



PAPA HĀNAUMOKUĀKEA
Marine National Monument

A World Heritage Site

NOAA ONMS Update

June 6 – September 23, 2019

Presented to the NWHI Coral Reef Ecosystem Reserve Advisory Council
Presented by: Athline Clark, NOAA Superintendent
October 10, 2019



The background is a solid dark blue color. It features several stylized, white, chevron-like patterns that resemble a forest or a series of steps. These patterns are located in the top-left corner and along the bottom edge of the slide. The central text is white and reads "Agency Coordination".

Agency Coordination

USCG Hosts Flight to Midway for Agency Coordination



Credit: John Armor

On September 20, NOAA PMNM Superintendent Athline Clark joined ONMS Director John Armor, NOS Assistant Administrator Nicole LeBoeuf, and partner agencies on a one-day trip to Midway Atoll.



CONSTITUENCY BUILDING & OUTREACH





**Waikīkī Aquarium
Celebrates Dr. Isabella
Kauakea Aiona Abbott**
(Credit: Jennifer Crawford).

**PMNM Video Exhibit
Included in Smithsonian's
Renovated Hall of Fossils**
*(Credit: National Museum of Natural
History).*



PMNM Celebrates World Oceans Day

(Credit: ONMS /PMNM Staff).



Honolulu Film Premiere Highlights PMNM Scientist Randy Kosaki and His Sister

(Credit: Randy Kosaki).



Get Into Your Sanctuary Day 2019 Events at Mokupāpapa Discovery Center

(Credit: Malia Evans).



Papahānaumokuākea Featured at Hanauma Bay

*(Credit: Hanauma Bay
Education Program).*



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EDUCATION

PMNM Hosts Ocean Acidification Teacher Workshop



(Credit: Justin Umholtz)



MOKUPĀPAPA DISCOVERY CENTER HIGHLIGHTS



Circle of Life Summer Camp students participate in a robotics activity. *Credit: Clayton Watkins*



Craft Night Creations
Credit: Justin Umholtz



Students practice driving an ROV
Credit: Justin Umholtz & Clayton Watkins



Coral fragments being grown in MDC basement. *Credit: Michael Caban and Malia Evans*



FIELD & RESEARCH

Scientists Document Invasive Alga Outbreak and Extensive Hurricane Damage to Reefs



Mats of invasive red alga completely overgrowing native corals and algae at Pearl and Hermes Atoll. Credit: Taylor Williams



Left: Rapture Reef at French Frigate Shoals before Hurricane Walaka (credit: James Watt). Right: Rapture Reef at French Frigate Shoals after Hurricane Walaka (Credit: Taylor Williams)

Scientists Discover Numerous New Species of Macroalgae on Deep Reefs of PMNM



*Left: New species of red algae from Pearl and Hermes Atoll, 300 ft.
Right: New species of brown algae (order Sporochnales) from Lisianski Island, 300 feet. This new species is so distinct from any known Sporochnales that it likely represents a new genus. Credit: Heather Spalding.*

Calendar:

- Friday, October 11 - Marine Educators Night, Waikiki Aquarium, Honolulu, Oahu (6:00 – 8:30 p.m.)
- October 25- 26 – University of Hawaii SOEST Open House, Honolulu, HI
- November 22-23 – 10th Annual Hāna Limu Festival