

# PACIFIC ISLANDS FISHERY NEWS

NEWSLETTER OF THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

SUMMER 2009

## COUNCIL AGREES ON 2009-2010 MHI BOTTOMFISH TAC

### TAKES ACTION ON BIGEYE TUNA QUOTA AND OTHER ITEMS

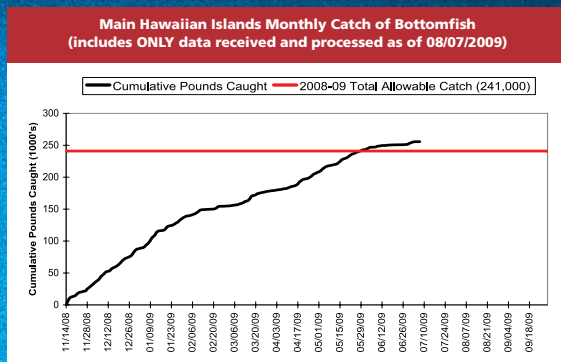


Figure 1

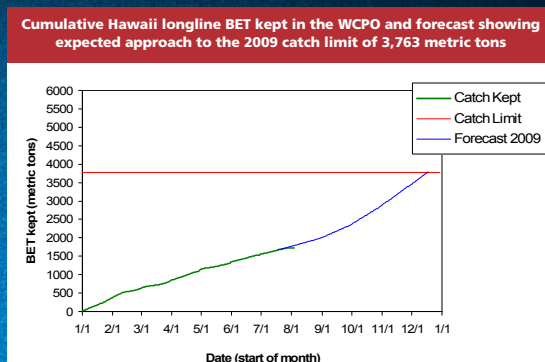


Figure 2

Figure 1: The preliminary monthly summary data provided in the graph were compiled from catch reports of onaga, opakapaka, ehu, gindai, kalekale, lehi and hapuupu submitted to the Hawaii Division of Aquatic Resources by Hawaii's licensed commercial fishermen.

Figure 2: This Aug. 5, 2009, graph from the NMFS Pacific Islands Fisheries Science Center indicates how much bigeye tuna (BET) has been caught by the US longline fishery (including Hawaii and California) in the Western and Pacific Ocean (WCPO) in 2009 (green) and what the fishery is expected to catch over the next several months.

The Western Pacific Regional Fishery Management Council held its 145th meeting on July 22-25, 2009, at the King Kamehameha Beach Hotel in Kailua-Kona, Hawaii. Final action was taken on the 2009-2010 total allowable catch (TAC) for the main Hawaiian Islands (MHI) bottomfish fishery, and preliminary action was taken on several other key issues. Decisions made by the Council are transmitted to the US Secretary of Commerce for final approval.

The Council recommended a TAC of 254,050 pounds for the upcoming MHI bottomfish season, which runs Sept. 1, 2009, to Aug. 31, 2010. The TAC applies to commercial catches of opakapaka, onaga, ehu, kalekale, gindai, lehi and hapuupu. It is based on analysis of the MHI bottomfish subpopulation by the Council's Scientific and Statistical Committee (SSC) and is an increase from the 2008-2009 TAC of 241,000 pounds. If the TAC is reached prior to the end of the season, fishing for the seven species is closed for all MHI fishing sectors, including recreational and subsistence. This scenario occurred during the current 2008-2009 season, causing the MHI fishery to close on July 6, 2009 (see figure 1). The Northwestern Hawaiian Islands (NWHI) bottomfish fishery operates under a separate quota and remains open.

Regarding management of bigeye tuna, the Council addressed potential amendments to the Pelagics Fishery Management Plan (FMP) to ensure efficient operations of the US longline fisheries managed by the Council while adhering to quotas set by international regional fishery management organizations. Pacific tuna catches are subject to the international management measures of the Western and Central Pacific Fisheries Commission (WCPFC) in the Western and Pacific Ocean and the Inter-American Tropical Tuna Commission (IATTC) in the Eastern Pacific Ocean. Under the WCPFC, the Hawaii longline fishery, along with one vessel operating out of California, is limited to 3,763 mt of bigeye tuna annually in 2009, 2010 and 2011. This quota represents a 10 percent reduction in the Hawaii catch in the Western and Central Pacific Ocean from 2004, which is the WCPFC baseline (see page 6 for more on the WCPFC measures). Figure 2 shows that the 2009 WCPFC quota for the US longliners may be reached before the end of the year. Under the

IATTC, the 2009 Hawaii longline bigeye tuna quota for vessels greater than 24 meters in length is 500 mt from the Eastern Pacific Ocean.

As Participating Territories to the WCPFC, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI) have bigeye catch limits of 2,000 mt each, and catch limits of bigeye don't apply if they are undertaking responsible fishery development. Utilization of these bigeye limits through the implementation of domestic chartering arrangements has been addressed by the WCPFC but has so far been precluded by the US territories due to the current regulatory structure of the Pelagics FMP. The Council will take final action at its October 19-23, 2009, meeting in Honolulu on such amendments to the Pelagics FMP as may be necessary to support fishing development in the US territories and more effectively utilize these limits, such as allowing US Participating Territories to enter into agreements and arrangements with US fishing vessels and US fishing entities.

The Council additionally recommended that the National Marine Fisheries Service (NMFS) modify its proposed rule on the WCPFC catch limit for bigeye tuna by longline fisheries in 2009-2011 so it is consistent with the established practice where catch is attributed to the fishery for which a vessel is permitted rather than its landing location. A fisherman noted during public testimony that Hawaii permitted longline vessels, finding themselves closer to the US West Coast than Honolulu, have landed in California with the catch attributed to Hawaii.

At its October 2009 meeting, the Council will consider additional amendments to the Pelagics FMP for the Hawaii longline fishery, such as trip limits or a temporary closure based on a percentage of the quota being landed. The Council will also work with NMFS to explore the feasibility of a catch share program for the Hawaii longline fishery. Such a program could give specified percentages of a quota or TAC to individual fishermen, fishing vessels or other entities, usually based upon their historical catches. Percentages of the TAC can also be allocated for other purposes, such as community development and precautionary measures. (story continued on page 2)

# COUNCIL TAKES ACTION (continued from page 1)

Preliminary action and decisions on other major items at the 145th Council meeting included the following:

**Hancock Seamount Groundfish:** As a preliminary preferred alternative, the Council recommended the establishment of the Hancock Seamount as an ecosystem management area in which fishing for armorhead and other seamount groundfish would be prohibited. Located in the northernmost part of the NWHI, the Hancock Seamount was overfished by foreign fleets prior to the Fishery Conservation and Management Act of 1976, which provided federal management of the area. Since that time, the Council has placed the fishery under a continuous series of moratoria. The proposed ecosystem management area would be a control site for scientific research on seamount fisheries. An ambitious research plan is being developed by NMFS

in consultation with the Council and the emerging international North Pacific Regional Fishery Management Organization to rebuild the armorhead stock throughout its range. The vast majority of the armorhead stock is found outside of US jurisdiction. The Council is expected to take final action on this issue at its March 2010 meeting.

**Pacific Marine National Monuments:** As its preliminary preferred alternative, the Council recommended defining non-commercial fishing permitted in the Pacific Remote Island, Rose Atoll and the Islands Unit portion of the Mariana Trench Marine National Monuments as "fishing conducted for sustenance; recreational; non-commercial; traditional; indigenous; culturally significant subsistence, cultural or religious uses; or for other culturally significant events, with sales or barter/trade of catch allowed to cover costs but not to provide profits to participants" and to require federal and/or local permits and catch reports for all fishing activities in the monuments. The Council will take final action at its March 2010 meeting. (See page 4 for more.)

**Cross Seamount and NOAA Weather Buoys:** The Council will review fishery data as part of the process to consider a Cross Seamount TAC for both tuna and monchong. The Council determined that a limited entry program is not warranted at this time for fisheries operating at these Hawaii fishing grounds. (See page 11 for more on this fishery.)

**Shortlines in the MHI:** The Council recommended that management measures be considered for shortlines, which are currently allowed to operate within the MHI longline area closure (from the shore out to 50 or 75 miles depending on the location and season). Longlines measure over 1 mile in length, while shortlines are shorter than 1 mile in length. The Council will review management alternatives at its October 2009 meeting.

**Aquaculture:** The Council directed staff to draft an amendment to the Council's Aquaculture Policy to include requirements for the tracking of cultured stocks through tagging or equivalent methods for accountability in the event of fish escapes from aquaculture facilities. The Council is expected to take action on this measure at its October 2009 meeting.

**Farallon de Medinilla (FDM):** The Council recommended that the US Department of Defense reconsider its proposed extension of the current fishing area closure around FDM from 0 to 3 miles offshore during military training exercises to 0 to 10 miles offshore on a permanent basis. The Council also

recommended that the Defense Department consider opening waters around FDM to seasonal fishing during the calm season (March-June) and provide more notification of area closures for live fire training through additional media outlets in both Guam and CNMI. (See page 3 for more on this issue.)

**US Military Buildup on Guam:** The Council recommended that NMFS investigate the military buildup impacts to local fishing communities and develop a mitigation and compensation plan, including fish aggregation device (FAD) and fishery development programs, to assist those affected. About 8,000 US Marines and 9,000 dependents are expected to relocate to Guam by 2014. The military buildup will completely transform the US territory as the current population of approximately 170,000 jumps to a projected 225,000 in a few short years. Included among the 55,000 additional people will be workers to develop needed infrastructure, including thousands of immigrants expected to come principally from Asian countries, allowed to work temporarily in Guam and CNMI through a special immigration exemption approved by Congress.

**Guam FADs:** The Council recommended that the NMFS Pacific Islands Fisheries Science Center assist the Guam Department of Agriculture in planning the appropriate location of additional FADs with respect to bathymetry, currents and proximity to boat ramps and small boat harbors.

**American Samoa Recreational Fisheries:** The Council recommended that the American Samoa Department of Marine and Wildlife Resources consider establishing a voluntary recreational fisheries logbook program for boat-based recreational fishing.

**Research:** The Council endorsed a variety of cooperative research projects and recommended that gear research in American Samoa to minimize sea turtle interactions focus on the impact of larger hooks and larger bait on albacore catch rates. The Council also recommended that a comprehensive proposal be developed for a large female blue marlin tagging study at Kona, Hawaii, and elsewhere. This recommendation was an outcome of the Council's Fishers Forum "Marlin on the Menu" held in conjunction with the 145th Council meeting and the 50th Hawaiian International Billfish Tournament.

**Seafood Labeling:** The Council directed staff to continue investigating the issue of name recognition of local Hawaii fish and the mislabeling of imported fish with Hawaiian names.



## PACIFIC ISLANDS FISHERY NEWS

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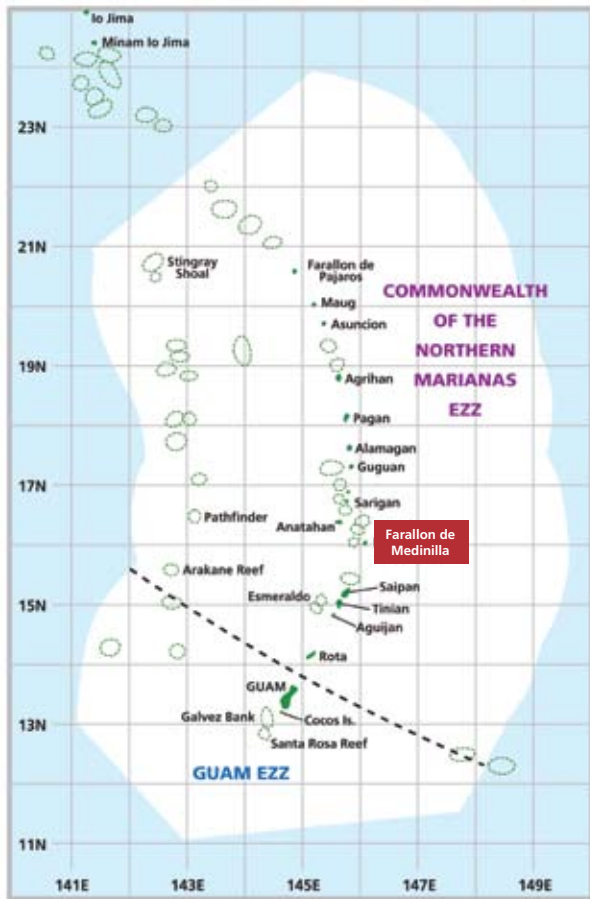
**Kitty M. Simonds**



# NAVY PROPOSES CNMI TRAINING AREA EXPANSION AROUND FDM

In January 2009, the US Navy released a Draft Environmental Impact Statement (DEIS) on the Marianas Training Range Complex (MIRC). In that DEIS, the Navy's preferred alternative would be to expand the MIRC as well as establish a permanent 10 nautical mile (nm) closure around Farallon de Medinilla (FDM) in the Commonwealth of Northern Mariana Islands (CNMI).

In its comments on the DEIS, the Western Pacific Regional Fishery Management Council expressed its lack of support for a permanent closure around FDM. The island is 54 nm north of Saipan and an important fishing area for local Saipan and Tinian residents, especially for the regill emperor, or *mafute*. The proposed closure would reduce community access to a culturally significant resource and likely reduce the availability of locally caught fresh fish. The Council supports maintaining the status quo, which is a periodic 3 nm closure around FDM during military training activities and bombing exercises.



The Council also commented that the DEIS does not address inshore and offshore seasonal fishing patterns and how carrying out training activities under the Navy's preferred alternative (and all alternatives) may impact the people in Guam and CNMI. Furthermore, seasonal weather conditions on Guam often allow fishing only in wind-protected areas, and some of the best fishing areas are already controlled by the Navy (e.g., Orote Point). Local Guam fishermen have voiced concern that sometimes these

areas are closed without adequate notice. Fishermen are then forced to travel around these areas, which can burn fuel and expose fishermen to dangerous sea conditions for which they may not be prepared.

In addition, the DEIS does not address the issue of community consultation and potential for community participation in the management of the MIRC. The combined effect of the recently established Marianas Trench Marine National Monument and the proposed expanded scope of the MIRC results in a significant percentage of land and ocean being controlled by the federal government. The Council commented that the Navy should consider establishing a Marianas community advisory committee that would advise the Navy on community issues associated with the ongoing operation of the MIRC.

At the Council's 145th meeting in Kailua-Kona, Hawaii, in July 2009, a Navy representative delivered a presentation and stated that FDM will be a 10-nm closure during training and not a permanent closure. He also said that the Navy will do a better job notifying the public.

According to the Navy's website ([www.marianasrangecomplexeis.com/default.aspx](http://www.marianasrangecomplexeis.com/default.aspx)) the Final EIS is expected to be available in fall of 2009 and the Record of Decision expected by winter 2009.

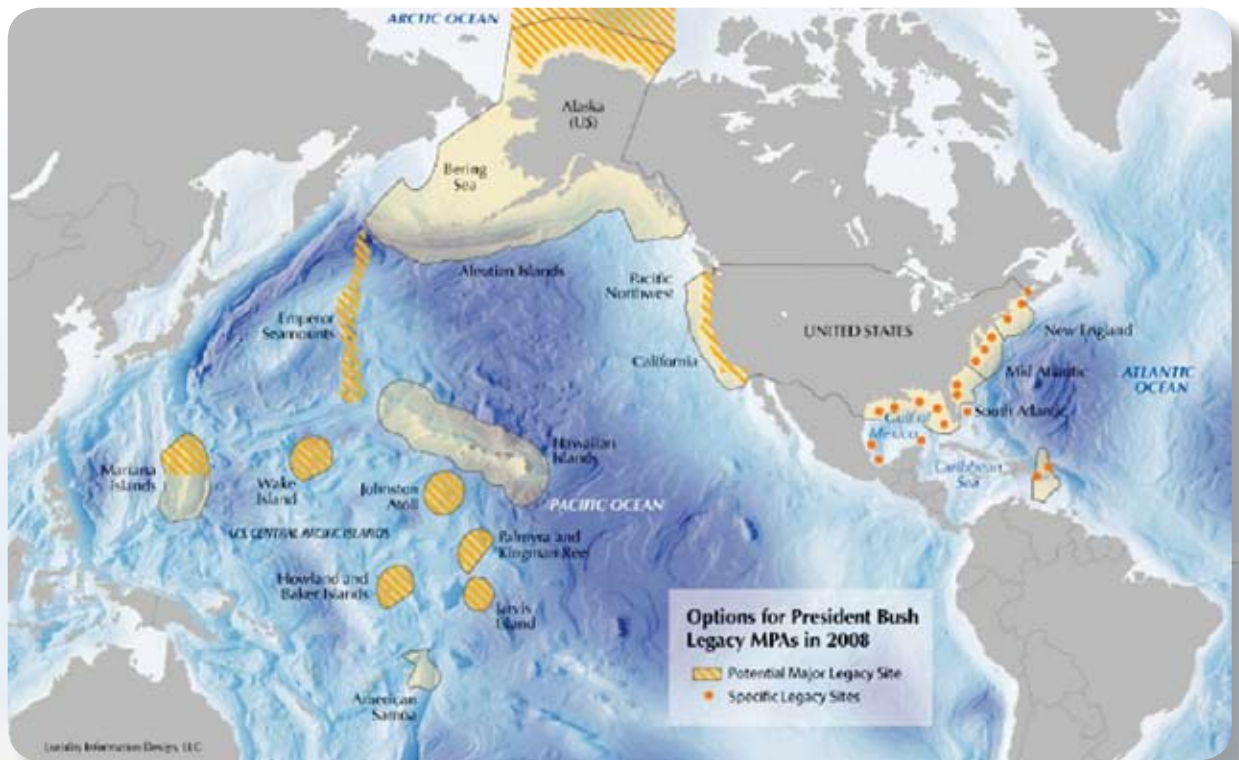
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# NEW MARINE MONUMENTS CLOSE MORE COMMERCIAL FISHING GROUNDS

Pew Environment Group presented this map during its campaign to establish a Blue Legacy for President Bush. In the end, only the MPAs proposed for the US Pacific islands were proclaimed, due to strong reactions from politicians, recreational fishermen and others in the continental United States. Pew continues its campaign today to convince President Obama to enlarge the scope and restrictions of the new monuments, which currently prohibit most commercial fishing while allowing for cultural, indigenous, subsistence and recreational fishing.



