

BIRDS IN THE HAND – AND THE BUSH

Scientist Sir Paul Callaghan called a predator-free New Zealand our “Apollo space programme”. Wearing gumboots rather than moonboots, Peta Carey joins the crew of a native bird-saving mission in Fiordland.



Brent Beaven (left) and Emmanuel Oyston release tieke, or South Island saddleback, into their new home on Five Fingers Peninsula, Dusky Sound.

We arrive at Pearl Harbour, Lake Manapouri, before dawn in drizzle, and start loading gear onto two vessels. There are 25 of us, mainly Department of Conservation staff, and a few volunteers – experienced “bird hands”. We’re all here to embark on one of the biggest native-bird translocations in the region, a project that marks a pivotal moment in New Zealand’s conservation story.

The weather forecast doesn’t bode well, but Lindsay Wilson, DoC’s head of biodiversity in Fiordland and the mastermind of this mission, insists, “Surely there’ll be the odd fine break to catch a few birds.”

It’s 45 minutes across Lake Manapouri from Pearl Harbour in Manapouri township, the water jet-black until there’s enough light to make out waterfalls and vertical rock faces. After another 30 minutes by bus across Wilmot Pass, surrounding massifs shrouded in cloud and rain, it’s a welcome surprise when we arrive at Deep Cove, in Doubtful Sound, and the rain stops. The loading to boat, bus and back onto a boat is hard work. It’s a long chain of arms down the cliff’s narrow path for the many fish-bins of gear: nets, poles, banding equipment, camping gear, food, more food, hundreds of bird boxes, and even food for the birds. Fortunately, the DoC vessel Southern Winds has space for everything.

The project entails catching up to 200 tieke, or South Island saddleback, from Fiordland’s predator-free islands of Chalky, Anchor and Breaksea, and moving them to Five Fingers Peninsula, adjoining Resolution Island in Dusky Sound. This isn’t the first translocation to Resolution Island, but it’s a strategic test case in the journey towards New Zealand becoming predator-free.

Why? Because the South Island

PETA CAREY IS A *NORTH & SOUTH* CONTRIBUTING WRITER. PHOTOGRAPHY BY PETA CAREY.

saddleback is extremely vulnerable to stoat predation, and there's no absolute guarantee that Resolution Island, or rather its adjoining peninsula, is completely free of stoats.

The problem is the saddleback, like many of our other rare or endangered birds, has nowhere else to go. In the years of clearing islands of predators and moving endangered birds into safe havens, we've run out of room. All islands with suitable habitats that are beyond the swimming range of rats or stoats are full up. The kākāpō, for example, needs more room than most – not only to find food, but for its territorial “track and bowl” excavating behaviour come breeding season. Many populations of native birds, including saddleback, have reached capacity on the smaller islands. So the next option is to find islands that may not be entirely predator-free, but are intensively predator-managed.

Resolution, along with Five Fingers Peninsula, is a candidate. There are no rats here. It appears the distance from the mainland is too far for them to swim. Not so for the wily and ever-ravenous stoat. But when the occasional mustelid does set off from the mainland to swim the 750m to Resolution, surely the network of traps will do their job and keep the birds safe?

“We need to see what's possible in the presence of low numbers of predators, rather than no predators,” says Wilson. “It could change our thinking about what's possible on inshore islands, but also on mainland managed sites. If it works, it means we might be able to move kākāpō back to Resolution.”

Resolution is also big. At 20,800ha, it is our seventh largest island. Until now, most “lifeboat” islands have been relatively small, limiting the potential of any population. If a native species can become established on Resolution and its peninsula, numbers could explode. “It could change the whole threat status of the species,” explains Wilson.

Resolution Island also has a special place in our conservation story. It was where it all began in the 1890s. Many have heard the heart-breaking story of Richard Henry, New Zealand's first conservation ranger. When he saw the rapid advance of rats and mustelids threatening kākāpō, kiwi and almost every other bird, he petitioned the



Biodiversity ranger and “stoat man” Pete McMurtrie in his trademark red beanie.

government for assistance. With limited funding, he set himself up on remote Pigeon Island (near Resolution) in Dusky Sound in 1894. For the next six years, he moved 572 birds from mainland sites onto Resolution Island, thinking it far enough away to be safe.

