



# Pacific Islands Fishery NEWS

Newsletter of the Western Pacific Regional Fishery Management Council

## WINTER 2010

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### Ecosystem-based Management of Fisheries in the US Pacific Islands

The Council was established by Congress in 1976 to manage marine resources and maintain opportunities for sustainable domestic fishing in the US exclusive economic zone waters and high seas around Hawaii, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands and the eight US Pacific remote island areas.

[www.wpcouncil.org](http://www.wpcouncil.org)

## NWHI BOTTOMFISH BY THE NUMBERS

The NWHI bottomfish stock is healthy (not overfished and not experiencing overfishing) as indicated by the most recent stock assessment published by the NOAA Pacific Islands Fisheries Science Center in 2009. For copy of report, visit [www.hawaiibottomfish.info](http://www.hawaiibottomfish.info).

Estimated Biomass

**3,026,000 lbs**

Harvestable Stock or Maximum Sustainable Yield (MSY)

**1,062,000 lbs**

2007 Landings

**191,158 lbs**

Percent of Harvestable Stock Caught in 2007

**18%**

Source: Hawaiian Bottomfish Assessment for 2008. Brodziak, J. R. Moffitt, G. DiNardo. 2009. Pacific Islands Fisheries Science Center, National Marine Fisheries Service.



United Fishing Agency manger Frank Goto (2nd from left) with (l-r) Tim Timmony, Troy Lanning and Bobby Gomes—fishermen from three of the last eight permitted bottomfish vessels operating in the NWHI.

**The tradition of fresh** opakapaka, onaga, hapuupuu, butaguchi and other bottomfish from the Leeward Islands could fade into history as the fishery bows out by the New Year. For more than a hundred years, local commercial fishermen braved the unpredictable weather in the 1,200-mile stretch of the Northwestern Hawaiian Islands (NWHI) to return with holds full of fresh fish for our local markets.

Fishing ceased for a brief time during WWII but resumed shortly thereafter. The fishery expanded in the 1970s, and the Western Pacific Regional Fishery Management Council brought it under federal management in the mid 1980s. By the late 1990s, the Council managed the healthy fishery through two limited entry programs that capped participation at 17 permitted vessels and reserved 10 percent of the permits for Native Hawaiian communities. The fishery was highly regulated, with a maximum boat size of 60 feet in length and other requirements, and provided about one-half of the locally landed bottomfish in Hawaii. Then, President Bill Clinton, on his departure from office, issued executive orders proclaiming the NWHI as a national reserve, which further constrained the fishery, and he started the process to turn the reserve into a National Marine Sanctuary. On the eve of the anticipated release of the environmental impact statement for the proposed sanctuary, President




George W. Bush used the Antiquities Act to establish the NWHI as a Marine National Monument (MNM), which was later named the Papahānaumokuākea MNM. Bush's MNM proclamation included a sunset date of 2011 for this healthy bottomfish fishery, even though federal studies found that it had no significant impacts on the habitat, protected species or the ecosystem.

Congress has since stepped in and mandated that the National Marine Fisheries Service (NMFS) offer a compensation package to displaced NWHI fishermen with the caveat that if the voluntary compensation is accepted, fishing permits must immediately be surrendered prohibiting any further fishing in the NWHI. NMFS published the final rule for this compensation option on Oct. 15, 2009, with a deadline of Nov. 19, 2009, for fishermen to accept the compensation offer. If the compensation offer is not accepted, NWHI bottomfish permit holders will be able to continue fishing until the sunset date of June 15, 2011. As this issue goes to print, it seems the fishery will fade into history by mid December 2009 with all of the permit holders taking the compensation package.

Aloha and mahalo to those who persevered and made this fishery a part of Hawaii's rich ocean-going tradition and culture.





The Sept. 29, 2009, tsunami left fishing vessels and equipment inoperable, destroyed a newly constructed fish processing facility and may have wiped out American Samoa's fleet of small alia vessels, such as the two pictured here.

# AMERICAN SAMOA FISHERY REELS FROM TSUNAMI, FEDERAL ACTIONS

**The long-term survival** of American Samoa's longline fishery is uncertain. The longline fleet, which is comprised of both alia vessels measuring less than 50 feet in length and large vessels greater than 75 feet, has historically targeted albacore for delivery to local canneries. Chicken of the Sea, a long-time cannery operator in American Samoa, was scheduled to close locally on Sept. 30, 2009. However, the closure was expedited by the devastating tsunami that hit American Samoa a day earlier. In addition, StarKist, the only remaining cannery in Pago Pago, is no longer fully operational due to the tsunami. Besides being important to the local longline fleet, the canneries have been the major employer in the territory (see *Pacific Islands Fishery News*, summer 2009, page 8).

Council staff is assisting the American Samoa government to compile information on the tsunami's effects on the fisheries and related infrastructure. Besides inoperable vessels and equipment, a newly constructed fish processing facility was destroyed and the alia fleet may now be completely lost. The Magnuson-Stevens Fisheries Conservation and Management Act (MSA) includes provisions authorizing the Secretary of Commerce to help persons engaged in commercial fisheries on projects and other measures to alleviate harm determined by the Secretary to have been incurred as a direct result of a fishery resource disaster arising from a hurricane or other natural disaster. In addition, the MSA provides that a commercial fishery failure can be declared due to a fishery resource disaster of natural or undetermined causes or manmade causes not related to fishing. Financial assistance may be made available to qualifying fishermen, charter boat operators, processors and owners of related fishery infrastructure if the Secretary determines that a fishery failure resulted from the tsunami.

Prior to the tsunami, StarKist indicated that it too may soon leave the Territory without government assistance. Simply put, canneries in American Samoa can no longer compete internationally largely due to a federalization initiative by the US government requiring

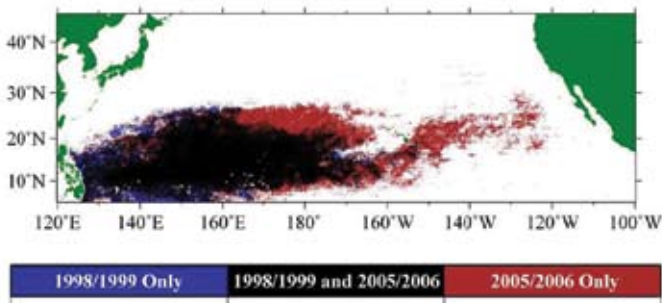
workers in the territory be paid more than \$4 per hour with incremental increases until federal minimum wage standards are met. By comparison, canneries in Thailand pay their workers less than a dollar an hour.

American Samoa may also seek compensation for the closure of commercial fishing around the Rose Atoll Marine National Monument (MNM), which was established by President George W. Bush through executive order on Jan. 6, 2009. At public meetings held in November 2009 in the Manu'a Islands near the monument, chiefs said the ban will keep fishermen from selling all their catch and will be a burden for families, Radio New Zealand reported. The US Fish and Wildlife Service, which held the public meetings, said it intends to prepare a comprehensive conservation plan for the Rose Atoll National Wildlife Refuge, which lies within the Rose Atoll MNM. Among the issues that the plan may address is the Refuge's relationship to Fagatele Bay National Marine Sanctuary, which is considering expanding to nine new sites, including Rose Atoll (see *Pacific Islands Fishery News*, summer 2009, page 16).

The Western Pacific Regional Fishery Management Council believes that commercial fisheries are important components of balanced Pacific Island-based economies. To this end, the Council is dedicated to supporting fisheries development in American Samoa, given the potential closure of the only remaining cannery. Prospective markets for the longline fleet include fresh fish export to Hawaii, frozen loins to U.S. and Australian markets, and niche markets for canned or pouched albacore. The Council is working with American Samoa government officials and local fishermen on funding for fisheries development projects such as a longline vessel dock and loading area as well as cold storage and fish processing facilities. Maintaining an active commercial fishing fleet in American Samoa is a challenge, but it is important for the long-term economic growth and stability of the Territory.



# NORTH PACIFIC PELAGIC ECOSYSTEM DYNAMICS HAVE CLIMATE CHANGE IMPLICATIONS



Changes in the oligotrophic areas of the North Pacific between 1998-1999 and 2005-2006 in December. (Courtesy of Dr. Jeffrey Polovina)

**During 2009, the Council** and its Scientific and Statistical Committee (SSC) were given an insightful presentation by Dr. Jeffrey Polovina of the National Marine Fisheries Service's Pacific Islands Fisheries Science Center on the dynamics of the North Pacific pelagic ecosystem, both in primary production at the bottom of the food chain and among apex predator fish at the top of the chain.

In regards to primary production, a nine-year time series of remotely sensed ocean color data was used to examine temporal trends in the ocean's most oligotrophic waters (environments that offer little to sustain life), i.e., those with surface chlorophyll not exceeding 0.07 mg/m<sup>3</sup>. In the North and South Pacific, North and South Atlantic, and outside the equatorial zone, the areas of low surface chlorophyll waters have expanded at average annual rates from 0.8 to 4.3 percent per year and replaced about 0.8 million km<sup>2</sup> per year of higher surface chlorophyll habitat. It is estimated that the low surface chlorophyll areas in these oceans combined have expanded by 6.6 million km<sup>2</sup> or by about 15 percent from 1998 through 2006. In both hemispheres, evidence shows a more rapid expansion of the low surface chlorophyll waters during the winter. The North Atlantic, which has the smallest oligotrophic gyre, is expanding most rapidly both annually and seasonally. Mean sea surface temperature in each of these four subtropical gyres also increased over the nine-year period. The expansion of the low chlorophyll waters is consistent with global warming scenarios based on increased vertical stratification in the mid-latitudes, but the rates of expansion observed already greatly exceed recent model predictions.

In regards to the top of the food chain, catch rates for the 13 most abundant species caught in the deep-set Hawaii-based longline fishery over the past decade provide evidence of a change at the top of the North Pacific subtropical ecosystem. Catch rates for apex predators such as blue shark, bigeye and albacore tunas, shortbill spearfish and striped marlin declined from 3 to 10 percent per year while catch rates for mid-trophic species (mahimahi, sickle pomfret, escolar and snake mackerel) increased from 10 to 18 percent per year. The mean trophic level of the top 13 species in the catch declined by 5 percent, from 3.85 to 3.66, and the mean production to biomass ratio (P/B) value increased by 21 percent, from 0.80 to 0.97. The increase in the mean P/B ratio suggests that this ecosystem may now be more responsive to climate variability.

# GLOBAL VIEW NEEDED TO REBUILD FISHERIES, STUDY SAYS

**Scientists, resource managers and the general public** have expressed increasing concern about the state of marine fisheries and their supporting ecosystems. Recent scientific progress on this topic has been partly overshadowed by significant controversy about how to assess marine resources and address current problems in ocean management. Marine ecologists and fisheries scientists often favor contrasting approaches, and these schools of thought have become polarized over time.

Recognizing this situation as counterproductive, the National Center for Ecological Analysis and Synthesis (NCEAS) of University of California, Santa Barbara, established a working group (WG) to define common ground among marine ecologists and fisheries scientists. The key objective was to merge contrasting objectives, tools and scientific criteria among marine ecology, fisheries science and management into a unifying framework.

The NCEAS WG included two eminent marine ecologists, Ray Hilborn of the University of Washington and Boris Worm of Dalhousie University in Canada. Both scientists had clashed in the popular media following a paper in which Worm was the principal author and which claimed all commercially fished species could collapse by 2048. This prediction was described as "just mind-boggling stupid" by Hilborn. This polarization was the impetus for the NCEAS WG, which led in turn to Worm, Hilborn and 13 other notable fisheries scientists and marine ecologists co-authoring "Rebuilding Global Fisheries" in *Science* 325 (31 July 2009): 578-585.

