

## Little penguins of the Derwent

**L**ittle Penguins previously thrived in the Derwent estuary, but due to extensive urban development on the foreshore their numbers are now critically low. The penguins that remain are highly vulnerable to attacks by cats and dogs, and habitat loss.

Many Tasmanian little penguin populations have disappeared. In fact, in Tasmania less than 5 per cent of the total population is now found on the Tasmanian mainland.

### The Foreshore

34 per cent of the Derwent estuary foreshore retains its native bush. This bush:

- Creates a picturesque harbour
- Provides homes for native species, including little penguins
- Provides opportunities for recreation
- Protects us from coastal erosion

### Call the Penguin Hotline!

If you have information about Derwent estuary penguins, including sightings on land and in water, or information about where they nest or where they have nested in the past, the Derwent Estuary Penguin Project would love to know. Call 0427 PENGUIN (0427 736 484).

This information will be used to determine how best to care for the Derwent estuary foreshore, to ensure the future of little penguins in the area. Because of vulnerability of penguins in the estuary, information you give will not be publicised.

### The name

The little penguin, also called the fairy penguin, is the smallest of all the world's penguins and is found only in southern Australia and New Zealand.

Indigenous people in these areas would have known the little penguin well. The first written description was made in 1781 by J.R. Forster from a specimen previously collected on one of Captain Cook's voyages. Forster's scientific name for the birds was *Eudyptula minor*, which means 'good little diver' in Greek.



### Life at sea

Although some little penguins return to their burrows throughout the year, most remain at sea for long periods during autumn and winter. They are superbly adapted for life in the water. With a streamlined body, short wings modified as paddles, and by using their feet and tails for manoeuvring, little penguins literally fly underwater.

Adult birds weigh about one kilogram and grow to a height of 40cm. On average birds live for seven years, taking two or three years to reach maturity. They feed mainly on small fish, squid, and krill (shrimp-like crustaceans), which they obtain during shallow short dives, usually to depths of five to 20 metres.

### Feathers adapted for swimming

At sea the short stiff feathers compress forming a thin watertight barrier, below which downy filaments trap air close to the body, insulating the birds when diving. Oil spills spell disaster for penguins and other sea birds. Not only is oil toxic when ingested, but it also removes the buoyancy and insulation of the specialised penguin feathers.

### Returning to the land

Between June and August male penguins return to the land to renovate old burrows or dig new ones. Their noisy courting displays greet arriving female penguins. Only one mate is chosen. Birds raise one or two clutches each year depending on food availability. Little penguins commonly breed in loose colonies. Mates stay together for years.

When they come ashore penguins are extremely vulnerable to predators. Most return to their burrows in small groups within the first two hours of darkness. Often penguins group beyond the surf, seeking the safety of numbers before coming ashore.

### Life on land

Nests may be scrapes beneath a clump of vegetation or a simple home amongst seashore rocks. A typical nest consists of a short tunnel with a nest 'bowl' at the end, but some may form elaborate tunnels. In urban areas little penguins have been found nesting in boatsheds, under houses and in artificial penguin burrows.

A clutch of two large eggs is typically laid during spring or summer. Both parent birds alternate between incubation and feeding at sea. About 36 days later the young hatch.

When five weeks old, downy juveniles may be seen outside burrows at night, waiting to be fed. After eight weeks the chicks are ready to move to their life at sea.

After breeding adult penguins return to their burrows to moult. Over the two to three weeks of moulting, all feathers are shed and replaced. During this time penguins are unable to feed at sea and they lose up to half their body weight.



### Looking after little penguins

Although penguins have natural predators such as seals and sharks, starvation is probably the most common cause of death for penguins at sea. Each adult little penguin eats about 100kg of food in a year. Most food is needed when adults are feeding their chicks. Fluctuations in food abundance may result in penguins starving and being washed up, weakened or dead upon our beaches.

Human activities on the coast and at sea create extra problems for little penguins.

