

Flight



ISSUE 178

March 2020



**DU goes to Gisborne
Welcome to Jim's World
World Wetlands Day**

FROM THE PRESIDENT

Hi everyone, I hope you survived the festive season unscathed.

I developed a headache over the summer which has just got steadily worse, and I think it has something to do with banging my head against a brick wall by the name of "BUREAUCRACY".

Last time I told you we had at last got consent to divert water from Matthews Lagoon into the Wairio wetland, unfortunately the job was not completed before the wet weather set in last autumn and consequently the canal wall failed.

Also the waters have now been muddied by the fact another outside person has come along saying there are some rare species of aquatic life that need to be protected and the water should not be put into Wairio.

As the argument rolls on, the summer is slipping by with nothing being done and I am beginning to despair.

That is my rant for the month and I look forward to seeing you all in Gisborne.

Ross Cottle



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Birds of a feather...



DU Director Will Abel suggests Prague could spare a few of its mute swans to boost the flagging numbers in New Zealand. He took this photo of a river in Prague on a trip to Europe last year. See Swan Song? p11.

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Cover: A spoonbill in a canal alongside Linwood Ave, Christchurch. See story, p14.

Photo Bernard Spragg

Back: Two pied stilts at Wairio wetland, Wairarapa, in December 2019.

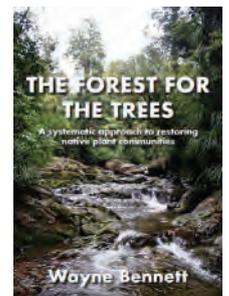
Photo Alison Murray

Giveaway winner

The winner of the draw for the book giveaway in November was Ian Jensen.

The book, *Forest for the Trees*, by

Wayne Bennett, has been posted to Ian. Copies of *The Forest for The Trees* are available for \$45 from wayne@forestflora.co.nz or it is free to read online at www.forestflora.co.nz.



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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, **Friday 14 August 2020** in time for the September 2020 issue.

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

Flight is online

Flight magazine, including many previous issues dating back to 1981, are online and available to download as PDFs at www.ducks.org.nz. More will be added as they are made available to scan.

Land of the first light

For this year's annual conference and AGM, Ducks Unlimited members will head east to Gisborne, land of the first light.

The venue for the conference, being held on 31 July and 1 August, will be the Emerald Hotel in the heart of the city.

A treat is in store for the field trip, with Nick's Head Station in Muriwai agreeing to let delegates and their guests visit its wetland on Saturday, 1 August.

Organisers are arranging for three speakers during the wetland visit. They are:

- Kim Dodgshun, manager of Nick's Head Station – welcome and introduction
- Steve Sawyer, owner/operator of EcoWorks, which implements many conservation activities at Nick's Head
- Sandy Bull, a driving force behind



Sandy Bull releases pāteke at the Nick's Head Station wetland.

Photo Steve Sawyer

much of the conservation work in Gisborne.

Nick's Head Station is by the ocean so an alternative may be required if the weather does not allow the visit to go ahead as planned.

At this stage it is suggested to have the speakers at the Knapdale Eco Lodge if the weather is too bad.

Knapdale is somewhat protected in poor weather so it may be possible to view the wetlands there instead.

But, with Gisborne having the second highest sun hours in the country, conference organisers are hopeful DU can visit Nick's Head Station.

DUNZ scholarship awarded

The first Ducks Unlimited scholarship has been awarded to Shannon Bentley who is studying for a master's degree at Victoria University of Wellington.

Shannon's research will include field work at the Wairio wetland.

She is originally from the Wairarapa. DU is planning a small presentation at the university to award the scholarship to Shannon in March 2020.

Kimi's special high country mission



Kimi, the world's only bittern dog, recently took a break from her usual job of looking for bitterns to take on a special role for her best friend, DU Director Emma Williams. She was to be ring bearer at Emma and bat expert Colin O'Donnell's wedding. The couple were married on 3 January at Criffen Station, a high country station in Wanaka. We assume bitterns and bats are regular breakfast conversations for the newlyweds. Congratulations Emma and Colin.

Photos Alpine Image Company



‘Welcome to my world’



Jim’s house by the big pond, and right, an early photo from 1991 when the house was first built and extensive planting in the area had not yet begun.

Every tree on Jim Campbell’s family farm has a story to tell – and many of them he has nurtured from seedlings. Pockets of the 508-hectare farm resemble an arboretum, with precious specimen trees fenced and surrounded by other trees planted there to protect it from stock and the elements.

Years ago Jim attended a Landcare lecture about having a good influence on the land.