With the help of his muzzled tracker dogs, he moved roa (Fiordland tokoeka, a large brown kiwi), what he called “kiwi” (little spotted kiwi, half the size of the roa) and kakapo, sailing or rowing his skiff, often in hideous conditions. Even back then, he noted: “April 1901. We went on a special trip to the head of Dusky Sound, to try and get a pair of saddlebacks, but saw none; though when we first went up there we often saw them on the banks of the Seaforth River... I think they are rapidly dying out everywhere, because they make their nests in hollow trees, where they are easily got at by rats.”

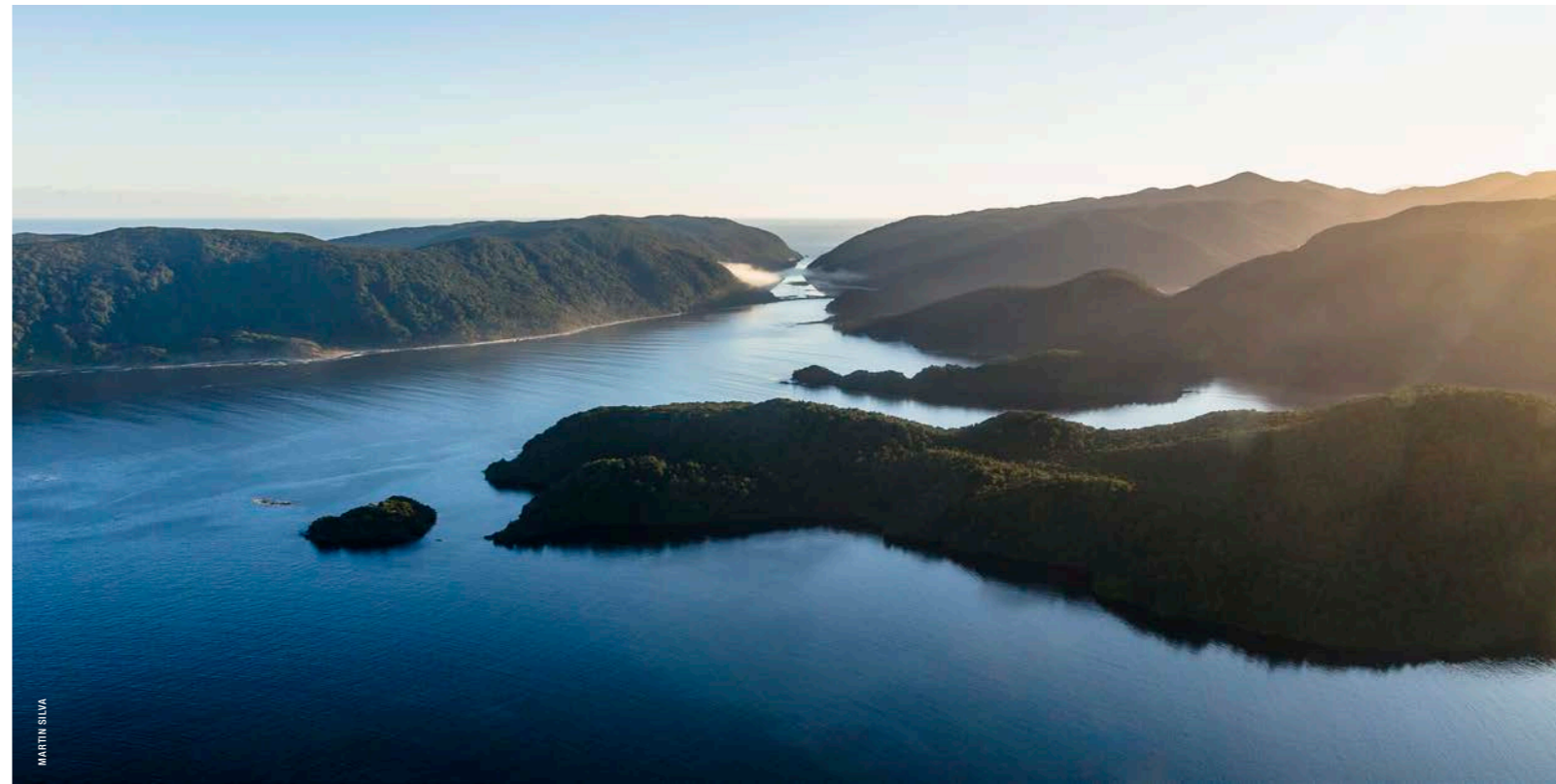
In March 1900, crew aboard a visiting ship told Henry they had seen a weasel in Facile Harbour, Resolution Island. He refused to believe them. But the following August, after six years of bird translocations, Henry saw it for himself: a stoat