### What you can do to help

- If you see penguins remember not to frighten them by getting too close, not to shine light directly at them, and keep your dog under control. For 'Penguin Watching Guidelines' visit [www.parks.tas.gov.au](http://www.parks.tas.gov.au)
- If you live near the foreshore keep cats and dogs in doors at night and under control at all times. They are the major killers of little penguins on land.
- Never visit a penguin nesting site with dogs or cats; take notice of 'no dogs' signs. Even if on a leash, animal smells remain and will attract other dogs and cats.
- Before removing any vegetation on the foreshore, ensure that there are no penguins nesting in the area.
- Avoid setting fishing nets near penguin breeding areas.
- Dispose of your litter properly. Bits of plastic can be mistaken for food or may ensnare penguins.
- Foxes are a major threat to penguins. To report fox sighting call 1300 FOX OUT (1300 369 688).

### Do you know...

... why penguins are coloured the way they are? The dark colouring of the back and the silvery underside of the penguins helps camouflage the birds from predators.

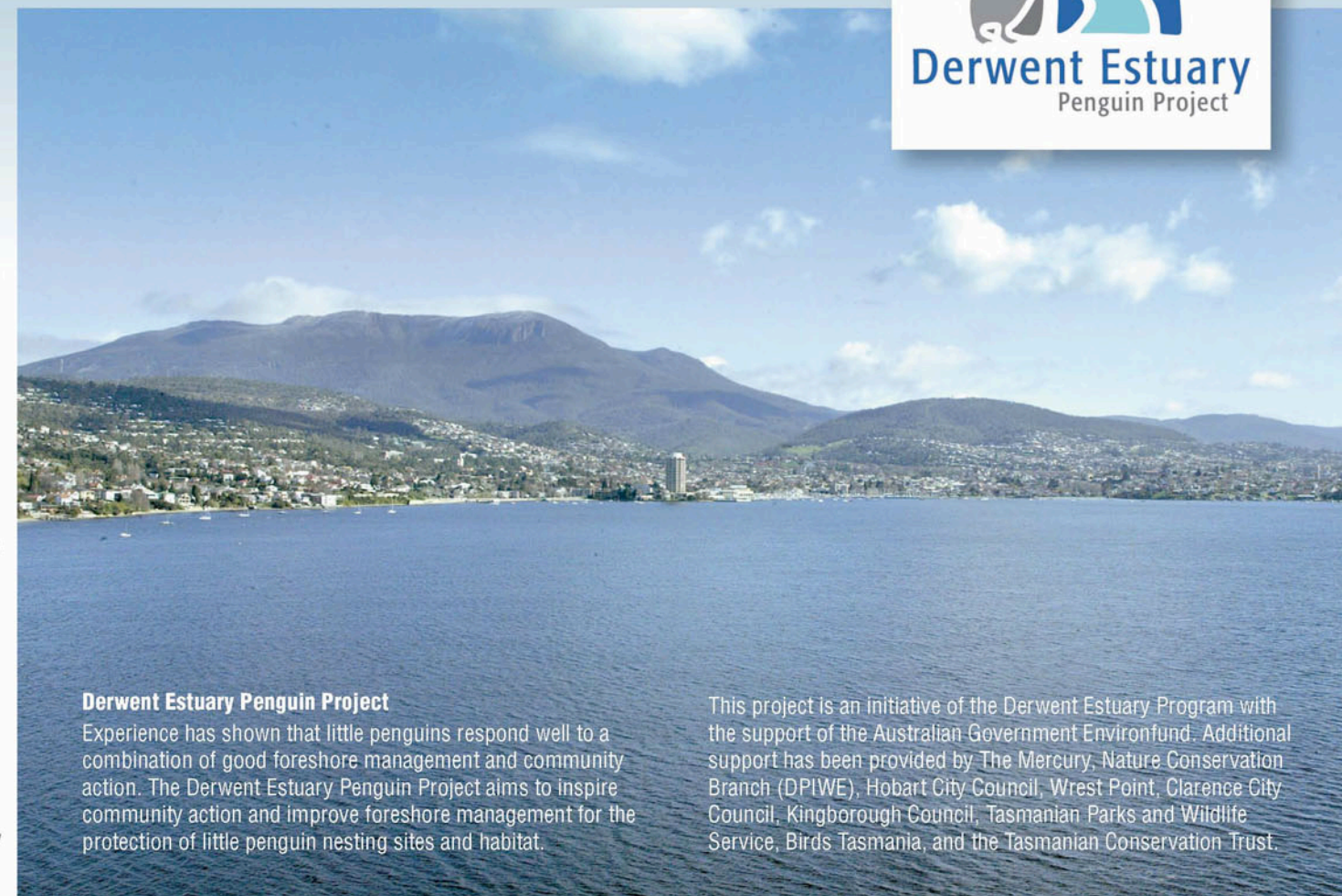
When seen from above the dark upper surface blends in with the sea, while the white belly is similar to the surface reflections when seen from beneath. This also helps the penguins avoid being detected by the fish or squid they are hunting.

