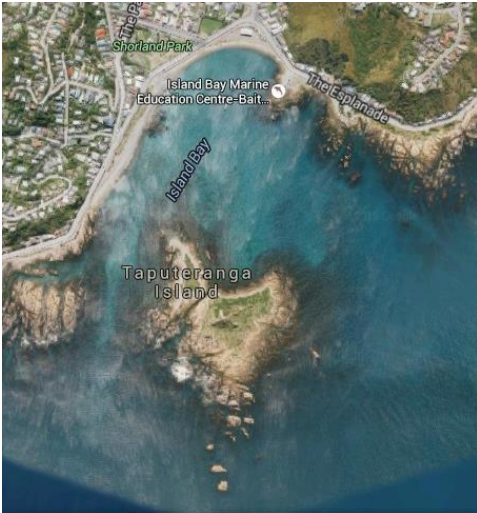


Island Tails



I am the volunteer rodent control warden on Tapu te Ranga island, about 500m off Island Bay beach. The island is at the heart of the eponymous marine reserve. The easiest way to access it is by kayak, and I have made many a trip there in my Albatross sea kayak or occasionally in a VOK Explorer double. The island is home to several bird species including the handsome reef heron and little penguins as well as skinks and geckos. Gannets and the occasional albatross visit, and the Marine Education Centre teaches kids about the sea and its residents. The reserve has been very successful in allowing the population of marine creatures to grow and it's a popular spot, with a snorkelling trail and the wreck of HMNZS Wellington to dive on. The island is uninhabited but it has a fair few visitors, mainly over summer. On a clear day you can see the Kaikoura ranges about 100km away.

Celia Wade-Brown, latterly engaged on more pressing concerns, had been baiting the rodent stations for a number of years and had seen rat numbers decline enormously. When she started the baiting programme for Wellington City Council, the rats were so plentiful and ravenous, that when they'd finished the bait, they turned on the plastic bait boxes which bear their tooth marks to this day.

The Council's Parks team provides Contract rodent bait blocks. They have a central hole which slips over a metal rod to retain the bait. On my early visits there were no signs of baits being eaten by rodents, but I often found that there were up to 30 snails in the box, and they had clearly developed an appetite for rat poison which did not seem to harm them. Snails eat by rasping their food up with a minutely toothed organ a bit like a tongue. The baits eaten by snails had a smooth surface, whereas rodents leave nibbling marks.



About to set off for the island from Island Bay beach



Ziplock bags prevent snails eating the bait

To deter the snails, the answer was to put the baits in small plastic ziplock bags. This was immediately effective, and although snails are still found in bait boxes, their numbers decreased greatly. While there was no obvious evidence of rats, the few tiny nibbles into bags and baits could have been caused by mice, or a beetle which is capable of tearing the thin polythene with its spiky legs and which seemed to like the bait as it was often found inside the bags.

Rats! After three years with no sign of rodents, it was a shock in September 2015 to find almost all the bait gone. The poly bags were shredded and about a kilo of bait had been taken. 9 of the 12 bait station had had all the bait gone. Clearly rats had somehow appeared on the island. Rats can swim a considerable distance, and the island is

certainly within their reach. It was puzzling though that so much bait had gone and it suggested that rats were present in some numbers. They could have reached the island from a boat, or perhaps on driftwood or a raft of vegetation blown from the mainland by a northerly wind.

In winter 2015 we were using camera traps to take infrared photos of penguins which are nocturnal on land. One of the photos taken confirmed our fears. The night photo shows the entry tunnel to a penguin nest box with a rat right in front of it.

We increased the frequency of the baiting and installed 10 Goodnature traps on the islands. These CO₂ powered traps reset themselves so each one can kill many pests without the need for human intervention.

In June 2013, a great southerly storm affected much of the island. Whole areas of vegetation died from the huge quantity of salt deposited on it. Foreshore vegetation was covered by new beaches thrown up by the sea. Driftwood and flotsam was deposited well inland on the south coast. Weirdly, small debris was also thrown well inland on the northern shore – a phenomenon I could not really fathom at the time.



A rat near the entry to a penguin nest box



Little penguin nest box

In May 2014 I joined a team called Places for Penguins. It is a group run by Forest & Bird which provides nest boxes for penguins and improves likely nesting areas. They carry out beach clean ups, predator control, weeding and planting of plant species good that will be good for providing shelter and concealing nest boxes in future. Wellington has a reasonable population of little penguins. This species has variants that until recently were known by separate names such as little blues, white flippered and fairy penguins depending on their locality. Now, we are told they are all called little penguins.

We were given training and instructed in nestbox monitoring procedures. The main concern is the welfare of the penguins and we go to lengths including wearing rubber gloves which we disinfect between boxes. We note weather, temperatures outside and inside the nestbox and we check the nest status –

whether it's active or not, any adults, eggs or chicks that are visible without disturbing the birds. We are not allowed to touch the penguins and our check is made through a removable section of the nestbox lid that lifts up and allows us to peek in. It's a real thrill to see a little penguin in residence. It could be a pair snuggled up, an incubating adult, a couple of downy chicks or an adult bird that has come ashore to moult.

There are 8 nest boxes on the island. Year 1 yielded three successfully reared chicks, two that died in the nest and two unhatched eggs. During the nesting season we check every fortnight, and then four- weekly after that. In 2015 we continued the monitoring and had an even more successful season with seven chicks fledged and four infertile eggs. We also found two natural nests that successfully reared chicks.

