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Community ideas and projects for Ahi, yellowfin tuna, landed on Kauai

Final Report

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## **Kauai Small Boat Fishery Diversification Project**

### **Summary of Project**

Yellowfin tuna, ‘ahi, is a key species in the Hawaiian diet, the local economy, and visitor culinary experience. ‘Ahi and other pelagic species are being fished sustainably, and ahi’s high local availability supports hand line fisheries in the MHI. Each island’s fisheries are unique and have different features. The Kauaʻi fishery is dominated by part-time anglers whose catch traditionally supplied the local market, but met with new distribution challenges under the pandemic. While working together with Kauaʻi fishermen on co-operative research, tagging and surveys over the years, as part of this community, we learned about advantages and problems local fishermen experience in their efforts to provide fresh seafood for residents and visitors. The objective of this project was to identify and evaluate a range of possible approaches to diversify or increase market share and business opportunities for the Kauaʻi small boat fleet, along with community goals and preferences related to diversification. We achieved this by researching and presenting approaches taken elsewhere to diversify and add value to fresh seafood, including consultation with other US seafood experts. We determined community insights regarding the small boat fleet’s past and present performance, the island’s ocean product sources, and preferences and interest in diversification or new distribution channels and outlets. Through a series of web-based public workshops, we developed relationships with, and hosted thirteen fishermen experts who completed successful diversification and expanded markets for tuna/seafood products elsewhere. In 2022, we constructed a new website, AhiHubKauai.org and placed new content on FishToday.org, that along with other resource materials, host short webinars presented by our expert panel. Together, these resources document historic and current status of Kauai’s ocean producers, and serve as a roadmap to identify next steps that the community might take to 1) implement diversification and increased market share for its fishery, and 2). provide more opportunities for sourcing affordable, fresh local ocean products. These opportunities for growth will enhance and reinforce other efforts to strengthen and support Kauai’s unique “fresh local” food and culinary resources, as well as its food security.

## **Kauai Small Boat Fishery Diversification Project**

### **Project Activities and Community Resources Created**

A central objective of this project was to bring new perspectives on paths to grow and diversify fishing businesses for Kauai's small vessel fleet. A second objective was to help the island's community and economic leadership develop awareness of the importance of supporting local fishermen, and the benefits that could accrue from promoting fresh, local fish and seafood. This would help encourage growth and diversification of Kauai's economy and food security (Appendix- Intro Project Flyers). With pandemic restrictions and given major uncertainty regarding public health advisories, the project's planned community workshops had to be reconsidered, and were ultimately organized as online (Zoom) sessions. We canvassed fishermen and industry members and buyers (restaurants, retail outlets, food trucks, chefs, food markets) to develop an industry contact list. During spring of 2021, we finalized schedules, and organized from 3-4 speakers for each of three Zoom web workshops (Appendix, Workshops 1-3 flyers). Workshops took place over three consecutive weeks in May, 2021, with speakers loosely organized around roles in the seafood industry. With a total of thirteen invited experts representing a broad cross section of approaches in diversification, we hosted and provided a distinguished panel exhibiting a diverse breadth of knowledge to the Kauai community (Appendix, Panelist Bios). While live online Workshops took place late morning HT to accommodate time zone challenges, we anticipated that local viewers would access individual presentations at convenient times.

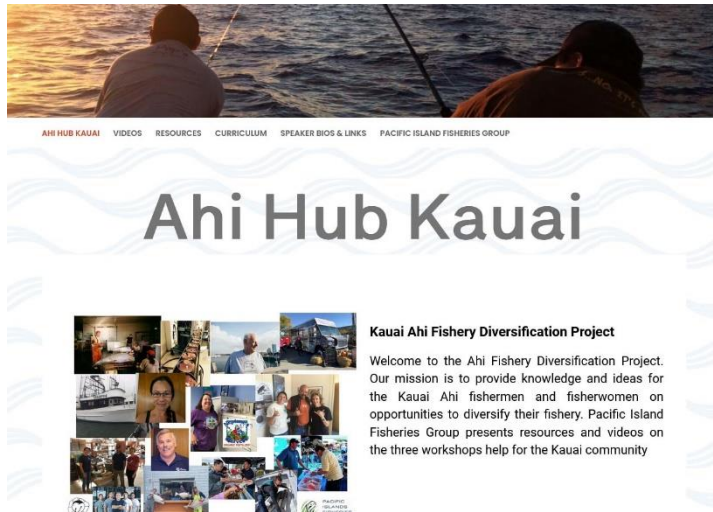
Each workshop speaker was introduced in advance of the workshops via email and Facebook (FB) and Instagram (IG) posting. Each session was recorded and edited for public podcasts now hosted on YouTube via links on AhiHubKauai.org and PIFG websites (FishToday.org). Workshop diversification speakers exhibited expertise from Atlantic and Pacific fisheries and businesses, and included single owner operators as well as small partnerships, all representing start-ups by individuals, families, and community organizations. Our panelists collectively had key experience in community relations (e.g., city and county), permitting, fund raising, adding value, boat to table, farmers market and community sponsored fisheries (CSFs), micro-canning, and smoking tuna and other species (e.g., oysters, salmon, mackerel, octopus, clams, mussels). In addition to their online bios, we posted links to panelists' individual web resources (Appendix C. Experts' Web Links). At present, the AhiHubKauai.org website ([ahihubkauai.org/?page\\_id=11](https://ahihubkauai.org/?page_id=11)) includes twelve resource links to PDFs for manuals, educational materials or source websites for start-up, adding value, Sea Grant program, and multiple other resources.

### **Talk Story: How information was gathered**

This was a community-focused project, so we sought to raise awareness and share information resources and insights on diversification and added value initiatives successfully undertaken by small fishing businesses elsewhere. Through first-hand accounts, we also attempted to document the history, current status and aspirations of Kauai's unique small boat fleet. We tracked where Kauai businesses sourced fresh fish and seafood products, and interviewed sources regarding the

basis for those selections, especially as COVID shutdowns had a significant impact on markets everywhere.

Initially, our intention was to document current island market conditions with a simple online survey for fishermen and ocean producers, and another for seafood and fish buyers, retail



outlets, or other purveyors. We initially consulted fishery economists and anthropologists to provide guidance on survey approaches, as well as strengths and limitations of information they typically returned. A strong recommendation, consistent with our own expectations, was that personal, informal interviews were most likely to provide deepest insight, and best reflect Kauai POV's through the "talk story" process. These meetings also allowed two-way exchange, where we provided

handouts and shared knowledge about project goals, and identified resources including the resource repository of AhiHubKauai.org website content and online Workshop videos. We compiled an email distribution list of fishermen contacts as well as fish outlets, and canvassed across the island, meeting with as many individuals representing different business type as possible. For privacy and to avoid conflict of interest, individuals or businesses are not identified in this report. Similarly, we used blind copy distribution for email alerts to maintain privacy of participants in project conversations.

