DUCKS UNLIMITED NEW ZEALAND INC. For Wetlands and Waterfowl

flight

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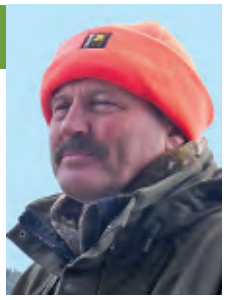
On the trail of rats
AGM in May
‘Second life’ for birds

Insight



Hi everyone and Happy New Year to you all.

I hope this fickle weather has not ruined any of your holiday plans so far.

In the 24 hours before writing this, we have caught two weasels two metres from our house, and we have also pulled out more than 12 rats from our roof traps over the winter.

Then yesterday I had an altercation with a rat who was trying to set up a condo in our ride-on mower. I thought it was a bird when I blindly put my hand into the cavity.

The difference between weasels, stoats and ferrets. ***Graphic courtesy of predatorfreenz.org***

Counselling is now required, but this proved to be a terminal decision for the rat and it very nearly set fire to our mower.

A good time to reinforce my devotion to Predator Free NZ, I thought. It was started in 2017 by the Key National government, but it still seems to attract negativity from some folk.

This initiative is an aspirational attempt to remove the five main predators from mainland NZ by 2050.

Possums, rats, weasels, stoats and ferrets – these all cause immense harm to our native flora and fauna, creating extinction circumstances for a good many of them and generally causing havoc in our country in so many other ways.

I see Predator Free NZ only in a positive light; I have some concerns about the use of some of the funding made available, but overall this initiative has introduced tens of thousands, if not more, people to active conservation.

There are numerous community groups and individuals now attacking this problem suburb by suburb around the whole country, with some such as the Miramar Peninsula and Crofton Downs groups in Wellington showing remarkable results.

A great number of these people do nothing more than allow a trap in their backyards but they were folk who, until this started, had no interest in conservation or the results that can come from it.

We were divebombed by a kaka as we approached the Terrace Tunnel in Wellington before Christmas.

This would have been absolutely unheard of 25 years ago and is a strong testament to what changes can be seen when enough of us take a positive stance on a worthy challenge.

There is no silver bullet for eradicating predators and I personally don't believe that the goal will be achieved before 2050 without some gene editing. Unfortunately this looks highly unlikely.

The 1080 debate is still suffering its controversies. Both of these methods would be game changers if not hampered by what I consider misguided attitudes.

Fortunately there are now some very clever people coming up with all sorts of mechanical and toxin-based solutions, and we must consider that DOC are the world experts in ridding offshore islands of these predators.

We have just gone through a period where the "team of 5 million" came together to fight another pest and a similar attitude could see these predators at least driven into the farflung corners of New Zealand if not completely eradicated.

Imagine the good this would do to the waterfowl populations, along with our other precious species if we got behind it en masse.

My counsellor says that I am doing quite well but the nightmares may take some time to go away!

I look forward to catching up with you all at some stage through the year.

Cheers

William Abel, Director DUNZ

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Cover: 'Hoover Dam', a wetland at Blue Duck Station, where this year's AGM and conference will be held. DUNZ contributed funds toward its construction. ***Dan Steele*** took this photo and thought the bird tracks through the pond weed were "pretty cool". See page 5.

Back: Blue Duck Station encapsulated in one frame – the harmonious partnership between the environment and a working farm/eco-tourism venture.
Photo Dan Steele

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Editorial:
Contributions, including photographs and letters to the editor, are welcomed. Please send these to the editor before the next deadline, 23 May 2023, in time for the June/July issue.

The editor reserves the right to edit articles for content, length, grammar, style, and readability.

Hot on the trail of rats

Rats have been singled out for special attention at Wairio Wetland as DUNZ's fifth scholarship student, Ellen Carlyon, tracks their movements for her master's thesis.

Ellen, who is majoring in ecological restoration, received a grant of $5000 from DUNZ at the end of last year.

Ellen is tracking ship rats (*Rattus rattus*) and Norway rats (*Rattus norvegicus)* at Wairio using automated radio telemetry systems (ARTS).

ARTS is a recently developed technology that provides consistent collection of data and removes the intensive workload required by manual radio tracking.

Late last year, Ellen set up an array of 16 nodes around Stage 1 at Wairio. The nodes record radio collars that come within their detection range and send the information back to a solar-powered base station. (If you visit Stage 1, you'll see the base station antennae and solar panel).

This system comprises an array of receiving nodes set up in a grid formation across the study area and the sensor station located somewhere near the grid.

Ellen says rats will be live trapped and fitted with transmitting collars. A rat's location will be triangulated by the nodes and the data sent to the sensor station for collection.

Data will be collected on the rats' movements; afterwards kill traps will be set to collect the tags.

Ellen says: "My progress in the wetland has been slow but productive. All the equipment is set up and working well, and the periodically active cameras and tracking tunnels have returned interesting results already – mainly mice and possums and as well as a group of stoats that we identified at Stage 1."

Her thesis supervisor, Associate Professor Stephen Hartley, Victoria University, has been heavily involved in research at Wairio for many years.

He has had students previously studying rat behaviour and spatial use, but they were using manual radio tracking in urban environments.

Ellen says ship and Norway rats have been well researched in forest ecosystems but there is a need for more research in wetland environments.

"The overall aim of my study is to gain knowledge that will inform better wetland management and have direct application when approaching a conservation project in a wetland area.

The base station at Stage 1 of Wairio; below, Ellen checks one of the 16 nodes she has placed around Stage 1.

"By understanding how these animals are moving and behaving in a wetland system, we can make more informed trapping and pest control regimes.

"My study would bring value to wetland conservation and hopefully spark some other momentum around pest animal research and control in wetland areas."

