Understanding the Marketplace: Consumer Trends and Perceptions

This session explored consumer trends and perceptions in the seafood marketplace to understand how they affect the west coast swordfish fishery. Speaker presentations and a panel discussion addressed marketplace issues, such as the sustainable seafood market trend. Speakers and panelists in this session represented government, environmental and community-based non-profit organizations, advocacy groups, restaurateurs, wholesalers, and direct marketers.

Presentations focused on various standards and methods used for identifying sustainable seafood, understanding the role and influence of campaigns in the marketplace, and innovative marketing of sustainable seafood. The panel of restaurateurs, seafood processors, seafood marketers, and fisheries-related entities focused on consumer-related issues, i.e., the current trends, perceptions, innovations, and present needs in the seafood market.
Session Speakers

Dr. John Kaneko, M.S. D.V.M., is the program manager of the Hawaii Seafood Council, a nonprofit organization that addresses the quality, safety, and sustainability of Hawaii seafood produced by Hawaii’s responsible fisheries through education, outreach, and research. His team efforts include the comprehensive application of the Food and Agriculture Organization’s Code of Conduct for Responsible Fisheries as a scoring tool and the preparation of the Sustainability Platform for the Hawaii Longline Fishery with NOAA support.

Dr. Robin Pelc, as the fisheries research manager at the Monterey Bay Aquarium’s Seafood Watch program, manages generation of the Aquarium’s sustainable seafood recommendations for wild fisheries. Before joining the Aquarium team in June 2009, Robin completed a Ph.D. in marine ecology at the University of California, Santa Barbara, where she studied the effects of marine protected areas. She has conducted field work in the intertidal in South Africa, worked as a coastal resource manager on the Pacific island nation of Palau, and researched the impacts of ocean energy technologies for the Environmental Defense Fund.

Dawn M. Martin joined SeaWeb in 2004, first as executive director and then as president and chair of the board for the organization. For more than 25 years, Martin has utilized creative communication strategies to advance policy and conservation goals. She brings a multidisciplinary approach that builds on her organizational management experience and skills as an attorney, negotiator, strategic policy professional and communications specialist. Engaged from the beginning of the sustainable seafood movement, SeaWeb manages the Seafood Choices Alliance, and with its partner the Natural Resources Defense Council, launched the groundbreaking Give Swordfish A Break campaign in the 1990s that in many ways provided a foundation for the modern day sustainable seafood movement.

Dave Anderson was a seafood officer with the Seafood for the Future Program of the Aquarium of the Pacific. Before working with Seafood for the Future, Dave completed his graduate work in genetics at the University of Southern California and was an aquaculture consultant for University of Southern California’s Wrigley Marine Science Center on Catalina Island. Dave has extensive experience with a variety of aquaculture species in a variety of places including the Marshall Islands, Washington state, and Florida.

Heather Mann has close to 20 years of experience working in and for the commercial fishing industry. She is the director of the Community Seafood Initiative and the lead developer for the North American and Pacific Fish Trax programs aimed at supporting sustainable fisheries with creative real-time tools that track seafood products, link consumers and fishermen, and improve science, management, and marketing.

Valerie Termini works for the California Ocean Protection Council as a project manager. Some of her projects include developing a California sustainable seafood eco-labeling program and working on projects which help to foster more sustainable fisheries along the coast of California. She holds a Master’s degree from the Monterey Institute of International Studies.
What Makes Hawaii Seafood Sustainable?
John Kaneko, Hawaii Seafood Council

Sustainable, wild-caught seafood is produced by responsible fisheries that are well-managed. In essence, the sustainability of wild seafood is determined by: 1) the effectiveness of the fishery management system, 2) the stock status, and 3) fishery ecosystem impacts. Ultimately it is the performance of the management system that ensures that fisheries operate at sustainable harvest levels with adverse ecosystem impacts controlled.

