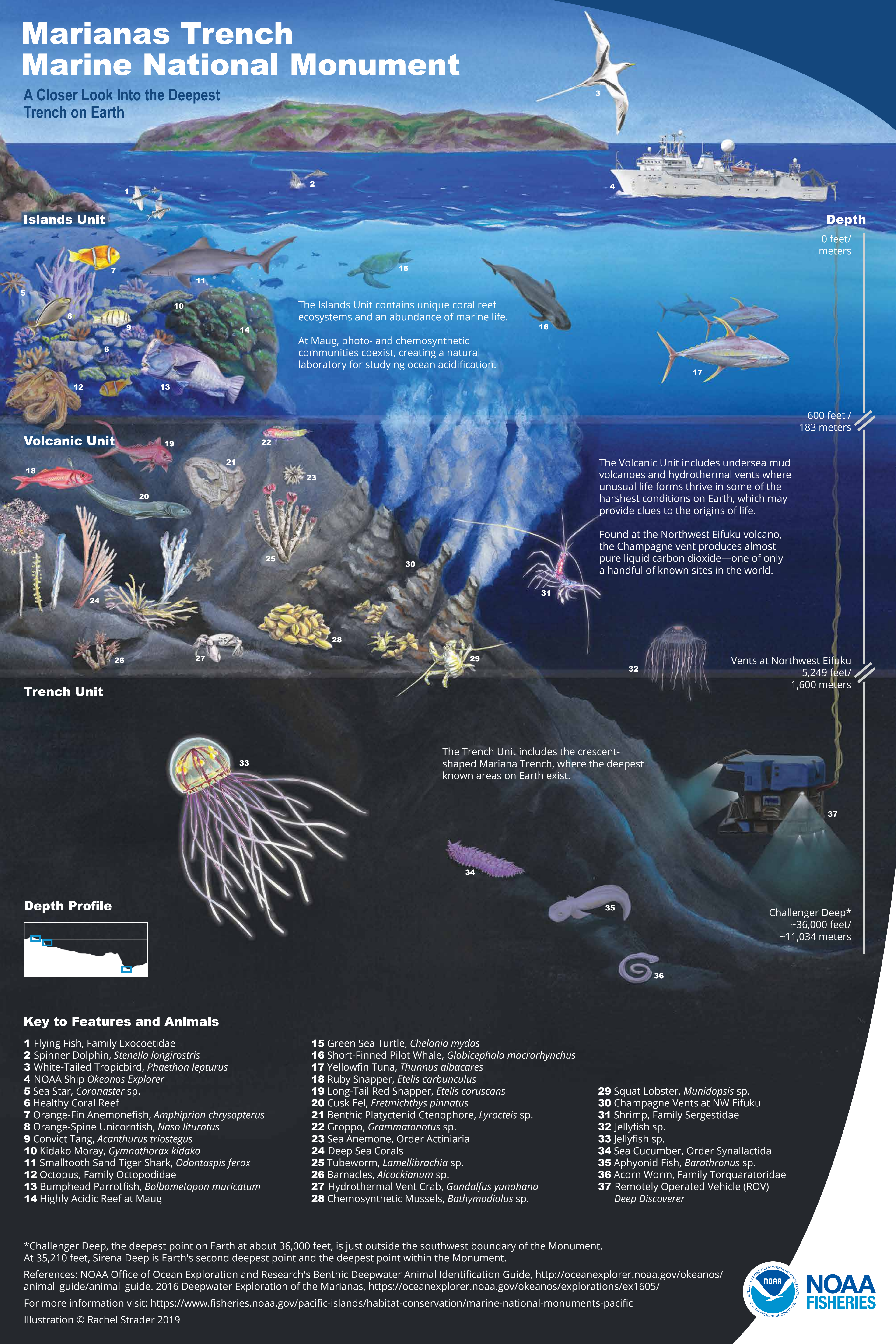


# Marianas Trench Marine National Monument

A Closer Look Into the Deepest Trench on Earth



## Islands Unit

## Depth

0 feet/  
meters

The Islands Unit contains unique coral reef ecosystems and an abundance of marine life.

At Maug, photo- and chemosynthetic communities coexist, creating a natural laboratory for studying ocean acidification.

600 feet /  
183 meters

## Volcanic Unit

The Volcanic Unit includes undersea mud volcanoes and hydrothermal vents where unusual life forms thrive in some of the harshest conditions on Earth, which may provide clues to the origins of life.