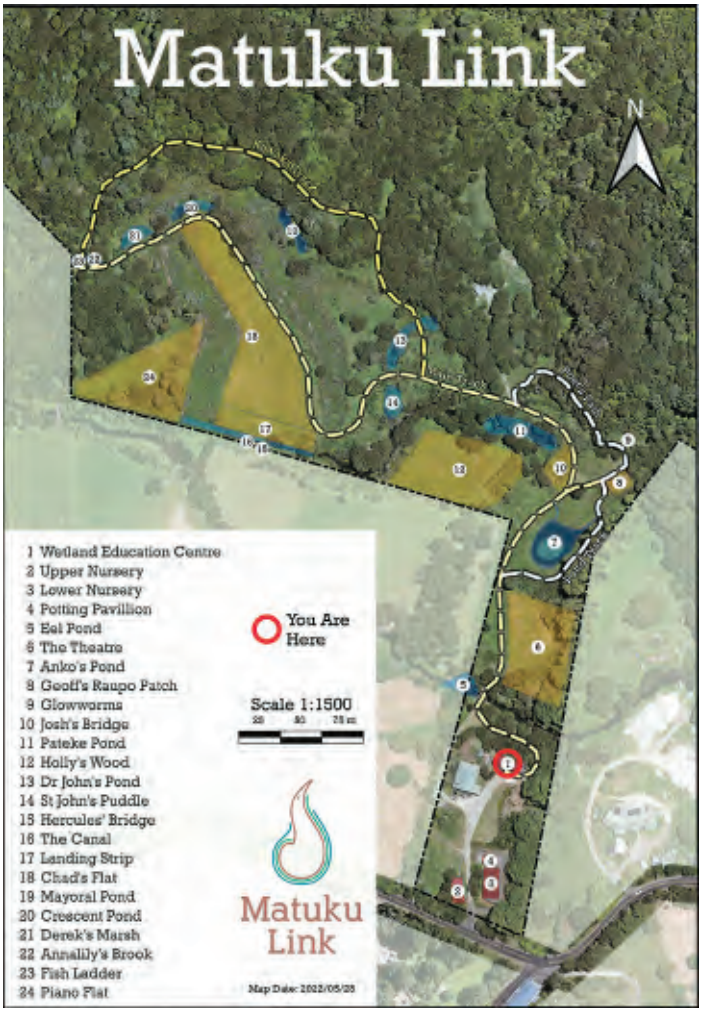
Ellen grew up around Tongariro National Park before her family moved to a farm near Hunterville in the Rangitikei. She has been living in Wellington since starting university.

She says growing up in a national park and later in a rural area has cemented a great love and passion for the environment.

After moving to Wellington, she began working at Zealandia as a night guide.

"This gave me the opportunity to talk to people from all over the world about native wildlife and grow as a science communicator."

She has spent days tramping through the Aorangi Range monitoring invasive mammal populations and native biodiversity, and she occasionally assists with endemic bat projects in the Wairarapa.



'The Barn', inside and out, and a map for self-guided walks around Matuku Link.

What a difference two years make

It's been a busy two years at Matuku Link, with new wheelchair-friendly tracks and boardwalks, and a pedestrian bridge over the Waitakere River.

Two years ago Covid presented a silver lining for the Matuku Reserve Trust, with Jobs for Nature funding allowing them to embark on some big projects at Matuku Link, which was established in 2017.

It comprises 37 hectares of wetland and bush at the head of Te Henga wetland, the largest wetland in the Auckland region, and links neighbouring eco-restoration projects Ark in the Park; Habitat te Henga and Forest & Bird's Matuku Reserve.

The new bridge had been a temporary crossing over Highway 16 while it was being built by roading contractors Fulton Hogan, and they were happy to donate it to the wetland reserve.

With Jobs for Nature contractors and engineers, and a generous donation of a special paint coating, the bridge was secured in place, painted and officially opened in November.

Project manager and trust secretary Annalily van den Broeke says, "The [Jobs for Nature] funding has been a catalyst on so many fronts – creating leverage to get other funds, building an accessible pathway, getting rid of hectares of willows… and so much more. "

Since 2020, two sheds, a tractor villa, three boardwalks, the bridge, two floors in the Sustainable Wetland Education Centre (aka the Barn), one canopy, 140 metres of shell paths, one nursery, two viewing platforms, many sculptures, one culvert repair, fish monitoring, sign painting, fence building, and track repairing have all been completed.

Some specimen trees have been planted, and extensive planting during the first Covid lockdown in 2020 is already well established at the fringes of the wetland areas.

Also in 2020, Ducks Unlimited NZ provided funds for the construction of a pond (No 7 on the map), and within two days of it filling, a pair of pāteke were checking it out (See *Flight*, Feb/Mar 2021). Subsequently other birds – swans, geese, mallards and white-faced herons – have visited.

Annalily says the pond itself did not need planting as raupō and kuta arrived unaided. The banks have been planted by volunteers with eco-sourced plants from Matuku Link and raised in its nursery.

In September 2022 a new species was released into the pond – an injured coot, which had been rehabilitated at BirdCare Aotearoa in Auckland.

Flight visited in January and although it was drizzly and overcast with overflowing waterways after weeks of rain, it is easy to see why Matuku Link is an inspirational place to visit and work.

The pathway is now suitable for most wheelchairs, buggies, prams, and people with walkers.

Annalily, our guide and passionate advocate for the wetland, says visitors are welcome but should ring first to

Clockwise from top left: Raupō lines the edges of the boardwalk; the pond that DU funded, pictured in September 2022; a sign beside the now well–established pond; Annalily van den Broeke and the new bridge donated by Fulton Hogan.

make sure someone is at the centre to provide advice. Visitors can go on self-guided walks using the maps provided.

Some areas are out of bounds to help prevent kauri dieback in the region.

"As we are a tiny team, we're not open all the time – but we will do our best to accommodate visitors," she says.

Wildlife at the reserve include its namesake matuku (Australasian bittern), pūweto (spotless crake), pāteke (brown teal), freshwater fish species and native bats. The kauri and broadleaf forest is home to many bush birds like kereru, fantail, tui, ruru, and tomtits.

Matuku Link's working bees are every third Sunday of the month and every Tuesday morning. Depending on the weather, tasks are weeding, planting, growing plants in the nursery, doing predator control or building work.

Please contact Annalily on matukulink@gmail.com if you wish to visit or volunteer.