### **Kauai Outreach: Ocean Producers and Community Leaders**

We conducted in-person and phone interviews with Kauai fishermen, restaurant owners, chefs, fish counter managers, hotel chefs, fish pond producers, aquaculture operations, local shrimp outlet, poke trucks, tackle shops, island nonprofit agricultural hubs, and community customers purchasing seafood in local outlets. "Talking story" via in person interviews and phone calls offered more detailed understanding of an individual's experience, and open exchange. We tracked local and state market dynamics, price, and supply and demand, as these elements quickly evolved over the spring and early summer, 2022, as pandemic impacts lessened.

Throughout the project we shared information and project updates with Kauai County's Office of Economic Development (OED), and met with OED agriculture and natural resources expert. Discussions centered on possible approaches for the County to provide support to island ocean producers, as it functions for agricultural producers-farmers, ranchers and related enterprises. The obvious but unheralded role of fish and other ocean products as a component of island food security was highlighted. Going forward, staff expressed a commitment to monitor opportunities to support the Kauai small boat fleet and ocean producers, and notably, for the first time, two local fishermen were invited to serve on a county Agriculture Diversification Panel.

In early 2022, we met with individuals interested in and supportive of the idea of a communal, central kitchen processing hub for Kauai fishermen, where catch could be cut and packaged for distribution and public sale. By far, this was the most common recommendation voiced by Kauai fishermen producers and buyers. Such a facility would be required to meet all federal, state and local food safety standards, as well as qualities of successful retail outlets. Our diversification panel experts highlighted the central challenge of that specific organization requirement. This was further emphasized by a Workshop participant, who had extensive certification and food safety credentials, and shared during her presentation.

Over the course of the project we compiled and updated a data base of Kauai small boat fishermen and businesses that purchase and serve fresh fish. To date, the directory includes over 59 Kauai small boat fishermen or operators, and a few from other islands “keeping tabs” on the project. While we were unable to source any directory of fish and seafood buyers, restaurants, etc., from local commerce or other civic organizations, we compiled one, but learned that changes in business status made it challenging to keep updated.

**Keeping in Touch** Given changing situations and status of the market, it was important to keep in touch with the fleet to monitor fishing and market conditions. We tracked producers’ expanding social media outlets, and sought opinions on market prospects, including successful operations on other islands. Given ahi’s importance, we frequently spoke or met with Kauai fishermen targeting ahi and other pelagic species, and kept abreast of availability and market conditions throughout the year. Typical of the MHI, outcomes of fishing seasons and markets varied a good deal across the study period, especially with added impacts of pandemic dynamics.

The 2021 season was extraordinary for multiple reasons. Community spread of COVID in the MHI and restrictions on Kauai County in particular, continued to impact outlets that typically sourced fresh ahi from local fishermen. Due to county and state restrictions, Kauai restaurants, hotels, grocery stores and food trucks all had worker shortages, and this resulted either in outright closures, or highly reduced hours. Reduced labor and COVID requirements impacted businesses that supplied ahi to poke outlets and food trucks, further reducing availability. One local market that normally offered local ahi shut down their seafood counters for lack of experienced fish cutters. This was occurring against a continuous increase in visitors, similar to that seen elsewhere in the MHI. From mid-June through August, availability of ahi was reported as highly sporadic, sometimes attributed to poor fishing conditions. Many fishermen noted that they simply did not go out, or that they directed effort to bottom fish or other species. The fishermen that continued to target ahi found demand for their fish and unprecedented prices (e.g., >\$7-9) returned. This was in contrast to the mostly low prices returned in 2020. One fisherman reported being frustrated that he “could not fish fast enough” to supply his customers, or to meet calls for product from new outlets, against increased volume demands from regular customers.

The common frustration voiced by Kauai’s commercial fishermen was that they had few outlets to sell their catch at a fair price, despite quality of catch and community demand. As Kauai and MHI businesses reopened post pandemic, and with burgeoning visitors, in the project’s last quarter or so, some fishermen reported better market conditions and higher prices paid for their fish. This was consistent with the trend of changing patterns across MHI fisheries. This positive

shift was fueled by returning restaurant, hotel and retail outlets, and growing demand for seafood in all community sectors. Nonetheless, smaller volume, part time fishermen faced challenges if they had not established relationships to sell or distribute their catch. Kauai distribution chains for fresh seafood remain more limited than most other islands. In summer 2022, some fishermen adapted their marketing approaches by searching for and finding new outlets and buyers. But following COVID shut down, re-opening dealers and other purveyors were challenged to find and employ skilled fish cutters. Some suppliers solved the problem by shipping large fish whole, to be processed on other islands.

Also in 2022, social media, road side sales and sunshine markets were becoming more consistent outlets for Kauai sourced fish. In most cases, if customers did not show up early they faced empty coolers and no fish to take home. Most indicators show a clear need for improvement in local fish distribution and diversification beyond these individual, small scale efforts. Selling their catch at sunshine markets or similar outlets is time consuming for small boat operators, especially those lacking family members or crew to assist with preparation and market duties. It “takes time away from fishing”, especially if conditions are good or at bite is taking place. Similarly, Kauai residents still voice their complaints about the lack of adequate outlets to purchase fresh, affordable local products, especially when they hear that fish are biting nearby.

**Other issues: Too many fishermen, limited outlets.** Fishermen reported that following pandemic shutdowns, they faced increasing numbers of small vessels pursuing pelagic species (e.g., ahi, marlin, wahoo, mahi). Views were that in the past, fewer, mostly full time fishermen were distributed over a fairly large area while targeting their catch. Post-pandemic, fishermen reported that more vessels “chased fish” in much more concentrated areas and at the buoys, negatively impacting their fishing practices. This caused some to spend more time in search of alternate areas away from other boats, often in less productive areas, adding to operating costs. Whether new federal or state surveys of post COVID fishing practices will capture this perceived increase in vessel effort on Kauai, or potential impact on markets, remains to be seen. It’s reasonable to assume that the number of small vessels pursuing pelagic fish will increase. The question remains whether and how opportunities to increase fresh fish production on the island can be successfully handled while reducing user conflicts.

### **Fishermen’s POVs: Proposed Solutions**

Many Kauai fishermen reported that having access to a commercial kitchen or hub where they could process and package their catch for sale to the public would be highly desirable. They offered the following ideas: having a central community kitchen location (e.g., Lihue, Kapa`a); several kitchens at different locations; satellite facilities in more distant areas on the west and north sides, or on different days of the week. Consistency in known hours and location would offer clear advantages for fish suppliers as well as customers.