Today the giant eucalypts, the valuable Tasmanian blackwoods (*Acacia melanoxylon*) (a good straight trunk can be worth \$4,000 a cubic metre, says Jim), Douglas firs and Oregon pines, totara, sturdy pin oaks, giant redwoods, some kahikatea that Forest & Bird gave him, towering Leyland cypresses planted to screen the farm from SH2, tupelos and liquidambars with their brilliant autumn colour and hundreds of others are all testament to how he carefully he took that lecture to heart.

He is watching the progress of a hybrid oak he got from Appletons Tree Nursery in Nelson, a *Quercus robur* ‘Fastigiata’,

which has an elegant upright shape and appears to be thriving.

The kānuka and mānuka, which are almost in full flower (“it’s nearly time to tell the beekeeper in bring more hives”), have gained more value – “from cutting it and bulldozing it, I am now planting it... for the bees”.



On his daily rounds of the farm that his son, Simon, now runs, Jim gets a lot of pleasure seeing the trees stake

their claim on the land, both the trees that preceded him and the ones he has planted. The biggest rata on the property was there long before he took over the farm.

“I thought the stock were going to kill it because they used to camp under it so that’s why we fenced it off and planted around it; that tree is now worth about \$5,000 to me”, but it’s not a cost that Jim begrudges.

It’s clear to see Jim, who is now in his mid-70s, loves his trees.

When he ran the farm, which has been in his family for more than 150 years, it was about 60:40 cattle to sheep, with 200 station cows. Now his son runs 40 station cows but he’s also rearing bulls, which is cheaper than buying them in. They are mostly speckle park crosses and angus hereford crosses.

Jim enjoys still being part of the farm and helps out with the haymaking – mowing paddocks – and checking on stock and other tasks. “I need to get out – this morning I’ve done a couple of hours of spraying,” he said.



Jim Campbell enjoys showing visitors around the farm, and when they take in the view at the top of the hill (right) towards the Tararuas, he says, "Welcome to my world". In the background is the Three Kings and Mt Holdsworth.

In line with current regulations, and with more stringent rules around the fencing of waterways likely, Jim says his son is lucky because a lot of it, along with planting, has already been done. "We were ahead of our time. We did it mainly to control the river wood trees, which were taking fences out."

Simon is now trialling different tree varieties to carry on the planting but it is still going to be a massive cost to ensure all the waterways are compliant.

The planting has other benefits as well as keeping stock out. Jim has discovered that a one-kilometre section of one of the streams that has established trees along it is about 2 degrees Celsius cooler because of the shade.

The Te Mara stream goes into Waipoua River on the property but by the time the Waipoua has reached Masterton, it has accumulated a lot of water, from the Kiriwhakapapa, Mikimiki and Matahiwi streams as well.

About 20 acres (8ha) of the property between the woolshed near the homestead, where Simon now lives, to where Jim lives above the "Big Pond" is covered by a QEII covenant. Jim thinks now that the covenant should be extended to another area on the farm called Norm's Marsh.

It was built in tribute to Norman Marsh, a great supporter of DU and generous benefactor when it came to paying for the cost of creating wetlands, several – on Jim's and other properties – thanks to Norm's largesse. Jim, who was made a Member of the New Zealand Order of Merit for his services to conservation



Cape Barren geese on the lawn outside the house waiting for treats.

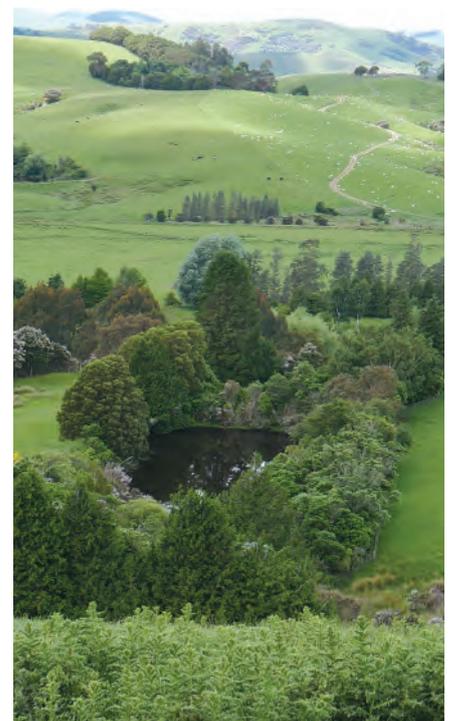
in 2016, is a life member of the QEII National Trust.

The property has about 32 ponds in all. One was created after former DU president John Cheyne, on a visit to the farm, suggested a particular rushy patch would make a good wetland. "It took me three days to bulldoze it and I had to hire a digger for a half-day," Jim says.

Another he calls the "10-Minute Wetland" – "that's how long it took to block the end of it with a bulldozer – a pair of shoveler nested there this year and had five ducklings".