Head for the hills this May – AGM 2023

This year's AGM and conference will be much earlier than usual to fit in with the busy schedule at the venue – Blue Duck Station.

The station is in the heart of the Ruapehu District surrounded by Whanganui National Park.

DU members will meet at the Blue Duck Cafe on Friday May 12. After the AGM on the Saturday morning, a jet boat tour of the Whanganui River and a wetland and conservation tour will be on offer.

A silent auction, and a charity auction for new traps for the blue duck project, will take place alongside Saturday night's three-course meal.

Blue Duck Station owner and DU Director Dan Steele says they have "done up a package price of $545 per person for the AGM and bunfight". This includes two dinners, breakfasts and lunches, and afternoon teas.

For the two nights' accommodation (Friday and Saturday), some will be in ensuite rooms and some in a double or twin-share cabin. Those staying in cabins will receive a manuka honey and blue duck gift pack to even things up pricewise.

Numbers will be limited to 50, so early registration is recommended.

Above and left: Bantam broody boxes filled with fresh hay sit on the bare ground beneath.

Abandoned nests – all is not lost

John Dyer has some tips on what to do if you find an abandoned nest with eggs in it.

Sooner or later, regular visitors and owners of wetlands may end up with a nest of eggs or some helpless, orphaned ducklings where the mother has been killed, or similar scenarios. What next?

If you come across a wild nest, leave two blades of grass crossed over the eggs to tell you if the mother returns. If you touch eggs, will the mother abandon them? This is an old wives' tale designed to make people leave wild eggs alone.

Likewise, if you come across 'abandoned' ducklings, chances are Mum is really hiding nearby. Left in peace, she'll gather them all up and take them all away to safety.

When a gamebird is still completing a nest, she'll lay one egg a day and then leave. All the eggs will remain cold until the last one is laid.

She'll then sit on them and start incubation by warming them all up together. In this way they'll hatch more or less at the same time. She'll also roll the inside eggs outwards and vice versa to make sure they all get about same amount of heat over about four weeks for the same reason.

When you come across a nest, placing an egg to your eyelid (a very heat-sensitive part of your body) will tell you immediately if it is cold and pre-incubation, or hot and under way. This eyelid technique will even work for eggs as tiny as a welcome swallow's.

If you need to remove the eggs from a wild nest for some reason, if they are cold, you have several days to come up with a plan. Put them in a cardboard egg box.

For goose and swan eggs, the double milkshake trays that McDonald's use work well. Leave them in a cool quiet spot away from sunlight – on concrete under the house works for me.

Tip the egg tray on one long-axis edge using a brick. Once in the morning and again at night, tip it the other way. Do this until you're ready to set them in an incubator or under a broody chook or bantam.

If the eggs have travelled any distance, it's best to leave them 24 hours to settle down before setting them. Incubators often need a couple of days once started up for the thermostat to settle down too.

Someone once told me that a clutch of Cali quail eggs had been found and taken to an amateur pheasant breeder. His wife took them in and left them in the fridge overnight, only remembering to tell him in the morning. A month later they all hatched into fine young chicks. Do that with warm eggs and you can write them all off.

If they're warm, you'll need an incubator or a clucky chook and fast. Meantime, put them in a warm spot like a hot-water cupboard, just be careful it's not too hot. It may be that the eggs have been abandoned for some time, for instance, if the mother had been killed. Bantams can get relatively old eggs to hatch even when incubators cannot revive them.

It's a good idea, especially in warm weather, to give incubating eggs a spray with tepid water. You don't have to spray your eyelid to test the temperature this time, just use your lower wrist just like Mum used to check the baby's bath water.

A good spray from about 10 days onwards will do while the broody is let off for a short period once a day (just 10 minutes initially, 20-30 minutes nearer hatching) to eat and poo.

Do this at the same time each day and, if need be, organise some rain shelter first. Tether her or restrain her in a pen carefully or she'll be off and you might need to sit on those eggs yourself!

Wheat, by the way, is considered a "warming food", but a few poultry pellets and even a tiny bit of green food like chopped silverbeet will help keep her regular. She must leave a poo behind or you'll find it next day on the eggs – this is not good.

Tepid water sprayed over eggs keeps the eggshell porous so it can breathe and also makes the shell softer for the chick to hatch out of. If you think about the wild, the mother walking through wet grass back to the nest provides this moisture.

My broody hatching boxes have no floor. The bare ground beneath provides ideal humidity. I put the boxes on a raised spot that's safe from flooding and in full shade.

They're put over fine soil which I have previously sieved to remove any stones. This is padded down with a big round river rock to form a wide nest bowl.

On this I sprinkle fresh hay (old stuff can have Aspergillosis spores). Around the nest bowl, I twist hay to form a rope and line the sides with it.

Dummy eggs will tell you if the broody has settled into the job. I've used China, plastic and wooden eggs; the latter keep warm. Golf balls do at a pinch.

When the bantam has gone broody, she'll quietly growl at you if you reach under her, and she'll also try to tuck her wings tighter. Now's the time to exchange the real eggs, but in low evening light, so any colour differences aren't noticed.

If she's not quite ready, give her a feed and drink, pop her back and wait another day and see what happens. If she's hysterical and determined to

escape as soon as the door is ajar, give up and look for another broody.

Many modern breeds have broodiness bred out of them. Old English Game bantams, cochins and silkies are three breeds that are still reliable.

I've mostly used the bantams to hatch bobwhites, mallards, grey teal, red legged partridge, pheasants and more bantams. Muscovy ducks may be an even better choice for waterfowl.

When the chicks first hatch, they need at least a day to dry out and bond with Mum and vice versa. This is also time for any late hatching chicks to catch up.

If you are transporting hatched chicks after this period, from their broody hatching box to their coop, put some hay in the bottom of a bucket to keep them warm and quiet.

Tuck everyone up in their new accommodation and shut them in to make sure they can't get out, chill and die unnoticed in some corner.

If you are using a surrogate mother such as a bantam, keep the light low for the first day while everyone gets on with that bonding. Restrict their space in the coop for a few days so they don't get lost.

