



Yellow-eyed Penguin News

How Many Yellow-eyed Penguins On Stewart Island?

By David Blair

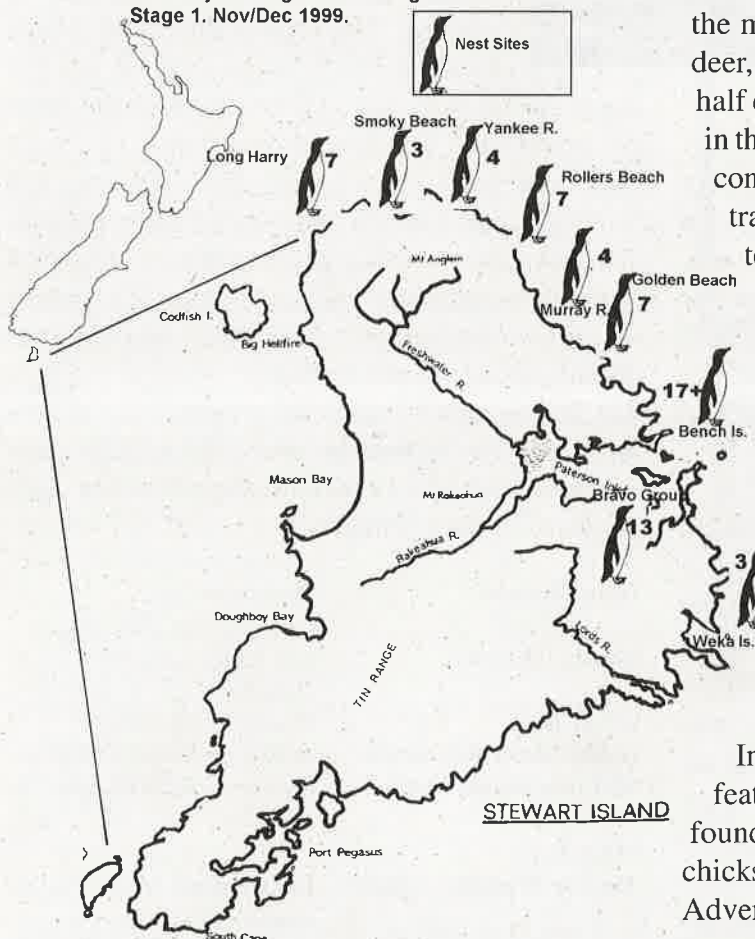
The Yellow-eyed Penguin Trust funded the first stage of the yellow-eyed penguin census on Stewart Island which was carried out in November and December of last year. The team led by David Blair, Projects Officer and consisting of a number of very keen volunteers, recorded only 33 breeding pairs on the coast of Stewart Island. This low population at only 7 sites is worrying. See map.

Healthier populations were found on the Bravo Group and Bench Island. Almost the entire coastline from Long Harry to Halfmoon Bay was searched on foot for sign that yellow-eyed penguins had come ashore. Although landing areas have been documented by the Department of Conservation and other researchers over the years, the team needed to cover all the ground again to be sure of breeding locations. The rare Fiordland crested penguin were present, and all sightings and breeding areas of this species were recorded. The team actually recorded more Fiordland crested penguins than yellow-eyed penguins on this stretch of coast. At night kiwis were seen at Long Harry Hut, as Brent Beaven from the Department of Conservation, was able to call the male kiwis in quite close. Our team also saw deer, wild cats, possums and rats. The number of half eaten little blue penguins along the shore and in the forest was distressing, and cat scats (faeces) containing bird feathers were found along the tracks and on the beaches. David was horrified to discover tracks, possibly from stoats, which have not previously been discovered on Stewart Island. The Department of Conservation is now trying to establish by trapping, if stoats are present. These animals would have had to be introduced, as the distance from the mainland is too great for them to survive at sea.

Nest searches were also carried out on the following offshore islands: The Bravo Group, Weka Island, and Bench Island.

In the Bravo group of islands, Tommy Island featured with a robust colony of 11 nests being found. Nearly all of these nests had two eggs or chicks. Weka Island a relatively small island in Port Adventure, after quite a concerted search by four experienced people, yielded only three nests. This

Yellow-eyed Penguin Breeding Locations & Nest Numbers.
Stage 1. Nov/Dec 1999.



is a worry as a Department of Conservation count in 1991 recorded 14 birds landing. Bench Island off Patersons Inlet seemed to the searchers to be a busy place for yellow-eyed penguins. The nest search was difficult here because the team had to contend with breeding fur seals, the stropy males chasing everything that moved, a thicket of native stinging nettle (*onga onga*), and large areas of tangled vines.