The paper found that after a long history of overexploitation, increasing efforts to restore marine ecosystems and rebuild fisheries were underway. The paper examined 10 well-studied ecosystems and found that the average exploitation rate has recently declined in five of them and is now at or below the rate predicted to achieve maximum sustainable yield for seven systems. However, 63 percent of assessed fish stocks worldwide still require rebuilding and even lower exploitation rates are needed to reverse the collapse of vulnerable species. The paper concluded that combined fisheries and conservation objectives, depending on local context, could be achieved by merging diverse management actions, including catch restrictions, gear modification and closed areas. Moreover, impacts of international fleets and the lack of alternatives to fishing complicate prospects for rebuilding fisheries in many poorer regions, which highlight the need for a global perspective on rebuilding marine resources.



## PACIFIC ISLANDS FISHERY NEWS

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# FISHERMEN AS SCIENTISTS: FISHERS FORUM DRAWS BIG INTEREST



Tom Ogawa of the Hawaii Marine Recreational Fishery Survey displays elements and products from the program at the Council's Fishers Forum.

**Ever wonder what happened to** that fish catch survey you completed at the pier? What about that tagged fish you recovered while fishing on the FAD off Kona?

To help inform fishermen about these and other fishery research and monitoring programs, the Western Pacific Regional Fishery Management Council held a free "Fishermen as Scientists" Fishers Forum from 6 to 9 p.m. on Oct. 21, 2009, at the Aloha Tower Marketplace in downtown Honolulu. Fishermen and the community had the opportunity to learn firsthand about how tag recoveries contributed to the understanding of tuna growth and migration around the Hawaiian Islands. Fishermen also learned about other programs that rely on their participation, knowledge and engagement. Lucky participants walked away with great door prizes including handheld GPS units, free gas cards, gift certificates to fishing tackle shops, cases of water and much more.

The Forum featured a dozen workstations to learn about ongoing federal, state and community programs, such as the Council's new Fishbox.net website where fishermen can log on and manage their own fishery data. The site, still being beta-tested, will also allow fishermen to discuss fish-type questions with fish managers and scientists.

The National Marine Fisheries Service's Pacific Islands Fisheries Science Center (PIFSC) hosted a number of work stations including the Fishery Ecosystem Analysis Tool (FEAT), which is a map-based interactive community and fishery data analysis tool. Want to know how much fish was caught off Haleiwa or how many boats are registered in Manoa? FEAT allows the user to run these types of queries on

the spot. The program is being developed as a web-based tool for use by the community.

Another popular PIFSC workstation demonstrated and displayed how collecting basic biological information is critical to the overall understanding of each species life history. Information such as species identification, length and weight, gonad development, age and genetics are important for assessing population range and stock status. To demonstrate this, PIFSC staff cut open opakapaka and hapuupuu heads to show where the inner ear bones, or otoliths, are located. Otoliths, which are read like tree rings, are used to age fish. PIFSC also hosted booths on the use of barbless circle hooks and the Marine Turtle Stranding Program.

Several workstations focused on bottomfish monitoring. The University of Hawaii is conducting the Bottomfish Telemetry Tagging Project off of the island of Niihau. The non-profit organization



Forum participants view larval billfish and other interesting marine life collected through the Life History Program at the Pacific Islands Fishery Science Center.

Pacific Islands Fisheries Group is administering the statewide Bottomfish Tagging Project. NOAA, the Hawaii Department of Land and Natural Resources and the Council are hosting a website for the management of the Hawaii bottomfish fishery.

Another tagging workstation featured the Ulua/Papio Tagging Program, which uses the fishing community to tag, release and recapture papio and ulua throughout the Hawaii archipelago. To date, more than 35,000 papio and ulua have been

## GAO RELEASES REPORT OF COUNCIL REVIEW

**In February 2008**, Congressman Henry Waxman requested that the U.S. Government Accountability Office (GAO) conduct a review of the Western Pacific Regional Fishery Management Council. Congressman Waxman, who represents the 30th District of California, stated in his letter to the GAO that a number of nonprofit organizations in Hawaii "raised serious allegations regarding the inappropriate use of government funds and unethical conduct by the 'WESPAC' and its Executive Director." The GAO began the review in August 2008 and completed its report in May 2009.

In its report, the GAO found little or no evidence to substantiate many of the allegations, in part because some of them were factually inaccurate. The GAO made several suggestions about how the Council might conduct business in the future to alleviate the concerns that initially led to the GAO review.

"We welcome the suggestions that the GAO report made and will continue our efforts to improve our procedures and business operations," said Council Executive Director Kitty Simonds. "We value any constructive criticism on ways we can best fulfill our obligations under the Magnuson-Stevens Fishery Conservation and Management Act." For more, go to [www.gao.gov/new.items/d09508r.pdf](http://www.gao.gov/new.items/d09508r.pdf)

tagged and released with over 4,300 fish recovered. From this, scientists understand the effects of prey recruitment strength on monthly growth rates of papio and also the seasonal and long range movement of this important reef fish. The Pelagic Fisheries Research Program also hosted a booth featuring Pacific Tuna Tagging Program and its Pacific-wide tagging of bigeye tuna. Rounding out the workstations were the Hawaii Marine Recreational Fisheries Survey and community based roi (introduced and invasive grouper) sampling project.

Finally, Chef Nico from Nico's at Pier 38 demonstrated how to break a whole tuna loin down into fine-dining sashimi and poke dishes. Those attending this demonstration enjoyed fresh ahi poke hand-prepared by Chef Nico.

The Council is preparing to host similar events throughout the region, so keep an eye out for the Fishers Forum flyers at your local fishing supply store or seafood market.



## BACKGROUND ON THE HIGH SCHOOL SUMMER COURSES ON MARINE FISHERIES AND RESOURCES

### What It Offers

Students learn about fishing, fishery management, seafood marketing and preparation, and traditional cultural fishing and ocean practices that are suitable for an island lifestyle. Scientists, managers, teachers and other experts train and educate these students on a voluntary or nearly at-cost basis. Students engage in first-hand experiences through a variety of field trips and hands-on activities.

### Brief History

The course was first offered in Hawaii by the Western Pacific Regional Fishery Management Council in 2006 in partnership with Moanalua High School. In 2009, the Hawaii course provided students with educational credit through the Hawaii Department of Education.

In 2008, the course was first offered in American Samoa and the Mariana Archipelago (Guam and Saipan) in modified forms to suit each island area. The courses are now annual events and are greatly appreciated by these U.S. territories and commonwealth.

### Past Funding

The courses have been funded by the Council, in part through grants it has received through annual proposals to the NOAA Coral Reef Conservation Program and ad hoc supplementary assistance from NOAA through the MET Program.

## COUNCIL RECOMMENDS MET SUPPORT OF YOUTH, HIGH SCHOOL MARINE EDUCATION

**At its Oct. 20-23, 2009**, meeting in Honolulu, the Western Pacific Regional Fishery Management Council recommended that the Marine Education and Training (MET) Program fund the Council's High School Summer Courses on Marine Fisheries and Resources and similar programs in the Mariana Archipelago (Guam and the Commonwealth of the Northern Mariana Islands). The Council also asked that new marine education opportunities be developed for young people at the village, island and archipelago level.

The MET program is mandated through Section 306(j) of the 2006 reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSA) to provide marine education and training to the U.S. Western Pacific Region. It makes education and training for the region's indigenous communities a priority.

In April 2008, the Council convened a workshop in partnership with National Marine Fisheries Service (NMFS) to develop the MET Program. After reviewing the workshop recommendations in June 2008, the Council directed its staff to work with NMFS to undertake specific recommendations made by the workshop participants. (See *Pacific Islands Fishery News*, summer 2008, page 13.)

More recently, NMFS has proposed that the MET Program provide communities in the Western Pacific Region \$150,000 through competitive mini-grants. Formal announcement of the 2010 MET Mini-Grant Program is expected to be made in mid-December. NMFS has also collaborated with University of Hawaii Sea Grant College Program and the Council to develop a website on the MET Program, which is at [www.makaku.net/pacifieducation](http://www.makaku.net/pacifieducation).



Council staff member Eric Kingma explains the Marine Debris and Derelict Fishing Gear Port Reception and Disposal Program to students during the Council's 2009 Hawaii summer course. The net he holds was brought by ocean currents from the North Pacific to Hawaii waters and retrieved by Hawaii longliners. It will be converted to energy through a partnership with the Hawaii fishing industry, City and County of Honolulu, the Council and others.



Students in the Council's 2009 CNMI summer course learn about aquaculture from experts at the Northern Marianas College's Cooperative Research Extension and Education Service.

# COUNCIL APPROVES SEA TURTLE ADVISORY COMMITTEE RECOMMENDATIONS



Participants of the August 2009 STAC meeting: (l-r) Irene Kinan-Kelly, Nicolas Pilcher, Anne Trevor, Tetha Hitipeuw, Milani Chaloupka, Kitty Simonds, Asuka Ishizaki, Peter Dutton, Yoshimasa Matsuzawa, George Balazs, Hoyt Peckham, Takashi Ishihara, Hiroyuki Suganuma

**At its Oct. 20-23, 2009,** meeting in Honolulu, the Western Pacific Regional Fishery Management Council accepted all of the recommendations of its Sea Turtle Advisory Committee (STAC). The recommendations include continued support of the Turtle Research and Monitoring Database System (TREDs) and of sea turtle conservation projects in Japan and Indonesia as well as consideration of projects on genetic analyses, necropsy and ageing. (See next column for details.)

The recommendations were formulated by the STAC at its Aug. 5-6, 2009, meeting in Honolulu. At this meeting, the STAC also commended the Council on its Protected Species Conservation Program. Over the past six years, the program has been a major force in promoting and funding sea turtle conservation in the Pacific, they noted. The program addresses the interaction of leatherback and loggerhead turtles with the Hawaii-based longline fishery as some of these turtles pass through Hawaii waters during migrations between nesting beaches in the Western Pacific and foraging grounds in the northeastern Pacific.

The STAC meets annually to review the Council's sea turtle conservation projects and discuss directions for future Council-supported initiatives. Members include Milani Chaloupka (chair), Ecological Modeling Services (Australia); George Balazs, NMFS Pacific Islands Fisheries Science Center (Hawaii); Peter Dutton, NMFS Southwest Fisheries Science Center (California); Naoki Kamezaki, Sea Turtle Association of Japan (Japan); Colin Limpus, Queensland Parks & Wildlife Service (Australia); Nicolas Pilcher, Marine Research Foundation (Malaysia); Jeffrey Polovina, NMFS Pacific Islands Fisheries Science Center (Hawaii); and Raquel Briseno Duenas, IUCN-MTSG Eastern Pacific Region/Unidad Academica Mazatlan (Mexico).

For more information, contact Asuka Ishizaki, the Council's protected species coordinator, at [asuka.ishizaki@noaa.gov](mailto:asuka.ishizaki@noaa.gov).



Yoshimasa Matsuzawa (far right with headset) listens to English dialogue translated into Japanese by professional interpreters Ayano Hara and Maya Perry during the STAC meeting. The interpreters made it possible for Matsuzawa and other Japanese participants to closely follow the meeting without misunderstandings and to participate in the discussion with ease.

## Sea Turtle Program Major Priorities for 2010

### Ongoing Projects

- **Japan:** Continue to support egg relocation where appropriate and evaluate as a valid conservation strategy.
- **Papua, Indonesia:** (a) Consider liaising with the Western Pacific leatherback working group to consider options for predator control; and (b) Continue to consider the Western Pacific leatherbacks, particularly the leatherback nesting populations in this area, as a high priority for conservation of Pacific leatherbacks.
- **TREDs:** Continue to support TREDs and its ongoing development and improvement, and explore alternative sources of long-term funding. (For more on this recently launched Pacific sea turtle database, see *Pacific Islands Fishery News*, summer 2009, page 10.)
- **Huon Coast, Papua New Guinea:** Consider a review of the project's passive integrated transponder (PIT) tag capture-mark-recapture data of leatherbacks for demographic parameter estimation.