If a straggler gets forgotten and chilled, you can often tuck them under the brooding Mum until they revive. I've also used an oven warming tray.

Some form of shelter like colour-steel with a few bricks on top will be needed to keep the coop dry in wet weather.

At feeding time, you want the food to be in bright light. A bantam will soon show them how to do it, pecking up a bit and holding it head-height for them while making a special clucking noise. If they're slow to learn and several feeds later they haven't caught on, don't be afraid to push their beak into the food, just for a second, mind.

A red M&M chocolate put in the middle of the food pile can also stimulate them to peck at it and accidentally get a beak-full of what they need to catch on. You have about three days to get them to eat before they "starve out".

Push a hard-boiled egg yolk through a fine sieve (no egg white for smaller birds like teal, partridge or quail), and sprinkle with finely chopped yarrow leaf tips.

The pink/white European variety of yarrow is a tremendous appetite stimulant. Once the birds are on this for two or three days, wean them off it and onto the chick starter, which you should place beneath the egg mix so they accidentally get a bit of both.

A young grey teal duckling that John rescued and raised. ***Photos John Dyer***

But note that if the chick-starter has a coccidiostat, it will be poisonous to ducklings, dogs and horses.

Meat-bird crumble is just as good and after three or four weeks, you can start weaning them onto increasing amounts of wheat as they grow. Too much protein in later stages is not good for their development.

What about newborn ducklings whose mother has been run over? If you live further north, you may be able to pack the ducklings into a cage with a good amount of dry fresh hay to keep them off the cold ground at night.

They'll huddle for warmth, and they'll probably survive. However, there are reasonably priced electric chick brooders that radiate heat onto the chicks beneath.

Don't get young fluffy ducklings wet. They lack waterproofing without their Mum. As they grow, remove all but a few of the bigger stones to stop them tipping the water tray over.

After several days, I move the pens onto fresh grass and, as chicks get bigger, a daily move is needed. If there's a gap under the pen, the chicks can get out, get lost, chill and die.

Resist filling it with dirt. The chook will scratch in it and you're back to square one. Instead, either use a brick or much better, use a large garden fork and lift the grass from below.

If it's ducklings you're raising, I suggest you get a bucket full of Azolla (the floating red water fern) and/or Lemna or Wolffia which are both floating

One of the bobwhite quails that John raised which hung around for quite a while after its release. It ended up being a model for a Game Bird Habitat Stamp.

Another option I have used inside is a pig lamp. This is suspended by a chain that can be raised or lowered. If the ducklings seem to be avoiding it, it is probably too low and too hot. If they are all huddled underneath it, it may be too high and not hot enough. By trial and error, you'll find that sweet spot.

Avoid using sawdust, they'll probably eat it. Remove any spoilt or stale food and keep their water clean. At first fill their shallow water container with lots of small pebbles so that, if they fall in, they can climb out.

duckweeds.

The ducklings love these. Put them in a very shallow bowl if they're young, or if they're getting adult feathers and it's a nice day, you can use something deeper they can swim in.

You can also custom-make a shallow box to fit the coop and fill it with sand for pheasants, partridges or quail as well as the bantam to dust-bathe. Kale will also keep them busy if you hang it upside down. It's full of vitamins and helps stop

Continued next page

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them feather pecking. Avoid old stringy lettuce.

On wet nights, a bucket full of snails thrown in the coop will start a duckling rugby scrum.

You may have to pen the mother with the ducklings. One I caught with her brood was living in a lean-to car shed where her brood was being killed by neighbours' cats and dogs. She'll escape given half a chance and go back to where you found her. Good luck catching her twice.

If ducklings are caught in a swimming pool, create a makeshift ramp then swim them toward it so they climb out. Don't worry about their Mum, she'll be back as soon as you leave the area.

Around six weeks of age, you can release your ducklings onto a pond. They're not quite be ready to fly so they'll have to stay put.

Orphaned two–day–old mallard ducklings huddle together in a coop. John says they all survived their rocky start in life.

Keep in mind that, if you're planning on doing this regularly, not just a one-off in an emergency, you'll need a DOC permit. They're free but they'll probably take a year or more.

Descriptions of how to build coops and broody boxes as described can be supplied along with many more details about using them. Contact johnwadyer@xtra.co.nz for this information.

F-Bombs lighten the load

Tama Blackburn and Māia Gibbs from the Taranaki Kiwi Trust, loaded up with F–Bombs.

Taranaki company Rewild says its new trap, the F-Bomb, is similar to traditional traps like the DOC200 but is lighter, safer to use and more efficient at catching predators.

Rewild founder and director Nick Jones says, "I remember helping out a friend who did a bit of trapping work on Mt Taranaki and the devices they were using were wooden boxes with a trap inside.

"They were heavy to carry, to check them you had to physically get down and look into the box, and the retrieval of caught prey wasn't a nice, or particularly safe, process.

"I thought that if this was the best that there is out there, surely I could improve things. So fast forward many years, and many thousands of dollars later, here we are," Nick says.

"There's a lot that needs to be covered off with a trap, from efficiency and safety to ensuring it humanely disposes of the predator.

"Then there is the usability factor for those checking, emptying and resetting the traps, making sure it excludes Kiwi and other animals, and that it is hardy in all types of environments," he says.

Nick, an industrial designer, was able to get some help along the way, and a research and development grant from Callaghan Innovation, facilitated by Venture Taranaki a few years ago, gave him the push to double down on his product.

He was also successful in raising money through Launch Taranaki and he won a $30,000 prize from TSB Bank in a competition promoting local innovation.

"Financially, it has been a significant investment to get this product developed, especially when you consider that I've literally created hundreds of prototypes over the years," Nick says.

The trap has a capture flag (making it easier to check) and a hinged lid which opens up, retracting the trap into a safe mode allowing easy and safe access to dispense of the predator inside (whereas the wooden-box versions required a screwdriver to undo the outer casing, and a number of hands to extract an animal).

It's also extremely lightweight, meaning more traps can be dispersed in a shorter space of time at lower cost, and it's something that anyone can use simply and safely – Nick's seven-year old son is an avid user.