There are no deer or possums on Bench Island to strip the undergrowth, so the forest margin in places is almost impenetrable. The team decided that nest searching here was too difficult, and therefore the 17 nests found are a representative sample of a much greater population. A beach count may be a better method of surveying next time.

You will be pleased to know however that yellow-eyed penguins on Bench Island seemed to be very natural in their behaviour. They gathered in groups on the beaches, and were seen porpoising and playing in the surf. One evening a particularly cheeky yellow-eyed penguin visited two of the team who were sitting on the stony beach observing penguins coming ashore. (See photo). Searchers didn't see this uninhibited behaviour anywhere else during the survey.



On Stewart Island, the yellow-eyed penguins were very cautious around humans, often watching from well out at sea when people were on the beach. Bench Island is a Nature Reserve and a permit has to be secured for anyone to land, so this could explain the apparent lack of fear that these particular birds have for humans. There are no cats on Bench Island but numerous wekas.

The three days that the team spent on Bench Island were very exciting as some amazing wildlife was seen. At our campsite our neighbours were a number of sorry looking bull fur seals who hadn't made the grade as harem masters and had been beaten up by the top bulls. These seals had the evidence of battle on them with large chunks of skin missing and the exposed blubber festering in the sun. Some were blind in one eye and had pieces of nose and lip missing, attesting to the severity of the battles they fought for control of the harem. These chaps became used to us after a time and hardly lifted

their sorry heads as we walked by. The same couldn't be said however for the herd bulls. These warriors were deadly serious and had to be avoided at all cost. Kirsty was chased up a tree by one such bull, and some strategies worthy of the All Black back line had to be employed to get past!

As neighbours we also had some svelte young New Zealand sea lions. These young males were beautiful, and one particularly blond youngster posed photogenically beside our camp daily. A young female elephant seal who appeared one afternoon had a struggle trying to make her way ashore for a rest, through the harassing male fur seals. Parakeets, both red and orange crowned, flitted past our camp, and at dusk and into the night we watched the sooty shearwaters (mutton birds) dip down to their burrows after circling gradually lower for quite a length of time. Kirsty Barr returned in January and February and revisited a number of the previously identified nest sites on Stewart Island and Tommy Island to try and establish the success of the breeding pairs in rearing their chicks through to fledging. She reports that many of the nests on Stewart Island, as on the

mainland seem to have failed, but it hasn't been yet established whether this is because of the La Nina year with the warmer ocean currents and accompanying food shortages or for other reasons. We will report on this and summarise the chick fledging weights in the next newsletter. The survey of yellow-eyed penguin population will continue on Stewart Island this spring.

The Yellow-eyed Penguin Trust would like to thank the following volunteers and acknowledge their contribution to the knowledge base of yellow-eyed penguins on Stewart Island.

Dave Houston

Department of Conservation, Oamaru. Eco-tourist operator, Dunedin.

Bourke Thomas

Researcher, Dunedin. Botany Graduate, Dunedin. Science Undergraduate, Dunedin.

Kirsty Barr

Daniel-Meier Behrmann

Malcolm Rutherford

Mike &

the late Margaret Hazel,

Conservation Volunteers, Sinclair Wetlands.

People for Penguins

Margaret and Mike Hazel - a dream realised.

Margaret and Mike Hazel came from Auckland. Having researched the area during an earlier visit, whilst being the temporary caretakers of St Martins Island, they decided to dedicate up to two years working voluntarily for the Yellow-eyed Penguin Trust. So they left their jobs, sold their house and moved to Dunedin at the beginning of 1999. Three times a week they drove for an hour from Berwick to Company Bay, worked in the Nursery with our Nursery Manager, Jim Ellison, and then drove for an hour home again. What dedication and commitment.

On the remaining two days of the week they did other volunteer work, joining the Department of Conservation Voluntary Programme, helping John Darby with his field work, and undertaking various tasks at the Sinclair Wetlands. Mike was appointed as the Caretaker of the Wetlands, living on site and being available to the public during the weekends' open sessions.

Then in December, Margaret and Mike were asked to join the team of volunteers for a week to assist with the Stewart Island census of yellow-eyed penguins. What excitement! Margaret's stories and photos told it all - the hard work; the wonderful scenery; the unusually hot weather; the great companionship of the other team members; the penguin searching and the results; and the great fishing opportunities.

