

Superintendent's Update Report

January - April 2013



The Superintendent's Update Report highlights major activities that have occurred at the National Marine Sanctuary of American Samoa (NMSAS) between January and April 2013. It also includes an overview of upcoming events, activities, and priorities over the next six months.

Accomplishments

Cultural Heritage and Community Engagement

On-Island CPR/First Aid/O2 Training for the Community

In preparation for Marine Safety Week in May, as well as to provide training for community members who conduct on-water operations, the National Marine Sanctuary of American Samoa (NMSAS) coordinated with Cardinal Point Captains to host CPR/First Aid/O2 training for NMSAS staff, and members of local agencies and businesses including Marine Patrol, Department of Marine and Wildlife Resources (DMWR), Industrial Gases, NOAA PIRO, and the Coral Reef Advisory Group. Two and a half days of training took place at the Ocean Center in American Samoa, and staff and community members are now certified to assist with life threatening situations.



Making a Difference during Spring Break

Middle school students from the village of Avaio toured the Ocean Center and participated in a snorkel and marine debris clean up during their spring break in March. The students learned about the importance of coral reefs while at the ocean center, and put this knowledge into action by helping clean up the reef near Faga'alu. The students removed aluminum cans, plastic bottles, and a fishing hook connected to 20 yards of monofilament line from the reef.

Cruise Shipping Miami 2013 Convention



Visitor/Volunteer Coordinator, Malie Letuli, joined the American Samoa Visitor's Bureau to market American Samoa as a travel destination at the Cruise Shipping Miami 2013 convention. Projecting the Value of Place was definitely in action. The National Marine Sanctuary of American Samoa was the main feature of the display and discussions on future tour packages and excursions to inform cruise planners and travel agent/coordinators. Planners were informed of the NMSAS *Festival of Sites* vision as well as the *Visitor to Village* excursions Volunteer/Internship & Scholarship Program.

Community Engagement

Village Mayor Aleaga Nili met with NMSAS Education/Outreach & Community Coordinator, Veronika Mortenson, to discuss the economic plan and opportunities for the village of Aunu'u. Mayor Nili submitted the names of three individuals to represent the village at a Business Workshop on March 22, 2013. The workshop provided participants with the tools to develop small business initiatives in their communities. This effort is in preparation for the *Festival of Sites* expo which NMSAS is hosting in May 2013 as well as the *Visitor-to-Village* excursions later in the summer.



Office of Samoan Affairs Briefing on Sanctuary Benefits for the Community

On February 11, 2013, the American Samoa Department of Commerce (DOC) and the National Marine Sanctuary of American Samoa hosted an important meeting with the Office of Samoan Affairs (OSA), district governors, county chiefs, village mayors and village police at the Tauese P.F. Sunia Ocean Center. The purpose of the meeting was to engage community leaders and provide villages with opportunities to create strong livelihoods and communities within new sanctuary units in American Samoa. DOC Deputy Director, Lelei Peau, gave a presentation on "Special Places", highlighting the six sanctuary units and its future plans. The attendees were given a chance to comment and suggest how NMSAS can better serve the people and communities of American Samoa.



Marine Conservation Science

Watershed-focused reef resilience research

In order to better understand the impacts of watershed-based sources of pollution on American Samoa's reefs, a team of researchers from the Pacific Marine Resources Institute, with support from NMSAS, has been conducting surveys of corals, algae, fish, and invertebrates across Tutuila. The NMSAS research coordinator joined in part of the week-long survey effort. Fagatele Bay and Fagalua/Fogama'a sanctuary units were included in the 15 survey sites, with Fagatele Bay representing the lowest impact level in a design that will provide a broader context to what confers resilience in our sanctuary units as well as across the island.



Nautilus Research in American Samoa

Scientists from the University of Washington conducted Nautilus research in American Samoa during the month of February. Nautilus have not been studied in these waters in over 30 years, so Dr. Peter Ward and his graduate students were trying to ascertain population estimates of the cephalopod Nautilus by deploying remote underwater video systems on baited traps for 10 hours each night to document movement and behavior. Tentacle clips were taken, and captured animals were measured, weighed, tagged, and then released. This research was funded by NOAA Fisheries, and the NMSAS, along with the National Park of American Samoa (NPAS) and DMWR, provided both staff and dive support to assist the scientists with their study.



Climate Change

Climate Change Indicators Monitoring

NMSAS has started temperature and conductivity monitoring in Fagatele Bay as part of a project to monitor key climate change indicators within sanctuary waters. Sanctuary scientists, with the assistance of ASCC interns, attached small waterproof Hobo data loggers to the reef at multiple depths. The loggers will record temperature and conductivity every 10 minutes, giving a detailed picture of the conditions our corals and other reef organisms are facing under a changing climate. Further loggers will be deployed in Fagalua/Fogama'a and Aunu'u units to monitor these variables across sanctuary units.