(or weasel) running like a slippery eel over the rocks on the shore of Resolution. He tried to catch it before realising more had followed. They could indeed swim from the mainland. He gave up, and the island's kiwi and kākāpō disappeared.

Now, more than a century later, birds are being brought back to Resolution.

All gear safely stowed onto the Southern Winds (the swell beyond the heads is forecast to be four metres), we steam out of Doubtful Sound. Near the entrance, I look up fondly at Secretary Island, 8140ha rising straight up 1200m out of the sea, like a mountain fortress.

I was lucky to be here two years ago to witness the last deer hunted off the island. With boats, a helicopter, and a dozen men – mainly Tūhoe hunters from Te Urewera, with dogs that moved silently across sheer-sided ridges and snowy tops – it was a military-style operation. GPS trackers were followed on computer screens to ensure every ridge was covered. The resources, technology and inventiveness that goes into controlling pests



Resolution Island to the right, Five Fingers Peninsula to the left, and the tiny isthmus between. If a stoat managed to make it past thousands of stoat traps on Resolution, it's possible its nose would lead it across that low-lying bridge of land to the peninsula.

and predators in New Zealand is impressive. Many of those involved are headhunted for similar projects around the world.

This week's operation is another military-like advance, months in preparation. Earlier in the year, I sat in on one of the planning meetings with Lindsay Wilson and his colleague, biodiversity ranger Pete McMurtrie, who is known as the “stoat man” for his work overseeing island restoration, killing pests and predators. In front of them was a map of Resolution and, across a narrow isthmus of land, Five Fingers Peninsula. Both were crisscrossed like spider webs, marked with traplines.

The weight on McMurtrie's shoulders was obvious. At the time, they were talking about not just moving saddleback but also kākāpō – the “studs and duds”, those already overly represented in the gene pool or who would not or could not breed. McMurtrie nodded willingly at a suggestion to intensify the traps across the isthmus, doubling or tripling the density. If a stoat managed to make it past thousands of stoat traps on Resolution, it

was more than possible its nose would lead it to Five Fingers.

Those stoat traps? The DoC 150 has been around for decades: a long wooden box, mesh at either end, with an opening just big enough for the stoat to enter. They're lured in by an egg, a piece of rotten meat or chemical lure, their weight setting off the sprung clobbering mechanism. It's a primitive tool, heavy to carry and only a one-hit wonder.

There's been much talk about the newer, self-resetting Goodnature A24, which is slowly being introduced. Wilson explains the advantages: “Cheaper to buy, lighter to carry, and they have the potential to kill multiple times.”

Proven to kill rats, they could also revolutionise trapping stoats. “We've seen some great results with A24s killing stoats on Great Island in Chalky Inlet. Faith would be overstating it, but I have a growing confidence in them.”

What about 1080? Nope. Stoats are carnivorous – they won't touch 1080. They can ingest it by eating a rat that's consumed the toxin and died, but there are no rats on Resolution. Even if there were a toxin that would work

on stoats, Wilson shakes his head at the suggestion: “One aerial drop of toxin every few years is not going to guarantee sustained predator control. You need every tool at your disposal.”

The idea of moving kākāpō was dropped. McMurtrie's shoulders relaxed. He didn't want to be responsible for any of the 150 surviving kākāpō being devoured by a trap-wary stoat. With a saddleback population currently estimated at more than 3000, he can be a little more pragmatic.

