

NOAA FISHERIES

Pacific Islands Regional Office

Federal Programs Office 2015 Annual Report



A Message from the Regional Administrator

We are pleased to announce that in fiscal year 2015 (FY15), the Federal Programs Office of the NOAA Fisheries Pacific Islands Regional Office (PIRO) processed 86 individual funding actions, resulting in 69 projects totaling \$9,905,700 in grants, cooperative agreements and financial assistance to constituents in support of the NOAA Fisheries mission. We issued these awards through competitive and noncompetitive financial-assistance programs. Recipients of the federal awards included 41 U.S. and international agencies and organizations from Hawaii, the Commonwealth of the Northern Mariana Islands (CNMI), Guam, American Samoa, the continental United States, and the greater Pacific.



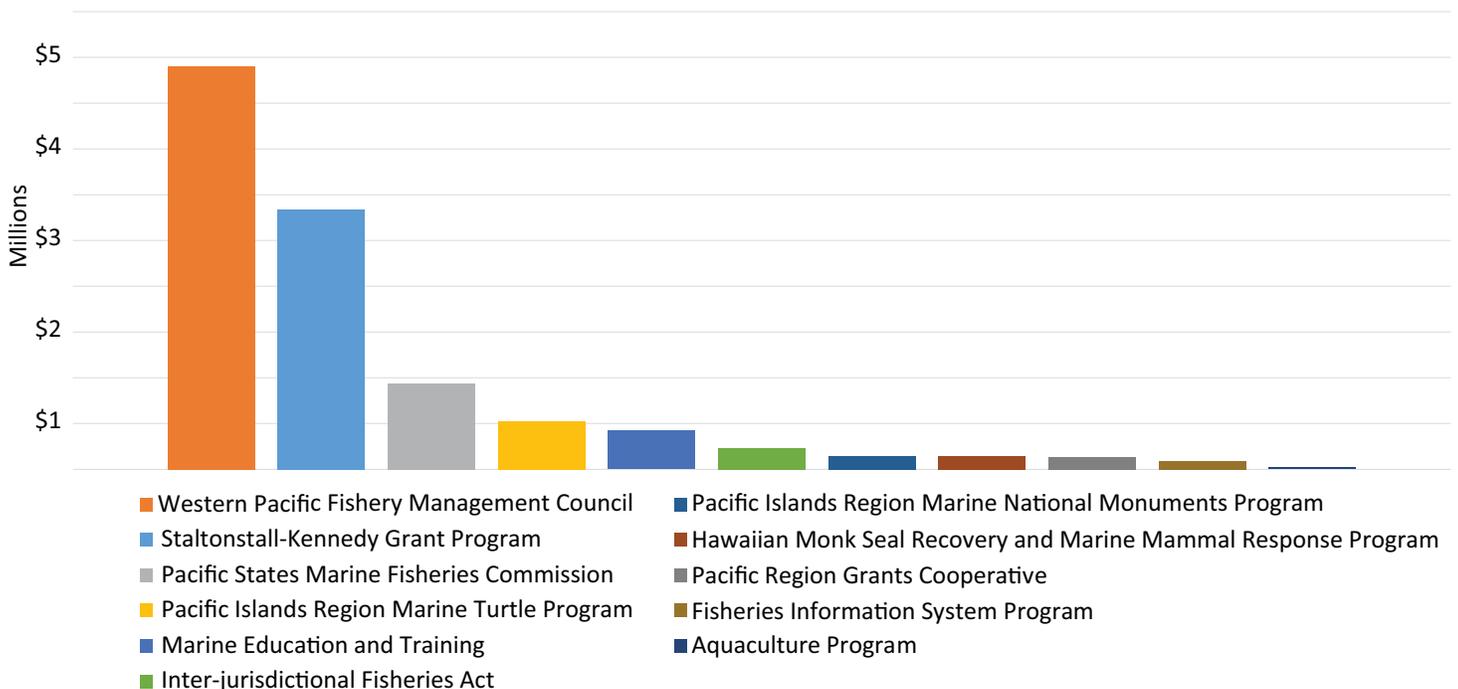
Michael D. Tosatto

Our efforts will continue to focus on capacity building, grant writing and proposal-development training for Hawaii and the territories, and working with communities to develop innovative projects that help NOAA Fisheries provide stewardship of living marine resources through science-based conservation and management in our region.

Highlights of PIRO's Federal Programs Office Activities

- Maintained and expanded both partnerships and collaboration efforts with public and private partners in the PIR to further NOAA's mission through federal financial assistance
- Awarded \$9,905,700 in grants, cooperative agreements and other financial support to constituents

Summary of Fiscal Year 2015 Funding



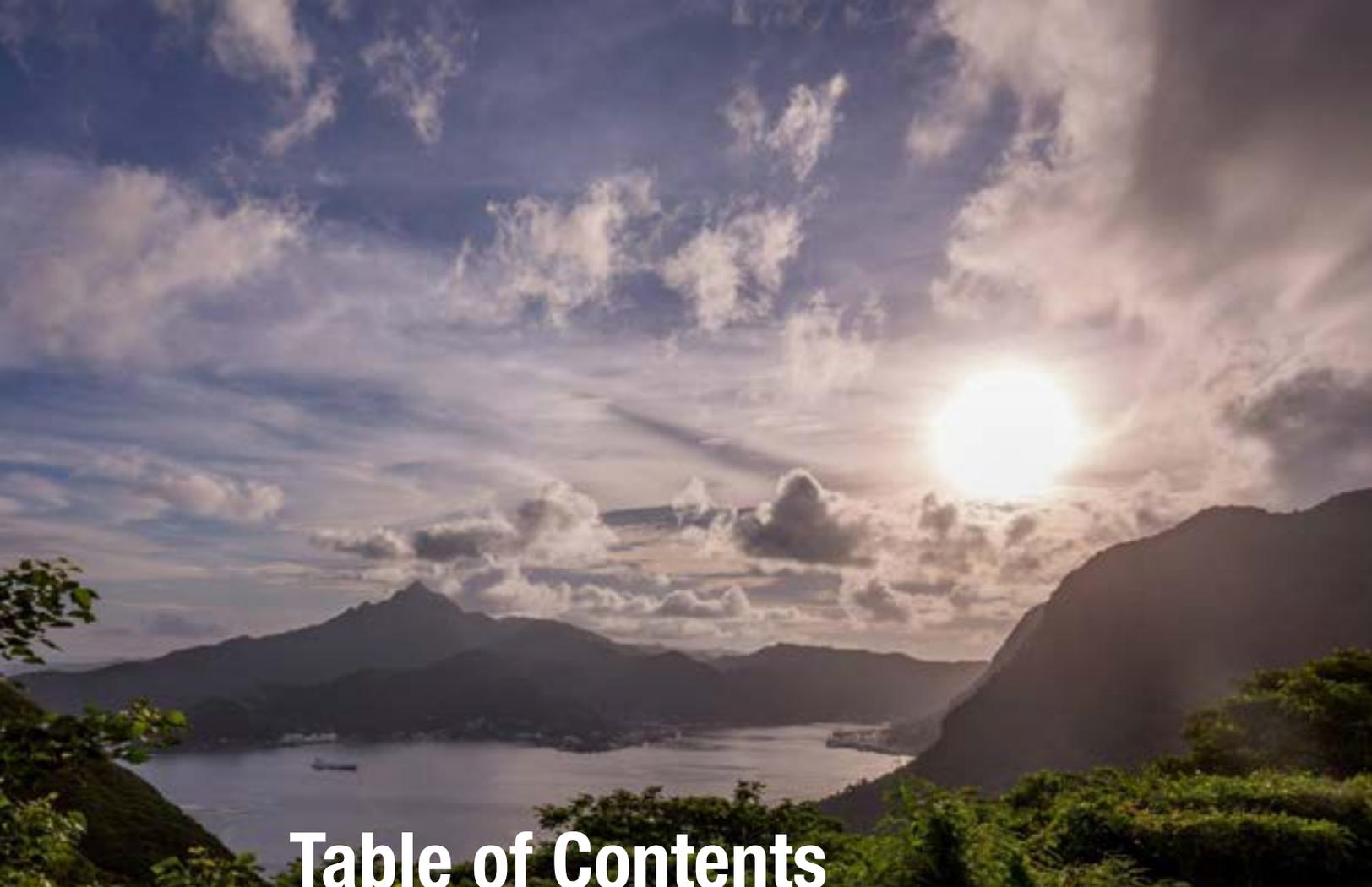


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*Pago Pago Harbor, American Samoa
– photo credit Caleb McMahan*

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PIRO manages programs that support both domestic and international conservation and management of living marine resources within the Pacific Islands Region (PIR), which is comprised of American Samoa, Guam, Hawaii, the CNMI and other U.S. Pacific Islands. Our vision is to achieve healthy marine ecosystems that provide: stability for fishery resources; recovery of threatened and endangered species; and enhanced opportunities for commercial, recreational and cultural activities in the marine environment.