**On Jan. 6, 2009, President George W. Bush** issued Proclamations 8335, 8336 and 8337 establishing three new marine national monuments in the Western Pacific Region, encompassing 195,555 square miles. These monuments were established through the Antiquities Act “for the care and management of the historic and scientific objects therein.” Using the Antiquities Act instead of the Magnuson or Sanctuaries Act allowed President Bush to establish the monuments without a proposed rule or environmental analyses available for public review and comment.

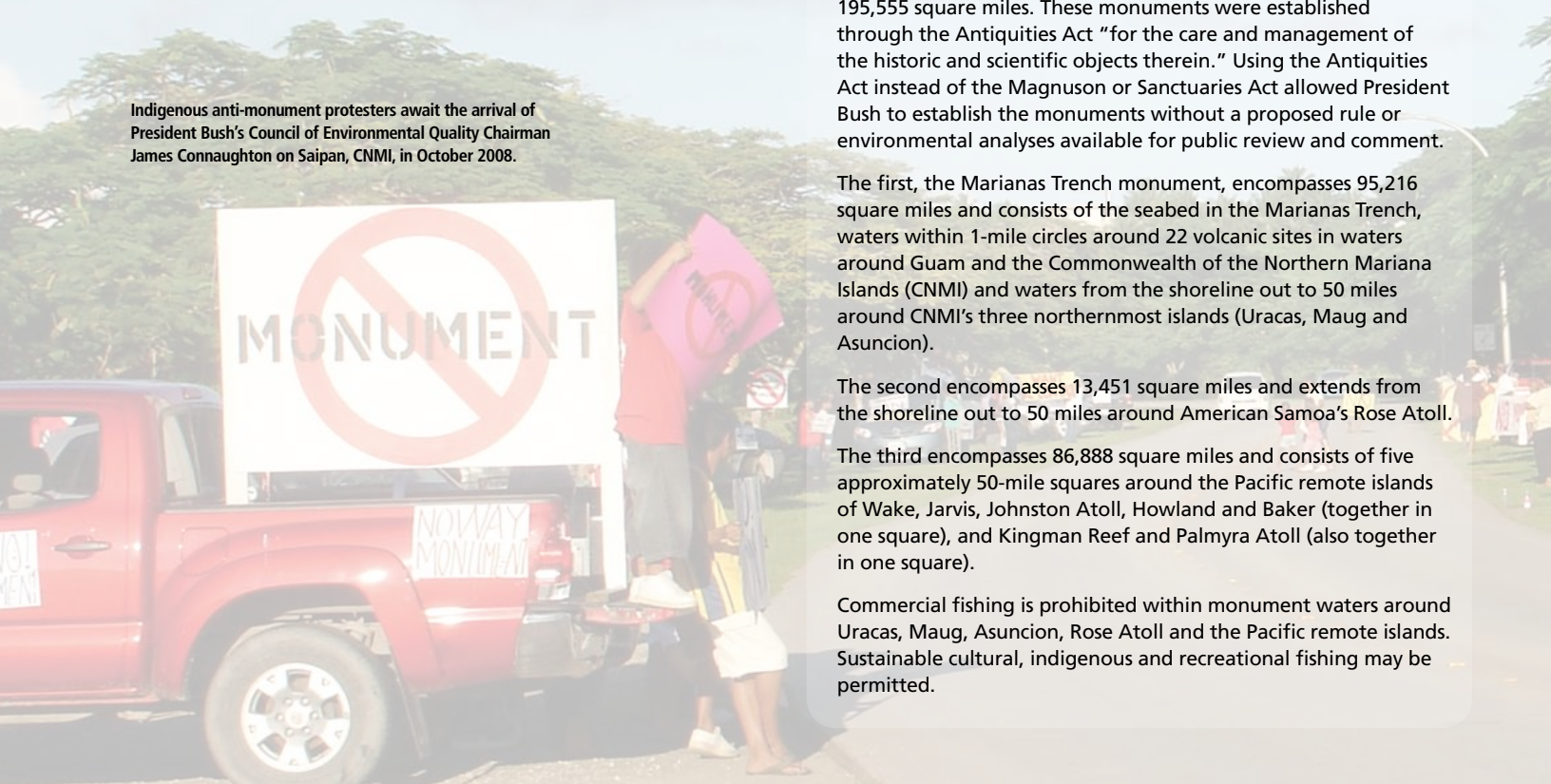
The first, the Marianas Trench monument, encompasses 95,216 square miles and consists of the seabed in the Marianas Trench, waters within 1-mile circles around 22 volcanic sites in waters around Guam and the Commonwealth of the Northern Mariana Islands (CNMI) and waters from the shoreline out to 50 miles around CNMI’s three northernmost islands (Uracas, Maug and Asuncion).

The second encompasses 13,451 square miles and extends from the shoreline out to 50 miles around American Samoa’s Rose Atoll.

The third encompasses 86,888 square miles and consists of five approximately 50-mile squares around the Pacific remote islands of Wake, Jarvis, Johnston Atoll, Howland and Baker (together in one square), and Kingman Reef and Palmyra Atoll (also together in one square).

Commercial fishing is prohibited within monument waters around Uracas, Maug, Asuncion, Rose Atoll and the Pacific remote islands. Sustainable cultural, indigenous and recreational fishing may be permitted.

Indigenous anti-monument protesters await the arrival of President Bush’s Council of Environmental Quality Chairman James Connaughton on Saipan, CNMI, in October 2008.





At its 144th meeting, held March 24-26, 2009, in American Samoa, the Western Pacific Regional Fishery Management Council reviewed the proclamations and made the following recommendations:

- That the Departments of Commerce (DOC) and the Interior (DOI) develop a research program designed to understand the various ecosystem-related impacts associated with Marine National Monument designations in the Pacific.
- That DOC and DOI provide access to the monuments to local government agencies for the purpose of conducting research germane to local fisheries management and stock assessment needs.
- That Council staff, the National Marine Fisheries Service (NMFS) Pacific Islands Regional Office and US Fish and Wildlife Service staff work with the Guam, American Samoa and CNMI governments on the development of regulatory definitions for sustenance, subsistence, recreational, traditional indigenous, and other definitions as appropriate for fisheries management in the newly established monuments.

The Council's Scientific and Statistical Committee had previously reviewed the areas of the monuments and noted that they are not strongly underpinned by science in terms of their uniqueness from the perspective of biodiversity. The richest area for reef fishes (>1,000 species) is the renowned Coral Triangle, which includes eastern Indonesia, Sabah (Malaysia), Philippines, Papua New Guinea and the Solomon Islands. Species diversity drops off as one travels eastwards and northwards from the Coral Triangle. Species diversity is lowest in the northern islands of the Marianas Archipelago. *Micronesian Reef Fish* lists 835 reef fish species in the southern Marianas (Guam to Saipan) versus only 424 reef fish species in the northern islands of the Mariana chain, which includes the three monument islands.

The three new monuments are not included in the list of 225 marine protected areas (MPAs) currently incorporated into the National System of MPAs. However, even without their inclusion, the US Pacific islands already account for 78 percent of the area in the national MPA system (see pie chart). Furthermore, nearly all of the areas considered no-take in the system—about 25 percent of the national system's total MPA area—is in the US Pacific islands. The vast majority of the no-take area is within the 139,797 square miles of the Papahānaumokuākea Marine National Monument in the Northwestern Hawaiian Islands (NWHI). The current limited entry program in the NWHI allows eight vessels with a maximum length of 60 feet to land a very conservative total allowable catch of bottomfish. Under presidential executive order, this fishery—which has supplied half of the local bottomfish to Hawaii—will close in 2011.

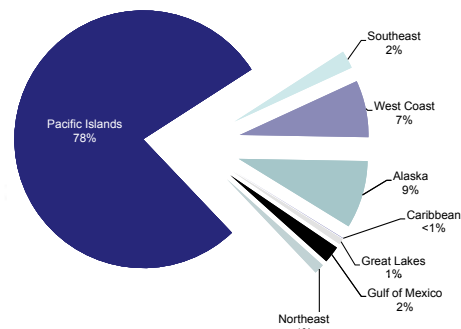
The significant loss of fishing areas available to commercial fishermen in Hawaii and the CNMI due to the new and previously existing marine national monuments can be counterproductive to sustainable fishery goals. Reduction of available fishing areas often leads to increased fishing pressure in other areas.

The Hawaii longline fishery currently fishes around Palmyra, Kingman and Johnston Atolls. The US purse seine fishery operates within the Pacific remote islands, and CNMI fishermen have harvested in the three northern islands of their island chain. Additionally, nine troll and handline permits, four bottomfish permits and four lobster permits for the PRIA have been issued by NMFS.

Indigenous people account for 20 to 90 percent of the US Pacific Island populations, depending on the island area. US Pacific islanders consume three times the national average of seafood.

The Council also expressed concern that many non-fishing activities such as military operations, tourism and research that have or can have an adverse impact on the monument resources will be allowed, while well-regulated domestic commercial fisheries are being restricted even when they have no demonstrated adverse impacts on these resources.

## Percent of U.S. MPA Area by Region



The current national system of MPAs encompasses 183,000 square miles with 78 percent of the area in the US Pacific islands, according to the April 21, 2009, presentation by the National Marine Protected Areas Center to the MPA Federal Advisory Committee. The system does not include the three new marine national monuments in the US Pacific islands, which comprise 195,555 square miles. For more, visit <http://mpa.gov>.

## PUBLIC DOESN'T SUPPORT TOTAL OCEAN BANS

### BELIEVES IN REASONABLE REGULATION TO ACCOMMODATE FISHING

**A national opinion poll reveals** that the public strongly wants the ocean to be protected, but not with total marine closures. Respondents expressed a reluctance to place the ocean off limits to human use if those areas and the resources can be used sustainably. The public supports placing areas off limits to all human use only if it is to protect rare and fragile habitats where no sustainable use is possible.

Researchers also found that the level of support for both commercial and recreational fishing remains strong. US residents support legal recreational fishing in National Forests (80%), National Parks (78%) and wilderness areas (72%). Respondents also agreed (71%) that some change to the natural biodiversity in US ocean waters is acceptable in exchange for a continued food supply through fishing and shellfish fishing. Moreover, after being informed that approximately 85% of seafood consumed in the US is imported, the majority of the survey respondents (89%) said it is important to them that the US maintains its ability to supply seafood to US residents rather than depend entirely on imported seafood; most of them (70%) rated this as very important.

The nationwide survey results are directly relevant to the new interest in marine spatial planning, the federal system of Marine Protected Areas, the upcoming Congressional reauthorization of the National Marine Sanctuaries Act, the management review of individual national marine sanctuaries and various local marine life protection initiatives. The study was conducted by the internationally known polling firm Response Management of Harrisonburg, Virginia. It can be viewed at [www.alliancefisheries.com/pub\\_html/html/Reports.html](http://www.alliancefisheries.com/pub_html/html/Reports.html).

# SCIENTISTS QUESTION EFFECTIVENESS OF NEW TUNA MEASURES

In December 2008, the Western and Central Pacific Fisheries Commission (WCPFC) adopted new measures for the years 2009-2011 to reduce the impact of fishing on bigeye and yellowfin tuna in the Western and Central Pacific Ocean. Bigeye, the species of most concern in the Pacific, is not overfished as the stock biomass is still higher than the biomass at maximum sustainable yield (MSY). However, it is subject to overfishing. In other words, MSY cannot be sustained at current fishing levels.

Bigeye is the principal target of many longline vessels in the Pacific. The catch of this fishery alone, about 100,000 mt, is equivalent to the MSY catch of this species. The longline catch comprises larger juvenile and adult bigeye for the sashimi and fresh fish trade. However, incidental purse seine catches of bigeye have been increasing over the past decade (figure 1). This is due to escalating use of fish aggregating devices (FADs) (figure 2), deeper setting nets and increased capacity of the purse seine fleet. The majority of the purse seine catch of bigeye, about another 100,000 mt, is small juvenile fish destined to be canned.

The new WCPFC measures focus on limiting purse seine effort on FADs and reducing longline catches by 30 percent phased in over three years (10 percent each year). The longline measures do not apply to Small Island Developing States (SIDS) and Participating Territories undertaking responsible development of their domestic fisheries. For longline fisheries landing only fresh fish and less than 5,000 mt, only the 2009 reduction applies. Thus, the US fleet of longline vessels in Hawaii will be limited to an annual catch of about 3,763 mt in the WCPFC convention area for 2009-2011. This represents a 10 percent reduction of this fishery's 2004 catch of 4,181 mt, which has been this fishery's WCPFC bigeye quota for the past three years.

According to reports presented at the WCPFC Scientific Committee meeting, Aug. 10-21, 2009, in Port Vila, Vanuatu, current projections show that the new measures adopted by the WCPFC are predicted to result in little if any reduction in bigeye tuna fishing mortality from the 2007-2008 levels. The main reasons for the lack of effectiveness of the measures are (i) the reductions in longline catch do not result in the required 30 percent reduction in fishing mortality on adult bigeye tuna from the 2001-2004 level; (ii) the increase in purse seine effort allowed under the measures, and the increase in purse seine catchability (fishing mortality per unit effort) that has occurred since 2001-2004, is not sufficiently offset by the FAD and high sea pocket (HSP) closures to reduce purse seine fishing mortality below 2001-2004 average levels; and (iii) the exclusion of archipelagic waters, which encompasses most of the fishing activity of the Indonesian and Philippines domestic fleets and significant amounts of purse seine effort in Papua New Guinea and Solomon Islands, from the measure effectively quarantines an important source of fishing mortality on juvenile bigeye tuna. The WCPFC will meet Dec. 7-11, 2009, in Papeete, Tahiti, to review recommendations from its Scientific Committee and other advisory bodies. For more, go to [www.wcpfc.int](http://www.wcpfc.int).