### Future Projects and Considerations

- **Baja California Sur:** Continue to consider necropsy work to identify cause-specific loggerhead mortality in the region.
- **North Pacific and Japan:** Consider a future project proposal to analyze the extensive backlog of North Pacific loggerhead bycatch samples as well as a more expanded sample of rookeries throughout the Japanese Archipelago.
- **Japan:** In support of the position held by the Sea Turtle Association of Japan, continue to note that the hatch-and-release practice in Japan is not an acceptable practice to ensure long-term survival of the Japanese loggerhead stock.
- **Research:** (a) Consider supporting sea turtle aging studies; and (b) continue to support sea turtle laparoscopy studies on key demographic parameters such as breeding rates.



The STAC recommended ongoing support of turtle egg relocation in Japan where appropriate. Pictured is one such past effort as high tide comes in with the approach of a typhoon at Yakushima Island, Kagoshima Prefecture, in 2007. Photo courtesy of Yakushima Umigame Kan.





Photo courtesy of (c) Robin W. Baird/www.cascadiaresearch.org

## FALSE KILLER WHALE SUBGROUP PROPOSED FOR ESA LISTING

In September 2009, the National Marine Fisheries Service (NMFS) received a petition from the National Resource Defense Council to list a subgroup of false killer whales (*Pseudorca residens*) categorized as the Hawaii insular stock as endangered under the Endangered Species Act (ESA). If NMFS initially determines that the petition includes substantial information that may warrant an ESA listing, it must convene a Biological Review Team to conduct a status review.

In other news, on Oct. 30, 2009, the US District Court in Hawaii ruled in favor of NMFS in the lawsuit filed by Earthjustice (as attorneys for Hui Malama i Kohola, Center for Biological Diversity and Turtle Island Restoration Network), claiming that the Hawaii longline fishery was operating in violation of the Marine Mammal Protection Act (MMPA) because NMFS had not convened a False Killer Whale Take Reduction Team (FKW TRT). The district court held that the MMPA did not require NMFS to establish a FKW TRT because the agency had properly prioritized its use of marine mammal conservation funds and determined that it lacked sufficient appropriations to fund the TRT. On Nov. 10, 2009, the environmental groups appealed to the Ninth Circuit.

Meanwhile, NMFS is moving forward with the FKW TRT process. A Pre-FKW TRT Informational Meeting was convened Nov. 19-20, 2009, on Oahu, and a tentative first FKW TRT meeting is planned for February 2010.

## STAJ HONORED AT 20TH JAPANESE SEA TURTLE SYMPOSIUM

The Western Pacific Regional Fishery Management Council, along with the Marine Turtle Research Program and the Ecosystem Oceanography Division of NOAA Pacific Islands Fisheries Science Center, presented an Award of Commendation to the Sea Turtle Association of Japan (STAJ) at the 20th Japanese Sea Turtle Symposium, held in Miyazaki-City, Japan, on Nov. 27-29, 2009.

Since its establishment in 1990, STAJ has worked with a large network of individuals, researchers and organizations to conduct research, monitoring and conservation of sea turtles throughout Japan. While monitoring of some nesting beaches began in Japan as early as 1950, and many individual monitoring programs were established by the mid-1980s, there was no nationwide network and information exchange of those involved with sea turtle work in Japan. The Association was established by Dr. Naoki Kamezaki (current president of STAJ; also a member of the Council's Sea Turtle Advisory Committee) to fill this gap and to stimulate information exchange through a central organization, annual symposia and publications. STAJ also standardized the tagging and measuring methods and equipment used in sea turtle research. Today, STAJ continues to be the focal point for most sea turtle activities in Japan, and its staff and members work tirelessly to make a positive impact on sea turtle conservation.

Also at the 20th Japanese Sea Turtle Symposium, the Council's Executive Director Kitty Simonds gave a presentation entitled "Sea Turtle Conservation and Fisheries in the United States." The presentation was the invitational keynote address to a session on sea turtle conservation in the North Pacific. It focused on U.S. federal regulations related to sea turtle conservation as well as the Council's experience in reducing impacts to sea turtle populations by approximately 90 percent in the Hawaii-based longline fishery. The presentation was received with great enthusiasm by the symposium participants. The Council's protected species coordinator, Asuka Ishizaki, also attended the symposium and provided translations for Simonds' presentation.



President Naoki Kamezaki accepts the award of commendation to the Sea Turtle Association of Japan (STAJ).



Council Executive Director Kitty Simonds and George Balazs of the NOAA Pacific Islands Fisheries Science Center (PIFSC) present a commendation award to STAJ President Naoki Kamezaki (far right) and the association's eldest member, Kiyoshi Goto. A resident of Minabe Town (Wakayama Prefecture), Goto began monitoring sea turtle nesting activity more than 20 years ago when he was the principal at a local elementary school. He still walks the beaches nightly during the loggerhead nesting season. Also pictured are (far left) Donald Kobayashi of PIFSC and (in background) STAJ Senior Scientist Yoshimasa Matsuzawa. Photo courtesy of STAJ.

# HUMPBACK WHALE ON RECOVERY PATH

In the **2008 update** of the International Union for the Conservation of Nature's (IUCN) Red List, the humpback whale (*Megaptera novaeangliae*) was determined to be on the road to recovery. The status of the species has subsequently changed from "vulnerable" to "least concern." The new designation means these marine mammals are deemed to be "at low risk of extinction."

According to the IUCN's website, several important factors led to the species down-listing. First, it is likely that the current global population is above the threshold (50 percent of the 1940 level) that would qualify the species for inclusion in the vulnerable category. In addition, current available population estimates total more than 60,000 animals worldwide, with continued increase in the 10 years since the previous assessment.



Humpback whale breaches off Maui. The North Pacific population has been growing at 4 to 7 percent annually and may no longer be endangered. Photo courtesy of S. Spalding.

According to the Associated Press, Ralph Reeves, the IUCN Cetacean Specialist Group chair, says that "the US should remove humpbacks from the list if populations have sufficiently recovered" and that conservationists must "be prepared and willing to embrace success" if they are to maintain a "meaningful" endangered species program. "The whole process, the credibility of it, depends on telling people that things are really bad when they're really bad and telling people that they aren't so bad when they aren't so bad," Reeves is quoted as saying.

The 2008 Structure of Population Levels and Abundance and Status of Humpback Whales (SPLASH) report estimates the North Pacific humpback abundance to be just under 20,000 individuals with approximately 50 percent of the population wintering in Hawaii waters. According to the report, the North Pacific humpback is growing at a rate of 4 to 7 percent annually. The SPLASH study also collected genetic samples from North Pacific humpbacks, which have yet to be fully analyzed.

The National Marine Fisheries Service (NMFS) will be conducting a status review to determine if the whale's "endangered" status is still accurate. The upcoming NMFS review will be the first on humpbacks since 1999 despite the Endangered Species Act mandate that one be conducted at least once every five years. Some believe that NMFS cannot make a status determination without looking at the genetic information, which may indicate that there is sub-population structure in North Pacific humpbacks.

For more information on the IUCN listing change for humpback whales, visit the website at <http://cms.iucn.org/index.cfm?uNewsID=1413> or go the Red List page for more specifics on the move at <http://www.iucnredlist.org/apps/redlist/details/13006/0>.

# COUNCIL UNVEILS DISPLAY AT CORAL REEF TASK FORCE MEETING



Posing in front of the Council's display at the US Coral Reef Task Force meeting in Puerto Rico is Kacky Andrews (NOAA Coral Reef Conservation Program manager) flanked by Dan and Stephanie Clark of the Florida NGO "Cry of the Wild."

**A new display that showcases** some of the many coral research and management projects shepherded by the Western Pacific Regional Fishery Management Council over the past eight years was unveiled at the 22nd meeting of the U.S. Coral Reef Task Force, held Oct. 30 to Nov. 5, 2009, in Puerto Rico. The display also encourages fishermen and other ocean users to participate in coral reef fishery decision-making.

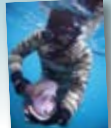
Funding support for the display and associated brochures and ads, which are running in the *Hawaii Skin Diver* and *Lawaia* magazines, was provided by the NOAA Coral Reef Conservation Program (CRCP).

The Task Force meeting provided a venue for government agencies and non-government organizations to discuss activities and issues related to coral reef management. One important topic was the revised Coral Reef Conservation Act, which had recently passed the U.S. House of Representatives.

Two representatives from the Council participated in the meeting and associated workshops. They also spoke with jurisdictional partners on ongoing coral reef efforts as well as with NOAA CRCP staff on the future direction of the Program.

In other coral news, NOAA is scheduled to release in 2009 a Strategic Plan for Deep-Sea Coral and Sponge Ecosystems: Research, Management, and International Cooperation. The plan represents a concerted effort to identify exploration, research and management needs regarding deep-sea coral and sponge ecosystems. It will address a 2010-2019 timeframe. Similarly, NOAA and others have begun to look towards understanding the extent of and management needs for mesophotic coral ecosystems. These coral are typically found at depths ranging from 30 to 40 meters and extending to over 150 meters in tropical and subtropical regions. Mesophotic and deep coral communities are important issues for the Council, since much of their habitat is likely to be in federal waters.

## SUCCESS DEPENDS ON YOU!



**www.wpcouncil.gov**  
Ecosystem-based Management of  
Fisheries in the U.S. Pacific Islands

### Are You a Fisherman, Diver or Ocean User?

If you are not a player in making fishery decisions,  
THE DECISIONS WILL BE MADE FOR YOU.

