

Marianas Trench Marine National Monument

The Deepest Trench on Earth:
What Is There and
Why We Care

Islands Unit



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.

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

0 feet/
meters

600 feet/
183 meters

Depth Profile

White callout boxes show the approximate location of the three illustration segments, above, along a representational depth profile within the Monument.

Islands Unit
Volcanic Unit

The Marianas Trench has a more gradual slope than typically depicted.






~36,000 feet
Challenger Deep*

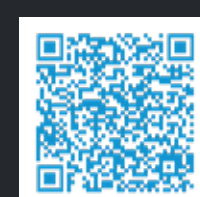
Trench Unit

1 Mount Everest's summit would be over 7,000 feet less than the deepest point.
2
3 The height of nearly six Grand Canyons could fit in the Trench.
4
5
6

To Learn More

Explore these NOAA lesson plans for grades 7-12 that use scientific data collected in the Marine National Monuments:

-  *Island Fish*
-  *National Treasure*
-  *Volcanoes, Acids, and Champagne / Microbes of Iron / Serpentine Volcanoes / Viscous Volcanoes / Tectonic Evolution*
-  *This Old Tubeworm / Let's Make A Tubeworm*
-  *Exploring Live with the NOAA Ship Okeanos Explorer / Mapping Deep-Sea Features*



<https://www.fisheries.noaa.gov/resource/educational-materials/using-scientific-data-collected-marine-national-monuments>



*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.