"There can be a significant amount of labour required to get traps into the field, so anything we can do to minimise this is an improvement."

He says the F-Bomb has created "an ecosystem of sorts that is not only good for the environment, but helps little towns like Inglewood to grow".

"We support the Taranaki Kiwi Trust and it now operates out of our building in Inglewood.

"We have an awesome relationship and we also have a lot of people coming into the premises to be involved – like the students from the local polytechnic (WITT) doing their paperwork for the Level 4 trapping programme."

Nick was recently elected to the local community board and it is important to him that the traps are made locally.

"I didn't want to just be farming out production to China, as I have a high level of aspiration for the business that is not just about 'designing a thing'."

‘Pip’ weathers the storm

Northland resident Anna Murphy in a post on the Tutukaka Coast Facebook page on November 29 said she had seen a dotterel nest with a single egg at Sandy Bay.

It was close to a stream and just north of the toilet block so she placed a ring of sticks around the nest.

A couple of days later, another resident Dave Gould banged in some timber pegs to rope off the area and placed a ‘Bird Nesting’ sign there. He continued to watch the nest from his house.

When a strong storm blew in on December 7, just before dark in heavy rain, Dave noticed the waves were washing up the beach close to the nest.

“I ran down to the beach just as a bigger wave came up and washed the egg into the stream. Both parents were there. They were frantic.

“I grabbed the egg and tried to relocate it on higher ground. I stood over by the toilet block to observe but the parents were no longer returning to the egg, and in the rain and wind, I decided to take the egg home to keep it warm.”

Dave does not have a hot water cupboard, so he placed it on top of his coffee machine to keep it warm.

Next morning to his horror, he found his coffee machine had switched off during the night and the egg was no longer warm to touch.

The egg then spent two days in Dave’s bed with the electric blanket on #2, with Dave monitoring the egg temperature with a thermometer.

On December 9, good friend Suzie Scourfield, a teacher at Whangārei Girls’ High School, lent an incubator and heat plate from the school.

The egg spent the next 18 days in the incubator, with Dave monitoring the temperature and humidity.

During the incubation period, he contacted several organisations such as Auckland Zoo and the Department of Conservation to see if they could provide advice or could take over care of the chick.

He had no joy but did good advice and support from Robert Webb at the Whangārei Bird Rescue Centre.

During the last 10 days of the chick’s incubation, Dave was “over the moon” to see slight movement of the egg, and a day before hatching, he could hear it chirping inside.

Pip hatches after 18 days in an incubator. Left: Five-day-old Pip and, at two weeks, the chick’s first outing to the beach. ***Photos Dave Gould***

At 5am on December 27, the chick hatched. ‘Pip’ spent the first day in the incubator until it had dried out and “fluffed up”, before being moved into a large box with the chick-raising heat plate to snuggle under to keep warm.

On its second day, it was running about, eating and drinking. It was eating mainly seafood – oysters, mussels and tuatua – gathered on Sandy Bay beach.

“After a few days, I noticed Pip was keen to eat a wide variety of food: shellfish, finely grated cooked meat, chicken-based pet food, scrambled egg, grated carrot, and any flies, spiders, or bugs that I could catch.”

At one week, Pip was enjoying running around outside on Dave’s deck before returning to snuggle under the heat plate. At two weeks, Pip had a trip to the beach to learn to forage.

Since then, DOC has contacted Dave, and after “a positive discussion”, they agreed, for the chick to be given the best chance of survival, it needed the right care and be returned to the wild.

For his part, Dave agreed to not try to find Pip, who had disappeared into some shrubs after a beach trip the previous day.

DOC’s Whangārei operations manager Joel Lauterbach said: “DOC’s primary concern was what is best for the dotterel chick – our staff wanted it to be given the best possible chance of long-term survival in its natural habitat.

“Ultimately, the chick’s best chance of survival is in the wild. At Sandy Bay, there has been predator control which increases the protection offered to the local dotterel population – including this chick.”

Joel said, “We do want to remind the public to adhere to the advice of DOC staff when they call 0800 DOC HOT and people require a Wildlife Act permit to keep protected wildlife.

“With storm events, eggs and chicks are going to be vulnerable. However, we consistently urge the public to leave eggs and chicks alone – trying to hand-rear eggs and chicks creates a significant and complicated situation involving risks around diet and diseases.

“Specialist attention is needed to be able to successfully rear birds. DOC only carries out that level of work on our rarest and most threatened birds – for example fairy terns.”

Rare birds get a ‘second life’

Chase Voss is a talented taxidermist specialising in bird species and a dedicated conservationist.

He sees no contractions in that, and, in fact, he says they go hand in hand.

Chase, grew up on his parents’ farm near Palmerston North, and took up taxidermy in the early 2000s after “Dad [Max Voss] got me started and really taught me a lot”.

“I can remember as a young child sitting out in the workshop watching Dad work on specimens that customers had brought in – predominantly ducks and pheasants.”

“When I shot my first duck, Dad mounted it for me, and a few years later, I mounted my first bird – a mallard drake. After that, I kept taxidermy as a hobby and mounted a few birds a year – mainly for my own collection.”

He also spent many hours as a young boy studying the waterfowl and other wildlife that visited the oxbow lagoon on his parents’ farm.

The Voss family joined Ducks Unlimited NZ more than 25 years ago when they owned a farm with an oxbow lagoon and heard about DU from Fish & Game, which visited the farm each year to carry out shoveler population counts.

Chase says, “Looking back, growing up with this resource on my back doorstep was a unique opportunity.”

He became interested in New Zealand’s biodiversity, and would often take binoculars with him to spot the bird species in the wetland including NZ dabchicks (weweia), black-fronted dotterels and Australasian bitterns (matuku).

After spending the past four years on his OE in Europe, Chase now lives in Wellington, working as a senior project manager for Booking.com, and as a taxidermist when time allows.

Now that he is home, he would love the chance to work on some New Zealand species and contribute to education and conservation.