PIRO is responsible for assisting the Western Pacific Fishery Management Council (WPFMC) in developing fishery management plans and amendments. In addition to PIRO and the WPFMC, the NOAA Pacific Islands Fisheries Science Center (PIFSC) and the NOAA Office of Law Enforcement (OLE) also collaboratively support the conservation and management of marine fisheries, protected species and marine habitat. Working together, these offices are committed to employing regional expertise to provide improved customer service and stewardship of living marine resources within this expansive geographic region.



An alia vessel heads back home after trolling for pelagic fish off Aunu'u island, American Samoa – photo credit Caleb McMahan

Federal Programs Office

The Federal Programs Office is located at PIRO in Honolulu, Hawaii. With technical assistance from PIRO and PIFSC staff, Federal Program Officers (FPOs) timely process grants and cooperative agreements throughout the award period, from the initial solicitation through post-award management. FPOs also work closely with the NOAA Grants Management Division, technical monitors and grant recipients throughout the award period to facilitate the successful completion of each grant's project objectives.

The Federal Programs Office supports the NOAA Fisheries mission through competitive and noncompetitive grants and cooperative agreements. PIRO funded the following programs during FY15:

- Western Pacific Fishery Management Council
- Marine Education and Training Program
- Pacific Islands Region Marine Turtle Program
- Hawaiian Monk Seal Recovery and Marine Mammal Response Program
- Pacific Islands Region Marine National Monuments Program
- Inter-jurisdictional Fisheries Act of 1986
- Saltonstall-Kennedy Grants Program
- Pacific States Marine Fisheries Commission
- Fisheries Information System Program
- Aquaculture Program
- Pacific Region Grants Cooperative
- Miscellaneous projects that meet criteria published under the 2014–2015 Broad Agency Announcement (BAA)

The BAA is a NOAA-wide solicitation of proposals for special projects associated with the NOAA strategic plan and mission goals. It is a mechanism to encourage research, education and outreach, innovative projects and sponsorships that are not addressed through NOAA's active competitive programs.

Western Pacific Fishery Management Council

The WPFMC prepares, monitors and revises fishery-management plans for domestic and foreign fishing within the 200-mile U.S. Exclusive Economic Zone (EEZ) in the western and central Pacific Ocean. PIRO is in charge of implementing the management measures created by WPFMC and the NOAA OLE, the U.S. Coast Guard 14th District and local enforcement agencies enforce the measures.

In Fiscal Year 2015, PIRO awarded the WPFMC two 5-year cooperative agreements to support their base administration and operations, as well as their protected species conservation and management program. In addition, the WPFMC received a 2-year award to support the goals and objectives of the Western Pacific Sustainable Fisheries Fund as identified in the the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act §204. In all, the WPFMC received \$4,400,476 for the following activities:

1. **Base Administration and Operations (\$2,735,708)**
2. **Annual Catch Limits Implementation (\$197,528)**
3. **Scientific and Statistical Committee Stipends (\$55,764)**
4. **National Scientific and Statistical Committee Meeting (\$75,000)**
5. **Regulatory Streamlining Program (\$94,563)**
6. **National Environmental Policy Act (\$88,998)**
7. **Council Peer Review (\$142,076)**
8. **Council Education Committee Scholarships (\$50,000)**
9. **Council Education Committee Internships (\$50,000)**
10. **Territorial Science Initiative (\$321,589)**
11. **High School Fisheries Summer Courses: Hawaii, Guam, CNMI and American Samoa (\$62,500)**
12. **Bigeye Tuna Management Workshops (\$70,000)**
13. **Western & Central Pacific Fisheries Commission (\$50,000)**
14. **Limited Access Privilege Programs (\$50,000)**
15. **Protected Species Conservation and Management Program (\$200,000)**
16. **Western Pacific Sustainable Fisheries Fund V (\$156,750)**

The WPFMC Protected Species Conservation and Management Program aims to address fisheries interactions with protected species, and has significantly reduced sea turtle and seabird interactions in the Hawaii-based longline fishery through the adoption of various mitigation technologies. The WPFMC management program also supports conservation projects at nesting beaches and foraging grounds for North Pacific loggerhead turtles and Western Pacific leatherback turtles, both of which are high priority subpopulations due to historically high interactions with Hawaii-based fisheries.

The Western Pacific Sustainable Fisheries Fund V will support the goals and projects identified in the Marine Conservation Plan of the CNMI. Efforts will include improving community-based fishing projects and the fisheries-statistics database with the CNMI Department of Land and Natural Resources (DLNR). The community-identified projects will support one of seven priority areas, including, but not limited to: expanding data collection and reporting; resource assessments, monitoring and research; enforcement training; promoting economic growth and local food production; and outreach and educational projects.



Hawaiian monk seal and green sea turtle resting on the beach – photo credit PIFSC



Kauai underwater mini-observatory – photo credit Georgeanne Purvinis, Kauai Community College

Marine Education and Training Program

In 2007, Congress amended the Magnuson-Stevens Reauthorization Act to include §305 (j), which provides guidance on the development of a marine education and training program. Public Law 109-479 states:

The Secretary shall, in cooperation with the Western Pacific Fishery Management Council, establish programs that will improve communication, education, and training on marine resource issues throughout the region and increase scientific education for marine-related professions among coastal community residents, including indigenous Pacific Islanders, Native Hawaiians, and other underrepresented groups in the region.

In 2015, PIRO funded 18 marine education and training projects, totaling \$420,865.

The Malama Learning Center’s Hawaii Green Collar Institute — Look to the Limu, a Marine Education Program for Students and Educators (\$15,000)

To prepare community residents for employment in marine-related professions, 18 educators and student ambassadors from Leeward Oahu, Molokai and Lanai will participate in a hands-on professional-development and training program. Participants will learn about contemporary marine-resource-management issues and ocean-related careers, and increase the awareness of the value of maintaining healthy marine ecosystems through individual and collective participation.

Keolohilani Lopes — Snorkeling Assessments and New Discoveries (SAND) (\$6,210)

Junior and senior high school students will participate in this 10-day program — designed to fuel the passion of young adults for the ocean and promote environmental stewardship and marine science careers — at the Kalaemano Interpretive Center in Hualalai, Hawaii Island. This hands-on educational curriculum provides an introduction to current scientific sampling techniques of fish, invertebrates and algae, as well as an understanding of the environment, anthropogenic influences and traditional Hawaiian approaches to resource management.

