SAVING THE SLIMY, SCARY & EXTRAORDINARY

For 20 years, Bill Kerrison has devoted himself to saving our native eels and protecting the rivers they live in. Mike White meets the winner of the Morgan Foundation's River Story Award whose work is finally being recognised.

Bill Kerrison was just being curious, that day back in 1991 as he drove along the Rangitaiki River. He'd spent most of his life near rivers, lived in a raupo hut beside the Tarawera, grown up on his dad's fishing boat moored in a creek at Thames, and worked on hydro schemes as a young man. So passing the Aniwhenua dam on the Rangitaiki, the Bay of Plenty's largest river, Kerrison thought he'd swing by for a look. What he saw shocked him so badly it altered his life.

On the banks of the river, where it met the small hydro dam, lay the carcasses of more than 100 large eels. Some were still alive, writhing as they dried in the sun. The eels, heading to the ocean to spawn, had found their journey blocked by the dam. Workers, who saw them as a nuisance clogging the power station's intake, had hauled them out of the water and left them to die.

Kerrison discovered this had gone on for years – every time eels from the upper Rangitaiki began their migration, they got caught on the dam's screens or chopped up by the turbines. Nothing was surviving. "And I told them right there – this has got to stop," remembers Kerrison. "It's got to stop now."

To understand why Kerrison was so dismayed, it helps to know a bit about eels. New Zealand's longfin eels are found nowhere else in the world. They begin life as larvae in the Pacific Ocean, between Tonga and Fiji, drifting with currents for a year until they arrive around New Zealand's coast. Gradually they become small glass eels and then develop further into elvers, browny-black juvenile eels a few centimetres long.

The elvers then swim up rivers, sometimes for hundreds of kilometres, to find a place to live. They can grow to three metres

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Bill Kerrison with a traditional eel net, a hinaki.

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Above: The Parliamentary Commissioner for the Environment, Jan Wright, has described the New Zealand longfin eel as "on a slow path to extinction". Below: Bill Kerrison with a 28kg eel caught at the Aniwhenua dam in 2011 and relocated below the Rangitaiki's power stations. These native longfin eels can grow up to three metres and 40kg, and many were living in the river before the dams were built.

and 40kg, and some live more than 100 years in our rivers and lakes. But most will migrate downstream back to the Pacific Ocean after 40 to 80 years, returning to where they were born. To complete this once-in-a-lifetime trip, their heads become sleeker, their colour alters to evade predators, and their eyes expand and turn blue to help them see in the ocean's depths.

After a 5000km journey, each female lays millions of eggs, which are fertilised by males, before dying. The larvae those eggs produce then begin the year-long drift back to New Zealand, where this life-cycle – which can last almost a century – begins again.

Despite their incredible story, people don't love eels like they do kiwi, or dote over them like dolphins. They're seen as slimy, scary, or a threat to other wildlife. But they've always been much more to Bill Kerrison.

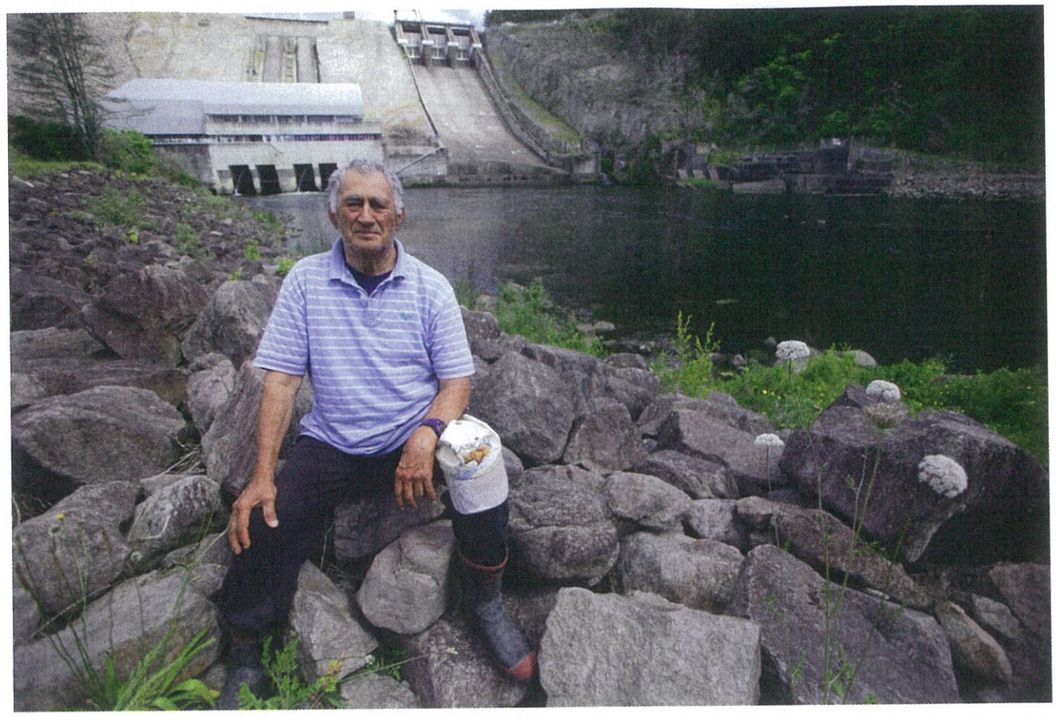
His father was a hard man with seafarers' genes and a 42ft mullet boat, so Kerrison was put to work on board, doing correspondence lessons at night. Each day, he'd save the fish guts from their catch and feed the eels that lurked around the piles of the Thames wharf, protecting them like pets.

