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The last cowboys: keeping open access in the Aleut groundfish fishery of the Gulf of Alaska

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Abstract

As the North Pacific Fishery Management Council prepared to rationalize the Gulf of Alaska groundfish trawlers under the guise of bycatch management beginning in 2012, a social impact assessment investigated the fishery's operations, stresses, dependencies, and desires of the primarily local Aleut (Unangan) fleets and families in the Western Gulf villages of King Cove and Sand Point, Alaska. This article describes the historical development of the local trawl fleet, their unique status in the fishery, and their rationale for their near universal rejection of a community protection measure. For these small coastal communities, the keys to success are competition, diversification into many fisheries, and supporting their communities through local hire and investment. Aleut fishermen feared that the impending neoliberal chapter would erase their history and traditions, remove competition, reallocate quota away from those that built the fishery and made it successful, diffuse fishermen's support of their home communities, and undermine what it means to be Aleut. This fear is compounded by ecological changes affecting marine species abundances in the Gulf of Alaska.

Keywords Aleut · Unangan · Groundfish · Trawling · Catch share plan · Community fishing associations

Introduction

In October 2017, the North Pacific Fishery Management Council (NPFMC, referred to as the Council) received a presentation from an Alaska Fishery Science Center (AFSC) fishery analyst sounding an alarm about poor Pacific cod stocks in the Gulf of Alaska likely due to the Warm Blob, a marine heat wave first appearing in the winter 2013 that was both wide and deep in the water column. At the December 2017 Council meeting, the full stock assessment presented showed significant declines in Pacific cod abundances. An "endless summer" for cod with year round warmer temperatures for multiple years was tough on these ectotherms whose metabolisms increase in warmer waters. Higher metabolism means that they need to eat more, and there was not enough food to go around. Skinny, diseased Pacific cod were competing for food with other species, such as seabirds that were also suffering. Other changes in the Gulf, for example, sea lion reproduction declines, stressed whales beaching themselves, the

For several years prior to this news, the Council that manages these federal waters took steps to implement a catch share system, what they termed the Gulf of Alaska Trawl Bycatch Management Program (GOA TBMP), that would rationalize the Pacific cod and pollock trawl fleets of the Central and Western Gulf of Alaska's federal waters of 3–200 nm offshore. The goals of this action were to potentially improve fishermen's ability to avoid Chinook salmon bycatch and halibut Prohibited Species Catch (PSC) by providing bycatch reduction incentives for vessels. The majority of the Western Gulf of Alaska (WGOA) fleet resides in the Aleut (Unangan) villages of Sand Point and King Cove, Alaska, and the scale of these communities, their predominately under 60' vessels, and their dependence on commercial fishing would have likely meant they would be disproportionately affected by the catch



new appearance of tropical pyrosomes, and shifts in zooplankton are among the Gulf-wide changes that were persistent and related to the Warm Blob. According to ecosystem modelers at the AFSC, waters appeared to be trending towards more neutral temperatures in the winter 2017/2018, but the need to mitigate for rapid ecological change was critical. The Council ultimately cut the total allowable catch (TAC) of Pacific cod by 80% in the Gulf of Alaska from 64,442 metric tons in 2017 to 13,096 metric tons in 2018.

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share program. The need for this type of intervention was far from obvious to local fishermen. The Aleutians East Borough contracted the author in 2014 to provide documentation of community history, current engagement in fishing, and an assessment of community vulnerabilities and resilience to proposed changes that may be associated with rationalization. This paper focuses on the historical development of the groundfish fishery, its local significance to Aleut communities, and efforts to replace this locally created fishery with a catch share plan. Specifically, it addresses the rationale for rejection of a Community Fishing Association, a proposed community-based organization that was meant to receive a direct quota allocation and keep that quota in local hands (Donkersloot 2016). Although ecology was used to justify the plan, the current Pacific cod crisis was not anticipated by decision-makers and further demonstrates an inability for catch share programs to effectively respond to large ecological shifts. The paper considers this communitybased catch share discussion in light of dramatic declines in key target species and the "technical solutions" to an ecological problem (Li 2007).

Western Gulf of Alaska Fisheries

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The importance of the homeported commercial salmon fishing fleets to the indigenous Aleut (Unangan) communities of the Alaska Peninsula and Eastern Aleutian Islands has been documented as a social and cultural foundation of the region's economic base (Reedy-Maschner 2010). These are small coastal communities of fewer than 1000 residents each in which commercial fisheries and related industries are the only economic opportunities available to them. Salmon fishing is often upheld in Alaska as the iconic fishery for communities, and especially for indigenous peoples. But the importance of groundfish fisheries has grown in these communities in the past few decades as the volatility of salmon fishing has stressed local fishing operations. The Aleut word for cod is atxida (singular, atxidax dual, atxidan plural) meaning "the fish that stops" (Bergsland 1994). This is not the first time in village-based elders' memories that cod have been scarce and they recovered without the help of rationalization. In light of these fluctuations, the communities expressed the crucial importance of having multiple fishery options available for when ecological and/or policy changes contribute to the unpredictability of fishing year to year.

As this paper will show, the Gulf of Alaska groundfish trawl fishery was locally initiated by Aleut fishermen in Sand Point, King Cove, and False Pass to support fishing over an extended portion of the year. These small communities of the Western Gulf of Alaska (WGOA), the official designation of the federal fishing grounds adjacent to these communities, expanded their Pacific cod and pollock pot and jig fishing operations into trawling gear in the early 1980s to support

their families and fish more consistently throughout the year. These fisheries now represent a significant portion of economic and social life.

Catch Share Programs and Impacts

Rationalization has become the preferred management of most federal fisheries in the USA and internationally, and is embedded in an organizational culture that crosses political lines (Harvey 2005) and is driven by profits (Carothers and Chambers 2012; Lowe and Knapp 2007), ecological models and conservation (Costello et al. 2008), and greed (Stiglitz 2008). Catch share is a general term for a suite of fishery management strategies such as Limited Access Privilege Programs (LAPPs), individual fishing quotas (IFQs), individual transferable quotas (ITQs), and community development quotas (CDQs) that exclusively allocate specific portions of fisheries to individuals, cooperatives, communities, or other entities. Privatization of commercial fishing rights has been in widespread practice in Alaska (Lowe and Carothers 2008). This began with the Limited Entry permit plan of 1970 for the State of Alaska's salmon and herring fisheries (Langdon 1980; Reedy-Maschner 2010). In the 1990s, halibut and sablefish IFQs were created. In 1992, the Community Development Quota program was established that allocates a portion of fish harvests to community entities. In 1998, the American Fisheries Act allocated Bering Sea/Aleutian Islands (BSAI) pollock to catcher-processor cooperatives. Bering Sea crab fisheries were rationalized in 2005 with both harvesting and processing rights allocated. In 2008, Amendment 80 of the BSAI Groundfish Fisheries Management Plan (FMP) allocated species other than pollock and cod to catcher processors. Catch share program development continues to be encouraged by the National Oceanic and Atmospheric Administration (NOAA) for all eight US regional fishery management councils as a means of reducing bycatch. There is evidence that catch shares achieve some ecological and economic goals (Costello et al. 2008; Costello et al. 2010), but threaten small-scale coastal livelihoods (Pinkerton and Davis 2015).

