

Victory Beach is one of two places outside the Auckland Islands where the NZ sea lion is known to give birth. They can display aggressive behaviour please:

- **do not approach them**



SEA LION

- **do not make loud noises or disturb their rest.**

Please feel free to observe their antics and behaviour from a distance

If the weather is favourable this is a nice place to sit and enjoy a view of the sea. There is approximately a 400 metre walk (about 5 minutes) south where you will see another yellow/black marker as well as the regular yellow reserve markers that will lead you back to the Small Pyramid and the end of the track.

10 Please now follow the yellow markers to the start of the walk. As you exit the beach you approach an area targeted for dune development that has been funded through a **DUNE STABILISATION** programme administered by the Dunedin City Council. The Okia Committee is planting a range of native plant species that would be typical of natural dune (and foredune) system.

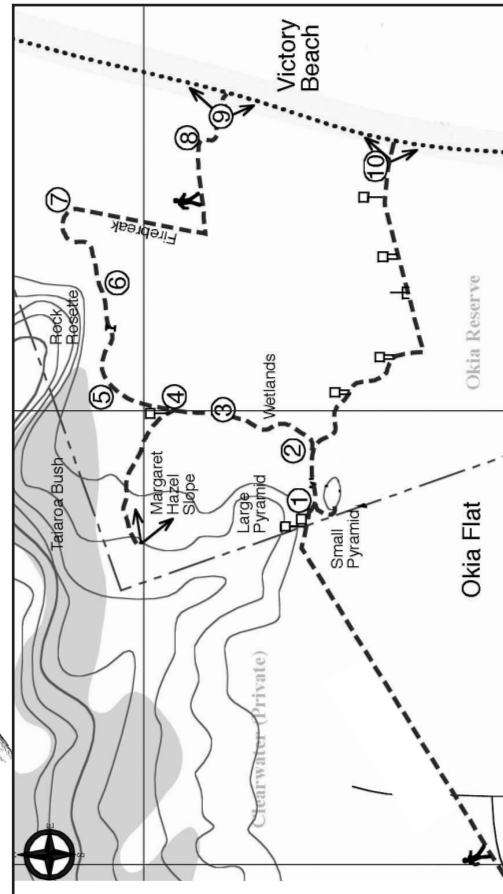
On the way back you might be lucky enough to see a **Fernbird** (*Bowdleria punctata*, Matatta). Walk in silence and listen for a short whistle/click. These secretive birds use different individual combinations of short and long clicks to identify each other and their whereabouts in the dense undergrowth. About the size and colour of a Sparrow but with a more scruffy long tail, they can only fly a few meters at a time, preferring to walk under or hop through the tops of the low shrubs.



FERNBIRD

In July 1991, the Okia Reserve was jointly purchased by the Yellow-eyed Penguin Trust and the Dunedin City Council. It is currently managed by a committee comprised of both organizations and representatives from Te Runanga Otagou and the Department of Conservation.

Map courtesy of Antony Hamel



www.yellow-eyedpenguin.org.nz

YELLOW-EYED PENGUIN TRUST

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YEPT 4/08

Please return brochures to box at gate. Thank you.

OKIA RESERVE GUIDED WALK

NORTH END AND THE MARGARET HAZEL SLOPE

This sheet will guide you through the north end of the Reserve. It will take you through both present and past plantings. The Trust would like to thank the countless number of organizations and volunteers who over the years have helped revegetate and restore the natural biodiversity of the reserve helping both the endangered yellow-eyed penguin and other wildlife that live here.

Please follow the yellow/black markers until you make it down the beach where you will then follow the yellow markers back to the pyramids. The walk will take approximately 2 hours with an optional loop of 30 minutes to the Margaret Hazel Slope, named for a dedicated volunteer. Points of interest will be marked with numbers as follows:

1 SMALL PYRAMID (optional): Climb to the top for an excellent view of the whole reserve and see the information about the volcanic history. The pyramids were formed during the first eruptive phase of an ancient volcano which was centered in what is now Otago Harbour. They are made of a dark rock called basalt that is hard and resistant to erosion. In front of the small pyramid is a cave. Maori history tells of its use as a shelter for a wounded warrior.