Pacific Islands Fisheries Group — Secondary School Culinary Education on the use of Local Sustainable Fish, Fisheries, Seafood Safety and Management (\$15,000)

This program will introduce Oahu high school culinary programs and students to sustainable fisheries and ways to better integrate local seafood into culinary curriculums. It will provide culinary instructors with information about how Hawaii’s fresh, local fish can be used in their teaching lessons and curriculum. Students will learn about and work with fresh, wholesome, healthy local fish that are

commonly used in homes and restaurants across the islands. In addition, this effort will also host the first high school culinary student challenge featuring Hawaii's prized pelagic fish in the Ahi Bowl. Through this competition, motivated culinary students will be exposed to educational and professional opportunities in the culinary and foodservice industries.

Malama Pupukea-Waimea — Developing Ocean Stewards on Oahu's North Shore (\$13,943)

Children, youth and adults will participate in a hands-on learning experience at the Pupukea Marine Life Conservation District (MLCD) located on the North Shore of Oahu. This State-designated MLCD is designed to conserve and replenish marine resources, and is one of only three MLCDs on Oahu. The Ka Papa Kai ("seaside class") is an educational program that strengthens children's knowledge of Hawaii's marine ecosystems through science, culture, community service and adventure. Under the grant, organizers will hire a youth intern to assist with the Ka Papa Kai program. In addition, the program will train volunteers about sustainable seafood and responsible aquaculture in Hawaii, and volunteers will pass this information on to the many visitors of the MLCD.

Hawaii Pacific University — Workshops: Molecular Genetics Tools in Fisheries, Aquaculture and Conservation (\$14,907)

Two molecular-tool workshops will be conducted for early-career, marine-science professionals, teachers or residents pursuing careers in marine science in Hawaii and the territories. Advances in molecular biology have allowed scientists to better understand the biology, genetics and ecology of marine species; as a result, experts now commonly use new molecular tools to aid in the management of commercially important fisheries. Understanding the genetics, biology, and history of species is important to Hawaii and the territories, so having a workforce trained in molecular tools is essential to the proper management and sustainable utilization of marine resources. Despite the current and likely increased use of molecular tools in the future, young professionals and those pursuing a marine science career often lack hands-on experience with and exposure to these tools.

Pacific Historic Parks — War in the Pacific National Historical Park Youth VISTA Ranger Coral Reef Bleaching Monitoring Program (\$15,000)

This program will teach local high school students how to conduct coral-bleaching surveys and data collection while snorkeling within the Pacific National Historical Park in Guam. These activities are part of an effort to train and support youth and communities on Guam to engage in coordinated efforts of marine monitoring and data gathering on coral colonies in the shallow areas within the National Park. The program and opportunity will allow youth to participate as volunteers in their National Park to improve communication, education and training on climate change; learn how climate change affects the reefs and fisheries of Guam; and earn valuable service-learning hours required for high school graduation.



*Student performs coral rugosity survey at American Samoa QUEST
— photo credit Jeff Kuwabara*

Kuaaina Ulu Auamo (KUA) — Hookua: A Pilot for Practitioner-Driven and Practitioner-Determined Strategies for Accelerating Learning and Preserving Traditional Knowledge Related to Marine Resources (\$15,000)

Twenty conservation practitioners from more than ten conservation sites will come together for a hands-on learning experience at three fishpond and limu (edible algae) areas. Participants will share and learn strategies for understanding and preserving traditional knowledge related to marine and fishery resources, specifically fishponds, fishing grounds and limu areas. This effort was conceptualized by members of Hui Malama Loko Ia and inspired in part by the work of Onipaa Na Hui Kalo, a statewide farming organization that works to connect traditional kalo (taro) growers through collective work days, accelerating the opening of new loi (taro patch) and sharing of knowledge for loi stewardship. Through this project, KUA will apply this model of collaboration in the marine environment, facilitating and organizing practitioners to adaptively pilot this strategy for at least three marine-resource-stewardship sites.

Continental Micronesia/The Ayuda Foundation — Use Service Learning Projects in High Schools to Showcase Careers in Marine Related Fields (\$14,940)

The Ayuda Foundation will provide improved opportunities for high school students to participate in service-learning projects in marine-related fields at a time when they are considering their future career paths. For students, abstract lessons in science classes become more relevant through hands-on instructions, and then there is enhanced understanding of how those classes can prepare them for a rewarding career in marine-related fields. High school students in Guam will be able to search for marine-related service-learning projects through the newly developed Prutehi i Tasi yan I Tano (Protect the Ocean and Land) website.

University of Hawaii Systems — Continuing to Build Pacific Islander Capacity through Training in Underwater Surveying Techniques (\$15,000)

Pacific Islander undergraduate students in fisheries science, marine biology and other related fields at the American Samoa Community College will participate in an underwater-surveying training course. The course will be a snorkel-based version of the Quantitative Underwater Ecological Surveying Techniques (QUEST) course conducted by the University of Hawaii Marine Option Program (MOP). Students will gain hands-on experience, new technical skills and knowledge of marine resources that will enhance their academic portfolio, increase their job competitiveness and strengthen their desire to pursue a career in marine science or related fields.

Commonwealth of the Northern Mariana Islands — Promoting the Sustainability of Wild Fisheries in the Commonwealth of the Northern Mariana Islands Through an Ecosystem-based Educational Aquarium Exhibit (\$15,000)

This program will develop an ecosystem-based educational aquarium display in Saipan, CNMI, to increase the awareness of the sustainability of wild fisheries in the islands. In partnership with the CNMI public library, the exhibit will feature informational placards describing sustainable harvesting practices, life history strategies and coastal ecology of the fish and invertebrates on display. It will also incorporate an audio station relaying this information through headphones. The aquarium display will encourage youth to pursue a career in marine science or fisheries, and the placards will illustrate how data is collected to determine the health of coral reefs.

University of Hawaii Systems — Marine & Aquatic Resource Lawyers Network (MARLN) (\$15,000)

As a means to expand state and inter-agency capacity for enhanced marine-resource protection and conservation, the University of Hawaii will support marine-fisheries-focused natural-resource training for six legal fellows and affiliated attorneys and law students from the Environmental Law Program with the State of Hawaii DLNR. This learning exchange will provide networking opportunities with marine management professionals; communications training; professional development; and the creation of a Marine & Aquatic Resource Lawyers legal handbook and orientation guide. This effort will help develop a stronger, more sustainable, broader professional network for marine conservation and enforcement students and professionals.



Student-designed and built drifter in Fagaalu Bay, American Samoa – photo credit Jameson Newston

in growing their own food and learning about sustainable agriculture. SIASE will enhance this program through the development of science-based education and training on aquaponics systems. It will provide opportunities for participants to engage in hands-on, science-based activities and curriculum that will build capacity for the aquaponics industry, as well as support self-sufficiency and food security in the state.

Lanai Limu Restoration Project — Lanai Limu Restoration Project (\$15,000)

The Lanai Limu Restoration Project will re-establish healthy limu (edible, indigenous seaweed) in the Maunalei Ahupuaa (watershed) coastal environment on the island of Lanai, and create a self-sustaining limu population to support healthy fish habitat. This project will also provide a unique opportunity for environmental students at Lanai High and Elementary School, their family members and teachers and community residents to increase their participation in efforts that seek to preserve the island's threatened marine resources.

University of Hawaii Systems — Building Pacific Islander Capacity in Coastal Fisheries and Sustainable Aquaculture (\$15,000)

This project will provide undergraduates with opportunities to participate in an aquaculture internship program at the American Samoa Community College. Interns will learn about marine resources that will enhance their academic portfolio, and strengthen their desire to pursue a career in aquaculture, fisheries or related fields. In addition, they will be exposed to local Department of Education faculty and marine-resource-agency staff, and have opportunities to participate in agency research.

