

WILDLIFE

Fairy penguins

Eudyptula minor



Parks and Wildlife Service Tasmania

DEPARTMENT of TOURISM, PARKS
HERITAGE and the ARTS

The scientific name of the fairy penguin (or little penguin) *Eudyptula minor*, is most descriptive. Not only is it the smallest of all penguins, but also the Greek word 'Eudyptula' means 'good little diver'. This flightless seabird breeds in colonies along the southern coast of Australia, as far north as Port Stephens in the east to Fremantle in the west. Subspecies are also found in New Zealand. Very little is known about their populations. However, Tasmanian estimates range from 110,000–190,000 breeding pairs of which less than 5% are found on mainland Tasmania, where ever-increasing human pressure will probably result in their extinction. The most abundant populations are found on our offshore islands. Adults weigh about a kilogram, grow to a height of 40 cm and live, on average, 6 years. In one instance, an age of 21 years has been recorded.

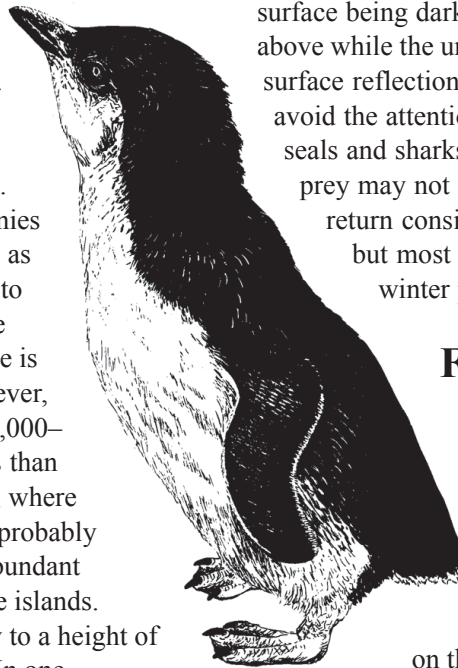
At sea

The fairy penguin is superbly adapted to life at sea. The fairy penguin's streamlined shape and the efficient propulsion of its flippers (used underwater in a similar manner to that of birds in the air) enables it to seek prey in shallow short dives, frequently between the 10–30 m range and very occasionally extending to 60 m. The webbed feet are excellent for manoeuvring on the surface and have claws for digging and climbing slippery rocks. Penguins have large eyes with retinas specially adapted for detecting movement in low light. Unlike us, little penguins have flattened corneas so that they can see clearly both under and above water.

In common with other penguins and many other sea creatures, the little penguin uses counter-shading as camouflage; the upper

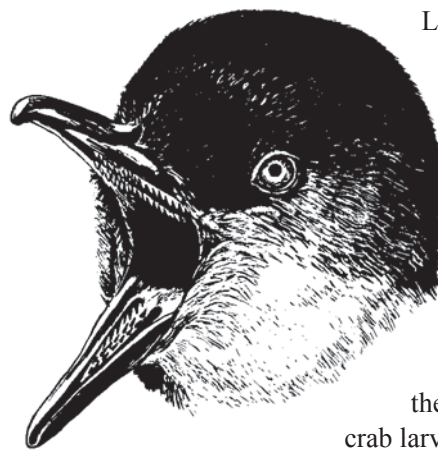


surface being dark to blend in with the sea from above while the underside is silvery-white, similar to surface reflections from below. This helps penguins avoid the attention of predatory birds from above, seals and sharks from below and also means their prey may not detect them. Some fairy penguins return consistently to their burrows year round but most stay at sea throughout the autumn-winter period.



Feeding

The fairy penguin diet varies in different locations but consists mainly of small school fish, some squid or krill (shrimp-like crustaceans). Prey is caught with rapid jabs of the beak and swallowed whole, aided by barbs on the roof of the mouth. Prey is swallowed whole. Rather than have a crop which would unbalance them, they store food centrally in a large gut.



Little penguins need to eat about 25% of their body weight per day just to maintain condition, more if feeding young or putting on condition to moult. Occasionally items will be taken from the sea floor, such as crab larvae or sea horses.

Colonies and nest sites

Most resident birds in a colony return to their burrows in small groups within an hour or so of darkness, to avoid predators such as gulls, ravens and raptors. Their return is preceded by groups of penguins gathering beyond the surf where they may be heard calling to each other. They come ashore in a flock because there is safety in numbers. More birds means more eyes to detect predators and the sheer numbers can be confusing to a predator. With large colonies hundreds of birds may come ashore in a brief space of time.



Nests are usually at least 2 m apart and generally consist of a 60–80 cm tunnel ending with a nest ‘bowl’ made from grass or seaweed. Other nests may vary from mere scrapes beneath a clump of tussock, to elaborate connecting tunnels or a home amongst coastal rocks. Fairy penguins may have to compete with shearwaters, water rats, snakes and more recently, rabbits, for burrows.