On the big pond, Jim's two mute swans, which he suspects are both male, compete with scores of scaup for the daily treats delivered by Jim. He says there were 32 scaup ducklings on the pond last year. As well as feeding the swans and scaup and other ducks, Jim has more for the pheasants, Cape Barren geese and quail that frequent the lawns around the house.

Continued next page



One of the ponds, the "Yellow Pine Wetland", nestled among the trees that Jim has planted.



From previous page

The other birds that visit the farm also have plenty to feast on. There's dragon's gold kowhai and kaikamako for the tui and bellbirds, tree lucerne, or tagaste, for the wood pigeons and Himalayan strawberry trees, which all the birds love. He notes that the lucerne makes excellent firewood, "as good as maire", something that many people don't realise.

A welcome distraction over Christmas and New Year, as Jim recovers from an injury, has been the arrival on the lawn of some baby quail looking "like little bumblebees".

He has been trying to breed quail for several years – there were five last year – but this year he has spotted one pair with 11 chicks, one with three and another with two chicks. "I can just look out the window and see them feeding on the lawn. It's just magic to have them around all the time."

For Jim, one of his favourite times of day is at night – sitting out on the deck having a whisky, with the Cape Barren on the lawn and the pheasants coming up to use the automatic feeder, and quail running along the deck.



From top left: Many of the eucalypts – this one is probably *Eucalyptus fraxinoides* or *Eucalyptus delegatensis* – have bolted since 1990 when Jim planted them; seedlings (kānuka and mānuka, whau, blackwood and a Holm oak) waiting to be planted out; and one of the two mute swans and some scaup on the big pond.

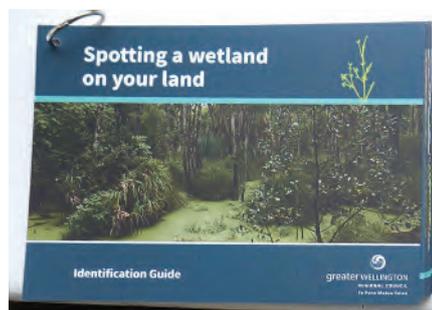
Handy guide defines what makes a wetland

The first step in protecting wetlands is being able to identify them. To help landowners identify wetlands on their property, Greater Wellington has developed a guide: *Spotting a wetland on your land*.

This guide is a set of durable flip cards designed to be used

outside, containing photos of different wetland types and plant species likely to be found in and around wetlands.

Greater Wellington is also helping landowners to protect and manage waterways through its Healthy Waterways programme. This support can include help with the cost of fencing, pest control and planting.



If you have any questions about wetland identification or are planning to do anything in or around waterways or wetlands, get in touch for free specialist advice at wetlands@gw.govt.nz or riparian@gw.govt.nz.

For more information visit www.gw.govt.nz/healthy-waterways.

World Wetlands Day events



Left: The Te Awamutu Scouts, Cubs and Keas give a joint talk about native bats while Treelands install bat roost boxes during the Pūweto Festival at Lake Rotopiko. Above: The virtual reality lake dive at Rotopiko.

The importance of wetlands was celebrated on Sunday, 2 February 2020, with events around New Zealand for World Wetlands Day.

This year's theme was *Wetlands and Biodiversity*, to draw attention to the global decline in biodiversity and the crucial role of wetlands as biodiversity hot spots. The day marks the 1971 signing of the International Convention on Wetlands in the Iranian city of Ramsar.

The 2020 Pūweto Festival honoured the day at Lake Rotopiko, which DU visited during its 2018 conference in Hamilton.

Wetland bird masks, a critter colour-in, mudfish scrabble, eels and ladders, live geckos, kahikatea tree climbing and a virtual reality lake dive were among the offerings for families who attended.

The event was named after the shy pūweto/spotless crane that lives around the margins of the lake.

Rotopiko is being developed into a National Wetland Centre, with newly completed boardwalks, information panels and an interactive discovery trail.

During the festival, Treelands (local arborists) climbed up kahikatea to install bat roost boxes – something they have been doing all over the region.

Other activities around the country included a guided walk at Harbourview-Orangihina Park in Te Atatu on 1 February and Matuku Reserve Trust in West Auckland had an open day to show off its wetland restoration and give the public a chance to see pāteke.

In Wellington, Zealandia visitors were able to talk to experts from organisations including the Hakuturi Roopu, Greater Wellington Regional Council and Lakes380 to learn more about freshwater and wetlands in New Zealand.

In Marlborough, visitors were invited to check out a community-led wetland restoration project and walk around the Grovetown Lagoon. A guided walk was held around the Travis wetland in Christchurch.

The QEII National Trust took the opportunity on World Wetlands Day to introduce a new QEII wetland covenant to protect the Galloway Wetlands in Ashburton.

The trust said: "Craig and Lyn Galloway bought their farm in 1986 on the south bank of the North Branch of the Ashburton River. When they purchased the property, all paddocks had been developed except for the wetland paddock which remained uncultivated.