Found at the Northwest Eifuku volcano, the Champagne vent produces almost pure liquid carbon dioxide—one of only a handful of known sites in the world.

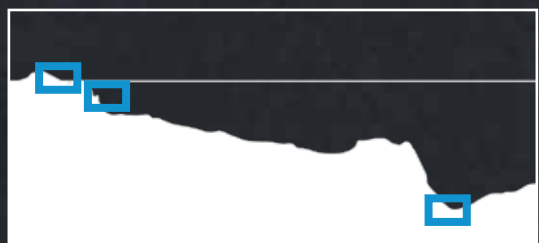
Vents at Northwest Eifuku  
5,249 feet/  
1,600 meters

## Trench Unit

The Trench Unit includes the crescent-shaped Mariana Trench, where the deepest known areas on Earth exist.

Challenger Deep\*  
~36,000 feet/  
~11,034 meters

## Depth Profile



## Key to Features and Animals

- 1 Flying Fish, Family Exocoetidae
- 2 Spinner Dolphin, *Stenella longirostris*
- 3 White-Tailed Tropicbird, *Phaethon lepturus*
- 4 NOAA Ship *Okeanos Explorer*
- 5 Sea Star, *Coronaster* sp.
- 6 Healthy Coral Reef
- 7 Orange-Fin Anemonefish, *Amphiprion chrysopterus*
- 8 Orange-Spine Unicornfish, *Naso lituratus*
- 9 Convict Tang, *Acanthurus triostegus*
- 10 Kidako Moray, *Gymnothorax kidako*
- 11 Smalltooth Sand Tiger Shark, *Odontaspis ferox*
- 12 Octopus, Family Octopodidae
- 13 Bumphead Parrotfish, *Bolbometopon muricatum*
- 14 Highly Acidic Reef at Maug

- 15 Green Sea Turtle, *Chelonia mydas*
- 16 Short-Finned Pilot Whale, *Globicephala macrorhynchus*
- 17 Yellowfin Tuna, *Thunnus albacares*
- 18 Ruby Snapper, *Etelis carbunculus*
- 19 Long-Tail Red Snapper, *Etelis coruscans*
- 20 Cusk Eel, *Eretmichthys pinnatus*
- 21 Benthic Platyctenid Ctenophore, *Lyrocteis* sp.
- 22 Groppo, *Grammatonotus* sp.
- 23 Sea Anemone, Order Actiniaria
- 24 Deep Sea Corals
- 25 Tubeworm, *Lamellibrachia* sp.
- 26 Barnacles, *Alcockianum* sp.
- 27 Hydrothermal Vent Crab, *Gandalfus yunohana*
- 28 Chemosynthetic Mussels, *Bathymodiolus* sp.

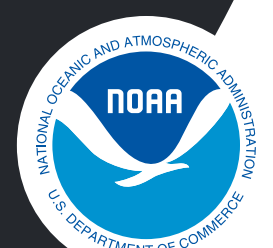
- 29 Squat Lobster, *Munidopsis* sp.
- 30 Champagne Vents at NW Eifuku
- 31 Shrimp, Family Sergestidae
- 32 Jellyfish sp.
- 33 Jellyfish sp.
- 34 Sea Cucumber, Order Synallactida
- 35 Aphyonid Fish, *Barathronus* sp.
- 36 Acorn Worm, Family Torquaratoridae
- 37 Remotely Operated Vehicle (ROV) *Deep Discoverer*

\*Challenger Deep, the deepest point on Earth at about 36,000 feet, is just outside the southwest boundary of the Monument. At 35,210 feet, Sirena Deep is Earth's second deepest point and the deepest point within the Monument.

References: NOAA Office of Ocean Exploration and Research's Benthic Deepwater Animal Identification Guide, [http://oceanexplorer.noaa.gov/okeanos/animal\\_guide/animal\\_guide](http://oceanexplorer.noaa.gov/okeanos/animal_guide/animal_guide). 2016 Deepwater Exploration of the Marianas, <https://oceanexplorer.noaa.gov/okeanos/explorations/ex1605/>

For more information visit: <https://www.fisheries.noaa.gov/pacific-islands/habitat-conservation/marine-national-monuments-pacific>

Illustration © Rachel Strader 2019



**NOAA**  
FISHERIES