

**Sanctuary Update**  
NATIONAL MARINE SANCTUARY OF AMERICAN SAMOA  
April-August 2014

**Accomplishments**

**1) Cultural Heritage and Community Engagement**

**Sanctuary Wellness Champions!**



Fitness champions in the NMSAS wellness program are flanked by their coach

NMSAS profiled 6 individuals who have lost more than 50 pounds from participating in Sanctuary Wellness-Tae Bo Fitness since its launch last year in May. The 6 individuals shared their success stories with the media—how they stayed determined and committed to the program, and why. NMSAS has consistently assisted the community in combating health issues affecting American Samoa! "It is all about staying fit and eating healthy", said the Senator's good lady, Etenauga LamYuen Lutu. The 6 individuals are; Fa'asolo Tago lost 220 lbs., Dick Kuka, 59 lbs., Katrina HS, 70 lbs., Patricia Fu'a, 55 lbs, Anthony Maugaotega, 65 lbs and Ete LamYuen Lutu—fit, healthy, and feeling great all the time! On May 17<sup>th</sup>, they will

participate and share their testimonies at the "Healthy People, Healthy Ocean Family Fun Day". Contact [veronika.mortenson@noaa.gov](mailto:veronika.mortenson@noaa.gov).

*Significance: Promoting fitness and health to the community, enabling them to make the right choices, preserving our cultural and natural resources.*

**Healthy People – Healthy Ocean (Sanctuary Wellness)**

NMSAS staff hosted the "Healthy People-Healthy Ocean Family Fun Day", an occasion to commemorate the one year anniversary of the Sanctuary Wellness—Tae Bo Fitness at the Tauese P.F. Sunia Ocean Center. The event attracted close to 400 individuals, including children, each of whom received information about the importance of marine conservation, as well as pointers on fitness and healthy eating/living. Fitness demos from the different fitness groups on island, (Hot Hula, Zumba, Body Combat, MMA, and Tae Bo), were enjoyed to the fullest by everyone. The Kids' Korner was buzzing with an array of fun games.

Six individuals who triumphed in the past year were honored and recognized for the huge accomplishment in their health. Fa'asolo Tago lost 230 pounds and was presented with a round trip airline ticket to Apia donated by Polynesian Airlines. Katrina Seumanutafa lost 70 pounds and was presented with a \$50 gift voucher donated by Tradewinds Equator Restaurant. Anthony Maugaotega lost 67 pounds, Dick Kuka lost 59 pounds, Patricia Fu'a lost 52 pounds. Etenauga Lutu was recognized as the oldest participant who consistently participates to maintain cardio health. Contact: [veronika.mortenson@noaa.gov](mailto:veronika.mortenson@noaa.gov)

*Significance: Connecting how we take care of our oceans to taking care of our health! Our*

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*ocean and national marine sanctuary sites need our assistance in ensuring these special places are maintained, kept healthy and nurtured for future generations.*



Sanctuary team and community members enjoy the Healthy People-Healthy Ocean Family Fun Day

### **Swains Island film debuts**



The new PBS documentary film “Swains Island: One of the Last Jewels of the Planet” debuted on Tuesday, May 13, 2014 at the Inouye Regional Center on Ford Island, Hawaii. Superintendent of the National Marine Sanctuary of American Samoa (sanctuary) Gene Brighthouse said the film was shared with the many Swains community residents who reside in Hawai’i so they can have the opportunity to see it before it was officially launched in American Samoa.

Renowned French explorer, environmentalist, educator and film producer Jean Michel Cousteau officially delivered the PBS film to the Swains community on August 22.

“Icons such as National Geographic’s Sylvia Earle — otherwise known as ‘Her Deepness’— were also present in American Samoa on invitation by Nainoa Thompson of the Polynesian Voyaging Society. Nainoa Thompson, Jean Michel Cousteau, Sylvia Earle and Office of National Marine Sanctuaries Director Dan Basta launched a Pacific Ocean Campaign. The events were timed in conjunction with the monumental landing of the World Wide Voyage (Hokule’a) which arrived in Pago Pago on August 21.

