

RAPAHĀNAUMOKUĀKEA Marine National Monument

PRESS RELEASE FOR IMMEDIATE RELEASE June 6, 2016 CONTACT Toni Parras 808-282-9332 toni.parras@noaa.gov

Scientists discover globally significant abundances of unique Hawaiian fishes on deep coral reefs in Papahānaumokuākea Marine National Monument

The scientific journal *Marine Biodiversity* recently published a study documenting deep coral reef fish communities composed exclusively of fishes unique to Hawai'i, which represents a globally significant reservoir of biodiversity.

Scientists refer to species with restricted geographic ranges as endemic species. Hawaiian endemics are those species that are only found in Hawai'i and nowhere else.

"This the highest level of endemism recorded from any marine ecosystem on Earth," said Randall Kosaki, PhD., first author on the study and NOAA's Office of National Marine Sanctuaries deputy superintendent for <u>Papahānaumokuākea</u> Marine National Monument. "Hawaii's one of the most remote archipelagos on our planet, so we have many, many species here that are not found anywhere else."

Fish communities referenced in the study were documented at depths of 300 feet at Kure Atoll, the northernmost of the remote, uninhabited Northwestern Hawaiian Islands, part of Papahānaumokuākea. Kure Atoll lies about 1,300 miles northwest of Honolulu.

The discovery was made on a research <u>expedition</u> aboard NOAA Ship *Hi'ialakai* last fall. Divers using advanced closed-circuit rebreather dive technology conducted dives at depths far beyond the range of most scientific or recreational scuba divers.

Deep coral reefs at depths of 150 to 450 feet, also known as "the coral reef twilight zone," are among the most poorly explored of all marine ecosystems. Deeper than most scuba divers can venture, and shallower than most submersible-based exploration, these reefs represent a new frontier for coral reef research.

The article, entitled, "100% Endemism in Mesophotic Reef Fish Assemblages at Kure Atoll, Hawaiian Islands," can be accessed online at <u>http://link.springer.com/article/10.1007/s12526-016-0510-5.</u>

Images and video: https://drive.google.com/a/noaa.gov/folderview?id=0B7aVYWDKIMt3TGZiUkMwWGxSYTg&usp=sharing

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 <u>www.papahanaumokuakea.gov</u>.