Fishermen repeatedly noted that the high cost of fuel and travel time needed to transport catch to different buyers across the island was a major hindrance to selling more catch. The lack of refrigeration and proper storage facilities were clear impediments, especially against the high cost of energy on Kauai. A central location where their catch could be processed, properly refrigerated, marketed and sold was viewed as a major advantage. A few fishermen suggested that a potential approach might be taken from cattle/meat processing elsewhere – where a

processing trailer and skilled personnel travel to different locations on different days tailored to individual or small business needs. This novel recommendation illustrates the creative problem solving and unique insights of island fishermen, who frequently have ranching and farming skills, in addition to their prowess in fishing and hunting.

Multiple fishermen reported that after sharing with family and friends, remaining catch is sold to neighbors and other customers via word of mouth or simple signage. Some fishermen text to distribution lists, or alert customers via social networks. Memes are sometimes used to indicate what fish are available. Catch may also be sold roadside in home neighborhoods, often indicated with hand labelled sign affixed near storage coolers. Roadside sale is a trusted means of sourcing fresh fish throughout the MHI, but specific locations of roadside sale are not usually advertised. Roadside purveyors usually offers fresh chunks/filets (e.g., mahi, ahi, ono, marlin) packaged in one or two pound bags, as well as smaller whole fish (aku, or skipjack) at notably lower prices than that found in markets. Most residents buying fish roadside have done it many times, and trust the quality and safety of the product: they usually know who caught it- and when. This common practice confirms a persistent demand for fresh local fish, even when sources are unpredictable, or take place outside of conventional market places.

### **Markets, restaurants, hotel restaurants, food trucks, brew pubs**

Over the course of “talking story” with chefs, managers and owners of outlets that served fish or seafood, only a small number reported sourcing fresh local fish. Most larger venues needed to source fresh and frozen product from dealers or aggregators, such as from the “the block” (Honolulu Auction). Main reasons given were the need for reliable product volume, year-round availability, portion consistency, insurance, health and safety regulations, and especially, predictable cost. Buyers also stressed the need to maintain consistent business and financial relationship with dealers or other suppliers. For most hotel restaurants and franchise restaurant managers, corporate practices dictated how they source their seafood for menus. Some managers and owners of smaller operations, trucks and restaurants reported purchasing fresh local fish whenever possible, but that product was not always available, and alternatives (of any kind!) were often necessary. Some of these establishments are owned or staffed by part time fishermen, and their customers know that their products are often sourced accordingly. However, some retail outlets post banners of “fresh local” Hawaiian seafood at their establishments, even when products such as poke were sourced as frozen, pre-cut product from overseas.

Several managers of island food markets that were interviewed held their positions as fish buyers for years, and detailed historical changes in how seafood was sourced at their establishments. A number of these individuals were fishermen themselves. One source reported that in the past, it was common for fishermen to deliver recently landed catch straight to his market’s loading dock, where it was then iced, packaged if necessary, and sold. Markets routinely employed skilled fish cutters alongside meat butchers. As is the case elsewhere, most if not all of Kauai’s larger grocery stores are no longer locally owned. And in recent years and especially as a result of the pandemic, managers lost experienced fish cutters. One well known destination market offering fresh local fish up to the start of the pandemic faced an “unprecedented” reduction in employees, and consequently, had to reduce the volume of fresh fish offered for sale, lacking fish cutters to process them. The manager reported having to cut the fish himself, and bemoaned the lack of time to offer the volume and diversity of products that his customers desired.

Nearly all market seafood outlet managers expressed a desire to source their fish from island fishermen if it were feasible. These individuals were among the best informed about the status and availability of fish and ocean products on Kauai, and acknowledged the increasing demand for it at their establishments. Similar to other Kauai businesses, availability and amount of skilled workers, namely fish cutters, is a challenge that must be overcome in order to diversify and expand Kauai's fresh fish and seafood market.

### **Adaptation and Innovation**

During spring and early summer, 2022, a few small boat fishermen had secured or leased commercial kitchen space to process and package their fish. Direct sales of fresh fish and local shrimp were undertaken by island fishing families at sunshine markets. Although few in number, these outlets typically witnessed long lines of customers waiting for vendors to open. We observed more fresh fish being supplied directly by some local high-liners, and at least one new market that adopted multiple retail innovations to provide fresh (pelagic and bottom fish) frozen fish products (e.g., ahi collars and ribs, wild, native caught Alaska salmon) and creative poke and plate lunches for take-out. The establishment has sufficient refrigeration and freezer space to offer local produce (e.g., salad greens, tomatoes, ginger), sides (kimchee, limu, tofu salads) and home-made desserts. The market location is in a busy industrial center, and parking and hours are limited, but demand is high and the establishment sells out popular dishes early. It's clear that local demand alone has this popular establishment hitting peak capacity, and it now has visitors and traveling "foodies" showing up, following attractive social media.

In another instance of diversification, a family-owned start-up was the first to offer fresh, packaged pelagic fish at a weekend sunshine market, selling direct to visitors and locals. The new vendor "is not a fisherman", but sourced directly from local boats, and their inventory was consistently sold out. The owner reported coming from a restaurant and fishing background, and had learned to cut fish and run a dock-front business. At the sunshine market, the vendor enthusiastically shared cooking advice and background on the fish being sold to customers, some of whom said they'd "never purchased fresh tuna or billfish before". Marketing skill and previous experience were obvious reasons why this fish entrepreneur appeared to enjoy good success with the start up. The vendor reported that over a few months, the number of fishermen supplying fresh fish to the business increased, allowing them to expand market reach to restaurants. The success of these new businesses indicates great potential for others to capitalize on the high demand for Kauai fresh fish and related seafood products.

### **Community Conversations**

While some Kauai "locals" have family or friends supplying fresh fish, it's not ubiquitous. Locals and visitors alike purchase fish and seafood at retail outlets, or at the handful of remaining fish markets on the island. Since COVID, at least two locations selling local seafood have permanently closed, purportedly due to loss of lease, or raised rents. Conversations with residents and visitors across the study period, locals and new comers alike, expressed frustration with finding locally available, affordable fish. For example, a local customer service agent, upon learning about the project, advised us "to start a fish business!" She was frustrated that after pandemic closure, her local fish market and plate lunch outlet had moved, upsized, and begun "catering to visitors", resulting in early sell-outs and significantly higher prices. The view that



retail prices for fresh fish had become “unaffordable” (e.g., prices for ahi upwards of \$26-35/lb) was repeated across the island, especially before summer 2022. In addition, cost of local fresh poke surged during periods of low MHI availability, and some fish delis and other poke outlets offered pre-processed, previously frozen product sourced elsewhere.

