



BRING BACK KOKAKO

For more about bringing back Kokako to GBI, see our website: <http://www.gbiet.org/kokako>

The post-fire race ...

Much of Aotea Great Barrier Island is covered in young forest and shrubland recovering from the effects of fire and logging. A common native species in such vegetation is mānuka (*Leptospermum scoparium*). Although widespread, mānuka has some interesting ecological features, including being the only one of NZ's woody plant species to show clear adaptation to fire.

If you look closely at a mānuka plant you will see that it is covered in small woody capsules. Each of these capsules contains hundreds of small seeds - so many that in a m² of mānuka canopy there may be up to 300,000 viable seeds! Storing seeds in capsules like this forms a seed bank in the canopy, and is quite common among plants adapted to deal with fire. This strategy is called 'serotiny' and occurs when a plant stores seeds and then releases them immediately after some trigger - in this case fire - when conditions will be advantageous for seedlings. These strategies are very rare in NZ's flora because prior to human arrival fires were extremely infrequent. On the other hand, some weedy exotic species are well-adapted to fire.

One of which is Hakea, all of the three species are from Eastern Australia, and all are strongly serotinous and able to quickly capture space after fire. *Hakea sericea* (needle-leaved Hakea) is, for example, thriving in the area around Claris that burned in January 2013. *H. sericea* and *H. gibbosa* (downy leaved Hakea) are common on the track to the Kaitoke Hot Springs, and at the Okiwi end of the Harataonga walk all three co-occur (the third being *H. salicifolia*, willow-leaved Hakea). *George Perry*



Mānuka, dead *Hakea sericea* with open capsules and *Hakea gibbosa*



Have you seen a diving petrel?



Diving petrel (kuaka). L. Feasey

These birds are barely 20 cm long and weigh 130 g – about the same as a small chocolate bar. The only smaller seabirds you will see around are storm petrels. The best thing about them is their beautiful blue feet, and the way they “fly” underwater. They mainly eat small krill, captured by pursuit diving, using their wings for propulsion – hence the name. One study recorded an average dive depth of 11 m and a maximum of 22 m! Small and chunky, they can look like tiny penguins on the sea surface. Or

Diving petrels—contd p 3

Traps, Maps and Wildlife

The recent community days offered an opportunity to meet lots of locals, bach owners and visitors to Aotea and discuss how we can better protect our island wildlife. Claris New Year Picnic was particularly busy where demand for our free trap boxes (courtesy of PFNZ 2050) and sale of rat traps was a sell-out.

One of the concerns raised in discussion was the lack of protection for dotterel breeding grounds on our beaches. — An urgent issue for the community and DOC to address this year.

Our Landscape map of Aotea was on display showing many of the private land owners who are practising pest control. There was much interest and several more properties added.

There has been a noticeable growth in community projects underway. The Okiwi community has shown how effective it can be when neighbouring properties band together and set up trap lines. Jo O'Reilly has led a very successful project with regular bird counts through the year. Much of Medlands has some form of pest

Traps, Maps ... — contd p 2



Motu Kaikoura update

Under active management, the island's flora and fauna is slowly regenerating. Rat monitoring has shown low numbers with seasonal fluctuation. As a result, plant and especially ground nesting birds are all on the increase. It is now a struggle to walk through what was deer vegetation barren.

This year has seen our new headquarters completed. A big thank you to Women & Architecture for their fantastic effort and volunteer time. Also, thanks to the suppliers of building materials at free and discounted prices. There has been a major upgrade on all the cabins which are now available for renting. Our facilities are also regularly used for research and study groups. www.motukaikoura.org.nz. *Rod Miller, Chair*

Traps, Maps ... — contd from p 1

control happening and Murray Staples now manages more properties. The Barrier Golf Club has protected its wetland with the help of Shanti Morgan, Auckland Council.

A new part-time resident at Awana, Barry Scott, is interested in being involved in conservation and predator control and is planning to set up rat trap lines along the dunes above Awana beach and around the estuary, with consent from DOC and QEII Trust. As he will be on the Island sporadically, if there is anyone interested in working with him on this project please contact him at d.b.scott@massey.ac.nz/021 070 4848

The Environmental Trust still has some trap boxes available: One free trap box with every snap-e trap purchased (\$7).

Tell us about your favourite bird plant or project and we'll print you in the next Issue. Got a photo? Even better!

We are looking for new trustees

Would you like to make a difference? Do you share a desire to protect, and restore the birds, plants, lizards and other taonga that make their home here? We are looking for 2 or more trustees who can volunteer their time to help achieve our vision: "To work with the community to protect native species through the eradication of rats and feral cats, to re-introduce species lost to the island, and to work towards an ecology-based economy for Aotea Great Barrier." There are many ways to contribute depending on your experience and availability. If you would like to know more, please email us on contact.gbiet@gmail.com or call our Chair on 021 881 218.

Drawing overleaf by Peter Edmonds



Northern diving petrel, Alan Tennyson

Diving petrels—contd from p 1

you might see them with their short whirring wings and characteristic straight-line flight close to the surface, or buzzing over waves. They form large, dispersed flocks at sea, don't follow boats and stay in our waters throughout the year. After a storm you will often find them wrecked on our beaches.

Diving petrels are very vulnerable to predators like rats, stoats, cats and weka, so they are mainly found on small pest free offshore islands. On Aotea this means they only breed on a few rock stacks,



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like the ones around Rakitu. They excavate their own burrows (imagine that!) in rock crevices or under dense vegetation. In the Mercury Islands they lay a single egg in August. Both parents share incubation for c.53 days and it takes another 44-55 days for the chicks to fledge – about early December. Pairs are monogamous, remaining together over many seasons (though divorces are frequent). Young birds return to the colony where they were born when 1-2 years old to breed. They are one of few petrels that can lay a replacement egg if the first egg fails. *Kate Waterhouse with thanks to NZ Birds Online and the Northern NZ Seabird Trust.*



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