"Craig and Lyn applied to the Ashburton Water Zone committee for a grant to expand their successful riparian planting programme to the margin of a stream and man-made pond.

"Spring-fed channel wetlands like theirs have virtually disappeared elsewhere on the Canterbury Plains. They decided to place a covenant over the whole 6-hectare wetland complex to preserve the relict pre-human vegetation.

"The covenant is a rare example of the highly diverse wetland complex and landform created by hydrologically

connected springs associated with braided rivers. The wetland ecotone contains a spring-fed mossy fen, bog rush channel wetland, stream, man-made ponds, pukio and kiokio fern swamp, and toetoe marsh.

"The Galloway Wetlands protect the only known mānuka, sphagnum moss and the pink-flowered wetland ladies tresses orchid (*Spiranthes novae-zelandiae*) on the Ashburton Plains."

Matagouri and the rhizomatous shrubby violet known as a porcupine shrub have survived on the stony ridges in the covenant but both are rarely encountered elsewhere in the region, the QEII Trust said.

The landowners plan to supplement these species with new plants, grown from seed sourced from the local area.

This covenant is one of very few that meet all four national priorities for protecting rare and threatened biodiversity on private land.

But it was not all good news for wetlands. In a statement released to mark World Wetlands Day, Forest and Bird said West Coast landowners had wiped out more wetlands in the past 20 years than landowners in any other region.

Aerial images from around the country supplied by Landcare Research showed that wetlands on private land were still disappearing at an alarming rate.

The West Coast was the largest wetland region in New Zealand, with nearly 84,000 hectares of freshwater wetlands, 14 per cent of them in private ownership, Forest and Bird said.

Tree survival, growth, sequestration and natural regeneration of a Wairarapa swamp forest restoration project

Stephen Hartley, Centre for Biodiversity and Restoration Ecology, Victoria University of Wellington, NZ; Benoit Magat and Manon Hulley, AgroSUP, Dijon, France; Aurore Fanal, Gembloux Agro-Bio Tech, Belgium

INTRODUCTION

Natural, restored and reconstructed wetlands can enhance biodiversity and multiple ecosystem services, including flood control, freshwater quality and carbon sequestration (Tomscha et al. 2019). However, there is a lack of documented data on the survival, growth rates and sequestration trajectories of native tree species commonly used in such projects. Here we report the results of eight years of monitoring at the Wairio Wetland Restoration site.

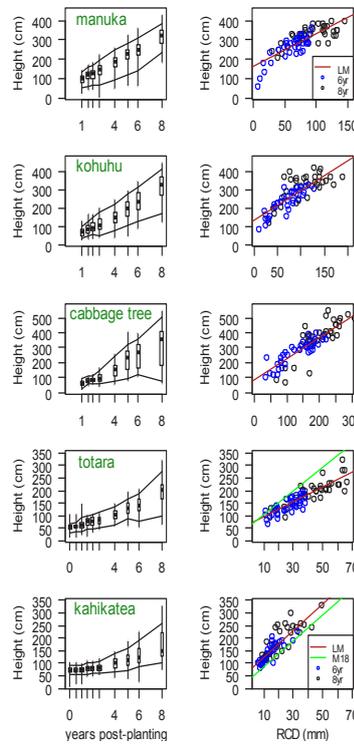
METHODS

More than 2000 trees of 8 species were planted in experimental plots in a retired paddock at Wairio wetland (near Lake Wairarapa). Survival and height (H) were measured at annual intervals, and from 2017, diameter at breast height (DBH) at 1.35m and root collar diameter (RCD) at 10cm were recorded from a subsample of each species. Lines of best fit (LM) were fitted to the relationship between height and root collar diameter, and compared to relationships recorded by Marden et al. 2018 (M18) for tōtara and kahikatea.

Total carbon content was estimated following the methods of Bergin et al. (2011) using the equation $\text{Carbon (kg)} = 0.0186(\text{RCD(cm)}^2\text{H(m)})^{0.976}$, except for cabbage trees for which we developed our own volumetric equation.

RESULTS

After 8 years, mānuka (Mā) and cabbage trees (CT) had the highest survival rates (52-56%), the podocarps, kahikatea (Ka) and tōtara (Tō), had survival rates of 41-48%. Cabbage trees grew tallest, kōhūhū (Kō) and twigg bush daisy (TTD) sequestered the most carbon over the 8 years (7.4 and 5.1 kg per tree respectively) and kahikatea and tōtara the least (0.1 to 0.8 kg per tree).



