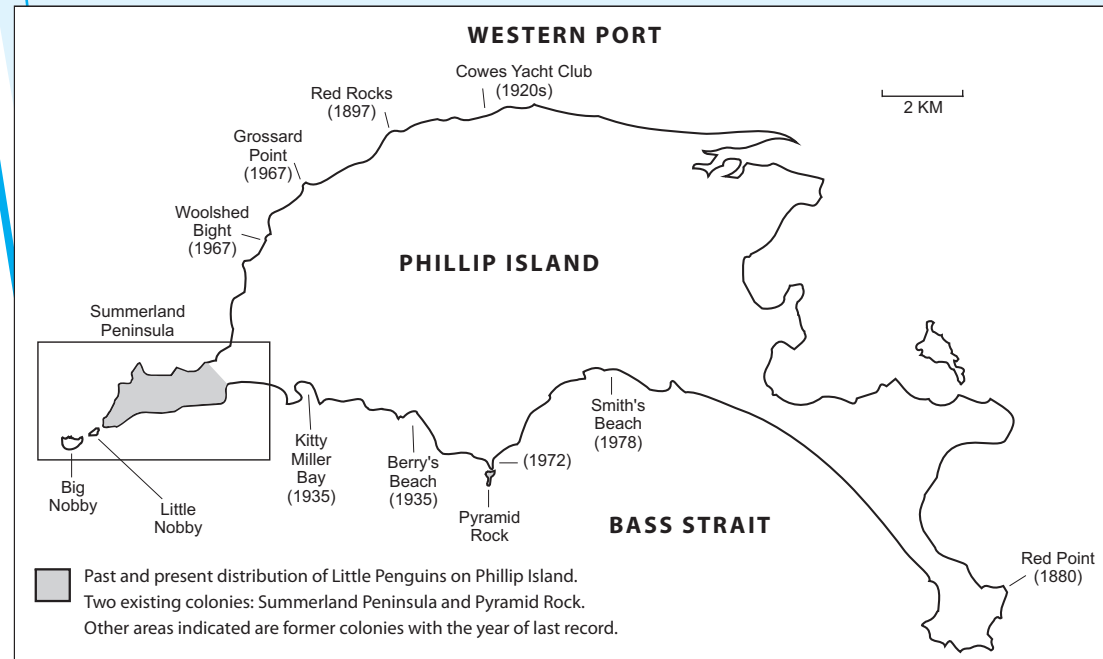


Helping the Penguins through . . . MANAGEMENT

Phillip Island Nature Parks is home to over 26,000 Little Penguins (approximately one third of Victoria's total penguin population). Summerland Peninsula provides ideal habitat for breeding and the waters of Bass Strait, Western Port and Port Phillip Bay ensure a vast fishing ground.

THE BAD NEWS

Over the last 80 years, penguins have disappeared from 80% of their former breeding areas on Phillip Island. This is due to predation, habitat destruction and other human activities.



NOW FOR THE GOOD NEWS

Despite past decreases, the population within Summerland Peninsula has stabilised due to management by rangers and research staff.

PROBLEM	SOLUTION
Predation by introduced animals such as foxes, dogs and cats.	A vermin control program is implemented by staff from the Nature Park and Dept. of Sustainability and Environment. It aims to eradicate foxes which can kill many penguins in a single night. Dogs and cats are banned from the Nature Park.
Penguins killed at night on roads near the Nobbies and Summerland Estate.	A series of gates have been installed to close off roads beyond the Penguin Parade between sunset and sunrise. This has proved very successful reducing the number of road kills from over 150 to less than 15 per year.
Housing development on the Summerland Peninsula.	In July 1985, the Victorian Government initiated the Penguin Protection Plan. Part of this plan involves a program of purchasing the 776 allotments which comprise the Summerland Estate. Once houses are removed, the area is weeded and replanted with native species. Penguin nesting boxes are supplied until the area is restored to suitable penguin habitat.
Starvation of adult penguins and chicks due to an apparent shortage of food.	Ongoing research is investigating the possible causes of this problem. For information about the findings of the research see "Helping the Penguins through ... RESEARCH" sheet.
Loss of breeding habitat by erosion, weed invasion and clearing and slashing of vegetation.	A weed control and eradication program ensures weeds are removed and replaced with plants native to the area which are grown in a greenhouse in the Park. Boardwalks, pathways and replanting help to reduce erosion in problem areas.
Deaths caused by human activity such as oil spills, plastic pollution and people damaging burrows.	An increasing emphasis on rangers patrolling throughout the Park has reduced deaths due to human activity. Ranger staff endeavour to keep beaches free of plastic pollution which can entangle and strangle penguins. Oiled and sick penguins are cared for in the Penguin and Koala Rehabilitation Centre within the Park. YOU can help!! Observe Park regulations during your visit and place all rubbish in bins provided. Take care to park only in car parks provided and walk on paths. Leave your pets at home!