Various amendments to the federal GOA Groundfish Fishery Management Plan (FMP) to reduce bycatch of Chinook salmon and halibut PSC set limits on harvesters, with plans to further reduce these hard caps over time. Industry representatives and vessel owners of the Central Gulf of Alaska then asked the Council for different "tools" to meet the bycatch and PSC restrictions in the Gulf, leading to the development process of the Trawl Bycatch Management Plan. The fishermen of the Western Gulf communities did not ask for these tools but did ask to be included in a catch share plan following proposed policy changes in the Central Gulf region. The reason for this was that they were considering what a rationalization program there could mean for their



neighboring open access fishery, and specifically that those in the Central Gulf could still participate in the WGOA fishery and then move to their own exclusive rationalized fishery.

Several studies spanning decades have documented the declines of the livelihoods and sustainability of coastal communities following catch share plans internationally (Jentoft 1993; Pálsson and Helgason 1996; Pinkerton and Edwards 2009; Pinkerton and Davis 2015), nationally (Olson 2011; Robards and Greenberg 2007), and regionally in Alaska (Carothers and Chambers 2012; Carothers 2010; Lowe and Carothers 2008). In Alutiiq communities of the Kodiak archipelago, for example, participation in their commercial fishing fleets decreased by about 70% between 1970 and 2000 as the family fishing operations mixing subsistence and commercial fisheries have been gradually replaced by business-style fishing centered on profits (Carothers 2010). The state's Limited Entry permit program resulted in a shift in Area M (the western Alaska Peninsula region's state salmon fishery) from predominately local Aleut permit holders at the initial distribution to a majority of non-Aleut, non-local transients in the salmon fleets (Reedy-Maschner 2010). The BSAI Crab Rationalization program had "community protection measures" that failed in their goals as fleet consolidation reduced the number of vessels, crew jobs, harbor fees, fuel and grocery purchases, maintenance checks, pot storage, and other income and services previously grounded in communities (Lowe and Knapp 2007). Instead of many people benefiting or even prospering under that program, the majority of previous fishery participants were cut out of the business. Conversely, the Western Alaska Community Development Quota catch share program of 1992, which allocated a portion of the annual fish harvest directly to coalitions of villages, has many challenges, but the program has positively affected wages, education, training, and infrastructure in dozens of coastal communities (Langdon 2008). This single exception within the suite of state and federal limited license and catch share programs has as its foundation community-based entities that manage profits from their allocations and reinvest them in small coastal communities.

Program Structure

NOAA encourages Fishery Management Councils to consider catch share programs to meet their management objectives within the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (such as prevent overfishing and minimize bycatch), but it is neither required nor appropriate for all fisheries. These programs are protecting relatively healthy fish populations even as many coastal communities are experiencing loss of access and concomitant socioeconomic consequences. Only CDQs treated coastal communities as central features in the overall design. King Cove and Sand Point were not included in that program because of their larger

populations and locations on the Pacific side of the Alaska Peninsula. A major focus of the Council in developing this new program was to prevent similar negative effects of Crab Rationalization to some of these same coastal communities like King Cove, which lost crew jobs and community revenue following that program's implementation (Lowe and Knapp 2007). The evolving structure of this catch share program would have potentially assigned harvest privileges based upon historical participation for groundfish harvesting. This would slow down the fishery as a means to reduce bycatch of Chinook salmon, halibut, and potentially other Prohibited Species, and would have involved voluntary inshore cooperatives, voluntary catcher processor offshore cooperatives, consolidation limits, regionalized landing requirements, eligibility criteria, transferability limits, among other elements (First Council Motion 4/11/2014 on structuring GOA Trawl Bycatch Management). A cooperative effort was made to include Community Fishing Associations (CFAs) as part of the design that would receive initial allocations of quota that could not leave community-based hands. CFAs were proposed by Aleutians East Borough leaders and the Alaska Marine Conservation Council, a non-governmental organization based in Anchorage, but were controversial and at odds with the desires of fishermen.

The Council previously halted its development of a similar Gulf program after Alaska Governor Palin's 2006 letter to them citing sweeping job loss, fleet consolidation, and negative community impacts following the 2005 Bering Sea Crab Rationalization plan. That fleet was reduced to one third its former strength and many people lost crew jobs, work in support services, and other revenue (Downs 2011). That fishery is now also affected by high quota leasing rates. The Council has suggested voluntary measures for crab cooperatives to address lease rates, the ability to buy quota shares, and active participation, but a recent study demonstrated that these measures have mixed success (Himes-Cornell and Kent 2015).

Finalization of the GOA Trawl Bycatch Management plan was repeatedly delayed, and especially after a new Alaska governor took office in November 2014. Governor Walker indicated his intent to change the way the Council had approached this issue and his Commissioner of the Alaska Department of Fish & Game Sam Cotten worked as a Council member to postpone the initial review of the Gulf Rationalization plan. Ultimately, after more review of studies, staff documents, and public testimony, in December 2016, the Council voted to postpone action on the plan indefinitely.

Objectives

This paper considers the ethnohistorical relationships and current engagements with trawl fishing in the Aleut villages of Sand Point and King Cove. By letting the history and ethnography guide the story, the consideration of catch shares and its



lack of fit in these communities become clear. It documents their current fisheries systems, their relative dependencies upon the trawl fisheries, and describes features that are unique to the Western Gulf. It shows the crucial importance of *every* fishery to the communities and the potential losses if restructured to a business-style rationalized model. The local ability to adapt and create new fisheries is further constrained. Their historical relationship to cod and pollock fishing would be erased with a catch share plan.

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The results show that resident Aleut Western Gulf ground-fish trawl fishermen were the first to develop the region's small vessel trawl fishery for both the Central and Western Gulfs in the 1980s. The majority of these pioneers are direct descendants of the area's Scandinavian cod fishermen who moved to the region between the 1870s and 1930s. The majority of Western Gulf small vessel trawl fishermen are still Aleut/Unangan vessel owners, hired skippers, and crewmen. Even though they remain community-centered in fishery negotiations, competition and historical investment are highly valued. Community Fishing Associations, while well-intentioned through allocating to community-based entities, and possibly appropriate for other locations, would have still likely undermined their fishery system and cultural foundation of these communities.

