

LEBUU'S VOYAGE FACTSHEET

Euotelel a Klingil a Debel Belau or the Palau National Marine Sanctuary (PNMS) is one of the world's largest Large Scale Marine Protected Areas (LSMPA). It was created by Palauans for Palauans. Despite being rich in natural resources, very little is known about the deep ocean habitats that the PNMS protects.

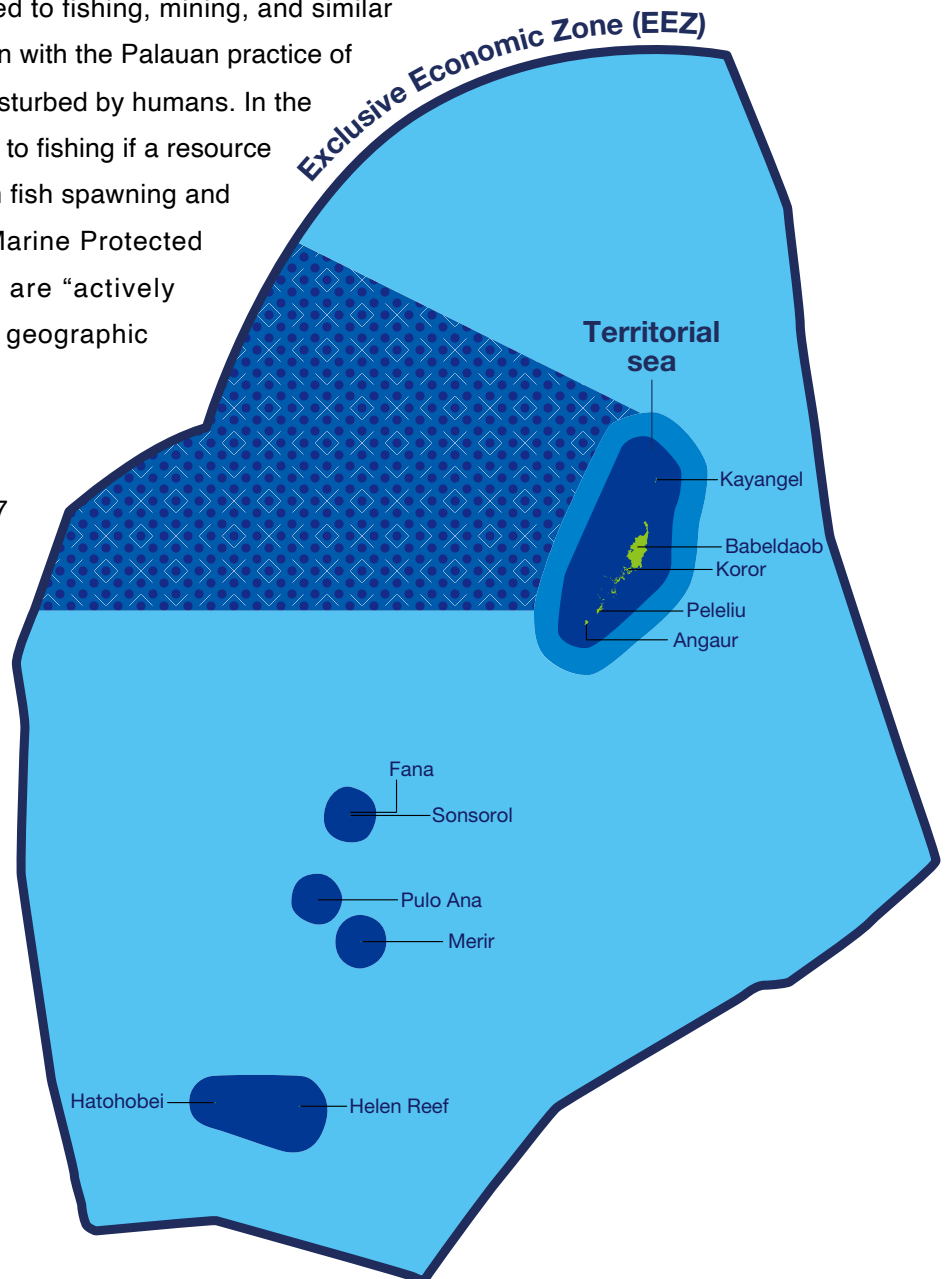
Facts about the PNMS:

