



# newsletter

R a i n y S e a s o n 2 0 1 4

## CRI INTERNSHIP SUMMER 2014

### About: CRI Internship

Since 2002 the CRI Post-Secondary Summer Internship Program has worked to raise student awareness of coral reef issues, threats, and the efforts underway to protect them. Participants are provided with opportunities to gain hands-on experience in resource management as well as outreach, and are encouraged to pursue an education and career in an aspect of coral reef resource management.

**Who:** This year we had 10 fantastic interns: Daniel Kaipat, Frank Rabauliman Jr., Princess Garcia, Jeromalyn Santos, Kaiza Lucido, Kristle Richardson, Marielle Kapileo, Patrick Reyes, Raymond Villagomez, and Zabrina Shai.

**Projects:** Interns conducted projects in direct support of current conservation efforts by BECQ, DFW, and MINA. These projects included:

- Tourist monitoring and observations at MPAs and key beaches
- Conducting surveys and other work supporting the Laolao Bay Pride Campaign
- Plastic Bag Ban Campaign with MINA
- Garapan residential and business Nonpoint Source Pollution surveys
- Monitoring reefs for signs of coral disease.



### Quotes:

*"I enjoyed getting exposed in the field and getting hands on experience. I'm thankful for the help from all the mentors and staff who were very kind. I enjoyed working with others interns during this summer. Everything we experienced was a new and great experience!"*

*"I really enjoyed meeting all of the mentors and interns in this year summer internship, the bonds and knowledge that I've gained through this internship are something that I hope to never forget."*

*"I enjoyed the field work, the new people I got to meet (interns & mentors), and the sense of responsibility and independence I gained."*

# Coral Reef Initiative Newsletter

Spring 2013

## 1st Steps in Garapan CAP

As part of an initiative to address the problems with one of the CNMI's most heavily populated, used and abused watersheds, over 80 participants gathered in mid-September 2012 to analyze the threats and brainstorm solutions to improve the environmental quality of the Garapan watershed. A watershed is all of the land area on the island that drains to a common point. In the case of Garapan, this means that we have to address all the problems on our land, beaches and near-shore ocean environments – from Mt. Takpochau to the lagoon, from Smiling Cove to Fishing Base – in order to have a healthy lagoon for our residents and tourists to enjoy. The participants met for four days and determined the most important things to protect within the Garapan watershed were upland forests, urban greenspace, wetlands and mangroves, beaches, water quality, invertebrates, food fish, benthic habitats, and big marine species like turtles, sharks and rays. The main threats to these are land-based sources of pollution like sewage leaks, chemicals from agricultural lands, illegal dumping and trash burning, and poor construction practices, along with other impacts from humans – such as climate change, local depletion of fish stocks, and recreational activities – and impacts from other sources, such as invasive species, feral animals, and natural disturbances. Garapan stakeholders are now formulating a Conservation Action Plan that compiles specific information about these targets and threats.

## Attention Garapan Businesses



The Division of Environmental Quality and the Coastal Resources Management Office, dedicated to the betterment of the environment, are in the planning stages of launching their "Think Blue" certification program. The goal of this program is to establish and encourage businesses in the Garapan area to improve their environmental stewardship beyond the minimum requirements of existing rules and regulations. The program is designed to create a business-oriented community partnership between our environmental agencies, services and local businesses. The intention is to showcase businesses' eco-friendly initiatives and best management practices. Once a business has applied any of a number of best management practices, including improved recycling management, installing rainwater catchment systems, or other stormwater control practices they will be recognized by the campaign with a "Think Blue" certification. Moreover, the business will gain public exposure through media campaigns in local newspaper advertisements through CRM newsletter, Top Magazine, a highlighted spot on the campaign's website (still under development), and all other promotions relating to the certification program.

## Contact Details for Programs and Activities

Garapan Cap	Think Blue	Internships/Adopt-A-Beach
Kaity Mattos at DEQ 664-8510	Olivia Tenorio at DEQ 664-8504	Nicole Schafer 664-8305

Tasi Watch - MINA - 233-7333 or [minaoutreach@gmail.com](mailto:minaoutreach@gmail.com)

## 11 Fellows Start a Rare Journey



In July 2012, Rare launched its program in Micronesia to train 11 conservation leaders from Guam, Palau, CNMI, Kosrae, Pohnpei, and Chuuk in social marketing, behavior change, and inspiring pride in their respective natural resources. Jihan Buniag, Division of Environmental Quality's campaign manager for the Laolao Bay Watershed Pride Campaign and Kodep Ogumoro-Uludong, Mariana Islands Nature Alliance campaign manager for the Managaha Marine Conservation Area, will be implementing two campaigns on island. "This is a two year marketing and outreach program designed to change behaviors threatening the environment" stated Buniag. Many may recall the Coastal Resources Management Office's pride campaign with their mascot Primo, the yellow-crowned butterfly fish, whose mission was to inform the community about his special species and the importance of marine protected areas. The campaign was spearheaded by Brooke Nevitt. According to Ogumoro-Uludong, "We are excited for the CNMI to once again be in this partnership. Collaborating with this global organization...will benefit our people, communities, and the whole of Micronesia."





