



Conservation of Indigenous Birds on Wake Atoll

01-134

Background:

The Wake Atoll is managed by the Department of Defense (DoD), US Air Force 15th Wing Base at Hickman, Honolulu, Hawaii and is located in between Midway Island and Guam, covering approximately 1,826 acres of land. Wake Atoll, the northernmost of the Marshall Islands in Micronesia, is one of the most isolated islands in the world. It is approximately 1,400 miles from Guam, 1,200 miles from Midway Islands, and 2,600 miles west of Honolulu. There are three islands that make up the atoll, Wilkes, Wake, and Peale that form a “V” surrounding a lagoon.



Photo by Mark Rauzon

Wilkes, Wake, and Peale Atoll Islands

Wake Atoll is also known for its remarkable blocks of coral, along with important water ponding and wetland areas for migrant waterfowls and shorebirds. The threat of non-native invasive species on native species is often a fatal one. Invasive species take over in an area where they have no natural predators to control their populations and they impact the biodiversity of the area they colonize.

Wake Atoll is no stranger to invasive species. The 1950s and 60s brought the first domestic cats to the island as pets. Through time, some cats became feral and reverted to natural predatory behavior. Feral cats were fed but no responsibility was taken for them, therefore they were left to wander and fend for themselves. It is estimated that 30,000 indigenous birds a year were killed or injured on the Wake Atoll due to feral cats. Predation by feral cats led to the elimination of some smaller ground dwelling birds. These cats were also prone to disease, starvation, and genetic disorders. Executive Order 13186 was signed to coordinate strategies to address the problem of non-native invasive species on the environment and the

economy. The order endorses the removal of non-native invasive species to restore biodiversity.



Photo By Mark Rauzon

Impact of Feral Cats on Native Birds: Arboreal White Tern, Black and Brown Noddy Wings remains

Objective:

It was determined that the removal of feral cats from Wake Atoll would provide a safer habitat for returning seabirds and help increase populations of remaining bird species. In accordance with U.S. guidelines, feral cats were humanely removed from Wake Atoll. Feral cat eradication has been successfully performed in many locations in the Pacific Region, resulting in the return of indigenous sea birds. Wake Atoll needed an effective feral cat management program.

Summary of Approach:

In 1996, visits to Wake Atoll were conducted to take surveys and initiate spay-neuter clinics to help resolve the feral cat overpopulation. In 2001, this project received funding from the Legacy Resource Management Program to continue the eradication of feral cats. Several methods for removing the cats were performed in the past with careful planning and implementation. Domestic cats were spayed/neutered and marked. During time periods when feral cats were being removed from Wake Atoll residents were advised to keep their pets indoors.



Photo by Mark Rauzon

Feral Cat on Wake Atoll

Efforts were made to keep residents of Wake Atoll informed of the project. If work was conducted on private property, proper permission was obtained from the owners. An information pamphlet provided by the Legacy Program, “Don’t Let Your Cat Go AWOL” and “Frequently Asked Questions” was also distributed to provide information on the project and help prevent further feral cat problems. There is currently a limit on how many cats can be kept at one household to prevent future feral cat epidemics.



Photos by Mark Rauzon

Masked Booby (*Sula nebowxii* - left) and White Tern (*Gygis alba rothschildi* - right) –Bird Species on Wake Atoll

The need for feral cat removal was apparent when beach houses were recorded to have at least 20 cats associated with that location. The removal of feral cats on Wake Atoll was performed by a two member team with an estimated five nonconsecutive visits, each visit one month at a time and in cooperation with island personnel. Day and night observation of feral cats led to better understanding of feeding times and areas of habitation. The use of this information aided team members in capturing the cats. U.S. guidelines for humane treatment of feral animals was followed during the process of eradication. Surveys were conducted to determine if required visits were necessary or if all of the feral cats had been removed. The last site visit to the island showed no signs of feral cats.



Photo by Mark Rauzon

First Albatross Fledging in 60 Years Following Feral Cat Eradication

Benefit: Ecosystems and biodiversity benefited greatly from this demonstration project. The removal of feral cats reduced disease that they might have been transmitted

from the cats to native wildlife, relieved the feral cats of painful lives, increased bird populations, provided safer habitats to which birds could return, and promoted greater biodiversity.

Accomplishments:

Visits made so far to the island have shown that there are no feral cat populations on Wake Atoll. The success of this project produced an increase in the bird populations on Wake Atoll. Recovery of seabird populations, such as Masked Boobies, Brown Boobies, Wedge-tailed Shearwaters, and Gray-backed Terns as examples, have increased since the completion of the eradication of feral cat populations. White and red tailed tropicalbirds have also shown an increase with the eradication of feral cats. Shearwater species have expanded into three colonies ranging in the hundreds. Gray-backed Terns that have not had a recorded breeding since the 1980s, have established two colonies breeding with 65 individuals. Masked Boobies have increased from 3 breeding pairs in 1996 to 20 pairs in 2004. Brown Boobies increased their 1996 population of 73 nests to 162 nests in 2003. Restoration of historic populations is marked by the first fledging Albatross in over 60 years. Other species, such as Hermit Crabs, have also begun to show an increase in populations.

Actions taken to protect wildlife on the Wake Atoll demonstrates the DoD’s compliance with the Migratory Bird Treaty Act. The return of Wake Atoll’s ecosystems to its natural function is of great importance since it provides stopping grounds for ocean migrants. The education provided to the island land managers led them to create the Wilkes Island Bird Sanctuary which is closed to visits without permission from the island managers.



Photo by Mark Rauzon

Increased Hermit Crab Populations

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