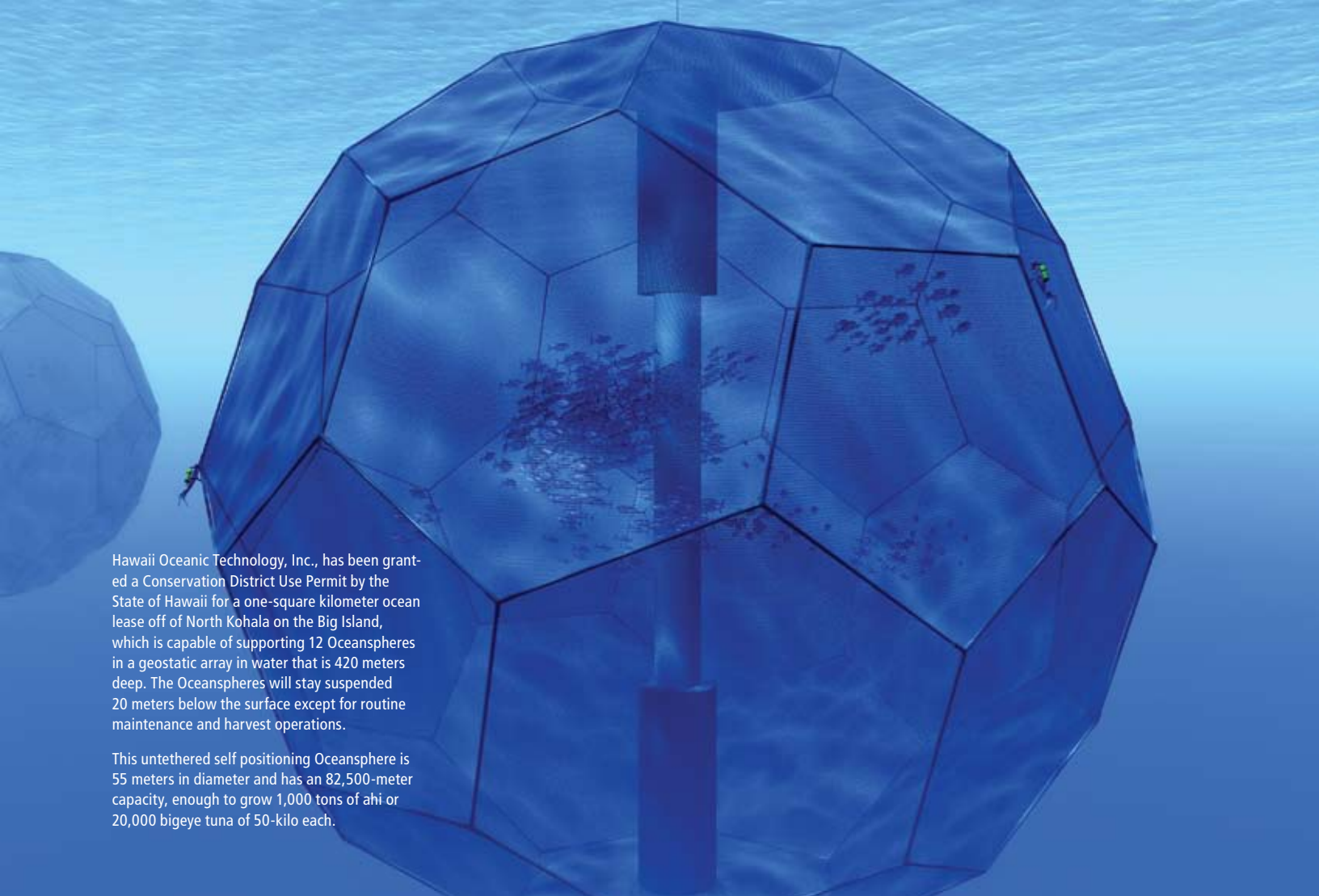
**DID YOU KNOW?** that parrotfish have been identified as one of the top 10 candidate species for annual catch limits in Hawaii? Researchers surveying waters around Oahu encountered parrotfish in under half of the underwater surveys conducted. The three species of primary fishery importance, including the redlip parrotfish, were found much less frequently than the other four parrotfish that inhabit local waters.

**GET INVOLVED!** To learn how, contact the Western Pacific Regional Fishery Management Council at (808) 522-8220, email [info@wpcouncil.gov](mailto:info@wpcouncil.gov), or go to [www.wpcouncil.org](http://www.wpcouncil.org).

Funding support for this ad provided by the NOAA Coral Reef Conservation Program.

The Council's new display, brochure and ads (such as the one pictured here) highlight some of its coral reef research and management projects over the past eight years. These outreach materials encourage ocean users to become involved in the decision-making process for coral reef fishery management.





Hawaii Oceanic Technology, Inc., has been granted a Conservation District Use Permit by the State of Hawaii for a one-square kilometer ocean lease off of North Kohala on the Big Island, which is capable of supporting 12 Oceanspheres in a geostatic array in water that is 420 meters deep. The Oceanspheres will stay suspended 20 meters below the surface except for routine maintenance and harvest operations.

This untethered self positioning Oceansphere is 55 meters in diameter and has an 82,500-meter capacity, enough to grow 1,000 tons of ahi or 20,000 bigeye tuna of 50-kilo each.

## FISHERY PLANS MAY INCLUDE AQUACULTURE

**At its October 20 to 23, 2009,** meeting in Honolulu, the Western Pacific Regional Fishery Management Council revised its aquaculture policy and began the process of developing an amendment to each of its Fishery Ecosystem Plans (FEPs) to include measures managing aquaculture operations in the Western Pacific Region.

The principal revision to the aquaculture policy was the addition of a Social and Economic Considerations section. It states that “aquaculture activities, facilities and operations should include social and economic impact analysis on existing fisheries and markets for the same species during the environmental review process,” i.e., environmental assessment or environmental impact statement.

While the Council’s current policy may be sufficient for providing potential offshore aquaculture operations with guidelines, the recent federal acceptance of the Gulf of Mexico Fishery Management Council’s Aquaculture Fishery Management Plan (FMP) sets precedence for establishing management measures for aquaculture in the FEPs for the Western Pacific Region. Staff is working to develop draft amendments for review by the Council at its March 2010 meeting. Public comment on these amendments will also be solicited with the goal of completing the document for final Council action in June 2010.

Although there are many aquaculture operations in existence in the Western Pacific Region, only two currently operate in offshore waters. Both are in Hawaii and within 3 miles of shore (i.e., within State of Hawaii waters). At least three other operations within Hawaii state waters have been proposed.

Council involvement in aquaculture stems from a 1993 legal opinion by the NOAA Office of General Counsel that “fishing” encompasses aquaculture under the Magnuson-Stevens Fisheries Conservation and Management Act.

In 2007, the Council adopted a policy to guide aquaculture operations within the exclusive economic zone (EEZ) waters around the U.S. Pacific islands. The policy provides direction on such issues as habitat, design and escapement. The Gulf of Mexico and New England Fishery Management Councils have also adopted aquaculture policies. The Gulf of Mexico Council’s Aquaculture FMP became effective this year. Implementing regulations must be published before permits can be issued. Meanwhile, the National Marine Fisheries Service has pledged to develop a national policy on offshore aquaculture to provide further guidance on aquaculture management.

If you have any questions or concerns regarding the Council and aquaculture, please contact Joshua DeMello, fishery analyst, at (808) 522-7493 or at [joshua.demello@noaa.gov](mailto:joshua.demello@noaa.gov).



## 2010 LUNAR CALENDARS TO



1st place, Guam grades K-2: Yejin Cheong of St. Anthony Catholic School



1st place, Guam grades 6-8: Ralph Eurich S. Patascil of Dominican Catholic School



1st place (tie), CNMI grades 9-12: Asher Ange Crisostomo of Marianas High School



1st place (tie), CNMI grades 9-12, Rozette Bunao of Marianas High School

**Efforts are in full swing** to provide 2010 traditional lunar calendars to fishing communities in American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI). This will mark the fourth year that the Western Pacific Regional Fishery Management Council has developed the calendars in the region in partnership with local agencies and organizations. The calendars feature the winning entries of student art contests organized by the Council in each of the island areas, traditional lunar month and moon phase names, and traditional fisheries and natural resource management knowledge. The calendars are funded in part through a NOAA Coral Reef Conservation Program grant.

The American Samoa calendar will include updated information garnered from a traditional lunar calendar workshop convened Nov. 25, 2009, on the island of Tutuila by the Council, the American Samoa's Department of Marine and Wildlife Resources (DMWR), the Office of Samoan Affairs (OSA) and the American Samoa Community College (ASCC) Samoan Studies Institute. The workshop also involved participants from other American Samoa organizations, fishermen, elders and members of the general public as well as Fisheries Officer Tupai Ualolo from the Fisheries Division in Apia, Samoa. The Apia Fisheries Division had been instrumental in providing Samoa lunar month and moon phase names for the Council's original American Samoa lunar calendar in 2007. The workshop was convened to address informational gaps as well as the variations in the lunar month and phase names throughout the Samoa and American Samoa archipelago.

All of the participants agreed that the calendar is a useful tool to assist in fishery management and help communities sustain the resources. However, more research and information collection is needed to enhance the process. A tentative plan was devised to incrementally conduct research on the island of Upolu with the National University of Samoa, on Manu'a and on Savai'i.



# FEATURE RESULTS OF WORKSHOP, STUDENT ART CONTESTS



1st place, American Samoa grades 9-12: Fia Vaeoso of Samoana High School.

In Guam and CNMI, the lunar calendar committees have been working to produce a single calendar for the Mariana Archipelago that will combine traditional lunar knowledge from both the Chamorro and the Refaluwasch cultures from these islands. In the past, separate calendars were made for the territory and the commonwealth. In addition to the research, the committees have been gathering information on the fishing seasons and tide charts to be included in the calendar, running the student art contests and planning the 2010 Chamorro Lunar Calendar Festival. This second annual event organized by the Guam Lunar Calendar Committee in partnership with several organizations will be celebrated on Feb. 13, 2010. The festival will be a celebration of Chamorro culture and values.

The Chamorro theme of this year's art competition was "Fino' Gualåffon: Sinostienen Guinahan Natibon Mari'ânas" (Moonlight Talk: Sustaining the Marianas Native Resources). The Refaluwasch translation for the poster theme is "Aweweel maram reel ammwelil ngúlúwal falúw." This theme encourages discussion on the importance of sustainable use of the land and ocean resources, the lunar cycles that affect them and their interrelationship with the people and the culture of the Mariana Archipelago. Teachers were encouraged to include this contest in their lesson plans.

While the Council has not produced a lunar calendar for Hawaii since 2008, it has developed Native Hawaiian lunar calendar displays and handouts that have been well received. A copy of the display is in the Bishop Museum. It will also be on permanent display at the Hawaiian Sealife educational facilities in Honolulu.

Copies of the lunar calendars and display can be downloaded from the Council's website at [www.wpcouncil.org/education](http://www.wpcouncil.org/education) and [www.wpcouncil.org/community](http://www.wpcouncil.org/community).

## STUDENT ART CONTEST WINNERS FOR 2010 LUNAR CALENDARS

### Guam

#### K - 2

- 1st **Yejin Cheong**, St. Anthony Catholic School
- 2nd **Ciera D. Neumann**, Dominican Catholic School
- 3rd **Joshua Miller**, St. Anthony Catholic School

#### 3 - 5

- 1st **Olivia Cruz**, Bishop Baumgartner Memorial
- 2nd **Mikaela Bumagat**, Bishop Baumgartner Memorial
- 3rd **Avery Tiong**, St. Anthony Catholic School

#### 6 - 8

- 1st **Ralph Eurich S. Patacsil**, Dominican Catholic School
- 2nd **Hayley Cheong**, St. Anthony Catholic School
- 3rd **Dolores Herera**, Bishop Baumgartner Memorial

#### 9 - 12

- 1st **Angela Cananlong**, Simon Sanchez HS
- 2nd **Elyssa J. Santos**, George Washington HS
- 3rd **Melissa Sablan**, Simon Sanchez HS

### CNMI

#### 9 - 12

- 1st (tie) **Rozette Bunao**, Marianas High School
- 1st (tie) **Asher Ange Crisostomo**, Marianas High School
- 2nd **Elsa Tanya Camacho**, Marianas High School
- 3rd **Jesmyn Sablan**, Marianas High School

### American Samoa

#### K - 2

- 1st **Tashona Vaimoana**, Lailii Elementary
- 2nd **Gideon Finau**, South Pacific International Christian Center
- 3rd **Savaliiofilemu Faapalemata**, Kanana Fau Elementary

#### 3 - 5

- 1st **Vimeto Mageo**, Coleman Elementary
- 2nd **Diana Mageo**, Leone Midkiff Elementary
- 3rd **Julea L. Asi**, Coleman Elementary

#### 6 - 8

- 1st **Jorina Pearson**, Fitiuta Elementary
- 2nd **Hosanna Taulai**, Fitiuta Elementary
- 3rd **Mesi Poloai**, Coleman Elementary

#### 9 - 12

- 1st **Fia Vaeoso**, Samoana High School
- 2nd **Valentino Vaeoso**, Samoana High School
- 3rd **Malaea Sambo**, Leone High School

# INTERAGENCY TASK FORCE RELEASES NATIONAL OCEAN POLICY AND MARINE SPATIAL PLANNING REPORTS



About 400 individuals attended the Sept. 29, 2009, Interagency Ocean Policy Task Force regional meeting in Honolulu with imperfect teleconference connections to some of Hawaii's neighbor islands, Guam and the Commonwealth of the Northern Mariana Islands. Participants were given two minutes each to provide comments.