Last breeding season we carried out monitoring with camera traps. We knew that little penguins are active at night but we expected that on the secluded island to get photos of birds during the day. However, all penguin activity was captured at night using infrared photography. The camera traps proved very successful, each



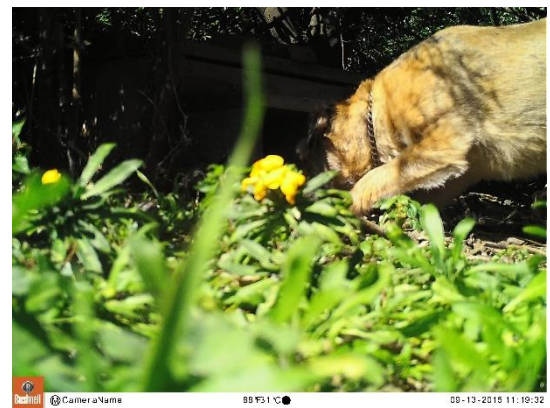
A pair of little penguins outside their nestbox

capable of capturing 5,000 photos taken when motion is detected. The resolution of the infrared pictures is not brilliant but good enough to give an insight into penguin behaviour. We got shots of them coming and going through the igloo like entry tunnel, taking in nesting material, calling and preening. A photo is taken every 8 seconds while motion is present, and clicked through rapidly they are like watching a video. One steamy sequence over several hours shows them mating with no holds barred just outside the nestbox. Apart from their insatiability, the amazing thing was that throughout some hours and many bouts of intimacy between a pair, a third penguin is inside the nestbox watching. This led to speculation that we had witnessed teenage sex. They were extremely enthusiastic, not

very skilled at it and they did not care who was watching.

According to the books, little penguins normally lay their eggs in August or September but we found one egg apparently washed out of a natural nest by a June storm, and we've had them laid as late as November. The eggs are white, small hens' egg sized, and slightly more pointed. Chicks start off tiny and covered in grey down and take almost 2 months to grow to adult size with a full set of waterproof feathers. When the adults have raised their chicks to a certain stage, they leave. After a while the chicks follow suit and have to fend for themselves from the outset. The adults spend some weeks at sea fattening up then come ashore to moult. We sometimes find scraggy looking birds in the nestboxes which are an ideal hidey hole to hang out in for the 2 week moult.

During this time they are not waterproof so cannot go to sea. They are very vulnerable at this stage. We had thought Tapu te Ranga was a penguin paradise free of dogs, but a camera trap snapped a shot of a dog with its snout right inside the entry tunnel to an occupied box. Dog owners – please keep your dogs on leads in penguin nesting areas.



Dog with its nose inside a nestbox entry tunnel

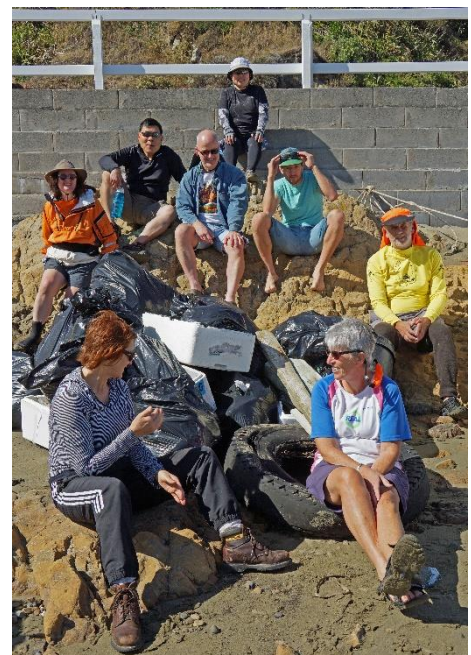


Common gecko

There are skinks aplenty on the island, but they disappear like slips of quicksilver when approached. The common geckos are a little easier to get close to. There is a great ugly old granddad gecko that

has proved too crafty to photograph, but one day I'll catch him off guard.

Tapu te Ranga is only a few hundred metres south of Island Bay. The prevailing northerlies blow straight down the valley that forms the suburb's main street and directly onto the island, and it blows rubbish out there. It's mainly packaging of various sorts including fish boxes, bottles, wrappers and all manner of others, along with marine debris – bits of net, ropes and so on. Some of the things found are more unusual. A real estate sign, aluminium from a tinnie, truck wheels, and things blown away from beach goers - water toys, balls and so on. We try to have an island clean up once per year and time it to fit



Clean up team with a big haul of rubbish

in with Sea Week in early March. We use a rubber ducky to ferry the day's haul back to the mainland and the council provides a rubbish collection service from the beach.

I had always been puzzled by the height above the waterline that rubbish is deposited on the northern shore. The island is too close to the mainland for big waves to build up on this side. The secret was eventually revealed. After a few days of gentle southerlies, good sized swells were piling onto the seaward, south facing, coast. At the flanks of the island, the waves hook around on both sides and keep on a curling path. If the swells are big enough they can join up again, this time heading in the opposite direction entirely. A channel separates the main island from a little one, and ocean swells or ferry wakes sometimes send waves through this convenient mooring point much higher than conditions would suggest and in the opposite direction to incoming swells. Even when well clear of the water it is wise to moor the boat with a painter and tie on all equipment left nearby.