1 The PNMS is a Large Scale Marine Protected Area (LSMPA). An MPA is an area of ocean that is closed to fishing, mining, and similar activities. These regulations align with the Palauan practice of *BUL*, a tradition of leaving ecosystems undisturbed by humans. In the past, local chiefs would close a certain area to fishing if a resource had become overexploited or during known fish spawning and feeding periods. Large-scale MPAs are Marine Protected Areas greater than 150,000 km², which are "actively managed for protection across the entire geographic extent of the area" (Big Ocean, 2013).

2 The PNMS is around 475,077 km², an area bigger than the U.S. state of California. This makes it the 15th largest protected area in the world and one of the largest conservation commitments (as a %) of any country in the world.

3 The PNMS covers 80% of Palau's Exclusive Economic Zone (EEZ). An EEZ is an area of ocean, which a coastal nation has administration over. Palau is a small country but it claims a massive ocean, and most of that ocean is deep and unexplored.

4 One of the main purposes of the PNMS is to protect Palau's, and the world's, tuna stocks for future generations.



- Palau National Marine Sanctuary
- Artisanal Fishing Zone
- Commercial Fishing Zone

What do we know about the seafloor of the Palau National Marine Sanctuary?

The deep-water regions surrounding Palau host rich and diverse marine habitats, including over 225 underwater mountains and extremely deep ecosystems in the Palau Trench.



Exploration Vessel *Nautilus*:

In October and November 2024, the Ocean Exploration Trust's Exploration Vessel *Nautilus* conducted two expeditions in the Palau National Marine Sanctuary in partnership with local organizations and international partners. Called Lebuu's Voyage I & II, these expeditions gathered seafloor mapping data and explored the seafloor with remotely operated vehicles (ROVs). The expeditions were named after Lebuu, who could be considered Palau's first explorer. In 1783, Lebuu departed Palau on a voyage and was one of the first Pacific Islanders to visit Great Britain.

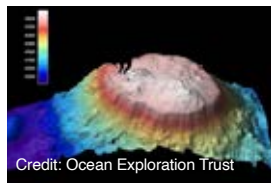
Remotely operated vehicles (ROVs):

ROV *Hercules* is at the center of the Nautilus Exploration Program. Controlled by pilots onboard E/V *Nautilus*, ROVs working as a team can reach over 13,000 feet deep to film, map, and gather samples from the ocean seafloor. With ROV *Hercules*, Ocean Exploration Trust has surveyed ancient shipwrecks, discovered hydrothermal vents, and helped to identify dozens of marine species new to science. During Lebuu's voyage, 13 successful ROV dives were completed that explored depths between 575 - 3,200m. The observations included high-density coral gardens at eight different locations, the collection of several new species of fishes and invertebrates, the first-ever live observations of two species of anglerfish, and the documentation of large areas of fossilized coral reefs.



Seafloor mapping:

Seafloor mapping is an essential step in ocean exploration. Multibeam sonar mapping systems collect a range of data, which includes measurements of the depth of water and shapes of underwater terrain. Before the expeditions, less



than 30% of Palau's EEZ has been mapped to that level. These two expeditions mapped over 19,052km² of seafloor in Palau.

Ocean explorers:

During expeditions, the ship is home to 52 ocean explorers and professional mariner crew from Palau and around the world. They are scientists, educators, ROV pilots, videographers, engineers, chefs, cultural liaisons, and students. A team is strong when there are people with different specialties and knowledge working together. No matter what career you choose, there is a place for you in ocean exploration!