What constitutes a responsible fishery? The United Nations Food and Agriculture Organization Code of Conduct for Responsible Fisheries (FAO Code) is the comprehensive non-binding international agreement of what nations should have in place to be capable of developing and managing responsible fisheries and sustainable harvests (see Appendix C for more information on the FAO Code). To answer the question of what makes Hawaii swordfish sustainable, the Hawaii longline swordfish fishery (and its management regime) was evaluated against the detailed provisions of the FAO Code. The responsible fishery assessment process addresses each Code provision by describing the regulations, the policies, the agencies and their responsibilities and actions, the scientific support for management, and the inclusive and adaptive process by which fishery regulations are created, implemented, and enforced. In 2008, the Hawaii longline fishery scored 94 percent against the FAO Code, documenting that the fishery is well-managed for sustainability.

Other key indicators of sustainability included the stock status of central North Pacific swordfish (currently harvested below maximum sustainable yield) and ecosystem impacts such as fishery interactions with sea turtles. The Hawaii swordfish longline fishery developed and adopted management measures that have reduced the sea turtle bycatch rate by nearly 90 percent. These highly effective measures included: 1) the adoption of large circle shaped hooks and fish-type bait, 2) mandatory yearly protected species training, 3) a required set of onboard handling methods and specialized gear for the safe removal of fishing hooks and line from hooked or entangled sea turtles, 4) 100 percent observer coverage, and 5) real time enforcement of an annual fishery cap on sea turtle interactions. The efficacy of these measures is monitored by federal fishery observers and verified by data analysis by NMFS scientists.

Hawaii swordfish with its relatively low rate of sea turtle interactions is not only sustainable, but is the preferred choice over swordfish from less-well managed fisheries competing in the U.S. market. Sea turtle bycatch-to-fish catch ratios (BC ratio) are useful for comparing sources of seafood based on bycatch impacts. The low sea turtle BC ratio of the Hawaii bigeye tuna fishery set the benchmark for the Pacific pelagic longline fisheries. The Hawaii swordfish fishery had the lowest sea turtle BC ratio among the swordfish fisheries compared. Because of the intensive observer coverage in the Hawaii fishery, there is substantially stronger confidence in its BC ratio estimates than those for some other Pacific longline fisheries. Therefore, substitution of Hawaii swordfish by swordfish from less well-managed fisheries with higher BC ratios likely constitutes adverse market transfer effects and a net increase in sea turtle bycatch impacts.

The Seafood Watch program provides recommendations to consumers and businesses about seafood choices through its scale of **Best Choice**, **Good Alternative**, and **Avoid**. Many Americans are familiar with "sustainable seafood" and identify "eating local" as a part of sustainability. Seafood Watch is premised on the concept that Americans may pay more and favor stores and restaurants that carry sustainable seafood. The program's goal is to provide incentives for fisheries to move up the its recommendation scale. Seafood Watch recognizes that the majority of seafood consumed in the United States, roughly 84 percent, is imported, and produces recommendations for both domestic and imported seafood. Seafood Watch believes that market forces can help level the playing field in the marketplace for U.S. fisheries whose products are more sustainable than foreign fisheries products.

The Seafood Watch methodology for making recommendations for wild-caught seafood relies on available science for fish stocks, their environment, and management. The data are assessed against the program's five criteria for wild-capture fisheries: inherent vulnerability, stock status, bycatch, habitat and ecosystem effects, and fisheries management. A level of conservation concern is rated for each of the criteria as low, moderate, high, or critical. If the level of conservation concern is critical for any of the criteria, then the recommendation will be **Avoid**. The data used are referenced in reports produced by the program staff or contractors and are reviewed by independent third party scientists. They also conduct collaborative ranking sessions before the final reports are released.

Currently, Seafood Watch recommends U.S. swordfish products as **Best Choices** and **Good Alternatives** and warns consumers to **Avoid** most imported swordfish. The U.S. and Canadian harpoon or handline fisheries are ranked **Best Choice** because they are highly selective. Because U.S. regulations dramatically reduce bycatch in the California DGN and Hawaii longline fisheries, they are recommended as a **Good Alternative**, as are international harpoon and handline fisheries. Seafood Watch recommends consumers **Avoid** buying products from international longline and South American DGN fisheries, due to the high occurrence and “critical” nature of bycatch.