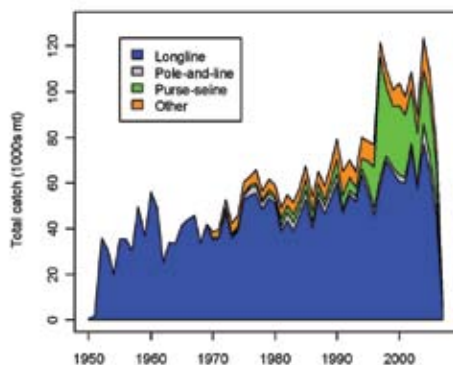


Figure 1: Total annual catch of bigeye tuna from the Western and Central Pacific Ocean (courtesy of Secretariat of the Pacific Community)

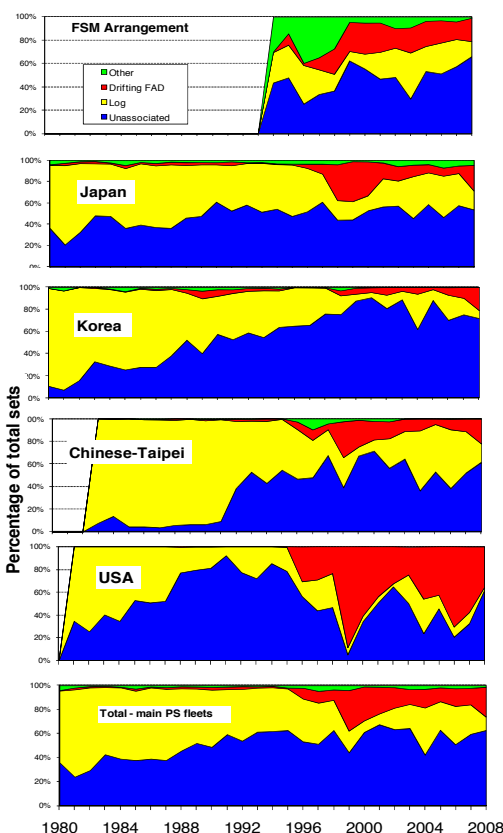


Figure 2: Percentage of total sets by school type for the major purse-seine fleets in the WCPFC convention area (Williams P and P Terawasi. Overview of Tuna Fisheries in the Western and Central Pacific Ocean, including Economic Conditions-2008)

# NEW WCPFC MEASURES

## PURSE SEINE

- High seas effort to remain  $\leq$  baseline (except SIDS and participating territories)

## 2009

- EEZ waters of countries that are Parties to the Nauru Agreement (PNA) to remain  $\leq$  baseline through a vessel day scheme (VDS)
- FAD fishing without an observer on board banned in EEZ waters between 20 deg N and 20 deg S from Aug. 1 to Sept. 30
- FAD fishing without an observer on board banned on high seas between 20 deg N and 20 deg S from Aug. 1 to Sept. 30 OR, optionally, if the country can demonstrate the existence of a strong port monitoring program, reduced catch of bigeye by at least 10% relative to baseline
- 20% observer coverage

## 2010-2011

- For PNA countries: 1) limit effort in EEZ waters to 2004 level through VDS; 2) ban FAD fishing in EEZ waters from July 1 to Sept. 30; 3) retain all catch; and 4) require vessels with access to EEZ waters to not fish in high seas pockets surrounded by PNA EEZ waters
- On high seas and in EEZs of non-PNA members: FAD fishing without an observer on board banned Aug. 1 to Sept. 30
- High seas pockets (HSP) of PNA EEZ waters: Closed starting Jan. 1, 2010, unless otherwise decided in 2009
- 100% observer coverage on vessels operating between 20 deg N and 20 deg S

## OTHER:

- Prepare and submit FAD management plans
- Engage in research to mitigate juvenile tuna catch
- Retain all catch (some exceptions)
- Mandatory on-board observer starting Jan. 1, 2010

## LOGLINE

- Reduce bigeye catches by 10% in 2009, 20% in 2010, and 30% in 2020, relative to baseline, except:
  - 2,000 mt/yr limit for WCPFC member countries that caught less than 2,000 mt/yr during baseline
  - no limit for SIDS and participating Territories
  - no reductions for fresh-fish fisheries catching no more than 5,000 mt/yr following the 10% reduction in 2009
- Keep yellowfin catches to  $\leq$  baseline

## OTHER FISHERIES

- keep fishing capacity  $\leq$  baseline levels





# MARIANAS CELEBRATE TRADITIONAL LUNAR NEW YEAR

**Indigenous communities** in Guam and the Commonwealth of the Northern Mariana Islands (CNMI) are reviving traditional uses of lunar calendars. The two US territories that comprise the Mariana Archipelago have created separate 2009 lunar calendars featuring the traditional lunar months and moon phases in their indigenous Chamoru and Refaluwasch languages. The calendars also feature traditional fishing almanacs for the two cultures, the tides and moon rise and set times for Saipan and Hagatna, and the winning entries of local student art contests focused on theme of the seasons of the moon and their relationship to the people, land and sea of the Mariana Archipelago. The calendars and student art contests were initiated and sponsored by the Western Pacific Regional Fishery Management Council, with funding support from the NOAA Coral Reef Conservation Program. The calendars are available for download from the Council's website at [www.wpcouncil.org/education](http://www.wpcouncil.org/education).



"The ancient Chamoru depended on the phases of the moon for their livelihood, and it was based on the thirteen months that begin with Tumaiguini, which falls this year on January 26," says Peter R. Onedera, chairman of the committee that worked to create the Guam calendar.



The 2009 lunar calendar project culminated with the first-ever Lunar New Year festival on Guam, held January 24, at the Guam Fisherman's Cooperative at the Hagatna Boat Basin. During the all-day event, the Guam calendar was distributed to the public. Participants also enjoyed exhibits, crafts and entertainment that were presented in the Chamoru language.



A major highlight of the event was a chinahan, an ancient Chamoru method of cooking underground. The public was invited to the preparation of the chinahan when fish and starch crops such as taro, yams, breadfruit, tapioca and sweet potatoes were placed in the earthen oven and at the unearthing before an evening dinner was served to those who attended.

The festival and publication of the calendars publicly distributed at the event were sponsored by the Bank of Guam, BankPacific, Docomo Pacific, DZSP, Ginen I Hila' I Maga'taotao Siha Association, Guam Department of Parks and Recreation, Guam Fisherman's Cooperative Association, Guam Gallery of Art, Kloppenburg Enterprises, Pacific Daily News, Pepsi Cola Bottling Company, South Pacific Petroleum Corporation, University of Guam's Department of Chamorro Affairs and the Western Pacific Regional Fishery Management Council.

## DO HAWAII LONGLINE FISHERIES PRODUCE SUSTAINABLE SEAFOOD?

**Sustainable wild-caught seafood** can only come from responsible fisheries. *But what makes a fishery responsible?*

The 1995 United Nations Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries remains the only global standard for responsible fisheries. The code lists principles that were translated into 283 detailed criteria for sustainable fisheries. It sets requirements for fishery management, fishing operations, fishery research, integration with coastal area management and post-harvest and trade.

In 2006, Hawaii's longline fisheries for tuna and swordfish were the first to be assessed against the comprehensive provisions of the Code and scored 93 percent compliance. When re-assessed in 2008, Hawaii longline fisheries received a higher compliance score—94 percent—that in part reflects changes generated by the re-authorization of the Magnuson-Stevens Fishery Conservation and Management Act in 2006 and the evolution of the Western and Central Pacific Fisheries Commission.

High compliance with the Code documents the responsible nature of Hawaii's longline fisheries. The exemplary fishery management system, the fishery research and monitoring activities, the contribution to stock assessments and efforts to address ecosystem impacts make Hawaii's longline fisheries the model for responsible longline fisheries. The assessment provides details on how compliance with the Code is accomplished through the cooperation of NOAA Pacific Islands Regional Office, NOAA Pacific Islands Fisheries Science Center, the Western Pacific Regional Fishery Management Council, the Pelagic Fisheries Research Program, the US Coast Guard and the fishing industry.

High-quality and timely fishery data facilitate adaptive management actions, including measures that have greatly reduced impacts on protected species of sea turtles and seabirds. Hawaii's longline fisheries will continue to be a major source of sustainable wild-caught open ocean seafood.

For more information on this report, contact John Kaneko of PacMar Inc., Honolulu, Hawaii, team leader NOAA Hawaii Seafood Project at phone (808) 735-2602, fax (808) 734-2315 or [johnkaneko@pacmarinc.com](mailto:johnkaneko@pacmarinc.com).





# AMERICAN SAMOA TUNA CANNERY CLOSURE TO IMPACT SOUTH PACIFIC REGION



When Chicken of the Sea closes its cannery in September, StarKist will be the only cannery remaining in the territory.



**The recently announced closure** of Chicken of the Sea (COS) cannery in Pago Pago, American Samoa, in September will have a significant detrimental effect on the territory's economy. American Samoa had a trade deficit of \$179 million in 2005. They imported that much more from the United States, Singapore, Australia, New Zealand and Korea than they exported to their trading partners. Ninety-two percent of American Samoa's economy is based on canned fish exports and federal subsidies. The economic growth over the last several decades has been stagnant largely because per capita income gains were nullified by inflation.

StarKist Samoa is the largest tuna cannery in the world and produces 60 percent of the canned tuna in American Samoa. COS produced the remaining 40 percent. Tuna packing is the largest private employer in American Samoa employing about 4,600 workers. The closing of the COS cannery will lay off about 2,000 workers and increase the territory's unemployment by about 10 percent.

Until the mid-1990s, pelagic fisheries in American Samoa were entirely the preserve of small scale trolling vessels, fishing purely for the domestic market. The presence of the tuna canneries in the territory since the mid-1950s did not spur local fishery development as they were supplied with skipjack tuna from US and foreign purse seine vessels. Then in 1994 a small-scale local longline fishery began. The fishery utilized hand-deployed gear setting about 300 to 600 hooks from outboard-powered, locally built alia catamarans.

These two- to three-man vessels were originally introduced into neighboring Samoa as platforms for bottomfish and vertical longline fishing, but were soon adapted for horizontal longline fishing. Due to the close physical and cultural connections between Samoa and American Samoa, it was not long before this small scale longline technology transferred to fishermen in American Samoa. By the late 1990s there were about 20 alia longliners in American Samoa and up to

200 vessels active in Samoa. All these vessels targeted an abundant albacore resource that was marketed to the two canneries in Pago Pago.

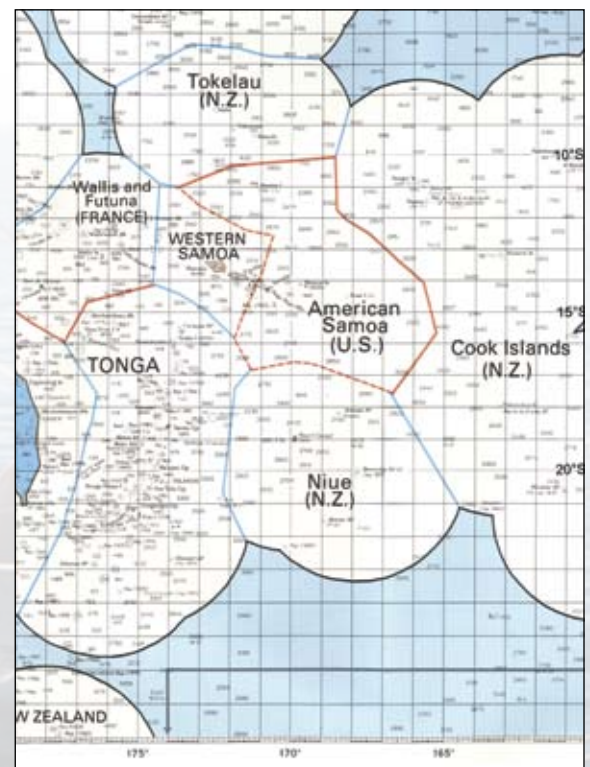
In 2000, the American Samoa fishery underwent a serious expansion with the entry of conventional mono-hull longline vessels measuring 50 to 100 feet in length. At the same time, longline fishing began to expand in countries neighboring or close to the Samoas, including the Cook Islands, Tonga, Fiji and French Polynesia. By the early years of this decade, longline fishing was developing across the South Pacific from Port Moresby to Papeete. Moreover, most fisheries relied on sending albacore to the Pago Pago canneries.

In 2006, the Western Pacific Regional Fishery Management Council convened an international albacore longline fishery workshop in Honolulu with participation from American Samoa, Samoa, Cook Islands, French Polynesia, Niue, Tonga, Fiji, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea, Australia, New Zealand, the Secretariat of the Pacific Community, Forum Fisheries Agency and Western and Central Pacific Fishery Commission. The workshop stemmed from the common desire by all participants to ensure the long-term continuity of their longline fisheries. What was abundantly clear was that across the South Pacific, all countries relied to some extent on marketing their catches to the Pago Pago canneries. This was especially true for Samoa, the domestic fleet in American Samoa and the Cook Islands.

Other countries have better airline connections, so they can also market their other catches such as bigeye and yellowfin tuna. Air traffic to Pago Pago is limited so the canneries are a vital element in the continuity of the fishery.

Recognizing this dependency and vulnerability of the domestic longline fishery to the canneries remaining in Pago Pago, the Council in 2007 supported a review of the fishery and seafood marketing development potentials for American Samoa. The contractor, The Environment Company (TEC Inc.), examined three potential fishery and seafood marketing scenarios that may have success if the right prerequisites could be met: fresh fish export to Hawaii, value-added processing of longline fish and development of a domestic albacore longline marketing cooperative. This was the first step by the Council to assist American Samoa to greater autonomy with their domestic economy: understanding the potentials and obstacles to the development of a fishery and seafood market economy.

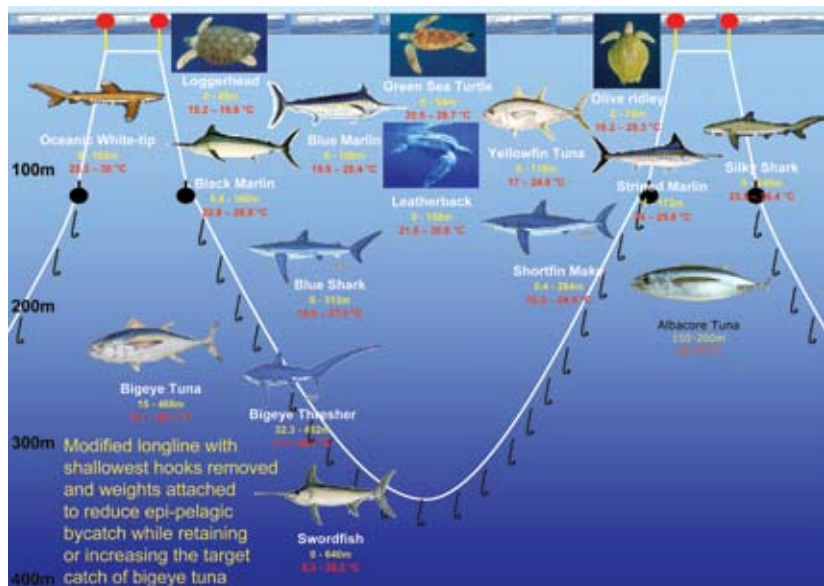
The lack of capital, domestic infrastructure development, and dependable, adequate air freight services will exacerbate America Samoa's economic recovery once the COS cannery shuts down. Thus American Samoa will soon make some difficult decisions on the road to economic development and recovery. The Council is supportive and continues to work with the American Samoa government on fisheries development that will provide for long-term economic growth and stability.



Map showing American Samoa and nearby countries that have relied on the tuna canneries at Pago Pago to market their albacore catches.



# COUNCIL RECOMMENDS MEASURES TO REDUCE AMERICAN SAMOA SEA TURTLE INTERACTIONS



By keeping hooks below 100 meters, fishermen avoid interactions with green sea turtles. (illustration courtesy of NOAA Fisheries)

In March 2009, the Western Pacific Regional Fishery Management Council recommended measures to minimize the American Samoa longline fishery's interactions with green sea turtles by requiring that, for vessels larger than 40 feet in length, hooks be set at least 100 meters deep. Green sea turtles may dive as deep as 100 meters but typically tend to spend most of their time within the upper 50 meters of the water column.

The level of turtle interactions in the American Samoa longline fishery is higher than the allowable take specified in the 2004 biological opinion (BiOp) issued by the National Marine Fisheries Service Pacific Islands Regional Office. During the 18-month period from April 2006 to September 2007, about 8 percent of the sets deployed by this fishery were monitored by observers, and four green sea turtle interactions were reported by the observers. All four green turtles were dead when brought aboard or died before being released. Genetic samples from two of the captured turtles show that one was from stocks nesting in northern Australia and New Caledonia, and one was from stocks nesting in Micronesia and American Samoa. A fifth turtle was observed taken in 2008.



"Turtle-friendly" circle hook size 18/0

During July 2008, the Council had convened several meetings in American Samoa during which the issue of green sea turtle interactions with the Pago Pago-based longline fishery was discussed. Most of the operators of the American Samoa longline fleet participated in these meetings. They were receptive to increasing the distance between hooks and the floats, given that the limited data suggest that this could achieve up to an 80-percent reduction in the interactions with green sea turtles.

The American Samoa fishery uses circle hooks and fish bait, which are proven to reduce sea turtle interactions. However, the hooks used are sizes 13-15, while the size 18 hook is used to reduce loggerhead and leatherback sea turtle interactions in the Hawaii shallow set longline fishery for swordfish. The Council voted in July 2009 to support research on the impacts of larger size hooks and bait on catches of albacore, the target species of the American Samoa fishery.

Purpleback flying squid

## FINAL RULES PUBLISHED FOR PELAGIC SQUID AND DEEPWATER SHRIMP

Pelagic squid and deepwater shrimp fisheries in the exclusive economic zone (EEZ) waters of the Western Pacific Region are small, and these stocks appear healthy. However, the Western Pacific Regional Fishery Management Council recommended a suite of management measures to improve the monitoring and understanding of these species. They include three squid species (*Thysanoteuthis rhombus* or diamondback squid, *Ommastrephes bartramii* or neon flying squid, and *Sthenoteuthis oualaniensis* or purpleback flying squid) and all *Heterocarpus* (deepwater shrimp) species.

The measures have been approved by the Secretary of Commerce and apply to all US EEZ waters in the Region. The notification and observer requirements outlined below came into effect on Dec. 22, 2008, and apply to squid jigging vessels more than 50 feet in length overall.

- Mandatory notification to the National Marine Fisheries Service (NMFS) at least 72 hours before departing on a fishing trip; and
- Federal observer onboard if required by NMFS. In order to carry an observer, vessels must have a current US Coast Guard safety inspection decal. The observers will monitor and tally catches for scientific purposes. They will also record any interactions with marine mammals, sea turtles and seabirds and report any illegal activities witnessed on board the boat. The observers will be paid and insured by NMFS. Vessel operators will be reimbursed for the cost of the food eaten by the observer.

The permit and reporting requirements below are under review by the Office of Management and Budget and are expected to come into effect soon.

### For the squid fishery:

- Mandatory federal fishing permits for vessels larger than 50 feet in length intending to use jigs to fish for pelagic squid; and
- Mandatory federal logbook or participation in the local reporting system

### For the deepwater shrimp fishery:

- Mandatory federal fishing permits for domestic vessels regardless of size; and
- Mandatory federal logbook



For further information on the permit, observer or reporting requirements, please call the NMFS office in Honolulu at (808) 944-2200 or see the final rule published in the *Federal Register* on Nov. 21, 2008.



# PACIFIC SEA TURTLE RESEARCH DATABASE LAUNCHED



**A seven-year effort** to develop a Pacific region database on sea turtle research culminated with the launch of the final version of the Turtle Research and Monitoring Database System (TREDs) on Feb. 17, 2009, at the 29th Symposium on Sea Turtle Biology and Conservation in Brisbane, Australia. TREDs collates and standardizes marine turtle data and is critical to understanding population trends throughout the Pacific.