RCD = Root collar diameter

FIGURE 1 ↑ Left: Height from 0-8 years' post planting (central black dot is the median value and lines represent the 5th and 95th percentiles). Right: Height in relation to root collar diameter

TABLE 1 ↓ Average survival and carbon content by species

Species	% survival after 8 years	Average carbon (kg) per tree
Kōhūhū, black matipo, <i>Pittosporum tenuifolium</i> (Kō)	48.1	7.38
Twiggy tree daisy, <i>Olearia virgata</i> (TD)	42.9	5.10
Mānuka, <i>Leptospermum scoparium</i> (Mā)	55.9	4.67
Ti kouka, cabbage tree, <i>Cordyline australis</i> (CT)	52.3	4.64
Karamu, <i>Coprosma robusta</i> (CR)	15.4	3.32
Mingimingi, <i>Coprosma propinqua</i> (CP)	34.1	1.62
Tōtara, <i>Podocarpus totara</i> (Tō)	41.1	0.81
Kahikatea, <i>Dacrydium dacrydioides</i> (Ka)	47.7	0.12



CONCLUSION

At initial planting densities of 4440 trees per hectare (1.5m spacing), similar planting projects bordering ephemeral wetlands in the lower North Island using the same species mix may expect to sequester 33 tonnes of CO₂ per hectare in the first eight years.

More importantly, the eight year old mānuka and kōhūhū have shaded out tall fescue grass and created conditions in which natural regeneration of kahikatea and tōtara can begin. Podocarps have slow growth initially, but ultimately these will be the most massive trees of a restored swamp forest.

ACKNOWLEDGMENTS

The Wairio Wetland Restoration Trust, Ducks Unlimited, Greater Wellington Regional Council, Department of Conservation, Fish & Game, Ngāti Kahungunu, Bridget Johnson, Aprille Gillon, Tapuwa Mapara and Florence Wellington.

IMAGES ↑ Growth of kōhūhū (Kō) and mānuka (LS) trees.

RIGHT → Tōtara seedling under kōhūhū and mānuka.



REFERENCES

Bergin et al. (2011) Technical Bulletin Tane's Tree Trust Sect. 10.5 & pers. Comm; Marden et al. (2018) NZJ Forestry Science 48:9; Tomscha et al. (2019) Ecosphere 10:10. See also: www.wgtn.ac.nz/sbs/.../wetlands-for-people-and-place.

Let's hit them with some tech

DU Director **Dan Steele** looks at another tool to help in the fight against predators.

The biggest problem with conservation in New Zealand is complacency and believing that someone else is looking after mother nature on your behalf.

So many people leave things to the Department of Conservation and believe that that's enough.

It's not, it's going to take a huge combined effort from many New Zealanders and particularly landowners to slow the decline in our biodiversity caused by these introduced pests.

But it is not easy to start a conservation project, it is usually an extra job for already busy landowners and who pays, how is it going to be maintained and what should be done?

We ran a really good trapping demonstration for our local sustainable farming group last week, the Taumarunui Sustainable Land Management Group.

Mustelid expert Professor Carolyn (Kim) King, of Waikato University, gave a great overview of New Zealand pests, how we got to this point and whether pest-free New Zealand has any hope of success.

The jury is still out on this. But she believes future technology may well make it possible.

We're trying to demonstrate that it's quick and easy to set a few traps around the farm; knowing what to do is often the biggest obstacle with farmers. Then of course there is the capital cost to set up traps and the ongoing maintenance.

Goodnature, a Wellington pest company founded 13 years ago, is certainly making the setup and the maintenance easy with their well thought-out technology.

The new Chirp feature on their traps provides bluetooth information from the trap direct to your smartphone.

You link your phone to the trap and it logs the GPS coordinates, and when you check the trap, it tells you how many strikes the trap has had and when.

Then once you're back into cellphone reception or internet connection, the information is automatically uploaded



Trapper Graham Fitzgerald, left, Prof Kim King, and Sam "the trap man" Gibson, from Goodnature, at the trapping demonstration.



Left: Rounding up the usual suspects, a stoat, weasel and ship rat.

Above: A demo of how the Goodnature A24 rat and stoat trap works.

to the cloud onto the Goodnature world map.

Your traps and kills can be viewed by anyone looking at the map – they show up orange.

Cunningly though, when people are viewing your traplines, they can only see to within 150 metres of where you have your traps placed, so people can't turn up and steal or sabotage your traps.

The owner of the traps can however have their GPS coordinates down to a metre or two.

We are finding the A24 Goodnature traps a good way for people to sponsor some traps, to be involved and stay in touch with how the conservation work is performing.

It's so important to be holding our ground against predators; this week at Blue Duck Station, we have had a kaka sighting and a report of a bittern booming.

■ The Goodnature A24 rat and stoat trap automatically kills 24 rats or stoats (and mice) one after the other, before you need to replace the CO₂ gas canister. When the pest tries to reach the lure inside the trap, they brush past a trigger which fires a piston, killing them instantly. The piston retracts and resets ready for the next pest. The trap comes with a pump that refreshes the lure automatically for six months. Three different trap kits are available: a trap-only kit, a trap with a counter or a trap with Chirp.