Methods and Framework

Data presented are from a mixed method ethnographic and social impact study of King Cove and Sand Point carried out in 2013–2016 exploring the status of local trawler operations and the ways in which this new management regime of privatizing fishing rights could negatively impact, secure, and/or enhance the functioning of these communities. The project used semi-structured interviews that asked individuals about their current fishing roles, desired roles, historical relationship to fishing and to the regional economy, current level of dependency on the trawl fleet, other dependencies, effects of previous programs, community kinship, social networks, and desires for how rationalization could move forward. The primary goal was to understand the relationship between the current fishery system and community wellbeing, and how the anticipated policy changes might affect these communities. Interviews began with the active trawl fishermen, crewmen, and vessel owners (n = 18), and then moved to include their spouses, pot and jig vessel fishermen, regional leaders, and politicians (n = 18). Interview data was then used to describe the key dimensions of how people gain their livelihoods from the ocean, to identify relationships and networks of dependency between them, and to describe the related social economy, political economy, and cultural matrices. The majority of individuals in the Western Gulf fishery are indigenous Aleut/ Unangax, and the majority of quotes and comments presented

come from Aleut fishermen. Archival and social research has been ongoing in these communities by the author since 2000 in the context of other studies and a comprehensive ethnographic regional focus. Those data supplemented the interviews.

Historical Development of Groundfish Fishing

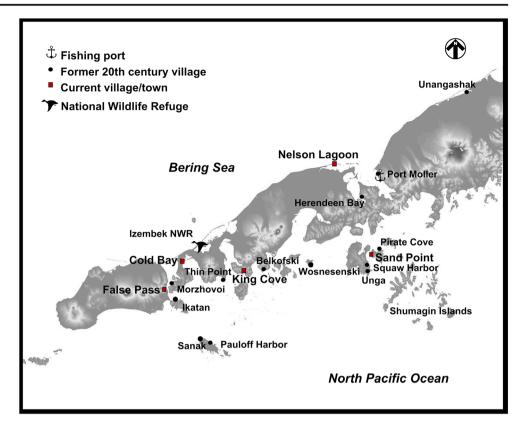
The Aleutian "Islands" begin halfway down the Alaska Peninsula, inclusive of the Shumagin and Sanak Islands, and stretch out west to Attu Island and are only accessible by boat, a ferry in the summer months, or airplane. They host one of the largest fishing ports in the world in Dutch Harbor, which is a large, diverse anomaly in a region of primarily small- and medium-sized predominately Aleut communities. Four communities in the east within the Aleutians East Borough are distinct from the others in their active engagement with commercial fishing. King Cove and Sand Point (Fig. 1) are the easternmost of these Aleutian communities and the second and third largest in the entire region (Nelson Lagoon and False Pass are small (< 60 people) but share the same commercial fishing economy, political leadership, and lifestyle). King Cove and Sand Point have (mostly) paved roads, post offices, newer schools, grocery stores, processing plants, modern offices, hotel(s), restaurant(s), and bar(s). There is almost no tourism except brief encounters with people on the ferry or cruise ships, and sport hunters and fishermen in the nearby national wildlife refuges. With few land mammals, the majority of their subsistence is based upon marine resources in salmon, halibut, sea mammals, and shellfish. The archeological record deepens this profile adding 9000 years of continuous occupation by indigenous Aleuts fishing and hunting the waters of the region (Maschner and Reedy-Maschner 2005). These communities live "entangled livelihoods" (Reedy-Maschner 2009; Reedy-Maschner 2010) in that they perform combined commercial AND subsistence lifestyles, cultures, and economies with 75% of economic activity directly and indirectly depending upon income from commercial fisheries (AFSC 2018).

These communities are part of post-colonial experiences and processes in which they have both shaped and been shaped by historical developments of Russian reorganization, religious conversion, Americanization, commercial fisheries development, World War II, governmental control, boarding schools, and the volatile nature of wild resources (Black 2004; Case 1984; Jones 1976; Kohlhoff 1995; Laughlin 1980; Veniaminov 1984 [1840]). American ownership of the Aleutian Islands, after purchasing the Alaska Territory in 1867, was followed by control and commercialization of its many fish resources. Some Aleut community members consider this to be the significant break in their access and loss of control over their traditional food base (Corbett and Swibold



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Fig. 1 The Alaska Peninsula and Eastern Aleutian communities



2000). Other village-based informants further out the Aleutian Chain also describe a contentious relationship with the commercial industry and see their shift away from a subsistence lifestyle as damaging (Reedy 2015). In the Eastern Aleutian communities including Sand Point, King Cove, and False Pass, however, residents saw these developments as opportunities and worked to position themselves as commercial fishermen supplying the canneries and as processing personnel. Today commercial fishing is foundational to community culture, economic wellbeing, and social health (Reedy-Maschner 2010).

In the 1870s, commercial cod fisheries began in the eastern Aleutian region. Schooners transporting dories and primarily Scandinavian immigrant fishermen from California to Washington arrived for the cod seasons (Shields 2001). Men fished using hand lines, and dried and salted cod for shipping to market. Shore stations for the salted cod market were built beginning in the 1880s at several sites, notably on Sanak and Unga Islands. These fishermen began moving into the communities at that time, marrying local Aleut women, and fishing cod for a living. The majority of fishermen of King Cove and Sand Point today are descendants of these cod fishermen, carry the surnames of these men, and draw on their Scandinavian cod fishing heritage when describing their life histories. Elders often describe how they missed fishing for cod and the taste of cod, since the fish were gone from most of this region for most of their youth (Reedy and Maschner

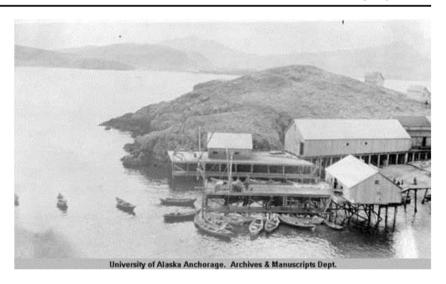
2014). After 1915, the fish began to disappear (or be fished out) from the area and by 1930, there were not enough to support a fishery. Shore stations began to close, but cod continued to be sporadically fished from offshore vessels in the Bering Sea (Shields 2001). The Scandinavian-Aleut families then relocated from these cod stations to new area communities forming around salmon canneries (Fig. 2).

Industrial salmon canneries had been setup in the region around the turn of the twentieth century and villages grew up around them from other regional villages. This is how King Cove and Sand Point became communities. Initially local fishermen manned fish traps and leased company boats to supply the canneries. They were oftentimes "paid" with company store credit and were economically tied to the canneries. Eventually, fishermen became more independent and afforded their own skiffs and boats. Many local people worked in the processing plants in long-shoring, maintenance, and on the cannery processing "slime" lines. When fishing became more economically stable to their households, many spouses stopped this type of work. The processing plants also began hiring migrant labor; foreign workers are the dominant labor pool today.

