

Avian Fossil Remains Discovered In Hawaii

The avian fossil remains provide opportunities to learn more about ancient wildlife that lived in Hawaii.

By The BirdChannel News Division

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Recent coastal habitat restoration work at the Pearl Harbor National Wildlife Refuge-Kalaeloa Unit, located on the Ewa Plain, Hawaii, has uncovered numerous fossilized bird bones, according to the U.S. Fish and Wildlife Service. The unexpected discovery of these avian fossil remains, including several extinct species, provides scientists with an opportunity to learn more about the ancient wildlife that once occupied this part of Oahu.

The fossilized bird bones were discovered while scientists of the U.S. Fish and Wildlife Service were restoring several small tidal pools known as anchialine pools. The discovery of the fossils provides a more complete picture of the natural bird diversity of a coastal dry land forest on Oahu.

"These fossils of extinct birds give us a glimpse of an earlier time on Oahu when the lowlands teemed with native birds, insects, and plants," said Helen James, Research Zoologist and Curator of Birds, Smithsonian Institution. "To me, it is excellent news that important fossil sites can still be discovered on an island that has experienced so much economic development. Lamentably the birds cannot be brought back to life, but by studying their bones we at least gain an appreciation of Oahu's rich natural heritage."

To date, scientists have uncovered fossilized bones of an extinct hawk (first reported as a fossil on Oahu), long-legged owl, Hawaiian sea eagle, petrel, two species of crow, Hawaiian finches, Hawaiian honeyeaters, and the moa nalo (a turkey-sized, flightless goose-like duck — largest of the native Hawaiian birds). Further work is needed to confirm the identification of each species.

The ages of the fossilized bones are unknown at this time and require further testing using radiocarbon analysis. However, avian bones found at similar sites on the Ewa Plain date back from 1,000 to 8,000 years ago. "The discovery of these ancient bird bones, including several species now extinct and maybe even new species not known before, is a great reminder of the truly unique history and wonderful diversity of Hawaii's birds and the need to protect what is still left," said David Ellis, refuge manager, Oahu National Wildlife Refuge Complex.

The U.S. Fish and Wildlife Service is working with representatives from the Smithsonian Institution and Bernice P. Bishop Museum to properly clean, store and preserve the bones. The Smithsonian is also providing technical assistance to Bishop Museum and the Service to properly identify and catalog the recently discovered fossils.

For more information, visit www.fws.gov.