Top L-R: Harry Makarites, Wayne Dawe, Ben Saures, Ofa Pua, Pettis Nicky  
Bottom L-R: Jordan Tagabuel, Herbert Sablan, Tony Pua



TOP L-R: Zebina Shai, Amanda Santos, Jeromelyn Santos, Rochelle Muna  
Bottom L-R: Rosalia Aldan, Shin Perez

## MINA TASI WATCH COMMUNITY RANGERS: Hear The Voices for Conservation

Established in March of 2011, the MINA Tasi Watch program was developed to build and strengthen local capacity involvement for near-shore marine management in Laolao Bay. The Tasi Watch Rangers are a group of young motivated individuals tasked with raising awareness about the importance of conservation and being environmental stewards. Primarily seen at Laolao Bay, the rangers spend their days patrolling the bay, inspecting numerous sites and educating the visiting public about the importance of protecting Laolao and its natural resources. These young men and women have undergone numerous training to enhance their roles as rangers and protectors of the bay, including tours around Laolao, enforcement training from the Division of Fish and Wildlife and turtle nesting training. This is an important part of the rangers' jobs, as they need to be keenly aware of the many threats that the Bay faces which primarily include human activity, littering and erosion. When asked what being a ranger means to him, lead ranger Ben Saures said, "It's an honor to be a ranger

because I know that I am doing my part to help protect our natural resources not just for myself, but for future generations." A new part of the ranger program is the introduction of female rangers. Although females have always been involved in the Tasi Watch Program, this would be the first time that they will be involved as rangers. While others in their generation are unaware of the numerous environmental issues that the island currently faces, these young men and women work together to raise awareness on these issues.

## 15 Summer Opportunities. Become an Intern.

Applications due by March 31, 2012

**CoralWatch:** Dive among the corals identifying threatened and endangered coral as well as fish found in the CNMI. Come up for air to share your data in campaigns and online.

**Sea Turtle Program:** Research and monitor our beach visitors and share your findings in a student activity book.

**Marine Monitoring:** Collect data, conduct research, and monitor CNMI's reefs. Take a dip with MMT and help protect our reefs.

**Fisheries:** Get a look at fishing regulations and how they compare around the world. Report on where research should be conducted in a Fish Aggregating Device brochure.

**Non-Point Source Pollution:** Get dirty in a rain garden; research sites, pick out plants, and organize the installation. Map out the Grapan Watershed with GIS staff and determine where management efforts should be focused.

**Climate Change:** Spend the day at the beach studying beach characteristics and shoreline changes with a camera and GPS.

**Tourism:** Create and conduct surveys searching for the correlation between coral reefs and the economy. Work with MMT and divers to learn about the underwater tourist experience.

**Education and Outreach:** Share your knowledge with schools by developing fun fact materials on CNMI wildlife. Run your own campaign, bringing shark awareness to the CNMI.

## Upcoming Events: Get Your Calendar Out

### February

2013 CNMI Fisheries Workshop -The Division of Fish and Wildlife and NOAA Pacific Islands Regional Office will be hosting a three day fisheries workshop from 12:30 to 6pm February 5th, 6th and 7th at the Fiesta Hotel. The event will include talks on the business, research, management, regulatory and enforcement side of fisheries in the CNMI. Prizes will be given away and the public will have a chance to provide feedback regarding a variety of fisheries issues.

### March

March 30, 8am-11am is an Our Laolao Cleanup. Meet at the MINA hut at Lao Lao, grab a bag and help us clean our bay.

### April

April is Environmental Awareness Month. Keep an eye out for event announcements, like the Environmental Expo, beach cleanups, tree planting, and fashion show.

**Adopt-A-Beach** program is open all year long. Clean up and get free stuff! Get your school, business, or organization involved in the environment, adopt a beach today!



# MARINE MONITORING PROGRAM

The BECQ Marine Monitoring Team (MMT) has had an eventful 2014! Since



MMT long-term monitoring site-Tinian, 2014

last October two biologists have joined the team, long-term monitoring of sites on Saipan, Tinian and Rota have continued, and the team has traveled to the Northern Islands! For their Northern Island adventures,



Maug Island, 2014

MMT joined NOAA research cruises from June 19 – July 20,

2014. On these trips they conducted 61 surveys of shallow water nearshore habitats of Uracas, Asuncion, Pagan, Guguan, Sarigan, and Anatahan. Their preliminary findings saw low diversity of emergent reefs, bleaching in Maug, Asuncion and Pagan, and a mass mortality of shallow water corals in Guguan, Sarigan, and Anatahan as a result from last year's



Mass coral mortality, Guguan, 2014

(2013) bleaching event. But it's not all bad news – Two volcanic vent sites were discovered! MMT also continued research from the 2013 bleaching response on Saipan and Rota – surveying 20 sites



2013 bleaching event, Saipan Lagoon

for extent and impacts of bleaching, working in partnership with UoG.