After the cod essentially "stopped" in the late 1930s and the fishery was nonexistent, crab began to be found in abundance. In the Aleutian region, a generation of elders described the crab as "weird bugs" when they first saw them in the 1930s, having grown up without them, yet the fisheries developed rapidly. The



Fig. 2 The former cod station in the village of Unga, Alaska



process was similar to the North Atlantic in which a cod collapse was followed by increased shellfish landings (Haedrich and Hamilton 2000; Hamilton and Butler 2001). Further, this crab economy was not benefiting the same people who fished for cod, and required new gear, new licensing, and different markets (Petterson et al. 1983). The Bering Sea crab fisheries intensified after World War II with processors and catcher-processor vessels developing canned and then frozen products.

Interviews, historical records, and census data were used to track the fishing histories of these fishermen and families. The most recently publicly released census, the 1940 census, displays ancestors to all the village-based trawling Aleut fishermen (e.g., Figure 3). Older censuses show cod fishermen from

area villages of Sanak, Pauloff Harbor, Unga, Wosnesenski, Squaw Harbor, among others that are direct ancestors to modern day cod fishermen. In the early 1970s, codfish began to reappear in the waters, sparking fresh excitement and development of a new fishery. Most of the local King Cove and Sand Point fishermen had significant investments in salmon fisheries and reduced participation in cod fishing at that time. But in the past two decades, groundfish fishing has gained in importance as salmon fishing has become more difficult from which to earn a living.

Community-based fishermen and families are proud of their heritages, having strong roles in fisheries development, in processing (many spouses and family members worked in

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Fig. 3 The 1940 partial census of Sanak village, Alaska



the canneries through the 1970s), in forming the political entities that govern the communities and tribes, in attracting monies for capital improvement projects, and in providing education and health care. They have been active participants in all fisheries policy levels and in creating new opportunities for themselves and the region. Today, the leaders of the communities are also largely the small-boat, diversified, multigenerational owner-operators and their spouses. They are typically the same fishermen and their descendants awarded salmon permits in the 1970s.

Both the attachment to place and the ability to shift and relocate have characterized the past century and a half (and likely the past 9000 years) of Aleut community life. The Alaska Peninsula and Eastern Aleutian region has seen the rise and abandonment of several communities in recent history. Figure 1 shows the majority of former twentieth century villages and all currently occupied villages. The flexibility of the past in which families and communities could relocate and reposition themselves as fishing opportunities shifted is no longer an option (Reedy-Maschner 2012). One retired fisherman in Sand Point observed,

"When fisheries started to fail, the people of Unga and Sanak had to move. The communities of Sand Point to King Cove and False Pass, you know, It's a... They went and did it. They didn't depend upon the government or anything to do things for them. Like when my mother had to move from Unga. There are people that had to move from Unga and Sanak. If you would have stayed there you would have starved. It's not like it is today. If that happened today in Unga, Sanak or Belkofski, the government would have stepped in and built them brand new houses. They would have given them everything, you know, why leave? It's not like before. The Old Timers started with nothing. Less than nothing. They put the boats into this fleet."

These men are respected for their strength and striving to succeed in challenging circumstances. These fishermen were diversified across several fisheries and added or replaced fisheries that closed or were unsustainable in order to support their crews and their families. They had fished king crab until 1988 and tanner crab until 1989 when the fisheries closed. "We lost crab and then looked to other things," said one pioneer from Sand Point. "There was about three of us out there that, we rigged up. It cost me a lot of money. First I spent \$80,000 on longlining equipment to go codding and I couldn't make it work. So I lost that money and then we switched over and figured out how to catch them with trawls." Halibut fishing, they said, was good for a while but the IFQ system replaced open access and changed the entire way people fished. Salmon fishing was described as "catastrophic" by several fishermen for its recent volatility, restricted time management,

and low harvest numbers. These fishermen chose to add groundfish trawl fishing to their repertoire in order to stabilize their household economies and earn income more evenly throughout the year.

Making a Fishery: Aleut Development of Groundfish Trawling

Today, Sand Point is a city of 976 residents located on Popof Island in the Shumagin Islands (Fig. 1). It is a first class incorporated city (since 1966) with Trident Seafoods as its main processor, a support facility owned by Peter Pan Seafoods, and a boat harbor. In addition to the City of Sand Point mayoral form of management, the community is governed by three Aleut tribal councils: Qagun Tayagungin Tribe, Pauloff Harbor Tribe (from Sanak Island), and Unga Tribe (from Unga Island). The village was founded in 1898 as a cod fishing station and populated by people from nearby communities on surrounding islands and the Alaska Peninsula. It is now primarily supported by salmon fishing and groundfish fisheries, and 122 residents hold commercial fishing permits. Trident Seafoods processes pollock, Pacific cod, other groundfish, halibut, GOA crab, and salmon. Most residents are active subsistence hunters, fishermen, and gatherers. King Cove is located on the Pacific side of the Alaska Peninsula between a lagoon and a bay. It was founded in 1911 around a Pacific American Fisheries cannery and attracted Scandinavian and Aleut fishermen from regional villages. It is an incorporated first class city with 938 residents (Census 2010) and is managed by a city council, mayor, and a city administrator. Peter Pan Seafoods in King Cove processes salmon, crab, halibut, pollock, Pacific cod, and other groundfish. The plant offers fuel services for vessels and the community, and maintains a company store and gear supply store. The processor brings in hundreds of workers (up to 500) during peak fishing seasons and employs only a few local people. Workers in Peter Pan Seafoods patron local businesses but generally live separately from the resident population. King Cove is home to the Agdaagux Tribe (the King Cove tribe) and the Belkofski Tribe (former residents and descendants from the now abandoned Belkofski village). The majority of residents are active subsistence hunters, gatherers, and fishermen for all major species available, from cod to clams to caribou to geese.

In the late 1980s, several fishermen in Sand Point and King Cove approached the two area processors, Trident Seafoods and Peter Pan Seafoods, about starting a trawl fishery. The instability of salmon fisheries and the loss of crab fisheries were causing stress in the communities and they wanted to find new opportunities for themselves and their crew. Several of these trawling pioneers are still living in King Cove and



Sand Point as vessel owners and a few as active operators. As one of these men from Sand Point described,

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"Three Bering Sea boats could have done what the whole fleet here in Sand Point is doing. It would have been cheaper for Trident [Seafoods] or Peter Pan [Seafoods] operating those big boats. They don't always get cod. But pollock was the same way. They let us go out and gave us a chance. We wouldn't be fighting over rationalization or anything now if it was only those big boats. We would be trying to get our own fishery away from those guys, without history, if we hadn't done this."

