

MARIANA AVIFAUNA CONSERVATION (MAC) PROJECT

First Translocation of Golden White-eyes (*Cleptornis marchei*) from Saipan to Sarigan, 28 April 2011



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2011 MAC WORKING GROUP PARTICIPANTS AND ASSOCIATES

This third MAC Project conservation introduction was a joint effort between the Commonwealth of the Northern Mariana Islands' Division of Fish and Wildlife (CNMI DFW), the U.S. Fish and Wildlife Service (USFWS), and the Association of Zoos and Aquariums (AZA). The team of researchers that were actively involved as part of the MAC Working Group in 2011 includes:

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THE FIRST TRANSLOCATION OF GOLDEN WHITE-EYES TO SARIGAN

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A FIRST TRANSLOCATION OF GOLDEN WHITE-EYES TO SARIGAN

INTRODUCTION

Conservation introduction activities on the part of the MAC Project were postponed in 2010 because of USFWS activities in the Northern Islands that year. A Navy funded biological survey of the northern nine islands in the archipelago occupied DFW and *Americopters Saipan* personnel and resources from early April through late September that year. Thus, all CNMI Division of Fish and Wildlife (DFW) biologists normally involved with translocation work were assisting USFWS with avian surveys in the northern portion of the archipelago in April and May of 2010.

Previously, however, 50 Bridled White-eyes (*Zosterops conspicillatus*) had been translocated to Sarigan from Saipan in 2008 and 50 more from Tinian in 2009. This was the MAC Project's pioneer species from the standpoint of conservation introduction and various methods and techniques were tested and refined during these two efforts. Follow up surveys (both March 2009 and May of 2010) indicated that the species was faring well post-translocation, with signs of breeding found in several locations on Sarigan.

On 28 April 2011 the MAC Project translocated its second species to Sarigan; the Golden White-eye (*Cleptornis marchei*), a genus that is endemic to the Mariana Archipelago. Although the mid-morning undertaking went off without a hitch, contractual issues between *Americopters* and the CNMI prevented the planned execution of post-translocation monitoring in 2011. As a result, two monitoring trips are tentatively planned for 2012, one of which will determine the status of Golden White-eyes introduced to Sarigan in 2011.

METHODS AND RESULTS

Study Site

The uninhabited island of Sarigan is an extinct (or dormant) strato-volcano with no recorded history of activity that lies 95 nautical miles north of Saipan (Fig. 1). At approximately 500 ha (5 km²) in area and 549 meters at its highest elevation, most of the island's shoreline is irregular with steep, rugged, and eroded cliffs created by old lava flows and landslides (Berger et al. 2005). At an elevation of between 100-106 meters lies a plateau to the north and east of the peak that constitutes the island's highest point; on this plateau are situated Sarigan's "upper camp" and the release site (both at 16° 42' N, 145° 47' E; Fig. 2; Radley 2008 & 2009).

As much as 45% (223 ha) of Sarigan is covered by forest, the remainder consisting of either grass or areas of barren rock. A DFW survey of the island in 2006 indicated that forest cover consisted of approximately 75-90 ha of native forest (34%-40% of total forest cover; Fig. 2) and 133 ha of old coconut plantation or agricultural forest (60% of total forest cover; Martin et al. 2008). Both the upper camp and the release site are located at an interface between grass and barren rock and primarily native forest.



Figure 1. The Northern Mariana Islands (taken from <http://www.infoplease.com>).

Pre-Translocation 2011

Between 20 and 22 April 2011, 40 Golden White-eyes were captured public land in the Marpi area of Saipan (in a radius of approximately half mile of 15° 15' N, 145° 48' E) in the same general area used for capturing Bridled White-eyes in 2008 (Radley 2008). Two of these birds had previously been banded as part of DFW's Tropical Monitoring of Avian Productivity and Survivorship (TMAPS; Pyle et al. 2010) Project and were released shortly after capture. The remaining 38 Golden White-eyes were each weighed at capture (mean = 17.5 grams; range = 13.1 – 21.8 grams), marked on the right leg with a numbered aluminum leg band, and assessed for health issues. The same capture and handling protocol were followed as those used for capturing Bridled White-eyes (MAC Working Group 2008,) but given the lack of flocking and the family group retention and territoriality of Golden White-eyes, mist nets had to be moved regularly after catching two to four birds in a given area.

