



Newsletter Karai Bilong Solwara

January – March 2024

Research and Conservation Centre

PO BOX 697 KIMBE, WEST NEW BRITAIN

PROVINCE

PAPUA NEW GUINEA Phone:(675)73502675

Email: office@mndpng.org

Website: www.mndpng.org

Facebook: www.facebook.com/MahoniaNaDari

1. New Grants:



Education officer Somei Jonda worked with Newcastle University Professor and longtime Mahonia Na Dari supporter Theresa Rueger to submit a grant application to Oceans Community Empowerment and Nature (OCEAN). The grant focuses on funding the MEEP program to foster more local management of mangrove restoration and marine protected areas. This grant would provide funding over the course of five years and would gradually phase in former MEEP students to lead the program.



We are also working on re-establishing a connection with USAID to continue funding for our MEEP for teacher programs. This would allow us to continue working with

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CALLING ALL MEEP GRADUATES!

PLEASE CONTACT MND BY EMAIL (office@mndpng.org) TO UPDATE YOUR CONTACT DETAILS AND COMPLETE A SURVERY

teaching schools to train teachers how to incorporate marine biology, ecology and conservation into their programs.

2. USAID

USAID provided funding for visits to Madang to conduct various MEEP programs in the area. Between the beginning of May 2022 and the end of May 2023, Education officer Somei Jonda trained 50 teachers on the MEEP program at Madang Teachers College, delivered five MEEP programs to schools in the Madang area, carried out surveys in the area on the use of the MEEP primary teachers guide, and presented at the American Corner (National Library) Port Moresby. All the objectives of the initial grant request were met successfully.



One of the student teachers from the Madang Teachers College plants a mangrove tree during MNDs intensive MEEP program.

3. Health Awareness Program

From November 2023 to February 2024 MND traveled to several health centers around New Britain to deliver a health care based marine education program. Some of

the most important information that was presented included how to treat various injuries that could be encountered in marine settings, including jellyfish and stone fish stings. This information will allow these health centers to treat more injuries directly instead of having to direct patients to Kimbe General Hospital for care. Presentations were conducted at nine different centers, for a total of 64 individuals. We hope to continue this program in the coming year.



Staff at Malaria Health Center listening to the MND team's presentation.

2. SWIRE:

MND met with SWIRE on Tuesday, March 26 to determine the best course of action for working together in the future and outlined a plan for collaboration over the next several years. During the next year, SWIRE will help MND build a border fence around the property to improve security. We also outlined a plan to get a new generator for the property. Through these two investments, we hope to be able to substantially cut our daily spending, which will enable more revenue in the future to go towards MEEP and other conservation-based programs.

3. Newcastle University:

Dr. Theresa Rueger, her students and collaborators are working at Mahonia Na Dari throughout the year, starting off with Melissa Versteeg, current resident researcher at MND and Stedman De Geester, a masters student, who arrived at the end of February. Since then, the team has been joined by Lucia Yllan, a PhD student at Newcastle, Jaan Zwahlen of the Okinawa Institute of Science and Technology, Yuya Kobayashi of Osaka Metropolitan University and Alanah Campbell, a field assistant from Western Australia.



The team heading out for some diving during a break in the rain.

They have been working relentlessly, alternating dry days to have someone in the water sampling every day. They have endured a few torrential rains during their time here, and have powered through low visibility in the water, but have kept smiling through it! Melissa finished her sampling on March 26 for her entire PhD, and now she gets to fully dive into the results and data.



Theresa, Melissa and Alanah (left to right) after Melissa had finished her sampling for her Ph.D.



A pair of anemone fish from Melissa's sampling.

4. Mangrove Project:

While it has been a while since we have been able to plant any new mangroves, the ones that have been planted before are thriving! They have grown immensely since they were planted and are helping to support a diverse ecosystem in the area.



A great egret flies along the mangroves which line the coastline.

In the photos shown you can see the mangroves along the coast as well as the buffer zone of native forest cover between the shore and the beginning of the palm plantations. This helps to protect the coast from erosion and to mitigate nutrient input into coastal systems.



Mangroves stretch down the coast along the buffer zone.

We look forward to planting more mangroves in the coming months, as well as evaluating more directly how they are impacting the coastal marine communities.

5. Research News:

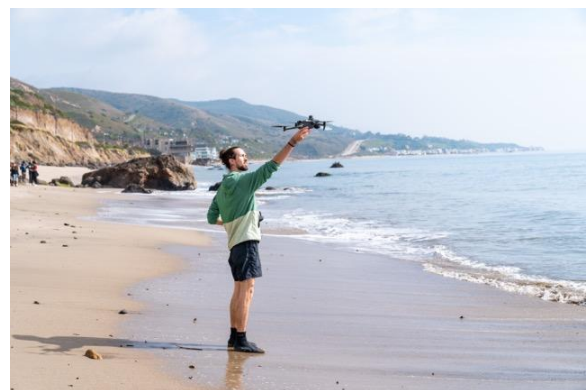
Melissa is wrapping up sampling for her PhD project on how anemone fish respond to bleaching of anemones during marine heat waves. She investigated how microclimates of anemones change along the reef, determining whether reef-wide trends accurately reflect the experience of individual anemones.



Jann (left) and Alanah (right) work together to catch and photograph anemone fish to evaluate color changes over time.

Jann has been studying phenotypic plasticity in anemone fish, evaluating the degree to which anemone host variation can influence the coloration of individuals during their lives.

Lucian Himes also arrived from the United States to begin his Fulbright grant. He is focused on seeing how drones can be used to map coral reefs and how reintroduction of mangroves onto the coastline helps the health of nearshore reefs.



Lucian prepares to launch a drone to map silt runoff after rain storms in California.

6. Other News:

Mahonia Na Dari hosted student leaders from Kimbe International School for a day of team building. Students from all grades came together on a beautiful sunny day to build connections and foster positive community.



Student leaders work together to try and untangle themselves in a teamwork building game.

MND also hosted a workshop on grant writing for NGOs around Papua New Guinea. Over the course of six sessions, they worked together to refine grant objectives and ensure the best methods for effective education programs.

A production team from the BBC Blue Planet III series visited Mahonia for the second time this March. In May 2023 the team had been at MND to film the Newcastle University research project on anemonefishes. The anemones were bleaching (turning white because they lost their symbiotic algae) in 2023 due to high ocean temperatures. A year later, the BBC team came to film the same anemones again, this time in a recovered (normal colored) state. Along with their underwater work, they interviewed researchers and MND

education officer Somei Jonda, for material for the ‘making off’ episode of the series.



Somei Jonda (MND) being interviewed by Yolly Bosinger (BBC).

Yolly Bosinger, the producer of the ‘Tropical Seas’ episode in Blue Planet III, had first visited MND in 2012 when she was on a Rolex Our World Underwater Scholarship. She met Theresa Rueger, then on her first PhD research trip to MND. The two were delighted to reunite 12 years later, now in the position of producer and principal investigator, and collaborate on this exciting project in Kimbe Bay.



The BBC production team and MND researcher Melissa Versteeg (second from left).