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An Update on Saving the Endangered Ae'ō

Nearly a year ago, we told you about the remediation to the anchaline ponds at Kohanaiki Golf Club near Kailua-Kona, Hawaii (Big Island). The purpose of the 2016 work within the ponds was to create and enhance nesting habitat for the endangered Ae'ō or Hawaiian black-necked stilt.

That work continued in 2017. Preparation for the 2017 Ae'ō nesting season meant removing more invasive vegetation. It also meant clearing vegetation in the pond buffers so that predators could be seen from a distance by the Ae'ō, and it meant raising the nest sites out of the tidal zone.



The Ae'ō have the second longest legs in proportion to their body of any bird, exceeded only by the flamingo.

Start By Removing Invasives

The Kiawe tree (*Prosopis pallida*) is one of those invasive plant species that provides hiding opportunities for Ae'ō predators. Removing these plants is no easy task due to their large, sharp thorns, but removal serves two purposes. First, by removing these large groves (Photos 1 and 2.), potential predators for juvenile Ae'ō, either from the air or on the ground, are forced to hide further away from the ponds because there are fewer to no perching opportunities for them where the juveniles are foraging. Second, Kiawe roots tap deep into the subsurface and lower the water table thus reducing the depth of the anchialine ponds. Kiawe leaves also have nitrates that can disrupt the nutrient load in the ponds to create unsightly algae blooms.



Photo 1. Area before remediation showing Kiawe trees.



Photo 2. Area after removal of Kiawe groves.

Remediation Opens Habitat

Remediation efforts like that seen at Pond 73 (Photo 3, next page) has opened more potential habitat for the Ae'ō, as well as for Least Terns. Soon after these two species discovered the pond open water, Ae'ō and Least Terns were observed foraging and fishing in this pond. It has now become common to see wildlife at Pond 73. In 2017, Kohanaiki spent over \$35,000 for additional leased labor to assist pond maintenance in restorative efforts of an estimated 3.5 acres where completion is at 95%. The team also

added countless hours of monitoring, sending of real time property wide awareness emails, predator trapping, and erecting signs and fences to ensure the safety of these birds and other wildlife.



Photos 3. First and last phases of remediation of Pond 73 shown above.

2017 Ae`o Nesting Summary

Ae`o have been observed at many of the ponds on property, but ponds where remediation efforts have recently taken place and ponds with islands, were favored during the 2017 nesting season. These observations have helped staff choose what areas to remediate. Because of these choices, the Ae`o had a stellar nesting season. It went something like this:

- Early in the season, Ae`o pairs were seen foraging at various ponds to choose their nesting site.
- The first nest of 2017 was observed on March 20, 2017. (Photo 4)
- *Kohanaiki* Ae`o started nesting fourteen (14) days earlier than in 2016, but there was also an early end to the season with the last nest near the channels of Pond 88 on July 7, 2017.
- The first pair of Ae`o spotted preparing a nest at Pond 2, set their nest on low elevation where the high tide flooded and the eggs were lost.
- The same pair attempted a second nest and laid 6 eggs, **an extremely rare occurrence** (Photo 5). One egg survived to hatchling stage but the rest of the clutch succumbed to the 2017 King Tides. Unfortunately, the hatchling did not survive either.
- There were ten (10) nests with the additional second and third nesting efforts at Pond 2 and Pond 139 (because their first nests were flooded out) bringing the number up to fourteen (14) nests.



Photo 4. First nest of the season observed at Pond 2



Photo 5. Rare Ae`o clutch of 6 eggs in one nest. Photo by Thurkins 2017.

Nesting Results:

- The total egg count for the *Ae'o* season was (32) with total hatchling count at (9).
- Kohanaiki staff is very happy to report that four (4) fledglings survived this 2017 season and are still being seen at the ponds foraging.
- Four of the fledglings were from the nesting parents at Pond 69 and Pond 179, both man-made nest projects.
- The nests at Pond 139, Pond 2, Pond 13, and Pond 30 all succumbed to the extreme King tides experienced in 2017.
- The nest located at Pond 72N had two (2) hatchlings and at Pond 2 (2) hatchlings were observed, but their survival was uncertain.
- From these statistics one can see that the *Ae-o* are trying to nest in the remediated anchialine ponds so the raising of these nesting areas out of the way of tides will be crucial in the coming years to increase the survival rate of the fledglings.

Adding to the Population

Kohanaiki staff is very proud to see eight (8) new *Ae'o* survive and thrive over the last three nesting seasons. In 2015 the survival rate was two (2) and in 2016 two (2) again. In 2017, there were the four (4) new additions. This may not seem like a number that would mean much, but consider that in 2014, only 1,400 birds of this endemic species were confirmed in all of Hawaii.

Protecting and improving the *Ae'o* habitat continues to be a labor of pride for the staff at Kohanaiki as expressed by Director of Agronomy, Joe Przygodzinski. "We at Kohanaiki are truly honored to be regularly graced by the *Ae'o* presence. We look forward with excitement and anticipation to next year when the "local" *Ae'o* will hopefully choose to nest with us again. Until then, we will do our best to make their habitat as enticing and healthy as possible."

And Audubon International will keep you updated on how the changes made at the anchialine ponds continue to affect the *Ae'o* population at Kohanaiki.

Kohanaiki is the only Certified Audubon International Signature Sanctuary in Hawaii. Facts in this writing were provided in the 2017 Annual Signature Program Re-certification Report. Photos credited to Ynigues 2017.