Over the last few decades, various institutions throughout the Asia-Pacific and the Pacific Islands region have been tagging turtles and collecting a variety of data. While these efforts generated large volumes of information, there was little overall coordination of the work. In

2002, based on recommendations from participants who attended the Western Pacific Sea Turtle Cooperative Research and Management Workshop, the Western Pacific Regional Fishery Management Council began coordinating and supporting the development of TREDs.

Following the launch of an earlier version of the database system in Vanuatu (see Fall 2006 *Pacific Islands Fishery News*), the Council and the Secretariat of the Pacific Regional Environment Program (SPREP) continued to modify the system to ensure proper functionality and usability, leading up to the release of the final version to the global sea turtle research and conservation community. TREDs is now actively used in most of the SPREP member countries, including the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, Tonga, Tuvalu, Vanuatu, Kiribati, French Polynesia, Samoa, Palau, the Federated States of Micronesia, Marshall Islands and Fiji.

The central database for the Pacific Islands region is housed at SPREP in Apia, Samoa. The software is available as a free download for any sea turtle researcher around the world at [www.sprep.org/treds/TREDsnews.aspx](http://www.sprep.org/treds/TREDsnews.aspx)

TREDs can store tag information (flipper, PIT and satellite), nesting beach and foraging ground data, clutch and hatchling information, and biological sampling (such as genetic data). It can systematically inventory tags used per project, generate project-specific and/or site-specific summary reports, and help standardize data collection protocol.

TREDs is a joint initiative of the Council, SPREP, Southeast Asian Fisheries Development Center, the Secretariat of the Pacific Community, the Queensland Environmental Protection Agency, the US National Marine Fisheries Service–Pacific Islands Fishery Science Center and the Marine Research Foundation in Malaysia.



TREDs launch at the International Sea Turtle Symposium in Brisbane, Australia (l-r) Asuka Ishizaki, Council protected species coordinator; Milani Chaloupka, Council Sea Turtle Advisory Committee chair; Sylvia Spalding, Council communications officer; Anne Patricia Trevor, SPREP associate turtle database officer; and Nicolas Pilcher, Marine Research Foundation executive director.

## WORKSHOP ADDRESSES SEA TURTLE BYCATCH IN COASTAL NET FISHERIES



**Growing evidence is indicating** that small-scale artisanal fisheries may be one of the greatest threats to some sea turtle populations. These fisheries use gill nets, pound nets, large fixed fish traps and other static gear that inadvertently catch, tangle and drown the turtles.

The Western Pacific Regional Fishery Management Council co-hosted the three-day *Technical Workshop on Mitigating Sea Turtle Bycatch in Coastal Net Fisheries*, Jan. 20-22, 2009, which made significant strides towards addressing this threat.

Large numbers of turtles, especially North Pacific loggerheads, are caught and killed each

year by pound nets and gillnets. Transferring new gear technology and other mitigation measures from net fisheries where progress has been made to address this problem to similar fisheries in other regions was one of the major objectives of the workshop.

Pound nets are used extensively around the coastal waters of Japan and other parts of East Asia, while gillnets are employed around the Pacific Rim and in the Pacific Islands. The workshop looked at promising solutions from the Atlantic, Indian and Pacific Oceans to minimize turtle catches in both types of gear. For example, while many fisheries use pound nets that have submerged catch chambers in

which captive turtles drown, other pound nets have an open catching chamber where turtles can reach the surface to breathe.

The workshop provided the first opportunity for experts from multiple relevant disciplines to share information from 20 gillnet and pound-net fisheries worldwide. Participants reviewed the assessment status and

mitigation activities of the fisheries; shared information on effective, affordable gear to mitigate sea turtle capture and injury in coastal net fisheries; identified research priorities to advance turtle-friendly gear and fishing methods; and explored the range of tools available to assess, mitigate and manage sea turtle bycatch in artisanal fisheries.

The meeting fostered new partnerships and has effectively advanced the transfer of best practices for bycatch mitigation in artisanal coastal net fisheries.

To obtain a copy of the proceedings, see page 24.



# HAWAII'S OFFSHORE HANDLINE FISHERY

During the past few years, the Western Pacific Regional Fishery Management Council has been considering the need to regulate non-longline pelagic fishing (NLPF). Among the gears employed are handlines, pole-and-lines and shortlines (longlines of less than 1 nautical mile in length). This offshore fishery occurs exclusively in federal waters and is concentrated at the Cross Seamount, located southwest of the Big Island, as well as at NOAA weather buoys 2 and 3 to the south and north of the seamount.



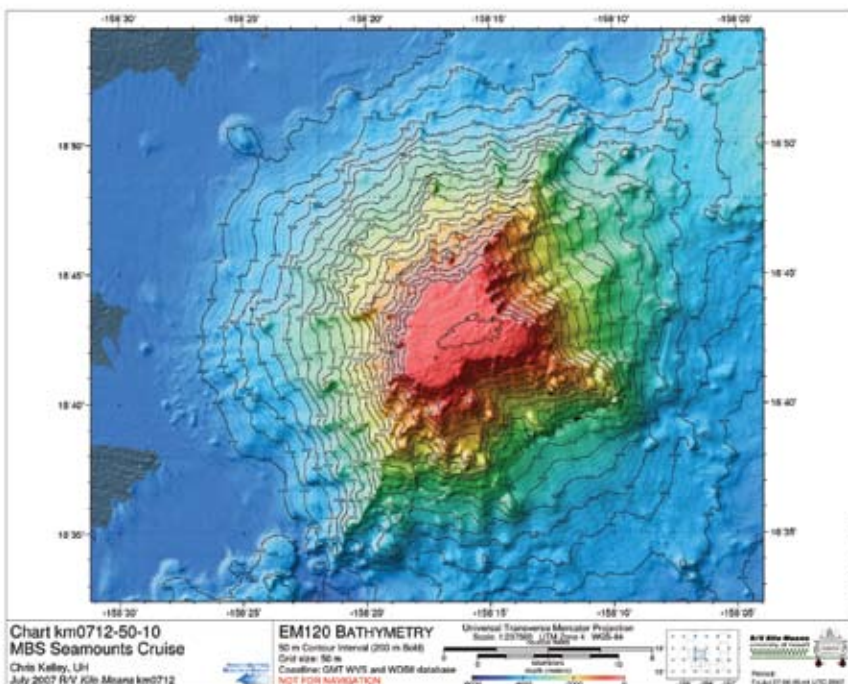
NOAA weather buoys located north and south of Cross Seamount are also key grounds for Hawaii's offshore handline fishery. (photo courtesy of David Itano)

Over the past two decades, other fishers and members of the general public have periodically expressed concern at Council meetings about the catches of juvenile bigeye by NLPF fisheries and the potential impact on fisheries for bigeye closer to shore. Tagging research conducted by the University of Hawaii's Pelagic Fisheries Research Program suggests, however, that the catches of juveniles might have more impact on the longline fishery, since most bigeye move further offshore after feeding on the seamount. In addition, recent

use of shortline gear has resulted in an increase of catches of seamount monchong (*Eumigistes illustris*). This species belongs to a family more typically caught in the open ocean, but it is more closely associated with demersal structures such as seamounts. As such, it may be more vulnerable to depletion when fishing is highly focused as in the NLPF fishery in Hawaii.

Paradoxically, as concerns of the NLPF fishery have surfaced, this fishery continues to decline in size, with landings dropping from a high of over 1.5 million lbs in 2000 to about 300,000 lbs in 2008, and with participation from in excess of 30 fishermen in the 1990s to eight in 2008. However, the fishery has the potential to increase if Hawaii's economy suffers a severe downturn and unemployment increases, as has indeed been the case over the past 12 months due to the global recession.

At its 145th meeting, July 22-25, 2009, in Kailua-Kona, Hawaii, the Council determined that a limited entry program is not warranted at this time for the Hawaii NLPF fishery. The Council is considering a total allowable catch for Cross Seamount.



Above: The non-pelagic longline fishery is concentrated at the Cross Seamount, located southwest of the Big Island, as well as at NOAA weather buoys 2 and 3 to the south and north of the seamount.

## NOAA ASKS MARINERS TO SAFEGUARD DATA BUOYS



Fishing line caught in mooring (NOAA photo)

Offshore data buoys provide meteorologists with critical data for weather and tsunami forecasts. In the past year, a series of incidents have damaged buoys or cut their mooring.

"The damage could put communities at risk from severe weather and has been costly in terms of

repairs and lost data," Jim Weyman, meteorologist-in-charge of the Honolulu Weather Forecast Office and director of the Central Pacific Hurricane Center, told the Western Pacific Regional Fishery Management Council, meeting July 2009 in Kailua-Kona, Hawaii.

Weyman said mariners can help protect these buoys by adhering to the following:

- Never board or tie up to a buoy
- Never fish around or under a buoy
- Give the buoy a wide berth to avoid entangling the mooring or other equipment suspended from the buoy—500 yards for vessels trailing gear and at least 20 yards for all others
- Report any of these activities or the sighting of damaged or drifting buoys to the US Coast Guard at (808) 535-3333.

## GRANTS AVAILABLE FOR FISHERY INNOVATIONS

Each year AusIndustry gives Aus\$2 billion worth of grants and concessions to 10,000 businesses and 80,000 individuals. One of the recent grant recipients was Hans Jusseit, whose invention aims to protect seabirds and turtles during longline fishing. Hans is a



Photo: Australian ABC TV New Inventors

former tuna fisherman and industry chief executive who attended a workshop on this topic sponsored by the Western Pacific Regional Fishery Management Council in Hawaii in 2004 and another workshop in Australia in 2002.

His solution is the Smart Hook. The baited hook is protected by a shield, which is held in place with a biodegradable pin. The pin dissolves once the hook is below the feeding depth of seabirds (25 meters) and turtles (100 meters). Once the pin dissolves, the shield is released and the baited hook is ready for fishing. The shield and the pin are both made of a metal alloy that dissolves leaving no contaminants.

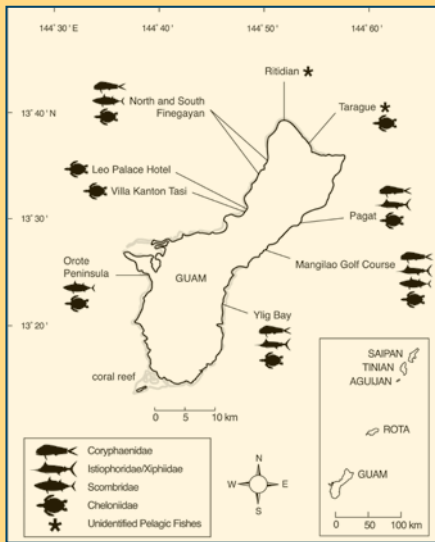
AusIndustry is the Australian Government's principal business program delivery division in the Department of Innovation, Industry, Science and Research. For more information about Smart Hook, contact Hans Jusseit at ahienterprises@optusnet.com.au. For more information about AusIndustry visit [www.ausindustry.gov.au](http://www.ausindustry.gov.au) or email [hotline@ausindustry.gov.au](mailto:hotline@ausindustry.gov.au).



# MAHIMAHI AND MARLIN ON THE MENU IN PREHISTORIC MARIANAS

**Fish bones from archaeological sites** are evidence of the extraordinary fishing skills and good meals enjoyed by the Chamorro people in the Mariana archipelago prior to Western contact. The Chamorro have lived on the islands for at least 3,500 years, or about 3,000 years prior to European contact.

A Pelagic Fisheries Research Program-funded project conducted by the Micronesian Archaeological Research Services (MARS) sent fish bones from archaeological digs on Guam to researchers at the Museum of New Zealand Te Papa Tongarewa (MNZPT) to be identified. Researchers at MNZPT are among the finest in the world at identifying fish species from fish bones in archaeological excavations.



© 2008 Robert Amesbury

and has less reef area. Rota also lacks the large protected west-coast bays and lagoons of Guam and Saipan where extensive reef fishing occurs. The analyses from these two sites on Guam have changed the picture of pelagic fishing in the Marianas during the pre-contact period. It is now clear that there were simply more fish bone analyses for sites on Rota. Fourteen sites in the Marianas have fish bone analyses with pelagic fish remains. Mahimahi is present at nine of them, and marlin, at eight.

This is unusual for Pacific islands. The database of fish remains from archaeological sites at MNZPT contains information on more than 75 tropical Pacific island sites and more than 125 sites in New Zealand, but none of the sites outside the Marianas has mahimahi remains and only one site outside the Marianas has marlin remains. Marlin accounted for less than 1 percent of fish bones at Motupore, Port Moresby, Papua New Guinea. However, there is another part of the Pacific with evidence of pre-contact fishing for mahimahi and marlin. This is the area on either side of the Luzon Strait, which includes southern Taiwan and the northern Philippines. Mahimahi and billfish are among the most common taxa identified from archaeological sites at O-luan-pi (or Eluanbi) on the southernmost tip of Taiwan.

Across the Luzon Strait from Taiwan in the Batanes Islands of the Philippines, mahimahi bones have been recovered from a site on the island of Sabtang. Also the Yami of Botel Tobago, an island off the southeast coast of Taiwan, traditionally fished for mahimahi. Researchers have noted that pre-contact people in both southern Taiwan and the Marianas possessed highly specialized fishing skills not seen in other parts of Oceania. Pelagic fishing skills may be one of the pieces of the puzzle that will help to answer the question of where the people of the Marianas came from.

For more, contact principal investigator Judith Amesbury at [judy.amesbury@gmail.com](mailto:judy.amesbury@gmail.com)

# ACT 39 EXTENDS AHA MOKU TRADITIONAL MANAGEMENT INITIATIVE

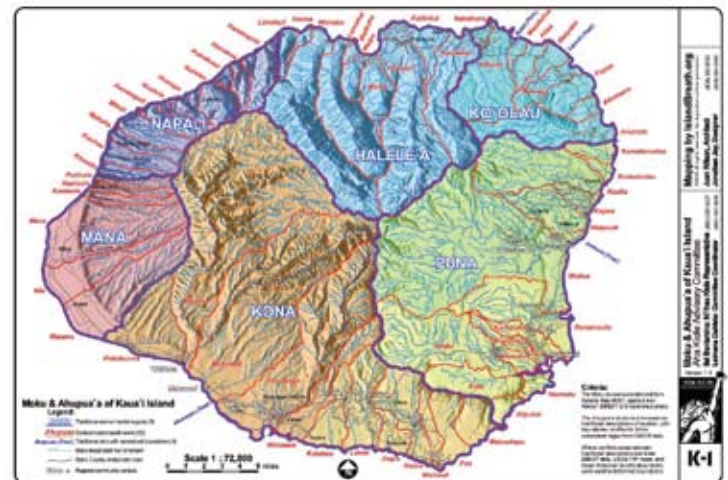
**On April 30, 2009**, Hawaii Gov. Linda Lingle allowed Senate Bill 1108 to pass into law as Act 39 without her signature. Act 39 extends the life of the Aha Kiole Advisory Committee from June 30, 2009, to June 30, 2011. The bill makes no appropriations for the committee to continue its work, but committee members are willing to continue their work without an appropriation.

In fact, the committee has worked the past two years without the State appropriation that was contained in Act 212, which created the committee in 2007. The Hawaii State Legislature had tasked the committee, which was appointed by the governor, to meet with communities to find the best practices for traditional aha moku management of the state's natural resources.

In January 2008 the committee filed its first interim report to the legislature. The report outlined the committee's proposed activities and statewide community meetings for 2008. Despite receiving no funds for its work, the committee met with communities on all the islands and filed their final report to the legislature in 2009. The report made five recommendations:

- Regulatory changes to implement an adaptive management regime;
- Non-regulatory processes to establish a natural resources code of conduct;
- A community consultation process based on the aha moku council model;
- Eligibility criteria based on knowledge and service to participate in the aha moku management structure; and
- Education initiatives based upon community natural resource inventory and community needs.

Act 39 gives the committee additional time to provide further details to the 2009 report and to more fully address the purposes of Act 212. This important work is needed to effectively address the decline of Hawaii's environment and habitat.



During ancient times, each Hawaiian island was divided into moku, and the natural resources within the moku were managed by aha councils. Acts 212 and 39 are helping to revive this management practice. Pictured is Kauai with its six moku.



# FALSE KILLER WHALE RESEARCH RECOMMENDED

A false killer whale from the offshore Hawaii pelagic population  
©Robin W. Baird/www.cascadiaresearch.org



**The Marine Mammal Advisory Committee (MMAC)** of the Western Pacific Regional Fishery Management Council met April 6-7, 2009, in Honolulu to discuss interactions between Hawaii fisheries and marine mammals, particularly the large species of dolphin known as the false killer whale.

False killer whales feed, or depredate, on fish caught in longline fisheries. Consequently, they may become hooked or entangled. According to the 2008 false killer whale stock assessment by the National Marine Fisheries Service (NMFS), an average of about six such incidences occur annually within the Exclusive Economic Zone (EEZ) waters around Hawaii. While not all interactions result in mortality, the false killer whale population around Hawaii may be able to withstand only two to three losses annually from longline fisheries and still maintain a healthy population over the long-term.