By 2022, there were more favorable market conditions. More fishermen, full-time and otherwise, reported that they had no trouble selling their catch, some saying they could “sell more if it were available”. This diverged from preceding years, when fishermen reported facing market saturation due to a “glut” resulting from high landings across the MHI, against a market of few buyers, or inadequate distribution options.

### **Finding the Money!**

From 2020-2022, calls for proposals for competitive grant funds were offered by federal, state and county sources for agriculture and/or food and welfare-related small businesses. RFPS, or requests for proposals, considered food security and agricultural business diversification and growth, especially well aligned with this project’s topic. However, what kept multiple Kauai fishermen and their families from being eligible to apply for diversification and added value funds was the lack of an organization or nonprofit tailored to their needs. Existing nonprofit organizations on Kauai include agricultural, social and Native Hawaiian entities that were also competing for funds. Lacking prior relationships, and short of staff, Kauai nonprofits were unable to offer administrative support or to host or sponsor new relationships on the short timelines typical of fast track, COVID-era funding programs.

Going forward, this problem can be solved by a small group of committed individuals able to start a new nonprofit for ocean-related enterprises, or by an existing local government, agricultural (or similar) nonprofit ready to expand their scope to ocean producers. They are in fact key suppliers of protein and food to the island community. This rationale led to the inclusion of ocean producers into the Astoria Food Hub (OR), which initially launched membership exclusive to ranchers and farmers. It’s also noteworthy that federal and state RFP’s advertising rural area USDA development grants rarely if ever mention, or graphically include ocean producers in descriptions of opportunity on their websites, despite their eligibility.

### **Closing Advice from Expert Panelists**

In conclusion, this project sought to raise awareness of potential and diversification opportunities for Kauai’s small vessel fleet. It is only a first step- as innovation and growth will depend on creative efforts undertaken by producers themselves. Below, we reiterate key “takeaways” offered by our expert panelists for the Kauai community. More can be gleaned from their individual videos linked on project websites, AhiHubKauai.org, and FishToday.org.

- It takes a group of like-minded individuals working together for community-level change.
- A nonprofit organization is essential to support ocean producers, allowing them to generate and submit competitive proposals for grants and funding offered by federal, state and local agricultural economic development programs for rural communities (e.g., USDA, NOAA programs). These programs offer financial support to build capacity for

organizations (e.g., start up nonprofit) and/or basic resources necessary for start ups. There are clear advantages for having a nonprofit to serve as fiscal sponsor, generate timely reports, and monitor and administer funded projects.

- USDA rural grant programs are perceived to mainly support agriculture (topics listed do not include ocean producers- see [www.usda.gov/topics/rural](http://www.usda.gov/topics/rural)). There's a need to expand awareness that fishers and ocean producers are eligible to receive funds. This is being promoted by the Local Catch Network (LCN), a university-based information and resource hub supporting US fishermen and grass roots fish business efforts across the US, assisting other small nonprofits organized around ocean producers.
- There is cumulative value for ocean producers to join with farmers, meat producers and makers through community food hubs and public markets. Combining resources to create a bustling retail market where "fresh local" food is offered and promoted has led to unexpected benefits for communities and the businesses alike. Consolidating common needs for venues, refrigeration, freezer and storage space also has the potential to reduce property and energy costs for all users.
- Some university-based NOAA Sea Grant programs provide technical support and professional guidance to help fishermen and related businesses grow their markets. Given that Hawaii residents have the largest reported per capita consumption of fish and seafood in the US, UH Sea Grant should consider expanding its fisheries reach. For example, UCSD-based Sea Grant technical support was identified as "essential" to San Diego's Public Tuna Dock start up and functioning.
- Seafood training programs (such as fish cutting and handling) are a means to ensure skilled personnel to fill slots in an expanding, robust community fishery and seafood markets. Local educational centers, such as Kauai Community College, should be encouraged to support programs and faculty that can train and supply skilled personnel for expansion of seafood enterprises, as some community colleges have on Oahu and the Big Island.
- Experts that started dockside fish markets and food hubs emphasized that it would be impossible to do without the support and guidance of local government and economic development leaders. Guiding start-ups and getting them through voluminous permitting and licensing hoops, whether local, state or federal, was necessary for success.
- Added value, locally branded, and diversified products are an important component of small boat businesses elsewhere. Bringing together diverse products from fishing vessels, fish pond aquatic farms, sustainably harvested limu, and other producers, is key. Heightening culinary value of ocean products through smoking, drying, pickling, micro-canning, and artful packaging, offered alongside fresh produce and other local food specialties, could lead to a highly successful market and "not to be missed" destination for Kauai visitors.

Over this project's timeline, we observed positive changes in the local fresh fish market and higher prices paid to fishermen. Commercial fishermen with good networks continue to encounter high demand, while facing impact of the lack of workers for their outlets. Direct marketing and social media took off for some, and they earned higher prices under direct sale of their catch. This is adaptation in the best sense. Nonetheless, fishermen continue to voice enthusiasm for this project's mission, and that there was "much more to do" as far as improving their market, and the community's access to fresh fish.

On Kauai, the unwelcome impacts of the pandemic in relation to price and availability of locally-sourced ahi is now well appreciated by local government and fisheries managers, and especially, MHI and Kauai fishermen and consumers. Everyone now has a more visceral perspective regarding unexpected influences on fresh fish markets and distribution chains.

We expect that Kauai stakeholders will continue to make positive adaptations to improve their markets, and especially, to enhance their family's and community's economic status supported by fishing. This project, while only a first step, helped to document and build a greater awareness of the mismatch between supply and demand of fresh local fish in the Kauai community. Raising awareness of the importance of local fresh fish to food security and economic vitality, and to cultural and culinary values, is in our view, a tangible achievement of the project.

### **Acknowledgements**

We are grateful for the kind attention and support of our project manager, Scott Bloom, PIRO, in dealing with the many challenges resulting from the pandemic's impact on our SK project. For their patient responses to repeated queries about the bite, the market and history, and much more, we recognize and thank the many Kauai fishermen and their families, restaurant owners and managers, seafood purveyors, chefs, tackle shop owners, charter boat captains, the Kauai Office of Economic Development, and our neighbors. For his time and talents spent building our websites, we send a huge mahalo to Alex Min, Pacific Islands Fisheries Group intern and influencer.