"The Best Day of my Life" was how Margaret described a fishing expedition where she caught fish at a faster rate than they could be cleaned and gutted (and Mike was catching none!). Her Dream was realised.

Then, in the week prior to Christmas, Margaret and Mike joined a Department of Conservation trip to Nenthorn, Central Otago to do some further research on the skinks. Whilst viewing falcons flying, Margaret was tragically killed by a falling rock.

Margaret's bubbly enthusiasm is sadly missed by all her knew her, none more so than us at the Trust.

She will always be remembered for her dedication, copious amounts of energy and her enthusiasm in assisting with the practical work in the penguin habitat programme.

Margaret realised her Dream.

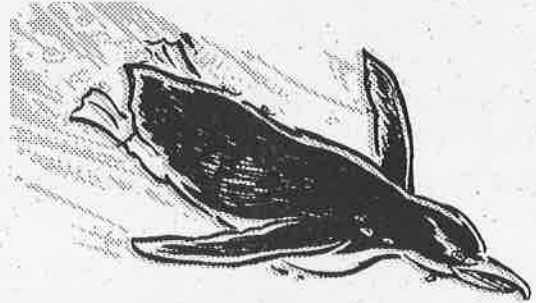
Mike has continued with his volunteer commitment to both the Trust and the Sinclair Wetlands. He has become a dependable worker at the Nursery. His energy and enthusiasm are boundless.



**Yellow-eyed Penguin Trust
in association with the
2000 International Science
Festival are proud to sponsor**

ANDREW PENNIKET Natural History NZ Ltd

Underwater cameraman who will share the mysteries of Diving Animal behaviour from whales to penguins from Antarctica to the Equator.



VENUE: Clifford Skeggs Gallery

DATE: Wednesday, 5th July at 5.30pm

ENTRY: Gold Coin Donation

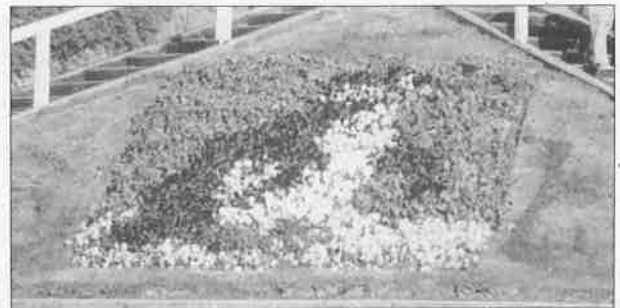


Photo: Alan Wright

The Dunedin City Council garden on the corner of Albany and George Streets flourished with a magnificent yellow-eyed penguin. Strategic plantings of a variety of flowering pansies left no doubt to the identity in the garden!

DOC Research on Yellow-eyed Penguin Foraging Range

By Peter Moore

In response to the population crash in 1990, the Department of Conservation conducted a 5 year research-management programme that looked into aspects of diet, foraging range and dive depth. The idea behind the work was to look at how yellow-eyed penguins use the marine environment and whether this changed in good or bad years. We reported on the diet work in YEP News 15 (May 1996). Just recently, the foraging range aspect of the work has been published, as part of the proceedings of the Third International Penguin Conference, held in Cape Town, South Africa, in 1996.

The study used transmitters temporarily glued to the back of birds and their positions at sea were estimated by using manually operated tracking stations on prominent points on the coast, and triangulating the bearings to the birds. Penguins foraged over the continental shelf, which is the flatter part of the sea floor closest to the coast. At Otago Peninsula this is about 30 km wide and 40-80 m deep. At the Catlins the shelf is deeper, at 80-120 m. The dive-depth and diet data had shown that the birds did most of their feeding near the sea floor. So, diving 200-300 times a day, they certainly work hard to make a living!

The median time for each foraging trip was 14 hours (range 2 hours to 7 days) and during this time they would travel a median of 13 km (up to 57 km) in a direct line from home. Most trips appeared as a looping path out and back to the landing site. Because the same individual penguins were tracked at different times, an interesting picture was built up of favourite foraging areas. Some were habitual inshore feeders, while others tended to head to the outer shelf to feed, which also resulted in individual differences in diet. Most were mid-shelf feeders though (5-16 km from the coast).