Future Leaders of the Pacific

Young leaders, ranging in age from 21 to 26, from 16 different Pacific Islands, including American Samoa, gathered at the Ocean Center to discuss regional issues such as women's empowerment, democracy and governance, climate change, sea bed mining, and non-communicable diseases. The Future Leaders gathering provided a mechanism through which the voices of younger generations of future Pacific leaders will be brought to the attention of today's government leaders. A major discussion topic was climate change, and Dr. Victoria Keener, climate change expert from the East-West Center, projected climate change data onto the Science on a Sphere[®] and led discussions on risk mitigation for Pacific Island nations. The gathering served as a springboard for a series of ongoing discussions that will feed directly into the Pacific Islands Forum meeting in Majuro, Republic of the Marshall Islands in August 2013.



NOAA Hollings Scholar

Summer Hollings scholar Sarah Seabrook came for a three-day site visit in March. This summer she will be working on a project evaluating the effects of climate change on coral and fish assemblages within the sanctuary units. She was able to discuss her future project, establish a timeline, and meet with sanctuary staff to prepare for her scholarship.

Ocean Literacy

Bruckner Chase Swims and Visits Schools

To connect the present to the ancient Samoan past across new National Marine Sanctuary areas in the South Pacific, Bruckner Chase swam around Aunu'u (5 miles) and paddled from Utulei to Fagatele Bay (12 miles). This was part of his "Blue Journey", to film a 2-Samoas documentary on fa'asamoa and the connection of the Samoans to the ocean. These efforts were supported by the NMSF, NMSAS, and Bruckner Chase-Ocean Positive. Bruckner provided training sessions for Marine Patrol staff and held a learn-to-swim clinic in Leone. The day after Bruckner's last swim, Bruckner and NMSAS staff visited schools to present on how they can become ocean heroes and stewards to our ocean. Students and teachers all hoped that Bruckner Chase will be back to share more about his journey.



Filming for NMSAS Video Project

With the recent expansion of NMSAS and the opening of the Tauese P.F. Sunia Ocean Center, new opportunities exist to reach out to local residents and visitors to the territory. To increase exposure, the sanctuary is in the process of developing a promotional film about the natural and cultural resources in American Samoa. During the month of March, the NMSAS science team and guest videographers captured underwater coral reef footage in the sanctuary units, as well as scenic landscapes in the National Park of American Samoa. Community members and villages were filmed to highlight Samoan culture. The purpose of the film is to capture, through the use of moving imagery and sound, the essence of American Samoa as a thriving natural resource with the focus on how that impacts its people, place, and culture. The video formatting will allow the feature to play on the Science on a Sphere® in the Tauese P.F. Sunia Ocean Center.



"Check For Understanding" Challenge for Ocean Swimming Ocean Science Class

Before the Ocean Swimming/Ocean Science (OS/OS) students of Samoana High School took their Spring Break, they presented on their “Check for Understanding” challenge. Students gave presentations on a marine science topic that they have learned from the past eight weeks of school, which included their accumulated knowledge from presenters of the college and various agencies and departments. There were eight groups that presented on the following topics: Threats to our Ocean, How to Prevent Threats, Different Kinds of Threats (natural vs. human), and Why Not to Fish Big Fish. At the end of each presentation, the instructors of the course were able to confirm that the students have really learned and “understood” the concepts that have been presented to their students. For the second half of the OS/OS program, the students will be doing hands-on activities; they will also be going out to snorkel-activities that will give them a real-life experience of their classroom learning. At the end of the semester, students will present in front of students from other high schools. They will be given the opportunity to teach and share with others what they have learned in the eighteen weeks of the course.



Tauese P.F. Sunia Ocean Center Visitor Count

Since its official opening in September 2012, the Tauese P.F. Sunia Ocean Center’s visitor count has reached 5,060 visitors. The Ocean Center is the only ocean learning, discovery, and training center for the Territory. The majority of the visitors are students (K-12), as well as tourists visiting the island via cruise ships. The center contains state-of-the-art exhibits, such as Science on a Sphere[®], and interactive learning tools that celebrate the importance of cultural and natural ocean resources as well as the value of the National Marine Sanctuary of American Samoa.



Resource

Protection and Enforcement

Crown-of-Thorn Starfish Surveys/Removals

The NMSAS, NPAS and DMWR have teamed up to remove excessive numbers of crown-of-thorns starfish (COTS) from local reefs, as a reported outbreak at outer banks and nearshore areas around Tutuila and the NMSAS have been spotted by various territorial agencies. COTS eat corals, and though normally present at very low levels, outbreaks with thousands to millions of individuals can occur, decimating reefs. In the late 1970's, an outbreak killed over 90% of the corals in Fagatele Bay. Removal efforts have begun in the hope of reducing numbers before the breeding season and preventing secondary populations from forming. The NMSAS and the NPS are currently injecting COTS with sodium bisulphate, a poison that kills COTS 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 approximately 1,000 COTS.