The fishing boat was eventually wrecked in a storm, his father shifted to a sheep station, and Kerrison was made to cut scrub after school, till dark. At 14 he ran away, hitch-hiking down the road and ending up in Huntly's coal mines. After each shift he'd head to the river, catch and smoke some eels, and take them underground the next day for the miners to eat.

Kerrison spent time in the army, in freezing works, and as an engineer in factories before ending up running a fish and chip shop in Edgecumbe. But after the earthquake there in 1987, Bill and wife Ruby sold up and headed inland to a farm near Galatea, a few kilometres from the Aniwhenua dam. And it was here Kerrison discovered what was happening each year to thousands of eels trying to migrate back to the sea to breed.

However, it quickly became clear this was only half the problem. Not only were the two main dams on the 155km Rangitaiki River – the Aniwhenua and Matahina – stopping adult eels returning to the ocean, they were preventing elvers, the young eels, from getting upstream to develop.

Power companies and environmental groups were aware of the problem, but attempts to help eels and fish bypass the dams hadn't worked. Eel numbers in the river were rapidly dropping, unbalancing the environment and removing a traditional food source



Kerrison at Matahina dam, where he traps millions of baby eels whose route upstream is blocked by the power stations. Without this work, the elvers often try to climb the spillway behind Kerrison, only to die in the process.

for the region's Maori. So Kerrison began physically transporting the eels around the dams.

Since 1996, he's spent six months every year taking elvers from below the Matahina dam and driving them to locations above the power stations where they can mature. So far he's shifted more than 30 million elvers. Then, in autumn, when the adults start migrating downstream, he'll spend nights on the hydro lakes in his small aluminium boat catching eels and releasing them below the dams. This "trap and transfer" system is labour intensive and a labour of love, and led to Kerrison forming the Kokopu Trust to carry out the work.

At the Matahina dam, Kerrison has built an ingenious system for catching the elvers when they start swimming upstream each November. He pipes water used at the dam to cool electrical components (making the water slightly warmer) to lure elvers up a race and into a holding tank. Twice a day, he transfers the baby eels into buckets and walks up 100 steps to his ute. One morning last year, it took 18 trips to carry 180kg of elvers.

The elvers are tipped into another tank in the back of the ute and Kerrison then drives them to streams throughout the Rangitaiki's catchment, sometimes up to 80km away. Each year, he clocks up about 25,000km doing this, transporting between two and five tonnes of elvers. As well as eels, Kerrison catches and relocates thousands of kokopu (the native fish that whitebait grow into) annually.

He's 76 now, but reckons the work keeps him fit and he's hoping to keep going till he's 80, at least. It's the kind of life he's always known – focused on action rather than talking. "I'm an outdoors person. I have my lovely wife at home and I can say, 'Well, I'm off, Mum, I'll see you later.'"

When he's not relocating eels, Kerrison travels around New Zealand sharing his knowledge with iwi and environmental groups, runs education programmes for local schoolchildren and hosts university scientists studying his work.