The 1992/93 breeding season was particularly good and this was reflected in the foraging of the penguins. They tended to feed closer to the shore and have quicker trips. They also ate more red cod and less blue cod and squid. This suggests that better quality food was easier to catch than in other years. So in a particularly bad food year, you could predict that birds would be forced to spend longer at sea, for less nutritious prey. Chicks might then starve and adults would be in poorer condition and be less able to cope with other factors such as toxins, disease, heat stress or predators. So other problems are likely to be compounded in poor years.

Although we can't do anything about natural environmental fluctuations which cause food supply problems, our help with habitat protection and predator trapping is essential to give the penguins the best chance of withstanding the poor years and bouncing back from them.

Reference: P.J. Moore 1999.

Foraging range of the yellow-eyed penguin
Megadyptes antipodes.

Proceedings of the Third International Penguin Conference. Marine Ornithology 27: 49-58.



Photo: Dean Nelson

Transmitters were glued to the penguins' backs.

Canterbury penguin affairs

By Euan Kennedy

In yellow-eyed penguin terms, Banks Peninsula is pretty much The Far North today. Historically, the penguins were distributed all the way north to Nelson/Marlborough but now the birds are rarely seen on coasts beyond the Banks Peninsula.

For reasons still guessed at, yellow-eyed penguin breeding on Canterbury coasts has not been impressive in the last thirty or forty years. Few pairs attempt to nest here, perhaps because the cool vegetation cover of old has largely disappeared. Judging from white-flipped penguin mortalities locally, ferrets and cats will be a serious problem too. We do know that most of the banded yellow-eyed penguins attempting to breed on the Banks Peninsula are from Otago or further south. No chicks banded here since 1980 have returned to breed.

So, it doesn't look very good for yellow-eyed penguins, or for penguins in general. But local penguin minders have not given up hope. Three recent initiatives have been taken to improve the quality of life ashore for Canterbury's penguins.

- The creation of Pohatu marine reserve in Flea Bay was remarkable for the fact that a major remnant of shrubland was protected immediately alongside the reserve. Yellow-eyed and white-flipped penguins make use of this habitat already.
- Late in 1999, the Canterbury Penguin Management and Research Group was created to act as a voice for penguin conservation issues and an exchange point for penguin information. Currently, this informal group comprises interested landowners, researchers, and DOC staff. Other agencies and interests will be invited to participate. More information can be obtained from Robin Smith, Department of Conservation, Private Bag, Christchurch (rsmith@doc.govt.nz).

- Robin Burleigh of DOC's Akaroa office has resumed the monitoring of yellow-eyed penguins on Banks Peninsula. His surveys are low key but follow on from the work conducted by Peter Dilks and Judy Grindell in the late 1980's. These observations, many of them made in the course of other DOC work, will shed more light on penguin fortunes locally.

LATE NEWS:

Funding has just been obtained from the New England Aquarium, USA, for a baseline survey of white-flipped penguin distribution on Banks Peninsula. This generous support will also help us detect YEP sites on parts of the Peninsula we cannot reach by land.



Photo: Lala Frazer

Moira Parker, retiring trustee (on the right) is seen here discussing the management of the Okia Reserve on the Otago Peninsula with newly appointed trustee Anita Pillai. Moira, one of the founding members of the Trust Board, contributed huge amounts of time and effort to help create the successful organisation you see today.

What is happening...



...at Tavora Reserve, North Otago? - The wetter, cooler season has been beneficial for the last season's planting by the Taskforce Green team, and has also resulted in lush grass growth. Numbers of nests are down: 4 nests, 8 eggs and 6 chicks fledged, and the birds have been displaying unusual behaviour, hanging out in the open. In 6 weeks of Trust funded trapping, only one ferret was caught.

...On the Otago Peninsula? - The season started with a continuation of La Nina conditions which caused problems for the birds last season (98/99). There were a number of chick deaths through either starvation or desertion by parents throughout the range of monitored nests during December. Also there were major predation events at both Boulder Beach and Penguin Beach which removed approximately 15-20% of the Otago Peninsula nests. In spite of that the season appeared to improve in terms of food availability and most chicks that had survived the early problems were able to fledge. Mean banding weight of chicks on the Otago Peninsula and North Otago was 5.02kg and while that is still not particularly high, it is better than the 98/99 mean of 4.96kg. Most adults and juveniles appeared to be going into the moult in good condition.

