish for food, including celebrations.

Matching the categories of fishing used in surveys in the PIR and discussed in this project with the overarching activities regulated under MSA clearly identifies subcategories for each main activity related to fishing, many of which are motivational:

- Fish are caught but not sold (currently regulated as *recreational fishing*, broadened to *non-commercial fishing* in the PIR):
 - Fishing for food: Subsistence, to feed myself and family
 - Fishing for culture: Cultural, to keep traditions alive and share fish
 - Fishing for fun: Pure recreational, sport or pleasure
- Some fish caught are sold (currently regulated as *commercial fishing*)
 - Recreational expense: some fish are sold to cover expenses
 - Part-time commercial: fishing pays some of my bills, but I still have to work at another job
 - Full-time commercial: fishing brings in most or all of the money I make in a year
- The fishing experience is sold
 - *Charter fishing*: passengers pay for recreational fishing, fish counts towards recreational quotas⁶
 - Fishing experience: passengers pay to experience commercial fishing, fish counts towards commercial quotas

Labels and definitions for these categories and subcategories are meant only as a starting point to identify natural distinctions that have emerged in discussions, not as proposed new definitions. Indeed, this project revealed concerns that should be considered in creating, retaining, or

⁶ In Hawai'i, quotas are not allocated between commercial and recreational fisheries, and most of the charter patrons are not local and do not keep fish they catch. Charter captains are required to obtain a commercial marine license and are allowed to sell catch from charter trips, but the experience is more like a typical recreational fishing charter experience (purpose is sport or pleasure) than the emerging fishing experience type of trip identified in this study.

changing any new terminology. Labels used in surveys in Hawai‘i are included to assist readers familiar with those categories.

Policy implications

While the PIR has been working for decades to clarify the blurred lines and multiple types of fishing that can exist between the MSA definitions of recreational and commercial fishing, discussions across regions and national programs revealed a broader fundamental set of questions that also extend to charter fishing. Namely, project participants identified the core problem as a need to better understand, identify, and characterize fishing communities who are overlooked (or might feel like they are overlooked) under current definitions, regulations, and management. Lack of knowledge about these populations in turn raised questions about ability to achieve NOAA mandates in two key areas: responsibilities to achieve optimum yield (National Standard 1, 50 *U.S.C.* § 600.310), and responsibilities to provide for the sustained participation of fishing communities (National Standard 8).

National Standard 1: Are the fish counted?

One of the core mandates for NOAA Fisheries is to provide productive and sustainable fisheries, which relies on accurate assessments of fish mortality due to fishing activities. One participant observed succinctly, “Without fish, there are no fishermen.” If overlooked populations do not report catch, accuracy of stock assessments could be affected. As described in the section on Fishing for Fun, people may not report catch if they think regulations do not apply to them or are resentful because they feel inadequately represented. Further, agency staff may not know how to reach these populations to request reporting in an inclusive way. A suite of fundamental questions were identified, including: Who are these populations? How large are they? How much of which species are they catching? To what degree are they reporting catch? Why or why not?

National Standard 8: Are all the people who fish counted? Do they feel like they count?

In addition, NOAA Fisheries has a responsibility to ensure the sustained participation of fishing communities, which includes responsibilities to consider social and cultural importance of marine resources as well as procedural justice⁷ and public participation in management. Environmental justice also may be a consideration, as some of these communities may include vulnerable at-risk minority or low income populations. Along these lines, project participants identified additional questions: Do overlooked populations have a voice? Have they already found ways to be heard? If so, how satisfied are they with the way they are heard/represented? How does this affect the way that people engage in management decisions? How else do they want to be engaged?

Even if their fishing activities are already being counted, project participants discussed benefits of finding better ways to acknowledge populations who felt overlooked. As one noted, “Respecting people’s self-identity goes a long way to gaining trust with a regulated community.”

⁷ Procedural justice is the fairness of a decision-making process that leads to a distribution of resources. Deutsch, M. 2011. Justice and Conflict. In: Deutsch M, Coleman PT, Marcus EC, editors. *The Handbook of Conflict Resolution: Theory and Practice*. 2nd Ed. San Francisco: Jossey-Bass Inc. Publishers. p. 43-68.

Further, project participants observed that people are more likely to respect outcomes if they believe the processes that produced them were fair and inclusive.

Practical considerations

Project participants noted that ideally NOAA Fisheries would celebrate the diversity of uses of fish resources. As one observed, “For some reason, we’re valuing certain kinds of relationships with fish over others in how we design policies. And maybe a first step is really defining and acknowledging these values and the need to protect these varying kinds of relationships to fish.” From this perspective, there was a core question: How can we ensure that all stakeholders see themselves in laws, policies, and management? Another way of phrasing this: What can be done to better fit the regulatory framework to the people being regulated? Project participants were unsure whether changes to legal or policy definitions were necessary, or whether there were other ways to accomplish this goal under current definitions, for example with regionally appropriate applications determined by local Councils. Again, they identified a need to better understand the situation as a fundamental first step, with potential solutions designed once the problem was better understood.

In addition, they identified a number of other practical considerations. First, they questioned whether it was possible to regulate based on identity and motivations. They recognized that many concerns stemmed from definitions that did not acknowledge the full range of identities, but also noted that was not the purpose of regulations. Instead, they suggested that perhaps definitions and applications should be examined for instances that confuse activity with identity or motivation (e.g., the definition of recreational fishing, for sport or pleasure, is based on motivations). From the perspective of activity, the categories of recreational, commercial, and charter fishing reflect the agency’s need to monitor activities that result in: catching but not selling fish, selling fish, and selling the fishing experience. It was suggested that bringing the focus back to those core activities vs. identities could provide more clarity.

Participants also noted the importance of attending to other requirements if people’s activities become regulated under different categories. For example, classification as a commercial fisherman results in expensive Coast Guard requirements for safety gear, which may be prohibitive for people who only want to sell small amounts of fish. Participants also questioned definitions that didn’t align with other agencies. For example, a commercial fisherman who sells only a few fish may not have enough sales for the IRS to consider fishing more than a hobby. Could tax implications provide guidance on when activities are considered commercial or recreational? Finally, while the contributions of fishing to food systems and subsistence was a central discussion, much of this type of fishing occurs nearshore and may be more appropriately handled at the state level. At the same time, National Standard 3 (50 U.S.C. § 600.320) directs NOAA Fisheries to manage interrelated stocks of fish as a unit in cooperation with other entities such as states.

More broadly, participants cautioned against considering changes to law or policy that relied on changes in other laws. They also identified a need to anticipate how attempts to broaden inclusivity could create potential loopholes that might be exploited. At the same time, they recognized the need for more nuance, and that “...playing to the average can result in universal disappointment.” Further, they noted the importance of preserving regional flexibility and maintaining uniqueness within national definitions and approaches. This was again identified as

a potential role for regional council involvement, for example by adding seats on councils to represent other aspects of non-commercial fishing.