The hour-long film showcases the unique ecological and cultural aspects of Swains Island, including the coral reef, the lagoon, the tapua, and the village. The film was shot and produced by experienced diver and filmmaker Jim Knowlton who travelled with a delegation to Swains Island in August of 2013.

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The film is narrated by Jean-Michel Cousteau, son of famous oceanographer Jacques Cousteau. Cousteau was invited to visit Swains Island in 2013 by the Jennings family and the National Marine Sanctuary of American Samoa. He expressed his gratitude for the special opportunity to participate in the expedition, to better understand the mysteries of Swains Island. The premier of Swains Island: One of the Last Jewels of the Planet took place on Tutuila on August 22, 2014 to share this unique film with the residents of American Samoa. For additional information contact [Gene.Brighthouse@noaa.gov](mailto:Gene.Brighthouse@noaa.gov).

*Significance: The film will bring international attention to Swains Island, one of the most remote places in the world.*

## 2) Marine Conservation

### Pacific Islands Region Collaborative Crown of Thorns Eradication in American Samoa



In response to an anthropogenically driven outbreak of coral-eating, crown-of-thorns starfish (COTS), also known as *Acanthaster planci*, National Marine Sanctuary of American Samoa team members partnered with representatives from the National Park American Samoa, American Samoa Coral Reef Advisory Group, and Department of Marine and Wildlife Resources on a crown-of-thorns starfish (COTS) eradication effort at priority reefs and sanctuary management areas around Tutuila and Aunu'u. Led by NOAA's National Marine Sanctuary of American Samoa with support from sanctuary colleagues and the NOAA Dive Center in Seattle, the team conducted 32 dives between April 14 and 29 for a total of 184 hours underwater and covered more than 21 miles of reef, removing 1,440 crown-of-thorns starfish. Priority areas covered included National Marine Sanctuary of American Samoa management areas, the National Park of American Samoa, a Department of Marine and Wildlife Resources No-Take-Marine Protected Area, and a U.S. Coral Reef Task Force Priority Watershed, among many others. Following the conclusion of the project, results were presented to agency directors, community members, students and members of the media at an open public meeting at the Tauese P.F. Sunia Ocean Center.

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Planning included pre-operation tow-board and drop surveys that identified areas with high concentrations of COTS to focus removal efforts and achieve maximum success. Team roles and agency participation for all phases of the effort were also determined. The mission involved local, regional, and national collaborations and also included team members from the Papahānaumokuākea Marine National Monument, Hawaiian Islands Humpback Whale National Marine Sanctuary, and NOAA Dive Center as well as assistance from partners including the American Samoa Community College, Department of Public Safety Marine Patrol, US Coast Guard, LBJ Tropical Medical Center, Blue Sky Communications, Hawaiian Airlines, and volunteers.

American Samoa is currently experiencing outbreak levels of the coral-eating crown-of-thorns starfish or Alemea, (*Acanthaster planci*). Triggered by nutrient inputs and oceanographic changes, outbreaks with thousands to millions of crown-of-thorns starfish (COTS) can occur, collectively consuming so much coral that they decimate reefs. COTS destroy essential fish breeding grounds and habitat and can have a long term, negative effect on local fisheries. In the late 1970's, an outbreak killed most of the corals around Tutuila, including over 90% of the corals in Fagatele Bay. At the time, Fagatele Bay was not a national marine sanctuary, but this disaster propelled the decision for the site's designation. Eradication efforts have begun in the hope of reducing numbers before the breeding season and preventing secondary populations from forming. The most efficient removal method is to inject COTS with ox bile, a substance that kills the starfish but does not harm the reef. Injections are fast and reduce the risk of divers being stung by the COTS. To date, combined efforts have removed over 10,000 COTS, but the densest populations remain.