**On June 12, 2009,** President Obama established an Interagency Ocean Policy Task Force, led by the White House Council on Environmental Quality (CEQ). The Task Force was charged with developing a recommendation for a national policy that ensures protection, maintenance and restoration of oceans, our coasts and the Great Lakes. It will also recommend a framework for improved stewardship and effective coastal and marine spatial planning.

In July 2009, the Council provided comments to the Task Force, stating that the National Ocean Policy should include and accomplish the following.

- Adopt a bottom-up approach by including the public and especially fishing communities in regional-based planning efforts
- Include consideration of communities needs, traditional values, indigenous cultures (e.g., indigenous Chamorro and Refaluwasch, American Samoan, Native Hawaiian, and others) and fisheries/ economic development
- Include consideration of island cultural ties which are intimately entwined with the archipelagos and the marine environment on which they depend and have managed with traditional knowledge for thousands of years
- Be driven by science (i.e., scientifically-based and peer reviewed research)

including the social sciences and economics

- Consider local conditions including those in U.S. territories
- Be consistent with the Magnuson-Stevens Fishery Conservation and Management Act and other statutes
- Evaluate existing marine conservation measures implemented by the regional fishery management councils (RFMC) (e.g., closed areas, catch limits, limited entry, protected species mitigations, etc.)
- Have clear objectives, measurable criteria for success, and monitoring
- Use an adaptive management approach to respond to changing conditions
- Coordinate, not replace, existing, regional expertise in a collaborative process
- Not create another layer of bureaucracy or authority

On Sept. 17, 2009, the Task Force released its interim report on this phase of its work for 30-days of public comment. The interim report may be downloaded from the CEQ website ([www.whitehouse.gov/assets/documents/09\\_17\\_09\\_Interim\\_Report\\_of\\_Task\\_Force\\_FINAL2.pdf](http://www.whitehouse.gov/assets/documents/09_17_09_Interim_Report_of_Task_Force_FINAL2.pdf)).

Upon review of the interim report, it appears that the Task Force largely ignored the Council's recommendations in the draft policy. Most importantly, from a fishery

management point of view, the interim report and draft policy make no mention of the Regional Fishery Management Councils or the Magnuson-Stevens Fishery Conservation and Management Act.

On Sept. 29, 2009, the Task Force held a regional public meeting in Honolulu with teleconference connections to Washington, DC, and to some of Hawaii's neighbor islands, Guam and the Commonwealth of the Northern Mariana Islands (CNMI). American Samoa was not connected due to the tsunami that had hit that day. The CNMI connection was so poor the participants could not understand most of what was said and were not provided with information ahead of time, so were not aware that they could give testimony. About 400 individuals attended the meeting in Honolulu. Participants were given two minutes each to provide comments, and the time limit was strictly enforced. Several Native Hawaiians suggested a return to traditional systems of ocean governance, which were well received with rounds of applause.

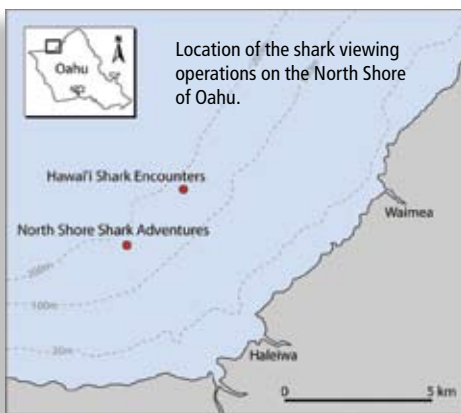
On Dec. 14, 2009, the Task Force released its Interim Framework for Effective Coastal and Marine Spatial Planning for a 60-day public review and comment period. To view the report and/or provide comments go to [www.whitehouse.gov/eop/ceq/initiatives/oceans/interim-framework](http://www.whitehouse.gov/eop/ceq/initiatives/oceans/interim-framework).

At this point, it is unclear how a national policy and the marine spatial planning framework will affect the Council's role in managing our fisheries.



# SHARKS DO NOT FOLLOW BOATS, STUDY SHOWS

**Viewing sharks from submerged cages** is both popular and controversial. Proponents cite educational value and non-extractive use of natural resources, while opponents raise concerns about public safety and ecological impacts. The State of Hawaii has banned shark viewing operations within State waters (0 to 3 nautical miles from shore). Beyond the 3-mile limit, two operations based in Haleiwa (North Shore Shark Adventures and Hawaii Shark Encounters) operate in federal waters surrounding the island of Oahu. The shark



tour operators take patrons to an area where a white crab fishery has operated for four decades and where sharks aggregate to feed on bait discarded from the crab traps. In the past, the tour operators also fed the sharks to attract them. However, the 2006 reauthorized Magnuson-Stevens Fishery Conservation and Management Act made it unlawful to introduce food or any other substance into the water to attract sharks for any purpose other than to harvest sharks within the federal waters surrounding Hawaii and other US Pacific islands.

Surfers, divers and ocean bathers along the North Shore who oppose the shark viewing operations believe the sharks follow the viewing vessels back to the shallow waters near Haleiwa and thus elevate the risk of a shark attack. Additionally, bottomfish fishermen claim that depredation of bottomfish catches by sharks has increased as a result of the shark aggregations associated with the shark viewing operations.

The Hawaii Institute of Marine Biology (HIMB) conducted a study using the logbooks of the two shark viewing operations between 2004 and 2008 to investigate the ecological characteristics of the shark aggregations. The HIMB team also captured sharks at the viewing locations and tagged them with acoustic transmitters

that can be detected by an array of acoustic receivers around the Hawaii Archipelago.

The study on the ecological characteristics of the shark aggregations was published earlier this year in the online journal *Environmental Conservation* (2009, doi:10.1017/S0376892909990038). It indicated that the sharks associated with the viewing aggregations are Galapagos and sandbar sharks, not typically associated with shark attacks, although low numbers of tiger sharks are occasionally seen at the aggregations sites. The species composition has shifted over time with Galapagos sharks becoming the most numerically dominant sharks.

The acoustic tagging study indicated that sharks tagged at viewing sites move extensively around Oahu. The tagged sharks were most frequently detected at cage sites or at offshore ledges. There was some movement inshore by these sharks, but it was infrequent and consistent with natural behavior. The data collected by the HIMB study clearly show sharks do not follow boats back to harbor.

At its October 2009 meeting, the Western Pacific Regional Fishery Management Council commended HIMB on its study and recommended that it be extended to include the provision of acoustic receivers on North Shore bottomfish vessels to evaluate if the sharks being observed by the shark viewing operations are the same ones depredating bottomfish catches. For this expanded study to work, more sharks will need to be tagged with acoustic transmitters.

## FISHERY ECOSYSTEM PLANS CLEAR FINAL HURDLE

**After five years**, the Western Pacific Regional Fishery Management Council's recommendation to move from a species-based to an ecosystem-based management approach has cleared its final hurdle. In his Dec. 14, 2009, letter to the Council, Regional Administrator William Robinson, National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO), said that the fishery ecosystem plans (FEPs) for American Samoa, Hawaii, Mariana Archipelago, Pacific remote island areas and western Pacific pelagic fisheries have been approved.

The recommendation to make the change was made by the Council in December 2005. Since then, Council staff has worked with PIRO to prepare the recommendation for final approval by the Secretary of Commerce. The change restructures the Council's five existing species-based Fishery Management Plans for bottomfish, crustaceans, coral reef ecosystems, precious corals and pelagic fisheries into the five place-based FEPs.

The FEPs were transmitted for Secretarial review and public comment on Sept. 24, 2009. The proposed rule was published in the Federal Register on Oct. 2, 2009. Robinson said the final rule that restructures the western Pacific fishery regulations, consistent with the FEPs, will be published soon.

For a copy of the FEPs, contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) or download the files at <http://www.wpcouncil.org/news>.

## INFORMATIONAL WEBSITE SUPPORTS HAWAII SEAFOOD AND FISHERIES

**People want to know where their fish**



comes from, how it was caught and if it is tasty, healthy and sustainable. To address this need, the Hawaii Seafood Council (HSC) has launched a new website dedicated to presenting information to support Hawaii seafood and fisheries. The website, at [www.hawaii-seafood.org](http://www.hawaii-seafood.org), provides the following educational resources on Hawaii seafood for the fishing and seafood sectors, seafood enthusiasts and the general public.

- Basic information on the fish species, how they are caught, the importance of the Honolulu fish auction, how our fisheries operate and how they are managed for sustainability
- Information on seafood quality, seafood and health, and seafood safety
- Summaries of pertinent research results and assessments to support brand claims about Hawaii seafood
- Downloadable versions of the "Keeping Hawaii Seafood Sustainable" and "Keeping Hawaii Seafood Safe to Eat" booklets
- New information on the nutrient content, labeling and claims for the major species of wild-caught Hawaii seafood

All people with interests in Hawaii seafood and fisheries are encouraged to visit the [hawaii-seafood.org](http://hawaii-seafood.org) website, get familiar with its contents and look for future updates. HSC is a new non-profit organization dedicated to supporting Hawaii seafood and fisheries through education, outreach and research on sustainability, seafood quality, and seafood and health. The HSC website and much of the content were prepared with the support of the NOAA-funded Hawaii Seafood Project (PacMar Inc., Honolulu, Hawaii).

# GUAM, CNMI MILITARY BUILDUP COMMENT PERIOD NOW OPEN

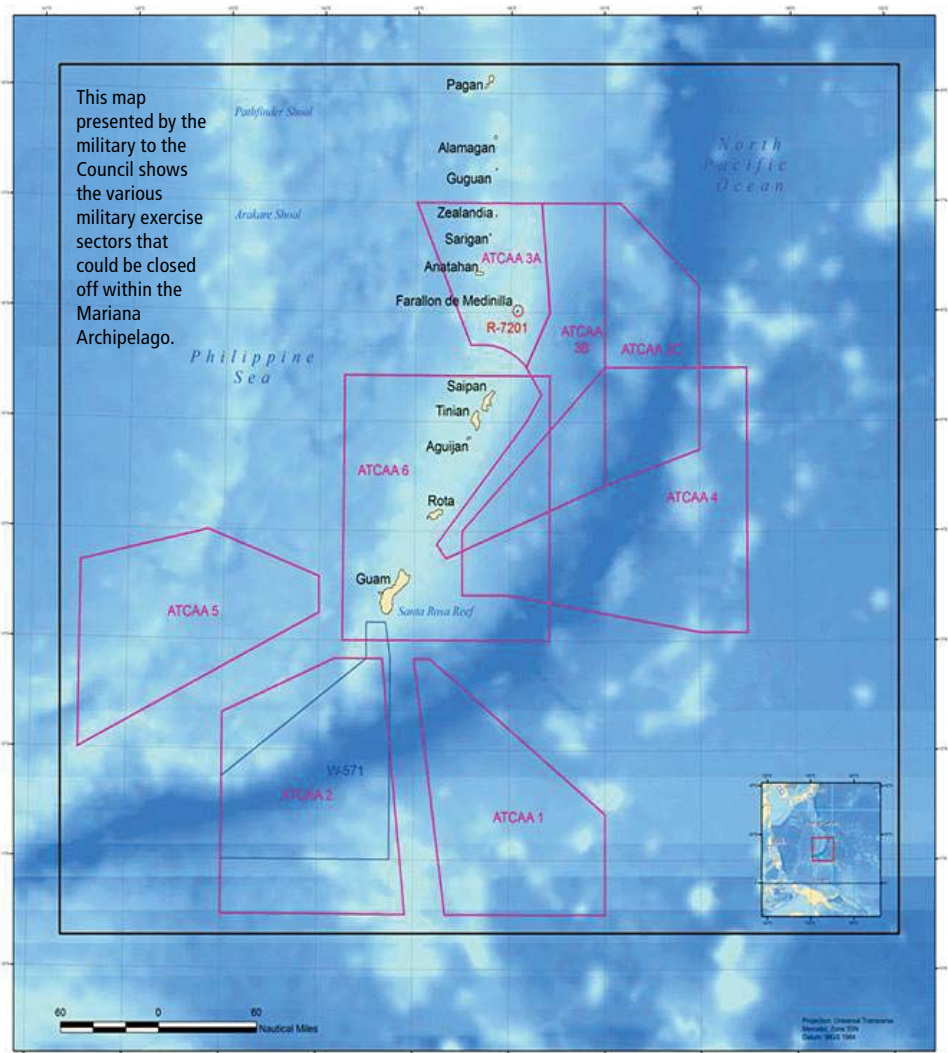
On Nov. 20, 2009, the Department of Navy released its Draft Environmental Impact Statement (DEIS)/Overseas Environmental Impact Statement for the Guam and Commonwealth of the Northern Mariana Islands (CNMI) Military Relocation. The public has 90 days, until Feb. 17, 2010, to respond to the approximately 9,000-page, nine-volume report. This comment period is double the 45 days required under the National Environmental Protection Act, but falls short of the 120-day review period that the Western Pacific Regional Fishery Management Council asked the Secretary of Defense provide to the people of Guam and CNMI to comment on the DEIS.