University of Hawaii Systems — Sustainable Integrated Aquaponics System Education (SIASE) on Hawaii Island (\$15,000)

Established by the Kohala Center, the Hawaii Island School Garden Network supports school-based gardens and opportunities for students to participate



MOP student surveys – photo credit Jeff Kuwabara

University of Guam — Enhancing Marine Science Capacity in the Western Pacific Through High School Science Internships at the University of Guam (\$24,675)

As the sole four-year undergraduate institution in Micronesia, the University of Guam (UOG) plays a major role in enhancing marine-science capacity in the region. In partnership with the Guam Science and Discovery Foundation, this program will provide students selected from research projects in the Guam Island-wide Science Fair with an opportunity to participate in an internship program. Selected interns will have an opportunity to conduct hands-on research with UOG marine scientists, sparking their interest to continue their science education.

University of Hawaii Systems — UH Manoa Marine Option Program Support (\$149,989)

To provide experiential opportunities for students with ocean-related interests in all majors, MOP offers marine-education programs and activities for undergraduates across more than 40 disciplines. MOP will continue to provide career counseling; help students identify and implement hands-on internships and research projects to meet their MOP certificate requirements; liaise with project mentors; and monitor student progress. The program will facilitate scientific diving opportunities and assist in teaching aspects of underwater-surveying practices and principles.

University of Guam — Developing In-Water Ecological Surveying Skills at the University of Guam: Guam QUEST 2.0 (\$16,201)

The University of Guam will implement an underwater-surveying training course for undergraduate students interested in marine biology, which will be based on the success of the MOP QUEST course. Through training and an instructional exchange, teachers at UOG will develop and implement a program that will allow students to gain hands-on experience, new technical skills and knowledge of marine resources that will enhance their academic portfolio, increase their job competitiveness and strengthen their desire to pursue a career in marine science or related fields.

University of Hawaii Systems — Ka Wa Ma Mua, Ka Wa Ma Hope, Using the Past to Inform the Future: English Translation of Hawaiian Language Newspaper Accounts of Fisheries Information (\$30,000)

The University of Hawaii will provide public access to coastal and fisheries-related news articles from Hawaiian language newspapers published from 1834 to 1948. This program will create an online searchable database and website that contains images of the original articles, translations and information on how to use the online resource. This effort will allow scholars and researchers to quantify and study the use of coastal areas and historic management of fisheries resources through local and traditional knowledge gleaned from the Hawaiian language newspapers, enabling them to better inform ecosystem management decisions in the 21st century.



Senior students from Hapi Omoka, Tongareva Atoll, conducting green turtle nest inventory – photo credit Michael White

Pacific Islands Region Marine Turtle Program

The Pacific Islands Region Marine Turtle Program supports specific programmatic activities for the conservation, protection and management of listed sea turtle species in the PIR. These species may occur within the PIR or have documented linkages to the PIR, such as turtles that originate from areas outside of U.S. jurisdiction but migrate through or forage within the PIR, or interact with PIR fisheries managed by NOAA Fisheries. In 2015, PIRO issued 12 federal assistance awards totaling \$524,535.

Malama Na Honu — Malama Na Honu Educational Outreach and Volunteer Support (\$15,000)

Malama Na Honu volunteers will continue to provide sea turtle education for visitors to the famous Laniakea Beach on Oahu, and monitor and record daily sea-turtle behaviors for the NOAA Fisheries Marine Turtle Research Program. Malama Na Honu volunteers provide public education that reduces sea turtle–human interactions and promotes respectful wildlife viewing.

Ocean Discovery Institute — Proposal to Test Sensory-Based Methods to Reduce Bycatch of Sea Turtles, Elasmobranchs and Finfish in Small-Scale Commercial Gillnet Fisheries (\$45,000)

Increasing catch selectivity in gillnet fisheries reduces bycatch of sea turtles. The Ocean Discovery Institute will test the effects of orange light-emitting diodes (LEDs) on green sea turtles, as well as both target and bycatch fish in a coastal gillnet fishery. Additional research will test the effects of auditory deterrents on green sea turtle bycatch rates and will survey fishermen for their thoughts on the research.

Hawaii Wildlife Fund — The Research, Protection and Monitoring of Maui Nui’s Nesting and Foraging Hawksbill Populations (2015–2019) (\$34,970)

The Hawaii Wildlife Fund’s Hawksbill Recovery Project will monitor and protect Hawaiian hawksbill turtles to increase their survivorship and aid in the recovery of the endangered species. Conservation efforts will identify both nesting and in-water hawksbills and their associated habitats, improve the quality of these habitats and promote survival by reducing numerous threats. The ecology and population numbers for this critically endangered species are not well known; therefore, outreach and education activities will continue for local communities on and around the islands of Maui, Lanai and Molokai.

Guam Department of Agriculture — 2015 Guam Sea Turtle Recovery Program (\$20,000)

To address the limited availability of information on the population dynamics of sea turtles in Guam, the Guam Department of Aquatic and Wildlife Resources will conduct sea-turtle nesting surveys that include tagging, sampling and monitoring activities in the waters surrounding Guam. Haggan (Turtle) Watch volunteers will complement these activities by coordinating community awareness-raising activities and stranding and recovery efforts.

Commonwealth of the Northern Mariana Islands Department of Lands and Natural Resources — Stewardship of Northern Mariana Islands Sea Turtles through Conservation and Management (\$69,975)

The green and hawksbill turtle populations in Saipan are threatened by increased recreational beach use, fishing pressures, human population growth and coastal development. To provide a strong foundation for science-based conservation and management practices throughout the commonwealth, the CNMI DLNR will increase their conservation-education and public-awareness campaigns. This project will develop a more robust region-specific curriculum for elementary school students, an increased anti-poaching and stranding-response advertising campaign and more training for volunteers in the Sea Turtle Program.

American Samoa Department of Marine and Wildlife Resources — Investigations Into The Status of Marine Turtles of American Samoa: An Intensive Monitoring of Green and Hawksbill Turtle Nesting Beaches in Ofu Island and a Stranding Response Programme in Tutuila Island (\$50,275)

The Wildlife Division of the American Samoa Department of Marine and Wildlife Resources (DMWR) will continue its American Samoa Marine Turtle Conservation Program. Staff will monitor beaches at Ofu-Olosega for green and hawksbill nesting turtles, map and identify harmful lighting on the nesting beaches of Tutuila, continue satellite tracking of sea turtles in the islands, expand genetic studies and respond to emergency strandings of turtles in Tutuila. To complement these efforts, this program will also increase education and outreach activities that enhance public awareness and support turtle conservation in the Territory.

World Turtle Trust — Hawaii Island Hawksbill Turtle Recovery Project (\$88,616)

The goal of the Hawaii Island Hawksbill Turtle Recovery Project (HIHTRP) is to manage and protect hawksbill sea turtles and their nesting habitats along the southern coast of Hawaii Island. To understand population trends and spatial and temporal nest distribution on the island, this project will continue nightly monitoring, nesting-habit management and onsite education activities at hawksbill-nesting habitats and throughout the community on the Island of Hawaii. HIHTRP staff will continue to survey potential nesting sites for signs of activity, and control non-native mammalian predators and vegetation. In addition to hawksbills, threatened green sea turtles, endangered Hawaiian monk seals, endangered nesting sea birds and other marine life benefit from the HIHTRP's protection and management of coastal habitat and educational outreach efforts.



Mid-term sea turtle embryos on Tetoto, Cook Islands – photo credit Michael White

Na Kama Kai — Use of Na Kama Kai Programs Create to Teach and Disseminate Information about the Status, Natural History, and Conservation of the Threatened and Endangered Hawaiian Turtles (\$7,000)

Na Kama Kai provides educational and outreach services about the ocean and environment for keiki (youth), giving them the opportunity to learn about the marine environment through modern and traditional modes of education. Na Kama Kai will include a marine turtle conservation and stewardship component to their community-based monthly ocean clinics and Alakai programs. These efforts will elevate public awareness and improve their understanding of green and hawksbill turtle status and conservation issues, while also building capacity at the community level for both green and hawksbill turtle recovery. These programs will offer unique venues to facilitate productive communication between NOAA and local residents, especially Native Hawaiian communities and fishermen.

