



A dead Tristan Albatross chick killed by introduced House Mice on Gough Island.

WHERE DO YOUNG BIRDS GO?

CONSERVING THE TRISTAN ALBATROSSES

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A part from a few birds that might still breed on Inaccessible Island in the Tristan archipelago, the Tristan Albatross *Diomedea dabbenena* breeds only on Gough Island in the south Atlantic. Currently some 1500 pairs breed each year, but the species was upgraded to Critically Endangered in 2008 because of its rapid population decrease. It faces two serious threats. Firstly, introduced House Mice *Mus musculus* kill many chicks, resulting in few chicks surviving to fledge. Secondly, at sea they face worryingly high rates of mortality on long-lines, mainly off South America. At current rates, each of these factors is sufficient to cause numbers to fall.

A program is underway to test the feasibility of eradicating mice from Gough Island, but in order to manage the threat posed by fishing activity at sea we need to know more about where the birds go when they are away from the island. This is complicated by the difficulty in separating them from other species in the Wandering Albatross complex. We have information on the dispersal at sea of adult birds, but there are no data on the post-fledging dispersal of the few chicks that survive mouse attacks. Young birds return to the island several years before they are ready to breed, returning each year during the breeding season – these birds are called ‘pre-breeders’. This project will allow us to assess where both young and pre-breeders go, and crucially, to assess with which fisheries they overlap.

After leaving the island for the first time, fledglings spend

at least 3-4 years at sea. Given the urgent need for data on these birds, and the high attrition rate among young birds, we cannot afford to rely on data loggers to record their movements, because many of these data loggers would be lost at sea and we would be unable to retrieve the data they have stored. We plan to deploy satellite transmitters (PTTs) on fledglings to track them for the first 9-12 months after fledging. This is an expensive undertaking, costing around \$4 000 per bird for the transmitter and the data uplinks through the ARGOS satellite system. We would need to equip at least six birds, but 10-12 would be a better sample given the expected high mortality among newly fledged birds.

Most pre-breeders return to the island each year so loggers are a viable option here. We plan to use geolocator loggers manufactured by the British Antarctic Survey to track the movements of pre-breeders when they are away from the island. Birds of known age will be caught at the island and equipped with the loggers that store data for up to three years. This technology is much cheaper than satellite tracking, costing roughly \$250 per device. We will need to equip at least 20 pre-breeders.

The costs of placing personnel in the field are covered from other sources, so all we need for this project is the cost of devices and ARGOS uplink costs – still a substantial amount: approximately \$40 000 for tracking fledglings and \$5 000 for tracking pre-breeders.

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