Good neighbours

A short drive from Christchurch Airport is a 1100-hectare block of land where construction, quarrying, concrete and asphalt companies, livestock and salmon farming co-exist with conservation in a unique business model.

The land is owned by the Isaac Conservation and Wildlife Trust, which was formed in 1977 to continue the conservation work of Sir Neil and Lady Isaac, Diana, who had owned and lived on the land. "Their intention was to leave the place in a better condition than they found it," says trust administration manager Catherine Ott.

In the early 1950s, Sir Neil and Lady Isaac founded Isaac Construction. The tagline of combining construction with conservation demonstrates the construction company's commitment to conservation.

Today the successful construction company is one of the leaseholders on the land which provide the income for the land rehabilitation and conservation activities. Catherine says this business model is really important because it means the trust is self-funding and can exist in perpetuity without the need to fundraise. The assured income also allows planning for the future with confidence.

The main focuses of the trust are the conservation of endangered native flora and fauna, conservation of heritage buildings and the study of conservation through education and research.

Peacock Springs, which covers 73 hectares, is the main conservation area where the endangered NZ species are bred for release into the wild. It is off-limits to the public.

The trust has a memorandum of understanding with the Department of Conservation who has requested that the trust currently focus on five bird species – whio (blue duck), pāteke (brown teal), black stilt (kakī), orange-fronted kākāriki and the New Zealand shore plover.

The orange-fronted kākāriki numbers were desperately low, Catherine says, and though the DOC put them on predator free islands, they didn't thrive as well as expected. DOC now



From top, paradise shelducks over Lake Woodley; one of the aviaries with water flowing through it, ideal for young whio to learn how to live in the wild; and a pond at Peacock Springs.



ISAAC CONSERVATION AND WILDLIFE PARK CENTRE



A wetland area created from a reclaimed quarry with one of the large aviaries in the background, and right, one of the large aviaries, currently home to New Zealand shore plover and black stilt, with an asphalt factory behind it.



The aviaries are designed for breeding, not display. This aviary for orange-fronted kākāriki is not easily accessible and the birds are difficult to spot in the dense foliage.

release them in the south branch of the Hurunui in the Arthurs Pass region where intensive predator control is undertaken. At the time of writing there are thought to be 200 to 300 orange-fronted kakariki alive there, however this population could crash at any time.

“We have specialised knowledge garnered over 20 years in the captive breeding for release. Another reason for our success is because we are not open to the public. The aviaries are not designed for display but for breeding, so you may never see a bird.”

The kākāriki thrive best in dense, dense bush. “Our aviaries are so densely planted, when chicks fledge, it can be very difficult to locate them.”

Catherine says Peacock Springs has

also focused on waterfowl and wading birds because it has a good source of water running through the aviaries, encouraging invertebrates such as water boatman that assist the young birds to learn to forage.

The birds are being bred for release into the wild so some of the aviaries are 7 metres high, allowing the birds such as black stilt to build up strength to fly to escape from predators.

Catherine says that although the public are excluded from most of the conservation activities, an area is open to the public on the easternmost boundary except during lambing and other farming operations. The Isaac Loop track and Isaac Farm Walk are easily accessible from Clearwater Golf Course.

“We have retired a significant portion of land beside the Otukaikino stream and fenced it and planted about 50,000 natives along the loop track. We also have a planting programme across other areas of the Isaac site as part of our quarry reclamation programme to provide stepping stones for birdlife and invertebrates,” Catherine says.

The trust employs 16 to 20 staff, with more needed during the breeding season. Most are skilled with aviculture experience.

Lady Isaac was not just a wildlife conservationist, but also a conservationist of historic buildings. The development of the Isaac Heritage Village is based around 14 relocated historic Canterbury buildings. Many of these unique and irreplaceable



Catherine Ott, administration manager for the Isaac Conservation and Wildlife Trust.

buildings (c1860 to 1940), were threatened with demolition. The village will eventually be open to the public.

Swan song?

Peacock Springs has always donated its mute swans to Ducks Unlimited for distribution to wetlands but in recent years this has not been happening. Catherine Ott explains why:

At one stage the centre had four pairs of mute swans but one died and another had to be relocated because of aggression issues – it was prone to attack staff and their cars without warning, leaving peck marks all over the cars.

“It is now in a pond miles away from anyone.

“Like the Cape Barren [which the trust also used to donate to DU], the swans have aged and appear to be beyond breeding.”

Another lost duck?



Alan Fielding follows up his story on the white-eye duck with that of another duck disappearance – the pink-eared duck.