Unlike other regions, the PIR does not operate catch-share fisheries and regional quotas are not allocated between commercial and non-commercial activities. Previous work exploring catch shares in the Hawai'i bottomfish fishery identified potential benefits from a catch-shares structure, but highlighted numerous underlying challenges (e.g., historical data collection requirements, monitoring mechanisms, and fisher perceptions) that preclude movement towards catch shares (Hospital and Beavers, 2014a). These issues would apply to nearly all fisheries within the Pacific Islands Region, with the exception of regional commercial longline fisheries. As such, the PIR has avoided many of the allocation concerns that have come to define stakeholders and categories of fishing in other regions. Some participants noted that allocation runs counter to cultural norms in the Pacific islands and others suggested that this situation may in part explain why this discussion originated in the PIR. Nonetheless, the interviews and conversations conducted throughout this project indicate that blurred lines between fishing activity and identity are applicable in other regions as well. Participants emphasized that the stakes are raised when allocation is on the line, heightening tensions related to identity and in-group/out-group dynamics. Any actions that could potentially affect existing allocations could understandably cause stakeholders to feel threatened and would need to be approached thoughtfully. Even studying the topic could cause concerns if people anticipate regulatory change and position themselves accordingly.

Social scientists could play a valuable role in approaching the questions raised throughout this study with these considerations in mind. NOAA social scientists regularly study fishing communities, including concepts that are difficult to measure with traditional economics or statistics, such as human well-being (e.g., see Breslow et al. 2016, 2017). In addition, project participants identified two understudied concepts specifically related to the position of NOAA Fisheries within the Department of Commerce: the contribution of various fishing practices to cultural commerce and to the moral economy. These two concepts are uniquely suited for investigation by social scientists. Cultural commerce or the cultural economy is the trade in cultural goods and services, grounded in the idea that for some activities, cultural benefits can transcend monetary gains (Kabanda 2016). These activities contribute to intangible cultural heritage, e.g., oral traditions and expressions, social practices such as rituals and festive events, and knowledge and practices concerning nature (UNESCO 2003; UNDP and UNESCO 2013). The moral economy is considered a key concept of civil society research, and is often used in contrast to the market system (Götz 2015). It includes consideration of noneconomic norms and obligations that impart social value and meaning to goods that are exchanged (Arnold 2001). Examining various aspects of fishing through the lenses of cultural commerce and the moral economy could identify important contributions of overlooked fishing populations and broaden understanding of how to minimize adverse economic impacts to these communities.

Discussion

This project began as an extension of efforts in the PIR to acknowledge, understand, and compile the multiple types of fishing that are core to identities and motivations of fishing communities, beyond the narrow MSA definitions of recreational and commercial fishing. It reaffirmed a spectrum of activities and benefits related to catching and selling fish and identified additional examples across the United States. In addition, it identified emerging subcategories related to sale of the fishing experience. There was general agreement on a need for future studies that better understand, identify, and characterize fishing communities overlooked by current definitions, regulations, and management paradigms. Such investigations could provide opportunities for collaboration between NOAA social scientists and recreational fishing coordinators, as well as information for policymakers considering any changes to fishing definitions.

The discussions of fishing categories identified important distinctions between fishing activities/outcomes, motivations for those activities, and identities associated with those motivations. In a regulatory context, definitions are often most concerned with the activity or outcome of the activity with respect to fish stocks and commerce. Yet, the wording of the definitions and the way they have been applied to fishing communities have become associated with identities and motivations. By aligning the categories of fishing identities and motivations with the overarching activities regulated under MSA, we developed a framework that could be used to structure future studies. Specific information needs include systematic exploration of the breadth and depth of these types of fishing across the nation; the extent to which fishing communities feel included in the current MSA regulatory framework; and implications for stock assessments, sustained community involvement, and procedural justice.

The concerns identified in this study related to categories of fishing are particularly germane for ongoing discussions of MSA reauthorization. While the MSA reauthorization bill introduced in the 115th Congress did not pass, Congressman Huffman, Chair of the Water, Oceans, and Wildlife Subcommittee of the House Natural Resources Committee, began a listening tour related the MSA reauthorization in October 2019 and intends to introduce an MSA reauthorization bill in the 116th Congress. If any new definitions for fishing are considered, policymakers may want to pay close attention to clearly distinguishing between activity and motivation, as well as potentially unintended connotations of terms based on colloquial usage, for example, perceptions of subsistence as having a much narrower scope than the definition proposed in H.R. 200.

As noted by project participants, ideally NOAA would celebrate the diversity of ways people use fish, ensuring that fisheries are managed to be inclusive of all fishing communities. Ed Watamura eloquently described how fish form a common thread throughout the western Pacific, weaving through food systems, culture, leisure activities, and livelihoods, to form a rich fabric that binds fishing communities. This initial investigation revealed that many of the same processes are likely true for fishing communities throughout the rest of the United States, even if the resulting patterns in the fabric, e.g., specific cultural traditions, vary by place. Future investigations are needed to ensure those traditions are honored and to answer core questions identified in this project: are all the fish counted, are all the people who fish counted, and do they feel like they count?

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Appendix A: Interview Guide

Beyond recreation: when non-commercial fishing motivations are more than sport or pleasure

The Magnuson-Stevens Fishery Conservation and Management Act directs NOAA Fisheries to manage commercial and recreational fishing as separate activities. Yet, numerous studies in the PIR have demonstrated this distinction is not clear-cut in practice. Further, definitions used in policy do not adequately cover other important concepts and values, such as cultural exchange or expense fishing.

For my project in the Emerging Leaders Program of the Pacific Leadership Academy, I am interested in learning from leaders at the national and regional level the evolution of this term, the diversity of activities it is seen to cover, and applicability to other regions, including policy implications of adopting this broader terminology.

Specific questions I would like to discuss with you:

1. Please tell me about the history of the term non-commercial fishing in the Pacific Islands Region
2. What does the term non-commercial fishing mean to you?
3. How do you see it as similar or different from recreational fishing?
4. How do these concepts apply beyond the Pacific Islands Region?
5. How could laws and policies apply to non-commercial vs. recreational fishing?
6. What aspects of fisheries management could be improved by considering activities as non-commercial vs. recreational?
7. Why should or shouldn't we make a distinction between the two terms at the national level?
8. Who else should I talk to about the history/evolution of this topic and potential broader implications?
9. Do you have any additional questions for me?