**Status:** In recent years, COTS have been monitored since outbreaks were sighted in mid 2012. The southern and northern portions of the island of Tutuila have been affected. As of April 2014, crown-of-thorns starfish have been sighted within the National Marine Sanctuary, National Park of American Samoa, the DMWR No-Take MPA at Fagamalo and other priority reefs around the island.

**Further Work:** Due to the ongoing COTS outbreak, there is an immediate need to ramp up the COTS removal program and protect the sanctuary management areas, national park sites, and other priority reefs in American Samoa. Additionally, a long-term and sustainable solution to addressing this threat in the Territory must be developed in cooperation with all relevant agencies and partners. Operations for the coming year are already being planned with ONMS rebreather divers from Hawai'i.

### Protocols

1. **Survey Reefs for COTS.** Ten minute tow-board surveys were conducted around Tutuila and Aunu'u to determine the distribution of COTS and to find hotspots to target for removals. COTS sightings and locations were recorded and GPS coordinates were taken to determine where to target eradication efforts.

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- 2. COTS Removal.** In areas where COTS were seen, sanctuary, parks, NOAA Dive Center divers and partners removed and/or inject all COTS observed. Ox bile injections were used due to its efficiency and safety. The effort involved three boats and a team of divers from April 14-28, 2014.
- 3. Documentation.** The number of COTS observed and removed were reported to the central data collector and entered into the shared project database between agencies to inform future efforts. Information will be used to inform agency directors, community members, and the media. A media event was held at the Ocean Center on April 15<sup>th</sup>. Following the project on April 28<sup>th</sup> another event was held to brief partners, the public, and the media at the Ocean Center. Findings from the project will also be written up and published accordingly.

*Significance: This extensive effort has worked to enhance partnerships and collaborations to address a major threat to natural resources, the local economy, and livelihoods. The mission involved local, regional, and national collaborators and included team members from across the National Marine Sanctuary System, laying a solid foundation for future sanctuary collaborations on research, monitoring, and reducing threats to natural and cultural resources in American Samoa. The valuable and effective teamwork and leadership that Pacific Islands Region sanctuary sites have contributed to this effort benefits not only the sanctuary but the greater Territory of American Samoa.*

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### 3) Climate Change

#### **Climate Monitoring in Fagatele Bay**

As part of a long-term project to monitor temperatures on shallow-water reefs in Fagatele Bay, a nearshore temperature logger was retrieved and a new one deployed on Tuesday. Monitoring temperature on shallow reefs gives us insight on the temperatures experienced by corals in the most vulnerable and variable locations, adding to data from offshore buoys and sea surface temperature readings.

Contact [wendy.cover@noaa.gov](mailto:wendy.cover@noaa.gov).



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**4) Ocean Literacy**

**National Marine Sanctuary of American Samoa exhibits at the 2014 Samoa Tourism Exchange**

The National Marine Sanctuary of American Samoa (Sanctuary) participated in the 2014 Samoa Tourism Exchange in Apia, Samoa from April 1-4. The trade show provided American Samoa and Samoa the opportunity to network with tourism suppliers, international tour operators, and media from New Zealand, Australia, United States, United Kingdom, Europe, China, South Korea.

and



The NMSAS booth display at the Samoa Tourism Exchange 2014 in Apia, Samoa

Sanctuary staff, Veronika Mata'utia Mortenson and Tanimalie Letuli, provided travel/trade agents with an overview of the National Marine Sanctuaries and emphasized ocean recreation in American Samoa.

The Sanctuary secured one booth (6.5'x6.5' ) to market Sanctuaries as travel destinations across the nation and in the Pacific. Trails to the units as well as snorkeling and diving opportunities throughout the units in American Samoa were significantly highlighted in the presentations and meetings with representatives.

The Sanctuary booth predominantly attracted representatives that coordinate hiking/backpacker adventures and dive expeditions. Other interested parties were representatives for exclusive tours and volunteers of citizen science projects.