The first year of the trawl fishery was 1988, the first "rigging up." As one fisherman from King Cove stated, "We went to the trawl people and told them what we had and what we needed. It was a learning curve. I think we were more afraid of the gear on the bottom and how to pull it back without ripping it up and how to put it back together. 'Cause we were all pot fishermen." They learned how to fish the rocky lower strata without destroying expensive gear. The otter trawl was the main gear used then as now in which large nets are held open by two doors, they are weighted down, and towed behind the vessel.

These pioneers were criticized by some members of the local salmon fleets for using a gear that had a reputation as destructive. Still every trawl captain from King Cove and Sand Point was also a salmon fisherman and had no intention of leaving that fishery, which was still the core fishery for these communities. The effects of towing trawls over or through soft and rocky bottoms were heavily debated. Some in the communities and non-trawl fishermen called the local trawlers names like "dragger" and "raper" initially. When these fishermen were successful and started to make money, "then everybody wanted in," according to one of these men, and attitudes started to shift. There is still some criticism of these operations emanating from non-trawl fishermen in these communities, but they generally agree with one Sand Point fisherman who said "everyone is damaging something."

These men may have also been Gulf-wide pioneers for the use of trawl gear. They describe how the Central Gulf started trawling *after* those in the Western Gulf, and several "Kodiak boats" came down to the Western area to do it. "When we first started, they weren't, there were very few boats and they started maybe 2-3 years after we started, and then when they did start a lot of the boats came here. They couldn't catch any fish in Kodiak." There are fundamental differences between these fleets today. "We fish everything. We have multiple interests. It's just trawlers, most of them up there [in the Central Gulf]." They describe the Kodiak/Central Gulf fleet as compartmentalized between gear and species, with most of the trawlers residing in Oregon. One fisherman said, "It is an

Oregon fleet and they are just after trawling, and they're after whatever they can do to make a dollar or not even be in Kodiak. They would rather have their boat fishing whiting in Oregon and making money off that rationalization. It is different here because we live in the community."

The majority of homeported King Cove and Sand Point trawlers live in the communities, hire locally, raise their children in the communities, and have no intention of leaving. This local investment is less about personal income than it is about supporting their families and their communities year round. Most local fishermen that initially entered trawling operations stayed in the business. Approximately seven or eight smaller boats left the trawl fishery in the past 10–15 years because bigger engines are needed, nets are expensive, and gear is costly to repair or replace. Most of these vessels still go pot, jig, or hook-and-line (HAL) fishing.

The Last Cowboys: Current Engagements of the Community-Based Trawl Fleet

The total Western Gulf trawl fleet was comprised of 45 trawl vessels, 31 of which are catcher vessels (CVs) and 14 of which are catcher/processors (CPs) in 2016. Within these catcher vessels, 18 are locally owned and homeported in King Cove (6) and Sand Point (12). No catcher/processors homeport in these communities. What constitutes a homeport is not straightforward. Three of the six trawl vessels fish exclusively out of the King Cove port, yet the owners, skippers, and crewmen do not have homes in the communities. These men preferred to have their vessels considered local, they are accepted into the communities as such, they spend large portions of the year there, they fish other local state fisheries, and they patron local businesses. But they are not living there year round, they do not own houses in the villages, and they are not putting their children in the local schools. Within Sand Point, another three to four vessels could be considered "local" by these same criteria. The actions of the individual vessel owners and operators blur this insider/outsider division because they actively engage with community members as friends, sharing equipment, sharing dinners together, and they participate in regional fisheries meetings as if they were living in the communities. They are more a part of the communities than the "LLP guys" (of the License Limitation Program), as one Sand Point resident woman put it, but they do not maintain homes there or vote in local elections. For this study, those operators who identified themselves as "local" to and by the communities are included as "local," homeporting participants. There is nothing keeping these few men there beyond the fisheries, however. All the trawl fishermen are also a segment of the overall community-based groundfish fishermen who use pot, HAL, and jig gear in both State and federal waters, inclusive of False Pass. There are no trawlers homeported in False Pass.



Trawl fishermen switch from trawl to pot fishing continuously in season and want to maintain the ability to switch sectors. All community-based trawlers use pot gear, but not all pot fishermen use trawl gear. The emphasis of this study is on those individuals who homeport, reside, vote, and consider their only residence to be these communities.

Trawling is done using modified 58' salmon seiners with widened bodies called "Super 58s" (Fig. 4) that came at high rebuilding costs. The trawl fishery was costly initially, but cost prohibitive to enter today, and some skippers who could not afford to upgrade their vessels' body size or engines stopped trawling. Fishing generally begins in January with fixed gear and then trawl vessels with an A and B season for cod and four seasons for pollock annually. Inshore fishermen are managed based upon Prohibited Species Catch limits and must shut down when these are reached. The state waters fisheries for cod and pollock are deducted from the federal TAC.

Crew composition between salmon seasons and cod and pollock fishing seasons are somewhat different in that more age ranges and skill levels can fish for salmon, but a more specialized professional crew is needed for trawling and pot fishing. These are typically the fathers, uncles, brothers, and nephews of the communities.

This last open access federal fishery in Alaska has a reputation of having higher bycatch rates and previously had limited to no use of fisheries observers until mandated by the Council. The bycatch rates were calculated from sampling vessels and extrapolation. The moralizing aspects of bycatch permeated discussions before the Council by those in support of the Trawl Bycatch Management Plan. These Western Gulf fishermen were the unobserved fleet, their sins not absolved by the "objective eyes and ears" of the observer program (as former director Martin Loefflad described his program). Criticizing these operations as mismanaged, bycatch takers created the need for the new catch shares program. The bycatch data used to justify the plan, even though it is



Fig. 4 Modified "super" 58' salmon seiner and cod/pollock trawler

extrapolated from larger vessels and may hold the presence of hatchery chinook counting against their PSC limits, is regrettably more powerful. Observed vessel owners often describe their operations as "clean." The Western Gulf, having been unaccountable until their recent participation in the observer program, must engage in some moral cleansing. "Bycatch reduction" became a tool of the elite because they are the ones who were technologically equipped to meet the new constraints that they themselves helped create. Almost every fishermen interviewed believes that bycatch reduction is only a small part of rationalization. There is a sense among Western Gulf fishermen that bycatch management is a pretense for another goal, and this "coercive conservation" (Peluso 1993) is really about greed among vessel owners. They offered a simple solution to the Council in public testimony: change the start date for the fishery to later in the season when there are fewer bycatch species present.