Appendix B: Compilation of definitions in law and policy for the Pacific Islands Region

Objective

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) directs NOAA Fisheries to manage commercial and recreational fishing as separate activities. Yet, numerous studies in the Pacific Islands have demonstrated this distinction is not clear-cut in practice. Further, definitions used in policy do not adequately cover other important concepts, such as expense fishing. These non-commercial fishing tables document codified terminology related to aspects of non-commercial fishing in the Pacific Islands and summarize consistencies and inconsistencies in usage.

Non-Commercial Fishing Tables

The non-commercial fishing tables identify how fishing terms are used in law, policy, and regulatory documents in regions and monuments. The tables are to read as follows:

Cell Text

- The cell displays the verbatim quote from the source document containing the terminology, which is highlighted in bold.
- Definitions of each term were initially sought within each document. If the definition was found, it is labeled *Definition*. If definition was not found but the terminology appeared in the document, it is labeled *Term Only*.
- N/A indicates terminology was not defined or mentioned within the source document.

Cell Background Color

- **Light blue** is displayed when the term is defined in at least one of the documents and is used in congruence within the respective monument.
- **Blue** is displayed when the term is used within that document but has not been defined in any documents within the respective monument.
- **Dark blue** is displayed when the term is defined or used inconsistently across monuments.

Key Highlights in the Pacific Islands Region

The documents codify the majority of non-commercial fishing terminology in some capacity, while others use but do not formally define the terminology. Three key terms are not clearly defined but are used throughout the policy and regulatory documents:

- “Sustenance Fishing” – Defined in Papahānaumokuākea, but not formally defined in the Pacific Remote Islands, Marianas Trench, or Rose Atoll Marine National Monuments.
- “Traditional Indigenous Fishing” – Not defined in any documents.
- “Artisanal Fishing” – Not defined in any of the documents.

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Table B1. National

	Magnuson Stevens Act: Title 16 & MSA Provisions: Title 50	Modernizing Recreational Fisheries Management Act	National Saltwater Recreational Fisheries Policy
Non-commercial	N/A	N/A	<i>Term Only:</i> "This policy pertains to non-commercial activities of fishermen who fish for sport or pleasure, as set out in the MSA definition of recreational fishing, whether retaining (e.g., consuming, sharing) or releasing their catches, as well as the businesses and industries (e.g., the for-hire fleets, bait and tackle businesses, tournaments) which support them." (National Marine Fisheries Service, 2015)
Recreational	<i>Definition:</i> "The term " recreational fishing " means fishing for sport or pleasure." (16 U.S.C. § 1802, 2011)	<i>Term Only:</i> "While both provide significant cultural and economic benefits to the Nation, recreational fishing and commercial fishing are different activities."	<i>Term Only:</i> "This policy pertains to non-commercial activities of fishermen who fish for sport or pleasure, as set out in the MSA definition of recreational fishing , whether retaining (e.g., consuming, sharing) or releasing their catches, as well as the businesses and industries (e.g., the for-hire fleets, bait and tackle businesses, tournaments) which support them." (National Marine Fisheries Service, 2015)
Sustenance	N/A	N/A	N/A
Subsistence	<i>Term Only:</i> "A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops)." (50 U.S.C. § 600.345, 2011)	N/A	N/A
Traditional Indigenous	N/A	N/A	N/A
Customary exchange	N/A	N/A	N/A

	Magnuson Stevens Act: Title 16 & MSA Provisions: Title 50	Modernizing Recreational Fisheries Management Act	National Saltwater Recreational Fisheries Policy
Charter Fishing	<i>Definition:</i> “The term ‘ charter fishing ’ means fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of title 46) who is engaged in recreational fishing.” (16 U.S.C. § 1802, 2011)	<i>Term Only:</i> “MIXED-USE FISHERY.—The term “mixed-use fishery” means a Federal fishery in which 2 or more of the following occur: (A) Recreational fishing. (B) Charter fishing . (C) Commercial fishing.”	N/A
Compensation Fishing	<i>Definition:</i> Compensation fishing means fishing conducted for the purpose of recovering costs associated with resource surveys and scientific studies that support the management of a fishery, or to provide incentive for participation in such studies. Compensation fishing may include fishing during or subsequent to such surveys or studies.” (50 U.S.C. § 600.10, 2011)	N/A	N/A
Exempted or Experimental Fishing	<i>Definition:</i> “ Exempted or experimental fishing means fishing from a vessel of the United States that involves activities otherwise prohibited by this Chapter VI, but that are authorized under an exempted fishing permit (EFP). The regulations in §600.745 refer exclusively to exempted fishing . References elsewhere in this chapter to experimental fishing mean exempted fishing under this part.” (50 U.S.C. § 600.10, 2011)	N/A	N/A
Customary Rights	N/A	N/A	N/A
Artisanal Fishing	N/A	N/A	N/A

Table B2. Western Pacific Region

	Code of Federal Regulations: Fisheries in the Western Pacific
Non-commercial	<i>Definition:</i> " Non-commercial fishing means fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence, traditional indigenous, and recreational fishing." (50 <i>CFR</i> § 665.12, 2010)
Recreational	<i>Definition:</i> " Recreational fishing means fishing conducted for sport or pleasure, including charter fishing." (50 <i>CFR</i> . § 665.12, 2010)
Sustenance	<i>Term Only:</i> "Non-commercial fishing means fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance , subsistence, traditional indigenous, and recreational fishing." (50 <i>CFR</i> § 665.12, 2010)
Subsistence	<i>Term Only:</i> "Non-commercial fishing means fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence , traditional indigenous, and recreational fishing." (50 <i>CFR</i> § 665.12, 2010)
Traditional Indigenous	<i>Term Only:</i> "Non-commercial fishing means fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence, traditional indigenous , and recreational fishing." (50 <i>CFR</i> § 665.12, 2010)
Customary exchange	<i>Definition:</i> " Customary exchange means the non-market exchange of marine resources between fishermen and community residents, including family and friends of community residents, for goods, and/or services for cultural, social, or religious reasons. Customary exchange may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, fuel, or food, that may be necessary to participate in fisheries in the western Pacific. Actual trip expenses do not include expenses that a fisherman would incur without making a fishing trip, including expenses relating to dock space, vessel mortgage payments, routine vessel maintenance, vessel registration fees, safety equipment required by U.S. Coast Guard, and other incidental costs and expenses normally associated with ownership of a vessel." (50 <i>CFR</i> § 665.12, 2010)
Charter Fishing	<i>Term Only:</i> "Recreational fishing means fishing conducted for sport or pleasure, including charter fishing ." (50 <i>CFR</i> § 665.12, 2010)
Compensation Fishing	N/A
Exempted or Experimental Fishing	N/A
Customary Rights	N/A
Artisanal Fishing	N/A