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The exhibit consisted of one laptop that featured a PowerPoint presentation that was set on kiosk mode to allow visitors to view the slides on a continuous loop. In between meetings with tour and trade representatives the film *Penina Tutasi i Amerika Samoa*, which markets the National Marine Sanctuary of American Samoa and the Samoan culture, was played for casual observers. In line with “Projecting the Value of People & Place”, a digital frame with images featuring underwater shots of the units, trails, and the Festival of Sites were also displayed. Rack cards and brochures about the National Marine Sanctuaries, the National Marine Sanctuary of American Samoa and Tauese P.F. Sunia Ocean Center were also available. For more information, contact



[Veronika.Mortenson@noaa.gov](mailto:Veronika.Mortenson@noaa.gov).

### **Sanctuary Announces the Hokule'a high school winners**

On April 9<sup>th</sup>, the sanctuary announced the winners for the Hokule'a essay competition. The Tutuila winners are O'Riley Le'au (1<sup>st</sup>) and Gabrielle Langkilde (2<sup>nd</sup>). The Ta'u winners are Hope Autele (1<sup>st</sup>) and Patricia Penitito (2<sup>nd</sup>). O'Riley and Hope shared with the Press in an interview



about their winning essays.

O'Riley's essay was about his great grandfather and his trips to the Big Island of Savai'i on a small boat, navigating using only the alignment of stars, moon, sun, currents and birds.

*“All his techniques focused on science and math, my two favorite subjects.”* O'Riley explained.

During Hope's interview she expressed her feelings about winning the competition.



*“It never crossed my mind that I would win a seat on*

*the Hokule'a but when I received the good news*

*that I was selected, I was thrilled,”* Hope said, adding that her essay took a lot of effort and research, as her resources were limited, considering her remote location in the Manu'a Islands.

Two- winners traveled to Hawaii in mid-July for one-week to receive hands-on navigational training and visit the Papahānaumokuākea Marine National Monument and Hawaiian Islands Humpback Whale National Marine Sanctuary offices. Upon their return, they volunteered, assisting with the sanctuary's summer outreach programs. For more information, contact

[Isabel.Gauteote@noaa.gov](mailto:Isabel.Gauteote@noaa.gov).

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### **RIP Current meeting at the Tauese P.F. Sunia Ocean Center**



The National Weather Service presented an introduction to the Rip Current Awareness Week to over 100 Pulenu'u (village Mayors) at the Tauese P.F. Sunia Ocean Center. This was the first-ever Rip Current Awareness Week, from June 1-6, 2014 organized by the National Oceanic Atmospheric Administration (NOAA), American Samoa Department of Homeland Security (ASDHS) and TEMCO

along with its participating partners.

The RIP Current meeting reached out to village Mayors to spread the news about what Rip current is and events for the Rip Current Awareness week. Activities included an opening ceremony and the unveiling of the Rip Current sign in the village of Utulei (Suigaula), song/poem competitions with prizes, 3-day village outreach, and the launching of over hundreds of floating lanterns to close out the week on June 6th at the harbor behind the Fagatogo market. Contact [isabel.gaoteote@noaa.gov](mailto:isabel.gaoteote@noaa.gov)

*Significance: The Rip Current Awareness Week will increase awareness about this threat to ocean users.*

### **American Samoa to be highlighted on Google Street View and Catlin Underwater Earth**



Papahānaumokuākea Marine National Monument's Kālewa Correa spent a week in American Samoa filming for the Google Street View application. With the help of the sanctuary team, and a little McGuivering of their truck, Kālewa collected 18.2 miles of trails and roads for sanctuary and 152 miles for the people of American Samoa, including Fagatele Bay, Fagaluva/Fogama'a, and the island of Aunu'u. Also filmed were the Sunia Ocean Center and gift shop. He was able to attach the Trekker Street view unit (see photo), designed for collecting data while walking, to their truck and drove all the roads on Tutuila!