“Last year I had the opportunity to do a collaboration piece with a fellow taxidermist, working on a takahē for the Department of Conservation. This was a dream come true to work with such a rare species.”

Chase with his laughing kookaburra and the awards he won at the NZ Taxidermy Association Awards last year. Left: The long-eared owls that won in Budapest in 2021.

While it is more difficult to work with native species in New Zealand than in Europe, Chase plans to work within Department of Conservation regulations and has already applied for two permits.

He would like to be to take examples of his work to schools, education centres, and after attending last year’s AGM in Wellington, perhaps the next DU AGM.

He says, “Taxidermy can be a very polarising topic. I understand it’s not for everyone, but here are my thoughts on the positive impact of taxidermy.

“Firstly, all the birds I was fortunate enough to work with in Europe, had died of natural causes.

“This is a big factor in the European taxidermy scene and is core to the recent resurgence of ‘ethical’ taxidermy.

“Most of my birds either came from breeders, falconers or were road fatalities.”

He says taxidermy gives these specimens a “second life”, often letting people see species they have never seen before and usually much closer than they could in the wild.

“The first takahē that I ever saw was one mounted in the collection of Te Papa. This inspired me to seek out living ones in the wild. Plus, thanks to taxidermy, it is the only way we are able to see lost species such as huia and the laughing owl,” he says.

“This element of education and awareness that taxidermy enables, as well as its contribution to conservation, can often be overlooked.”

He says, a quote from the late Steve Irwin comes to mind: "If we can teach people about wildlife, they will be touched. Share my wildlife with me. Because humans want to save things that they love."

Chase believes taxidermy is a powerful tool and key component to the awareness of biodiversity and conservation.

He has come a long way since he watched his father, Max, mount specimens for customers, and has won several major awards, including 'best in show' at the 2022 NZ Taxidermy Association awards.

When Chase moved to Europe in 2017, he says, "I put my hobby on ice – favouring travel etc – as taxidermy isn't very compatible with backpacking."

"I landed a job in Amsterdam and, about a year into living in the Netherlands, I stumbled on a taxidermy store having an open day with a bird taxidermy demonstration.

"There I met a talented team of full-time taxidermists and hit it off with the one giving the demonstration.

"Soon after, he invited me to work on a bird with him. This was an amazing learning experience, opening my eyes to the progress made since the time my father had been taught – new materials, techniques, etc.

"At the end of the day he gave me a taxidermy toolkit and a couple of frozen birds from his freezer to get me going. So I really have to credit him for getting me started again."

Another talented craftsman in the Netherlands also shared many tips and tricks with Chase.

It was recommended that Chase read *Bird Taxidermy: The Basic Manual* by Carl Church and he says it's a great step-by-step guide. "Great place to start if any of you feel like giving taxidermy a go!"

In 2021 Chase entered a pair of long-eared owls and received the highest score at the European Taxidermy championships in Budapest, winning the Best of Professional Category – Bird Groups. More than 80 taxidermists competed in the champs.

Last year Chase entered three pieces in the New Zealand Taxidermy Association's competition – a kookaburra, white-faced owl and Siberian eagle owl.

His laughing kookaburra won the 2022 Breakthrough Award for Judges' Choice Best of Show, the McKenzie Taxidermy Supply Best Bird Award, the Best of Category Bird Mount and the Best of Open Division.

The three works that Chase entered in the New Zealand competition last year.

It took Chase 30 hours to do the kookaburra, including work on the bird itself, the habitat scenery and, importantly, research and sourcing reference images.

"Studying the species in question is key towards the goal of trying to make the end result as lifelike as possible.

"This includes things like posture and eye colour as well as common habitat, diet etc. In this scenario, I used dried grasses, red earth and eucalyptus, iconic of the dry Australian outback.

"I also added in a migratory locust for that extra element of realism. A simpler mount, without habitat, takes me on average two full days."

To see other examples of Chase's work, follow him on Instagram at voss_arts.

Chase works on the takahē for the Department of Conservation.

Sleepover at Lake Rotokare

Rotokare Scenic Reserve, in Taranaki, is the largest wetland inside a predator-proof fence in New Zealand, and it welcomes responsible campers.

The 230-hectare hill country catchment includes extensive wetlands and a 17.8-hectare lake.

In 2008, an 8.2km long predator-proof fence was built around the reserve and the 12 mammalian pest species inside the perimeter were eradicated.

Raupō, flax and a pukatea-kahikatea swamp forest border the lake.

The reserve, 12km east of Eltham, is about a 55-minute drive from New Plymouth. It is open 24/7 and responsible freedom camping is permitted in designated areas.

Entry to the reserve is through double *Jurassic Park*-like gates with a buffer zone in between. These gates are an important part of the sanctuary biosecurity, preventing the entry of pest species.

There is plenty of car parking, lawns and seating, an informative visitor shelter and public toilets.

Scientist and self-professed wildlife geek Simon J Pierce, of naturetripper.com, said it is the best bird photography destination in Taranaki.

He says: "Aside the usual suspects, such as tui, kereru, fantails, and tomtits, it's the only place in Taranaki that hihi (stitchbirds), tieke (saddleback), and pāteke (brown teal) have been reintroduced – they're all doing well, and are easy to see and photograph.

"Rotokare is also a fantastic place to see toutouwai (robin) and popokatea (whitehead), and there are lots of other neat species such as fernbirds and scaup."

There's an easy, mostly flat 4km walk around the lake that leads to a pontoon.

Simon recommends that visitors "walk around the lake anti-clockwise (from the car park) if you're there in the morning, so you get nice light for the first 1km or so, which is more open forest, and then you're in the forest proper for 'green hour' (bright daylight, but hopefully filtered through the canopy)".

"If you're there in the afternoon, do the opposite," he says. "The first 600 metres or so from the car park is wheelchair accessible, and flip-floppable. I recommend shoes if you do the full walk, as it can get muddy."

The main picnic area at Lake Rotokare. *Photo Kathrin & Stefan Marks CC BY-NC-ND 2.0*
Below: the gates at the entrance to the lake, part of the predator–proof fence network; a seat with a view of the lake.