Table B3. Papahānaumokuākea Marine National Monument

	Code of Federal Regulations: Papahānaumokuākea Marine National Monument	Proclamation	Department of Land and Natural Resources: Title 13	Fishery Ecosystem Plan for the Hawai'i Archipelago	Fishery Management Plan
Non-commercial	<i>Term Only:</i> "Native Hawaiian Practices means cultural activities conducted for the purposes of perpetuating traditional knowledge, caring for and protecting the environment and strengthening cultural and spiritual connections to the Northwestern Hawaiian Islands that have demonstrable benefits to the Native Hawaiian community. This may include, but is not limited to, the non-commercial use of Monument resources for direct personal consumption while in the Monument." (50 <i>CFR</i> § 404.3, 2013)	<i>Term Only:</i> " Non-commercial fishing , provided that the fish harvested, either in whole or in part, cannot enter commerce through sale, barter, or trade, and that the resource is managed sustainably." (Proclamation No. 9478, 3 <i>CFR</i> , 2017)	N/A	<i>Term Only:</i> "Federal bottomfish permit is required for vessel owners and fishermen to conduct vessel-based non-commercial fishing for any bottomfish management unit species in Federal waters around the MHI (except customers of charter fishing trips)."	<i>Definition:</i> "Native Hawaiian Practices: Cultural activities conducted for the purposes of perpetuating traditional knowledge, caring for and protecting the environment, and strengthening cultural and spiritual connections to the Northwestern Hawaiian Islands that have demonstrable benefits to the Native Hawaiian community. This term may include, but is not limited to, the noncommercial use of monument resources for direct personal consumption while in the Monument." (Papahānaumokuākea Marine National Monument Management Plan, 2008)

	Code of Federal Regulations: Papahānaumokuākea Marine National Monument	Proclamation	Department of Land and Natural Resources: Title 13	Fishery Ecosystem Plan for the Hawai'i Archipelago	Fishery Management Plan
Recreational	N/A	N/A	N/A	<i>Definition:</i> "Recreational Fishing: Fishing for sport or pleasure." (Western Pacific Regional Fishery Management Council 2009)	N/A
Sustenance	<i>Definition:</i> "Sustenance fishing means fishing for bottomfish or pelagic species in which all catch is consumed within the Monument, and that is incidental to an activity permitted under this part." (50 CFR § 404.3)	<i>Definition:</i> "Sustenance fishing means fishing for bottomfish or pelagic species that are consumed within the monument, and is incidental to an activity permitted under this proclamation. The Secretaries may permit sustenance fishing outside of any Special Preservation Area as a term or condition of any permit issued under this proclamation." (Proclamation No. 8031, 3 CFR, 2017)	N/A	<i>Term Only:</i> "Native Hawaiian cultural practices, including sustenance fishing may, however, be permitted to continue."	<i>Definition:</i> "For the Monument, sustenance fishing means fishing for bottomfish or pelagic species in which all catch is consumed within the Monument, and that is incidental to an activity permitted." (Papahānaumokuākea Marine National Monument Management Plan, 2008)

	Code of Federal Regulations: Papahānaumokuākea Marine National Monument	Proclamation	Department of Land and Natural Resources: Title 13	Fishery Ecosystem Plan for the Hawai'i Archipelago	Fishery Management Plan
Subsistence	N/A	<i>Term Only:</i> "Native Hawaiian practices, including exercise of traditional, customary, cultural, subsistence , spiritual, and religious practices within the Monument Expansion." (Proclamation No. 9478, 3 <i>CFR</i> , 2017)	<i>Definition:</i> " Subsistence means harvesting for direct personal or family consumption and not for commercial purposes." (H.A.R. §13-60.5-3)	<i>Term Only:</i> "Proclamation No. 8031 directs the Secretaries to allow all permitted vessels to conduct subsistence fishing while in the monument and, directs the Secretaries to prohibit commercial fishing in the monument five years from the date of the monument designation."	<i>Term Only:</i> "OHA also assures the perpetuation of Hawaiian cultural resources in the Monument, including the customary and traditional rights and practices of Native Hawaiians exercised for subsistence , cultural, and religious purposes under the Constitution of the State of Hawai'i."
Traditional Indigenous	N/A	N/A	N/A	N/A	N/A
Customary exchange	N/A	N/A	N/A	N/A	N/A
Charter Fishing	N/A	N/A	N/A	<i>Definition:</i> " Charter Fishing: Fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of Title 46, United States Code) who is engaged in recreational fishing." (Western Pacific Regional Fishery Management Council 2009)	N/A
Compensation Fishing	N/A	N/A	N/A	N/A	N/A

	Code of Federal Regulations: Papahānaumokuākea Marine National Monument	Proclamation	Department of Land and Natural Resources: Title 13	Fishery Ecosystem Plan for the Hawai'i Archipelago	Fishery Management Plan
Exempted or Experimental Fishing	N/A	N/A	N/A	N/A	N/A
Customary Rights	N/A	N/A	N/A	N/A	<i>Definition:</i> "Customary rights: Rights customarily and traditionally exercised for subsistence, cultural, and religious purposes and possessed by ahupua'a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778." (Papahānaumokuākea Marine National Monument Management Plan, 2008)
Artisanal Fishing	N/A	N/A	N/A	N/A	N/A

Table B4. Marianas Trench Marine National Monument

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the Mariana Archipelago
Non-commercial	<i>Term Only:</i> “(a) Marianas Trench Monument Islands Unit non-commercial permit—(1) Applicability. Both the owner and operator of a vessel used to non-commercially fish for, take, retain, or possess MUS in the Islands Unit must have a permit issued under this section, and the permit must be registered for use with that vessel.” (50 <i>CFR</i> § 665.905)	N/A	N/A
Recreational	N/A	<i>Term Only:</i> "Subject to such terms and conditions as the Secretary of Commerce deems necessary for the care and management of the objects of the Islands Unit, the Secretary, consistent with Executive Order 12962 of June 7, 1995, as amended, shall ensure that sustenance, recreational, and traditional indigenous fishing shall be managed as a sustainable activity consistent with other applicable law and after due consideration with respect to traditional indigenous fishing of any determination by the Government of the Commonwealth of the Northern Mariana Islands." (Proclamation No. 8335, 3 <i>CFR</i> , 2010)	<i>Definition:</i> “ Recreational Fishing: Fishing for sport or pleasure.” (Western Pacific Regional Fishery Management Council 2009)