The Council has also asked the National Marine Fisheries Service (NMFS) to assist Guam and CNMI in acquiring funds and expertise in the military buildup negotiation and mitigation processes. NMFS has also been asked to provide a report on the military buildup to the Council when it meets during March 2010 in Guam and CNMI.

The DEIS includes analyses of impacts for the following proposed actions:

- Development and construction of facilities and infrastructure to support the relocation from Okinawa to Guam of approximately 8,600 Marines and their 9,000 dependents
- Development and construction of facilities and infrastructure to support training and operations on Guam and Tinian for the relocated Marines
- Construction of a new deep-draft wharf with shore-side infrastructure improvements creating the capability in Apra Harbor, Guam to support a transient nuclear-powered aircraft carrier
- Development of facilities and infrastructure on Guam to support the relocation of approximately 600 military personnel and their 900 dependents, and the establishment and operation of an Army Missile Defense Task Force

To download the DEIS or provide comments to it, go to [www.guambuildupeis.us](http://www.guambuildupeis.us). Copies are available at libraries, and comments will be taken at public hearings scheduled for Guam, Tinian and Saipan between Jan. 7 and Jan. 15, 2010.



## Community concerns regarding the military buildup expressed at Western Pacific Regional Fishery Management Council Advisory Panel and other public meetings on Guam

- Increase in Guam population from 170,000 to 225,000 by 2014
- Inadequate dissemination of information by the federal government
- Lack of transparency of meetings held by local government agencies and the Joint Guam Program Office
- Impacts to coral reef and fisheries resources
- Prevention, control and eradication of invasive species
- Clearing of forest areas
- Slow, ongoing mitigation and habitat restoration process for dumpsites and other spots from past military and federal activities
- Navy's plan to dump dredge material from Apra Harbor into the exclusive economic zone (EEZ) waters around the islands and the potential for the currents to redistribute the matter onto seamounts and near shore-fishing areas.
- Three existing sites where Navy already has dumped contaminated soil
- Potential of dredged seabed and coral reefs to destroy fish habitat, to impact Guam's largest mangrove area in the nearby Sasa marine protected area and to potentially create conditions in which ciguatera may become prevalent in fish
- Rumors that new military properties will include a 12-mile exclusion zone for local access and fishing
- Loss of and restriction from traditional and cultural fishing grounds within the Mariana Islands Range Complex
- Potential that the local power, water and sewage infrastructure will not be ready when the military buildup begins
- Possible environmental, cultural and social impacts associated with plans to construct a US\$1 Billion road structure to connect the military bases on Guam
- Lack of information regarding the cargo ship with construction gravel for military buildup projects that was tainted with dangerous bacteria. (After unsuccessful fumigation at Apra Harbor, it left Guam and was refused entry to ports in CNMI and the Federated States of Micronesia. The ship eventually delivered the soil to Guam, but there is no report of when or where the ship was treated prior to the delivery.)
- Military bombing on the island of Farallon de Mendenilla, which is the primary nesting area for the flightless, endangered Marianas megapode as well as a primary fishing ground for local fishermen



# FEP ADVISORY PANEL DEVELOPS COMMUNITY ENGAGEMENT RECOMMENDATIONS

**The Fishery Ecosystem Plan (FEP) Advisory Panel (AP)** of the Western Pacific Regional Fishery Management Council convened Dec. 15-17, 2009, at the Council office in Honolulu.



Jo-Ann Leong, director, Hawaii Institute of Marine Biology (HIMB), addresses the Advisory Panel members during their visit to the Institute's facilities on Coconut Island. HIMB conducts genetic work that provides scientific information used in fisheries management decision-making.

American Samoa, the Commonwealth of the Northern Marianas, Guam and Hawaii members discussed fishery issues pertinent to their islands and learned about the Council's programs for the next five years. The members worked in breakout sessions and developed strategies to help the Council implement its programs through improving communications and public engagement within their communities.

During a field trip to the Hawaii Institute for Marine Biology (HIMB) on Coconut Island, the AP members enjoyed scientific presentations on such topics as the population structure and management of migratory marine animals and the use of genetics and life history to track the spread of introduced species, such as tape and roi. The presentations provided for lively discussion and commitments to support the programs from the fishermen.

Other topics presented to the AP members included the new catch shares program, annual catch limits, fishery data collection, marine spatial planning, community programs and federal grant opportunities through the Marine Education and Training Program and Community Demonstration Projects Program.

The community engagement and other recommendations from the AP meeting will be reviewed, as appropriate, by the Council's Plan Teams and Scientific and Statistical Committee, before being presented to the Council when it meets March 22-23, 2010, in Saipan and March 25-26, 2010, in Guam.



FEP Advisory Panel members in front of the Council office in Honolulu.

# US, SWEDEN PROPOSE CITES LISTING FOR DEEPWATER CORAL

**Deepwater pink and red coral**—including *Corallium secundum* and *C. regale*, which are a part of the Hawaii precious coral fishery—are being proposed for inclusion in Appendix II of the Convention on International Trade in Endangered Species (CITES). The proposal is being introduced by the United States and Sweden and will be considered at the 15th Meeting of the Conference of the Parties in Doha, Qatar, on March 13-25, 2010. CITES regulation require export, import and re-export permits from countries of origin and destination, which help in the monitoring of trade. They also prohibit the issuance of permits from countries where collection is illegal or have been shown to be detrimental to the survival of a given species.

The precious coral fishery in Hawaii has operated sustainably for 40 years. Management of the fishery in the exclusive economic zone (EEZ) waters has been through the Precious Corals Fishery Management Plan (FMP). Implemented in 1983, this was the first FMP developed by the Western Pacific Regional Fishery Management Council following its establishment in 1976 through the Magnuson-Stevens Fishery Conservation and Management Act. The State of Hawaii manages the fishery in waters 0 to 3 miles from shore around the archipelago.

The Hawaii precious coral fishery includes both deepwater corals, like the pink coral, harvested at depths of 350 to 500 meters, as well as black coral collected at depths of 35-110 meters. All of these precious corals are found below the euphotic zone (zone of photosynthesis). They form colonies (not reefs) and are not threatened by pollution, climate change or, except in certain local areas of the world, overfishing. These deepwater corals are distinctively different from shallow-water corals, which have symbiotic photosynthetic algae, are hermatypic (reef-building) and are threatened by human activities.



The pink coral (*Corallium secundum*) is the most abundant deepwater precious coral in the Hawaiian Archipelago. Photo courtesy of D. Doubi

Archaeological excavations in Europe indicate that the use of precious coral in jewelry dates back almost 25,000 years. The fishery in the Mediterranean Sea continues to be active today. The Italian Government convened a meeting on precious corals in Naples on Sept. 23-26, 2009. Dr. Richard Grigg, former chair of the Council's Precious Corals Plan Team, was an invited speaker. His presentation, "Management of precious corals: local science and enforcement versus a listing by CITES," analyzed the potential impact of the proposed CITES listing of all species in the family Corallidae.

Grigg based his analysis, in part, on the outcomes of the CITES Appendix II listing of black coral in 1981. He concluded that the principal effects for the Hawaii precious coral industry have been "to hinder trade" and "to create an extensive administrative burden on the industry." He adds: "The long-term sustainability of the black coral fishery and the industry owes itself to local fisheries regulations and enforcement programs in the State of Hawaii, not CITES regulations."

Grigg's presentation also notes that the proposed CITES listing of *Corallium* spp. "is plagued by a number of serious problems ranging from difficulties in identification, to stock exemptions, to potentially defusing local management, to lack of enforcement, to failure to conserve the resource and to hindering trade and creating administrative burdens on the industry." While, at the international level, precious corals are in need of much stronger management practices, he suggests that "size limits, annual quotas, limited entry (licenses), seasonal limits, rotation of fishing effort and the creation of marine protected areas" accomplished at the local level through cooperation of science and enforcement, and not CITES, is the solution.

Regarding the call for local regulation, Frank Parrish, the Council's current Precious Corals Plan Team chair, notes that "various countries have not implemented them largely because of a lack of resources or political will." He also points out that, unlike Hawaii, in many jurisdictions the corals are in shallower waters and easily reachable by divers.

For a copy of Grigg's paper and/or a copy of the Council's monograph "The Precious Coral Fishery Management Plan of the Western Pacific Regional Fishery Management Council" by Grigg (2009), please contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov).

# US TO AMEND REGULATIONS SO TERRITORIES CAN ALLOCATE INTERNATIONAL TUNA QUOTAS

During its 146th meeting, Oct. 20-23, 2009, in Honolulu, the Western Pacific Regional Fishery Management Council voted to amend the Pelagics Fishery Management Plan (FMP) to establish an annual longline bigeye catch limit of 2,000 metric tons (mt) for each of the US Pacific island territories and provide them with authority to use these through arrangements (charter, lease or similar mechanisms) with Pelagic FMP permitted vessels.

The primary objective of this amendment is to stimulate fisheries development in the US territories. The vessels in the charter arrangement would have to provide benefits to the Territories to promote responsible fisheries development, consistent with the Territory's Marine Conservation Plan, such as funding, infrastructure development, training and employment.

Council member Manuel Duenas of Guam and others noted that the US longline vessels permitted under the Pelagic FMP—with whom American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI) would be able to enter into arrangement—are the most highly regulated and closely monitored fishing vessels in the world.

In 2008, the United States agreed to the national quotas for longline fisheries and non-quota measures for the purse seine fleets set by the international Western and Central Pacific Fishery Commission (WCPFC). The WCPFC quotas provide each US Pacific island territory an annual longline bigeye limit of 2,000 mt or no limit if they are undertaking effective, responsible fisheries development.

# NEW RULE PROVIDES MORE US SUSTAINABLE SWORDFISH TO CONSUMERS



Swordfish at the Honolulu fish auction

In the Dec. 10, 2009, *Federal Register*, the National Marine Fisheries Service (NMFS) published a final ruling to remove restrictions that will allow fishermen to sustainably harvest swordfish, consistent with the National Standards, while continuing to safeguard sea turtles and other protected species. The final rule for the fishery will take effect on Jan. 11, 2010.