Additional imagery is planned for September 2014 with new partners Catlin Underwater Earth (see links below) to include 360 degree imaging of land and below the ocean surface of Manu'a, Swains Island Rose Atoll, and additional work around Tutuila and Aunu'u.. These images of the National Marine Sanctuary of American Samoa will be available on the Internet and will provide people around the world with panoramic views of our treasured gems. Since first posting the Papahānaumokuākea Marine National Monument's imagery two years ago, they have received over 1,000,000 views.

Contact: [gene.brighthouse@noaa.gov](mailto:gene.brighthouse@noaa.gov)

[Experience PMNM on Google Street View](#)

[http://www.papahanaumokuakea.gov/education/virtual\\_visits.html](http://www.papahanaumokuakea.gov/education/virtual_visits.html)

Underwater<sup>TM</sup>  
EARTH



#### CATLIN SEAVIEW SURVEY

<http://www.catlinseaviewsurvey.com>

<https://plus.google.com/+CatlinSeaviewSurvey/posts>

<https://www.facebook.com/CatlinSeaviewSurvey>

<https://twitter.com/SeaviewSurvey>

<http://www.youtube.com/user/CATLINSEAVIEWSURVEY>

*Significance: Google Street View and Catlin Underwater Earth provides an internet window into less accessible locations around the world, and adding American Samoa to the virtual travel experiences will bring attention to our most remote site.*

### 5) Partnerships and Interagency Collaboration

#### **National Park of American Samoa Assists with Development of Marine Sanctuary Trails**

Representatives from NOAA's National Marine Sanctuary of American Samoa and the National Park of American Samoa met recently to discuss plans for development of trails and signage for several locations overlooking the national marine sanctuary, including Fagatele Bay, Fagalua/Fogama`a, and Aunu`u. National Park staff provided an overview of the plans, which emphasize improving access to portions of the sanctuary and improving visitor experience through interpretive material. Rejuvenation of the Fagatele Bay trail is set to go ahead first, with Fagalua/Fogam`a and Aunu`u to follow. For more information, please contact [Charlene.Felkley@noaa.gov](mailto:Charlene.Felkley@noaa.gov).

*Significance: These improvements will help foster a greater connection between the public and the National Marine Sanctuary of American Samoa, which was expanded in 2012 to include several new areas where visitor access and signage are limited.*

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### **Meet with ASDOC to Discuss Exciting Opportunities**

With President Obama's travel and tourism mandate in mind, sanctuary team members met with delegates from the American Samoa Department of Commerce to discuss up-and-coming travel and tourism opportunities. On such opportunity includes a Business Exchange Program organized through the National Marine Sanctuary that began in April 2014. Three local business leaders, who have pledged to aide travel/tourism efforts in three different Pacific Islands Region sanctuary sites were chosen to travel to Kona, HI. In Kona these business leaders participated in tourism activities and learned what it will take to bring these tourism activities here to American Samoa. Vital connections will be made to help mentor this development with the ultimate goals of improving visitor services and creating tourism-based jobs.

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### **Media Coffee Chat**



The National Marine Sanctuary of American Samoa continues to host quarterly "Media Coffee Chats" at the Tauese P. F. Sunia Ocean Center. Recent meetings highlighted the events, programs, and activities that were planned for the upcoming months.

Communication/Outreach Coordinator Isabel Gaoteote and Education Outreach/Community Coordinator Veronika Mortenson also showed the Office of National Marine Sanctuary's (ONMS) "Investment" clip, followed by photos of events that have occurred since January. LT Charlene Felkley and Joseph Paulin also shared previous and upcoming Science events: the Search and Rescue Training with National Park of American Samoa and the collaborative efforts on the Crown-of-Thorns Starfish (COTs) removal. The Outreach Team presented on the Hokule'a winners, the Ocean Star Summer Program, Sphere Casting Tsunami presentation, Festival of Sites, and The Healthy People Healthy Ocean Day. For more information, contact [Isabel.Gaoteote@noaa.gov](mailto:Isabel.Gaoteote@noaa.gov)



### **Media Training**

In June 2014 the sanctuary team participated in a seminar for Media Training that was conducted by Richard Brundage (President and CEO of Center for Advanced Media Studies). NMSAS also invited staff from the NOAA Weather Station, National Park, Department of Marine and Wildlife, and Department of Commerce. Mr. Brundage discussed the secret formula to media, which was (1) to create themes, (2) inform

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your audience within 12 seconds and (3) always speak from your heart. In addition, Mr. Brundage had hands on activities or case studies that allowed groups to be in a certain situation and follow the secret formula. Afterwards, one group member was put in front of the camera for an interview, which was later critiqued and was shown to the audience.