### **Appendices**

1. Introductory Flyers
2. Kauai Workshops
3. Expert Panel Bios
4. Panel Web Resources



### **Diversify and promote fresh fish and 'ahi, landed by Kaua'i's small boat fishery**

Can you imagine new opportunities for getting your fresh ahi and other catch to local Kauai markets and consumers? Have you followed diversification efforts by small boat fishermen and fishing communities elsewhere, finding new approaches for selling their catch at fair value- and helping their communities get access to fresh, local, affordable, sustainably caught fish? Are you a local business that aspires to buy more "fresh local" fish for your customers, while supporting Kauai seafood producers and family businesses?

Pacific Islands Fisheries Group (FishToday.org) invites you to participate in a new project for Kauai fishermen and our island community. This project arose and was inspired by long discussions on the boat and out in the community: where does our fish come from?

COVID has had major impacts across the US seafood industry and markets. But through that tumult, most outlets now experience growing consumer demand, and higher prices paid for fresh, local seafood. Demand has also led to creative thinking and marketing of new value-added products for fresh fish markets by US fishermen and small businesses. Impacts on supply chains, and rethinking local food security and community health has inspired innovation and adaptation to new opportunities. Boat to Table, Community Fish Markets (CFMs), farmer-fisher networks, social media marketing, local seafood hubs, value-added, micro-canneries, and market aggregators are among many new approaches for selling local, sustainably harvested fish and ocean products. How can Kauai tap into this higher demand for fresh/local seafood, and meanwhile, better support island producers and community businesses?

Through a grant from NOAA's Saltonstall-Kennedy program, the Pacific Islands Fisheries Group (PIFG) is able to serve as a conduit of information to help you learn how other fishermen and seafood innovators are supplying more fish to their communities. Their approaches are creating better economic status for their small businesses and anchoring for local food supply. Could some or any of these work for Kauai?

Awarded in 2020, our Kauai project was meant to take place through "in person" community workshops and surveys. We planned to bring experts who've successfully expanded or diversified their operations here to talk story with you. COVID changed that plan! We're now going mostly virtual, and will launch through a new website, AhiHubKauai.org (under construction), Instagram, and other media outreach for posting resources, anchored by Zoom workshops. Shoots! Wicked Tuna star, Captain Dave Marciano will join us on the kickoff.

PIFG's Clay Tam and I ask to please share news about the project, and contact us asap at [KauaiAhiNetwork@gmail.com](mailto:KauaiAhiNetwork@gmail.com) to be placed on the project email outreach. Mahalo!

Questions? Contact Molly Lutcavage 808/940-7544 or [me.lutcavage@gmail.com](mailto:me.lutcavage@gmail.com)  
Pacific Islands Fisheries Group, Koloa



### **Diversify and promote fresh fish and 'ahi, landed by Kaua'i small boat fishery**

Can you imagine new opportunities for sourcing Kauai's fresh, local ahi and other ocean products to offer your customers? Have you followed diversification efforts by small communities elsewhere finding new approaches for selling local catch at fair value? And helping their communities get access to fresh, local, affordable, sustainably caught fish? Have you heard chefs and other taste influencers promoting "fresh local" produce and ocean products? Are you a local business that aspires to buy more "fresh local" fish to meet customer expectations, while supporting Kauai seafood producers and family businesses?

Pacific Islands Fisheries Group (FishToday.org) invites you to participate in a first ever project for Kauai fishermen and island community, funded by NOAA's SK program. This project arose from conversations with fishermen. They noted challenges of having so few outlets to sell their fish. Locals and visitors want to know where fish sold in Kauai markets comes from. They ask "why it's so hard to buy fresh fish on Kauai if you don't know a fisherman? Is that poke made from local ahi? Where can we buy fresh mahi or ahi that we hear are biting?"

COVID has had big impacts across US seafood markets. But now, markets see growing consumer demand and better prices paid for local fish. Demand has also led to creative thinking and marketing of new value-added products by fishermen and small businesses. Impacts on supply chains. Rethinking local food security and community health has inspired innovation and adaptation. Boat to Table, Community Fish Markets (CFMs), farmer-fisher networks, social media alerts, local seafood hubs, value-added, micro-canneries, and market aggregators are among new approaches for selling local, sustainably harvested catch. How can Kauai tap into this high demand for fresh/local seafood, and better diversify and support island producers and small businesses?

Learn more about the movement to help Kauai fishermen and producers sell their products and catch. PIFG's Kauai project hosted 3 virtual 'talk story' workshops, with thirteen leading innovators in small scale fish and seafood businesses. These workshops - with valuable, timely insights from successful innovators, will be posted. We're organizing additional information to show how retail and farmers markets, hotels, restaurants, chefs and more are doing it elsewhere. Their efforts create better economic status for local businesses, anchor local food supply, and put money back into the community. Let's make this happen for Kauai. What are the challenges you face with seafood supply? Help us learn more about Kauai's market demand, and what your business can do to support our local fleet and producers.

Keep in touch with the project via FB and IG #AhiHubKauai and contact us at [AhiHubKauai@gmail.com](mailto:AhiHubKauai@gmail.com) to join this PIFG project outreach. Mahalo!

Molly Lutcavage, Pacific Islands Fisheries Group, Koloa 808/940-7544



**First Workshop Panelists, May 11<sup>th</sup>, 11 AM Kauai Fishery Diversification via ZOOM**  
**<https://us02web.zoom.us/j/84793886183?wd=aU80SC80SEtYa2hGSmphL3pKeDNJUT09>**  
***\*follow on FB, IG AhiHubKauai***

**Bob Campbell, Yankee Co-op, Seabrook NH, founder;**  
**Chubby Fish, Tuna import /export, restaurant direct sales**

**Vito Giacalone, Jr. Fishermen's Wharf, Gloucester, MA**  
Seafood wholesaler and direct to customer, mobile seafood market

**Capt. Dave Marciano, Angelica Fisheries and FV Falcon, Beverly MA**  
Direct to market, fishing entrepreneur, owner

**Ann Molloy, Neptunes Harvest, Gloucester MA**  
Sales and marketing director, Fish and ocean product-based fertilizer







## 2<sup>nd</sup> Workshop Panelists, May 18<sup>th</sup>, 11 AM PT Kauai Fishery Diversification via ZOOM\*

**Jared Auerbach**    **Reds Best Seafood, Boston, MA**

Multiple fish and seafood distribution outlets

**Mike Baran**    **Port Orford Sustainable Seafood, Port Orford, OR**

Community sponsored fisheries manager, owner

**Aaron Longton**    **Port Orford Sustainable Seafood, Port Orford, OR**

Community sponsored fisheries founder, fisherman, buyer

**Capt. Bill Rehmke and Lane Rehmke, F/V Judy S and Pacific Tuna Products, Chinook, WA**

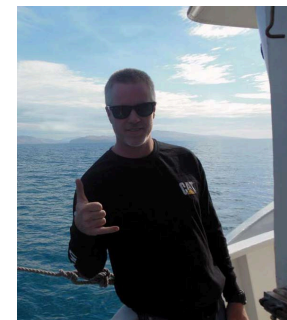
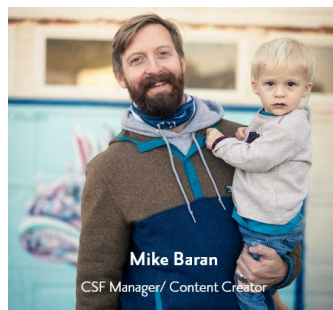
Owner, operators, fresh and tinned albacore direct sales, marketing