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the Mariana Archipelago
Sustenance	N/A	<i>Term Only:</i> "Subject to such terms and conditions as the Secretary of Commerce deems necessary for the care and management of the objects of the Islands Unit, the Secretary, consistent with Executive Order 12962 of June 7, 1995, as amended, shall ensure that sustenance , recreational, and traditional indigenous fishing shall be managed as a sustainable activity consistent with other applicable law and after due consideration with respect to traditional indigenous fishing of any determination by the Government of the Commonwealth of the Northern Mariana Islands." (Proclamation No. 8335, 3 <i>CFR</i> , 2010)	<i>Term Only:</i> "Proclamation 8335 directs the Secretary of Commerce to prohibit commercial fishing within the Islands Unit of the monument (i.e., within 50 nm of the islands of Maug, Farallon de Pajaros and Asuncion) but allow sustenance fishing , recreational and traditional indigenous fishing after consultation with the Government of CNMI." (Western Pacific Regional Fishery Management Council, 2009)
Subsistence	N/A	<i>Term Only:</i> "Traditional access by indigenous persons, as identified by the Secretaries in consultation with the Government of the Commonwealth of the Northern Mariana Islands, for culturally significant subsistence , cultural and religious uses within the monument." (Proclamation No. 8335, 3 <i>CFR</i> , 2010)	<i>Definition:</i> " Subsistence Fishing: Fishing to obtain food for personal and/or community use rather than for profit sales or recreation." (Western Pacific Regional Fishery Management Council, 2009)
Traditional Indigenous	N/A	<i>Term Only:</i> "Subject to such terms and conditions as the Secretary of Commerce deems necessary for the care and management of the objects of the Islands Unit, the Secretary, consistent with Executive Order 12962 of June 7, 1995, as amended, shall ensure that sustenance, recreational, and traditional indigenous fishing shall be managed as a sustainable activity consistent with other applicable law and after due consideration with respect to traditional indigenous fishing of any determination by the Government of the Commonwealth of the Northern Mariana Islands." (Proclamation No. 8335, 3 <i>CFR</i> , 2010)	<i>Term Only:</i> "Proclamation 8335 directs the Secretary of Commerce to prohibit commercial fishing within the Islands Unit of the monument (i.e., within 50 nm of the islands of Maug, Farallon de Pajaros and Asuncion) but allow sustenance fishing, recreational and traditional indigenous fishing after consultation with the Government of CNMI." (Western Pacific Regional Fishery Management Council, 2009)

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the Mariana Archipelago
Customary exchange	<i>Term Only:</i> "(3) Terms and conditions. (i) Customary exchange of fish harvested within the Islands Unit under a non-commercial permit is allowed, except that customary exchange by fishermen engaged in recreational fishing is prohibited." (50 <i>CFR</i> § 665.90)	N/A	N/A
Charter Fishing	N/A	N/A	<i>Definition:</i> " Charter Fishing: Fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of Title 46, United States Code) who is engaged in recreational fishing." (Western Pacific Regional Fishery Management Council, 2009)
Compensation Fishing	N/A	N/A	N/A
Exempted or Experimental Fishing	N/A	N/A	N/A
Customary Rights	N/A	N/A	N/A
Artisanal Fishing	N/A	N/A	<i>Term Only:</i> "Reefs near the inhabited islands are heavily used for small-scale artisanal , recreational, and subsistence fisheries." (Western Pacific Regional Fishery Management Council, 2009)

Table B5. Pacific Remote Islands Marine National Monument

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the Pacific Remote Island Areas
Non-commercial	<i>Term Only:</i> “(a) Non-commercial fishing—(1) Applicability. Except as provided in section 665.934(d), a vessel that is used to non-commercially fish for, take, retain, or possess MUS in the Monument must be registered for use with a permit issued pursuant to §§665.603, 665.624, 665.642, 665.662, 665.801(f), or 665.801(g).” (50 <i>CFR</i> § 665.935)	<i>Term Only:</i> “The respective Secretaries may permit noncommercial fishing upon request, at specific locations in accordance with this proclamation.” (Proclamation No. 8336, 3 <i>CFR</i> , 2010)	N/A
Recreational	<i>Term Only:</i> (b) Pacific Remote Islands Monument recreational charter permit—(1) Applicability. Except as provided in §665.934(d), both the owner and operator of a vessel that is chartered to recreationally fish for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit. (50 <i>CFR</i> § 665.935)	<i>Term Only:</i> “The Secretary shall provide a process to ensure that recreational fishing shall be managed as a sustainable activity in certain areas of the monument, consistent with Executive Order 12962 of June 7, 1995, as amended, and other applicable law.” (Proclamation No. 8336, 3 <i>CFR</i> , 2010)	<i>Definition:</i> “ Recreational Fishing: Fishing for sport or pleasure.” (Western Pacific Regional Fishery Management Council, 2009)
Sustenance	N/A	N/A	N/A
Subsistence	N/A	N/A	<i>Definition:</i> “ Subsistence Fishing: Fishing to obtain food for personal and/or community use rather than for profit sales or recreation.” (Western Pacific Regional Fishery Management Council, 2009)
Traditional Indigenous	N/A	N/A	N/A
Customary exchange	<i>Term Only:</i> “(2) Terms and conditions. Customary exchange of fish harvested in the Monument is prohibited.” (50 <i>CFR</i> § 665.935)	N/A	N/A

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the Pacific Remote Island Areas
Charter Fishing	N/A	N/A	<i>Definition:</i> “ Charter Fishing: Fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of Title 46, United States Code) who is engaged in recreational fishing. ” (Western Pacific Regional Fishery Management Council, 2009)
Compensation Fishing	N/A	N/A	N/A
Exempted or Experimental Fishing	N/A	N/A	N/A
Customary Rights	N/A	N/A	N/A
Artisanal Fishing	N/A	N/A	N/A

Table B6. Rose Atoll Marine National Monument

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the American Samoa Archipelago	Management Plan and Environmental Impact Statement
Non-commercial	<i>Term Only:</i> "(a) Rose Atoll Monument non-commercial fishing permit—(1) Applicability. Both the owner and operator of a vessel used to non-commercially fish for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel." (50 <i>CFR</i> § 665.965)	<i>Term Only:</i> "Subject to such terms and conditions as the Secretaries deem necessary for the care and management of the objects of this monument, the Secretaries may permit noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument." (Proclamation No. 8337, 3 <i>CFR</i> , 2010)	N/A	<i>Term Only:</i> "The proposed 12 nm no-take zone would have no impact on fisheries due to the current state of the local fleet and the distance required to travel for non-commercial fishing ." (Management Plan and Environmental Impact Statement, 2012)
Recreational	<i>Term Only:</i> "(b) Rose Atoll Monument recreational charter permit — (1) Applicability. Both the owner and operator of a vessel that is chartered to fish recreationally for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit." (50 <i>CFR</i> § 665.965)	<i>Term Only:</i> "The Secretaries of the Interior and Commerce, respectively, in consultation with the Government of American Samoa, shall provide for a process to ensure that recreational fishing shall be managed as a sustainable activity consistent with Executive Order 12962 of June 7, 1995, as amended, and other applicable law." (Proclamation No. 8337, 3 <i>CFR</i> , 2010)	<i>Definition:</i> " Recreational Fishing: Fishing for sport or pleasure." (Western Pacific Regional Fishery Management Council, 2009)	<i>Term Only:</i> "Subsistence and recreational fishing activities occur in this unit." (Management Plan and Environmental Impact Statement, 2012)