“They're the canary down the coal mine,” he says. “Tieke are incredibly stoat-vulnerable. They nest and feed low to the ground. So this is a test case. We can afford to lose a few. It's not ideal, but if we don't lose any birds then it could augur well for other species, perhaps even kākāpō.”

Today, McMurtrie is on the rear deck of the Southern Winds, admiring the black-browed albatross as we head out into the Tasman and south towards Dusky. He's part of the bird-catching team, happy to focus on saving birds rather



Left: Shinji Kameyama and Beaven are swamped by bird boxes en route to Five Fingers Peninsula (above).

“For biodiversity, remote is an advantage. It’s the lifeboat analogy.”



Top and above: Beaven plays one of 18 different calls on his iPhone loudspeaker, and within 10 minutes he is carefully extracting a young male saddleback from the net.

than killing animals. He was here just two weeks ago – overseeing last-minute trap checking across Five Fingers (no stoats) and setting off a team of dog handlers with stoat dogs. Again, relief: no stoats. There have been none caught in the southern area of Five Fingers Peninsula for several years.

After three hours of deep breathing to counter the effect of cross swells in the Tasman, there’s widespread relief as we turn into Breaksea Sound. Breaksea Island stands sentinel at the entrance. Ahead are the Gilbert Islands, then into Acheron Passage, past Wet Jacket Sound and down a narrow fiord, Resolution Island rising to over 1000m on our starboard side, before we reach the immensity of Dusky Sound itself.

The myriad waterways and archipelago of over 700 islands was named Dusky by Captain James Cook as he passed here in 1769. Intrigued by what he saw under the haze of cloud, he returned in 1773 (on the HMS Resolution) for six weeks’ repose for his crew after months in the Southern Ocean. He was as beguiled as anyone is by one of the most beautiful places on Earth.

Anchor Island is one of the gems. This

is where the team parts company: most of the crew will continue on to Chalky Island, at the head of Chalky Sound; we disembark onto the tender, then carefully step onto the rocks between swells, moving gear before walking up the track to Anchor Island Hut.

I was first on the island in 2002, following hunters shooting deer and checking stoat traps. That was in the early days of clearing pests and predators, all in anticipation of the possibility of mohua (yellowhead), saddleback, robins, rock wren and, eventually, kākāpō, making their home here.

Even back then, with deer browsing, the forest was something I’d never seen before, with a dense and beautiful understorey. A few years later, I visited again, hearing my first mohua, entranced by South Island robins. And only a year or so ago, I called into the hut and saw the weary faces of the kākāpō recovery team, exhausted at the end of a successful summer’s kākāpō breeding season. Numbers were on the up. All the pest and predator control work – for the previous two decades – had helped ensure the survival of the world’s largest and rarest parrot.

The birds are here now – in the hills, found only with a radio receiver. The recovery team will return in early summer, hopeful of another successful breeding season. But the kākāpō need more room; they need another island.

For now, it’s all about the saddleback. Within 30 seconds of arriving, there’s the distinctive call – a high rasping ‘ti-e-keke-ke’ – and there in the coastal scrub is the beautiful saddle of rustic brown set against black feathers.

Within 20 minutes the next morning, the team has the first mist net – fine black mesh – erected in bush near the hut. Brent Beaven, a former DoC ranger, plays one of 18 different calls on his phone speaker, and after 10 minutes is carefully extracting a young male saddleback from the net.

Beaven knows how to handle these birds. He worked as a ranger on Rakiura – Stewart Island – for 17 years, overseeing translocations of kākā, mohua, kiwi, riflemen and many other species onto Ulva Island and Whenua Hou (Codfish Island).

“Watch carefully to see which way they fly into the net, that’s crucial,” he says, showing Te Anau DoC ranger

Em Oyston. “You untangle their feet first, and then their wings and their head.” Free of the net, the saddleback is strangely calm, its legs held firmly in Beaven’s hands. “It’s a jackbird,” he explains. Unlike the North Island saddleback, the young South Island male has a less obvious brown saddle. A relation of the long-extinct huia, this bird’s wattles are yet to grow to the bright red-orange full length of the adult.