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Diversification and Dependencies

When asked, "What do you consider to be your primary fishery?" one vessel owner and skipper said, "All of them. I'm a fisherman." Similar assessments were made by all fishermen interviewed. This statement captures the perspective of these fishermen who have diversified into every fishery possible in order to support their homes and communities. The economies of King Cove and Sand Point are cyclical, specialized, and fairly exclusive. They follow the ups and downs of fishing and fish processing. Hired skippers are the majority of trawl operators in the fleet, with only two vessel owners operating their own vessels and one vessel owner operating a different vessel (a relative's) for the trawl fishery.

King Cove and Sand Point trawling skippers typically hire a mixture of crews from within and outside the community (Fig. 5). The majority of vessels hire three crewmen that reside in Sand Point and King Cove, and the fourth crewman will typically be Alaska-based, but from outside the community. Typically skippers need three crewmen for trawling. For some skippers, a fourth person is needed for pot fishing. Each vessel

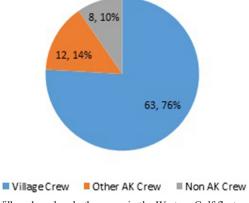


Fig. 5 Village-based and other crew in the Western Gulf fleet



has a slightly different arrangement between owners and crew and their percentage of take. Most vessel owners take between 40 and 50% "for the boat." That money is typically used to cover insurance, any gear payments, maintenance, and the vessel owner's personal earnings. The owner receives 15–20% cash after the expenses on average. Hired skippers often receive 8–10% after expenses.

Skippers reported that between 30 and 80% of their annual income comes from the fall and winter fisheries in pollock and cod. This was a variable amount reported because the portion it represents depends upon the strength of the summer salmon fishing season, and other fisheries that they might participate in such as halibut and sablefish IFQs or herring. The 2014 salmon season, during which the bulk of these interviews took place, was so poor that one salmon/trawl captain estimated his salmon fishery earning would only represent only 20% of his annual income for 2014.

During interviews, fishermen's spouses were acutely aware of the dependencies on these fleets and calculated this in terms of "mouths to feed." They counted how many mouths each person on a vessel was directly feeding, which ranged from 4 to 32 individuals, depending upon the vessels. Many of these vessel owners, captains, and crew are supporting people financially beyond their own household. They might help out a daughter who is a single mother with extra expenses, for example. "They work but it's very expensive to live here," said one skipper/father, so he helps his adult children make ends meet. "The boats are supporting five guys as crew, plus the owner!" said the skipper's wife. "The money doesn't stretch very far."

Currently, the federal pot sector fishery closes January 27 and remains closed until the state water fishery opens March 1. For six weeks in Sand Point, the trawlers are the only ones fishing. "Without us, the plant wouldn't have anything [during this time]," said one skipper. For three months in King Cove, the trawlers are the only ones fishing during the winter. The trawlers also keep the processors operating for more of the year, which supports other smaller gear types. "We are far from the Bering Sea. Sand Point is overflow for processing." When the local trawl fleet goes fishing, Trident will accept cod from jiggers too, supporting more of the fishing fleet. They will stay open and process a bit of cod from the jig fishery because the trawlers are operating all the time.

Another hired skipper observed, "The trawl in Sand Point is more important than the trawl fleet in Kodiak. You might make \$10,000 in one month, but you might be spending \$5000 on groceries too." Shipping costs for food, fuel, and supplies are extremely high and the profits from fishing do not extend very far. King Cove is especially vulnerable. "Disposable money is only happening with trawlers during certain months," one business owner said. "When I'm fishing, I have cash on hand right now. You might draw \$300 to spend

before you leave the dock. None of that is possible [without the winter trawl fishery]," said one hired skipper.

Family Operations

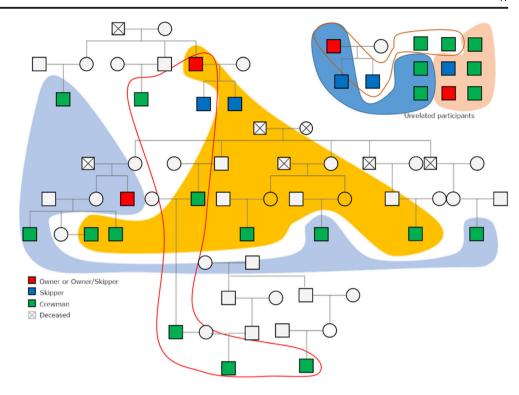
Family interconnections within the WGOA trawl fleet are many and significant. One Sand Point woman described the "huge family" involved in this fishery, referring to real kinship rather than a fictive group acting "like one big family." There are large family networks fishing in this trawl fleet as vessel owners, skippers, and crewmen. For the most part, these are stable networks, meaning a few individuals change as crewmen from year to year, but generally, these crew hires are stable. Part of the reason is that they are based upon genealogical foundations. Kinship diagrams of related vessel owners, captains, and crew in the trawl fleet for both communities show these interconnections (Figs. 6 and 7). They also show the individuals that are not related by blood or marriage separately, although some of them are related among themselves. The stability of crews that are not related to others in the community, but are related among themselves, is high.

The families operate as a larger corporate group, with the older fishermen observing the skills and desires of participants and placing them in the appropriate crew jobs. Three of the six vessels in King Cove are owned, operated, and employing members of the same large extended family (Fig. 7). The small kinship group in the upper left of Fig. 7 is distantly related to the larger one, just not linked here for simpler presentation. The very small kin group in the upper right, and the unrelated participants, own and work on the other three vessels. The crew compositions across these kinship lines for the six vessels are shown through shaded backgrounds and lines. The other three vessels are owned and crewed by participants unrelated to others in the community. The 12 Sand Point trawl vessel crews depicted in Fig. 7 show an even larger and more integrated extended family network and crews selected across kinship lines. The more vessels added, the more connected individuals become. These King Cove and Sand Point genealogies are also connected together, but not demonstrated here.

These genealogies do not capture the extent to which community residents are dependent upon these vessels and the number of mouths to feed, but they do show large family connections across the communities. In many ways, these genealogical snapshots are the social and power centers of the communities. Those involved are intimately aware of all who depend upon them and the potential consequences to all if they fail. The community-based trawl vessel owners who would have been awarded quota were opposed to the structure because of their concerns of quota dispossession and the long-term sustainability of their home towns.