...at the Okia Reserve, Otago Peninsula? - While the vegetation from previous years' plantings is starting to have quite an impact on the landscape, there has been some minor damage by browsing goats. Thanks to Dean Nelson (DOC) and Jim Ellison, the goats were removed, the boundary fence extended and the trees appear to be recovering. This year it is intended to erect "T" posts on fences to encourage visiting birds to land and inadvertently 'sow' a few native seeds via their droppings. The planting of a cabbage tree grove at the North end of the reserve, will be a lasting memory to Margaret Hazel - a dedicated Trust volunteer who died in a tragic accident late last year.

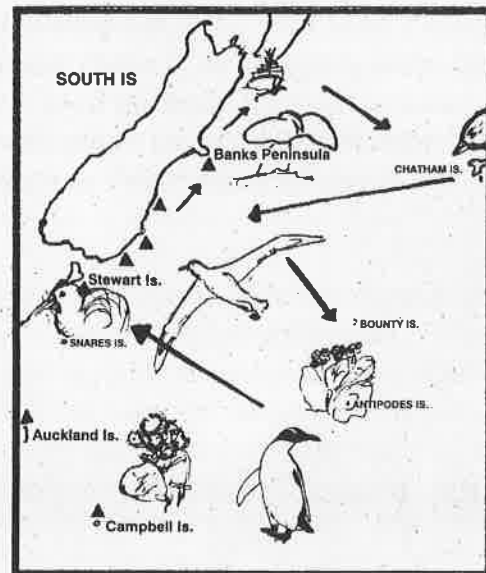
...In the Catlins? - Although the breeding season started poorly with many birds failing to nest, the chicks that were produced did well and generally

fledged in early March. The birds that failed to nest had an easy season and finished the moult well before the end of March.

At Te Rere the growth of vegetation has been strong, aided by good possum control and a damp summer. There was no sign of predation of penguins, although stoats continue to be caught regularly.

...in Southland? - There are two remnant populations in the Waikawa Harbour area - one at North Head, and the other at Curio Bay. The North Head site has had three pairs attempt to breed over the last three years, but unfortunately no chicks have lived to the fledging stage. The Curio Bay birds have been nesting in flax near the fossil forest rock platform for the last seven years. Results have varied over this time, but this season saw at least four chicks fledge. There has been extensive trapping work done in this area over the last three years, with 54 animals caught to date.

Herbie the Hoiho.



Where has he been?

When the young penguins leave their nest sites and go to sea in the autumn, they probably travel considerable distances, growing up and gaining the many skills they need to survive and breed. This travelling could take two or three years and during this time young adult hoiho sometimes turn up in places away from breeding colonies. Non-breeding yellow-eyed penguins have been recorded in Wellington Harbour, at the Chatham Islands and on off shore islands below New Zealand. Rosie Simkins of Dunedin sent in a well documented map of where she thought Herbie had been. Rosie received a fluffy penguin from the Trust. Well done Rosie!

People for Penguins: Kirsty Barr

"I'd love to do it!" was how Kirsty responded when asked if she knew of anyone who was qualified to assist the Yellow-eyed Penguin Trust with their Stewart Island Survey of yellow-eyed penguins.

Her background includes a Masters Degree on the human impact of dolphins at Kaikoura, a Wildlife Diploma from the University of Otago, and the monitoring of hornbills in Africa.

Kirsty's adventure began by crewing 'Irene', the yacht heading to Stewart Island for the survey. Unfortunately due to atrocious weather conditions, the turbulent sea overpowered Kirsty, and she went ashore at the Nuggets, to continue by road to Bluff. Not willing to admit defeat, she crewed the return trip to Dunedin, sailing around the Otago headlands during a magnificent sunrise.

She began her week of voluntary work searching for yellow-eyed penguin nests and only after a few days asked if she could stay on - which she did, for the remaining five weeks! Her enthusiasm and energy, combined with her ability to find penguin nests in the thickest forests, was a real asset to the team. These skills and her positive attitude to life in the field enhanced the project. She also became an accomplished small boat handler, wildlife photographer and had no trouble catching a fish or paua for dinner.

Kirsty was employed by the Trust for a further 4 week period in January, monitoring the Stewart Island nests and gathering information on the survival rate of chicks to fledging. Then she volunteered another 2 weeks of her own time to ensure the monitoring was completed successfully.



Thanks from all of us at the Trust for a job well done.

Pat Mark - our own QSO!

Pat Mark, BSc, JP, Trustee of the Yellow-eyed Penguin Trust, was awarded the Queen's Service Order in the New Years Honours List. Pat who is modest about her achievements, will undoubtedly be mortified to read this in the Trust Newsletter because we didn't tell her!