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the American Samoa Archipelago	Management Plan and Environmental Impact Statement
Sustenance	N/A	<i>Term Only:</i> "Subject to such terms and conditions as the Secretaries deem necessary for the care and management of the objects of this monument, the Secretaries may permit noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument." (Proclamation No. 8337, 3 <i>CFR</i> , 2010)	<i>Term Only:</i> "Proclamation 8337 directs the Secretaries to prohibit commercial fishing within the monument but allows noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument." (Western Pacific Regional Fishery Management Council, 2009)	N/A
Subsistence	N/A	N/A	<i>Definition:</i> " Subsistence Fishing: Fishing to obtain food for personal and/or community use rather than for profit sales or recreation." (Western Pacific Regional Fishery Management Council, 2009)	<i>Term Only:</i> "In addition to the support for Alternative 3B, DMWR expressed concerns with some of the proposed regulations, including 1) closing part of East Bank to fishing, 2) the need for a mechanism to allow scientific collections within sanctuary units, 3) the need for close consultation with the families associated with the Fagaluva/Fogama'a and Swains Island units, 4) the need for close coordination with NPS and USFWS regarding the Ta'u and Muliava units, 5) that subsistence fishing be allowed at all sanctuary sites." (Management Plan and Environmental Impact Statement, 2012)

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the American Samoa Archipelago	Management Plan and Environmental Impact Statement
Traditional Indigenous	N/A	<i>Term Only:</i> "Subject to such terms and conditions as the Secretaries deem necessary for the care and management of the objects of this monument, the Secretaries may permit noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument." (Proclamation No. 8337, 3 <i>CFR</i> , 2010)	<i>Term Only:</i> "Proclamation 8337 directs the Secretaries to prohibit commercial fishing within the monument but allows noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument." (Western Pacific Regional Fishery Management Council, 2009)	<i>Term Only:</i> "This action would thus prohibit noncommercial, sustenance, traditional indigenous , and recreational harvesting in the pelagic waters surrounding the atoll out to 12 nm." (Management Plan and Environmental Impact Statement, 2012)
Customary exchange	<i>Term Only:</i> "(3) Terms and conditions. (i) Customary exchange of fish harvested under a non-commercial permit within the Monument is allowed, except that customary exchange by fishermen engaged in recreational fishing is prohibited." (50 <i>CFR</i> § 665.965)	N/A	N/A	N/A

	Code of Federal Regulations: Fishing Permit Procedures and Criteria	Proclamation	Fishery Ecosystem Plan for the American Samoa Archipelago	Management Plan and Environmental Impact Statement
Charter Fishing	<i>Term Only:</i> "(b) Rose Atoll Monument recreational charter permit— (1) Applicability. Both the owner and operator of a vessel that is chartered to fish recreationally for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit." (50 <i>CFR</i> § 665.965)	N/A	<i>Definition:</i> " Charter Fishing: Fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of Title 46, United States Code) who is engaged in recreational fishing." (Western Pacific Regional Fishery Management Council, 2009)	<i>Term Only:</i> "While the amount of recreational and charter fishing is unknown in the Manu'a group, these activities are not restricted at the Ta'u unit." (Management Plan and Environmental Impact Statement, 2012)
Compensation Fishing	N/A	N/A	N/A	N/A
Exempted or Experimental Fishing	N/A	N/A	N/A	N/A
Customary Rights	N/A	N/A	N/A	N/A
Artisanal Fishing	N/A	N/A	N/A	<i>Term Only:</i> " Artisanal fisheries are small-scale fisheries that generally use small boats and traditional fishing techniques, and are critical to food security and livelihoods of developing nations." (Management Plan and Environmental Impact Statement, 2012)

Appendix C: Recreational Fisheries Initiative Workshop Agenda



NOAA FISHERIES
Pacific Islands Fisheries Science Center

AGENDA

Non-Commercial Fishing Workshop

Pier 38, Honolulu HI, August 23, 2019

Purpose

This workshop will build off of experience in the Pacific Islands Region to explore how core non-commercial fishing concepts identified in the Pacific Islands Region resonate in other regions, their fit within the fisheries management system under the Magnuson-Stevens Act (MSA), and related social science research needs.

Background

In the Western Pacific, the term “non-commercial” is recognized in the Code of Federal Regulations to describe fishing practices that do not meet the definition of commercial fishing in the MSA, including but not limited to, sustenance, subsistence, and traditional indigenous (50 CFR 665.12, Fisheries in the Western Pacific). Other regions have begun to identify fishing practices that have similar motivations, although they may be expressed differently. Some of these concepts are being considered for national policy, for example in proposed MSA definitions (e.g., HR 200) of subsistence.

Products

A workshop report will synthesize core concepts identified across regions, their fit with the fisheries management system, and information needs.

8:30 – 9:00	Coffee, meet and greet
9:00 – 9:15	Welcome, introductions, and purpose for the day
9:15 – 10:00	Presentations to provide background and context <ul style="list-style-type: none">• Overview and Pacific Islands Region – Kirsten Leong (Social Scientist, Pacific Islands Fisheries Science Center)• Alaska – Sarah Wise (Social Scientist, Alaska Fisheries Science Center)• Noëlle Boucquey (Asst. Prof. Environmental Studies, Eckerd University, video call)
10:00 – 10:30	Large group discussion to identify key concepts important across regions
10:30 – 11:30	Small group discussions to identify examples and begin to characterize important concepts within regions
11:30 – 12:30	Lunch on your own
12:30 – 1:30	Facilitators report back synthesis from morning sessions, compare to established policy definitions. Group identifies potential gaps and areas needing attention.
1:30-2:00	Group prioritizes information needs that can inform coordinated social science research across regions
	Pau hana at Nico's

Appendix D: Ed Watamura Presentation to Gubernatorial Candidates

Good afternoon Governor Ige, fellow fishermen, and fish purveyors.

The citizens of Hawai‘i are bound by a common thread. That thread starts out as the fishing line between a fisherman and a caught fish on a hook, or a spear, or woven into a throw net that surrounds a school of reef fish or akule. That fish becomes the thread that weaves it’s way around and through our families, friends, neighbors, and commerce. The fishing by non-commercial fishers starts out as a joyful experience shared by friends and family and then becomes a food source that provides a phenomenal 5 million meals valued at between 7 and 13 million dollars. Hawai‘i is well known as a melting pot whose ingredients began with the Native Hawaiians and then the multitudes of immigrants were stirred in. In all of our cultures, fish is held in high esteem, as evidenced by it’s inclusion in every celebratory event. From the early beginnings, our people have gone to the sea to gather and catch our food and that involuntary impulse has never left our behavioral instincts. According to a survey done by National Marine Fisheries in conjunction with the States Department of Aquatic Resources, non-commercial fishers number close to 400,000 and land 17.6 million pounds of fish. The people of Hawai‘i have the most recreational/non-commercial fishers per capital and consume more than 3 times the national average of seafood. All of these facts and figures quantify and corroborate our passion for fishing and eating fish. If our administration recognizes fish as food, it would finally give credence to our belief that our society is culturally entwined with the sea and it’s bounties.