Golden White-eyes were held in the field, transported from the field to designated holding facilities, and translocated to Sarigan in a slightly modified version of the bird shipping container (hereafter referred to as “transport boxes”) used by the MAC project since 2007. A room rented at the Summer Holiday Hotel in the main village of Garapan, Saipan, served as on-island holding facilities and avian lab (Fig. 3). While at the facilities/avian lab, all birds were held in the boxes

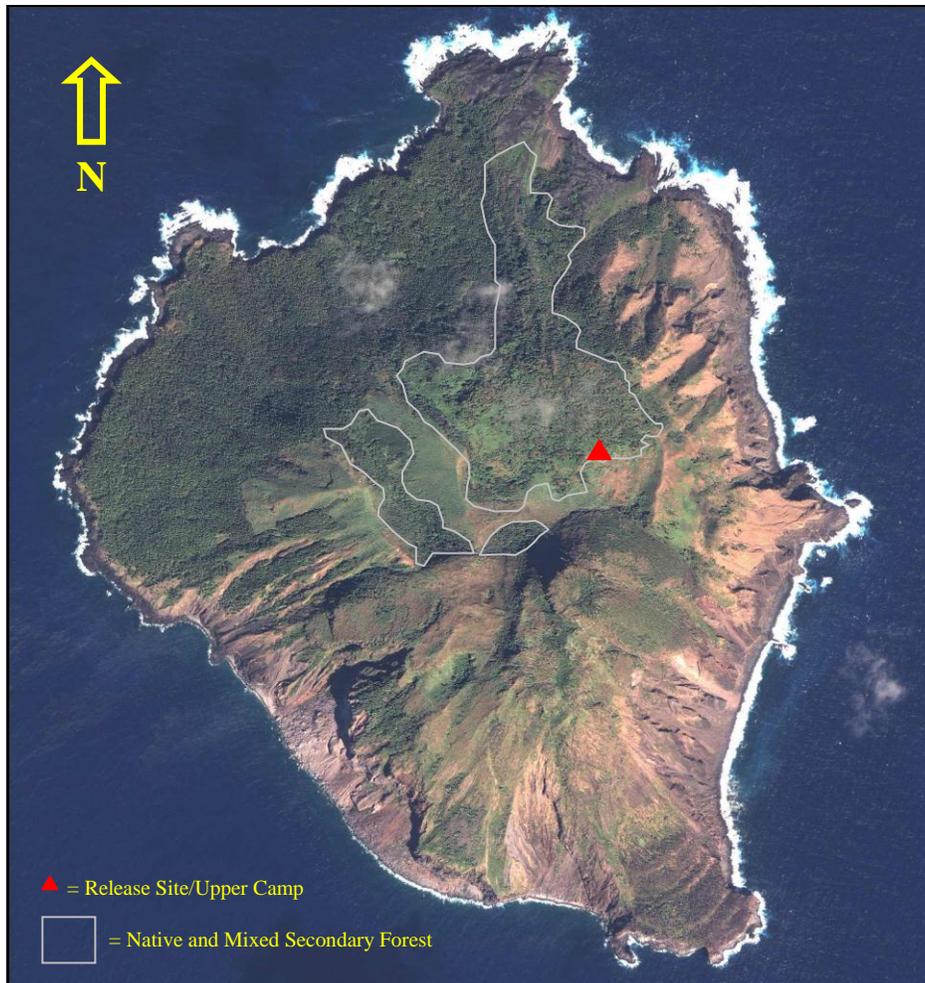


Figure 2. The location of native and mixed secondary forest, the 2011 release site and upper camp on Sarigan, CNMI.

originally designed and built to hold Bridled White-eyes on Tinian in 2009 (Radley 2009). Golden White-eyes were maintained on a mix of fresh local papaya and imported meal worms, *Zupreem* fruit- blend pellets, *Mazuri* insectivore pellets, and *Nekton Plus* nectar supplement if the birds weren't eating well their first couple of days in captivity. Most captive white-eyes were weighed daily to track health and the status of acclimation to captivity. To detect and treat potential health issues amongst the captives and to prevent transmission of disease to Sarigan fecal scans were run and birds wormed as necessary.