The rule removes the annual limit on the number of sets the Hawaii-based pelagic shallow-set longline fishery can deploy, which since 2004 has been restricted to 2,120 per year or 50 percent of the annual effort between 1994 and 1999. Based on recent scientific assessments of the North Pacific swordfish population, the Hawaii fishery is operating below maximum sustainable yield (MSY) and will not reach or exceed MSY for the stock even if it returns to its historic catch levels. MSY is the largest long-term average catch or yield that can be taken from a stock under prevailing ecological and environmental conditions

The final rule also limits the Hawaii longline fleet's annual interactions (i.e., hooks or entanglements) with loggerhead sea turtles to 46 and with leatherback sea turtles to 16. Based on a 2008 biological opinion, it has been determined that these annual interactions will not jeopardize the continued existence of loggerhead and leatherback sea turtles. The best scientific and commercial data available establish, moreover, that these annual interaction limits will allow for growth of the fishery without appreciably reducing the likelihood of the survival and recovery of these species. An interaction is defined as being hooked or entangled by fishing gear, thus encompassing all hookings, entanglements, captures and mortalities. Actual mortalities are expected to be far lower and practically indistinguishable from natural mortalities.

The fishery will continue to mandate that an observer be placed on all vessels for all trips to monitor sea turtle actions.

Since 2004, and in addition to 100 percent observer coverage of all swordfish vessels, the Hawaii swordfish fishery has been required to use large (18/0) circle hooks and mackerel type bait, as opposed to J-hooks and squid bait. Swordfish fishermen are also required to take a protected resources course on sea turtles and other protected species. This and other gear modifications have reduced the fishery's interaction rate with sea turtles by approximately 90 percent.

During its Dec. 6-10, 2009, in French Polynesia, the Western and Central Pacific Fishery Commission adopted the Hawaii longline fishery sea turtle interaction rate as the standard against which other international longline fleets in their fishery will be measured. These practices require the use of mitigation measures.

## Actual interactions in swordfish fishery since reopening in 2004

Species	2004	2005	2006	2007	2008
Loggerhead	1	12	17	15	0
Leatherback	1	8	5	5	2
Olive Ridley	0	0	1	1	2
Green	0	0	0	0	1

Figure 1: Observers to monitor sea turtle interactions have been aboard every Hawaii longline vessel for all shallow-set swordfish trips since 2004. No killed turtles have been observed.



# UPCOMING EVENTS, NEW PUBLICATIONS SEEK TO ENGAGE COMMUNITIES, FISHERMEN, STUDENTS

**The Western Pacific Regional Fishery Management Council** will be hosting a series of workshops throughout the Hawaii Archipelago in January and February 2010 designed to engage the community on a number of emerging and ongoing fishery issues and programs. The "What's in Store for Hawaii Fisheries?" workshops will include interactive data collection and cooperative research displays and forums on fishery quota management, marine spatial planning, fisheries monitoring and community-based activities. Participants will be able to enjoy booths on the Aha Moku traditional management approach;



The Council display at the Guam Community College-Smithsonian Institution Exhibit features many culturally important artifacts and crafts that were an intricate part of food and food preparation in the Marianas Islands. Native Chamorro created useful items from the bills and bones of large pelagic fish. Some artisans continue to practice such crafts today.

tagging of ulua, bottomfish and pelagics; monitoring through web-based reporting, the Marine Recreational Information Program and bio-sampling; grant opportunities through the Marine Education and Training Program, Community Demonstration Project Program and Hawaii Seafood Promotion; the barbless hook program; the Council; and much more. The workshop will be held 9 a.m. to 4 p.m. as follows:

- **Jan. 16, 2010**—King Kamehameha Hotel Kona, Hawaii
- **Jan. 23, 2010**—Mitchell Pauole Center Kaunakakai, Molokai
- **Feb. 6, 2010**—Maui Beach Hotel Kahului, Maui
- **Feb. 13, 2010**—Ala Moana Hotel Honolulu, Oahu
- **Feb. 20, 2010**—Kauai Beach Resort Lihue, Kauai
- **Feb. 27, 2010**—Naniiloa Hotel Hilo, Hawaii

The workshops will continue ongoing efforts by the Council to engage communities in the management of fisheries through an ecosystem-based approach.

They will build upon presentations that have been delivered during October through December 2009 at community meetings on the island of Hawaii by Kaleo Kualii and to neighborhood boards on Oahu by Jackie Burke. On Molokai, Wayne Lee is holding meetings to identify traditional practitioners and representatives from each of that island's moku. George Purdy is working with the Lanai community to develop a Friends of Lanai Fishing Group through collaboration with Hui Malama O Moomomi. All of these very different projects and initiatives share the same goal to empower communities to do a better job in protecting the fishery resources through an ecosystem-based approach to management.

In the Mariana Archipelago, the Council will be holding Fishers Forums and student coral reef symposiums on Guam and Saipan between the period March 11-26, 2010, in association with the 103rd Scientific and Statistical Committee meeting and 147th Council meeting. The Council is also planning to meet with villages in Saipan, Tinian and Rota during this time period.

More recently, the Council joined the Guam Fishermen's Cooperative Association and other partners in the Guam Tour of "Key Ingredients: America by Food—Secret Ingredients of our Cultural Cuisine" at the Guam Community College culinary arts building. This exhibit was a collaborative effort with the Guam Community College, the Guam Humanities Council and the Smithsonian Institution. The exhibit featured foods that are an important part of American culture. The local organizations displayed those items, such as seafood, plants and animals, and artifacts that are important to Guam's Chamorro culture. Guam's cultural connection to the ocean was very evident in the numerous pictures, recipes and demonstrations put on by participating organizations and the culinary arts students of the college. The exhibit was held from Nov. 28 to Dec. 31, 2009.

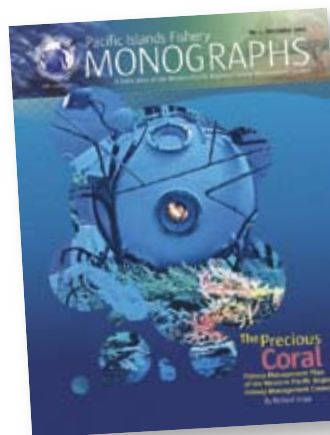
Among the other recent Council education and outreach efforts are the publication of a special issue of the National Marine Educators Association journal *Current* and two revised marine debris posters and the launch of the Council's Pacific Islands Fishery Monographs series. The *Current* issue was a cooperative effort with the seven other US Regional Fishery Management Councils. It provides an overview of the US fisheries, its major issues and management tools.



Marine debris poster

The marine debris posters were developed in partnership with the Secretariat of the Pacific Community, in consultation with the NOAA Marine Debris Program and with funding assistance from the NOAA Coral Reef Conservation Program. The monograph series inaugural issue is on the Precious Corals Fishery Management Plan of the Western Pacific Regional Fishery Management Council and was written by Dr. Richard Grigg, former chair of the Council's Precious Corals Plan Team.

For copies of any of these outreach materials or information on the upcoming events, contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) or go to [www.wpcouncil.org](http://www.wpcouncil.org).



Monograph and *Current* publications



# NOAA TAKES STEPS TOWARD NEW DIRECTION

**Registration Required for Hawaii's Marine Recreational Fisherman in 2010**

**Starting January 1, 2010,** a new federal law goes into effect requiring Hawaii fishermen to sign up with the National Saltwater Angler Registry Program. Registration is quick, easy, and FREE in 2010.

**NOAA FISHERIES SERVICE**

Learn more and find out if and how you need to register at [www.countmyfish.noaa.gov](http://www.countmyfish.noaa.gov) or call (888) MRIP-411.

**Who Needs to Register?**  
Hawaii fishermen who fish or spear fish in Federal waters more than 3 miles from the ocean shore.

**Who Is Exempt?**  
Fishermen will NOT need to register if they are under 16; only fish on licensed charter boats; fish only within 3 miles from shore; hold a valid commercial marine license; or are out-of-state fishermen already registered with NOAA.

**How Do I Register?**  
Beginning January 1, 2010, log onto [www.countmyfish.noaa.gov](http://www.countmyfish.noaa.gov) and click on the Angler Registry link, or call the toll-free registration line at (888) MRIP-411. You will need to provide your name, date of birth, address, and telephone number and will receive a registration number. Within 30 days, a registration card will arrive in the mail.

**Why Register?**  
Registration is the law, and it helps NOAA and marine recreational fishermen work together to gather better catch data to help ensure the future of saltwater fishing.

**At various venues in 2009,** NOAA Administrator Jane Lubchenco outlined a new direction for NOAA that focuses on catch shares, marine spatial planning and ecosystem approaches, climate change and improved communication.

On Dec. 10, 2009, NOAA released a draft policy on the use of catch share programs in fishery management plans. Public comment ends on April 10, 2010. For more information, go to [www.nmfs.noaa.gov/catchshares](http://www.nmfs.noaa.gov/catchshares).

Regionally, the National Marine Fisheries Service (NMFS) Pacific Islands Fisheries Science Center (PIFSC) held a Climate Change Planning Workshop on Aug. 5-6, 2009. The goals of the workshop were to review the current state of scientific information on climate change; assess internal capabilities and expertise; and develop list of key priority projects for the Center and identify potential partnerships. Day one included presentations from research experts on topics such as sea level rise, socioeconomic impacts, ocean acidification, modeling efforts, and marine ecosystems. Day two consisted of breakout groups to address

specific questions on internal capabilities, scientific gaps, and next steps. A summary report will be released shortly, and will provide input into the development of a strategy on integrating climate change research into PIFSC priorities. Participants included representatives from the NOAA Pacific Islands Regional Office, the Western Pacific Fisheries Management Council, the Papahānaumokuākea Marine National Monument, US Fish and Wildlife Service, Hawaii Institute of Marine Biology, International Pacific Research Center, the National Park Service, University of Hawaii, Pacific ENSO Applications Climate Center, NOAA IDEA Center, Pacific Marine Environmental Laboratory, NOAA Fisheries Office of Science and Technology, East-West Center, and Hawaii Coastal Zone Management program.

In related news, NOAA is seeking comments on a proposed rule to revise National Standard 2 (NS2) of the Magnuson-Stevens Fisheries Conservation and Management Act (MSA). NMFS is proposing to modify the existing NS2 guideline on the best scientific information available and establish new guidelines for scientific review. NMFS is also proposing to add language regarding the role of the Scientific and Statistical Committees (SSCs) of the regional Fishery Management Councils and the relationship of SSCs to the peer review process. The proposed NS2 guidelines will also clarify the content and purpose of the Stock Assessment and Fishery Evaluation (SAFE) Report and related documents. For more information, see the proposed rule in the Federal Register. Comments must be received by March 11, 2010.

For those who are interested in participating more actively in fisheries management at the national level, NOAA is seeking nominations to a new Marine Fisheries Advisory Committee recreational fisheries working group. Applications will be accepted until Feb. 16, 2010. For more information, contact NOAA's interim senior policy advisor for recreational fisheries, Gordon Colvin, at [Gordon.colvin@noaa.gov](mailto:Gordon.colvin@noaa.gov).

# COUNCIL ANNOUNCES NEW OFFICERS, SSC MEMBERS

**At its October meeting** in Honolulu, the Western Pacific Regional Fishery Management Council appointed the following as its 2010 officers: Stephen Haleck of American Samoa as Council chair, David Itano as vice chair for Hawaii, William Sword as vice chair for American Samoa, Ben Sablan as vice chair for CNMI, and Manuel Duenas as vice chair for Guam.

The Council also approved the appointment of two new Scientific and Statistical Committee members.

Minling Pan is an economist and program manager at the NOAA Pacific Islands Fisheries Science Center (PIFSC) in Honolulu. She is responsible for directing the economics program involved in collecting economic data and conducting economic research in support of fisheries management in the US Pacific islands.

Donald Kobayashi is a fishery biologist in the Division of Ecosystem and Oceanography at PIFSC. His discipline focuses on fisheries oceanography, stock assessment, computer simulation modeling, marine biology and ecology, and ichthyology.