Zoom workshop link

<https://us02web.zoom.us/j/87556048647?pwd=SG1YZUI2bEMwZnhHWXJWcG1vd1didz09>

Meeting ID: 875 5604 8647

Passcode: 772821





## 3rd Workshop Panelists, May 25<sup>th</sup>, 11 AM Kauai Fishery Diversification via ZOOM link\*

**Jenn Costa, Commodity Marketing & Food Safety Specialist, Kapahi, HI**  
Seafood inspection, regulation and quality, shoreline fishing

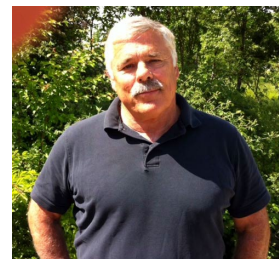
**Pete Halmay Tuna Dockside Market, San Diego CA CA**  
Founder, boat to table municipal tuna wharf, commercial fisherman

**Mark Kujula Skipanon Brand Seafood, Astoria Food Web,**  
Family run tuna and seafood cannery, direct markets for seafood

**Steve Scheiblaue, Marine Alliances Consulting, Santa Cruz, CA**  
Fisheries and Harbors consultant, direct market community fisheries

\*Join at

<https://us02web.zoom.us/j/81782950123?pwd=WU0wZlIRakZKK05XZWlpcnFBckNvdz09>  
(Meeting ID: 817 8295 0123 Passcode: 371005)





## Meet our Expert Panelists

## Ahi Hub Kauai

**Mike Baran, Port Orford Sustainable Seafood** CSF Manager, Owner



Mike Baran has a BS degree in Biology from Armstrong Atlantic State University, which led him to the West Coast in 2012 to work as a NMFS Fisheries Observer. After a 7 month contract he decided that the work “wasn't for me”, and moved on to various odd jobs. In 2014, while applying for a position with the city of Port Orford, a fateful interview with a savvy mayor redirected Mike and his skills to the new group- Port Orford Sustainable Seafood. His experience as a NMFS observer “schooled me on all the various species of fish that I might see on fishing trips, which translated seamlessly to the processing room”. After a year or two cutting fish, Mike “moves up” to manage half of the Community Supported Fishery (CSF). In

2016, he went on to help re-design Port Orford Sustainable Seafood’s direct-to-consumer business model, based largely on Skipper Otto's CSF in Vancouver, BC. He oversees operations as manager of the CSF program, and is now co-owner and promoter of Port Orford Sustainable Seafood.

**Jared Auerbach: Reds Best Seafood, Boston, MA** Fish and seafood distribution outlets and marketing



Red’s Best was founded in 2008 by Jared Auerbach. As a young fisherman from Boston, Jared worked on commercial vessels in Alaska and Cape Cod during the early 2000’s. He worked alongside hardworking fishermen and saw that with the advent of industrial technology and the governmental regulation of open oceans, traditional fishing communities and family fishing businesses began to struggle for survival. Jared also saw the abundance of species available in New England’s pristine cold waters. He set out to create a way for

consumers to have direct access to the freshest seafood. He envisioned a brand that would represent each and every fisherman and the pride of the profession. Reds Best was among the first “boat to table” purveyors, linking fishermen to their catch in retail outlets, and distributed fresh fish and ocean products out to New England farmer’s markets and other community outlets. Reds Best also hosts great educational events on “where your fish comes from” throughout the region.

**Bob Campbell, Founder of Yankee Co-op, Seabrook NH** Chubby Fish, Sales and Operation, Direct to Restaurant tuna brokers.



Bob Campbell a life-long New Englander, now in Rhode Island, with 45 years of experience in the Atlantic bluefin fishery, both as a commercial fisherman, and for the last 32 years, as a bluefin and tuna dealer to diverse US outlets. Bob was trained in bluefin grading, handling and how to properly pack at the Tsukaiji Market in Tokyo, Japan, but has handled most species ranging from tuna to lobsters. He is now semi-retired and employed seasonally by Chubby Fish USA. Bob is a jack of all trades including sales, logistics, troubleshooting, government reporting both for the US and for imported fish from the sister company in Canada. Having formed Yankee Co-op, one of the most important, long standing fishermen's co-operative in New England, Bob has extensive knowledge of fish and seafood business. He's partnered with LPRC's bluefin lab on ecological and condition research on giant bluefin and other studies relevant to the commercial fisheries.

**Jenn KamLin Costa** Commodity Marketing and Food Safety and Security, Kapahi, Hawaii.



Jenn is a Kauai resident, and avid shore fisher from "small kid time" in Maui with her family. She notes that "my father instilled the importance of sustainability and conservation in me every time we would go fishing, and I carry those values with me in every aspect of my life." Jenn's professional career covers a wide swath of important training and knowledge related to agriculture, fish and seafood product safety- information vital to any seafood business. She worked for Hawaii State Dept of Agriculture as a Commodity Marketing Specialist, and contracted for different federal agencies over the years with extensive expertise in produce and seafood safety. She has notable professional experience performing Country of Origin Labeling inspections for produce, meat and seafood under USDA contract, as well as USDA Food Safety Audits. Jenn completed USDC/NOAA Basic Seafood HACCP certification, yearly NOAA IASI Sensory Training for Auditors, and FDA's Reduced Oxygen Packaging, Thermometer Calibration, and Food Allergens courses. Under NOAA, she performed Seafood Food Safety Inspections/audits, as well as FDA Food Safety Inspections. Jenn is deeply connected to the Kauai community, with fishermen and farmers in her ohana. She adds "I would love to help local fisherman and the local market improve and become more efficient in providing stability and security in the supply, and also security for fishermen and their families. With the cost of everything skyrocketing, we need to try and keep our local markets stable and successful and I will do anything I can to help."

## **Vito Giacalone, Jr. Fishermens Wharf, Gloucester, MA**

First generation fish dealer, entrepreneur, direct to consumer seafood.