As a small boat fisherman and the President of the Waialua Boat Club, I am an integral part of this unique segment of Hawai‘i’s Fishery. A few of us are full time commercial fishermen, but the majority are “weekend warriors” who sell fish to cover the high cost of chasing our passion. The rising costs are making it more and more difficult for up-and-coming young fishermen to enter into this fishery and we are seeing a declining trend in registered boat fishers. Adding to the higher costs, are the challenges we face, including the loss of fishing areas due to closures, such as Monuments, Sanctuaries, Marine Protected Areas and Bottomfish Restricted Fishing Areas. We also have infrastructure needs at boat harbors and ramps. To compound all of that the market prices that the fishermen are being paid is often disappointing, especially when considering what the consumer is paying for the same fish. This decline in participants is a concern because the small boat fishery catches 5.5 million pounds of fish valued at over \$11 million. Of those 5.5 million pounds, 100% stays in Hawai‘i, feeding the community and supplying the high-grade fish to restaurants that tourists enjoy. Aside from the economic value, the social and cultural value is immeasurable. The joyful fishing experience on our boats is shared with our family and friends, and given a little luck we get to share our catch with not just crew members but relatives, friends, and neighbors. There is nothing better than bringing a Chinese Style steamed onaga, a big bowl of poke, or a plate of sashimi grade ahi to a party, especially around the Holidays.

The Waialua Boat Club’s events like our July 4th Old Futs vs. Young Punks Tournament Picnic, The Annual Papio/Ulua Tournament Picnic and our Annual Awards Banquet, are nothing short of spectacular and bring so much fun and joy to all of our members, families, and friends. One of our esteemed members, Roy Morioka, through his altruistic endeavors realized the creation of the Fishing for Hawai‘i’s Hungry Tournament. This Tournament allows the Club to spread it’s Aloha to the community by donating thousands of pound of fresh fish to the homeless, through

the Institution for Human Services. This year we held the weigh in right here at this clubhouse and we donated an astounding 1700+ lb of fish, resulting in more than 5,000 meals, which we also helped to serve.

As you can see Governor Ige, this thread weaves it's way all through the community and surrounds us all, including you, in our love of fishing and it's bounties.

Appendix E: FISHTALK, Hawai'i Style, Script

“FISHTALK, Hawai'i Style” NOAA RECFISH Workshop, Honolulu 8/23/19

Dialogs, when acted out as a skit or written out to be read can give deep insight into people's values, motivations, and ideas about fishing and catch distribution, especially when there is both a public voice (what is actually said) and an inner voice (what is thought but not said) for each party to the dialog. This kind of skit can be an effective intercultural learning tool, especially when it is based on actual observed events. Cultural differences such as those between government officials and fishermen can be both subtle and profound and regional differences in “fishing cultures” may be quite significant. Understanding how these deep seated, culturally learned views can affect respect for and compliance with policy is critical for effective management.

SETTING: THREE FISHERMEN MEET AT THE RAMP AFTER FISHING all day. TWO ARE CAPTAINS OF THEIR OWN TRAILERED BOATS AND ONE IS A VISITING SAMOAN crew. The two captains both hold Commercial Marine Licenses (CMLs) and report their catches. They both consider themselves “non commercial” and even more like “Recreational” since they can only fish on weekends and don't make a profit. Are they “Expense” fishermen or more than that?? Captain 1 has been on the Council AP, and knows NOAA, Council and State policy. Captain 2 asserts the right to fish and swears by the State constitution “All fisheries in the sea waters...shall be free to the public...” The Samoan is in Honolulu with his Matai (Extended Family Chief). The second captain has a regular crew who is washing the boat and a distant cousin who rode along for the experience. The cousin has never caught anything larger than a spotted weakfish. They talk story about their trips.

Captain 1 with Samoan asks Captain 2. (public voice)

How was your trip, did you enjoy your day?

Captain 2 Replies.

We jus went Holoholo, not much, just Kaukau fish, some rats, a couple of Aku, and one nice Mahi. (note “kaukau” means food; “rats” are small yellowfin less than 20 lbs.)

Captain 1 Inner voice.

Did you catch anything? Where did you catch it, and what color lure skirts were you using. I saw you hooked up to something big at the buoy. I can't ask that directly and I shouldn't even look at your lures unless you offer.

Captain 2 Inner voice

I'm not going to tell him we missed that big Marlin on a live bait. The bait was the biggest thing my cousin had ever caught. I foolishly put my cousin on the rod and he slacked the line. Damned embarrassing! Now I don't have anything to cut for the graduation party next week!

Captain 2 Public Voice

“Did you guys catch anything”

Captain One replies in Public voice

Yeah, we got 2 ahi and one nice ono, My Samoan crew has good eyes and put us onto a birdpile but we missed 2 other ahi. We did land one big boy about 180.

Captain 2 Inner voice

I wonder where they were, where they got the bite, we fished hard all day and didn't do well. I wonder what he's going to do with those fish? Will he sell or cut and share? After all, we are good friends!

Captain 1 Inner voice

He's a good friend, but I can't give him any fish. I hope he has enough to feed the family. The aku make the best sashimi. It's just work to cut them. This trip was for a first birthday Luau for my Hanai grandson. I can cut the smaller ahi for the party and take the big Ahi to the Auction. They were giving \$5:00 a lb. this morning and that's a \$900:00 fish. I have to sell sometimes to offset expenses. Gas and Ice cost nearly half of that, not to mention the lure we lost when we got spooled. I'd better keep the wife happy.

Captain 1 speaks to his Samoan Crew in Public voice

Did you want to take some fish home?

Samoan doesn't answer!

Captain 1 Inner voice

These Samoans sure are humble. I probably should give him something. Without his good eyes, we might not have caught! Maybe I can give him part of the second Ahi and still have enough for the party. My wife likes Ono, and I need to bring some fish home.

Samoan Inner voice

I hope he will give me the ono. My Matai is meeting with many Aiga members after Sunday services in church tomorrow and I'm obligated to bring him fish for Toonai where we feed the titled men of the village back home. The fish needs to be big! We practice that part of Fa'a Samoa in Honolulu too.