- Phillip Island Nature Park has a Management Plan and project kits for students. Call (03) 5951 2800 for details.

nature notes Little Penguins

Q. What type of animal is a penguin?

A. Penguins are birds. They have a beak and feathers. Specially designed wings, called flippers, help them to swim in the ocean.

DAILY CYCLE:

Q. When do they leave in the morning?

A. 1-2 hours before sunrise.

Q. Why do they come ashore in groups at sunset?

A. For protection from predators such as Sea Eagles and other raptors.

Q. How long do they keep coming in at night?

A. Majority (60%) of penguins come in within the first 50 minutes, the rest come in within 2 hours.

Q. Do they arrive in pairs or family groups?

A. No, unlikely.

FEEDING:

Q. What do they eat?

A. Mainly small and juvenile fish such as red cod, warehou, pilchards, barracouta, anchovies and some squid.

Q. How much do they eat?

A. In captivity when they are not exercising, they eat 150g per day. At sea, they would probably eat around 300g daily.

Q. Do parents feed each other?

A. No.

Q. Where are their main feeding areas?

A. Mainly Western Bass Strait and Port Phillip Bay. Some go towards Wilson's Prom.

Q. How deep do they dive?

A. Generally between 10m and 30m. They can dive to depths around 70m.

Q. How long can they hold their breath underwater?

A. Usually 30 seconds, a maximum of 114 seconds has been recorded.

Q. How fast can they swim?

A. 2-4km/hr on average (maximum 6.4 km/hr)

Q. How far do they travel at sea each day?

A. 15-50km.

BREEDING:

Q. When is the breeding season?

A. Usually from August to March on Phillip Island.

Q. How many eggs are laid?

A. 2 in a clutch, sometimes 2 clutches in one breeding season, if plenty of food is available.

Q. How long is the incubation period?

A. 35 days.

Q. Does the male or female penguin incubate eggs?

A. Both. They take it in turns.

Q. What do chicks eat and how?

A. Both parents feed chicks by regurgitating fish caught at sea.

Q. What happens to the chick if parents fail to return for a few days?

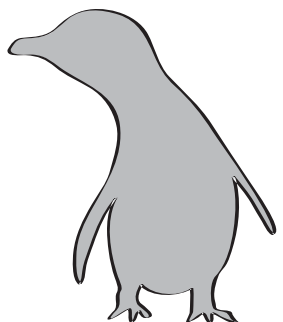
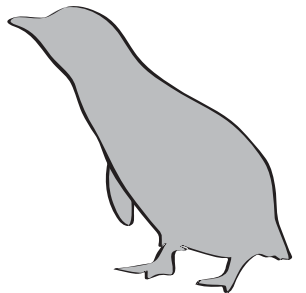
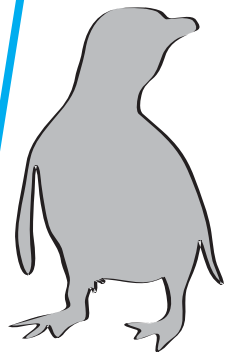
A. It loses weight gradually and may eventually die if not fed regularly.

Q. How do chicks know their parents?

A. It is thought that chicks do not know their parents. The parents recognise the chick by its voice and position near the burrow.

Q. At what age do chicks go to sea?

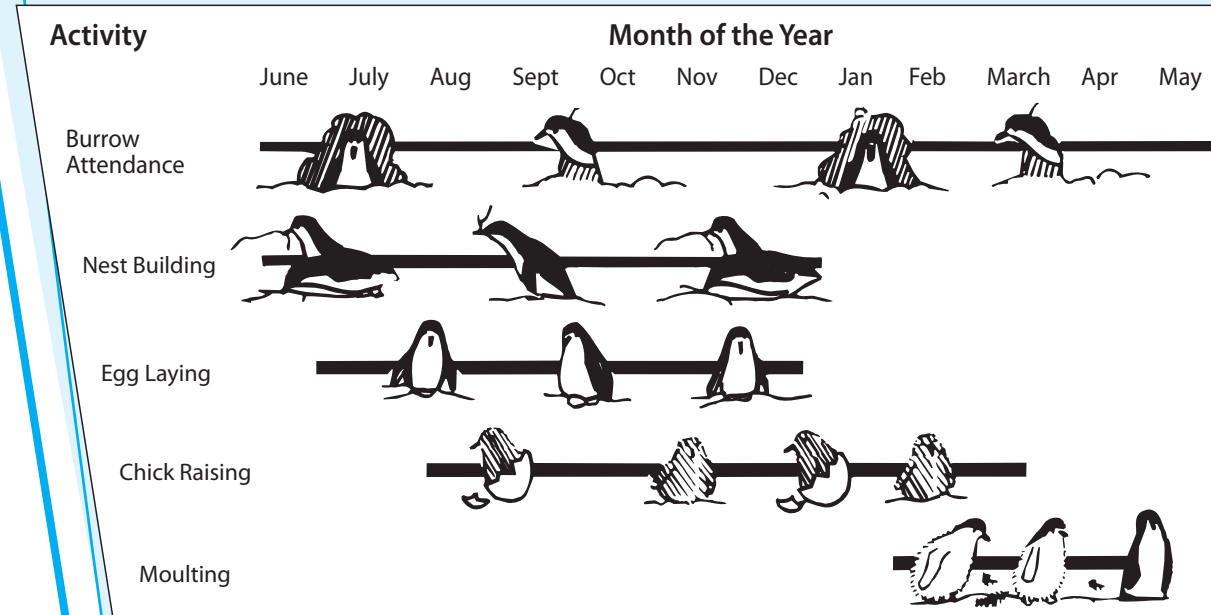
A. 8-10 weeks after hatching.