Pro Delphinus — Advancing Leatherback Conservation in the Southeast Pacific Through Bycatch Mitigation and Community-Based Conservation: A Three-Year Project (\$55,520)

The goal of this three-year project is to promote long-term population stability of leatherback turtles in the Pacific by reducing and mitigating interactions with small-scale gillnet fisheries in Ecuador and Chile. This will be accomplished through multiple objectives, including: raising awareness and promoting action regarding the conservation of leatherback turtles and mitigation options among gillnet fishermen, local and regional government officials and Ecuador and Chile partners; conducting sea turtle-bycatch mitigation trials, such as net-illumination, net-patrolling and net-bycatch-alert activities; and monitoring bycatch-vessel systems and the barriers to mitigation through socio-economic studies and at-sea testing.



*Releasing juvenile green turtle at Tongareva Atoll
— photo credit Michael White*

this process and will continue to transfer the requisite technology and skills to Malaysian fishermen and the Malaysian Department of Fisheries. The project will continue demonstration trials using fuel-management meters and real-time video evidence to back up arguments for fuel efficiency and TED performance. Other important components of the overall outreach strategy include dialogue sessions with fishery leaders in different States, development and testing of new fishery-led TED implementation and uptake.

The University of the South Pacific — Conservation of American Samoa-Origin Stock of Green Turtles in a Key Foraging Ground in Fiji, with Cascade Effects on Management of Central South Pacific Sea Turtle Populations (\$31,599)

Satellite-tracking data and flipper-tagging programs revealed clear links between the green sea turtle stocks originating from American Samoa and the foraging grounds of Fiji. This project focuses on identifying and protecting primary foraging areas for the green sea turtle, and providing an evaluation of the foraging ecology and habitat use of the American Samoa green turtle population. The program will conduct these studies on key Fijian foraging grounds during the nesting and non-nesting seasons. Expected outcomes for the project include an increased sharing of information on foraging ecology and habitat use of endangered green turtles; enhanced capacity to conserve and sustainably manage sea turtle populations; and improved protection of turtles at foraging grounds.

Open Boat Films, LLC — Team Sea Turtle: A Community-Based Kids Outreach Film Project Focused on the Northern Mariana Islands and Guam (\$56,580)

The Team Sea Turtle project will inform and build local capacity for the conservation of marine turtles in the communities of the CNMI and Guam. The project seeks to design, produce and distribute a short film for children about sea turtles, with help from NOAA's Marine Turtle Conservation and Research Program (MTCRP), the Micronesian Island Nature Alliance (MINA), the CNMI DLNR Sea Turtle Program and other local partners. The project's primary target audience is school-aged children living in the CNMI and Guam, though organizers will also distribute the film to other Pacific Islands communities connected to these turtle populations, given the biogeography of marine turtles as a shared resource.

Registered Trustees of the Marine Research Foundation (MRF) — Operationalizing Malaysia's Turtle Excluder Device Program, Phase II (\$50,000)

This project delivers training workshops to fishermen, net makers and fisheries officers to support the execution of the Malaysia National Turtle Excluder Device (TED) Implementation Strategy. The MRF is the technical advisor to



Hawaiian Monk Seals in the Northwestern Hawaiian Islands

Hawaiian Monk Seal Recovery and Marine Mammal Response Program

The Hawaiian Monk Seal Recovery and Marine Mammal Response Program supports specific programmatic activities related to promoting the recovery of endangered Hawaiian monk seals and supporting responses to marine mammal strandings in the main Hawaiian Islands (MHI) and U.S. Territories. This program supports community-based and community-integrated projects with an educational component designed to elevate public awareness and build community capacity for Hawaiian monk seal recovery and marine-mammal response. In 2015, PIRO issued federal assistance awards totaling \$145,900.

Pacific American Foundation — Project Kai Kai: Marine Mammal Stewardship and Research (\$18,300)

This education and outreach project will improve awareness and support for Hawaiian monk seal recovery among youth on Kauai, as well as facilitate communication and collaboration between NOAA Fisheries staff and local Kauai community members. The project will design and pilot a Junior Mammal Response Network Support Program for approximately 20 youth in the Anahola area. This program includes opportunities for community elders (kupuna) and agency staff to mentor youth on traditional Hawaiian and Western scientific perspectives regarding marine-resources management, with an emphasis on marine mammals.

The Marine Mammal Center — Hawaiian Monk Seal Stranding Response Program Capacity Building (\$10,000)

Ke Kai Ola monk seal hospital is a Hawaiian monk seal medical facility located at Keahole Point, Hawaii Island. The Marine Mammal Center manages a volunteer network that supports Hawaiian monk seal response and rehabilitation at the hospital, as well as related public outreach on the Island of Hawaii. This project will improve Hawaiian monk seal recovery and response through: a rehabilitation program; a well-managed stranding response volunteer network; and coordinated community efforts and partnerships that improve local resident understanding of and participation in activities that promote Hawaiian monk seal recovery.

The Kohala Center — Engaging the West Hawaii Community for Hawaiian Monk Seal Recovery through Ke Kai Ola (\$18,300)

To enhance community understanding and support for Hawaiian monk seal response and rehabilitation efforts in western region of Hawaii Island, the Kohala Center will conduct outreach and engagement at the Ke Kai Ola monk seal hospital. Fourth-grade classes will visit the hospital to gain a better understanding of these unique marine mammals. Activities include: improved coordination and engagement with NOAA, volunteers, fishermen, community members and the Marine Mammal Center staff; and local cultural-practice and protocol training for volunteers.



Volunteers present about monk seals to elementary school students on the Big Island of Hawaii – photo credit Kohala Center

Hawaii Pacific University — Furthering Quality Cetacean Stranding Investigations in the Pacific Islands (\$6,000)

Hawaii Pacific University (HPU) has conducted cetacean-stranding response and cause-of-death investigations in the PIR since 2006. Stranding investigations serve as the only means to determine causes of mortality in cetaceans around Hawaii; through this work, experts have documented, for the first time in these animals, a number of marine-mammal diseases and a variety of anthropogenic threats. HPU continues to maintain the capacity to initiate an immediate response when dolphins and whales are stranded throughout the MHI, and this project proposes to ensure robust and complete cetacean stranding investigations, while maximizing the information that can be gained from each stranded cetacean.

The Malama Learning Center — Sounding the Call for the Recovery of the Hawaiian Monk Seal Through the Voices of Our Youth (\$18,300)

The Malama Learning Center aims to improve public awareness and support for Hawaiian monk seal recovery. Building on current education and outreach activities, this project will create a Hawaii-based, youth-focused, outreach campaign concentrating on caring for monk seals. The project seeks to reduce the number of monk seals intentionally killed or removed for behavioral issues, and increase the participation of volunteers in the response network to better reflect Hawaii's social and cultural diversity. Through working with youth on the islands of Kauai, Molokai and Oahu (specifically in the Waianae district), the project will develop four one-minute videos, a feature film 4–5 minutes long and multiple public-service announcements. Final videos and information will be available online, on local TV outlets and through social media.

Monk Seal Foundation — Hawaiian Monk Seal Response Team Management: Volunteer Coordination (\$42,000)

The Monk Seal Foundation will build and manage a volunteer monk seal response network on the islands of Oahu and Molokai. In collaboration with PIRO, the project will train and equip volunteers to handle a variety of seal responses, including seal haul outs, pupping events, reports of injury or death and special-needs responses.

Monk Seal Foundation — Hawaiian Monk Seal Response Team Management: Volunteer Management and Response Equipment (\$33,000)

In addition to the volunteer-coordination project mentioned above, the Monk Seal Foundation will provide approximately 150 volunteers with the equipment necessary to appropriately respond to monk seal activities. This project will train volunteers on preferred outreach and education strategies to engage the public at these events. The Monk Seal Foundation will continue to build organizational capacity by undertaking efforts to increase volunteer recruitment and retention.