Beaven has volunteered for this mission: a one-week holiday between jobs. From Rakiura, he moved to Wellington in 2015 for an office job as adviser to the Minister of Conservation. His new role is to oversee Predator Free 2050 for DoC. “Some people say you can’t do it, so it’s a waste of time even starting. But I reckon even if we don’t fully succeed, we’re going to be much better off by trying.”

Predator Free 2050 was the “mad idea” of scientist Sir Paul Callaghan, voiced in his last public presentation before he died. He called it “the New Zealand equivalent of the Apollo space programme”. “Let’s get rid of the lot,” he said. “Let’s get rid of all the damn mustelids, all the rats, all the possums,

from the mainland islands of New Zealand.”

Certainly we’re going to need more than a wooden stoat box to get to our equivalent of the moon. “Projects and research across the country have always been piecemeal,” says Wilson. “Predator Free 2050 is an opportunity for coordination, about bringing every agency together: DoC, local councils, Landcare. It’s also about getting all the research projects under one umbrella. There’s funding for new tools, new ideas – sound lures, pheromone lures, long-life lures. Given the rate of change in technology in the last 30 years, we’re going to see a huge breakthrough in the next 30 years.”

There’s no sure-fire technology to help catch birds, but by the end of the morning there are five tieke safely tucked away into boxes. Wilson is on the satellite phone to the Southern Winds, near Chalky. The five teams there have made the most of the fine weather and have 15 birds boxed and ready to go. His next call is to Fiordland Helicopters. A day ahead of schedule, they have 20 birds to move.

Wilson has lived much of his life in

the bush. Between university stints, he was a deer culler and possum trapper, before finally joining DoC to manage predator control in Te Urewera (including overseeing the survival of North Island kōkako). He came to Te Anau in 2009, becoming principal biodiversity ranger in Fiordland.

Wilson's got bigger plans than just Resolution. "The vision is for all the islands in Dusky Sound to be predator-free." But he qualifies that term: "Not meaning no predators, but very low numbers of predators, with sustained predator control. And not only Dusky, but Preservation Inlet and Chalky Sound. We're not far off."

Back at the hut, he pulls out a map of Fiordland. "It's not just about islands. We're looking at entire peninsulas, mainland sites we can use as a test bed for Predator Free NZ."

The cost over the next 10 years to achieve his goals for Dusky Sound alone is around \$15 million.

Wilson is an ecologist but also a strategist and diplomat, and he spends much of his time "inspiring" those with access to funds. He's invited three officials from DoC head office to witness the first day or so of the saddleback operation. One of them, Bruce Parkes, has recently been appointed deputy director general of conservation.

With a background in the corporate world of communications, and later roles at the Ministry of Business, Innovation and Employment (MBIE), Parkes has made a fast leap into conservation. Knowing how to navigate the networks of government and treasury are useful skills, I'm told.

Parkes listens attentively, assimilating every conversation, traipsing behind the team across Anchor Island, his phone capturing image after image of the birds. He tells me he's just returned from a conference in the US on food production, amazed at the advances in technology in every aspect of life. Asked how realistic Predator Free 2050 really is, he smiles.

"We'll be predator-free well before 2050," he insists. "We'll find a way."

When the helicopter arrives that afternoon, Wilson ensures Parkes is on board to be one of the first to release the birds on Five Fingers. The smile on his face as he lifts the lid on boxes of saddleback being freed is a winner.



Fortunately, the westerly wind didn't rise to its usual fury, allowing the team to land on the exposed west coast of Five Fingers Peninsula to release the birds.

Much of the aura of this environment is due to its isolation, but that also carries a price: helicopter time beggars belief. Today has clocked up nearly three hours flight time at \$2500 per hour.

Some of the cost is covered by private sponsorship. This operation has been largely funded by the Fiordland Conservation Trust, which has taken on various island projects in the area, many in partnership with DoC. A few of the bird-catching team on Chalky are trustees, many ex-DoC. The owner and pilot of Fiordland Helicopters, Kim Hollows, is also a trustee and donor.