Preparation for Translocation

Of the 38 captive Golden White-eyes 24 were intended for translocation to Sarigan and 12 were to be transported to the Honolulu Zoo for inclusion in an ongoing captive breeding program. Selection of individuals for translocation was based partially on morphometrics for indication of both robustness and gender (tarsus length), and body mass data collected during captivity to determine which birds were not readily adapting to the diet and holding. After the birds were



Figure 3. The “Avian Lab” at the Summer Holiday Hotel, Garapan, Saipan.

chosen for both translocation to Sarigan and transportation to Honolulu, the remaining two Golden White-eyes were released at the site of their capture.

On the late afternoon and evening of 27 April the six transport boxes used for translocation to Sarigan were prepped for the Golden White-eyes. The four compartments of each box were prepped with food and water and one white-eye was placed in each and held there overnight. Prior to being placed in their designated transport boxes, all numbered aluminum leg bands were double checked on each bird and a unique combination of two color bands were placed on the right leg of each individual. Color bands were intended to facilitate the identification of individuals during the planned immediate post-translocation monitoring and during any successive monitoring trips to Sarigan. To further enable close monitoring of translocatees immediately after introduction to the island DFW biologists had intended to place .30 gram (10-14 day battery-life) radio-transmitters on all individuals. However, as contractual issues between *Americopters* and the CNMI prevented the undertaking of all planned monitoring, no radio-transmitters were deployed in 2011.

Before leaving the Summer Holiday Hotel early the morning of 28 April all Golden White-eyes were checked visually for normal activity. After the birds were deemed in good condition for travel, the transport boxes were re-supplied with food and water and were loaded into a vehicle for the drive to the *Americopters* heliport.

Translocation

Transport to and Release on Sarigan

At approximately 07:30 on 28 April, weather clear and sunny, H. Roberts, L. Santos, F. Falcone, G. Michaels, and P. Radley arrived at the *Americopters* heliport on Saipan with the six transport boxes containing 24 Golden White-eyes for translocation to Sarigan. The boxes were loaded into the back seating area of the flight prepped Bell 206 *JetRanger* helicopter and secured with

bungee cords and cargo netting by the flight crew (Fig. 4). At approximately 08:30, the helicopter departed for Sarigan with the birds, H. Roberts, and P. Radley.



Figure 4. H. Roberts and Nao Kogure, *Americopters* pilot, load transport boxes holding Golden White-eyes into Bell 206 *JetRanger* at heliport, Saipan.

At approximately 09:30 the helicopter landed at upper camp on Sarigan and was powered down. As the aircraft was being shut down, P. Radley cut a path through very high and thick vegetation (the winter and spring months had been unusually wet) to the release sight used for the translocation of Bridled White-eyes in 2008 (Radley 2008). After the helicopter was silent and the release sight cleared the Golden White-eye transport boxes were removed from the machine and quietly carried into the forest where they were gently placed in the clearing. Beginning at 10:05 the birds were allowed 35 minutes to calm and acclimate before release. Between 10:40 and 10:55 the transport boxes were opened (Fig. 5) and the Golden White-eyes carefully flushed out; although a few needed a bit of encouragement, all birds flew off rapidly and with no apparent sign of ill effects from the flight.



Figure 5. H. Roberts opens transport boxes to release of Golden White-eyes on Sarigan.

After all the white-eyes were released the transport boxes were re-secured in the back seat of the helicopter for return to Saipan. The aircraft arrived at the *Americopters* heliport at approximately 12:45 after being refueled at lower camp before departing Sarigan.

Post-Translocation Monitoring

As originally planned, post-translocation monitoring was to be carried out for approximately seven days after the Golden White-eyes were introduced to Sarigan. Monitoring was to employ three DFW biologist to keep tabs not only on the newly release birds (via radio-telemetry) but to conduct point-transect Variable Circular Plot (VCP) surveys (Bidy et al. 2000) to estimate the density and abundance of Bridled White-eyes translocated to Sarigan in 2008 and 2009 (Radley 2008 and 2009). However, post-translocation monitoring was not carried out in 2011 and several factors played into this outcome.