Pacific Islands Region Marine National Monuments Program

In 2009, a Presidential Proclamation designated three new Marine National Monuments (MNM) in PIR (adding to the existing Papahānaumokuākea MNM), thereby protecting these relatively undisturbed marine ecosystems, which are flourishing with healthy coral reefs, large numbers of apex predators, significant fish biomass and healthy seabird populations. PIR supports the management objectives of these MNMs — the Marianas Trench MNM, Rose Atoll MNM and Pacific Remote Islands MNM — and is developing management plans for them, which will guide managers in the preservation and protection of the resources in these isolated locations. NOAA annually solicits proposals for projects to fulfill the objectives of the Proclamation and MNM management goals. In 2015, the Marine National Monument Program sought proposals that advance monitoring technologies and techniques in the enforcement, surveillance and/or ecological monitoring fields. For FY15, PIR issued a single federal assistance award totaling \$149,097.

H. T. Harvey & Associates (Triple HS, Inc). — Advancing Automated Monitoring Technologies to Provide Near Real-Time Information on Vessel Traffic and Environmental Conditions at Remote Island Refuges (\$149,097)

Researchers will test the efficacy of using a Wave Glider — an autonomous, ocean-going platform programmed to patrol offshore waters and configured to provide near real-time meteorological, oceanographic and vessel-surveillance information — at the MNMs, excluding the Papahānaumokuākea MNM. The project seeks to demonstrate that gliders can detect different types of vessels in near real-time locations where diverse vessels are commonplace, provide site-specific environmental data for monitoring local ecological processes and inform the planning and execution of field operations of Pacific MNM personnel.

Inter-jurisdictional Fisheries Act of 1986

The Inter-jurisdictional Fisheries Act of 1986 assists states in managing inter-jurisdictional fisheries resources. Apportionment to states is based on the average value and volume of raw fish that domestic commercial fishermen land. The data obtained is the principle source of information and analysis for the fisheries activities and management options that are used to address federal requirements for fisheries management plans under the jurisdiction of NOAA Fisheries. In 2015, PIR allocated \$234,703 to this program.

Commonwealth of the Northern Mariana Islands, Division of Fish and Wildlife — Data Collection and Entry in the Management of CNMI's Inter-jurisdictional Fishery Resources (\$11,209)

The CNMI Division of Fish and Wildlife (DFW) will collect, process and share important fisheries-monitoring data during fishing tournaments for use in federal and local fisheries-management programs. This data will be the principal source of information for the analysis of fisheries activities and the development of management options for pelagic species landed. The CNMI DFW will then use these analyses and management options to address federal requirements for the fishery management plans under the jurisdiction of NOAA Fisheries.



Guam Fishermen's Cooperative, Hagatna, Guam

American Samoa Department of Marine and Wildlife Resources — American Samoa Fisheries Stock Assessment and Monitoring Program (\$134,503)

The DMWR will assess and monitor fish species caught within the American Samoa EEZ. This program will provide the fisheries information needed to develop, implement and evaluate fishery-management plans for the territory of American Samoa in a timely manner.

Guam Bureau of Statistics and Plans — Data Collection and Data Entry in the Management of Guam's Inter-jurisdictional Fishery Resources (\$11,209)

Guam Pacific Fisheries Data Program will develop management and conservation plans for Guam's inter-jurisdiction fishery within its Territorial waters and EEZ by first monitoring and documenting transshipped species of fish that are offloaded by foreign longliners within Guam's commercial port. The program is designed to help address the information requirements needed by both state and federal governments.

State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources (Hawaii DAR) — Maintain Online Commercial Fisheries Reporting System Applications for the State of Hawaii (\$77,782)

Hawaii DAR will maintain two websites for managing fisheries reporting in Hawaii. The Commercial Marine Licensing System is an online platform for issuing and renewing commercial-fisheries marine licenses and permits. It also supports fish tracking and fish-dealer report log history files. The Online Fish Report website allows people to file all fish and fish-dealer reports online.

Saltonstall-Kennedy Grant Program

The Saltonstall-Kennedy (S-K) Grant Program is a competitive program administered by NOAA Fisheries. The program provides financial assistance (grants and/or cooperative agreements) for research and development projects that benefit the U.S. fishing industry. The program's statutory authority is the S-K Act, as amended (15 U.S.C. 713c-3). The S-K Act established a fund for the Secretary of Commerce to provide funding support for projects addressing aspects of U.S. fisheries including, but not limited to, harvesting, processing, marketing and associated infrastructures. In 2015, PIRO awarded \$2,841,448 in federal funds via the S-K Grant Program.

Pacific Islands Fisheries Group — Identifying Stock Connectivity in Data Poor Regions of the North Pacific: Striped Marlin Cooperative PSAT and Conventional Tagging Program for Hawaii and Mariana Islands (\$395,402)

A collaborative tagging program will take place in Hawaii and the Mariana Islands to identify movements, behavior, seasonality and oceanographic associations of juvenile and adult striped marlin. Researchers will coordinate the application of 30 Pop-up Satellite Archival Tags (PSAT) and hundreds of conventional tags to create a cooperative tagging program network with longline and small boat/charter fishermen. Researchers will sample fin clips when possible and archive them for future genetic analysis. This is a pilot study intended to expand partnerships with the commercial small boat and longline fishing communities in Hawaii and the Mariana Islands.

Hawaii Longline Association — Testing the Commercial Viability and Practicality of a Catch-Triggered Deterrence Device for Mitigating Marine Mammal Depredation in the Hawaii Deep-Set Longline Fishery (\$223,250)

This pilot project will determine, through field trials, the commercial viability and practicality of two deterrent devices that were designed to reduce depredation by false killer whales and other odontocetes (toothed whales) in the Hawaii longline fishery, while causing minimal disruption to fishing operations. If the field trials demonstrate their efficacy, these devices may be promising tools for reducing mortality and serious injury of false killer whales and other odontocetes, while also providing economic relief to fishermen who experience substantial loss of catch, bait and gear to depredation events.



*Oceanic whitetip shark directly off of a longline vessel
— photo credit Caleb McMahan*

University of Hawaii — The Effects of Handling on Post-Release Mortality Rates of Shark Bycatch in Longline Fisheries: Identifying “Best Handling Practices” and Improving Stock Assessments (\$313,279)

The University of Hawaii will conduct a satellite-tagging study to identify the “best handling practices” that reduce mortality in discarded sharks in the Hawaii and American Samoa longline fisheries. Through quantitative assessments of the post-release mortality rates of sharks using different handling methods, in combination with empirical knowledge from skippers and crew, this project will obtain survival-rate estimates and develop and widely disseminate a set of standards for appropriate handling and release practices.

Texas A&M University - Corpus Christi — Testing the Effects of Community-Managed “Rest Areas” on Coastal Hawaiian Fisheries (\$399,516)

The objective of this project is to rigorously test the effects of community-managed “rest areas” (where harvesting is halted along a designated length of shoreline) on fishery stocks within and outside the rest areas, focusing specifically on the opihī fishery in Maui. Experts will evaluate the effectiveness of these rest areas by monitoring the populations of intertidal invertebrates and algae in Hawaii and employing population genomics to detect fine-scale patterns of gene flow in opihī.



New Year's Eve at the Honolulu fish auction – photo credit Caleb McMahan

Conservation International — Assessing the Value and Supply Chain for Coastal Fisheries in the Main Hawaiian Islands (\$249,498)

There is currently a critical-knowledge gap in producing fisheries ecosystems and assessing the value of fisheries and supply chains for coastal fisheries in Hawaii. Research to address this gap will inform and improve sustainable fisheries management, and identify opportunities for strengthening seafood supply systems and market benefits. To do this, this project will estimate the total production and catch from coastal fisheries in the MHI, map seafood volumes and value across supply chains in different sectors and quantify the socio-cultural benefits for coastal fisheries in the MHI. This information will inform a combined estimation of the total economic and socio-cultural value and benefit from coastal fisheries for each fishery sector across Hawaii.

