

**Cyanotech Corporation Conservation Plan for
Hawaiian Stilt (*Himantopus mexicanus knudseni*)
Annual Report for 2013**



Prepared by J. Scott Waddington, Ho'omalū LLC

August 1, 2013

Facility Management

Former Nesting Habitat

The former nesting habitat was attempted to be maintained in a manner that did not encourage stilts to frequent it. The basin was utilized as originally intended as a collection area for waste product. The collection of biomass was conducted intermittently throughout the year. These actions have resurfaced the bottom of the habitat and it no longer resembles the nesting habitat that the stilts were once utilizing.

Stilt Counts, Nesting, and Incidental Take

Stilt Counts

Stilt counts are conducted weekly throughout the year with the majority of the counts being zero. Past hazing efforts have been successful in reducing the numbers of stilts frequenting the facility especially during the day. The stilts have become used to the activities at the facility and have increasingly been roosting at the facility at night. Hazing efforts were shifted to early to mid-evening to try and discourage the stilts from roosting at the facility. The numbers of stilts frequenting the facility at night has also increased this past year. In years past, the number of stilts roosting at the facility rarely exceeded 10 individuals; this past year however there have been counts as high as 40 individuals at the facility at night. This increase in activity coincides with increased usage by stilts of Opa'e`ula wetland to the north of Cyanotech.

Nesting

There were two nests, with four eggs each, found in the former nesting habitat at the Cyanotech facility on July 29, 2013. The staff has been asked not to disturb the nesting pairs and not to alter or use the basin until the nesting is done. Efforts are being made to keep water in the evaporation basins from production processing to establish a habitat area and invertebrate food base for the hatchlings. The evaporation basins are the same ones used by stilts in years past that nested off of Cyanotech property, and then walked the hatchlings to the basins. Hatchlings "walked in" have successfully fledged from the basins.

Incidental Take

As per the Conservation Plan, surveying for incidental take was conducted twice per week during the nesting season and once per week during non-nesting season. However, monitoring for injured or dead stilts were conducted daily as part of normal operations of the production raceways. Surveying the raceways for debris was conducted daily in an effort to protect the mechanical and harvest systems of the production raceways. Surveying the raceways visually is conducted first thing in the morning, before the paddlewheels are turned on. There was one stilt recovered this past year and it appeared to have been depredated.

Property Outside of Cyanotech Boundaries

(Lava Field of Keahole International Airport)

The lava field adjacent to the Cyanotech facility, where stilts had nested in past years, was monitored weekly for nesting activity. Surveys were conducted every Monday during the nesting season. A Nikon 20 x 60 Field scope and Zeiss 10 x 40 binoculars were used to survey the lava field. There was no nest or stilts observed in the lava field of Keahole International Airport.

References

Evans, K. and Uyehara, K. 2001. A Conservation Plan for Hawaiian Stilt at Cyanotech Aquaculture Facility Keahole Point, Hawaii. Ducks Unlimited Inc. 76 p.