The CNMI contract necessary to hire *Americopters* to transport water, food, supplies, equipment, and personnel to Sarigan for monitoring was not completed in time. (This contract was also necessary to cover the cost of transporting the Golden White-eyes to Sarigan. In order to carry this out H. Robert fronted the money and was later reimbursed by the contractor). The contract was completed on 15 May 2011 (likely due to austerity measures imposed upon the CNMI government) but, because of a misunderstanding between *Americopters* and P. Radley, and the higher than expected cost of the translocation flight, there was not enough money in the contract to fully meet the needs of the monitoring effort. Thus, a contract change order was commenced, which was not fully completed until 23 August 2011; too late in the rainy season to risk the trip. If the dollar amount of the contract would have been sufficient when it was originally competed the trip still would not have been possible, however, until early June. *Americopters* was entirely contracted out for the month of May by the Navy and USGS to conduct an ordinance clean-up on nearby Farallon de Medinilla (FDM), and island the Navy uses for aerial and sea-based gunnery practice (the clean-up was originally planned for April but was pushed back by the Navy to May for some unspecified reason).

In early June when the helicopter company was free and able to provide its services, P. Radley was entirely preoccupied with completion of several Federal Aid and USFWS Section 6 grant proposals necessary to fund the DFW Wildlife Section and its projects throughout fiscal year 2012 (because of extreme short-staffing in the Wildlife Section, all such responsibilities fell on P. Radley's shoulders). He completed his responsibilities on these proposals just one day prior to three weeks of planned leave, after which it was too late in the rainy season, and too near the typhoon season, to safely and effectively spend time working in the Northern Islands.

To compensate for the lack of monitoring in 2011 two separate monitoring trips will be planned for 2012; one in late March/early May to determine the fate of the introduced Golden White-eyes and a second to monitor the second cohort of Golden White-eyes to be translocated to Sarigan in late April/early May 2012. During one or both of these trips the VCP surveys will be conducted on the island's new Bridled White-eye population.

RECOMMENDATIONS FOR IMPROVEMENT

While executing the introduction of Golden White-eyes to Sarigan in 2011, the MAC Working Group identified issues that require revision and improvement. These improvements will be implemented in future such avian conservation efforts in the CNMI.

- The number of birds translocated in 2011 was dictated by the carrying space of the aircraft used for transportation. *Americopters* had two helicopters available for translocation in 2011—a Bell 206 JetRanger, and a Messerschmitt-Bölkow-Blohm Bo 205. The latter has considerably more carrying capacity than the former, easily permitting the translocation of 50 Golden White-eyes, but costs \$2400/hour for hire (compared to \$1450/ hour for the JetRanger). To deliver more birds to Sarigan or other islands in future years more funds (if available) will be budgeted to cover the cost of the larger aircraft.
- Better communication between AZA and DFW and between DFW and *Americopters* as per scheduling flights to the Northern Islands will smooth translocation efforts and logistics. More lead time will be given when scheduling flights with the contractor in an attempt to secure desired flight dates.
- The contract for helicopter service with *Americopters* was not completed in time for 2011 translocation activities, forcing H. Roberts to front the money to pay for the translocation flight. If the CNMI governments self-imposed austerity measures continue into 2012, the contracting process to hire *Americopters* will be commenced at least a month earlier than in 2011. In 2011 the contract was initially routed for processing ~ two months prior to its need to cover the cost of helicopter time, a lead time that proved adequate in 2008 and 2009.

ACKNOWLEDGEMENTS

The AZA provided all funds to support the field collection of birds on Saipan for introduction to Sarigan and USFWS provided the funds (via Wildlife Restoration Grant) necessary for translocation activities. *Americopters Saipan* was responsible for transporting personnel and Golden White-eyes from to Sarigan from Saipan. The MAC project would like to give special thanks Lynn Hall and Karen Lynn for their generous donations to the project.

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