To keep its recommendations up-to-date, Seafood Watch is always making improvements. For instance, now there is a mobile phone application to address the problem of people carrying out dated wallet cards. The application includes a mechanism for users to share information about restaurants and markets. The program also distributes six U.S. regional pocket guides with seafood scores listed according to the product availability in each region (see Appendix C for more Seafood Watch information).
Social Marketing: A Paradigm for Shifting Behavior

Dawn Martin, SeaWeb

SeaWeb is the only international nonprofit organization exclusively dedicated to using the science of communications to fundamentally shift the way people interact with the ocean. SeaWeb develops social marketing strategies to amplify the voices of community leaders, connect audiences, and forge collaborative and innovative approaches to address ocean issues. Social marketing is an effective means to transform market behavior. Alan R. Andreasen, Ph.D, describes social marketing as “…the application of commercial marketing techniques to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of their society” (1995).

Many people still recall SeaWeb’s powerful Give Swordfish A Break campaign of the late 1990s. The campaign attracted significant media attention and generated a powerful new constituency in support of ocean and fisheries conservation. The campaign started as a partnership between SeaWeb and the Natural Resources Defense Council (NRDC) to relieve market pressure on the North Atlantic swordfish stock, which was “overfished” at that time. Since then, NMFS determined that North Atlantic swordfish has successfully rebuilt, but unfortunately some consumers still believe that it is bad to buy swordfish. The campaign provided the lesson that negative impressions can stick around for a long time, so you can never talk enough about successes and how changed behaviors can result in a positive outcome for the ocean!

SeaWeb’s initial market research in the 1990s revealed that despite consumers feeling that scientists are the most credible messengers, consumers needed more than scientific information to feel compelled to make behavior changes. Further, the research uncovered that the ocean-to-plate connection with fish (i.e., seafood) resonated more strongly with consumers than fish as wildlife, even though half of the adults surveyed said they were environmentally inclined. Thus, SeaWeb and NRDC began to campaign on the issue of sustainable seafood at a time when few NGOs were talking about fish as seafood. Shortly thereafter, over 700 chefs and retailers agreed not to sell or serve North Atlantic swordfish.

SeaWeb creates social marketing strategies using a seven-step approach. First, assess the landscape and gather relevant information on the issue that the marketing campaign aims to address. Next, conduct market research to identify and better understand the target audiences and how to gain traction with them. Develop a strategy based on this research. Identify and engage with gatekeepers and potential partners. For example, for the Give Swordfish a Break campaign, SeaWeb identified restaurants and retailers as the primary gatekeepers because 91 percent of consumer spending on seafood passed through these nodes of the seafood supply chain. Finally, design and execute the tactics and evaluate their effectiveness. In this example, SeaWeb and the NRDC elected to encourage a short-term “break” from the consumption of the North Atlantic Swordfish based on research that Americans

The Give Swordfish a Break Campaign brochure cover.

SeaWeb’s strategic communications approach.
were willing to take personal action to protect swordfish. While 65 percent of Americans surveyed indicated a willingness to boycott the fishery, only 31 percent indicated a willingness to ask their grocer not to sell its products, and 27 percent were willing to ask their favorite restaurant not to sell them.

Over the years, SeaWeb has learned how to effectively tailor sustainable seafood messages to target audiences. They began hosting a Seafood Summit, starting in 2002, and attendance has steadily increased and diversified beyond the NGO community and the seafood industry to also include the scientific community and journalists. In 2009, NGOs accounted for only 30 percent of attendance while businesses accounted for 40 percent, suggesting an increasing interest in sustainability among the private sector. Likewise, the Marine Stewardship Council (MSC) has experienced a compound annual growth rate of 103 percent with their eco-label seafood products over the last 11 years. In 2009, the Hartman Group published their findings that 32 percent of people who buy seafood were willing to pay 20 percent more for sustainable products in a report titled, Sustainability: The Rise of Consumer Responsibility.