As a member of a successful fishing family, Vito Giacalone Jr. is a wholesale seafood dealer on Gloucester's historic waterfront. The Wharf is a direct off-loader of community-based fishing boats landing and processing "the freshest quality seafood possible", while offering fishermen partners "their highest and fairest prices". The property was the home of an immigrant Sicilian fisherman's co-op founded in 1951, destroyed by a catastrophic fire in 1998. Vito Giacalone Sr., seeing the need for a new vision and

financial commitment to rebuild the property, purchased the wharf to secure a viable fishing operation. Founded in 2008 by brothers Chris, Vito Jr. and Nick, the Wharf handles ground fish, whiting, scallops and lobsters and sells to wholesale seafood distributors in New England. Committed to sustainable fisheries, the Giacalones also saw opportunities to promote more fresh local seafood, and sell consumer-ready fresh fish direct to consumers. Ahead of the pandemic, the Giacalones invested in "mobile seafood distribution" trucks selling filet portions for drive up customers. The new venture was super successful, offering fresh local fish, oysters, mussels, clams, crab, smoked fish and value added products. Vito and family have undertaken highly innovative adaptation to new seafood market demands, serving the local community's needs, while staying true to their Sicilian American family's roots and traditions.

**Pete Halmay, Founder, Tuna Harbor Dockside Market, San Diego, CA** founder, boat to table municipal tuna wharf, commercial fisherman.



After working as a Consulting engineer for seven years after graduation, in 1970 Pete "took a couple of years off to pursue a diving hobby and work as a full time abalone diver, and never went back". "Over the years, I noted that what was holding fishermen back was the lack of organization, and have spent the past 40 years developing social capital in the sea urchin fishery." Pete was the founding director of the statewide sea urchin dive association, SUHAC, and then formed the California Sea Urchin Commission, serving as director and Vice Chairman. There he noted a lack of

involvement, or proper foundation at the Port level, and formed a fishing co-operative, the San Diego Watermen's Association. This effort expanded to include all San Diego fishermen and led to the development of a San Diego Community Based Association, Fishermen's Working Group, the



Seafood Harvesters LLC, and the Fishermen's Marketing Association of San Diego. "In 2014, we formed the Tuna Harbor Dockside Market in order to market San Diego fish direct to the consumer. The market packed in 500 to 800 customers every Saturday. Our main goal at the outset was to receive a fair price for our fish. As the market progressed we realized that our main goal was to sell "fishing", and not fish." Pete remains a full time sea urchin diver working about 80-220 days a year under water, and has no plans to retire.

### **Mark Kajula, Skipanon Brand Seafood, Astoria-Warrenton Chamber of Commerce, OR**



The Skipanon Brand Seafood cannery and fish processing plant was founded by Mark's dad, Norman Kujala, a commercial fisherman when he and his wife Judy, opened the plant in 1978. The "ladies of their cannery brought 100+ years of processing fresh fish, and were the best filleters in Oregon. The Kajulas also sold fresh seafood at the Beaverton Farmers Market, now the single largest, all-agricultural market in the state. Mark sees farmers markets as an opportunity to bring fresh seafood, along with high-quality canned seafood, directly to customers, and to "meet our customers face to face. In his new role with Astoria Food Hub and other community efforts, Mark, a former mayor, wants people to continue to have access to quality LOCAL seafood, "a superior product to much of what's found in the grocery store. "However, it requires greater outreach and education about the benefits of buying locally harvested seafood." He notes that more can be done simply by providing basic infrastructure, keeping taxes and utility costs reasonable, and

encouraging better communication between the public and private sectors. In his spare time, among other things, Mark loves cooking for his family and OSU football.

### **Ann Molloy, Neptune's Harvest, Gloucester MA**

Head of Marketing, Fish and ocean product-based Fertilizer



Ann Molloy was born and raised in Gloucester, and is a highly respected leader and spokesperson for its historic working waterfront. After several years of traveling around the country and world, she settled back there and has been helping run her family business. For almost 30 years, Ann has overseen the marketing and sales for the Neptune's Harvest division of Ocean Crest Seafoods, which came about to fully utilize 100% of the fish, by turning the gurry (everything that's left after you fillet a fish) into an organic fertilizer. Neptunes Harvest ocean-sourced fertilizers and now diversified products are used across the US (including Hawaii) for agricultural and home gardens. Ann has been featured in multiple media outlets for her compelling portrayal of family's successful pivot from fishing to gurry, and has a wide knowledge of organic fertilizers, and the fishing industry. She also loves to paint, write, and see live

music.

**Capt. Dave Marciano, Angelica Fisheries and FV Falcon, Beverly MA**

Owner/Operator, F/V Hard Merchandise, F/V Falcon, Direct to market fishing entrepreneur.

Gloucester- based commercial and charter boat fisherman, entrepreneur, and leading cast member of National Geographic's "Wicked Tuna" for 10 seasons. More recently, Capt. Marciano has developed



new market and distribution outlets for his catch, including giant bluefin tuna, direct to restaurant and retail stores. Marciano got his start fishing in high school on the Yankee Fleet in Gloucester, before spending years commercial groundfish fishing (e.g., haddock, cod, pollock). Capt. Marciano's family members are all involved in his businesses, including running FV Hard Merchandise and FV Falcon. Marciano and family fish Gloucester's traditional, old school, commercial fishing vessels, "working year round to feed the nation". Most fishermen around the world know about Cpt. Marciano's other "job", and hopefully, that he's also partnered with us to promote bluefin science and our tag and release program.

**Aaron Longford Co-Founder, Port Orford Sustainable Seafood, OR**

Fisherman and owner/operator, F/V Golden Eye and CSF

Aaron Longton calls himself “a fisherman, hippie bluegrass rock aficionado, and Boaterhome owner hopeful”. Aaron started fishing as soon as he was able to hold a rod and grew up on the water in Roseburg, Oregon. Fishing



commercially out of Port Orford for over two decades, and as a ‘Jack of all trades’, he worked his way up, learning skills from influential late fisherman, Scott Boley. While salmon is Aaron’s target fish, being “the anadromous silver bullets they are”, he fishes for anything with a fin. He feels that “fishing is multifaceted, requiring understanding of environment, economics, and biology”. With all of the environmental and economic factors affecting the fishing industry, Aaron turned his attention to multiple issues; his stewardship helped support increasing amount of spawning rockfish in the area, creating Redfish Rocks Marine Reserve, necessary to “conserve a precious and valuable resource for the greater good of the ocean and the fishery.” Aaron views fishing with a holistic approach, and takes pride in what he and the fleet can create and continue better stewardship, accountability, and access to fresh fish

in the community. With his partners, Aaron helped develop necessary infrastructure to banish the existence of “seafood deserts” in port communities hosting fishing fleets.

