

Bring Back Our Trees

of the Northern Mariana Islands by John Furey et al.,. These books helped me identify the local and scientific names of the trees while I took inventory and recorded the number of trees and species planted at the pre-selected sites. We also monitor the new trees planted and encourage the public not to run over, step, or uproot them. In a few years, we will witness the growth of our trees and see how they are providing a healthy and safe environment for us all.

Without our natural resources, our island would not be what it is today. With gratitude and a sense of obligation, we hope you find a desire to return the favor to our land and protect it, by starting with protecting the trees that have been planted through Bring Back Our Trees, planting more trees in your backyard, and getting involved with other efforts to support a resilient natural environment.

Works Cited:

Gibbens, Sarah. "This Island Was on the Brink of Disaster. Then, They Planted Thousands of Trees." *National Geographic*, National Geographic, 20 Dec. 2018, www.nationalgeographic.com.au/nature/this-island-was-on-the-brink-of-disaster-then-they-planted-thousands-of-trees.aspx.

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WHAT are we without trees? Trees can thrive in salty places, reduce soil erosion and runoff, enhance respiratory health, provide a habitat for wildlife, combat global warming, and keep our coral reefs alive by lowering temperatures and rooting soil in place preventing sediments from washing into the sea. Throughout the years, we have witnessed the sea levels rising, warmer summers, increasing typhoons, and the corals bleaching faster. Corals are bleached due to increased water temperatures and ocean acidification. The oceans are suffering from an excess of carbon dioxide, which hinders the production of coral skeletons and degrades fish habitats. As a DCRM Intern at the Micronesia Islands Nature Alliance, I learned that we must always take care of our environment. I admit that I did not think too much of trees before I interned at MINA, but through it I learned the importance of being aware of current conservation efforts and that it is never too late to

get involved.

A similar situation can be seen on the island of Kotoka in Tanzania. According to National Geographic's Sarah Gibbens, Kotoka, with limited resources, was at risk of losing food and water with fisheries and rivers depleting (Gibbens, 2018). Residents came up with a plan to plant appropriate trees to gain new crops and protect the residents from future storms. Like Kotoka, our future depends on how we overcome challenges, and one solution is to plant native trees, even more so for their medicinal use and cultural significance.

This year, MINA launched



"Bring Back Our Trees (BBOT)", a campaign that started in response to Super Typhoons Soudelor and Yutu, wherein numerous trees were damaged, uprooted, or destroyed. MINA's goal was to revegetate Saipan's shores with native trees to replace those lost in the typhoons and prevent further sedimentation and degradation of our reefs. So far, as a community, we have planted 529 trees on Saipan and 74 on Tinian, exceeding the original goal of 300. The program is funded by the Department of Interior, with support from community volunteers and local agencies such as the Saipan

Mayor's Office, DFEMS, CNMI Forestry, NMC CREES, CNMI Bureau of Environmental & Coastal Quality, Tinian Mayor's Office, Tinian Fish & Wildlife Conservation Program of DLNR, and Furey & Associates, LLC. The Tasi Watch Community Rangers maintain the trees' survival by watering weekly.

As a summer intern, I supported this campaign by studying the trees at our sites through reading materials such as the *Common Flora and Fauna of the Mariana Islands* by Scott Vogt and Laura Williams, and *Island Ecology & Resource Management: Commonwealth*



Targeting *shoreline* areas subjected to accretion and erosion

THE Division of Coastal Resources Management (DCRM) Shoreline Monitoring Program began in 2016 with the goal to understand and predict how fast our beaches can grow and shrink by recording measurements over time and observe the trends of erosion (sand loss) and accretion (sand gain) depending on which cardinal direction the wind and waves toward. and with data that's being collected over time, we can see which beach's sand are stable, increasing, or decreasing. Monitoring activities are conducted bi-annually across Saipan's west shoreline. This program is run by a team of three people who each play

an important role in collecting and analyzing data. The first person looks through a Berger level, a tool that measures elevation from the head stake/starting point of a transect to the beach toe. The second person moves a 16-foot aluminum ruler along the transect line, stopping every 10 feet for the first person to take another measurement. The third person, the recorder, is responsible for accurately recording the data, including measurements, dates and time. Other tools we use to accomplish the project are a data notebook, camera, Garmin GPS unit to find the head stakes or input a new location, and a 100 feet mea-

suring rope or transect line that we layout along the shore to be profiled. With these tools, we can accomplish exact measurements of each beach to compare with the previous year's data and analyze the changes. There are usually two to three head stakes at each beach, but some can get lost. For instance, after a super typhoon hit Saipan in 2018, some of the head stakes were gone. We use pictures we've taken or GPS points to find our head stakes. It is important to start at the same head stake



every time because starting at a different head stake will change the slope measurements and we want to obtain readings from known elevations.

Anfuso, Giorgio & Bowman, Dan & Danese, Chiara & Pranzini, Enzo. (2016). Transect based analysis versus area based analysis to quantify shoreline displacement: spatial resolution issues. *Environmental Moni-*

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