Fig. 6 Kinship diagram of the King Cove trawl fleet

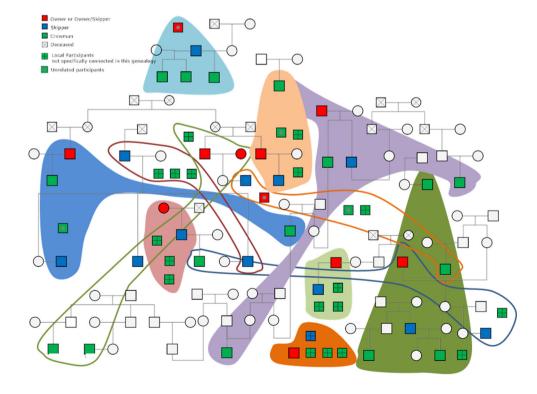


Competition

Competition is a value of these fishermen; programs that remove competition are threatening to their way of life. In most interviews, fishermen described their love of competition and the shifting arenas in which they now have to compete—from the fishing grounds to the policy meeting. Fishermen compete

with one another on the fishing grounds within and between the communities in all fisheries. Competition is not on a level playing field because of differences in quality of equipment between fishermen. Still, removing competition and giving rights to some and not others, in their experiences, permanently sorts people into statuses that are difficult to change. A Sand Point skipper said, "I'll stay with fishing as long as I feel

Fig. 7 Kinship diagram of the Sand Point trawl fleet





aggressive enough to compete. I love it! It's great sport." Having to shift to compete in politics instead of on the fishing grounds is the hardest transition. The lack of competition and the political arena is changing their roles. "It's getting to be a job," said one skipper, rather than a way of life. "I'm trying to stay in politics. I testified at the Council but I'm not good at speaking in front of a group. I get tongue-tied, it doesn't come out good. Why do I have to be a politician? I'm a fisherman, not a politician."

Community concerns about rationalization are similar to the same fears exhibited the previous time this area was considered for a similar plan. But now, Sand Point and King Cove have had years to think about what it would mean for their towns and very real examples in halibut and sablefish IFQs and crab rationalization for how these plans affect them in the meantime. Derby-style, open, and limited access fishing is by far the locally preferred management for both state and federal waters for cod and pollock. "I'm for doing nothing," said a hired skipper. "True fishermen," as one skipper's spouse said, "need competition. Competition is a great thing." Still it is this competition that is argued to be responsible for wasteful fishing practices, high levels of bycatch, and unsafe fishing practices. Removing the traditional model of competition on the fishing grounds shifts the competition to the market with new impacts.

Home

"Regulatory bodies aren't really looking at communities, our history, and our future," said one Sand Point fisherman's wife and mother of three commercial fishing sons. The majority of community-based operators are not temporary residents in the villages. They are permanent residents who are home, weathering the ups and downs of fishing. This is an important part of the community. One woman observed,

"This is their [the fishermen's] heritage; there is their fathers', kids', grandkids' [heritage]. They want to stay home. The only way to do that is to keep the fisheries open....It depends a lot on Mother Nature. Look what she's done on the pollock. There's none out there. We get a few good salmon years and some people come back to fish. But we stayed here! We fished through it! People come back if there are good times and leave when it's bad. But we stay!"

This interview was before the current Pacific cod declines. The bleak alternative in many minds is to move to Anchorage and look for hourly wage work. "A lot of guys here aren't educated in much else. They have hidden talents but they aren't hirable because of no formal education. The whole community is based on this [fishing]," said a mother of crewmen in Sand Point.



Community Fishing Associations

In an effort to protect its communities and homeports, Aleutians East Borough representatives joined in a larger proposal to the Council spearheaded by the Alaska Marine Conservation Council (AMCC) for Community Fishing Associations (CFA) in June 2013. This was an effort to mitigate effects of what was perceived as an inevitable catch share structure. This proposal would allocate quota to a CFA and be managed by a board of directors. The board would likely include Borough representatives and local community members. The design structure was not fully defined, but it had as its primary goal keeping quota in the communities and longer term community protections than straight catch share divisions. The CFA proposal requested a 10-20% set-aside for quota allocation of target species and Prohibited Species Catch (PSC) to CFAs. The Aleutians East Borough representatives' interest in this structure stems from decades of experience with rationalization programs with no or weak direct community protection measures and resultant losses to fishermen, communities, and the borough. This was the only measure proposed where quota would be guaranteed to community fishermen and not able to be taken over by absentee owners. It was clear to the designers that privatization would not meet its stated goals without one or several specific measures dedicated to community-based control of quota.

Community fishing associations would ideally manage their quota in the interests of the community. Although it sounds compelling, the Western Gulf trawlers, both vessel owners and hired skippers of Sand Point and King Cove, unilaterally opposed this measure. They described it as redundant with how they already function, that is compelling locally-minded fishermen to be locally-minded, and a "nonstarter," a "crazy idea," and "a tax." A main concern is that the quota allocations would already be small, and an additional entity receiving significant quota would further reduce the quota available. Their ability to make their concerns known and propose their own alternatives to address bycatch problems before the Council were less direct. They hired a lobbyist familiar with their fisheries and the Council process to testify on their behalf. They invited Council representatives to Sand Point to discuss the problems with the proposed plans. Occasionally, a fisherman would testify before the Council, but there was not a lot of direct engagement with the Council, and many in the Western Gulf fleet felt like they did have much influence in the Council process. Further, the apparent disconnect between Borough leaders and the fishermen in proposing CFAs was a surprising development. Although not a focus of the interviews, this could be the result of poor communication between leaders and community members, or a lack of understanding among fishermen for what community protection measures could be palatable to the Council, or some other factors.

Comparisons to the success of CDQs did not ring true for many of these men. For example,

"Like Dutch Harbor, there's nobody hardly in the community out there participating in the Bering fishery, or none of the CDQ people out there participating in the fishery when they got that 10%. To get a community quota you have to take away from the people that are out there trying to make a living. The more you take away from, or tie away from us, the less we are going to make, so how do we compete? The same thing is happening in the cod fishery in the gulf. The LLP... The CDQ boats are coming down into the gulf. These people are buying brand new boats, pots, and everything and we have to compete with that free money. One guy was on the radio a couple years ago saying he was out in the shipping lanes with his pots saying he didn't care if he lost them. They'll only buy me more. We can't do that. We can't compete with that kind of money. Hell, nobody can, not even the fishermen in the Bering Sea. "

Council analysts pointed out that many of the elements of a proposed CFA are already covered in the Council's goals and objectives for the GOA Trawl Bycatch Management Program (NPFMC 2013). CFAs would be an additional bureaucratic level that could potentially impose its own PSC reductions, owner-on-board rules, fair crew compensation, or other requirements. There would have been a rewards system for those who satisfy or exceed expectations and a penalty system for those who have poor PSC/bycatch performance, treat crew poorly, or other behavior not yet specified. CFA Boards would be deciding who to reward and punish and could be a hotbed for more conflict. As it is, these are small communities in which Roberts Rules of Order are strictly followed in meetings to ensure fairness and minimize nepotism, hostilities, and litigation.

