

Marine National Monument

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Scientists describe new species of black coral in the Hawaiian Islands

(Honolulu) – This week, the scientific journal *Zootaxa* published findings from a study describing a new species of black coral in Hawai'i. Scientists from NOAA's Office of National Marine Sanctuaries and the Smithsonian Institution's National Museum of Natural History described and named a new species of deep-water black coral found at depths of 1,000-1,600 feet throughout the Hawaiian Islands, including in the protected waters of Papahānaumokuākea Marine National Monument (PMNM).

"We know so little about the deep sea that most times we do not even know what to call the species that live there," says PMNM Research Specialist Daniel Wagner, Ph.D. "Describing and assigning names to new species is an important first step to facilitate future research on these important yet greatly understudied organisms."

Previously misidentified as a species from the Mediterranean Sea, the coral was determined to be a distinct species based on a comparison of specimens from Hawai'i to those collected in the Mediterranean. Scientists were able to see substantial morphological differences, and as a result identified the Hawaiian form as a distinct species, giving it the new name of *Leiopathes annosa*, which is derived from the Latin name 'annosa' meaning long-lived.

Much like terrestrial trees, deep-water corals like *L. annosa* form growth rings that can be used to determine their age. Previous studies of this Hawaiian species used high-resolution radiocarbon measurements on such growth rings and determined that this species can live more than 4,000 years, thus making it the longest-lived marine organism known to date.

Specimens were collected by the Hawai'i Undersea Research Lab (HURL) from the *Pisces* research submersible, and were deposited in the National Museum of Natural History in Washington D.C. and the Bishop Museum in Honolulu, where they will be available for future studies.

"This research emphasizes how much can be learned from studying deep and pristine environments such as those found in the remote Papahānaumokuākea Marine National Monument, of which only a small fraction has been explored," says Wagner.

The article, "Description of a new species of *Leiopathes* (Antipatharia: Leiopathidae) from the Hawaiian Islands," can be viewed online at http://www.mapress.com/zootaxa/2015/f/zt03974p289.pdf. Images and video available upon request at

https://drive.google.com/a/noaa.gov/folderview?id=0B7aVYWDKIMt3clVVbDlfZW1GTEE&usp=sharing.

All images courtesy of NOAA/HURL/Chris Kelley

Papahānaumokuākea is cooperatively managed to ensure ecological integrity and achieve strong, long-term protection and perpetuation of Northwestern Hawaiian Island ecosystems, Native Hawaiian culture, and heritage resources for current and future generations. Three co-trustees - the Department of Commerce, Department of the Interior, and State of Hawaii - joined by the Office of Hawaiian Affairs, protect this special place. Papahānaumokuākea Marine National Monument was inscribed as the first mixed (natural and cultural) UNESCO World Heritage Site in the United States in July 2010. For more information, please visit www.papahanaumokuakea.gov.