# STORMWATER MONITORING AND MAPPING

**GOAL:** To detect pollutants being carried through watersheds by intermittent streams or stormwater runoff and identify source areas for mitigation activities



The "Stream Team" takes a water break after completing GIS mapping of two key drainages in the Laolao Bay watershed.



Abandoned buildings filled with trash, greywater and wastewater discharge, and military waste are all potential sources of pollution in intermittent streams and stormwater runoff.

## In 2013-2014:

- **Forty-two stream sites sampled** during heavy rain events to create baseline information about land-based pollutant loads
- **Six staff members trained** in geo-spatial data collection and source identification
- **Thirty percent of streams** in six priority watersheds were mapped to show sources of pollution.

# ROTA RIDGE TO REEF ECO CAMP



BECQ and the Rota Mayor's Office, Department of Commerce, worked together to host the Rota Ridge to Reef Eco Camp this summer. The camp ran from July 22 – July 25. There were 29 participants



ranging in age from seven to fourteen, along with over 15 community staff volunteers (parents, highschool students, agency staff, etc.). This camp as always was a great example of the kinds of partnership we can achieve in CNMI. And here's the list: staff from Division of Fish and Wildlife helped organize snorkeling as well as visits to I Chenchon Bird Sanctuary, Department of Forestry organized hiking and planting activities at the Talakhaya Revegetation project, NMC organized a tour of an aquaponics production area, DPS made sure everyone



stayed happy and safe, and that's not even the whole list! The unanimous feedback from the participants was that they wanted: "MORE CAMP NEXT YEAR!"

# HOW CAN YOU HELP SUPPORT THE TALAKHAYA PROJECT?



Since 2007, volunteers have been helping Rota Forestry and the Bureau of Environmental and Coastal Quality to prevent wildfires and replant the Talakhaya area to keep the soil on land where it belongs. The goal of the project is to restore ecosystem health to the area for the benefit of the people on Rota. Volunteers work during the summer rainy season to dig holes in the hard rock in Talakhaya where they then plant grasses with good roots that will hold the soil in place. Volunteers also plant native trees and create natural rock barriers to slow down rainwater and keep it from causing erosion as it flows towards the ocean. Due to increased interest in the area and the efforts of the Talakhaya volunteers and community, only two major fires have been observed in the conservation area since 2008. Before the project started, fires happened several times a year. In 2014, 18 volunteers have been working all summer to out-plant 30,000 grasses and trees in the Talakhaya area to save our soil and save our reef.



Year	# of Plants Planted
2007	27,498
2008	29,151
2009	18,765
2010	24,330
2011	22,089
2012	27,931
2013	26,581
<b>2014 Goal is 30,000 plants!</b>	



- Take time to enjoy the conservation area by hiking the hills or swimming on the reef
- Volunteer to help plant trees by contacting DLNR Rota Forestry at 532-0528
- DO NOT HUNT in the conservation area
- DO NOT SET FIRES in the area, including campfires
- Be careful when lighting cigarettes
- Do not burn trash
- To report fires or illegal hunting, contact:
  - Fire Department: 532-3736
  - Division of Fish and Wildlife: 532-9495

# GARAPAN WATERSHED WARRIORS

## GOAL:

To provide place-based, hands-on watershed education and activities to 4th grade students in the West Takpochao watershed



Clockwise from top left: Student label a storm drain with "Don't Dump" stickers. Two students plant flowering shrubs along a stormwater canal. Students complete a scavenger hunt checklist at a nearby National Park.

- **Sixteen** site-specific watershed **lesson plans** were designed and piloted
- Quarterly **FREE local field trips** were provided to students
- **Thirty trees were planted** and **thirty storm drains were marked** by students in critical stormwater zones around Saipan's tourism district
- **Fifty-six students** completed the initial "Watershed Warrior" program



# LAOLAO BAY PRIDE CAMPAIGN

**GOAL:** The campaign is committed to protecting what we love: the ocean and our way of life here on Saipan. Our focus is on reducing land-based sources of pollution through personal action and community collaboration.

- **FREE Laolao Watershed Hike field trips** were provided to students
- **340 native trees** were planted in the Laolao Bay Watershed
- Over **5,000 campaign giveaways** distributed to the community.
- **450 native trees** given to Laolao Watershed Landowners
- Campaign presentations to over **500 students**
- **12 landowners** participated in Laolao Watershed Erosion Control Training
- A total of **41 campaign events** since September 2013.