Breeding

Between June and August male penguins return to either renovate old burrows or to dig new ones. Noisy male courting displays greet arriving female penguins. Although only one mate is chosen, they will usually not be their sole partner for life. Birds breed annually, but in eastern Australia the usual clutch of two eggs may be found as early as May or as late as October.

In successful years, two clutches might be reared in one season, which is unusual among penguins. The penguin pair share incubation shifts of usually 1–2 days and hatching takes place within 33–37 days. About 60% of the eggs successfully hatch.

When 5 weeks old, the chicks are very active and even stay outside burrows waiting to be fed by their parents. Within another 2 or 3 weeks they are ready to move to the sea, where they will grow to maturity.

About 70% of these chicks reach this stage but only 15% will live to maturity at two years old, most returning to their natal colony to breed.

Moult

After breeding, the adults feed frantically to put on condition for their two week moult ashore. They must nearly double their weight because they will not feed or drink during moult.



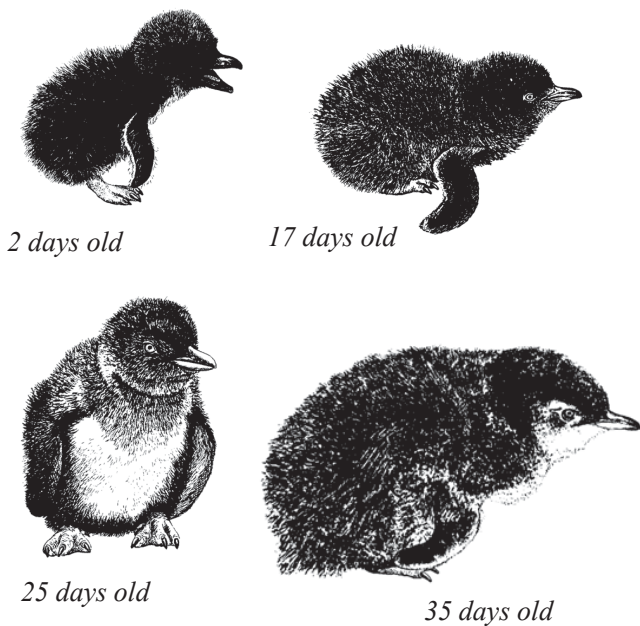
Progressive stages of moult

If their nests are large, moulting will occur there but often the penguins choose a roomier place where they can more easily preen and scratch. Such places are obvious from the thousands of feathers scattered about.

Song

Song and displays serve to attract mates, stave off intruders and, as a duet, unite a pair’s attachment to each other. The distinctive individual song moves from a bass rumble to a trumpeting cry, accompanied by flipper, beak and body movements. These calls and displays vary in intensity

from a ‘half-trumpet display’ to a fever pitch of sound and body activity. At night, and especially during the breeding season, the noisy din of a penguin colony can be considerable.



At hatching the chicks are sooty black and weigh little more than 25 g. Both parents feed the chicks which eat up to half their weight per day and at 40 days old they may be even heavier than their parents.

Seasonal activities

Variations in food supplies, caused by changes in ocean currents or other factors, determine the pattern of life for each local population of fairy penguins and may differ considerably from the diagram below. In favourable years, eggs may be laid in May and up until October, with two or even three broods of chicks reared in one year.



Threats and predation

Seasonal changes in natural food supplies from year to year cause many young birds to be washed up dead or in weak condition on our beaches. Nestlings may also be killed by heat or from tick infestations. Being small, little penguins have many predators. Australian and New Zealand fur seals both eat little penguins as does the occasional leopard seal. Large gulls can kill penguins and inshore, white-bellied sea eagles catch many.

Around colonies water rats take eggs and chicks. Ravens and raptors patrol these areas for exposed eggs, chicks and adults, as do quolls and Tasmanian devils at night on Mainland Tasmania. However, little penguins have evolved alongside these predators and can cope with them. Introduced predators such as rats, dogs and cats and threats from humans pose a greater problem.

Thoughtless activities create extra problems for fairy penguins. Some are drowned when the amateur fisherman unknowingly sets gill nets near a penguin colony.

Oil spills spell disaster for penguins and other sea birds. Not only is oil toxic when ingested, but also the buoyancy and insulation of penguin plumage is damaged. Plastics are mistakenly swallowed or bottle packaging becomes a noose around a penguin neck.

Uncontrolled dogs or feral cats wreak havoc on penguin colonies (more than the penguin's natural predators) and may kill many individuals.

Should the fox become established in Tasmania then penguins will have to try to cope with yet another predator.