The meeting highlighted the need to better understand how false killer whales are interacting with longlines. Preliminary analysis of the observer data conducted by the NMFS suggests that false killer whale depredation on longlines may be an entirely random event, making it difficult to reduce interactions by correlating depredations with specific seasons or locations. As a result, researchers, resource managers and longline fishermen are faced with a challenge to develop creative and cost-effective ways to keep false killer whales away from longlines while maintaining the target catch.

The situation in Hawaii is further complicated by the existence of two separate stocks found within the EEZ—the small near-shore Hawaii insular stock and the larger offshore Hawaii pelagic stock. The Hawaii insular stock corresponds to the population found within the longline exclusion zone, which spans out to 75 miles offshore. Some evidence suggests that this insular stock is showing signs of decline. However, all of the observed Hawaii-based longline interactions are

thought to have occurred with the larger Hawaii pelagic stock. The population trend of the Hawaii pelagic stock is currently unknown.

The false killer whale is not considered threatened or endangered under the Endangered Species Act, nor is it considered depleted under the Marine Mammal Protection Act (MMPA). However, it is protected by the MMPA within US EEZ waters.

## Regarding the Hawaii false killer whale stocks, the MMAC made the following recommendations:

- For each stock, update the US EEZ abundance estimate, additional satellite tagging, photo identification, genetic and acoustic studies, and bycatch.
- Assess the use of shortlines and potential impacts around the main Hawaiian Islands; and monitor and regulate shortline fishing in federal waters.
- Research potential causes of the decline of the Hawaii insular stock, such as undocumented bycatch, ingestion of hooked fish, reduced prey availability, deliberate shootings and pollutants.
- Extend population assessment and bycatch estimates into international waters.
- Encourage cooperative research with the Hawaii Longline Association and other pelagic fisheries to provide researchers with platforms for obtaining information on marine mammals and interactions with fishing gear.
- Provide fishers and observers with information on photographing false killer whales and other cetaceans and encourage them to take photographs to aid in photo identification of individuals.



Marine Mammal Advisory Committee members (back row 2nd and 3rd from left): Paul Nachtigall, Hawaii Institute of Marine Biology; Robin Baird, Cascadia Research Collective; (front row from left) Geoff McPherson, Queensland Northern Fisheries Research Center; Karin Forney, National Marine Fisheries Service (NMFS) Southwest Fisheries Science Center; and (front row far right) Erin Oleson, NMFS Pacific Islands Fisheries Science Center (PIFSC). Also pictured are Scott Barrows, Hawaii Longline Association; Sean Martin, chair, Western Pacific Regional Fishery Management Council; and Lisa Van Atta, NMFS Pacific Islands Regional Office. Committee members not pictured are Marilyn Dahlheim, NOAA National Marine Mammal Laboratory, and Russell Ito, NMFS PIFSC.

- Encourage the Papahānaumokuākea Marine National Monument to support research to better understand false killer whale and other cetacean populations in the Northwestern Hawaiian Islands.

## For other parts of the Western Pacific Region, the Committee recommended the following:

- Research, assess and model false killer whale foraging, life history and prey habitat.
- Encourage the national marine monuments in Palmyra and Kingman Reef to support research to understand false killer whales and other cetacean populations.
- Deploy observers on 40 percent of the American Samoa longline fishery trips for one year to achieve greater statistical power.
- Replicate in American Samoa the Hawaii survey on longline fishers' knowledge of whale depredation events and any potential methods to avoid depredation and, if possible, include the independent Samoa and the Cook Islands in the survey.



# HAWAIIAN GREEN SEA TURTLE ON FAST PATH TO RECOVERY

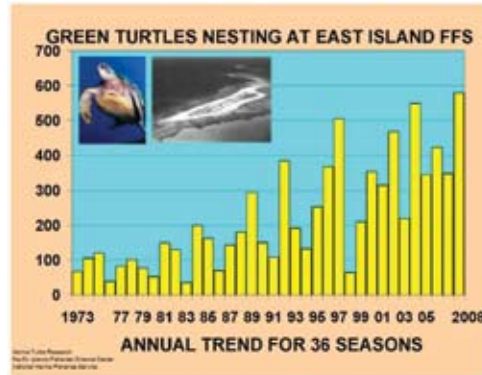
**Despite previous predictions** that seriously depleted sea turtle populations could take more than 100 years to recover, Hawaiian green turtles, or honu, have made a clear path to recovery in 30 years.

The green turtle population in Hawaii is a unique genetic stock that nests primarily on sand islands at French Frigate Shoals (FFS) in the Northwestern Hawaiian Islands (NWHI), with a number of foraging grounds dispersed around the Hawaii Archipelago. In the early 1970s, this population depended on about 150 females nesting in the NWHI. While the historical population size is unknown, the population at the time was without a doubt severely depleted, due to unsustainable harvest at both foraging and nesting grounds that continued until the mid-1970s, as well as habitat destruction at nesting grounds that occurred during the 1940s.

The habitat damage at FFS ceased by the early 1950s, and harvest was prohibited in 1978 when all green sea turtles in the United States were listed as threatened and became fully protected under the US Endangered Species Act (ESA). Subsequently, the number of nesting females has been increasing at an average rate of 5.7 percent annually.

In 2008, the marine turtle research team from the National Marine Fishery Service (NMFS) Pacific Islands Fisheries Science Center—headed by Dr. George Balazs—counted 589 females at East Island in FFS, a dramatic increase from 67 females counted in 1973. The actual number of females that nested in all of NWHI in 2008 is estimated to be nearly double of what was counted.

At present, all green sea turtles in the United States are listed together, meaning that the recovery of the Hawaii stock alone will not



result in removing green turtles from the threatened list (delisting), the ultimate goal of species recovery under the ESA. The ESA allows independent listing, classifying and delisting for species subpopulations through a classification called

the Distinct Population Segment (DPS). NMFS and US Fish and Wildlife Service plan to conduct the DPS review of all green turtles under the ESA, although a start date has not been set. If classified as a DPS, the Hawaiian green sea turtles may then be reviewed for delisting.

In order for a species or DPS to qualify for delisting, the relevant state government and applicable federal agencies must prepare a management plan that is approved during the delisting process. This ensures that recovery will continue and that the species or DPS is not jeopardized by the lack of proper management. State management can allow for sustainable use of sea turtles. Native Hawaiians and communities have expressed their desire to continue to take honu. The harvest was prohibited more than three decades ago because of concern about the worldwide decline of sea turtles. However, the federal review and delisting process can take years.

## NEW FEDERAL RULES FOR CNMI BOTTOMFISH FISHING

**As of May 6, 2009**, new regulations are in place for commercial fishing of federally managed bottomfish species in federal waters in the Commonwealth of the Northern Mariana Islands (CNMI).



Buninas rayao amiriyu, Falaghal-marooobw (*Pristipomoides zonatus*) is one of the federally managed bottomfish subject to new CNMI bottomfish regulations.

Operators of all commercial bottomfish vessels are required to obtain a federal fishing permit and to submit federal

catch reports. A non-refundable processing fee of \$28 is charged for each permit application. In addition, owners of commercial bottomfish vessels over 40 feet in length must submit federal sales reports for the bottomfish that is sold.

Under the new regulations, commercial bottomfish vessels over 40 feet in length must be marked in compliance with federal vessel identification requirements and have a vessel monitoring system (VMS), which the federal government will purchase, install and maintain. The markings and VMS will assist

with the enforcement of new closed areas for commercial bottomfish vessels over 40 feet. The closed areas for the larger vessels are federal waters out to 50 nautical miles (nm) around Saipan and the southern islands and out to 10 nm around the northern island of Alamagan. The intent of the area closures is to protect small boats from the larger vessels, which have more fishing power and can fish for days before returning to port to market their catch.

In addition to the new rules, any form of commercial fishing is prohibited within the boundaries of the Islands Unit of the Marianas Trench Marine National Monument (see page 4).

The new regulations were developed by the Western Pacific Regional Fishery Management Council, approved by the Secretary of Commerce and are being implemented by National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO).

Permit application forms and compliance guide documents can be found at [www.fpir.noaa.gov/SFD/SFD\\_permits\\_6.html](http://www.fpir.noaa.gov/SFD/SFD_permits_6.html) and [www.fpir.noaa.gov/SFD/SFD\\_regs\\_2.html](http://www.fpir.noaa.gov/SFD/SFD_regs_2.html). For more information, contact PIRO at (808) 944-2200 and ask for the Permits Program or email [piro-permits@noaa.gov](mailto:piro-permits@noaa.gov).

### Federally Managed Bottomfish Species in the Mariana Archipelago

**Snapper:** Lehi, marroobw (*Aphareus rutilans*); Gogunafon, Aiwe (*Aprion virescens*); Buninas agaga, Falaghal marooobw (*Etelis carbunculus*); Buninas, Taighulupegh (*E. coruscans*); Funai, Saas (*Lutjanus kasmira*); Buninas, Falaghal-marooobw (*Pristipomoides auricilla*, *P. filamentosus*, *P. flavipinnis*); Buninas rayao amiriyu, Falaghal-marooobw (*P. zonatus*); Pink snapper (*P. seiboldii*)

**Groupers:** Gadao, Meteil (*Epinephelus fasciatus*); Bueli, Bwele (*Variola louti*)

**Trevally, Jack:** Tarakitu, Etam (*Caranx ignobilis*); Tarakiton attelong, Orong (*C. lugubris*)

**Redgill emperor:** Mafuti, Atigh (*Lethrinus rubrioperculatus*)

**Amberjack:** Tarakiton tadong

**For more information, see the Mariana Archipelago Fishery Ecosystem Plan brochure, available at [www.wpcouncil.org/library/MarianaFEP\\_Brochure.pdf](http://www.wpcouncil.org/library/MarianaFEP_Brochure.pdf)**



# SSCs REFLECT NATION'S REGIONAL DIVERSITY

**The Scientific and Statistical Committees (SSCs)** of the eight US Regional Fishery Management Councils are substantially diverse when it comes to their operating procedures and their practices relative to peer review. That was one of the findings of the National SSC Workshop held Nov. 12-14, 2008, in the office of the Western Pacific Regional Fishery Management Council in Honolulu.

The workshop provided representatives from the eight SSCs an opportunity to compare notes and discuss best practices. The general consensus was that the SSC process is not uniform across the SSCs and that such uniformity is not practical given the geographic differences, socioeconomic diversity and the range of fishery data available among the regions. Sharing experiences and viewpoints, however, provided participants with ideas that might improve the process of their own SSC, as well as food for thought on possible ways to address issues and challenges faced by SSCs.

There was general consensus on several topics:

- Accurate catch data need to be collected for all fisheries across the country. SSC participants noted that developing catch limits, as required in the National Standard 1 guidelines, without accurate catch data may be impossible. Catch data are particularly lacking for many fisheries in the Western Pacific and Caribbean regions.
- Increases in SSC responsibilities necessitate increases in Council funding and require additional funding for data collection and assessments.
- The SSCs should be the final arbiter regarding what constitutes the best available scientific information used by Councils for fishery management decisions.
- A second workshop should be convened before 2010, which is the deadline for annual catch limits to be set for all fisheries in federal waters that are experiencing overfishing or are overfished. The next meeting could focus on the technical aspects of establishing appropriate catch limits.

Impetus for the workshop came from the increased duties of the SSCs as outlined in reauthorized Magnuson-Stevens Fishery Conservation and Management Act. The Act requires the SSCs to provide their Councils with recommendations regarding acceptable biological catch and other fisheries sustainability issues. The Western Pacific Regional Fishery Management Council received funding from the National Marine Fisheries Service in 2008 to host the national SSC workshop. Copies of the proceedings can be downloaded from the Western Pacific Council's website at [www.wpcouncil.org](http://www.wpcouncil.org), or contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) for a hard copy.

The second National SSC Workshop is scheduled to be held Nov. 9-13, 2009, in the US Virgin Islands.



## HAWAII BLACK CORAL NAMED AFTER LONG-TIME COUNCIL ADVISOR

IN THE 1970S, BLACK CORAL RESEARCHERS CLASSIFIED THE BLACK CORAL HARVESTED IN HAWAII FOR JEWELRY AS *ANTIPATHES DICHOTOMA*. HOWEVER, RECENT SAMPLES COLLECTED BY RESEARCHERS, FUNDED IN PART BY THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL, AND COMPARED AGAINST SAMPLES OF MEDITERRANEAN *A. DICHOTOMA* SHOW THAT THE HAWAII SAMPLES ARE NOT THE SAME SPECIES.

DENNIS OPRESKO, THE FOREMOST AUTHORITY ON CORAL TAXONOMY, DOCUMENTS THE FINDINGS IN *PACIFIC SCIENCE* (VOLUME 63). THE HAWAII SPECIES IS NOW KNOWN AS *ANTIPATHES GRIGGI*, NAMED AFTER RICHARD GRIGG, A RETIRED UNIVERSITY OF HAWAII PROFESSOR, RENOWNED BLACK CORAL EXPERT AND THE FIRST PERSON TO CHAIR THE COUNCIL'S PRECIOUS CORALS PLAN TEAM. GRIGG AND OPRESKO WERE THE ORIGINAL CLASSIFIERS OF THIS SPECIES.

GRIGG'S HISTORY WITH HAWAII'S BLACK CORALS DATES BACK TO THE EARLY 1960S WHEN HE WROTE A MASTER'S THESIS IN ZOOLOGY ON THE SPECIES AT THE UNIVERSITY OF HAWAII. GRIGG'S WORK ON BLACK AND OTHER PRECIOUS CORALS WAS THE PRIMARY FOUNDATION FOR THE ESTABLISHMENT OF THE COUNCIL'S PRECIOUS CORALS FISHERY MANAGEMENT PLAN IN 1983. HIS WORK ON AGE FREQUENCY AND THE GROWTH OF THE INVASIVE SNOWFLAKE CORAL (*CARIJOA RIISEI*) FROM 2001-2004 HAS HELPED IN THE DEVELOPMENT OF A QUOTA ON BLACK CORAL HARVEST IN THE AUAAU CHANNEL, DETERMINATION OF THE ADEQUATE MINIMUM SIZE FOR HARVEST, AND ESTABLISHMENT OF A MAXIMUM SUSTAINABLE YIELD FOR THE NATION'S ONLY PRECIOUS CORAL FISHERY. OTHER ONGOING STUDIES ON BLACK CORAL ARE EITHER BY FORMER STUDENTS OF GRIGG'S OR A DIRECT RESULT OF HIS PREVIOUS WORK.

DEEP SEA CORALS IN HAWAII AND OTHER US ISLANDS IN THE WESTERN PACIFIC REGION ARE MANAGED BY STATE, FEDERAL AND INTERNATIONAL LAWS REGARDING MINIMUM SIZES, AREA RESTRICTIONS AND HARVEST QUOTAS. *ANTIPATHES SPP.* HAS BEEN SUSTAINABLY HARVESTED FOR OVER 50 YEARS IN HAWAII. ONLY SELECTIVE GEARS SUCH AS HAND HARVEST, SUBMERSIBLES OR REMOTELY OPERATED VEHICLES ARE ALLOWED TO HARVEST PRECIOUS CORALS IN THE WESTERN PACIFIC REGION; DESTRUCTIVE GEARS SUCH AS TRAWLS AND DRAG NETS ARE BANNED. THE COUNCIL HAS PUT A FIVE-YEAR MORATORIUM ON THE HARVEST OF GOLD CORAL (*GERARDIA SPP.*) UNTIL JUNE 2013 PENDING FURTHER RESEARCH ON AGING AND OTHER LIFE HISTORY CHARACTERISTICS OF THE SPECIES.



*Antipathes griggi*



# FAGATELE BAY NATIONAL MARINE SANCTUARY CONSIDERS SITE EXPANSION

In the late 1970s, millions of coral-eating alamea or crown-of-thorns starfish (*Acanthaster planci*) destroyed 90 percent of the reefs on the island of Tutuila, American Samoa. In response, the local government proposed that Fagatele Bay be designated as a national marine sanctuary (NMS). The official objective of the sanctuary's 1986 designation was to protect and preserve an example of a pristine tropical marine habitat and coral reef terrace ecosystem of exceptional productivity, to expand public awareness and understanding of tropical marine ecosystems, to expand scientific knowledge of marine ecosystems, to improve resource management techniques and to regulate uses within the sanctuary to ensure the health and well-being of the ecosystem and its associated flora and fauna. The sanctuary was also intended to serve as a natural laboratory to observe the bay's recovery from crown-of-thorn starfish and typhoon events.

At its 144th meeting March 2009 in American Samoa, the Western Pacific Regional Fishery Management Council recommended that the Office of National Marine Sanctuaries and the American Samoa Department of Marine and Wildlife Resources (DMWR) staff and other survey personnel compile all available survey data and assessments on the sanctuary and publish an updated and peer-reviewed report on the impacts and recovery of the bay from the crown-of-thorns outbreak and other disturbances that helped lead to its creation.