In designing successful social marketing strategies, there are some key points to keep in mind:

- **Positive messaging is more successful in achieving social change than negative messaging.** People are receptive to easy, positive things they can do. Clearly, the 1990s *Give Swordfish A Break* had results – it gave consumers a clear and easy action they could take.

- **Tell a good story.** The root of all successful marketing is in telling a good story about your product or issue.

- **Know what is important to your target audience.** Design messages around the information that is relevant to the people you want to reach. What do they care about? What motivates them to take action and what obstacles may stand in the way? Who do they trust as messengers?

The *Give Swordfish A Break* campaign was successful in achieving its objective and there have been many lessons learned. One such lesson was that when addressing specific regional fisheries, it is important to avoid consumer confusion by providing tools the public can use to differentiate between fisheries that seem similar. In addition, although victory was declared when campaign objectives were reached and media efforts focused on the fact that the fishery was rebuilt, unfortunately negative public perceptions about the fishery still linger. Also, while distinctions were made between the North Atlantic and North Pacific stocks in outreach efforts, the generalization of the campaign name as *Give Swordfish A Break* likely stimulated some confusion among consumers with the Pacific swordfish fishery. This may well have had an unintended consequence of negatively affecting the market for North Pacific swordfish stocks, which were and continue to be healthy.
The Seafood for the Future program has both environmental and economic objectives. In working to meet these objectives it hopes to advance and promote:

- ecosystem protection,
- well-managed fisheries,
- support for the U.S. domestic industry, and
- a sustainable seafood supply for consumers.

Some other NGO consumer seafood programs have similar objectives and when evaluating any these programs to determine if their goals are being achieved, these programs must be willing to take a hard look at their inputs relative to actual and potential outputs. To date, the three most common inputs of NGO consumer seafood programs are product boycotts, wallet cards, and eco-labels, but what are the outputs?

Given the material presented and discussions at this Workshop, it is clear that there is room to improve the approaches of NGO consumer seafood programs for more positive impacts on the sustainability of our domestic fisheries and markets. The three drivers of markets are supply, quality, and price point. Only later do consumers concern themselves with sustainability, management, variety, and trade restrictions. Perhaps consumer seafood programs should not be asking how to get consumers to request sustainable products and make the “right” choices (i.e., the choices the programs want them to make), but how to drive the market to provide predominantly sustainable seafood products.

To drive markets to provide mostly sustainable seafood products, consumer seafood programs should seek to answer new questions. How can the programs increase the ability for sustainable products to be competitive in the marketplace? How can the programs increase the willingness of consumers to purchase sustainable products at higher prices? Programs should be mindful of potential unintended consequences, like C.R. Wessels’ warning suggests in a FAO technical paper about the potential for eco-labeling to create incentives for less sustainable products.

Consumer seafood programs should pay more attention to consumer behavior. The result of not paying enough attention to market drivers has hampered the ability of domestic seafood production to compete with that of other countries. In the United States, seafood is the second largest contributor to the trade deficit (after oil). More than 80 percent of seafood being consumed in the country is coming from other countries.

Marine and coastal aquaculture is in a favorable position over wild capture fisheries with supply, quality,
and price point driving markets. In 2006, aquaculture products accounted for nearly 50 percent of the world fish production for food, an increase from 15 percent of the world fish production for food in 1984. Yet, the United States is lagging far behind other countries in its aquaculture production, only slightly increasing production since 1985.

U.S. seafood needs a strong, positive, and targeted marketing campaign by industry and NGOs. For example, sustainability is not similarly scrutinized by consumer groups for poultry, beef, and pork. There are many successful examples of positive and unifying campaigns in the agriculture industries. U.S. seafood from federal fisheries are managed to ensure sustainability in accordance with the MSA 10 National Standards, among other laws. Despite this, much of the seafood information consumers receive focuses on the negative. Seafood is being held to a higher standard than other U.S. industries.