**Steve Scheiblauber, Founder and Principal, Marine Alliances Consulting, Santa Cruz, CA**  
Fisheries and Harbors consultant, Direct market community fisheries

Steve served as the harbormaster at Santa Cruz and Monterey harbors over a 42 year period, with an



early career as a waterman/lifeguard on iconic California beaches. He notes that managing a waterfront required understanding the needs of commercial fishermen as key customers, and consequently, Steve became “a student” of fisheries management and science. In 2000, he co-founded the non-profit organization Alliance of Communities for Sustainable Fisheries, the mission of which is, “Connecting Fishermen with their Communities”. During his last years with the City of Monterey he led the development of a “Fishing Community Sustainability Plan” to revitalize commercial fishing, and strengthen its connections to the

community. He currently serves as Chair of the Monterey Bay Fisheries Trust, a local non-profit which secures groundfish fishing rights in the region and provides technical assistance to fishermen for loans, grants, etc. He is the founder of the business, Marine Alliances Consulting. As a consultant, Steve is working with the San Diego Fishermen’s Working Group to, among other projects, increase the ability for fishermen to direct-market their products, and support community food supply.

**Capt. Bill Rehmke, F/V Judy S, Pacific Tuna Products, Chinook, WA**  
Owner/operator, direct to market fresh and tinned albacore





Captain Bill Rehmke has captained multiple fishing vessels for 22 years and has fished albacore tuna for ten years. After running a company boat fishing the North and South Pacific, he purchased his own commercial tuna vessel in 2017, and has run his own operation since. Ownership allowed Bill the freedom to pursue different processing and marketing avenues, starting a company with his wife, Lane, to have his blast-frozen fish canned, marketed and sold online, as Pacific Tuna Products. Capt. Bill is also

known to many for his appearance on National Geographic's "Battlefish".

### **Lane Rehmke, Pacific Tuna Products, Chinook, WA**

Owner/operator, direct to market fresh and tinned albacore



Lane Rehmke, before starting their family run tuna business, has extensive biological field work experience in marine fisheries. With an undergrad marine science degree from Univ. of New Hampshire, she worked as a commercial fisheries observer and catch monitor for four years in the NW Atlantic, and NE Pacific, and as a protected species observer on board dredges and cable laying barges. Her sea time included stints on scallop, surf clam, bottom fish, herring and seine vessels. Moving to the Pacific, Lane performed salmon spawning stream surveys and port sampling for the state of Washington and Oregon. Through these fisheries-related positions, and hearing firsthand from Captains about the difficulties they faced in having limited processing/buying option for their hard earned product, Lane helped developed strategies for marketing and adding value to the Judy S's catch, leading to Pacific Tuna Products local and web-based sales and outreach. Capt. Bill and Lane are parents to two young "mermaids" and Stevie, their loyal canine companion.



## First Workshop Panelists, May 11<sup>th</sup> Resources Kauai Fishery Diversification

**Bob Campbell** - [www.facebook.com/ChubbyFishInc](https://www.facebook.com/ChubbyFishInc)  
- [yankee-coop.com](http://yankee-coop.com)

**Vito Giacalone, Jr.** - [www.fwgloucester.com](http://www.fwgloucester.com)  
- [www.edibleboston.com/edible-boston/five-guys-and-a-wharf](http://www.edibleboston.com/edible-boston/five-guys-and-a-wharf)

**Capt. Dave Marciano** - [www.angelicafisheries.com](http://www.angelicafisheries.com)  
- <https://duckduckgo.com/?q=angelica+fisheries+&t=newext&atb=v310-1&iax=videos&ia=videos&iai=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DxVrXI1epRQ4>

**Ann Molloy** - [www.neptunesharvest.com](http://www.neptunesharvest.com)  
- <http://bostonvoyager.com/interview/meet-neptunes-harvest-organic-fertilizer-gloucester-ma/>







## 2nd Workshop Panelists   Inspiration Links & Resources Kauai Fishery Diversification

**Jared Auerbach** - [redsbest.com](https://redsbest.com)

[www.ourwickedfish.com/meet-the-community/2015/7/1/jared-auerbach-ceo-of-reds-best](https://www.ourwickedfish.com/meet-the-community/2015/7/1/jared-auerbach-ceo-of-reds-best)

**Mike Baran** - [posustainableseafood.com/our-crew/](https://posustainableseafood.com/our-crew/)

[grundens.com/blog/2022/01/06/grundens-presents-way-of-life/](https://grundens.com/blog/2022/01/06/grundens-presents-way-of-life/)

**Aaron Longton** - [posustainableseafood.com/our-crew/](https://posustainableseafood.com/our-crew/)

[grundens.com/blog/2022/01/06/grundens-presents-way-of-life/](https://grundens.com/blog/2022/01/06/grundens-presents-way-of-life/)

**Capt. Bill and Lane Rehmke** - [pacifictunaproducts.com](https://pacifictunaproducts.com)

[www.facebook.com/BattlefishNetflix/](https://www.facebook.com/BattlefishNetflix/)





## 3rd Workshop Panelists, May 25<sup>th</sup> Web Resources

**Jenn Costa, Commodity Marketing & Food Safety Specialist, Kapahi, HI**

- Resources under development -

**Pete Halmay Tuna Harbor Dockside Market, San Diego CA CA**

- [www.thdocksidemarket.com](http://www.thdocksidemarket.com)
- [www.youtube.com/watch?v=bVsClyZ9nRE](https://www.youtube.com/watch?v=bVsClyZ9nRE)
- [www.sandiegomagazine.com/features/a-deep-dive-into-the-san-diego-fishing-industry/article\\_2959b344-d518-5cf0-b2d7-a952673fc231.html](http://www.sandiegomagazine.com/features/a-deep-dive-into-the-san-diego-fishing-industry/article_2959b344-d518-5cf0-b2d7-a952673fc231.html)
- [communityfisheriesnetwork.net/sdfwg.html](http://communityfisheriesnetwork.net/sdfwg.html)

**Mark Kujula Skipanon Brand Seafood, Astoria Food Hub**

- [www.facebook.com/SkipanonBrand](https://www.facebook.com/SkipanonBrand)
- [cookingupastory.com/albacore-tuna-a-micro-cannery-flourishes/](http://cookingupastory.com/albacore-tuna-a-micro-cannery-flourishes/)
- [cookingupastory.com/how-to-fillet-a-tuna/](http://cookingupastory.com/how-to-fillet-a-tuna/)
- [astoriafoodhub.com](http://astoriafoodhub.com)

**Steve Scheiblauber, Marine Alliances Consulting, Santa Cruz, CA**

- [montereybayfisheriestrust.org/community/steve-scheiblauber](http://montereybayfisheriestrust.org/community/steve-scheiblauber)