While Otago's Orokonui Ecosanctuary or Karori's Zealandia can be visited for the price of a bus ticket, how do you justify pouring millions into a region where only the lucky or wealthy can see the birds? "For biodiversity, remote is an advantage," says Wilson. "It's the lifeboat analogy. We need some places that are secure, where those iconic species have the habitat and protection they need to

do well. If those islands were closer to the public, like Ulva or Tiritiri Matangi in the Hauraki Gulf, it's better for engagement with the public and often for funding. But having some wild places for their wilderness values is a good thing. People will support saving snow leopards, even if they'll never see one."

At least the head-office DoC staffers get a glimpse of our equivalent of the snow leopard. The night before they leave Anchor Island, a female kākāpō called Titapu appears near the hut. She is well used to humans after being cared for by a vet in her early life.

I've often written about kākāpō, but this encounter – on a visit to the long-drop after dark – is my first. Titapu gives a raucous shriek, beak aiming at my gumboots. Instead of pausing to admire her beautiful plumage, I flee to the hut. I'm later told this behaviour is her way of showing affection.

Titapu is flown off Anchor Island to Te Anau, en route to Codfish Island, where it's safer for her. And Wilson, Beaven,



Beaven and Kameyama negotiate rocks and cliffs on an exposed islet off Breaksea Island – ideal habitat for tīeke.

Oyston, camp father Shinji Kameyama and I fly to Breaksea Island – prime saddleback habitat.

This is one of the most exposed islands in the archipelago. Small at 150ha, it stands at the mouth of Breaksea Sound. Breaksea is where rat eradication using the chemical brodifacoum in tunnels was pioneered in 1988 (another great story of Kiwi ingenuity and now-revered conservation characters). No stoats here – it's predator-free. And no landing either, without a permit.

The shores are smothered in fur seals. Breaksea also boasts the largest population of tawaki (Fiordland crested penguin), one of the world's rarest penguins. Mohua settle in the higher forest. Robins dot the forest floor, endangered black skinks lie on the rocks in the warm sun. There are heaps of tīeke, even butterflies. This is how New Zealand once was.

It rains as we cart those unwieldy fish-bins across slippery rocks and find our way through dense olearia and muttonbird scrub. Kameyama is

a marvel, erecting tents amid the mud and seal shit, while the rest of us establish the first mist nets.

The saddlebacks are curious. We hold our breath and stand stock-still as a young jackbird appears, curious at the call. He circumnavigates, hopping from one branch to another, finally flying headlong towards the sound, and net. But just at that moment the wind stirs. The saddleback sees the black nylon and suddenly banks to the right, flying through the slender gap between net and pole. Breath exhaled. Missed.

Oyston and Wilson find a better spot, and greater success. Birds are netted, carefully extracted then banded. With pliers, Beaven closes a tiny metal band around the bird's leg, then deftly adds a piece of colour-coded plastic.

Bird boxes are prepared with mealworms and pieces of fruit. Hopefully the saddleback won't be imprisoned too long before a flight to its new home.

Beaven opts for more challenging terrain: on the northern shore of Breaksea, a stony beach leads to a bush-topped,

rocky islet. Carrying poles, net and then bird boxes, we clamber up and around the rocks. This is exposed habitat. "Saddlebacks prefer the 'ecotonal' edge," Beaven explains. "It's called the edge effect, where two ecosystems meet, or two habitats overlap. You get twice as many species here; it's more diverse and productive. It means plenty of food, mainly invertebrates, for the birds."

Which is why the relatively exposed scrub on the west coast of Five Fingers is perfect habitat for the saddlebacks.

For the first release of birds on the peninsula, Ron Bull, an elder from Orāka Aparima Rūnaka who's based in Colac Bay, Southland, is present. Wilson asks if there is some form of karakia he might like to say. Bull just smiles. "This is the end of a very long journey from home," he says, impatient to simply open the latch and lift the lid on the bird boxes. There is little need for words.

