## Care of Giant-petrels from Rehabilitation to Release.

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**ABSTRACT:** There are two species of Giant-petrels - Northern *Macronectes Halli* (listed as vulnerable under the Commonwealth Environment Protection and Biodiversity Act 1999) and Southern *Macronectes giganteus* (listed as endangered under the Commonwealth Environment Protection and Biodiversity Act 1999). They are extremely similar and the majority of birds that come into care are fledged juveniles. Their plumage is similar when young, so the best way to identify the species is the colour of the tip of the bill. It is important to identify the species in care as their needs and preferences are different.

Giant-petrels should only be rehabilitated by skilled seabird carers as the facilities necessary to successfully release these birds are extremely specialised.

Southern Giant-petrek *Macronectes giganteus* are currently classified as endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and Northern Giant-petrels *Macronectes Halli* are currently listed as vulnerable. They have circumpolar pelagic ranges from Antarctica to 20<sup>o</sup>S and Southern Giant-petrels in particular are common visitors to southern Australian waters. Over summer, Southern Giant-petrels nest in small colonies on the Antarctic continent and peninsula and sub-antarctic islands. Northern Giant-petrels are less colonial and only breed on sub-antarctic islands. With both species, a single chick is raised although only approximately 70% of the potential breeding population nests annually. The current global population of Southern Giant Petrels was recently estimated to be 31,300 breeding pairs. This represents a reduction of 17% from a previous estimate in 1985. Further, the estimated 5,000 breeding pairs in Australian territory represents areduction of approximately 50% since the mid-1800's.

Threats to both Giant-petrels are long-line fishing, predation by cats and rats in breeding areas and habitat degradation by Caribou, sheep and rabbits. Within Australian waters, potential threats are loss of the southern cuttlefish populations, long-line fishing (illegal) and oil spills. Environmental changes affecting sea and air temperatures may alter upwellings and hence marine prey availability.

Northern Giant-petrels begin breeding approximately 6 weeks earlierin the year than Southern Giant-petrels, fledge chicks earlier and are found exhausted on Australian beaches more often in April rather than Southerns who are generally recovered more often in July/August. Most Giant-petrels recovered alive or dead on mainland Australia are juveniles who disperse from breeding colonies and travel north-east on the strong, westerly winds of the sub-antarctic convergence. Both species do not breed until they are over 6 years old and their life span is not known.

As the vast majority of beachwashed Giant-petrels are juveniles, the best way to identify the separate species is Southern Giant-petrels are slightly bigger birds and have a slight greenish tinge to the tip of their beak and Northerns have a slightly pink tip.

Rehabilitation of these extraordinary birds should only be undertaken by seabird specialsts who have the skills and facilities necessary to feed and house these animals properly The successful rehabilitation and subsequent release of exhausted or injured Giant-petrels is relatively straight-forward and most birds should only be in care for a maximum of six weeks. The facilities necessary for these birds are extremely important as these birds in the wild travel constantly and do not spend muchtime on land. A large, fenced pen (big enough to allow the bird to fully extend the wings and move around) with a sand sub-strate is crucial in keeping feathers and feet in good condition and a small, shallow saltwater pool is necessary for the birds to clean themselves and keep themselves waterproof. A large saltwater pool is also necessary when the bird is close to release to allow the bird to exercise pectoral muscles.

The vast majority of Giant-petrels that come into care are fledged juveniles which have become exhausted and are weak and thin.

The two species of Giant-petrels behave completely differently in care and so it is extremely important to immediately identify which type you have.

Southern Giant-petrels in care are much more interested in carrion and rarely eat fish. We feed them a mixed diet of carrion. These birds often take a few days to acclimatise themselves to the new foods but, once started, gain weight and strength extremely quickly.

Northern Giant-petrels are much more interested in fish than carrion and will often feed themselves within the first few days.