Pat has strong interests in both health and environmental issues, as seen by her commitment to community groups. Some of the groups which have benefited from her input in the past include the Plunket Society (Board Member 1974 -77); the Dunedin YWCA in the 1970's; Otago Organising Council for the Disabled (1979-1982); Action on Smoking and Health (Ash) in the late 1970's and early 1980's; Otago Hospital Board member 1977-1986; Federation of University Women since 1959; a former president of the National Council of Women; first female member of the Mt Aspiring National Park Board, member of the National Parks and Reserves Board; and our own Trust Board since 1994. Over the last thirty years, other environmental groups such as Ecology Action and the Royal Forest and Bird Protection Society have benefited from her involvement.

Congratulations from all your penguin pals at the Trust!



Yellow-eyed Penguin Membership Extended to Food Service Outlets



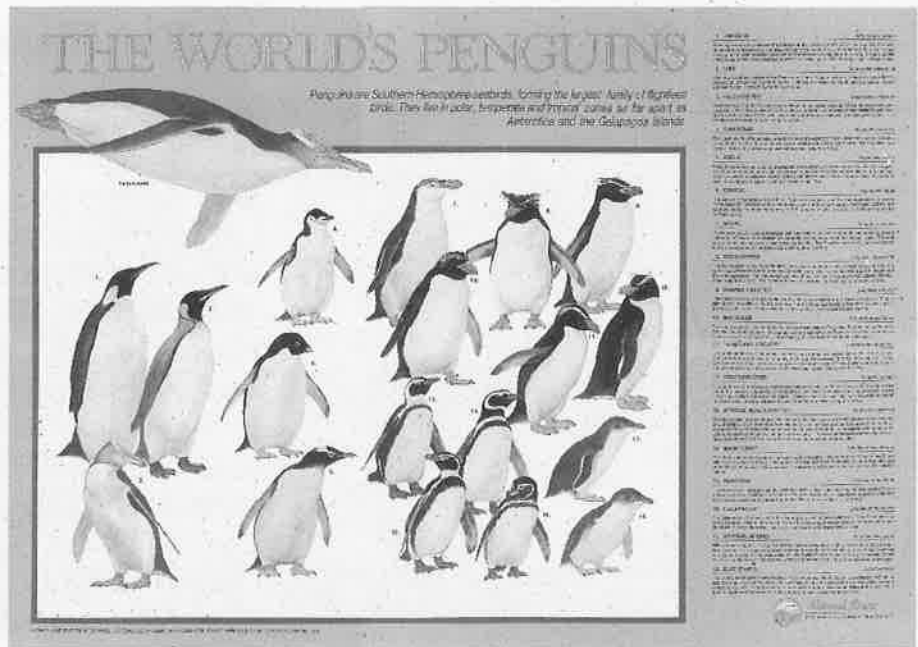
In the very near future, Mainland Products Ltd and the Yellow-eyed Penguin Trust will be offering loyal foodservice supporters the opportunity to become members of the Trust.

There are an increasing number of foodservice outlets around the country who are sending in barcodes on a regular basis, in an obvious bid to help out in the fight to save the yellow-eyed penguin.

These outlets are obviously keen to do what they can for the environment, so what better way to encourage this than by giving them the chance to join the Trust. This will enable them to keep up-to-date on how the penguins are faring, and what is being done to aid their survival.

The World's Penguins - this colourful poster by Natural Lines of Dunedin is available for sale through the Trust Office @ NZ\$ 7 plus p&p.

From this poster we can see the New Zealand's mainland penguins: (3) the yellow-eyed, (11) the Fiordland Crested, (17) the White-flippered, and (18) the Blue.



Yellow-eyed penguin Symposium

The Yellow-eyed Penguin Consultative Group supported by the Trust and DOC is holding its annual symposium on Saturday the 29 July, in Dunedin. As in previous years the morning session will be devoted to report backs from members and associates who can each have up to 15 minutes to tell the group what happened in the previous year. The afternoon session is going to have the theme "Revegetation for Nature Conservation". We had a similar session some years ago and it was highly successful. Since then techniques and experience have moved on and the Consultative Group are keen to learn what else is happening and who is developing new ideas. We see this as an important initiative because revegetation is not only important for YEP but many other Nature Conservation initiatives

Please let your friends in other groups who undertake revegetation know, as we are keen for as many to come as are interested.

Bruce McKinlay

Secretary

Yellow-eyed Penguin Consultative Group

c/- PO Box 5244

Dunedin

email : bmckinley@doc.govt.nz

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