Only later do I learn the full extent of that "journey". Sitting in the tent on



CHRIS POTTON / ONESHOT

Breaksea Sound, looking east past Resolution Island.

Breaksea, long after dark as the rain again sets in around us, Beaven tells the story.

That home of the *tieke*, or rather its last refuge, was Big South Cape Island, off the southwest of Stewart Island. The population there was reduced to just 36 birds in the early 1960s. All others had been wiped out, most by 1900.

In 1964, legendary conservationist Don Merton was working for the New Zealand Wildlife Service. When rats made it onto Big South Cape, he ignored advice from head office “that they’ll all find a natural equilibrium”, gathered friends and colleagues, and headed south. They captured the saddleback, and also tried to rescue the last Stewart Island snipe and Stead’s bush wren. The birds were eventually moved to various predator-free islands, among them Breaksea, Chalky and Anchor. The snipe and bush wren didn’t survive; they’re now extinct.

The 36 saddleback had a happier outcome. They went on to breed with sufficient genetic diversity to thrive. And they made history. This was the first time anywhere in the world that a rescue translocation prevented a species from becoming extinct. Their population is now estimated at between 3000 and 5000. If successful on Five Fingers

Peninsula – an area of more than 3300ha with habitat well suited to saddleback – Wilson reckons the population could triple.

By the end of the week, his grin is even wider. A final count of 138 birds make it to Five Fingers. Pete McMurtrie flies up from Chalky, in his trademark red beanie. All the predator-control work on Resolution and Five Fingers has been overseen – and much of it carried out – by him. He laughs, recounting bird stories, saying how much he’s enjoyed handling live birds rather than dead mustelids.

The boxes sit between tussocks, seals watching benignly. They barely open before the saddlebacks fly off, in a microsecond of magic.

I take heart watching newly released birds in the scrub, already looking for food and water in the branches. The stress of capture, imprisonment and not least the deafening roar of the helicopter, dissipates. They’re flying free.

Even on the day we leave for home, the team is catching and banding birds to the very last minute. Fortunately, the pilot’s late. The squalls of rain ease for a moment, rainbows arc across Resolution Island. A portent, perhaps. Even more extraordinary: there’s a disturbance in the bay; a southern right whale surfaces.

Soon, the new government will be mapping out its 2018-2019 budget. The big issues will be poverty, education, health, climate change. Away from the magical spell of Dusky Sound, how can we prioritise saving our native birds? When I first visited Anchor Island in 2002, I put that to then head southern South Island conservator Allan Munn, who said, “Because it makes us who we are as New Zealanders.”

Sir Paul Callaghan went further, challenging us to think about what makes New Zealand unique in the world. “England has Stonehenge, China has the Great Wall, France has the Lascaux cave paintings,” he said, “but our heritage is our wildlife. Some of this heritage – the moa, the Haast’s eagle, the huia – is already lost, but we still have taonga like the tuatara, kiwi, tū, kōkako, saddleback and takahē, which have survived against all we have thrown against them.”

The economic costs might seem unwieldy to some, but Beaven disagrees.

“Funding predator control has huge returns,” he says. “Environmentally, there’s the return in saving what makes New Zealand unique, potentially worth billions; socially, because so many communities are coming together to work on predator-free; and economically, because it means jobs, advances in technology, exporting that technology; and then there’s the drawcard to tourism.”

Wilson is philosophical discussing the rationale of spending millions to kill hundreds of thousands of mammalian pests and predators, to save several species of birds. “It’s about the intrinsic value we place on our native species, but that’s a value judgment you make, that we’d rather have this than that. I don’t mind making that judgment.”

Two months later, Wilson and a few of his team return to Five Fingers to see what they can see of the 138 *tieke*, and check the stoat traps (empty). It’s spring, close to nesting time. He happily reports back: “We were blundering about through coastal scrub and kept on bumping into *tieke*, which was cool. I was amazed at how far they’ve travelled – more than 4km from the release site, both west and east coasts.”

Best of all, a number were already in pairs. “They usually start nesting in October, so there’s plenty of time for them to get organised. Our job now is just to keep the baddies away.” +