

ANNIVERSARY FACT SHEETS

THE LITTLE PENGUIN

CELEBRATING 50 YEARS OF MONTAGUE ISLAND SHEARWATER RESEARCH 2009



The Little Penguin *Eudyptula minor*

The Little Penguin is a flightless seabird that occurs along Australia's southern coastline from Perth, Western Australia, to Coffs Harbour, New South Wales. Some of the largest colonies are those on Gabo Island (18,000 pairs), Phillip Island (14,000 pairs) and Montagu Island (6,000 pairs). They usually forage in shallow waters close to the coast. To catch their prey of squid, krill and small schooling fish they can dive to a depth of 60 m. Single birds or small groups are often seen foraging, however, due to a paucity of observations, it is not known whether Little Penguins undertake cooperative feeding. Their contact call at sea, a short sharp 'bark', can often be heard from the shoreline or nearby boats.

Little Penguins can stay at sea for months on end and generally roam hundreds of kilometers from their colonies, their buoyancy allowing them to rest on the surface with minimal energy expenditure. They only need to come on land for breeding and moulting. Their long oceanic sojourn can even allow sufficient time for barnacles to form on their feet and flippers.

At dusk, all around Montagu Island, penguins come ashore at 'landing sites'. Numbers vary from site to site and from day to day, but on a 'good' night there may be 100 or more penguins clambering onto the rocks at intensively used sites. There they rest, preen and, as dusk deepens, walk as a group up the slopes before they disperse over the island. Because the birds spend some time on the rocks, these locations become marked by their excrement. From the intensity of these deposits one can make a fair estimate of how many birds are using a particular landing site.

Colony, nest and mate fidelity is high in Little Penguins. During August and September the number of birds coming ashore increases, as males return to old nest sites or establish new ones and females return soon thereafter. Pairs are re-united or formed with elaborate trumpeting displays in which the male and female perform an out-of-phase duet, the birds recognising each other by their distinctive individual calls.



On Montagu Island, only a few penguins dig burrows and these are often located in shearwater colonies. Most of their nests can be found under large tussocks of the Mat-rush *Lomandra longifolia*, a dominant plant over much of the island. Two white eggs, similar in dimension to chicken eggs, are laid some days apart, after which both sexes share incubation duties equally. The length of each shift varies from a single day to 3 days and depends on the availability of food in close proximity to the colony. Changeover occurs at night and incubation is usually completed within 36 days. For the first fortnight after hatching the chicks are brooded by one or other parent to provide protection and assist with their thermoregulation. The returning parent feeds the begging chicks by regurgitating semi-digested food. After this early 'guard stage', the increased energetic requirements of the chicks require both parents to forage simultaneously. After about 5 weeks the chicks may sit outside the nest each evening waiting for their parents to return.

Due to the vociferous appeals for food that continue even after feeding, parents often retreat some distance away for some rest. The chicks are ready to leave the nest between 7 and 9 weeks after hatching. The second-hatched chick often remains a few days longer in the nest than the first due to slight developmental differences. Come January most of the young birds have left the island and, once in the water, are entirely independent from their parents.



After departure of the young the adults prepare for the moult. Moult in penguins is very different from other species, which can continuously moult the occasional feather throughout the year. However, penguins cannot permit their complete waterproof feather covering to be compromised as the risk of hypothermia is increased with even a small gap in the plumage. Instead, penguins leave the water to replace their entire feather cover over a 2 to 3 week period of enforced starvation. On Montagu Island this occurs anytime from February to April, with early breeding individuals usually moulting early. In the weeks leading up to moulting the adults stay at sea, foraging intensively to build up fat reserves that will sustain them through the energetically demanding moult period. Before commencing the moult birds may reach twice their normal weight, up to about 2 kg.

One of the greatest threats to penguins on Montagu Island has been the increasing distribution of Kikuyu Grass *Pennisetum clandestinum*. This exotic grass forms thick, largely impenetrable mats and can entangle adults and chicks if their nests are amongst it. The NSW National Parks and Wildlife Service, the management authority for Montagu Island, is currently undertaking a broad-scale Seabird Habitat Restoration Project that aims to control and reduce the spread of Kikuyu Grass and to restore degraded habitats with vegetation conducive to seabird nesting.



Further Reading

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