Photo Aviceda/Licence: CC BY-SA 3.0

The pink-eared duck or zebra duck (*Malacorhynchus membranaceus*), whose Māori name appears to be lost with it, is one of only two genera of the tribe *Malacorhynchini*, the other being the Salvadori's duck from New Guinea.

The pink-ear, known in New Zealand from bone fragments of two individuals found by Dr Robert Falla in 1939-41 at Pyramid Valley, north Canterbury, is of geologically recent origin (about 3,500 years), strongly suggesting they are of the Australian species which is widely distributed in inland south-east and south-west Australian and also to a lesser extent in the north-east.

Taxonomical discussions have suggested that the bone fragments may be of a separate species – the so-called Scarlett's duck – but there remains the doubt.

Pink-ears are a highly nomadic species and their numbers vary greatly depending on the rainfall. Their outstanding mobility makes it easy to see how after a good westerly storm, this country might have been attractive to them. Although the lack of much evidence suggests these birds were vagrants and did not breed here, a stray pink-ear turned up in Auckland in 1990, proving just how mobile the species is.

One thing remains certain: they were self-introduced and therefore indigenous. Their numbers in New Zealand may have escaped suitable preservative sedimentation and they were perhaps more numerous. If this had been during the pre-Māori period,

it could explain the loss or non-existence of a name.

Pink-ears are astonishingly quiet, trusting birds which leads one to wonder whether that led to their downfall in colonising New Zealand.

These ducks are unmistakable and quite delightful with their distinct zebra stripes and large bill – a bill that is spatulated to a much greater degree than the shovelers and gives them a distinct square-tipped appearance.

Unlike shovelers, the young pink-ears are hatched with the spatulate bill already present along with the distinct "pink ear", a small pinkish patch slightly behind the eye and difficult to see at a distance. This, as with the zebra stripes, is pale in the juveniles.

The strangely large bill, with its nostrils higher up than usual, is an efficient strainer of tiny organisms such as algae, plankton, insects, crustaceans, and molluscs from the water and mud. This foraging takes place usually without up-ending and never by diving.

Breeding is usually heralded by the sudden invasion of typically shallow, seasonal wetlands (rainfall not exceeding 40mm a year), preferably of long-established origin so that food species populations are high.

The water levels may recede quite rapidly so reproduction needs to be speedy and opportunistic so the nests, typically drowned in down, may be built almost anywhere, often in great

density – and might be dispensed with altogether and replaced with "dump laying" even on top of active nests.

If conditions remain suitable, however, they may breed for almost the whole year, with both parents sharing nursery duties. It is thought they may pair for life.

Both genders make a chirping, twittering, strange whistling sound, which while soft and deeper in the females and "purring" when communicating with young, can be quite noisy en masse. In flight, these birds utter an unusual trilling sound.

Incorrectly believed to be weak fliers, they are quite strong and outstandingly manoeuvrable, extremely gregarious and freely sociable with other waterfowl, notable grey teal.

A highly specialised and successful species, it can inhabit seasonal inland shallow waters, brackish, marine or fresh, through to permanent deeper water and even coastal inlets and mangrove wetlands.

Considering the huge numbers of plant and animal species that have been lost to this country, why not recover what we can, even if it is not endemic?

■ In an earlier life Alan Fielding founded the Manawatu Estuary Trust and has established several public and private protected areas. He also instigated and coordinated the first National Mangrove Symposium (in Northland) for the Nature Conservation Council.

Look out for grey teal bands

DU member **John Dyer** wants to enlist members' help in tracking grey teal and reporting on any banded birds they come across.

Small numbers of grey teal (*tētē*), which have been known to fly the length of the country, are being banded near Pokeno, Waikato, so you might find a banded grey teal anywhere between Kaitaia and Invercargill.

The band in the photo is the style being used; marked "SEND DOMINION MUSEUM NEW ZEALAND". At one stage the Dominion Museum in Wellington administered bird banding before the Wildlife Service and later Department of Conservation took on that role.

Some of these older bands are still being used and some longer-lived birds that were around then are probably still alive. Grey teal, however, tend to have a much faster natural turnover and a five-year-old bird is an old one.

It's suggested any recovered bird band details, (number, species, where, when, how, who found it and your contact details), should be registered by phoning 0800 BIRD BAND, which is a freephone, 24/7 number. You can also go online.

Keep the band somewhere safe and if you don't get a reply, chase it up. This 0800-number also applies to mallard / grey duck bands.

If you are cleaning out grey teal nest boxes, be aware that if you find a skeleton, a band may have slipped off its leg into the accumulated straw. You could prise the straw apart over something solid like a boat bottom rather than over water. If instead you do hear a "plop", be aware they are not magnetic. How do we know this, you ask? From sifting through mud and water around the nest box with a garden sieve until the lost band was finally recovered.