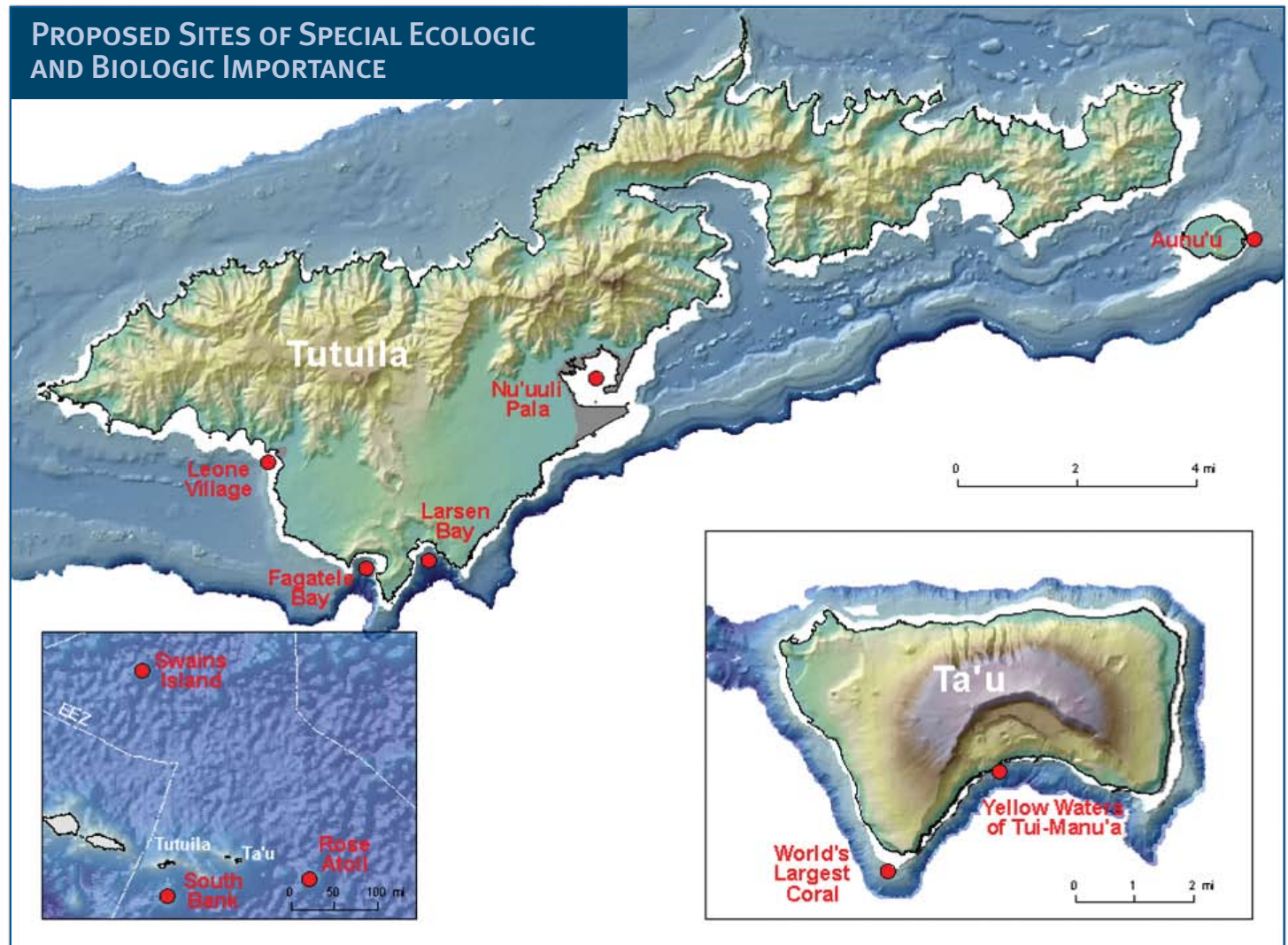
At its 145th meeting July 2009 in Kailua-Kona, Hawaii, the Council was informed that the sanctuary is now reviewing its 23-year-old

management plan and initiating discussions on possible site expansion. Fagatele Bay NMS program analyst Kevin Grant said that the sanctuary's site criteria working group has assessed nine sites for possible sanctuary designation: Larson's Bay, Leone Bay, Pala Lagoon, Rose Atoll, Ta'u (big coral), Yellow Waters of the Tui-Manu'a, South Bank, Swains Island and Aunu'u (see map).

Council members from American Samoa expressed their concern about the potential impacts to commercial and subsistence fishermen if more sanctuary sites were established in the territory given the limited reef area and other existing and planned marine protected areas (MPAs). It was noted that about 10 percent of the reef areas are already designated as a National Park, which does not allow commercial fishing; the local government is working with 13 villages on no-take MPAs through the DMWR's community-based management program; and Rose Atoll was recently designated as a marine national monument. The sanctuary is scheduled to provide an update to the Council when it convenes October 2009 in Honolulu.



Crown-of-thorns starfish eating a coral





# COUNCIL SUPPORTS AMERICAN SAMOA–SAMOA REGIONAL COLLABORATION

During its March 2009 meeting in American Samoa, the Western Pacific Regional Fishery voted to explore options to support collaboration between American Samoa and neighboring independent Samoa to address management of bottomfish, albacore tuna and reef fish.

Ueta Fa'asili Jr. from the Samoa Ministry of Fisheries and Agriculture (MAFA) gave comprehensive accounts of the development and management of pelagic, reef and bottomfish fisheries in Samoa. Fishing and fish consumption is especially important to rural households. Declines in reef fish catches and stock sizes documented from 1985-1990 and reported coral reef degradation led to development of a village-based fisheries



The technologies for fishing from alia catamarans have transferred between American Samoa and Samoa. The Council in March voted to support collaboration between the territory and the nearby independent nation on the management of their bottomfish, coral reef fish and tuna fisheries.

ecosystem approach to the program, provided stock assessment training, revised fisheries legislation and is exploring coverage for coastal areas without villages. The two Samoas have had an exchange to study each other's village-based fisheries management programs, and another is planned for the near future.

There are currently fewer than 10 full-time vessels that fish only for bottomfish. No management is in place, but MAFA is conducting assessment work and will then begin management. Catch is estimated from sales in the main fish market in Apia and other outlets. Data from 2006-2008 suggest increases in reef fish catch and stable levels of bottomfish catch.

These Samoa fishery resources are of particular interest since the majority of reef fish and bottomfish consumed in American Samoa comes from the Samoa fisheries. At the same time, reef and bottomfish fishing effort around Tutuila, America Samoa's primary island, has declined appreciably. Moreover, the proximity of the Samoa island of Upolu to Tutuila (about 50 miles) means that there may be connectivity between bottomfish and reef fish populations; therefore, exploitation and management of these resources on Upolu may impact populations across the border.

Albacore tuna is also a resource of mutual concern. The advent of longline fishing in both Samoas grew as a result of alia catamarans being adapted for longline fishing in Samoa and then the technology transferring to American Samoa. At its peak, the two Samoas accounted for about one-third of the total albacore catch in the South Pacific. Hook densities in the exclusive economic zones of both archipelagos were probably higher than anywhere else.



## THE CASE OF THE MISSING NWHI LOBSTERS NOW AVAILABLE ONLINE

"SEARCHING FOR LOBSTERS," AN ILLUSTRATED SPECIAL REPORT THAT EXAMINES THE DEPLETION OF LOBSTERS IN THE NORTHWESTERN HAWAIIAN ISLANDS (NWHI), IS NOW AVAILABLE ONLINE AT [WWW.ANIMAL-DINO.COM/LOBSTER.HTML](http://WWW.ANIMAL-DINO.COM/LOBSTER.HTML).

BASED ON THE "CASE OF THE MISSING LOBSTERS" (*NATURAL HISTORY*, FEB. 1994) BY DR. JEFFREY POLOVINA, CHIEF SCIENTIST OF THE ECOSYSTEM AND OCEANOGRAPHY DIVISION AT THE NATIONAL MARINE FISHERIES SERVICE (NMFS) PACIFIC ISLANDS FISHERIES SCIENCE CENTER, THE REPORT RECOUNTS HOW AN ALEUTIAN LOW, AND NOT OVERFISHING, LED TO THE PERCEIVED DECLINE IN NWHI LOBSTER POPULATIONS. AN ALEUTIAN LOW IS AN OCEANOGRAPHIC FEATURE THAT COINCIDES WITH AN EXCEPTIONALLY HIGH SEA LEVEL IN THE CENTRAL AND EASTERN NORTH PACIFIC AND AN EXTENSION OF WARM SURFACE WATER.

THE NWHI LOBSTER FISHERY, WHICH BEGAN IN THE LATE 1970S, OPERATED UNDER A LIMITED ENTRY PROGRAM WITH REGULATIONS THAT INCLUDED BANK-SPECIFIC QUOTAS, FISHERY OBSERVERS AND GEAR RESTRICTIONS. IN THE EARLY 1980S, AN ALEUTIAN LOW BROUGHT STRONG WINDS TO THE NWHI, WHICH—ALONG WITH CHANGES IN WATER TEMPERATURE, CURRENTS AND OTHER FACTORS—BROUGHT DEEP NUTRIENT-RICH WATERS TO THE SURFACE AND INCREASED THE GROWTH OF PHYTOPLANKTON AND ZOOPLANKTON, INCLUDING LARVAL LOBSTERS. BECAUSE NWHI FISHERMEN TARGETED LOBSTERS IN THE 3- TO 4-YEAR OLD AGE CLASS, THEY ENJOYED LARGE CATCH OF LOBSTERS EVEN A DECADE AFTER THE LOW DIMINISHED IN THE MID-1980S.

WHEN THE FISHERMEN EXPERIENCED LOW NUMBERS OF LOBSTERS IN THE LATE 1990S, SOME ARGUED THAT OVERFISHING HAD OCCURRED. HOWEVER, THE CONCLUSION REACHED BY THE SCIENTIFIC STUDY WAS THAT THE FISHERY HAD OPERATED WHEN THE LOBSTERS WERE PLENTIFUL AND THAT THE LOW NUMBERS THAT FISHERMEN LATER EXPERIENCED WERE THE "USUAL" LEVEL OF CATCHES THAT THEY WOULD HAVE EXPERIENCED WITHOUT THE ALEUTIAN LOW.

WITHOUT THE INFORMATION ABOUT THE ALEUTIAN LOW AND ITS EFFECTS, MANAGERS OPERATED ON THE BEST SCIENCE AVAILABLE. IN 2000, THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL RECOMMENDED NMFS CLOSE THE FISHERY DUE TO UNCERTAINTIES IN THE POPULATION ASSESSMENT MODEL THAT WAS USED TO SELECT A HARVEST GUIDELINE FOR THE FISHING YEAR. THE FISHERY HAS REMAINED CLOSED DUE TO THE SUBSEQUENT EXECUTIVE ORDER ISSUED BY PRESIDENT CLINTON ESTABLISHING THE NWHI CORAL REEF RESERVE IN 2000 AND A PROCLAMATION ESTABLISHING THE PAPAHANAU MOKUAKEA MARINE NATIONAL MONUMENT BY PRESIDENT BUSH IN 2006.



# NATIONAL SALTWATER ANGLER REGISTRY COMING IN 2010!

In December 2008, the National Marine Fisheries Service (NMFS) published the Final Rule for the National Saltwater Angler Registry in the *Federal Register* (73 FR 79705). The Final Rule responded to comments on the proposed rule and outlined the Registry process, definitions and requirements.



The Registry will consist of the name, birth date, address and telephone number of "anglers" as well as the regions where they intend to fish. Annual registration will be required of all persons over the age of 16 who angle or spear fish in the US exclusive economic zone (EEZ, i.e., generally 3 to 200 miles from shore), operate a for-hire fishing vessel in the EEZ, or possess fish and equipment to angle or spear fish in the EEZ.

No fee will be charged in 2010, although an estimated fee of \$15 to \$25 per angler per year will be charged starting in 2011. Registration will be available online or by calling a toll-free telephone number, and a registration certificate will be provided.

According to a NOAA press release on the Final Rule, the improved quality of recreational fishing data achieved through the National Saltwater Angler Registry will help demonstrate the economic value of saltwater recreational fishing and provide a more complete picture of how recreational fishing is affecting fish stocks. Current recreational fishing phone surveys include a random dialing system that calls all coastal households. This registry will provide the survey a "phonebook" of fishermen and lead to better data.

The Final Rule also provides exemptions for anglers in states that have a licensing system or regional survey that can provide needed catch and effort information on recreational saltwater fishing to NMFS. Currently, there are no saltwater angler licenses in the Western Pacific Region. However, the Western Pacific Regional Fishery Management Council is working with NMFS and the governments of American Samoa, Guam and the Commonwealth of the Northern Mariana Islands to apply for an exemption based upon creel surveys conducted by the local agencies and supported by the NMFS. The Council is also continuing to work with the State of Hawaii on exploring options to apply for an exemption. The current fishing intercept survey in Hawaii (Hawaii Marine Recreational Fishing Survey) collects catch data but not effort.

Originally proposed to begin in January 2009, the Registry will now go into effect in 2010 to provide additional time for states to put in place their own data collection system. The National Angler Registry is part of the NMFS Marine Recreational Information Program (MRIP). To read the Final Rule and other information about MRIP, go to [www.countmyfish.noaa.gov](http://www.countmyfish.noaa.gov) or [www.fpir.noaa.gov.mrip.html](http://www.fpir.noaa.gov.mrip.html) or contact the Council's recreational fisheries coordinator, Joshua DeMello, at (808) 522-8220.

# UPDATE ON ACLS FOR FEDERALLY MANAGED SPECIES IN THE WESTERN PACIFIC REGION

The reauthorized Magnuson-Stevens Fishery Conservation and Management Act requires annual catch limits (ACLs) be established for all federally managed fisheries by 2011. Pelagic species in the Western Pacific Region (such as tuna, billfish, oceanic sharks and mahimahi) are subject to management by international regional fishery management organizations and so are exempt from the new requirement.

Even so, the high diversity of reef-associated fish makes it impractical for the Western Pacific Regional Fishery Management Council to meet the 2011 ACL deadline for all federally managed species in American Samoa, Guam, Hawaii, the Commonwealth of the Northern Mariana Islands (CNMI) and the Pacific remote island area (PRIA). Science-based ACLs require stock assessments and the establishment of maximum sustainable yields. The current level of funding precludes the National Marine Fisheries Service (NMFS) Pacific Islands Fisheries Science Center (PIFSC) from conducting these for all federally managed species in the Western Pacific Region by 2011.

The Council has thus supported a phased approach to establishing ACLs (see *Pacific Islands Fishery News*, summer 2008 issue, page 17). The first species to be addressed will be those that are most likely to be subject to overfishing or that would have the greatest impact on local communities and/or ecosystems should they be subject to overfishing.

The Council's Archipelagic Plan Team subpanels for each island area met in 2008 and early 2009 to develop lists for the top 10 candidate species for their area. In March 2009, the Council and its Scientific and Statistical Committee (SSC) reviewed these lists and accepted them on a provisional basis so that the Council and NMFS can proceed with the process of gathering information necessary to develop the ACLs. The lists for American Samoa, Guam, CNMI and the PRIA were accepted as presented, and modifications were requested to the Hawaii list.

The SSC and Council also recommended that Council staff develop a standard set of criteria based on work currently being done at NMFS headquarters and other appropriate studies and work with the Archipelagic Plan Team to provide an expanded list of species by island area.



James Borja with a tangjion he speared. The species tops the ACL list for Guam.

## Top 3 ACL Priority Species by Island Area (Provisional list, revised March 2009)

### Hawaii

- **Papa'i kua loa** (Kona crab, *Ranina ranina*)
- **Uhu or palukaluka** (parrotfish, *Scarus* spp.)
- **Uu or menpachi** (soldierfish, *Myripristis* spp.)

### American Samoa

- **Savane** (blue-line snapper, *Lutjanus kasmira*)
- **Papa, velo** (lunar-tail grouper, *Variola louti*)
- **Filoa-paomumu** (redgill emperor, *Lethrinus rubrioperculatus*)

### Northern Mariana Islands

- **Mahongang** (spiny lobster, *Panulirus penicillatus*)
- **Hiting, manahok, Ileg, hitting galagu, sesyon, palawa** (rabbitfish, *Siganidae*)
- **Tataga, igh-falafal, hangon, bwulaalay** (orange-spine and blue-spine unicornfish, *Naso lituratus* and *N. unicornus*)

### Guam

- **Tangjion or Maam** (Napoleon wrasse, *Cheilinus undulatus*)
- **Atuhong or roow** (humphead parrotfish, *Bolbometopon muricatum*)
- **Mahongang** (spiny lobster, *Panulirus penicillatus*)



## 8 FISHERY MANAGEMENT COUNCILS PURSUE JOINT OUTREACH EFFORTS



**At the 34th annual NOAA Fish Fry:** Left: Commerce Secretary Gary Locke and Commerce Under Secretary for Oceans and Atmosphere Jane Lubchenco (right) greet Kitty Simonds, executive director, Western Pacific Regional Fishery Management Council at the Council's booth. Center: Commerce Secretary Locke (center) with Simonds and Eugenio Piñero-Soler, chair, Caribbean Fishery Management Council. Right: US Sen. Daniel Akaka of Hawaii (center) with Honolulu chefs Nico Chaize from Nico's at Pier 38 (left) and Eric Leterc from the Pacific Club.