... penguins are able to see equally well on land and under water? The unique structure of the penguin's eye alters the focus according to the environment in which it is trying to see. A 'third eyelid' protects the eye underwater and is used as a 'windscreen wiper' to clear sand from the eye when on land.

... penguins only sleep for about four minutes at a time. Their deepest sleep stage lasts only 10 seconds compared to the average of 20 minutes for humans.

### Penguin watching

Summer is the best time to see penguins and the Parks and Wildlife Service runs education and



### Derwent Estuary Penguin Project

Experience has shown that little penguins respond well to a combination of good foreshore management and community action. The Derwent Estuary Penguin Project aims to inspire community action and improve foreshore management for the protection of little penguin nesting sites and habitat.

This project is an initiative of the Derwent Estuary Program with the support of the Australian Government Environfund. Additional support has been provided by The Mercury, Nature Conservation Branch (DPIWE), Hobart City Council, Wrest Point, Clarence City Council, Kingborough Council, Tasmanian Parks and Wildlife Service, Birds Tasmania, and the Tasmanian Conservation Trust.

interpretation programs at a variety of locations around the state. These programs run from December to February. For information call 1300 135 513. Several private operators also run educational penguin tours in Tasmania.

### Preparing for an oil spill

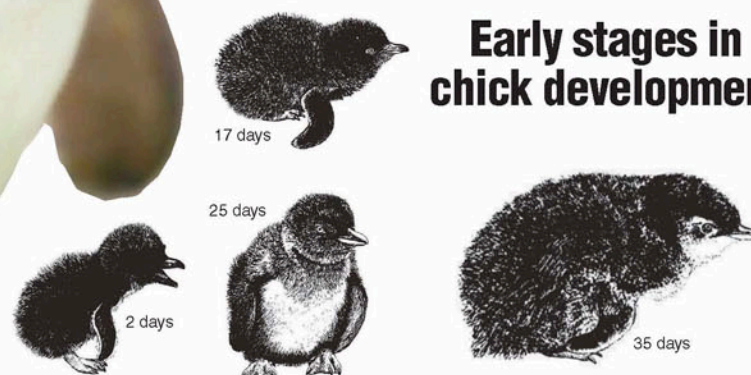
The Iron Baron ran aground at the mouth of the Tamar in 1995 spilling oil along the coast. When oil affected penguins began turning up, knitting needles around the country went into action. Over 15,000 tiny penguin jumpers were knitted. These jumpers helped in the rehabilitation of the little penguins that had been affected by the oil. Stockpiles of these jumpers are now stored in Oil Spill Response Kits around Tasmania in case of another major spill.

### Dogs kill Derwent penguins

A wandering dog is thought to be responsible for killing eight penguins on a Derwent beach earlier this year. Dog owners can assist in the survival of little penguins in the estuary by keeping their dogs under control at all times, and walking dogs in designated areas only. If there is a 'no dogs' sign on or near the foreshore it may be because penguins are nesting in the area.



### Early stages in chick development



### Useful websites

- [www.derwentriver.tas.gov.au](http://www.derwentriver.tas.gov.au) (includes information about the Derwent estuary and the foreshore)
- [www.penguins.org.au](http://www.penguins.org.au) (includes kids activities, scientific research, methods and results, as well as general info)
- [www.burnie.tas.gov.au](http://www.burnie.tas.gov.au) (includes a web cam inside an artificial penguin burrow)
- <http://www.ecocentre.com/penguins/html/index01.html> (includes information on humans and penguins successfully living side by side)
- [www.parks.tas.gov.au](http://www.parks.tas.gov.au) (includes a little penguin fact sheet and Penguin Watching Guidelines)
- [www.dpiwe.tas.gov.au](http://www.dpiwe.tas.gov.au) (includes management guidelines for little penguin habitat)



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