At the base of the pyramid you will find the once major dune plant of New Zealand, pikao (pingao), *Desmoschoenus spiralis*. Also known as Golden sedge, pikao is a native sand-binding plant with stiff, curled



PIKAO

coloured green, yellow or orange. Pikao is found only in New Zealand and is one of our major native dune builders. Efforts are being made to re-establish Pikao at several sites within the reserve.

2 WETLANDS. Damp dune hollows are common around the reserve. In wet spells these can form small lakes enjoyed by aquatic birds and waders such as paradise ducks and white herons. The wetland you see here has not ponded for several years but the moister environment enables the growth of many wetland plant species. This area is dominated by the growth of the giant rush *Juncus gregiflorus*.

3 SLOPE STABILIZATION. The area up the hill is a slip site that is in the process of being revegetated to prevent increased slippage in this area. The area on the hill to right of the slip site and beyond the reserve fence line is the largest remaining tract of native forest on the Otago Peninsula. Taiaroa Bush is largely made up of broadleaf, fuchsia, kowhai, mahoe and flax.

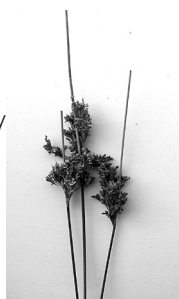
4 MARGARET HAZEL SLOPE (optional 30 mins). Follow the 4-wheel drive track up to the area currently being planted by the Yellow-eyed Penguin Trust.

Planting at the top of the hill started in 2000. Conditions are slightly damper and more sheltered in this area. It is hoped that birds in the adjoining bush will use this newly planted area and seeds in their droppings will further enhance our revegetation efforts.

This area is predominantly planted with *Myoporum laetum* (ngaio), *Grisilinia littoralis* (broadleaf), *Pittosporum eugenoides* and *tenuifolium*, *Sophora microphylla* (kowhai), *Coprosma propinqua*, *Aristotelia serrata* (wineberry), *Cordyline*



VOLUNTEERS PLANTING



JUNCUS GREGIFLORUS

as part of their programme to support increased biodiversity on private land. This has allowed us to intensively control pests and keep the plants free from weeds to great effect. With this increased effort we expect the natural biodiversity of plant and animals to return to this area at a much faster rate. Imagine coastal forest here in our lifetime! From the plantings there is a stunning view of the whole reserve.

Watch for small lizards. Trust volunteers have observed the common skink sunning itself on the weed mats.

5 NATURAL REGENERATION. The Bracken fern which has increased in abundance since retirement of the land from grazing, plays an important part in the succession process. It provides shelter for other plants such as naturally occurring flax, *Coprosma* and broadleaf.

6 To your left up the hill is a large circular geological feature – **A ROCK “ROSETTE”**, about 30m in diameter. It has been formed from radial jointing of an intrusive pod of lava. Due to the inaccessibility of the site to grazing animals the “rosette” has retained some of the now less common native plants.



ROCK “ROSETTE”

australis (cabbage tree), *Kunzea ericoides* (kanuka), *Leptospermum scoparium* (manuka), and *Solanum laciniatum* (poroporo). Watch out for the stinging *Urtica ferox* (NZ tree nettle, ongaonga) - naturally occurring.

Planting efforts here are enhanced by a Department of Conservation grant to the YEPT

Notable among these are the Easter orchid *Earina autumnalis* which can be seen at the end of March, early April.

7 Turn right and follow the **FIRE BREAK**. During the summer the Okia reserve can become very dry. The cut grass you are presently walking on is maintained regularly and designed to protect the penguin breeding areas should a fire occur in the commonly used part of the reserve.

8 Seventeen breeding pairs of **YELLOW-EYED PENGUINS** nested at Okia in the 2007/08 season. As yellow-eyed penguins are shy birds **please do not try to get**

close to them. Okia Reserve was purchased primarily for the protection of yellow-eyed penguins (hoiho). Normally they are out to sea during the day except during nesting season. You may hear the birds calling to each other. If you do come across a penguin **please do not disturb.**

EARLIER PLANTING. This area was planted in 1993/94 with ngaio, *Hebes*, *Coprosma* and circles of flax in order to extend penguin nesting habitats. Not all survived, succumbing to salt winds, poor sandy soils and heavy frosts.

9 RELIC DUNES. You may have noticed the hummocky nature of the area you have just been walking over. These are relic dunes some of which are several thousand years old. Approach the beach cautiously. There may be NZ sea lions resting on the track.



YELLOW-EYED PENGUIN ADULT & CHICK