All 3 fishermen notice a DAR (Division of Aquatic Resources) Data Collector (Blue “Got Fish” hat and Tshirt), and a Uniformed DOCARE (Division of Conservation and Resource Enforcement) Officer approaching. They are surprised that the two are together.

Captain one Public voice

I know the DAR guy, he's O.K.

Captain 2 Public voice

I wonder what that officer wants? All my safety gear is current!

Captain 1 inner voice

The DAR guy knows my friend and I both have commercial Marine licenses, so he won't bother to give us the full survey.

My new Samoan crew is just visiting. He's making only one trip and doesn't have a CML. Will I get nailed for that? The cost has gone up and the DAR administrator who said they would try to get rid of the requirement that everybody on board have a CML already retired! It's kind of a foolish law. Why should I have to buy another license every time a friend or neighbor wants to ride along and I need to sell one fish. I report everything we catch and I also report no catch trips.

I read the study group report "Feasibility of a Non-Commercial Marine Registry, Permit, or License system in Hawai'i" and went to the meetings. My Hawaiian friend and many other Hawaiians came out in force to oppose that one! It's not going anywhere!

I wonder if my friend has heard about the National Saltwater Angler Registry? I hope his cousin comes from a state with a saltwater recreational license, so he's covered. Hawai'i is the only state where this damned registry applies. All other states have exemptions.

NOAA may have been well intentioned but it's a stupid regulation. There hasn't been any effective outreach or enforcement, and there is hardly any compliance. Most fishermen don't even know it exists. It can criminalize our local style customary behavior of openly sharing the fishing experience and openly sharing our catches. It's part of my culture, not a business. My wife could sure tell them that!

Captain 2 Inner voice

I hope my radio is working and my strobe batteries are still good. I can't imagine what else the DOCARE guy could want. OOPs! too late to hide the beer cans! I wish that enforcement guy wouldn't keep his hand on his sidearm when he talks to me! The constitution gives me the right to fish when and where I want to. I'm not offering him any information. He'll need a warrant to open my fishbox!

Deconstruction: What happened here?

Two friends shared fishtalk. Both had guests onboard following local style "custom". For both, their trips were "triggered" by ongoing cultural demands and needs. Sharing one's catch is central to most local fishermen's identity. Giving fish enhances one's social status, and enlarges one's social networks. In Hawai'i these networks often cross ethnic and cultural boundaries. There is no expectation of an immediate or equal or return gift of fish, so It is not the same as

“trade or barter” under Magnuson. That’s why we call ourselves “Noncommercial” fishermen. We sometimes call this sharing “Customary Exchange”, and it is the dominant form of post-harvest distribution in the rest of our Western Pacific Council Region. The two fishermen will remain friends and will often share. They will not discuss their differences of opinion on the need for a recreational license or for scientifically credible catch and effort data from an effective survey! like MRIP??

You are welcome to imagine the outcome of the Enforcement Officer visit. Let us know what resonates with your region!

Craig Severance <sevc@hawaii.edu>

Appendix F: List of Study Participants

This list includes all individuals who participated in any of the activities included in this report (interviews, policy compilation, workshops), in alphabetical order.

Jamie Barlow, NOAA Pacific Islands Fisheries Science Center

Samantha Berkowitz, NOAA Fisheries Legislative Affairs

Grace Bottita-Williamson, NOAA Office of National Marine Sanctuaries

Noëlle Boucquey, Eckert College

Ken Brennan, NOAA Southeast Fisheries Science Center

Sam Chin, NOAA Fisheries Office of the Assistant Administrator

Malia Chow, NOAA Fisheries Pacific Islands Regional Office

Lisa Colburn, NOAA Northeast Fisheries Science Center

Patricia Clay, NOAA Northeast Fisheries Science Center

Rita Curtis, NOAA Fisheries Office of Science and Technology

Matthew Cutler, NOAA Southeast Fisheries Science Center

Joshua DeMello, Western Pacific Regional Fishery Management Council

Russ Dunn, NOAA Fisheries Office of the Assistant Administrator

Lauren Gentile, NOAA Northeast Fisheries Science Center

Ed Glazier, Impact Assessment, Inc.

Richard Hall, NOAA Fisheries Pacific Islands Regional Office

Chris Hawkins, Coastlines Group, LLC

James Hilger, NOAA Southwest Fisheries Science Center

Heidi Hirsh, NOAA Fisheries Pacific Islands Regional Office

Jim Hori, Lokahi Fishing

Cliff Hutt, NOAA Greater Atlantic Regional Fisheries Office

Dave Itano, Fisheries Consultant, Western Pacific Regional Fisheries Management Council
Scientific and Statistical Committee, Wailua Boat Club

Kurt Iverson, NOAA Fisheries Alaska Regional Office

Michael Jepson, NOAA Southeast Regional Office

Hōkū Ka‘aekuahiwi Pousima, NOAA Fisheries Pacific Islands Regional Office

Keith Kamikawa, NOAA Fisheries Pacific Islands Regional Office

Moiria Kelly, NOAA Greater Atlantic Regional Fisheries Office

Doug Lipton, NOAA Fisheries Directorate

Hongguang Ma, NOAA Pacific Islands Fisheries Science Center

Jarad Makaiau, NOAA Fisheries Pacific Islands Regional Office

Emily Markowitz, NOAA Northeast Fisheries Science Center

Brad McHale, NOAA Greater Atlantic Regional Fisheries Office

Matthew McPherson, NOAA Southeast Fisheries Science Center

Sean Meehan, NOAA Fisheries Southeast Regional Office

Roy Morioka, Former Western Pacific Regional Fisheries Management Council Member and
Chair, Hawai‘i Fishermen’s Alliance for Conservation and Tradition, Waialua Boat Club

Karma Norman, NOAA Northwest Fisheries Science Center

Christina Package-Ward, NOAA Southeast Regional Office

Patricia Pinto DaSilva, NOAA Northeast Fisheries Science Center

Kalani Quiocho, NOAA Papahānaumokuākea Marine National Monument

Laurie Richmond, Humboldt State University

Suzanne Russell, NOAA Northwest Fisheries Science Center

Tim Sartwell, NOAA Fisheries Office of the Assistant Administrator

Mike Seki, NOAA Pacific Islands Fisheries Science Center

Craig Severance, Western Pacific Regional Fishery Management Council Scientific and
Statistical Committee and Social Science Planning Committee, Weighmaster: Hilo Trollers

Brent Stoffle, NOAA Southeast Fisheries Science Center

Daniel Studt, NOAA Fisheries West Coast Regional Office

Aviv Suan, NOAA Pacific Islands Fisheries Science Center

Ed Watamura, Western Pacific Regional Fisheries Management Council Member, Waialua Boat Club

Changhua Weng, NOAA Northeast Fisheries Science Center