



BISHOP MUSEUM

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Hawai'i's Newest Species Named in Honor of President Obama

The new species is the only coral-reef fish that lives exclusively within Papahānaumokuākea, which was recently expanded by the President

Honolulu, Hawaii – Today, scientists from the [Bishop Museum](#), [NOAA](#), and the [Association for Marine Exploration](#) published the description of a new species of coral-reef fish that they named in honor of President Barack Obama. The fish, which now bears the formal scientific name *Tosanoides obama*, was discovered during a June 2016 NOAA expedition to Papahānaumokuākea Marine National Monument in the remote Northwestern Hawaiian Islands. The study is published in the open-access scientific journal [ZooKeys](#).

“We decided to name this fish after President Obama to recognize his efforts to protect and preserve the natural environment, including the expansion of Papahānaumokuākea,” said Dr. Richard Pyle, [Bishop Museum](#) scientist and lead author of the study. “This expansion adds a layer of protection to one of the last great wilderness areas on Earth.” The Museum is currently showcasing the exhibit [Journeys: Heritage of the Northwestern Hawaiian Islands](#), featuring the Northwestern Hawaiian Islands and the Monument.

On Aug. 26 of this year, at the urging of Senator Brian Schatz (D-Hawaii), conservationists, and many marine scientists, President Obama expanded Papahānaumokuākea Marine National Monument. At 582,578 square miles, it is the largest permanent marine protected area on Earth. On Sept. 1, during his trip to Midway Atoll within the Monument, legendary scientist, conservationist and deep ocean explorer Dr. Sylvia Earle gave the President a photograph of the fish that now bears his name. The exchange will be featured in the National Geographic global broadcast special, “Sea Of Hope” scheduled to be released on Jan. 15, 2017.

The small pink and yellow fish is a kind of basslet, a group that includes many colorful reef fishes popular in the marine aquarium fish trade. There are two other species in the genus *Tosanoides*, both from the tropical northwestern Pacific Ocean. Males of the new species have a distinctive spot on the dorsal fin near the tail, which is blue around the edge and red with yellow stripes in the center. “The spot

on the males is reminiscent of President Obama’s campaign logo,” said Pyle. “It seemed especially appropriate for a fish named in honor of the president.”

“The new fish is special because it is the only known species of coral-reef fish endemic to the Monument (meaning that the species is found nowhere else on Earth). Our research has documented the highest rate of fish endemism in the world—100 percent—living on the deep reefs where we found this new species,” said [NOAA](#) scientist Randall Kosaki, chief scientist of the research cruise, and co-author on the paper. However, unlike all the other Hawaiian endemic species, which also occur in the main Hawaiian Islands, this new species is special because it is the only one that is limited to within the Monument itself. “Endemic species are unique contributions to global biodiversity,” Kosaki added. “With the onslaught of climate change, we are at risk of losing some of these undiscovered species before we even know they exist.”

The new fish was first discovered and collected on a dive to 300 feet at Kure Atoll, 1,200 miles northwest of Honolulu. Kure is the northernmost of the Hawaiian Islands, and is the highest latitude coral atoll in the world. Deep coral reefs at depths of 150 to 500 feet, in the so-called “Twilight Zone” (also known as mesophotic coral ecosystems), are among the most poorly explored of all marine ecosystems. Located deeper than divers using conventional scuba gear can safely venture, these reefs represent a new frontier for coral-reef research. Pyle and co-authors Brian Greene and Randall Kosaki pioneered the use of advanced mixed-gas diving systems known as closed-circuit rebreathers for Twilight Zone research, and have been documenting the previously unexplored deep reefs throughout Hawai‘i and the broader Pacific for the past three decades.

“These deep coral reefs are home to an incredible diversity of fishes, corals, and other marine invertebrates,” said Brian Greene, an experienced deep diver and researcher with the [Association for Marine Exploration](#), and co-author of the paper. “There are many new species still waiting to be discovered down there.”

This is the second new species of fish from Papahānaumokuākea named this year. In August, Pyle and Kosaki published the description of a new species of butterflyfish ([Prognathodes basabei](#)), based on specimens collected on deep reefs at Pearl and Hermes Atoll earlier this year. President Obama also has several species from other locales named after him: a trapdoor spider, a speckled freshwater darter (fish), a parasitic hairworm, and an extinct lizard.

The new study was published on December 21, 2016, in the peer-reviewed scientific journal [ZooKeys](#), and is available online at <http://zookeys.pensoft.net/articles.php?id=11500>.

Original source:

Pyle RL, Greene BD, Kosaki RK (2016) *Tosanoides obama*, a new basslet (Perciformes: Percoidei: Serranidae) from deep coral reefs in the Northwestern Hawaiian Islands. *ZooKeys*, 2016(641):165–181. doi: [10.3897/zookeys.641.11500](https://doi.org/10.3897/zookeys.641.11500)

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About Bernice Pauahi Bishop Museum:

The [Bishop Museum](#) was founded in 1889 by Charles Reed Bishop in memory of his wife Bernice Pauahi Bishop, a royal descendant of King Kamehameha I. Bishop Museum is proud to be recognized as the principal museum of the Pacific, housing the world's largest collection of Hawaiian and Pacific artifacts and natural history specimens. In total, Bishop Museum's collections consist of more than 25 million items including over 22 million biological specimens and more than two million cultural artifacts derived from a legacy of research spanning more than 125 years. These collections also include more than 115,000 historical publications, one million historical photographs, films, works of art, audio recordings, and manuscripts. More than 300,000 people visit the Museum each year, including over 40,000 schoolchildren. The exhibit [Journeys: Heritage of the Northwestern Hawaiian Islands](#) is open to the public until Feb. 26, 2017. For more information, please visit www.bishopmuseum.org, follow @BishopMuseum on Twitter and Instagram, become a fan of Bishop Museum on Facebook, visit Bishop Museum's YouTube channel at <http://www.youtube.com/BishopMuseum>, or call (808) 847-3511.

About Papahānaumokuākea

[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 Hawai'i](#)—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.

About the Association for Marine Exploration

The [Association for Marine Exploration](#) (AME) is a 501(c)3 non-profit organization that conducts and facilitates innovative scientific exploration of undersea environments. Using advanced technologies, AME organizes, funds, and conducts research projects, and collaborates with other research organizations on joint projects.

About Pensoft

[Pensoft](#) is an independent academic publishing company, well known worldwide for its innovations in the field of semantic publishing and for its cutting-edge publishing tools and workflows. Founded in 1992 “by scientists, for the scientists” and initially focusing on book publishing, it has grown to become a leading publisher of innovative [open access journals](#) such as: [Research Ideas and Outcomes](#) (RIO), [ZooKeys](#), [Biodiversity Data Journal](#), [PhytoKeys](#), [MycoKeys](#), [Nature Conservation](#), [NeoBiota](#), [Comparative Cytogenetics](#), and others. Pensoft has published more than 1,000 books and over 4,000 open-access articles, mostly in the field of natural history. Pensoft is a member or partner of several

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