**The eight Regional Fishery Management Councils** partnered with the National Marine Fisheries Service to co-sponsor the Fisheries and Aquaculture Panel at this year's Capitol Hill Ocean Week (CHOW), June 9-11, 2009, in Washington, DC. Don McIsaac, Pacific Council executive director, represented the eight Councils as a panel speaker. The Councils also joined forces on an exhibit and publication about the US Regional Fishery Management Councils and their current opportunities and challenges. The booth was staffed by the Western Pacific, Caribbean and Pacific Councils. The publication is available for download at the new all Council website at [www.fisherycouncils.org](http://www.fisherycouncils.org) or see page 24 to order a hard copy.

The all-Council partnership continued at the 34th annual NOAA Fish Fry, June 10, 2009, at the Department of Commerce building, in Washington, DC. The Western Pacific Council booth featured fish dishes prepared by Honolulu chefs Nico Chaize and Eric Leterc, and the Caribbean Council booth featured lobster and conch recipes by chef Juan Carlos Vicéns and sous chef Agnes Marrero. The all-Council banner joined the two booths, and Western Pacific, Caribbean and Pacific Council staff passed out nearly 500 eco-friendly bags with the all-Council publication and other outreach materials from Hawaii, Puerto Rico and Alaska.

In May 2009, the chairs of the eight Councils sent a letter to Commerce Under Secretary for Oceans and Atmosphere Jane Lubchenco requesting increased funding and NOAA support to the Councils for outreach and education. The eight Councils are now finalizing production of an issue of *Current* (the journal of the National Marine Educators Association) focusing on the US Regional Fishery Management Councils, which is scheduled for release in mid-December 2009.

## MARINE EDUCATION AND TRAINING PROGRAM TO INCLUDE MINI-GRANTS

**The Western Pacific Regional Fishery Management Council** and the National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO), in April 2009, agreed to jointly implement a regional Marine Education and Training (MET) mini-grants program. The grant program will be a part of the larger MET program, which is being established to meet the requirements of section 305(j) of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSA). See *Pacific Islands Fishery News*, summer 2008, page 13, for details.

According to PIRO, \$150,000 will be made available for the mini-grant program during federal 2010 fiscal year (FY2010), which runs from October 2009 through September 2010. The mini-grants will support a host of small projects (not to exceed \$15,000 each) that can be accomplished in a short time span, such as internships, scholarships, community events, undergraduate field trips and marine-oriented classes. The mini-grants would satisfy MSA §305(j) requirements to "improve communication, education, and training on marine resource issues throughout the region and increase scientific education for marine-related professions among coastal community residents." PIRO in consultation with the Council will develop priority areas that fit the intent of section 305(j). PIRO proposes using the Council's Advisory Panel process to review and rank proposals for recommendations to PIRO for funding.

For the larger MET program, the Council, at its March 2009 meeting, approved the development of a Steering Committee to direct resources for the implementation of the MET program. The Council is currently in ongoing discussions with PIRO to address the membership of the Steering Committee and the administration of the MET program. For more information, contact the Council's indigenous coordinator, Charles Kaaiai, at [charles.kaaiai@noaa.gov](mailto:charles.kaaiai@noaa.gov) or phone (808) 522-8227.

## TEACHERS FOLLOW FISH FROM OCEAN TO PLATE

TWENTY-FIVE TEACHERS JOINED THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL FOR ITS 5TH ANNUAL TEACHERS WORKSHOP ON THE HAWAII SEAFOOD INDUSTRY HELD APRIL 25, 2009, AT PIER 38, HONOLULU. THE EDUCATORS LEARNED HOW FISH MOVES FROM THE OCEAN TO THE PLATE, THE CULTURAL AND SOCIOECONOMIC IMPORTANCE OF THE LOCAL FISHERY, AND CURRENT MANAGEMENT AND MARKETING ISSUES.

THIS YEAR'S WORKSHOP INCLUDED A FISHING VESSEL TOUR PROVIDED BY THE HAWAII LONGLINE ASSOCIATION AND PACIFIC OCEAN PRODUCERS, A TOUR



Teachers learn the intricacies of the Honolulu fish auction from John Kaneko during the Council's 5th annual Teachers Workshop on the Hawaii Seafood Industry.

OF THE UNITED FISHING AGENCY'S FISH AUCTION, A TOUR OF THE FRESH ISLAND FISH PROCESSING FACILITY, A HANDS-ON GYOTAKU LESSON FROM NAOKI HAYASHI, A COOKING DEMONSTRATION BY CHEF NICO CHAIZE OF NICO'S AT PIER 38, LECTURES ON FISHERIES MANAGEMENT BY JOHN KANEKO OF PACMAR INC. AND THE HAWAII SEAFOOD PROJECT AND BY MARK MITSUYASU OF THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL, AND LESSON PLANS AND EDUCATIONAL RESOURCE MATERIALS PRESENTED BY SYLVIA SPALDING, THE COUNCIL'S COMMUNICATIONS OFFICER.

THE TEACHERS CAME FROM 15 ELEMENTARY, MIDDLE AND HIGH SCHOOLS ON THE ISLAND OF OAHU AND SPECIALIZED IN DIVERSE SUBJECT AREAS. IN THEIR EVALUATIONS OF THE WORKSHOP, THEY SAID THEY WERE INSPIRED TO USE THE MATERIALS AND INFORMATION THEY LEARNED IN THEIR CLASSES.





Dar es Salaam Fish Market and display of fresh fish in Istanbul (right)



# FISHERY MANAGEMENT THE COUNCIL WAY

IN 2006, TONY BEECHING, A FORMER WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL STAFF MEMBER, RETURNED TO HIS HOME IN THE UNITED KINGDOM TO PLY HIS CRAFT ON HIS NATIVE FISHERIES IN ENGLAND AND EUROPE. AS A COUNCIL STAFF MEMBER, BEECHING WAS OFTEN FRUSTRATED WITH THE INHERENT DELAYS ASSOCIATED WITH THE FISHERY MANAGEMENT PROCESS IN “THE STATES” BUT CHALKED IT UP TO EXPERIENCE—EXPERIENCE WHICH HAS PROVEN TO HAVE A PROFOUND EFFECT ON HIS CURRENT MANAGEMENT CONSULTATIONS.

WORKING FOR THE CENTER FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE (CEFAS), BEECHING HAS FOUND THAT COUNTRIES IN EUROPE, AFRICA, ASIA AND THE CARIBBEAN EACH HAVE THEIR OWN STYLE OF FISHERIES MANAGEMENT, USUALLY WITH SOME GOOD ELEMENTS. HOWEVER, RARELY IF EVER DO THEY BUILD THESE ELEMENTS INTO A WORKING PROCESS. BEECHING NOW SEES THAT THE US PROCESS THROUGH THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (MSA) AND THE REGIONAL FISHERY MANAGEMENT COUNCILS (FMCs), ALBEIT TIME-CONSUMING AT TIMES, IS FUNDAMENTAL TO THE SUCCESS OF FISHERIES MANAGEMENT. WHEN DISCUSSING OPTIONS FOR INSTITUTIONAL CHANGE WITH COLLEAGUES AND MINISTERS, AND IN DRAFTING STRATEGIES FOR DEVELOPING A FISHERIES MANAGEMENT PROCESS IN VARIOUS COUNTRIES, BEECHING USES THE FMC MODEL AS A GUIDE.

“OF COURSE, IT ISN’T APPROPRIATE TO SIMPLY TAKE THE US SYSTEM AND TRANSPOSE IT ELSEWHERE,” BEECHING NOTES. IN ESTABLISHING EIGHT FMCs, THE US CONGRESS THROUGH THE MSA RECOGNIZED THE IMPORTANCE OF MANAGING LOCALLY, TO DEAL WITH REGIONAL FISHERIES ISSUES, AFFECTING A RANGE OF QUITE DIFFERENT COMMUNITIES AND CULTURES. SO IT IS GLOBALLY. EACH COUNTRY HAS ITS OWN SPECIFIC MANAGEMENT NEEDS. HOWEVER, MANY OF THE PRINCIPLES OF THE MSA AND THE FMC PROCESS MAY BE APPLIED TO FISHERY MANAGEMENT PLANNING ANYWHERE.

ONE PRINCIPLE IS TO FULLY INVOLVE AND INFORM STAKEHOLDERS.

“WHILST STAKEHOLDER INVOLVEMENT IS COMMONLY PRACTICED IN THE UNITED STATES, AUSTRALIA AND NEW ZEALAND, ELSEWHERE IT MAY BE LIMITED OR ABSENT,” BEECHING SAYS. “IT’S ALWAYS ASKING A LOT TO REQUEST GOVERNMENT TO GIVE UP SOMETHING WITHOUT ANY CLEAR IMMEDIATE BENEFIT,” HE ADDS, “BUT PERSUASIVE ARGUMENTS CAN BE APPLIED TO ENCOURAGE STAKEHOLDER INVOLVEMENT.” USERS TYPICALLY KNOW MORE THAN ANYONE ABOUT THEIR RESOURCES AND CAN PROVIDE INVALUABLE HISTORIC AND CURRENT INFORMATION TO INFORM MANAGEMENT AND SCIENTISTS. STAKEHOLDERS ARE MORE LIKELY TO ACCEPT MANAGEMENT RECOMMENDATIONS AND ACTIONS DEVELOPED THROUGH A CONSENSUS-BASED DECISION-MAKING PROCESS. WHERE THERE IS DISSENT AND PERHAPS ILLEGAL ACTIONS BY SOME, THE MORE RESPONSIBLE USERS OF THE FISHERY ARE MORE LIKELY TO REPORT AND PUT PEER PRESSURE ON THE MISCREANTS.

BEECHING ALSO ARGUES PERSUASIVELY FOR THE ESTABLISHMENT OF AN ORGAN THAT FUNCTIONS IN A SIMILAR WAY TO THE FMCs.

“IT ENABLES POLITICIANS TO DISTANCE THEMSELVES FROM UNPALATABLE MANAGEMENT DECISIONS, WHICH THEY OTHERWISE

MIGHT NOT PASS LEGISLATION,” BEECHING NOTES.

ANOTHER PRINCIPLE THAT CAN BE APPLIED UNIVERSALLY IS TO BASE FISHERY MANAGEMENT DECISIONS ON THE BEST AVAILABLE SCIENCE, AND, IF THE SCIENCE ISN’T THERE, TO TAKE A COMMONSENSE PRECAUTIONARY APPROACH WHILST PRIORITIZING THE RESEARCH THAT IS NEEDED TO ANSWER MANAGEMENT QUESTIONS.

“IT IS NOT UNCOMMON TO FIND THAT BASIC CATCH, BYCATCH AND DISCARD DATA IS INADEQUATE OR ABSENT,” BEECHING REPORTS. SOMETIMES THE SCIENCE NEEDS MAY BE MORE COMPLEX AND RELATED TO ECOSYSTEM-BASED MANAGEMENT AND THUS REQUIRE THE APPLICATION OF MULTI-SPECIES MODELING AND AN ENORMOUS AMOUNT OF DATA. THIS LINKS TO THE ARGUMENT FOR STAKEHOLDER INVOLVEMENT. “STAKEHOLDERS CAN, IF GIVEN THE PROPER INCENTIVES, PROVIDE GOOD DATA IN SUPPORT OF MANAGEMENT,” BEECHING SAYS.

ANOTHER PRINCIPLE IS DRAFTING FISHERIES MANAGEMENT PLANS (FMPs). FOR BEECHING, THE COUNCIL WAY OF DOING THIS MEANS FULLY DETAILING THE RESOURCE, THE ISSUES AND THE AFFECTED FISHERIES; LIAISING WITH STAKEHOLDERS, SCIENTISTS AND GOVERNMENT; ALLOWING FOR EXISTING LEGISLATION; ADVISING WHERE THERE MAY BE LEGAL ANOMALIES; AND DETAILING THE OPTIONS CONSIDERED AND EXPLAIN WHY THE PREFERRED OPTION WAS SELECTED.

HAVING WORKED IN FISHERIES AROUND THE WORLD, BEECHING NOW VIEWS THE MSA AND FMC SYSTEM AS A PREFERRED MODEL. HE NOTES THAT THE MSA HAS SOME LIMITATIONS, WHICH HE HAS BEEN ABLE TO SIDESTEP WHEN MAKING RECOMMENDATIONS OUTSIDE OF THE UNITED STATES.

“SOME COUNTRIES DO NOT LEGALLY ALLOW THE DRAFTING OF FMPs, AND, WITHOUT THAT, THE FMPs MAY CARRY LITTLE WEIGHT,” HE NOTES. “ALSO, THE MSA ADDRESSES FISHERIES IN FEDERAL WATERS. WORKING OUTSIDE OF THAT REMIT IS DIFFICULT AND SOMETIMES DRAWS UNREASONABLE CRITICISM.” AS AN EXAMPLE, HE NOTES, EUROPE’S MARINE POLICY PROMOTES INTEGRATED MARINE MANAGEMENT AND PLANNING THAT INCORPORATES FISHERIES MANAGEMENT, TRANSPORT, TOURISM, PORTS, ENVIRONMENTAL INITIATIVES, ETC.

“THIS IS COMMON SENSE,” BEECHING SAYS. “THERE IS LITTLE POINT IN DEVELOPING A FISHERY IF THERE ARE INSUFFICIENT MOORING AND LANDING FACILITIES.”

BEECHING ALSO NOTES THAT FISHING DOES NOT HAVE TO COMPETE WITH TOURISM. IN MONTENEGRO, FOR EXAMPLE, MANY OF THE COASTAL RESTAURANTS HAVE THEIR OWN BOATS AND FISHERMEN TO PROVIDE FRESH LOCAL FISH IN SUPPORT OF THE TOURIST TRADE. “WHO, WHEN THEY GO ON HOLIDAY, DOESN’T WANT TO TRY THE LOCAL SPECIALTIES USING INGREDIENTS STRAIGHT FROM THE SEA?” BEECHING ASKS.

THE US PROCESS FOR FISHERY MANAGEMENT MAY NOT BE PERFECT, BUT IT IS PROVING TO BE A GREAT MODEL THAT CAN BE TWEAKED FOR DIFFERENT AREAS TO KEEP FISHERIES AROUND THE WORLD SUSTAINABLE, THANKS TO BEECHING AND OTHERS LIKE HIM.



# MARINE EDUCATORS LEARN ABOUT TRADITIONAL KNOWLEDGE FROM NATIVE EXPERTS



Guests of the NMEA Traditional Knowledge Committee meetings included (l-r) Paul Mondragon, co-chair of the Amah Mutsun Tribal Band (in present-day Santa Clara and San Benito Counties, Calif.), Native Hawaiian Terry Leianuenue Reveira from Ka'u, Hawaii and Nick Tipon of the Federated Indians of Graton Rancheria.

**Attendees of the National Marine Educators Association (NMEA) Traditional Knowledge Committee meetings** were treated with two guest presentations during the NMEA 2009 conference at Pacific Grove, Calif.

On June 30, Native Hawaiian Terry Leianuenue Reveira from Ka'u, Hawaii, provided a presentation on the links between traditional knowledge and science. Reveira was the recipient of the first NMEA Traditional Knowledge honorarium. Her participation at the conference was additionally made possible through a supplemental honorarium from the OCEANIA Marine Educators Association.

"Knowing how traditional knowledge is acquired, kept and shared is important to understand the value of how it can be used," Reveira noted. She then shared how various mo'olelo (stories), oli (chants) and pule (prayers) are used to teach students

about study sites and the protocol for visiting them. Reveira also explained how science and traditional knowledge can be connected through cultural values, such as malama ka aina (caring for the land).

On July 1, Nick Tipon, chair of the Sacred Sites Committee of the Federated Indians of Graton Rancheria (Coast Miwok and Southern Pomo tribes) in present-day Sonoma and Marin Counties, Calif., gave a presentation on Native American rights and the California Marine Life Protection Act.

Tipon said, "The interpretation of Native American culture and archaeological sites can and should be improved. Too often, we find signage and brochures that tell a generic story of the Native experience. The rich heritage and spirituality of indigenous culture is simplified to a quick portrait of 'people from long ago who hunted and fished.' Native Americans are represented as fixtures in a natural landscape; their contemporary issues and connections to the land are rarely highlighted. How can interpreters and Native communities collaborate to tell a better story?" He also discussed ongoing issues regarding preservation of native culture. One example is preserving plant and animal species that are important to the culture versus preserving artifacts. Another is deciding which cultural elements should be allowed to change and evolve and which need to preserve as is.

For more information about the NMEA TK Committee, go to [www.marine-ed.org/docs/NMEACcommittees.pdf](http://www.marine-ed.org/docs/NMEACcommittees.pdf) or contact committee co-chairs Sylvia Spalding at [sylvia.spalding@noaa.gov](mailto:sylvia.spalding@noaa.gov) and Don Hudson at [donhudson@chewonki.org](http://donhudson@chewonki.org).

## MARINE FISHERIES SUMMER COURSES 2009 REACHES MORE STUDENTS



Students learn about bio-sampling from Mike Tenorio of the CNMI Division of Fish and Wildlife.

**The High School Summer Courses** on Marine Fisheries and Resources once again excited and educated students in Hawaii, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI). This is the third running of the course in Hawaii, and the second year in the other island areas. Students are provided with a background on marine fisheries and resources issues, introduced to career opportunities in these fields and undertake projects to share what they've learned with their local community. The courses are organized by the Western Pacific Regional Fishery Management Council with funding assistance from the NOAA Coral Reef Conservation Program and National Marine Fisheries Service Pacific Islands Regional Office.

