



*Threatened and Endangered Species*

# On the Road to Recovery

## *Short-Tailed Albatross Chick Translocation*

### Status

The short-tailed albatross is listed as endangered throughout its range (Federal Register; July 31, 2000). The species recovery plan was finalized in 2008 by the Short-Tailed Albatross Recovery Team (START).

### Background

The short-tailed albatross (STAL) is the largest of the three albatross species found in the North Pacific. STAL are international in range, nesting in Japan and foraging in Alaskan waters. Distinguishable by its golden crested head of breeding-age adults and its blue-tipped bubblegum pink beak, STAL have a wingspan of over seven feet and can live up to 45 years. Once the most abundant albatross in the North Pacific numbering in the millions in population, STAL were hunted to near extinction around the turn of the 20th century. The population has since increased, currently numbering approximately 3,000 individuals.

Today, STAL are found on just two of the estimated fourteen historical nesting islands: Torishima, and the Senkaku Islands. Torishima, which hosts 85% of the STAL breeding population, is an active volcano that last erupted in 2002. In addition to the threat of future volcanic eruptions, the Torishima STAL colony is



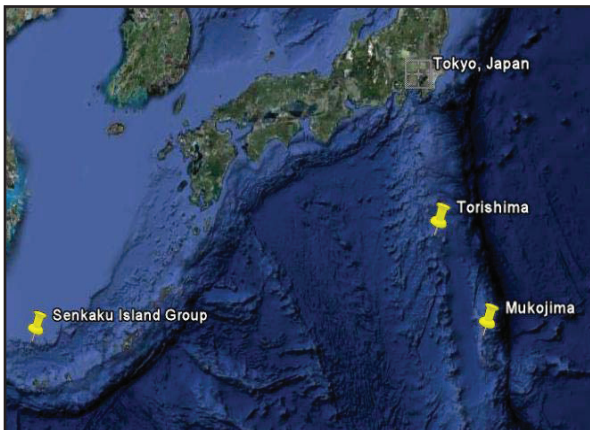
*Short-tailed albatross chicks sitting in transport boxes and awaiting their helicopter ride to the translocation receiving site at Mukojima.*

located on a steep outwash slope where nests are also in danger of loss during torrential rain and typhoon-induced erosion. The remainder of the STAL population nests within the Senkaku Island group—valuable real-estate for which Japan, China and Taiwan dispute ownership. The island group is known to support substantial oil and gas reserves, a factor that has recently heightened the intensity of sovereignty disputes. Given these threats, establishment of a STAL breeding colony on a third “safe” island is a criterion required to remove STAL from the U.S. Endangered Species List.

Mukojima, which lies 215 miles south of Torishima and is part of the Ogasawara Island Group, was

recently inscribed as an UNESCO World Heritage Site. The island is protected by the Japanese government and was also an historic nesting site for STAL. Due to these factors, Mukojima was selected as the colony establishment site for translocated STAL chicks.

Based on the results of Harvey Fisher, who worked with Laysan albatross (LAAL) on Midway Atoll on the northwestern end of the Hawaiian archipelago in the 1960s, the START decided that young chicks (approximately four to six weeks of age) would be the most suitable life stage for STAL translocation. The key assumption for targeting young chicks—as opposed to near fledglings—was that geographic imprinting on the nesting island might occur at about one



*The three nesting sites for STAL. Mukojima was selected as the colony establishment site for translocated chicks.*

Map drawn using Google Earth

USFWS

month of age. Thus, it was hypothesized that surviving translocated chicks would return to Mukojima to breed (rather than Torishima) at five to six years of age.

### Pilot Study

Because STAL, like other surface-nesting seabirds, have a long period of dependency on parental feeding, the decision to move young chicks committed the START to becoming “foster parents” for at least a three-month period. In order for the START to perfect the chick-rearing methods, the team thought it best to practice on more abundant species.

In March 2006 ten LAAL chicks were moved from Midway Atoll National Wildlife Refuge (NWR) to Kilauea Point NWR, Kauai. Because of exposure to excessive rain and bacterial infections, only four of the ten LAAL chicks fledged. In a second pilot effort ten black-footed albatross (BFAL) chicks were moved from Nakodojima, Japan to Mukojima in March 2007. These chicks were hand-reared using improved techniques developed after the previous year’s translocation of LAAL. Nine out of the ten BFAL chicks fledged, with similar timing to the fledging of nearby parentally-reared BFAL. The practice and success of these research surrogates made it possible for the START to support the translocation of STAL to Mukojima.

### Translocation

In February 2008, ten one-month-old STAL chicks were captured from Torishima and flown to Mukojima by helicopter. Sterile procedures included food preparation and feeding with disinfected rubber gloves, and the use of

separate sterilized feeding equipment. Chicks were initially fed a slurry of fish and shrimp through a stomach tube. The chicks’ diet later consisted of chopped food, and by the end of the third month the STAL chicks were taking whole fish and shrimp. During the first year of the translocation project, all ten STAL chicks fledged—a fledging rate higher than parentally-reared chicks on Torishima!

From 2009-2011, fifteen STAL chicks were translocated each year from Torishima to Mukojima. Following the same translocation process as the project’s first year, all of the chicks were moved in February and hand-reared on Mukojima until attaining flight and leaving the colony in May. All translocated chicks since 2008 fledged, making a total count of 55 Mukojima-raised subadults.

### Monitoring Progress

One way to monitor progress of the translocation efforts and to compare movement and survival patterns of the translocated chicks to those parentally-reared chicks, is to track bird movements with satellite transmitters. In 2008, ten chicks were selected and tagged with satellite transmitters—five from Mukojima and five from Torishima—for these tracking efforts. In the following years, selected chicks from both breeding sites were tagged. The tagged birds from the two colonies have shown some differences in movement patterns, but all birds have made it to the Aleutian Islands by summer.



USFWS

*A satellite transmitter tag attached to a STAL chick helps to monitor the translocation efforts.*

Another way to monitor progress of the translocation efforts is through observing leg-bands placed on birds. The 2011 breeding season was a notable year for hand-reared birds returning to the new colony site on Mukojima. A remarkable 60% (six out of ten) of now three-year-old, hand-reared birds from 2008 returned to Mukojima. Returning birds were observed interacting with chicks and engaging in courtship dance with each other.

These visits do not imply recruitment to a breeding site because the translocated birds are currently still too young to breed, but they are a very favorable sign for potential future recruitment to the new colony site at Mukojima. The return rate exhibited by Mukojima-fledged subadults appears equal to or greater than what has been observed for parentally-reared birds on Torishima. The translocation process will be completed in 2012. With one more year of chick translocation to go, the START hopes to increase the total number of STAL fledglings to 70, that these birds begin to breed at the new colony site on Mukojima, and that their breeding activity attracts other breeding-age STAL to the island.

For more information, contact:

**USFWS Anchorage  
Fish and Wildlife Field Office  
605 W. 4th Avenue  
Anchorage, Alaska 99501  
(907) 271-1467  
<http://alaska.fws.gov>**



Noboru Chikira, Ogasawara Whale Watching Association

*Two hand-reared, subadult short-tailed albatross that returned to the island from which they fledged display the courtship dance in front of a decoy on Mukojima.*