Sustainability of seafood should be measured by and praised for incremental progress. This is the case in other industries (e.g., hybrid cars, use of some portion of alternative energy) where consumers understand that it takes time to develop new and cleaner technologies that are feasible and efficient. Seafood marketing messages need to align industry, both wild capture fisheries and aquaculture, rather than fragment it into sectors, target species, and gear types. Seafood marketing should strive to be consumer and food-service oriented. Product information should be available at multiple levels of detail so that the consumer can access the highly technical detailed information, if they desire. The Alaska Seafood Marketing Institute serves as a good example.
The Community Seafood Initiative’s (CSI) programs are designed to support the seafood industry by providing access to relevant information and services resulting in successful fishing–related businesses and fishing communities. CSI is a 501c(3) non-profit organization established in 1998. Headquartered in Oregon and serving the west coast and North America, the organization operates as a unique partnership with Oregon State University and Enterprise Cascadia, a community development financial institution, to service five programmatic areas: preserving seafood-related working waterfronts, 45° Northwest fisheries reports, electronic fishery information systems, seafood health facts, and Fish Trax.

The Fish Trax program is an information-sharing system for supporting sustainable fisheries targeting a variety of fisheries and seafood interests including those of those of fishermen, scientists and managers, and consumers. Fisheries data is collected, analyzed, and shared using creative tools that improve industry performance, resource management, seafood marketing, and consumer and public education. Envisioned and designed by fishermen, the system assists their industry in gaining more input on the use of data and information for seafood consumers. Fish Trax serves as a neutral third party and safe keeper of information. Stakeholders can decide which data to share and who can utilize it. Through Fish Trax, users can display one piece of data in a variety of ways to meet different audiences needs (e.g., consumer, marketer, general public, science, management).

In the Gulf of Mexico, CSI provides the technology to power Gulf Fish Trax to improve the traceability of seafood for consumers with a unique brand called Gulf Wild. Consumers that buy seafood caught by Gulf Wild fishermen can go online and type in a unique tag number associated with the fish they purchased. Once online, they can see who caught their seafood, where it was caught in the Gulf of Mexico, and learn about the science and management that ensures the fishery is sustainable. On the U.S. west coast, Pacific Fish Trax works with both the salmon and albacore fisheries. The “Find your Fish” feature of Fish Trax is proving to be a powerful tool that empowers both fishermen and consumers.

Fish Trax is also helping fishermen collaborate with scientists and managers to experiment with new technologies to improve the sustainability of their fisheries. For example, the west coast salmon fishery works in partnership with Project CROOS (Collaborative Research on Oregon Ocean Salmon). The main goal of this project is to identify real-time spatial patterns of salmon stocks in the ocean so the data can be used for dynamic management. Because a variety of salmon stocks co-mingle in the ocean and cannot be harvested independent of one another, less abundant stocks often limit the harvest of target stocks.

Pacific Fish Trax provides a platform to convey a variety of data, such as oceanographic, atmospheric, and catch data in multiple user formats allowing users to study where stocks are based on these conditions. In the fishermen’s portal, fishermen can view catch areas on maps by date and overlay that with aggregate catch. They can track their fishing patterns and overlay that with bottom contour and sea surface temperature. The genetic information gathered in the project can help inform fishermen and managers and help them avoid less abundant stocks and target healthy ones. The platform also serves a fisheries management portal, a science portal, and a public portal to support information gathering and knowledge creation for management needs, fishery dependent analysis, and consumer confidence in seafood marketed by origin.
Established in 2004 by the California Ocean Protection Act (COPA), the California Ocean Protection Council (OPC) is a non-regulatory body with the overarching goal of improving the way that California manages and protects its coastal and ocean resources. The OPC consists of the Secretary for Natural Resources (current chair), the Chair of the State Lands Commission (currently the Lieutenant Governor), the Secretary for Environmental Protection, two public members, and two state legislators. The OPC’s priority areas are described in its five-year strategic plan, *A Vision for Our Ocean and Coast*. Under this plan, the OPC has built partnerships with fishing communities and invested funds in innovative projects that promote less environmentally-harmful fishing practices, encourage sustainable fishing, and help revitalize coastal ports. Sustainable fishing remains a priority area as the OPC updates its strategic plan to guide the next five years. The OPC is committed to basing its decisions and actions on the best available science, and works closely with its Science Advisor (i.e., the Executive Director of the California Ocean Science Trust), who in turn may engage the expertise of interdisciplinary experts who make up the OPC’s Science Advisory Team.

