



BRING BACK KOKAKO

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

Some Success at Okupu Beach

Over the last seven years we have been watching the ups and downs of our resident oyster catcher pair and the one/two pair of NZ dotterels. Finally this year both families nested a month earlier than previous years. The first week in November for the oyster catchers, a week later for the first pair of dotterels followed another week later by the remaining pair of NZ dotterels.

The oyster catchers and first pair of NZ dotterels hatched 2 chicks each. The remaining pair of dotterels lost their nest with the mid December storm. Just before Christmas the oyster catchers lost a chick but we are happy to say, at the time of writing, the remaining one is still doing well and harassing its parents.

The dotterel chicks - by mid January one was missing and by the end of January the other didn't seem to be about either. It was great to see though that the chicks could make it to over 6 weeks.

There were plenty of people on the beach with the extreme fine hot weather, and most stayed the northern end of the beach giving the birds a chance to get on with their lives. People with dogs were helpful when told about the birds and chicks, so thank you to all who made an extra effort to help our feathered friends out.

Unfortunately our under house Taiko (Black Petrel) had no success this year.

Emmy Pratt



The base of a nikau frond with the flowers protruding. There can be over 4000 flowers, of which 2/3 are male. Last year's flowers from which the fruit have been shed, can be seen below.

Photo: Dolphin Bay Track, John Ogden.

(cont.. from pg 3)

Even under cultivation this can take a decade or more but in the shade of the forest it is usually 40 to 50 years! Seedling nikau measured twice a year for five years by Dean Medland at Windy Hill grew, on average, less than a mm/year! Even taking the fastest growth rates, plants with leaves 30cm tall would be 27 years old, and they don't start producing above-ground stem until the leaves are at least 2m! So, even before we start counting scars we can add half a century to age. Esler, and other later botanists have counted leaf scar production on adult nikaus over many years, and found on average 2 to 3 years. So, if we count the scars and divide by two we get an approximate stem age, to which we add 50 years for the establishment phase. Mature, flowering and fruiting palms are generally over 3m tall with 100 – 140 scars. So, do the maths and you'll conclude they are 100 – 120 years old. Stems over 6m tall, with 300+ scars, are not uncommon, and these will be over 200 years old. Next time there's more: Nikau in the ecosystem; food for kereru and rats; nutrient cycling etc

John Ogden

Notice Board

Local Board Environmental Committee: 22Apr, 27 May, 24 Jun, 22 Jul, 26 Aug, 23 Sept, 28 Oct, 25 Nov, 23 Dec TBC

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Australasian bitterns in serious trouble

Wetlands in New Zealand are under-represented and sadly under-appreciated by the vast majority of New Zealanders. Yet these fertile refuges are important habitats for many species and are packed full of life. Indeed, only those who have made the effort to access and spend time in such challenging wetland environments will know some wetlands are home to a special secretive and cryptic bird! A bird so evasive and shy that little is understood about them, and what we do know is based on a few opportunistic observations, or the studies of closely related species overseas.

In spring the males seduce their females



Australasian bittern - photo www.blackcat.co.nz

with deep-booming calls that can be heard up to 4kms away. Have you heard this bellowing call? Often likened to blowing air across the top of an empty bottle, or a low Whoomp noise. If so, did you know that what you have on your doorstep is the rarest bittern species in the

world? The Australasian bittern (*Botaurus poiciloptilus*)! If you are one of the few people who regularly sights a bittern, or has been serenaded to sleep by the deep-baritone booming call, then you are fortunate. For who knows how much longer these crooners will persist. Australasian bitterns are in serious trouble. Ranked as Endangered by the IUCN (International Union for Conservation of Nature), Australasian bitterns are only found in New Zealand, New Caledonia and Australia.

These bitterns are so rare they have a higher threat ranking than the blue duck (Whio, nationally vulnerable), kokako (at risk) or the North island brown kiwi (nationally vulnerable). Yet the bitterns' wetland habitat does not receive anything near the protection of these three species.

A decade ago there were thought to be less than 1000 adult bitterns each in New Zealand and Australia, and fewer than 50 in New Caledonia. However, recently Australia has lost large numbers of its population, and the New Caledonian population is thought to have vanished. New Zealand is therefore an important place for bitterns and the survival of the species will depend upon how we manage our wetlands.

Emma Williams

Emma Williams is a PhD student at Massey University where her work specialises in developing monitoring methods for cryptic species (species that are rare and difficult to detect).

Taiko (Black Petrel) visits

Researcher, Biz (Elizabeth) Bell and her team have recently returned from over two weeks camped on Hirakimata, monitoring our Taiko/Black Petrel population. During this time they have identified returned birds, banded new birds, found new burrows and visited over 300 research burrows to monitor activity. Despite her super busy schedule, Biz and her team also found time to accommodate fisher groups, the Southern Seabird Solutions Trust AND Mulberry Grove and Okiwi school groups, enabling them to experience and learn more about these marvellous birds. Okiwi student Jessica Woodhouse relates her experience.....