*Significance: When it comes to talking to media one needs to use “trigger words” instead of “talking points”, and always speak from the heart.*

### Recent Events



**\*August 12<sup>th</sup> – SSV Seamans Open House** – Sponsored by the National Marine Sanctuary of American Samoa, this public event offered tours of the SSV Robert C. Seamans to discover the nautical and marine science possibilities aboard a working sailing school vessel.

In early August 2014, the Sea Education Association sailed the SSV Seamans from the Phoenix Islands Protected Area to Pago Pago, American Samoa. Arrival in American Samoa marked a six week stay for the vessel and her crew. During the six weeks, the National Marine Sanctuary of American Samoa will be organizing and hosting alongside the SEA crew, several days of programs for the benefit of the American Samoa Community.

**\*August 18<sup>th</sup> – World Renowned Explorers and Navigators Arrived in American Samoa** – Explorer Jean Michel Cousteau, Filmmaker Jim Knowlton, oceanographer and explorer Sylvia Earle, Native Hawaiian Master Navigator and President of the Polynesian Voyaging Society Nainoa Thompson, and Director of the Office of National Marine Sanctuaries Dan Basta. The group, invited guests of the National Marine Sanctuaries Program, was scheduled to head to the Manu'a Islands on August 19<sup>th</sup> and 20<sup>th</sup> to dive in the National Marine Sanctuary of American Samoa, Ta'u management area. This area, known as Valley of the Giants, is home to spectacular corals including what is believed to be the largest *Porities sp.* coral head in the world. Additionally, the team was to visit cultural sites and the National Park of American Samoa, Ofu Marine Park. However, due to rough seas the plans were changed and several events, dives, and underwater filming around Tutuila and Aunu'u took place.

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**\*August 21st – Mālama Honua Worldwide Voyage Visits American Samoa - Arrival of Hokule'a and Hikianalia into Pago Pago Harbor.** Scheduled events included a traditional welcome, ava ceremony, and festivities lead by the Swains Island Community and American Samoa Community College Samoan Studies Student Association. Festivities also included showcases of cultural and traditional dancing and songs to celebrate the safe journey and arrival of the Hokule'a to American Samoa.



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**\*August 22nd - Launch of Jean Michel Cousteau's and Jim Knowlton's PBS Documentary - "Swains Island - The Last Jewel of the Planet."** This public event was led by Jean Michel Cousteau and Jim Knowlton and hosted by the National Marine Sanctuary of American Samoa at the Ocean Center. In addition to Jean Michel Cousteau, invited guests featured oceanographer Sylvia Earle, Master Navigator Nainoa Thompson and Dan Basta, Director of the Office of National Marine Sanctuaries. The crew of Hokule'a and Hikianalia were also attendance.



**\*August 23rd - Polynesian Voyaging Festival** - crew and members of the Hokule'a and Hikianalia ran stations to share traditional knowledge and dialog with local residents, youth, and elders of American Samoa on the importance of Polynesian navigation, voyaging and link to culture. This event was featured as a festival in 5 work stations at the Ocean Center where films as well as demonstrations were highlighted.



**\*August 19<sup>th</sup> – Sanctuary Opens New Dive Exhibit**



**\*The coral bleaching research conducted by Dr. Tom Oliver** (Sanctuary Advisory Council Member) of **University of Hawai'i** will be continuing into next quarter and starting to train ASCC students to continue the work.