Partnerships and Interagency Collaboration

Village Based Visitor Development

NMSAS hosted a series of discussions with the public and private sector on how we, as partners, can cultivate a sustainable market through establishing “Eco Place Opportunities” in villages that are adjacent to sanctuary units as well as American Samoa as a whole. Members of the Chamber of Commerce, Department of Commerce of American Samoa, Development Bank of American Samoa, National Park of American Samoa, American Samoa Visitors Bureau, the private sector, and village representatives shared their thoughts on how we can foster relationships to build a foundation for village based visitor development. Further discussions with all factions are still necessary. Upon completion of Phase I, all sectors will have roles and responsibilities in place to lay the foundation.

Interagency Collaboration with National Park of American Samoa

NMSAS staff members met with the staff of the National Park of American Samoa (NPAS) for a team building and collaboration meeting. A tour of the NPAS office was given to the NMSAS staff, and fruitful discussions were held about how staff can work together on science and education programs. Since this meeting, the NMSAS education team has co-taught several programs for local schools, and the NMSAS divers have signed reciprocity agreements which have allowed NMSAS divers and NPAS divers work together to combat the crown-of-thorns starfish outbreak. The NMSAS will host the NPAS staff at the Ocean Center in April.



Future Plans

Dive Safety Drill & Dive Accident Management Week

Planned for May 2013, this will be a first time in American Samoa where a drill is simulated in the harbor for first responders to learn about response, recovery and assessment. This week is intended to assist the territorial agencies and the private sector as well as local alia boat owners and all emergency/fire/marine patrol as responders with a set of simulated drills to ensure we have capacity on island to respond on the water in times of a future tsunami, hurricane, ship grounding, or dive accidents. Trainings will be made available to all and will include First Aid/CPR, VHF Radio, Hyperbaric Medicine/Response Training for EMS/Marine Patrol and LBJ. A natural disaster response and dive accident drill will be simulated to test response, recovery and assessment methods of all emergency/fire/marine patrol responders to ensure we have the capacity on island to respond to tsunami, cyclone, ship grounding, or dive accidents.

Village Based Visitor Development

In an effort to provide villages near sanctuary units with opportunities to create strong livelihoods and communities in American Samoa, the NMSAS and the NMSF will be offering small grants to support village based visitor development. Phase III of this process (grant application, review, and award process) is currently in the development stages and should be completed by September 2013 with customer service and interpreter training to follow.

Ocean Week

During the week of May 14, 2013, the visitor center tours and presentations on the Science On a Sphere® will be themed around oceans. To end the week, the Ocean Swimming/Ocean Science class will host the Youth Ocean Summit at the Tauese P.F. Sunia Ocean Center.

Economic Impact Assessment

NMSAS has collaborated with the Institute for Research, Labor, Employment & the Economy at the University of Michigan, to assess the economic impact of the sanctuary expansion on the people and businesses in American Samoa. The outputs from the study will allow researchers to forecast potential impacts in the near, medium, and long term-future for the territory. The methodology for this research will consist of data collection, analysis, strategic planning, and reporting. The research will help inform recommendations for initiatives, activities, projects, programs and other actions that could be taken to enhance the economic impact of the Sanctuary, as well as increase the number of tourists and visitors to the region. Additional recommendations will also be made to increase opportunities for existing businesses that serve the populations and activities that are associated with the Sanctuary, as well as potential opportunities for new venture creation.

Implementation of Action Plans

There are eight Action Plans for implementation over the course of the next five years. Staff began in September 2012 to develop and outline key priorities as follows which will mapped out for completion timelines as strategies:

- Visitor Services Program & Plan for NMSAS
- Communication Plan
- Science Plan
- Education & Outreach Program & Plan

Volunteers

NMSAS currently has three volunteers, two interns from the American Samoa Community College, and two Educational Assistants sponsored by the NMSAS Internship/Scholarship Program. Duties range from conducting tours at the Tauese P.F. Sunia Ocean Center, presenting at schools on the NMSAS expansion and coral reef sustainability, to assisting with data collection in the field.

Mark Your Calendars

Tauese P.F. Sunia Ocean Center

Festival of Sites

For special events and days American Samoa receives cruise ships, NMSAS will have a traditional village display in the parking lot to celebrate each village located adjacent to a sanctuary unit at the Tauese P.F. Sunia Ocean Center. The display will consist of six tents for each village that possess a sanctuary unit. Members or representatives of the village will be able to showcase their unique qualities (i.e. food, handicrafts, performing arts, etc.). Upon agreement with respective village councils, NMSAS anticipates commencing the project by May 4, 2013, to greet the cruise ship Rhapsody of the Seas which provides a maximum capacity of 3,200 (passengers/crew).

Island Ocean Film Festival at the Tauese P.F. Sunia Ocean Center

In celebration of the Tauese P.F. Sunia Ocean Center's first year in operation, the National Marine Sanctuary of American Samoa will be hosting a film festival that will make a splash from August 12-16, 2013. NMSAS will be providing free viewings of ocean inspired films produced commercially and independently. Free Entrance.