- Q. Are they taught to swim by their parents?**
A. No. They know how to swim and catch food instinctively.
- Q. Do they have the same mate each year?**
A. Most renew the pair bond each season. Divorce rate 18 - 45%. Also if a partner dies, they will find a new mate.

- Q. What other problems do penguins have?**
A. Humans have brought many problems for penguins. Oil spills, plastic pollution, cars, dogs, foxes, feral cats and increases in commercial fisheries. See "Helping Penguins Through Management" for more details.

THE YEARLY CYCLE: The Penguin Calendar



MOULTING:

- Q. Why do they moult?**
A. To replace old, worn feathers so as to maintain a water proof plumage.
- Q. When do they moult?**
A. February - April.
- Q. How long is the moult?**
A. About 17 days on land.
- Q. Do they eat during the moult?**
A. No, they almost double their body weight before the 17 day fast on land.

PENGUIN PROBLEMS:

- Q. What are their natural predators?**
A. At sea - occasionally Leopard Seals. Starvation is probably a more important cause of death at sea than predation. On land - Pacific Gulls and White Sea-eagles.

- Q. Do they return to the same burrow each year?**
A. Usually or a nearby burrow.
- Q. At what age do they begin breeding?**
A. 2-3 years.

GENERAL:

- Q. Can you tell male and female apart?**
A. Not easily. The male is often slightly heavier (male 1100g, female 1000g) and has a thicker beak.
- Q. Do they migrate?**
A. No. Adult penguins regularly spend periods of time fishing in Western Bass Strait and Port Phillip Bay. Juvenile penguins range further (usually west towards South Australia) and return when they are 1 to 3 years of age.
- Q. How do they find their burrows?**
A. By using geographical landmarks in the same way we do.



- Q. How far away have fledgling penguins travelled?**
A. Some as far as Adelaide. The longest distance swimming record is 2,000 kms from home.
- Q. What are the wooden boxes for?**
A. They are put in areas where penguins are not already burrowing or where burrows would collapse because of lack of vegetation.
- Q. Why do penguins come in during non-breeding season?**
A. Pairbonding and to maintain burrows.

THE PENGUIN PARADE AND PHILLIP ISLAND NATURE PARKS

- Q. How many penguins are there at the Penguin Parade?**
A. 2,000 breeding and 2,500 non-breeding penguins in the Parade area. 26,000 breeding and non-breeding on Phillip Island. Nearly all are found in the 340 hectare Summerland Peninsula.
- Q. Why don't lights and people affect penguins?**
A. Special lights were gradually introduced over many years so penguins have become used to them. People have been watching penguins here since the 1920s.
- Q. Why do people have to pay to see penguins?**
A. The Penguin Parade is public land but is self-funding; so admissions, souvenir and food sales and donations are needed to manage the rest of Phillip Island Nature Parks, to protect penguins and maintain facilities. YOU are helping the penguins!



- Q. I used to come and just sit on the beach and watch the penguins why has it all changed?**
A. 500,000 people come to see the penguins each year. The boardwalks and viewing stands are necessary to protect the penguins and their habitat. You are still able to have a close encounter with a wild penguin colony without disturbing them in any way.
- Q. What is Phillip Island Nature Parks?**
A. Phillip Island Nature Parks manage the Penguin Parade, but there's more than penguins in Phillip Island Nature Parks. Koalas sleep high in the Eucalyptus trees at the Koala Conservation Centre, water birds feed in the wetlands at Rhyll Inlet and from September to April each year thousands of Short-tailed Shearwaters breed along the southern coast. For more details about walks in Phillip Island Nature Parks see the 'Discover' Phillip Island Nature Parks map / brochure.

FOR MORE INFORMATION:

- Edgecombe, J. (1989) Phillip Island and Western Port.
Reilly, P. (1987) Fairy Penguins and Earthy People, Lothian Melbourne.
Reilly, P. (1994) Penguins of the world, Oxford University Press.
Other Nature Notes: Helping Penguins through Management, Helping the Penguins through Research, Tourism and the Penguin Parade.
www.penguins.org.au