Marine Applied Research Center, LLC — Assessing the Relative Resilience of Coral Reefs and Herbivorous Fish Communities to Climate Change in U.S. Territories to Inform Ecosystem-Based Fisheries Management (\$266,451)

Researchers will assess and analyze the relative ability of herbivorous fish communities and fringing coral reefs of Guam and the U.S. Virgin Islands to withstand or adapt to climate change. They will also engage with fisheries-management agencies and fishing communities to identify potential target sites for actions that support resilience to climate change. They will collaboratively develop an interactive atlas with resource managers and community members, along with a suite of education and outreach materials targeted for different uses and audiences, including high school students, fishing-community members, reef stakeholders and the general public.

Hawaii Wildlife Fund — Building Capacity for Sustainable Fisheries Management through Science and Tradition: Micronesian Outer Islands (\$193,010)

Responding to the request from local fishers and leaders and following a successful pilot project, this program will address a lack of fishery and habitat data, as well as a lack of management planning in Yap State outer islands, Federated States of Micronesia (FSM). This program will conduct surveys of fish assemblages associated with fish-reef habitats to refine the on-going fisheries-data-collection program with local communities, and build knowledge capacity and long-term community involvement. The Hawaii Wildlife Fund will focus on education and outreach, and will include the exchange of knowledge and experience with Hawaii resource managers. The program will eventually expand to additional outer island communities in Yap State to develop program reach and benefits.

Hawaii Seafood Council — Hawaii Pelagic Longline Fishery Bycatch Nutrient Assessment (\$165,000)

The longnose lancetfish and snake mackerel are caught and discarded at very high rates in the Hawaii longline fishery. This project will evaluate the nutrient composition of both whole and fillet fish to measure the economic potential and creative incentive for retaining, landing and marketing these fish. These efforts will help provide information for retention incentive and utilization, while also reducing bycatch and fishery waste in Hawaii's longline fisheries.



View of the sunrise from a Hawaii longline vessel – photo credit Caleb McMahan

University of Hawaii — Diversification of Income for Fishing Communities in the Federated States of Micronesia (FSM) and Republic of the Marshall Islands Through Low-Input Sustainable Aquaculture of Marine Invertebrates for the Marine Ornamental Trade (\$236,042)

This project will test marine-aquaculture technologies on a pilot and commercial scale and provide training for fishers in coastal communities in aquaculture-production methods. This project involves a partnership between: the University of Hawaii at Hilo; the Marine and Environmental Research Institute of Pohnpei; two private sector marine ornamental farmers/wholesalers; and artisanal fishers who have the opportunity to transition into alternative livelihoods from aquaculture.

Fresh Island Fish — Commercial Scale Sustainable Feed for Aquaculture Development in Hawaii (\$400,000)

The exceptionally high cost of fish feed is the biggest barrier to commercially viable aquaculture in Hawaii. This project will demonstrate the commercial viability of a scalable and unique local fish-feed-production process using fish-processing waste from the local wild-caught fishing industry. It will introduce a paradigm shift in fish-feed manufacturing in the United States, and also divert fish-processing waste into the aquaculture-product value chain to support food security, enhance commerce and protect marine resources in Hawaii.

Pacific States Marine Fisheries Commission

In FY15, the Pacific States Marine Fisheries Commission (PSMFC) was awarded a cooperative agreement through the Alaska Regional Office and PIRO. PSMFC staff work to support specific objectives of the proposed activities, including: providing services and research support relating to Pacific fishery stakeholders that are consistent with the mission of NOAA Fisheries; coordinating training, workshops and meetings to gather and convey information; collecting and maintaining electronic data, tools and data-gathering mechanisms to effectively and efficiently collect and report on fish stock and fishery-management information; assisting with treaties and international agreements implementation; and assisting fishery stakeholders and NOAA Fisheries by providing administrative support to accomplish the above objectives. In 2015, PIRO provided \$938,682 to support PSMFC activities.

Marine National Monument Program Support (\$73,800)

The NOAA Fisheries Marine National Monuments Program, located in PIRO, develops and implements management plans, permits and outreach information for the four MNMs in the Pacific: Papahānaumokuākea, Rose Atoll, Pacific Remote Islands and Marianas Trench. These MNMs were designated under the Antiquities Act and are co-managed with a variety of state and territorial partners.

Coastal and Marine Spatial Planning Support (\$120,000)

Coastal and Marine Spatial Planning is a comprehensive and ecosystem-based mechanism to identify, document, and plan for holistic coastal management, and advance goals for economic development and marine conservation. Through this collaborative and community-based process, it allows agencies to better understand and plan ocean and coastal activities within an entire region, using the best science available and input from all communities and stakeholders. Staff will hold workshops, meetings and stakeholder engagements to synthesize the available scientific data from NOAA Fisheries and partner agencies, and to develop a U.S. Pacific Islands CMSP plan that is science-based and adaptive.

Stock Assessment and Fishery Evaluation Report — Pacific Island Pelagic Fisheries (\$100,000)

A Stock Assessment and Fishery Evaluation (SAFE) report summarizes the best scientific information available concerning the past, present and possible future condition of the stocks, essential fish habitat (EFH) and marine ecosystems, as well as the social and economic conditions of commercial and recreational fisheries under federal management. SAFE reports provide regional fishery management councils and NOAA Fisheries with information for determining the annual catch limits for each stock in the fishery; documenting significant trends or changes in the resource, marine ecosystems and fishery over time; implementing required EFH provisions; and assessing the relative success of existing and relevant state and federal fishery-management programs. This project will lead to the development of a SAFE report for the Fishery Ecosystem Plan (FEP) for Pelagic Fisheries of the Western Pacific, by the WPFMC and implemented by the National Marine Fisheries Service (NMFS).

Identifying Fish Stocks Requiring Federal Conservation and Management in Hawaii (\$100,000)

Management unit species (MUS) are those species targeted by the fishery that are managed under a fishery ecosystem plan (FEP). This effort will assess the harvest of bottomfish, crustacean, precious coral and coral reef ecosystem MUS from the exclusive economic zone (EEZ) around Hawaii. The assessment will allow scientists to identify whether or not a specific stock is in need of conservation and management. The project will help determine whether the WPFMC and NMFS should keep certain stocks included in the FEP.

Completion of Geodatabase on Locations of Listed Corals in Guam, CNMI and American Samoa (\$39,882)

This project will establish a web-based, publicly available, user-friendly GIS database showing known locations of Endangered Species Act (ESA)-listed corals in Guam; the CNMI; American Samoa; Baker, Howland and Jarvis islands; Johnston Atoll; Palmyra Atoll; Kingman Reef; and Wake Island. Since the final ESA coral listing in September 2014, there has been a sharp increase in demand for island-scale spatial information and maps on locations of listed species around the approximately 30 islands and atolls in the Pacific.

Integration of Coral Endangered Species Act requirements into Coral Essential Fish Habitat, Clean Water Act and Fish and Wildlife Coordination Act Assessment and Mitigation Standards in the U.S. Pacific Islands (\$125,000)

This project will integrate coral ESA requirements into the assessment and mitigation standards of the coral essential fish habitat (EFH), Clean Water Act (CWA) and Fish and Wildlife Coordination Act (FWCA) in the U.S. Pacific Islands. It seeks to develop coral ESA-mitigation requirements that complement NMFS's ongoing regional effort to develop protocols for coral Magnuson-Stevens Fishery Conservation and Management Act (MSA)-EFH/CWA/FWCA assessment and mitigation. It will integrate presence/absence and quantification data for ESA-listed corals into ongoing coral assessments within action areas; if corals are present, the project will determine how to avoid, minimize and mitigate impacts to the corals. The project will also implement protocols to ensure that federal actions will meet coral requirements in the PIR.