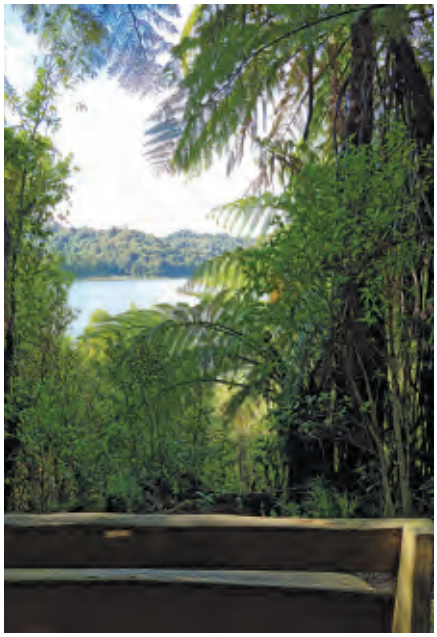
As well as the lake walk, there's a 5.4km ridge track which rewards walkers with stunning views beyond the reserve. The initial 100m climb to the seat is the hardest part.

More than 500 traps are permanently set in the sanctuary as a first line of defence and as a monitoring tool.

These are checked once a week (and some twice a week over summer). Last year one rat and seven mice were caught within the sanctuary.

All were in known high-risk areas in and around the car park. Response trapping was rolled out immediately following all these detections to ensure invaders were quickly found and removed.

Rotokare is New Zealand's only essentially mouse-free sanctuary.



Haven for waterfowl

Pāteke were first released into Lake Rotokare in 2019 are now well established despite an early hiccup.

When the first 20, fitted with radio transmitters, were released, casualties with high as many of the ducks left the safety of the sanctuary to visit neighbouring ponds and eight soon fell prey to feral cats.

Rotokare Scenic Reserve Trust administrator Tricia Jamieson says, "We recognised that we had a huge feral cat problem in surrounding farmland.

"We have had a massive blitz on these pests with help from Taranaki Regional Council, volunteers and landowners.

"Well over 100 feral cats were dispatched within the first 12 months.

"Breeding is successful at Rotokare and pāteke are often seen at night wandering around the buildings, car park and camping areas."

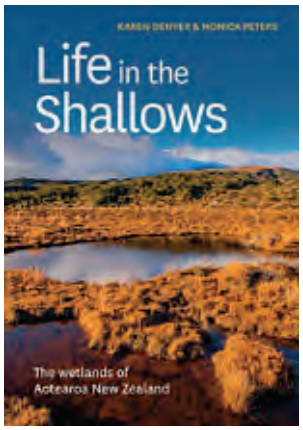
A pāteke/brown teal pair. *Photo Bernard Spragg*

During the past year 154 more pāteke were released at Rotokare – 50 in January 2022, 30 in February, and 74 in May.

Pāteke ducklings have been spotted around the reserve since spring, she says.

Review

'A book about bogs'



Jenny Nicholls wasn't too excited about the prospect of reading a book on wetlands. But she soon changed her mind. Here's what she wrote for the *Waiheke Weekender*.

Rarely, a book of popular science will have this effect on me. This week, it was a book about ... all right, I admit it, a book about bogs, published by Massey University Press [July 2022].

Life in the Shallows: The wetlands of Aotearoa New Zealand had been gathering dust on my desk, awaiting a review.

I grew up on a farm, and I tended to think of swamps as boggy paddocks. "Only townies park next to rushes," Dad once told me as he pulled an Aucklander's Ford Escort out of the mud with his tractor.

After reluctantly cracking open Life in the Shallows, I was sucked in. It turned out to be an unexpectedly lively account of a vital part of the landscape, the animals and plants that live there, and the characters who study them: botanists, experts in soil, drones, natural treatment systems, restoration, collaborative Māori research, environmental DNA, citizen science, fish, insects, birds and bats, among other things.

As authors Karen Denyer and Monica Peters explain: Far from being nuisance "boggy paddocks", wetlands do useful work, like absorbing floodwaters and sediment, and processing pollutants — so-called 'ecosystem services'. They are ever-changing and responsive, living, breathing entities, and they can be freshwater, saline, coastal, inland, subterranean, alpine, geothermal or frozen.

Much work to preserve the remnants of our wetlands is being done by community groups, and Peters is keen, she says, to "sweep away desiccated formal language, jargon and tight stylistic conventions to create content that can be understood and then applied".

The book achieves this spectacularly well, conveying lots of information in a digestible format.

There are maps, instructions on how to walk through wetlands ("Red Bands for bogs, tall gummies for fens, and waders for swamps"), breakout boxes on rare plants to photograph, ingenious ideas and chance discoveries, a list of wetland plants and animals with their Māori names, a travelogue of wetlands to visit (with details on access), and well-chosen quotes from researchers who have spent a lifetime squelching through bogs.

Like Dunedin botanist Dr Peter Johnson, who prefers hardcover notebooks because a "hard cover allows it to be sat upon and also held between the teeth when standing in a lake or climbing a bank".

This instant classic might not feature new galaxies and gold-coated beryllium lenses, but it shines a light on a critically important part of the landscape, and has shown me worlds I never knew existed.

Valued member worked hard for DU

With heavy hearts, Ducks Unlimited shares the news of Julie's death late last year.

Joining the Manawatu chapter of DU in the late 1980s, Julie quickly became an integral part of the group.

Husband Neil, a former DUNZ president and longstanding current Board member, took on the secretary role in the chapter and then nominated and accepted Julie as the treasurer in the same meeting.

During the 1990s and 2000s, the Manawatu chapter had a strong membership and held multiple annual fundraising events.

Julie and Neil were integral to the success of these events, putting in many hours of hard work, with their three daughters in tow.

As well as the helping to organise the annual dinner and auction, the Candys also held a clay bird shoot, initially at a run-off block near Foxton and later at their farm in Woodville.

Julie Candy
May 1954-October 2022

It was a massive undertaking by all involved, Julie was always found at the registration table, keeping everyone in line and making sure all was running smoothly.