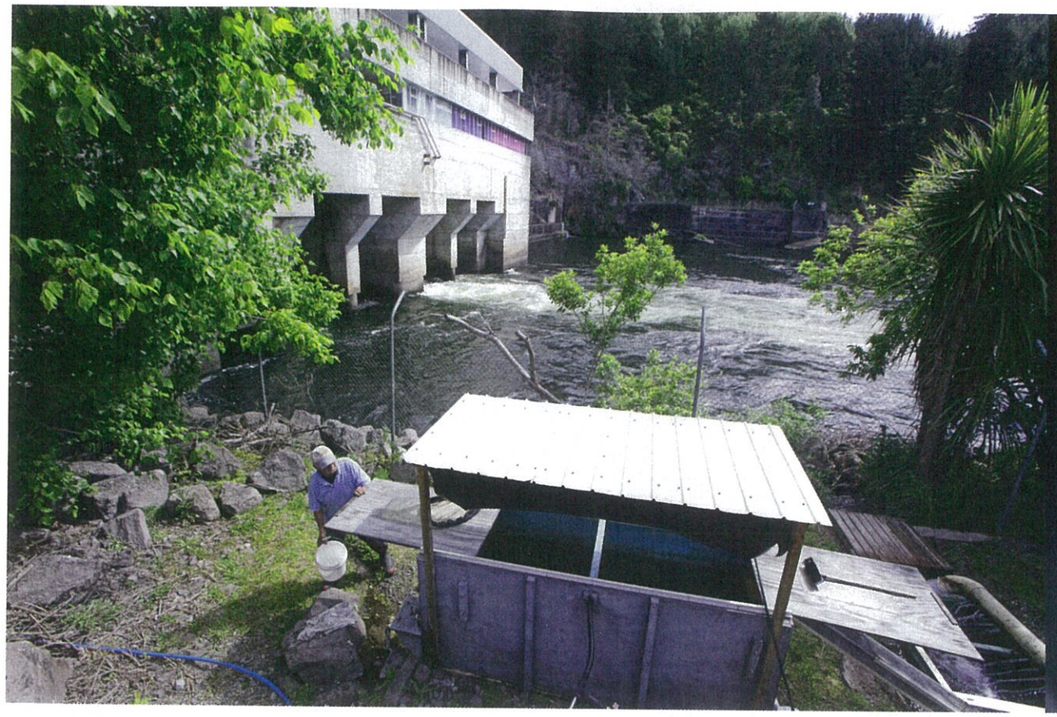
"We can't even go on a holiday," says Ruby, with a sigh.

He's meant to be building her an ensuite, but the project has stalled as the elver season gets into full swing. That said, Ruby admits she's incredibly proud of the work her husband does and his reputation as the eel expert throughout the region.

Sometimes people get the wrong end of things and ring up "Koro Bill" asking if he can get a feed of eels for a function they're having. "And I say to him, you need to tell them that's not your job," says Ruby. "Your job is to save the eels, not kill them."

In November, Kerrison was named the Morgan Foundation's River Story Award winner at a Wellington ceremony. And while his work has finally been recognised, many threats remain for the eels of the Rangitaiki and other rivers.

This was brought home to Kerrison recently when he discovered a commercial fisherman on the Rangitaiki with hundreds of kilograms of eels. "What made me so angry was, he goes to me,



Above: Kerrison at the ingenious trap he's devised to catch elvers (juvenile eels, pictured below) at the Matahina dam when they start swimming upstream each November.

'Whoever's moving all the baby elvers up here from Matahina, he's doing a great job.' I'm usually pretty hard, but if he'd said another word I'd have planted him. So I just said, 'Well, you're looking at the silly fella who put all the eels in here.' And he just went blank and all he wanted to do was get out the gate."

Kerrison wants commercial eel fishing banned on the Rangitaiki so the resource can recover, rather than have companies exploit his hard work. He's had to deal with everything from poachers using hooks on bamboo poles, to vandals who've sabotaged his work. Last year, he nabbed a group of kids who'd broken into the enclosure with his elver trap and were smashing it with rocks. "I said to them, 'You can tell your old man I booted you up the arse – because he's going to boot it even harder.'"

Equally concerning to Kerrison is the health of the Rangitaiki and other Bay of Plenty rivers where eels make their home. Runoff from forestry and dairy farming has clouded their waters and led to build-ups of sediment and weed that have choked parts of the rivers and lakes on them, vastly reducing the habitat of longfin eels. Kerrison now works with farmers to fence off their paddocks, and gets foresters to plant away from streams so fallen trees won't block them. "If we don't look after these species, we're going to lose them."