## HAPPY NEW YEAR 2010

**On behalf of the Western Pacific Regional Fishery Management Council,** we extend our hope for the coming year that by working together we will have wild-caught fish to eat forever. Uniting to solve problems and to address issues as they come before us, we can ensure that goal.

In the 1980s and early '90s, the Council chartered the course by not allowing destructive gear in our part of the world and by encouraging fishery development with environmentally friendly gear. We also worked hard to support an international management regime that would allow tuna fishing in the Pacific by only Pacific nations.

Today, the US longline fleet is the standard for environmentally responsible fishing to which all other longline fleets aspire. The Western and Central Pacific Commission has adopted the Hawaii swordfish longline turtle interaction rate as the benchmark rate below which fisheries must attain to qualify for having negligible impacts on turtles.

We truly believe that the accomplishments of this Council, through all of your efforts, will continue to provide a strong foundation for resource management in our island communities, and our ocean resources will benefit for generations to come.

**Sean Martin**  
Chair (2009)

**Kitty M. Simonds**  
Executive Director



# Recipe

## AKULE ALA FISHERY ATTACHÉ

**This recipe, formerly known as Aji\*** ala Fishery Attaché, was developed by former Council fishery consultant Bob Iversen\*\* when he was the Fishery Attaché at the US Embassy in Tokyo from 1980 to 1983. He now resides in Australia.

Step 1. Determine how many guests you expect for dinner. Say you expect 10 for dinner.



Bob Iversen and Council Communications Officer Sylvia Spalding at the International Sea Turtle Symposium, Feb. 17, 2009, in Brisbane, Australia

Step 2. Purchase 11 medium-to large-sized fresh akule. In Honolulu, good sources of fresh akule are the fish stalls in the China town part of downtown Honolulu (those bordering South King St.). Akule are often also available at Pier 17 where the Ohai clan (kupuna Leo and son Nephai) have their akule commercial fishing operation using the *F/V Libra*.

Step 3. Remove the stomach, gills and other innards of each akule. Then put the akule aside wrapped in tea towels (Australian for small kitchen towels) in the fridge (not the freezer). Don't try to scale the akule. They don't have very many scales to begin with.

Step 4. Cut up onions, tomatoes and some green onions into small pieces. Add some high grade olive oil and wine to taste. Bob found white wine is best. Make a marinade of olive oil, white wine and all the diced goodies. Add some shoyu and soak for one hour.

Step 5. Take the akule out of the fridge and put them in a big bowl. Leave lots of room for the diced goodies and the marinade. Carefully pack the stomach cavity of each akule with the diced and marinated goodies. Don't be manini (literally, a small fish in Hawaii; figuratively speaking, stingy or meager) about the amount of the diced goodies put into each akule. Pour the left over liquid marinade over the stuffed akule carcasses.

Step 6. Now comes a key step. Take each akule and carefully wrap it in dry sheets of aluminum foil. Then take each akule you have wrapped with aluminum foil and wrap it again with another sheet of aluminum foil. Make sure none of the marinade stuff leaks out of the double-wrapped akule.

Step 7. Make one a test akule and put it in a pre-heated oven at 180–200 degrees F. for about 25-30 minutes. Take it out and unwrap it and make a taste test from a piece of the akule. If it tastes and feels just right then take the other 10 and cook as above.

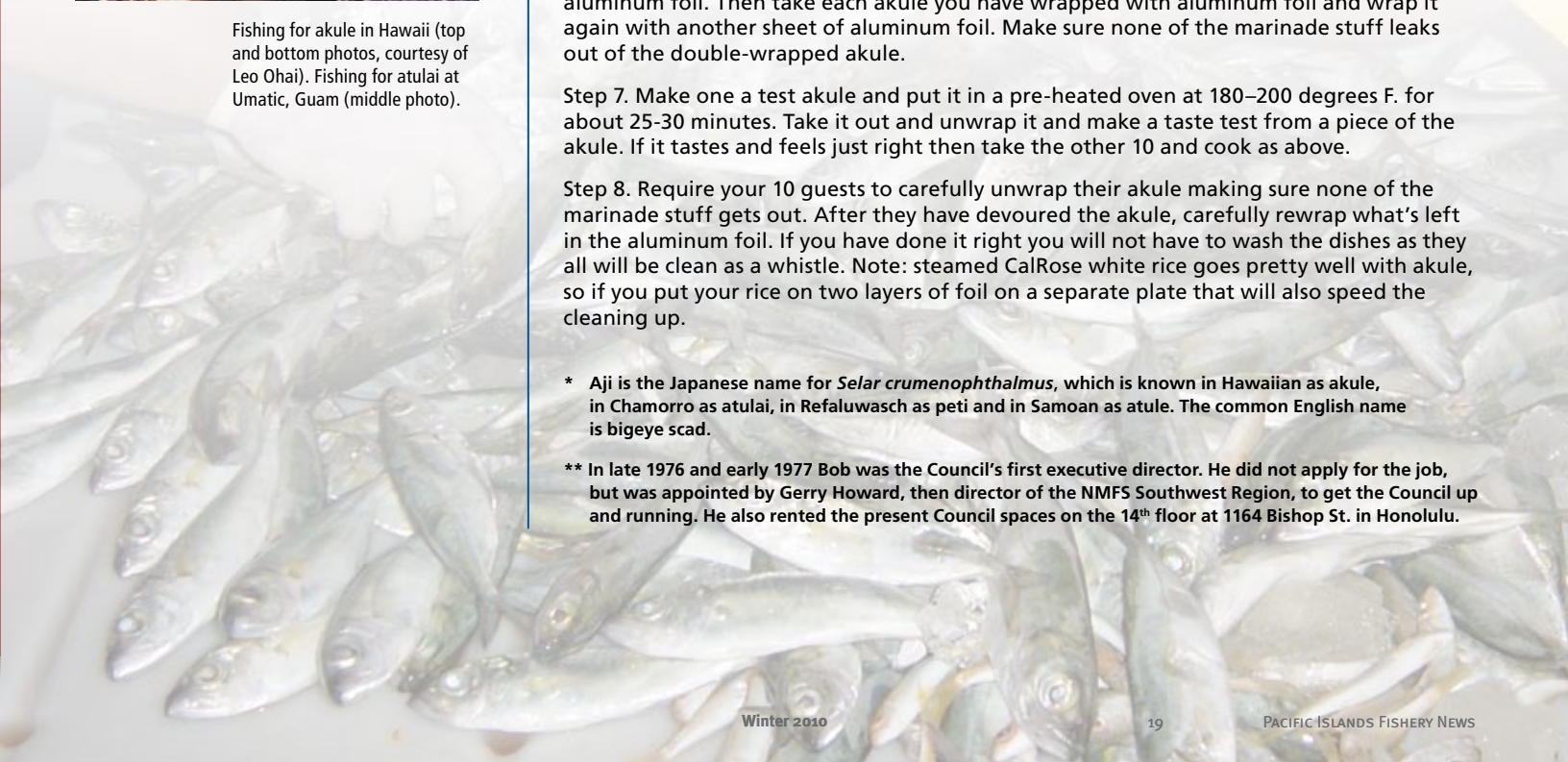
Step 8. Require your 10 guests to carefully unwrap their akule making sure none of the marinade stuff gets out. After they have devoured the akule, carefully rewrap what's left in the aluminum foil. If you have done it right you will not have to wash the dishes as they all will be clean as a whistle. Note: steamed CalRose white rice goes pretty well with akule, so if you put your rice on two layers of foil on a separate plate that will also speed the cleaning up.

\* Aji is the Japanese name for *Selar crumenophthalmus*, which is known in Hawaiian as akule, in Chamorro as atulai, in Refaluwasch as peti and in Samoan as atule. The common English name is bigeye scad.

\*\* In late 1976 and early 1977 Bob was the Council's first executive director. He did not apply for the job, but was appointed by Gerry Howard, then director of the NMFS Southwest Region, to get the Council up and running. He also rented the present Council spaces on the 14<sup>th</sup> floor at 1164 Bishop St. in Honolulu.



Fishing for akule in Hawaii (top and bottom photos, courtesy of Leo Ohai). Fishing for atulai at Umatic, Guam (middle photo).





# 2010 Council Calendar

## January

- 13-14**  
Councils Coordinating Committee meeting, Washington, DC
- 16**  
Hawaii Community Fishing and Fishery Workshop, Kona, Hawaii
- 17-18**  
North Pacific Regional Fishery Management Organization Stock Assessment Workshop, Jeju, Korea
- 19**  
8th Scientific Working Group Multilateral Meeting on Management of High Seas Fisheries in the North Pacific Ocean, Jeju, Korea
- 23**  
Hawaii Community Fishing and Fishery Workshop, Kaunakakai, Molokai

## February

- 6**  
Hawaii Community Fishing and Fishery Workshop, Kahului, Maui
- 13**  
Hawaii Community Fishing and Fishery Workshop, Ala Moana Hotel, Honolulu
- 13**  
2nd annual Chamorro Lunar Calendar Festival, Guam
- 20**  
Hawaii Community Fishing and Fishery Workshop, Lihue, Kauai
- 23-24**  
US Coral Reef Task Force meeting, Washington, DC
- 27**  
Hawaii Community Fishing and Fishery Workshop, Hilo, Hawaii

## March

- 11**  
Rota community meeting, CNMI
- 12**  
Tinian community meeting, CNMI
- 13**  
Council's Student Coral Reef Symposium, Saipan, CNMI
- 13**  
Saipan community meeting, CNMI
- 15**  
Mariana Fishery Ecosystem Plan Team meeting, Saipan, CNMI
- 16**  
CNMI Regional Ecosystem Advisory Committee meeting, Saipan, CNMI
- 17-19**  
103rd Scientific & Statistical Committee meeting, Guam (tentative)

- 18**  
Guam Regional Ecosystem Advisory Committee meeting, Guam
- 20**  
Mariana Fishery Ecosystem Plan Team meeting, Guam
- 20**  
Council's Student Coral Reef Symposium, Guam
- 22-23**  
147th Western Pacific Regional Fishery Management Council meeting, Saipan, CNMI
- 25-26**  
147th Western Pacific Regional Fishery Management Council meeting, Guam

## April

- 13**  
Hawaii Advisory Panel meeting, Honolulu
- 14-15**  
Hawaii Plan Team meeting, Honolulu
- 16**  
Hawaii Regional Ecosystem Advisory Committee meeting, Honolulu
- 19**  
American Samoa Advisory Panel meeting, Pago Pago, American Samoa
- 20**  
American Samoa Plan Team meeting, Pago Pago, American Samoa
- 21**  
American Samoa Regional Ecosystem Advisory Committee meeting, Pago Pago, American Samoa
- 28-30**  
Pelagic Plan Team meeting, Honolulu

## May

- 18-20**  
Councils Coordinating Committee meeting, Alaska

## June

- 1-3**  
Pacific Congress (PACON), Hilo, Hawaii

## 8-10

Capitol Hill Ocean Week, Washington, DC

## 23-25

104th Scientific and Statistical Committee meeting, Honolulu

## 28-July 1

148th Western Pacific Regional Fishery Management Council meeting, Honolulu

## July

### 7-9

International Pacific Marine Educators Network conference, Fiji

### 19-23

National Marine Educators Association conference, Tennessee

## October

### 5-7

105th Scientific and Statistical Committee meeting, Honolulu

### 10

Hawaii Fishing and Seafood Festival, Honolulu

### 12-15

149th Pacific Regional Fishery Management Council meeting, Honolulu

**ORDER YOUR MARINE DEBRIS POSTER**  
For details on ordering a free copy of this 12" x 18" marine debris poster and other Council outreach materials, please read the article on page 17.