Julie's passion for nature and gardening spurred her interest in wetlands and their environment. Several years after the Candys moved to the Woodville farm, the decision was made to dam a wet paddock area to create their wetland.

Many hours of planting and care have created a really special area, something which so many people have been able to enjoy over the years.

The house was even renovated so the view of the pond was the focal feature of the living area. Her favourite spot for a coffee was side by side with Neil, in the window, watching the birdlife and soaking up the vista.

She had hoped to make it to the AGM last year for the last time, but sadly her health had deteriorated and they were unable to attend.

Before she passed, Julie spoke very fondly of her time in DU, the many people she met and the lifelong friends she had made.

She will be greatly missed.

In Brief

Horowhenua wetland design

Horizons Regional Council has been seeking feedback from the community about the design of a proposed wetland near Lake Horowhenua.

Horizons chair Rachel Keedwell says, "The recent completion of the master conceptual design for the wetland complex is an exciting step towards improving the water quality of both Lake Horowhenua and the catchment."

The project has been under way since the council received Jobs for Nature funding in 2020.

"The initial wetland complex construction will help to reduce the amounts of nitrogen, sediment and phosphorus entering the lake," she says.

The council aimed to have a consent application lodged by mid-2023, with the first stage built by 2025.

Bitterns die on roads

Efforts to save the bittern have been dealt a blow with a second bird in six months being killed on Taranaki roads.

Taranaki Regional Council senior ecologist Halema Jamieson says the most recent death was discovered last year during a survey of bitterns on the Mōhakatino River south of Mokau.

"It's the second one that I know of that's been hit at that spot in the past six months." Mōhakatino is probably one of only a handful of breeding sites in Taranaki, she says.

Rats let loose at Rotopiko

Ship rats will be let loose inside the predator-proof fence at Rotopiko in a desperate bid to deter thousands of pest birds roosting there overnight.

Flocks of starlings, sparrows and pigeons – believed to number as many as 500,000 birds – have been roosting at Rotopiko, a network of peat lakes near Ohaupo south of Hamilton.

National Wetland Trust (NWT) executive officer Karen Denyer says, "The volume of faeces from the sparrows, starlings and feral pigeons is a big threat to water quality. The pest birds are creating an unwanted nutrient loading in the lake estimated to be six times what we might expect to see from the wider catchment."

Several methods have been used to try to get rid of the birds, and when DUNZ visited Rotopiko on its conference field trip in 2018, trials had begun using bangers and lasers lights. These had not been successful.

At the end of the experiment, the rats will be removed, but if the operation is successful, rats may need to be periodically reintroduced as an ongoing pest bird management tool.

Other methods will be considered if the rat operation does not work.

Editor remembered

DUNZ notes the passing of former *Flight* magazine editor Juliet Oliver at her home in Carterton in mid-January.

Juliet edited *Flight* from the end of 2001 until mid-2005.

Signing off in the April 2005 issue, she wrote: "It has been an exhilarating and sometimes scary flight (what's the duck version of flying by the seat of the pants?) with good people.

"I've enjoyed making each issue out of nothing into something 'good enough to put on a coffee table', as one person said of the last one."

She is survived by her three children.

wetland care NEWZEALAND

Wetland Care Scholarship

DUCKS UNLIMITED

Interested in studying wetland birds or wetland restoration?
A Wetland Care Scholarship could be for you!

BACKGROUND/PURPOSE

Wetland Care Research Scholarships are Ducks Unlimited-sponsored scholarships applicable to any student currently enrolled or affiliated with a New Zealand university.

Funds are aimed at encouraging and supporting students who wish to push the boundaries of what is known about wetland restoration and conservation.

Up to $20,000 is available annually to cover up to four separate scholarships of $5000 each.

Funds can be used to support student living costs or cover the costs of equipment purchase, logistics and consumables.

CRITERIA

Applications will be accepted from students/researchers affiliated with universities interested in making a difference through wetland conservation.

Funding is aimed at student projects designed to facilitate better management of New Zealand wetlands or their environment. The student project must be based in New Zealand or be of direct benefit to New Zealand based on current wetland conservation issues.

Preference will be given to applications that demonstrate some of the following criteria:

- projects of direct benefit to New Zealand based on current wetland conservation issues
- innovative thinking that pushes the boundaries of what is known about New Zealand wetland conservation
- research on native threatened wetland bird species
- research with clear objectives and measurable outcomes
- research with a strong wetland management and conservation applications.

VALUE

Wetland Care will award up to four scholarships of $5000 each in two funding rounds a year, with applications closing on March 31 and September 30.

Funds will be paid in one lump sum to successful candidates upon commencement or completion of milestones agreed at the time the scholarship is awarded.

INTERESTED? WANT TO KNOW MORE?

Please email scholarships@wetlandcare.org.nz with your questions.

Terms and conditions, plus an online application form, are on the Ducks Unlimited NZ website, www.ducks.org.nz.

DU Membership form

☐ YES, I wish to join Ducks Unlimited as a member OR ☐ I wish to renew my membership

Name .....

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DUCKS UNLIMITED NEW ZEALAND INC.
For Wetlands and Waterfowl.

All subscriptions include GST.

- ☐ Junior (under 16) $10
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- ☐ Family $70
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- ☐ Life (one payment) $3000
- ☐ Bronze Sponsor $90
- ☐ Silver Sponsor $160
- ☐ Gold Sponsor $310

Note: Bronze, silver and gold sponsorships include the membership fee of $60 and the balance is received as a donation, which is tax deductible.

Please pay by internet banking, credit card or online at ducks.org.nz under 'Supporter Options'.

Internet banking: Ducks Unlimited NZ, account 02-0312-0038729-00. Use the code DUNZAPP and your initial and surname as the reference.

Credit card: ☐ Visa ☐ Mastercard Number ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Expiry date ☐☐☐☐

Scan this form and email to info@ducks.org.nz or post to Ducks Unlimited, PO Box 165, Featherston 5740

We deliver and advocate for effective wetland restoration, development, research and education; and support the preservation of threatened waterfowl and the ethical and sustainable use of wetlands.