The CFA proposal references *new entrants* to the fishery. Many trawl participants describe how costly it is to enter the fishery, the large learning curve to effectively fish this type of gear, and higher PSC potentiality for those learning the system, which undermines everyone. Many King Cove and Sand Point hired skippers want to be able to buy the vessels they are already fishing on from the vessel owners. One of the arguments for CFAs is that it could provide entry level opportunities to new fishermen or to trawl crewmen to assist them in getting their own operations. One trawl captain in Sand Point was baffled, "But how would you do that? Are you going buy them a boat? Are you going to buy them the gear? Look at the LLPs. They issued what 15 or 20 LLPs. How many are they leasing now? No, you can't afford the... it's not like the Bering Sea or even Kodiak or Dutch Harbor, the people that are doing it are the community." Another man said, "That is why I would be definitely against a community quota. What are you going to do with it? Sell it back to the people that are already in the business. The price of fuel and everything the way it has gone up, it is hard to rent a quota."

Several fishermen thought of the CFAs as a tax. "We are taxed 2% to the City, 2% to the borough, a 4% fuel tax to the City, an observer tax. There's no state fish tax yet." This Sand Point resident forgot to mention the 1% Alaska Seafood Marketing Institute tax. "This is everything we have lived and worked for. And now we are going to give it to the Borough?" Another vessel owner's spouse echoed these same comments, "You work for the community when you fish already! Now you want to give quota to an outside entity? Why?! You want me to take everything I've worked for and give it to the Borough?" She went on to explain that a neighbor could ask for shares but may have "never worked a day in their life." It is highly unlikely that this person would qualify for quota shares but they fear losing quota to those who did not work to build the fishery or support it through the years.

Small town politics are sure to affect the process. "When someone thinks you have something, they want to take it from you, you know. The people who have caught it should get to keep it!" Fishermen do not want "people from town deciding" their livelihoods through the CFA boards. The mayor and city council change often, so it is expected that a separate board would have a similar record of turnover. They worried this could be "random people," "people that have nothing to do with the winter fishery."

The ways in which quota were to be divided were believed to favor "whoever is most competitive at the Council." This Sand Point woman said, "Nobody bothers [the Scientific and Statistical Committee for the Council] when you set quota. But we negotiate *after* you do it. An entity's ability to get quota would be based on people's negotiating skills." In this way, "Winners and losers do not emerge naturally through the magic of the market, they are selected," (Li 2007) or self-selected in this case by those with the skills.

Resistance to CFAs is widespread in both the Central and Western Gulfs. "I can understand why Kodiak would try this. They are trying to keep money around," said one Sand Point vessel owner, explaining that the bulk of the Central Gulf of Alaska fleet homeports elsewhere. "It may say *Kodiak* on the stern, but the crew, the captain, et cetera, are from Oregon," said a hired skipper from Sand Point. "We don't ever leave." If the goals are for local hire, local training/mentoring, and business planning, and a CFA would allocate quota to vessels whose owners do this, then they thought it made sense for Kodiak. But the fishermen of King Cove and Sand Point argue that they *already* do these things. Their concern was their ability to continue to do these things under the bycatch management plan.

Even with all these local concerns and fears, CFAs might have been the only structure that would ensure that quota did not emigrate away from the communities. The allocation of

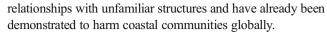


quota could accelerate its sale. The Council cannot prevent anyone from moving away from where they lived when they received the initial allocation. It also it cannot prevent the sale of quota. The fishermen of King Cove and Sand Point "don't ever leave" but they could have sold the quota they were issued in lean times. Those in a better position to purchase quota would likely be those that reside outside of the communities. Once sold, that quota would likely never return to the communities. A CFA entity could potentially be helpful to account for unexpected financial and ecological declines.

The concerns of local fishermen are responses to the unknown elements of CFAs and the unknowns of bycatch management more generally. CFAs would still have to operate within the bounds of the broader program. CFAs would need to have strict rules of operation, participation, decision making, and bylaws that govern the structure and process of allocation in order to be successful. Unlike the Community Quota Entities (CQEs) of the halibut fishery where they did not receive initial allocations (Langdon 2008), the CFAs would likely be more successful with quota from the outset. They also would need to have enough flexibility so that they can they can adapt to deal with unforeseen consequences and so that they can work to achieve their intent. Many of the issues of allocation, the role of cooperatives, CFA costs, and legal considerations have been analyzed by Council staff and others (Himes-Cornell and Kasperski 2014) and there remained numerous elements to work out when the Council tabled the plan. Proponents of CFAs tended to describe them as entities for solving most everything that may not be ideal in a fishery, from codes of conduct towards crew to ensuring future participation by local residents (Donkersloot 2016). CFAs can mitigate many negative impacts experienced in other catch share programs, such as high lease rates reducing crew compensation, by rewarding those with "good behavior" with quota, but the CFA would need enough quota to be an influential player among fishermen. They would also be new entities and would have no performance history.

Conclusions

Commercial fishing in the Aleut communities Sand Point and King Cove does not supplement an indigenous subsistence-based lifestyle; it is instead a central, fundamental, organizational, cultural, and economic foundation that often encompasses subsistence practices (Reedy-Maschner 2010). Building on their Scandinavian heritage and their ingenuity, these fishermen carved a space for themselves in trawling. This may have been the final opportunity as the ability to create a new fishery is largely gone now. The histories of these communities are relevant and policymakers should consider and value longstanding traditions and historical relationships in all policy matters. Catch share plans erase history and replace



Even though the Gulf of Alaska Trawl Bycatch Management Plan has been tabled for now, it could be revisited in the future. Several adjustments, such as reallocating quota to different seasons and moving the start date of the fishery to February, are currently being debated by the Council. The communities will continue to advocate against rationalization.

Small fishing operations have come to be seen as ecologically threatening and in need of improvement schemes. They are tougher to manage and monitor relative to natural resources and become swept up in class-based injustices in the same way that Marx observed. The expert rationale for the need and structure of new management schemes is closed and self-referencing, ignoring history and ecological volatility. Problems identified are linked to the available solutions (Ferguson 1994; Li 2007): simplified catch shares. The trend has been to find ways to "make fishery management safe for the biologists" with clean datasets (Macinko, pers. comm.). The order brought about through rationalization is satisfying to both biological and management camps, but does nothing to serve locally, homeported, small-scale fishing fleets, for which "sustained participation" is to be safeguarded under National Standard 8 of the Magnuson-Stevens Fisheries Conservation and Management Act.

Where the business model of rationalization is contrary to family operations and to community functioning, Community Fishing Associations offer a structure that would unnecessarily duplicate what has developed organically, but with a complicated bureaucracy, a reward and punish system to control behavior, "outsiders" in charge, and likely be controversial in every decision. This too was a mitigating compromise fearing losses in the inevitable march towards rationalization. This paper has shown the role of these trawlers in the communities, that their system of supporting local skipper and crew jobs in the winter months is its own association that has community sustainability as a primary function, but is organized by those who directly understand their own communities and operate in the greater interest of the region.

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