The effects of human habitation, such as road kills, direct harassment, vegetation burn-off and housing development continue to threaten fairy penguin colonies.

Viewing guidelines

These guidelines are intended to both protect the penguins and to allow you to see them under natural conditions. Please be sure you are familiar with them before visiting a penguin colony.

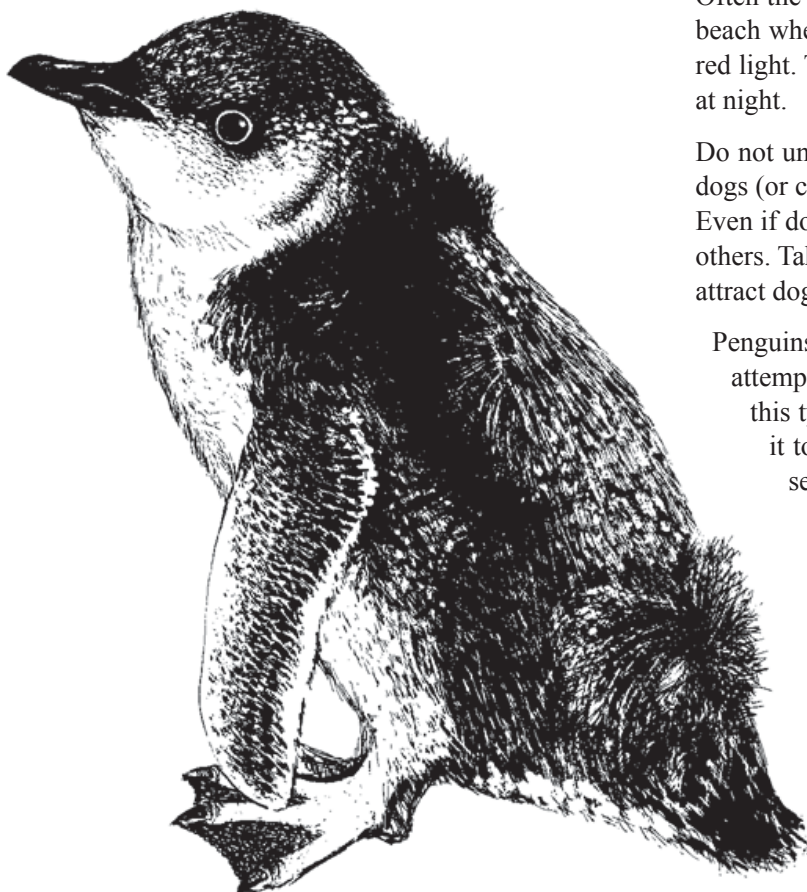
Left to themselves, penguins will leave the water at last light so that they are under the cover of darkness, which helps to protect them from predators. At this time they are very vulnerable (remember they regard you as a potential predator) and hence are wary. If they sense a threat or are disturbed by torchlight or loud noise they stay at sea longer. This is stressful for them and can interfere with breeding, or may prevent them reaching their hungry young in the burrow. Besides, if they stay at sea, you may not see them at all.

It is important

Please read and observe any information signs which may be placed at the penguin colony.

Remember to wear dark clothing for camouflage and ensure you will remain warm.





Juvenile with down

Often the best places to view penguins are behind the beach where they feel more secure. Again, only use red light. To aid viewing, binoculars are useful, even at night.

Do not under any circumstances visit a colony with dogs (or cats). They are a major threat to penguins. Even if dogs are leashed, their smell remains to attract others. Take your food scraps away as these also attract dogs and cats.

Penguins are protected wildlife. It is illegal to catch, attempt to catch or otherwise harass penguins. If this type of behaviour is observed, please report it to the nearest ranger. Offences are taken seriously.

If you have interests or concern about your local penguin population please contact our nearest Parks and Wildlife Service office.

The penguins are a remarkable experience for us all. Let us keep it that way.

Approach your observation point from the land, preferably not by walking along the beach as this blocks the penguins, access to their burrows. Use existing tracks and do not walk through the colony as it destroys burrows. Please do not damage vegetation.

Choose a viewing position which is at least 3 m from, and does not block, the penguins' access to their burrows. Choose a site which has a dark background to camouflage yourself.

Settle yourself comfortably before last light. If there are experienced personnel available, please take their advice. Remain quiet and keep movement to a minimum. Penguins have excellent vision and easily spot movement, especially if they see you outlined against the sky.

Only dim torches emitting a red light (red cellophane over the lens is OK) should be used and then never toward the water or directly at the penguins. Flash cameras should not be used on the beach. Video cameras **without spotlights** can be used and produce better results at dusk than conventional cameras.

Further information

Stahel, C. & Gales, R. (1987). *Little Penguins - Fairy Penguins in Australia*. Uni Press, Kensington, NSW.

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FURTHER INFORMATION

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