

## **Pristine Seas' research expedition in Rotuma**

JULY 9, 2025

ROTUMA, FJI

By Kat Millage, Lead scientist

The first formal biodiversity surveys of Rotuma's coral reef habitats were conducted in the early 2000s by the Lāje Rotuma Initiative. Now, twenty years later, our goal is to update this existing information with data collected from cutting-edge technology. Our analyses will also complement the people of Rotuma's deep knowledge of their marine environments. They have personally observed changes in their reefs in recent years, and we hope our findings will help provide a more comprehensive picture of what is happening below the waves.

Being able to dive in Rotuma and see the coral reefs here firsthand has been a huge privilege. Our science team was treated to a huge surprise during one of our surveys — a manta ray cleaning station! Cleaning stations are specific locations on a coral reef where manta rays (and other large fish like sharks and groupers) gather to have parasites, dead skin, and other debris removed from their bodies by small fish. It was extremely special to witness this phenomenon.

As our time surveying the waters around Rotuma comes to an end, we now begin the process of reviewing all of the footage we collected with our remote cameras and analyzing the data from our dive surveys. We look forward to continuing to work alongside our local partners and support the Council of Chiefs as they make decisions about how best manage their ocean space. Fāiākse'ea, Rotuma!

JULY 9, 2025

ROTUMA, FJI

By Ryan Jenkinson, Expedition leader

For the past few weeks we've been conducting our second series of biodiversity surveys in Rotuma's waters, shifting our focus from deep-sea research to nearshore coral reef habitats.

But before we began our work, we were invited to be a part of a sacred mamasa ceremony with the people of Rotuma. The mamasa ceremony is a traditional ritual, literally meaning "to dry feet and change clothes." It is performed to welcome visitors and those returning from sea. It was evident to our team that the communities who organized the mamasa for us put in a great deal of preparation. It was a delight and honor to watch this cultural tradition — something that has been practiced for centuries — unfold before our eyes.

Once we got in the water, we were greeted by vibrant coral reefs. Remarkably, the coral reef habitats we observed seem to have been spared from the extreme warm weather events of the past decade. We were also excited to see several different species of sharks on our underwater cameras.

Our science team will finish their final analyses in the coming months, and that data will be shared with Rotuma's Council of Chiefs and the people of Rotuma. Studying the waters of Rotuma has been a huge team effort, and we are thankful for the support we received from our incredible local partners. The expedition would not have been possible without them!

JULY 9, 2025

ROTUMA, FJI

By Fanny Tolo-Taukave, Educator from Rotuma and team member for Pristine Seas' research expedition in Rotuma

Being out there in the field and listening to the daily reports from the various expedition teams is inspiring and gives me a deeper sense of appreciation of the marine biodiversity we have here in Rotuma. But most importantly, these findings offer hope for the future of Rotuma. As a teacher, I can't wait to share and hopefully inspire the future parents, community members, and leaders of our island home — to remain united in protecting our ocean.

JULY 9, 2025

ROTUMA, FJI

By Alicia Emberson-Semisi, marine scientist from Rotuma and team member for Pristine Seas' research expedition in Rotuma

My only goal here has been to learn as much as possible about how we can safely monitor and protect our oceans with the ever-changing times. It is inspiring to see some healthy coral reefs and healthy fauna populations, including sharks and mantas. Working with National Geographic scientists, local partners, and the Council of Chiefs, I know the outcome of the expedition can be used to serve the people of Rotuma, the island, and the ocean.

JULY 19, 2025

ROTUMA, FJI

By Kevin Chand, Senior Director of Pacific Policy for Pristine Seas

We are incredibly grateful for the warmth and welcome of the Council of Rotuma and the people of Rotuma during this expedition. We began planning for an expedition here in late 2024 when we received permission and endorsement from the Council of Rotuma to conduct research in their waters, and now, the expedition has successfully concluded. With a strong maternal connection to Rotuma, it was a personal joy and pleasure for me to help plan this expedition and bring it to fruition.

During the expedition, we had several scientists, educators and community representatives from Rotuma — including two of the seven district Chiefs — aboard our research vessel, the Argo. Our team was accorded a Rotuman welcome ceremony, called the “mamasa,” before we began each leg of the expedition. This is the first expedition of its kind in Rotuma, and we were honored to be in close collaboration with the Council of Rotuma throughout the whole process. It was also a pleasure to work alongside our community consultant, Monifa Fiu, who painstakingly ensured we adhered to proper protocol during our work in Rotuma's waters.

We held a post-expedition event in the district of Oinafa, and we had community members from across the island attend, to see the Pristine Seas team off. We were honored with the presence of several Chiefs, including the Chairman of the Council of Rotuma. During the event, our Expedition Lead, Ryan Jenkinson, gave an overview of

the expedition including some highlights, while Kat Millage, our Science Lead, provided some preliminary findings. I shared our plans in Rotuma following the expedition, which includes a couple return trips that culminate in sharing a science report summarizing our findings and to debut a documentary film featuring the people of Rotuma, their culture, and connection to the ocean.

Rotuma is an incredibly beautiful place with a rich history and warm culture. We hope the data we collected from the expedition will help inform the Council of Rotuma's future ocean conservation and management efforts.

JULY 20, 20254

ROTUMA, FJI

By Monifa Fiu, Rotuma Community Consultant for Pristine Seas' expedition in Rotuma

As a founding member of LäjeRotuma Initiative, a community-based environment education and awareness program on Rotuma since 2002, I was pleased to be able to collaborate with National Geographic Pristine Seas and make this expedition in Rotuma a possibility.

LäjeRotuma is steered mainly by volunteer professionals who advocate for sustainable resource management actions that foster community spirit to protect the shared natural and cultural heritage of Rotuma and her people. And with this continued thread of community outreach and children's eco-activities for the last twenty years, we have increased understanding on an island-level for ocean stewardship amidst a growing threat of environmental challenges including observed changes in our lagoon and seas of Rotuma.

Rotumans have been empowered since time immemorial by what we know and understand about our ocean. The work and results from the expedition of National Geographic Pristine Seas adds value to what we know from our own traditional knowledge of our ocean environment. But given modern day environmental stressors like climate change and overfishing, we need modern tools and science to better understand the health of the ecosystem together with how to address these problems.

Rotuma has not been one to shy away from conservation. In fact, in 2020 when the Fiji government opened up the sea cucumber fishery, the Council of Rotuma decided to keep its sea cucumber fishery closed. Rotuma was the only island to maintain its closure. During the Rotuma expedition, the Pristine Seas team was stunned by the high abundance of sea cucumbers covering our Rotuman seafloor, this was a clear sign that conservation does work in building fish stocks and supporting broader ecosystem function.

This example of Rotuman conservation leadership demonstrates that it is important that Rotuma makes [conservation] decisions for herself and her ocean. Rotuma as we know it is deeply connected to the land and her sea. We are empowered with the local knowledge we have, the traditions we strive to safeguard in our practices and a collective lived experience. This exemplifies traditional leadership, self-reflection and cooperation amongst communities in shaping the nature of our call to protect our ocean for ourselves, for that is where our hope for the future of our children lies: To protect our culture with a united call for decisions made by Rotuma for her and her people.

One highlight personally for me was having many of the young students who are participants in the eco-camps that LäjeRotuma runs, participating in the Pristine Seas Ship Day. The children were inspired by seeing, up close, the science tools and filmmaking resources aboard the Argo. The community was also inspired by the short film at the end of the expedition that provided a teaser of the expedition and the full documentary that will be made about Rotuma, her ocean people.