As soon as the Giant-petrel is a good weight (4.5 - 5kg), walking strongly and spending large amounts of time cleaning and preening in a deep water pool, it is readyfor release. Being ocean-wandering, antarctic birds, giant-petrels are broad-winged and heavy and need a strong wind to lift off. A westerly –facing sloping hill with a gradient of  $45 - 50^{\circ}$  falling into the ocean is ideal. In order for the bird to be able to lift off easily, there needs to be an onshore wind of at least 20 knots. The bird should be released at the top of this hill and will take a couple of steps, fly against the wind for lift and then turn into the wind and disappear quickly. Giant-petrels should never be released on an ocean beach as they will attempt to swim out and exhaust themselves in the breakers. The advantage of releasing on a hill as opposed to releasing from a boat is that you see the bird actually fly. When released from a boat, the bird will often spend hours preening and they areextremely hard to catch if it is decided that they are not ready and don't fly.

There are two major risks to Giant-petrels in care. The biggest risk is stress-related illness. These birds are notoriously wary of humans even in the wild and many breeding colonies have had large reductions in size when located nearhuman activity (antarctic base stations etc). They do not show fear and stress and, in fact seem very relaxed in care but this is their way of protecting themselves (a visibly stressed bird is predated in the wild). As with all wildlife in care, every attempt should be made to leave these animals alone and quiet for at least 95% of each day during rehabilitation as sudden movements and loud noises are very threatening. Only one or two people should be involved in the day to day care of these birds as they are very intelligent and bond closely with their carer. The most common stress-related illness is aspegillosis or fungal pneumonia. It is very occasionally found in wild birds but it is assumed that these birds have usually been under severe stress for some reason e.g. juvenile Pacific Gulls competing for food. The symptoms are general listlessness and anorexia progessing sometimes to wheezing and death – most birds cannot keep food down. Once the bird has developed this disease, the kindest thing is to euthanase as it is impossible to cure. Most zoos and some rehabilitation centres give a drug (Sporanox) from admission throughout the rehabilitation process as a prophylactic to prevent this disease but it is my experience that it doesn't always work and we prefer to work on stress prevention instead. The only Giant-petrels to have aspegillosis in our care came from zoos or other shelters.

The other major risk is feather damage. As with all ocean-going seabirds, if a Giant-petrel has damaged plumage it cannot be released as it will not be entirely waterproof. The best way of preventing feather damage is to house the bird appropriately. If the rehabilitator does not have suitable facilities, the bird should immediately be moved to somewhere better as feather damage can happen quickly. If the damage is to the body feathers, they can be plucked under anaesthetic and will take 8-10 weeks to regrow. If the damage is to the wing feathers, they are impossible to pluck and the bird wil need to be in care until it naturally moults the feathers which could take months and it is generally not an option to hold these birds long-term.

Anyone who has rehabilitated a Giant-petrel will tell you what amazing birds they are and they quickly become a favourite. They are cheeky and generally gentle and tend to be behaved and have a strong instinct for survival.

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## **BIOGRAPHY:**

Marg Healy has run the Phillip Island Nature Parks Wildlife Rehabilitation Centre at Phillip Island in Victoria for the past 20 years. The Centre, which is funded by the world famous Penguin Parade, rehabilitates all wildlife occurring naturally on Phillip Island and specialises in oceanic seabirds which are transported from all over Australia. The Rehabilitation Centre is situated on the edge of a Little penguin colony inhabited by approximately 60,000 Little penguins. Throughout summer, there are also approximately 1,000,000 Short-tailed shearwaters breeding around the Phillip Island coast.

Marg has overseen the rehabilitation of oiled Little penguins in 6 major oil spill incidents and the Rehabilitation Centre currently has a 97% release rate for oiled penguins which is equal to the world's best. A team of four staff from Phillip Island Nature Parks (including Marg) travelled to South Africa in July 2000 to aid in the rehabilitation of 20,000 oiled African penguins.

Marg acts as state advisor on seabirds for Wildlife Victoria (a volunteer wildlife advocacy organisation) and runs injured and oiled seabird training days. She also regularly speaks to school groups and interest groups about issues such as oceanic pollution and seabird safety.