Yesterday most of the big class went up to Hirakimata to visit the Taiko chicks. When we got there we got organised into year groups from yr5-yr8, then everyone had to spray their shoes and then we started our three hour long walk. Sometimes we went over a boardwalk or over very bumpy tracks but the thing we did most was go up and down which was really tiring. After about one hour we stopped to have a little snack and a drink of water. After about one hour and 45 minutes we came to a really steep hill which had a lot of holes in it, then we came to a really high hill which we literally had to climb up, then we walked down

then up then down and finally we came to boardwalk which had more stairs going up! "Ahhh"! I sighed, so we walked up, up, up the stairs until we found Biz who told us about the Taiko.

Now we could hold the chicks. Biz asked who wanted to go first and she picked me. So we hopped under the stairs where the burrow was. I put some gloves on and pulled it out then I backed up and stood up then everyone went "Awww!" The adults took a few photos then we put him back in his burrow then Biz started putting some little twigs in the ground and she said it was so they could tell if an adult had gone in because one of the twigs would've fallen over. After me, the next person had a go. It was now around 12 pm so Mairehau said whoever had held a chick could go up to the summit, but me, Magnus and Nova stayed so we could hold some more chicks. I went with Will and the chick I had to get out was in a really long burrow and I couldn't get it out so Will had to get it out instead. The chick I got was really big, fat and fluffy. Then Biz asked me if I wanted to hold another chick so I did but there was also an adult in there so I didn't really want to get it, but I did anyway. But the chicks' parent wasn't twinked* so we had to twink it on the head. After that we walked all the way back and went home.

Jessica Woodhouse

Southern Seabirds Solutions have supported commercial fisher visits to the Taiko colony to enable fishers to experience the birds in their breeding grounds, rather than their at-sea feeding grounds. Southern Seabirds is also providing recreational fishers with information to assist fishers to 'Fish Seabird Smart'. Biz will return to Little and Great Barrier Islands in April to continue the monitoring programme.

*birds heads are 'painted' with a stripe of white-out (or twink) to enable birds to be easily identified and not disturbed again if already banded/handled.

Regeneration after the fire.



The fire at Claris in January 2013 left over 100 hectares of dunes, scrub swamp and pines burned. However, by March, seedlings were sprouting everywhere in the blackened soil, and by May there was a well-established seedling cover of manuka in many areas, and tangle-fern, sedges, rushes and raupo were all re-growing vigorously. Also, unfortunately, so were some weeds, including Cape wattle and Hakeas. Now, two years on, a more detailed survey of the recovering vegetation is being carried out by Dr George Perry and his student Riki Taylor from Auckland University's School of Environment. The plant composition is being monitored in 30 plots. Aerial photos taken from a drone will also be used. The aim is to correlate the species recovery patterns and weed invasion with the original land-form and soil. Obviously, the pattern is different on peaty swamps compared to sand dunes, but there are other factors too, like the availability of seed sources. Many manuka capsules were not killed and were able to shed their seeds after the fire so former manuka scrub is regenerating well, unless invaded by wattle.

Another aim of the work is to investigate the effects of rabbits and rats on the re-

generation process. Two years on rabbits are starting to invade, but rats are still probably not so frequent as there is little fruit or seeds for them to eat. Riki will be establishing a long-term study with enclosure plots (to keep out rabbits and rats) which will be monitored over many years. The work is supported by the GBI Local Board, Auckland Council, The University of Auckland and the Bruce Trust, Palmerston North. John Ogden

How to age nikau

How many of you walked to the hot springs this summer? Nikau palms are one of the delights of any bush walk on Aotea and particularly along that track. The huge drooping fronds of the Island's palms, often over 5 meters long, are bigger than those of the mainland. Contrast those at Punakaiki on the West Coast, with short stiff upright fronds, making the trees look like dish-washing brushes.

There is a widely held assumption that, like the annual growth rings in many trees, the fallen leaf scars which girdle the trunks of nikau palms are also annual, so that the age of the palm can be obtained by counting them. An Auckland botanist, Alan Esler, demonstrated that this was not the case nearly 50 years ago, but folk-myths die hard.

At germination the nikau seed grows a leaf or two on a short stem. But, remarkably, the stem does not grow upright, it grows down into the soil, so that the leaves must burst through the soil, like daffodil leaves. This downwards growth continues for several years, with the stem getting thicker. Like a bulb it has only one terminal bud, producing one set of leaves. Eventually the underground stem is thick enough for it to turn upwards again; the palm is established'. At establishment the stem grows upright, pushes through the soil and, as the first leaves die, acquires its first leaf scars. (cont.. on pg 4)