Management of Logistics and Implementation of Leadership/Staff Development (\$115,000)

NOAA Fisheries PIR will provide management consulting, logistics and facilities coordination for three workshops focused on the implementation of various leadership and staff development programs.

NMFS Program/Technical Support (\$120,000)

Computer programmers will develop an automated data analysis and storage system for the PIRO Observer Program, as well as other PIRO needs. This program will also convert paper processes to electronic — increasing the availability and security of the data — and create various levels of reports to disseminate the data. These efforts will decrease staff workloads, reduce paper use and eliminate duplicate work among observer debriefers.

Support for the Scoping Process for a NEPA Programmatic Environmental Impact Statement on the Implementation of the Amended South Pacific Tuna Treaty (\$145,000)

The Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America (commonly known as the South Pacific Tuna Treaty, or SPTT) manages access of U.S. purse seine vessels to the EEZs of 16 Pacific

Islands Parties, as well as adjacent high-seas areas. The SPTT provides assistance for fisheries development in Pacific Island countries. This initiative will support the initial stages of developing a Programmatic Environmental Impact Statement (PEIS) and will coordinate and implement stakeholder engagement, define the scope, identify significant issues and other environmental-review and consultation requirements.

Fisheries Information System Program

The Fisheries Information System Program (FIS) works collaboratively with partners to ensure every stakeholder can easily access comprehensive, high-quality, timely fisheries information. FIS launched in 2003 to improve the nation's ability to effectively manage our living marine resources, while still preserving regional fishery-science and management autonomy. FIS enhances the communication, collaboration, prioritization, funding and sharing of best practices among federal, regional and state agencies. In 2015, PIRO issued a federal assistance award to FIS totaling \$95,000.

Commonwealth of the Northern Mariana Islands — Upgrading to an Electronic Reporting and Monitoring System in the CNMI: A Pilot Project (\$95,000)

This project seeks to improve and implement an electronic reporting and electronic monitoring program for fisheries-dependent data at the local agency level through creel surveys in the CNMI. The collection of fisheries-dependent data from the CNMI Department of Fish and Wildlife's creel surveys and mandatory commercial-fish recording and reporting law provides critical information for conservation and management of its fisheries resources. This pilot project will utilize tablet technology and develop a data-collection application to reduce and organize the high volumes of data collected from variable sources, locations and times. This effort will streamline data collection and improve quality assurance from existing Fisheries Information Network field creel surveys and from the mandatory recording and reporting of the commercial sale of fish within the CNMI.

Aquaculture Program



*Community workday at Moli'i Fishpond, Kualoa, Oahu
— photo credit Kimi Makaiaiu*

The mission of PIRO's Aquaculture Program is to foster marine aquaculture that creates employment and business opportunities in coastal communities; provide safe, sustainable seafood; and support healthy ocean populations and ecosystems. Aquaculture is one of a range of technologies needed to meet increasing global demand for seafood, support commercial and recreational fisheries and restore species and marine habitat. In 2015, PIRO issued a federal assistance award totaling \$20,000 for the Aquaculture Program.

Conservation International — Developing Policy and Regulatory Guidance for Loko Ea Practitioners (\$20,000)

This project will aid fishpond practitioners in navigating the new unified permitting system developed by the State of Hawaii's Office of Conservation and Coastal Lands, Honua Consulting, Conservation International Hawaii, NOAA, Kuaaina Ulu Auamo and other partners. This system integrates more than 17 environmental regulations into a single permit system for the restoration, repair, maintenance and reconstruction of traditional Hawaiian fishpond systems. Fishponds offer opportunities to restore and revitalize cultural sites and practices; rebuild coastal estuarine function that has been

documented to enhance natural ecosystem dynamics; educate youth through experiential learning; prepare for, and adapt to, the effects of climate change; and provide community food security and self-sufficiency. This effort will provide guidance on how to access, use and abide by the tenants of the permitting system. This project will develop a guidebook that provides practical, easy-to-understand guidance for the public and fishpond practitioners, as well as Best Management Practices.



Students participating in Kanehunamoku Voyaging Academy's traditional canoe sail – photo credit Bonnie Kahapea Tanner

Pacific Region Grants Cooperative

The NOAA Pacific Region Grants Cooperative (PRGC) provides increased grants-management services, regional grant-project oversight and engagement with Pacific Island NOAA grantees. The PRGC supplies regular, real-time, geographically-based grantee-training opportunities for the Pacific Region. Other capacity-building activities include sharing useful information and resources about financial management while collaborating, coordinating and communicating regularly across NOAA line-office grants-management staff. The PRGC continues to maintain a presence in communities and participates in conferences, workshops, outreach events and collaborative NOAA grant projects throughout the PIR. In 2015, the PRGC collaborated on spending \$134,994 in federal funds.

Kanehunamoku Voyaging Academy — Holo I Ka Ia (\$24,994)

Holo I Ka Ia is a collaborative project between the Kanehunamoku Voyaging Academy, the Papahānaumokuākea MNM and PIRO. This project will help revitalize traditional Hawaiian fishing-lure production and use, and document its usage at Papahānaumokuākea and other Hawaiian islands for historical, cultural, educational and scientific purposes.

The Nature Conservancy — A Collaboration of Scientists and Citizen Scientists to Collect Data on Shallow Coral Reefs Communities to Further Community-Based Conservation in Hawaii (\$25,000)

The shallow-water coral reefs of Hawaii have long been a source of abundant near-shore fish species that were ecologically, culturally and economically important. Over the past century, however, populations of many species have been in decline. This effort will collect comprehensive data on fish populations and habitats in the shallow-water reefs of several islands within the Papahānaumokuākea MNM that can be directly compared with data from the MHI, especially data collected by communities interested in promoting community-based conservation. Citizen scientists will directly assist in data collection as a means to engage and educate members of the public in the practice of applied, community-driven science, as well as in the value of marine-managed areas, with the hope that these individuals will champion their benefits to stakeholder groups.

Iterashima Environmental Services — NOAA Grant Writing Workshops (\$85,000)

Iterashima Environmental Services will conduct a series of grant-writing and proposal-development workshops within the State of Hawaii (on Oahu, Lanai, Maui, Kauai, Molokai and Hawaii Island), Guam, the CNMI and American Samoa, with an expected total participation of at least 400 potential grant applicants. The objective of these workshops is to improve the quality of grant applications submitted in the PIR. The workshops are a hands-on approach to writing grant proposals and provide guidance on refining future applications. During the workshops, NOAA Fisheries grant staff will be available to answer questions about the overall grant process and future competitions.

2015 Unfunded Federal Programs

The following programs were not funded in FY15 due to budgetary constraints:

Western Pacific Demonstration Projects: Public Law 104-297 (16 U.S.C. 1855) authorizes grants for Western Pacific Demonstration Projects that foster and promote the involvement of communities in the western Pacific.

Hawaii Seafood Program: The Hawaii Seafood Program is an effort to help strengthen the economic viability of Hawaii's fishing and seafood industry through activities that promote Hawaii fisheries as high-quality and safe domestic seafood produced by a responsible and well-managed fishery.

PIRO's Marine Underwater Techniques Training Course (Internal Program): The Marine Underwater Techniques Training program is a partnership between the PIRO Habitat Conservation Division, the Federal Programs Office, the NOAA Restoration Center, the Papahānaumokuākea MNM, the University of Hawaii and the State of Hawaii. This program provides a crucial link to young scientists entering the workforce by giving them technical skills that will allow them to develop into effective marine-resource researchers and managers. This cross-cutting endeavor creates a synergy of knowledge that provides a unique and powerful learning experience for the students of MOP.



NOAA FISHERIES

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