The instructors for this year's courses were Erron Yoshioka and Kelly Calistro, Moanalua High School, Hawaii; Vaasa Taamu, education director, American Samoa Department of Marine and Wildlife Resources; Clyde Kyota, 4-H Youth Development Program, University of Guam; and Richard Seman, *Mariana Fishing Magazine* publisher, CNMI. The Hawaii course ran June 12 to July 10, 2009, and provided some students with Hawaii Department of Education credits. In American Samoa, three courses of one-week each were offered June 16 to July 3, with 120 students participating. The CNMI course ran June 17 to 30, 2009, and the Guam course ran July 29 to Aug. 7, 2009.

The success of these courses was made possible through the generous support of numerous guest lecturers, field trips hosts and others.



INTERNATIONAL  
PACIFIC MARINE  
EDUCATORS  
NETWORK

The International Pacific Marine Educators Network (IPMEN) 2008 conference "Sustaining the Pacific: Learning from Elders, Listening to Youth" in Townsville, Australia, Oct. 16-19, 2008, brought together over 90 people committed to marine education from more than 15 countries across the Pacific Basin, from Japan to Chile, and from Australia to North America. Delegates who could not attend the conference in person were able to participate via the web. This technology also enabled the conference organizers to reduce the carbon footprint of the event as some keynote addresses and concurrent presentations, including those by the Western Pacific Regional Fishery Management Council, were delivered via the web. IPMEN '08 was made possible through the support of the David and Lucile Packard Foundation, Western Pacific Regional Fishery Management Council, NOAA Ocean Exploration Program, College of Exploration, University of the South Pacific, Nautilus Educational, National Marine Educators Association, Marine Educators Society of Australasia and Telstra.

IPMEN is seen as a step towards the establishment a worldwide marine educators' network. The creation of this group began with a two-day meeting in conjunction with the NMEA conference in Hawaii in July 2005 and gained considerable momentum at a second international meeting, organized by the Western Pacific Regional Fishery Management Council in Hawaii in January 2007.

The next IPMEN conference is scheduled for July 7 to 10, 2010, at the Outrigger on the Lagoon, Sigatoka, Fiji Islands. The conference theme is Vakarau ni se siga toka (Start preparing while we've still got daylight). The conference strands are 1) Key Challenges in Ocean Literacy: mainstreaming community-based science and integrating traditional ecological knowledge into formal and informal marine education; 2) Building Healthy Sustainable Coastal Communities; 3) Women in Fisheries—Partnerships for Change; and 4) Climate Change Effects on Children of the Pacific. To learn about the 2010 conference or to join IPMEN, please visit [www.ipmen.net](http://www.ipmen.net), or contact Ron Vave at [ron@lmmanetwork.org](mailto:ron@lmmanetwork.org), Sylvia Spalding at [Sylvia.spalding@noaa.gov](mailto:Sylvia.spalding@noaa.gov) or Harry Bredahl at [nautilused@optusnet.com.au](mailto:nautilused@optusnet.com.au).



# Postcards from the Western



1. SANDRA SHIROMA, WIFE OF THE LATE RICHARD SHIROMA, PRESENTED BILL MOSSMAN WITH THE 2ND RICHARD SHIROMA AWARD, DURING THE OCTOBER 2008 MEETING OF THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL IN HONOLULU. THE AWARD RECOGNIZES A PERSON FOR HIS OR HER EXEMPLARY DEDICATION AND PERFORMANCE AS A MEMBER OF THE COUNCIL OR ONE OF ITS ADVISORY GROUPS. MOSSMAN HAS BEEN AN ACTIVE MEMBER OF THE ADVISORY PANEL'S RECREATIONAL FISHERIES SUBPANEL.



2. CAPT. ANTONIO CAMACHO (WHITE LONG-SLEEVED SHIRT) AND ANGLERS MELVIN ALDAN, DAMIAN PUA AND ANTHONY CAMACHO OF THE F/V *SANTA REMEDIO* POSE WITH THEIR 319.5-LB GRAND PRIZE WINNING MARLIN CAUGHT DURING THE SAIPAN FISHERMEN ASSOCIATION'S SILVER ANNIVERSARY TOURNAMENT, JULY 18 AND 19, 2009, IN SAIPAN, CNMI. THE TEAM TOOK HOME A TROPHY, \$3,000 AND SEVERAL DONATED ITEMS. SEVENTY-FIVE BOATS PARTICIPATED IN THE EVENT, INCLUDING EIGHT FROM GUAM, ONE FROM ROTA AND ONE FROM TINIAN.



3. THE 50TH HAWAIIAN INTERNATIONAL BILLFISH TOURNAMENT'S THIRD-PLACE HONORS WENT TO MALIBU MARLIN CLUB, WHICH IS COMPRISED OF TEAM CAPTAIN SAM SPINELLO, WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL MEMBER FRED DUERR, BURL KUSKA AND STEVE SPINA. PICTURED ARE THE TOURNAMENT FOUNDER AND ONE OF THE COUNCIL'S ORIGINAL MEMBERS PETER FITHIAN (RIGHT) CONGRATULATING SPINELLO (LEFT) ON HIS 567-LB CATCH. PHOTO CREDIT: CURRENT EVENTS

4. TEAM MALATE BALATE (SMART SEA SLUGS) WON THE OPEN CATEGORY AT THE 4TH ANNUAL MARIANAS UNDERWATER FISHING FEDERATION SPEAR FISHING CHALLENGE ON AUG. 16, 2008, AT THE HAGATNA BOAT BASIN, GUAM. SKIP PERRY AND RON LAGUANA II, WITH BOATMAN PETE SIGUENZA ABOARD THE *MAGGIE MAY*, OUT COMPETED 29 OTHER TEAMS WITH THEIR 63.2-LB DOGTUOTH TUNA.



5. CONSERVATION OFFICER JESS OMAR (IN CAMOUFLAGE HAT) OF THE CNMI DIVISION OF FISH AND WILDLIFE WAS VERY BUSY HELPING KIDS PLAY THE "IDENTIFYING FISH HABITAT" EDUCATIONAL GAME AT THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL'S BOOTH DURING THE 5TH MAHI MAHI FISHING DERBY ON APRIL 4, 2009, SAIPAN, CNMI.





# Pacific Region

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6. THE 1ST PLACE WINNER OF THE 5TH MAHIMAH I FISHING DERBY WENT TO F/V SAINT PATRICK, CAPTAINED BY MANDING LEGASPI WITH ANGLERS DONG SALINI, JUANITO, AND TONY MAESTRO SHOWN IN THIS PHOTO HOLDING IN HIS LEFT HAND THE WINNING 19.7-LB CATCH.

7. MYLES DRIXCOLL AND MIKE GENEUEX OF GUAM CAPTURED THE 1ST PLACE IN THE TEAM TOTAL WEIGHT CATEGORY. DURING THE 3RD MARIANAS SPEAR FISHING COMPETITION HELD ON MAY 16, 2009, IN SAIPAN, CNMI. MYLES WON 1ST PLACE IN THE SINGLE TOTAL WEIGHT CATEGORY FOR LANDING 86 LBS. HERE HE IS PICTURED HOLDING HIS 49-LB JACK, THE BIGGEST FISH CAUGHT IN THE TOURNAMENT. MIKE TOOK 2ND PLACE IN THE SAME CATEGORY FOR LANDING 64.5 LBS. A TOTAL OF 17 TEAMS, CONSISTING OF TWO FISHERMEN EACH, PARTICIPATED IN THE EVENT.



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8. THE CHAMORRO LUNAR CALENDAR COMMITTEE PRESENTED A DISPLAY AND WORKSHOP ON THE CHAMORRO LUNAR CALENDAR PROJECT AT THE 3RD ANNUAL TETSET KONFERENSIA CHAMORRO, HELD IN SAIPAN, CNMI, SEPT.26 AND 27, 2008. THE PROJECT WAS INITIATED AND IS SUPPORTED BY THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL. CHAMORRO LANGUAGE PRACTITIONERS FROM THROUGHOUT THE MARIANA ARCHIPELAGO GATHERED AT THE CONFERENCE TO DISCUSS A VARIETY OF ENVIRONMENTAL, CULTURAL, POLITICAL AND LINGUISTIC ISSUES AFFECTING THE INDIGENOUS INHABITANTS OF THE ISLANDS. PICTURED (L-R) ARE COMMITTEE MEMBERS ANTHONY J. P. ADA, LEONARD IRRIARTE, COUNCIL ON-SITE COORDINATOR JOHN CALVO (GUAM), COMMITTEE CHAIR PETER R. ONEDERA, SYLVIA FLORES, TONY "MALIA" RAMIREZ, FELIX REYES, COUNCIL ON-SITE COORDINATOR JACK OGUMORO (CNMI) AND JOE GUERRERO.



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9. GUAM'S ENVIRONMENTAL EDUCATION & OUTREACH COMMITTEE HELD ITS ISLAND PRIDE FESTIVAL ON EARTH DAY, APRIL 25, 2009, AT YPAO BEACH PARK. WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL STAFF COORDINATED THE EXHIBIT, WHICH FEATURED AN UNDERWATER SEASCAPE, A CHAMORRO CULTURAL DISPLAY BY THE COUNCIL'S SCIENTIFIC & STATISTICAL COMMITTEE MEMBER JUDY AMESBURY FEATURING SHELLFISH, THE COUNCIL'S MARIANAS ARCHIPELAGO ECOSYSTEM FISHERY ECOSYSTEM DISPLAY AND INTERACTIVE EDUCATIONAL GAMES.



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THE STUDENTS FROM THE GEORGE WASHINGTON HIGH SCHOOL'S MARINE MANIA PROGRAM VOLUNTEERED IN THE SETTING UP, STAFFING AND BREAKING DOWN OF THE EXHIBIT.

10. THE AMERICAN SAMOA REGIONAL ECOSYSTEM ADVISORY COMMITTEE (REAC) OF THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL CONVENED MARCH 20, 2009, AT THE GOVERNOR H. REX LEE AUDITORIUM (FALE LAUMEI). BESIDES THE REAC MEMBERS, PARTICIPANTS INCLUDED A LEGISLATIVE (FONO) REPRESENTATIVE, A RETIRED CHICKEN OF THE SEA SAMOA PACKING GENERAL MANAGER, THE PORT ADMINISTRATION DIRECTOR, SEVERAL AMERICAN SAMOA DEPARTMENT OF MARINE AND WILDLIFE RESOURCES STAFF MEMBERS AND MEMBERS OF THE PUBLIC. THE MEETING WAS CHAIRED BY COUNCIL MEMBER STEPHEN HALECK OF AMERICAN SAMOA.



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## RESOURCES AVAILABLE

Below is a partial list of resources available from the Western Pacific Regional Fishery Management Council. To obtain a copy, contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) or download an electronic copy, if available, at [www.wpcouncil.org](http://www.wpcouncil.org).

### BROCHURES

*Hawaii Archipelago Fishery Ecosystem Plan*

*Pacific Pelagic Fishery Ecosystem Plan*

*Bottomfish*

*Green Sea Turtles of the Pacific Islands*

*Nesting Beach Conservation: A Community-Based Approach to Sea Turtle Recovery in the Pacific*

*An Integrated Approach to Reducing Mortality of North Pacific Loggerhead Sea Turtles in Baja, California Sur, Mexico*

*Working with the Ecuadorian Fishing Community to Reduce the Mortality of Sea Turtles in Longline Fisheries (2004-2005)*

### PUBLICATIONS

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*Developing Best Practices for SSCs: Proceedings of the First National Meeting of the Regional Fishery Management Councils' Scientific and Statistical Committees. 12-14 Nov. 2008, Honolulu, USA.* Honolulu: WPRFMC. ISBN 1-934061-37-9

Bellagio Sea Turtle Conservation Initiative Steering Committee. 2008. *Planning for Long-term Financing of Leatherback Conservation and Recovery: Proceedings of the Bellagio Sea Turtle Conservation Initiative. 17-20 July 2007. Terengganu, Malaysia.* Penang, Malaysia: The WorldFish Center. ISBN 978-983-2346-62-3

Gilman E et al. 2007. *Shark Depredation and Unwanted Bycatch in Pelagic Longline Fisheries: Industry Practices and Attitudes, and Shark Avoidance Strategies.* Honolulu: WPRFMC. ISBN 1-934061-06-9

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Kinan I (ed). 2006. *Proceedings of the Second Western Pacific Sea Turtle Cooperative & Management Workshop, 2-3 March 2005, Honolulu, USA. Vol. 2: North Pacific Loggerhead Sea Turtles.* Honolulu: WPRFMC.

Schultz J et al. 2006. *Pelagic Fishing Tournaments and Clubs in Hawaii.* Honolulu: SOEST, JIMAR.

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Karam A (ed). 2005. *Resources Assessment Investigation of the Mariana Archipelago, 1980-1085: Compilation of Published Manuscripts, Reports and Journals.* Honolulu: WPRFMC

Kinan I (ed). 2005. *Proceedings of the Western Pacific Sea Turtle Cooperative Research & Management Workshop, 17-21 May 2004, Honolulu, USA. Vol. 1: West Pacific Leatherback and Southwest Pacific Hawksbill Sea Turtles.* Honolulu: WPRFMC.

## Council Calendar and Announcements 2009

### SEPTEMBER

**7-10** Western and Central Pacific Fisheries Commission Northern Committee, Nagasaki, Japan

**15** Pelagic Plan Team, Council office, Honolulu

**16-17** Habitat Workshop, Council office

**22-24** Marine Recreational Information Program Operations Team Workshop, Woods Hole, Mass.

### OCTOBER

**1-6** Western and Central Pacific Fisheries Commission Technical and Compliance Committee, Pohnpei, Federated States of Micronesia

**3** Hawaii Science Teachers Association and OCEANIA Marine Educators Association conferences and Waikiki Aquarium Marine Educators Night, Honolulu

**7** Western Pacific Stock Assessment Review for Hawaiian Islands bottomfish, Honolulu

**11** Hawaii Fishing & Seafood Festival, Honolulu

**13-15** Scientific & Statistical Committee, Honolulu

**17** Malama Maunalua Bay Festival, Hawaii Kai

**20-23** Western Pacific Regional Fishery Management Council, Honolulu

**21** Fishers Forum, Honolulu

**31-Nov. 5** US Coral Reef Task Force, San Juan, Puerto Rico

### NOVEMBER

**9 - 13** Scientific & Statistical Committees National Meeting II, St. Thomas, US Virgin Islands

**10-12** Marine Fisheries Advisory Committee, Washington, DC

**16-18** Western Pacific Fisheries Information Network data workshop, Honolulu

**27-29** 20th Japanese Sea Turtle Symposium, Miyazaki, Japan

**30-Dec. 1** Hawaii Monk Seal Recovery Team, Honolulu

### DECEMBER

**2-4** Marine Mammal Commission, Honolulu

**7-11** Western & Central Pacific Fisheries Commission, Papeete, Tahiti

### Western Pacific Regional Fishery Management Council

The Council will convene Oct. 20-23, 2009, at the Downtown YWCA, 1040 Richards St., Honolulu, Hawaii. Major agenda items are Hawaii longline quota, territorial longline quotas, catch shares for the Hawaii longline and main Hawaiian Islands bottomfish fisheries, shortline management in the main Hawaiian Islands longline exclusion zone, total allowable catch for tuna and seamount monchong

at Hawaii's Cross Seamount, annual catch limits for species with known maximum sustainable yield, aquaculture management in the Western Pacific Region and changes to the Council's aquaculture policy. For more information, contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) or (808) 522-8220 or monitor [www.wpcouncil.org](http://www.wpcouncil.org) for upcoming agenda and more details.

### Fishers Forum "Hands-on Mini-workshops on Bio-sampling, Tagging and Other Ways Fishermen Can Contribute to Management"

On Oct. 21, 2009, at Pier 11, Honolulu, fishermen and other interested persons will be provided with opportunities to learn how they can help improve fisheries science and management. Fishermen will learn how to tag fish, conduct bio-sampling, accurately identify and measure fish, query fishery data by location using the upcoming online Fishing Ecosystem Analysis Tool (FEAT) and participate in traditional community-based fishery management. Participants can also learn about the latest research on coral reef-associated fish species. The Forum is sponsored by the Western Pacific Regional Fishery Management Council as part of its October 2009 meeting. For more information, contact the Council at [info.wpcouncil@noaa.gov](mailto:info.wpcouncil@noaa.gov) or (808) 522-8220 or monitor [www.wpcouncil.org/meetings/](http://www.wpcouncil.org/meetings/) for the agenda and more details.

## TAHITIAN STYLE NAIRAGI CARPACCIO

Serves 4 persons

- 1 lb block of fresh nairagi (striped marlin)
- sea salt (Hawaiian salt)
- white pepper
- 3 Tahitian limes
- 1 Maui onion, thinly sliced
- 3 Tbsp capers
- 2 Tbsp extra virgin olive oil

### Method and Plating:

Cut the nairagi block into extra thin slices. Place nicely displayed on an iced cold platter.

Salt and pepper. Squeeze the juice from the limes over the fish. Decoratively add the onion slices and capers.

Finish by spooning on olive oil. Chill before serving.



**Texture & Flavor:**  
*Moderate flavor with firm texture*

**Nico Chaize**  
Chef and Owner  
Nico's at Pier 38  
Honolulu