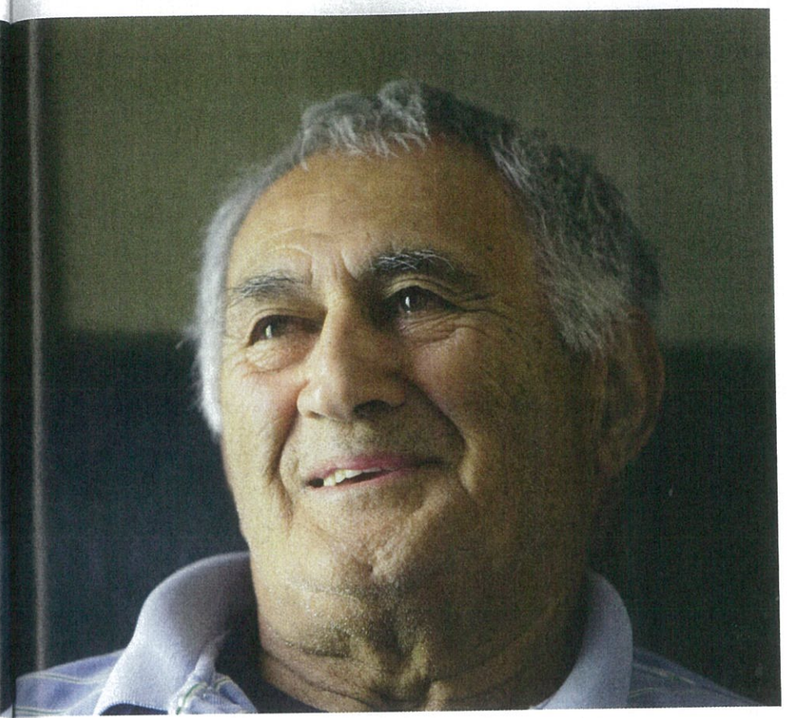
It's a view reinforced by Parliamentary Commissioner for the Environment Jan Wright, whose 2013 report on longfin eels noted they were already at risk and declining. She concluded, "The weight of evidence reveals a species in trouble," and that they were "on a slow path to extinction".

NIWA scientist Jacques Boubee, who's worked with Kerrison for many years, says without him the Rangitaiki's eel population would have largely disappeared. "It's very, very important work. The eels don't wait and if you're not there, it doesn't happen." Sometimes, Kerrison's pretty forthright attitude has annoyed Boubee a bit, but he says Kerrison has never stopped transferring eels or thinking of better ways to help them.

Kerrison's expertise is backed up by power company Trustpower, which operates the Matahina dam. "His knowledge and dedication to the fishery is something very special," says its lead environmental adviser, Kirsty Joynt.

She says Kerrison brings a different perspective, that eels are taonga to local Maori, and as well as helping fund his work, Trustpower consults him whenever it's trying to find solutions regarding the river. While a perfect system hasn't yet been discovered that allows all eels to navigate the Rangitaiki's power stations, she says the thousands Kerrison relocates go a long way to helping the species' survival.

Before starting his work, Kerrison remembers seeing thousands of elvers trying to climb the Matahina dam's spillway, only to perish on its face. Even with his efforts, he can't save them all. "But I've always maintained every one I do save is a bonus."



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When Kerrison was growing up, he'd go hunting along the Rangitaiki, catching freshwater crayfish at its edges, and reckons if you dropped a pig in the river the water would boil with eels. One day he hopes it'll be like that again, and he'd love today's kids to enjoy the eeling experience he had. "We've got to carry it on. That tradition's got to be there. If we don't get the message through to children to look after them in the next two generations, we'll lose them."

Another thing Kerrison used to do was go diving around White Island and sometimes he'd find himself amongst massive eels as they began their final migration into the Pacific. "You could get underneath them, put your hands up and hold them under their belly, and they would just cruise on. And we'd have a karakia and wish them well on their journey."

He'd like to take a final dive with them, to farewell what he regards as one of the planet's most beautiful and intelligent fish. Such is his connection with them, he's been known to strip off and slide into a tank that's black with thousands of elvers. "It's the most beautiful massage. But it's a good job nobody's come along and said, 'Gidday, Bill.'"

On the wall at his home are two mounted eels. He reckons they're "just babies", but if Kerrison stretches his arms out, he can only just reach the tips of the larger one. He's watched eel behaviour all his life, deals with them most days of the year, has even been hunting for giant ones in Australia with Steve Irwin, and reckons he knows more about them than a lot of supposed experts. "They know that, but don't like to admit it."

But it's the two on his wall, not one-upmanship, that get him out of bed every morning before dawn, and keep him going every night when the rains come and something tells the adults it's finally time to head to sea.

"They're just a reminder of how many more are getting killed along the way. But I enjoy what I do and 99 per cent of the comments we get are about the amazing work we've done. My life has been around them for so long. I've had an amazing life, really." +

The Morgan Foundation's annual New Zealand River Awards recognise the work of councils, communities and individuals throughout the country working to restore the health of their local rivers and streams (visit nzriverawards.org.nz).