Legislation passed in 2009 (AB 1217, Monning) requires the establishment of a California sustainable seafood certification program. The statute directs the OPC to:

- develop a protocol to guide entities on how to be independently certified to internationally-accepted standards for sustainable seafood;
- develop a competitive grant and loan program (in years in which funds are appropriated by the Legislature) to help qualifying fisheries become certified as sustainable;
- design a label or labels that may be used exclusively to identify seafood caught sustainably in California; and
- implement a marketing assistance program for such seafood in cooperation with the California Department of Food and Agriculture.

The program is non-regulatory and completely voluntary.

To develop this program, the OPC worked with a Sustainable Seafood Advisory Panel to discuss certification models and outline core elements of the new program. The OPC considered the Marine Stewardship Council (MSC) process as a basis for sustainability certification. The OPC planned to add California a traceability component that would indicate the port in which a fish was landed and where it was caught, gear type, vessel or captain, and company involved in making the catch. As of January 2012, the OPC adopted a California Voluntary Sustainable Seafood Program Protocol.

The OPC continues to promote and develop California’s Sustainable Seafood Program. The program protocol can be viewed on the OPC website (see Appendix C for the link). Future marketing aspects might include “Friends of California Fish” web and social media sites with lists of nearby restaurants that sell California fish, links to a California Seafood mobile application, research on fisheries issues, and recipes.
Session Summary

Key points made by presenters in this session included:

- Sustainable wild seafood comes from well-managed, responsible fisheries. The FAO Code of Conduct for Responsible Fisheries provides assessment criteria. The Hawaii swordfish fishery and its management system scored a 94 percent under the Code based on:
  - its fishery management system,
  - stock status and absence of overfishing, and
  - control of ecosystem impacts.

- There are many consumer awareness programs that assess and rank seafood sustainability. The criteria used vary but generally focus on impacts to the marine environment (e.g., status of the stock, impacts of fishing gear, and bycatch rates), and may consider management factors.

- Consumers, restaurants, and retailers increasingly use NGO seafood recommendations to make decisions. With multiple sources of varied information, however, they often become confused about what information to depend upon.

- The seafood market, like other markets, is influenced primarily by price, availability, and quality. Only producers who supplied a quality product, year-round, at stable or declining prices, saw significant growth in the past two decades. To make sustainable seafood products more competitive, these factors should be considered. Targeted marketing campaigns developed for agricultural products may provide helpful examples.

- U.S. seafood currently lacks a positive and cohesive marketing message. The message should be unified, including wild capture and aquaculture; highlight incremental steps in reducing environmental impacts; and provide multiple layers of information to consumers, from simple overall messages to detailed technical information.

- Social marketing is a powerful tool that can drive consumer choices and behaviors. Campaigns need to be very specific and clear to avoid consumer confusion and be based on current empirical data to encourage NGO and industry partnerships.

- Industry needs to understand what motivates consumers and tailor their message to “tell the story of the fishery.” Restaurants and chefs are important allies in conveying the story and providing sustainable seafood information.

- Traceability of seafood through the supply chain is an increasingly significant issue. The effectiveness of marketing sustainable seafood depends on the ability to validate product origins.

- To improve consumer confidence and knowledge about fisheries, some in industry are partnering with NGOs and using new technologies to independently provide this information to consumers. In addition, there is a need for government to help prevent seafood fraud (i.e., mislabeling).