Grey teal females are somewhat easy to catch on their nest to apply bands to and they are not put off by such research. The bands show they will



A banded grey teal on a nest box, and below, one of the older bands that has been flattened.

Photos John Dyer



often come back to the same nest box or a nearby one for the next few years – sometimes twice in one year.

But you will need a DOC permit to catch and band them. However, Z-series (grey teal and shoveler sized) bands are much easier to apply compared with #27 mallard / grey duck bands. If you'd like to help band grey teal and / or mallard and grey ducks in the Auckland / Waikato region; contact JDyer@fishandgame.org.nz.

Some grey teal bands in the past have been recovered in the hunting season when the protected grey teal have been flying in poor light with similar looking grey ducks, for instance. It was not unusual for the hunter to report that "they found a grey teal band". The important thing is that the information was passed on.

Ducks Unlimited New Zealand started the grey teal nest box scheme, Operation Gretel, around 1974 when the late Jack Worth of Hamilton thought it might be a great way to increase grey teal numbers.

He imported plans of Carolina wood duck nest boxes from the United States and trialled them. The scheme has worked spectacularly ever since.

There is now detailed how-to information online if you too want to play a part making, installing and / or servicing grey teal nest boxes: visit fishandgame.org.nz/game-bird-hunting-in-new-zealand/hunting-resources/making-and-servicing-grey-teal-nest-boxes.

Using game cameras to catch wildlife on film or video is also a fun way of getting new insights into wildlife activity on your pond such as around grey teal nest boxes. But mind the flood levels.

Ducks Unlimited New Zealand
45th Annual General Meeting, 3 August 2019
9am Quality Inn, Whanganui

President Ross Cottle welcomed members to the 45th Annual General Meeting. Welcome to guest speaker Murray Stevenson.

APOLOGIES:

Liz Brook; Dawn Pirani; Paul Pirani; John Cheyne; Sharon Stevens-Cottle; Myra Smith; Glenys Hansen.

Motion: That the apologies tendered are accepted. **Moved:** John Bishop.

Seconded: Jan Abel. **Carried**

MINUTES OF THE LAST AGM

Circulated and copies available at the AGM.

Motion: That the minutes of the last AGM be accepted as a true and complete record. **Moved:** Will Abel.

Seconded: Di Pritt. **Carried**

PRESIDENT'S REPORT – READ BY ROSS COTTLE

Moved: Ross Cottle. **Seconded:** Adrienne Bushell. **Carried**

Financial Report – John Bishop

Explanation of charitable trust requirements. Revenue stream Phrazyn, Treadwells, Muter Trusts, John Mortimer, South Wairarapa Rotary. South Island trip by Ross and Jim around \$600 annually. Board of Directors expenses minimal, lot of meetings by Skype with annual trip to Ohakune.

Motion: That the financial report be accepted. **Moved:** John Bishop.

Seconded: Di Pritt. **Carried**

Waterfowl and Wetland Trust Report – David Smith

The Trust is in good shape. The 2017 balance in Trust \$516,000-ish, since then paid \$40,000 to DUNZ. Currently \$510,394, money paid out covered by Trust. Original fund \$200,000 twenty years ago.

Motion: That the Trust report be accepted. **Moved:** David Smith.

Seconded: John Bishop. **Carried**

Election of officers

Board selects President Ross Cottle, Vice-President Dan Steele, Director William Abel. Nominate Jim Law, John Dermer to stay on. **Nominated:** Di Pritt. **Seconded:** Jim Campbell. **Carried**

Wetland Care – William Abel

2019 short on projects, centred on Wairio and project in Masterton.

Royal swans – William Abel

No trip to South Island, no swans and no cygnets.

Website – Paul Mason

Membership – 280 members, 57 still to pay subs. Includes 61 life members, honorary members. Moving more to electronic payments. Survey done on email/post preference for communications. *Flight* magazine available on website, can be searched by subject. More of the earlier magazines are being scanned on to the website.

Wairio Wetland – Jim Law

Reticulation of water from Matthews and Boggy Pond. GWRC has done work reticulating. Less has been spent this year – about \$5,000. Reticulation funded by GWRC – around \$30,000. DUNZ has spent \$220,000 in total on Wairio. Partners are GWRC doing predator control, DOC – cutting grass on track. Victoria University – research sites at Wairio, planting more specimen trees. Planting day in July with a good write-up in *Times Age*. Ross took reporter Piers Fuller around wetland who wrote a national article on *Stuff*. Restoration committee has \$10,000 in Trust. Significant donation of \$15,000 also in Trust. Members should feel proud of this project.

Whio, blue duck – Peter Russell

Released 72 birds, North Island around 30 at Blue Duck Station. First release in 2000 was 7 birds. Flocks in South Island in three areas. Tasman, concern because of last year with success because of trapping and 1080. Successful year.

Scholarship

Three-year trial of 4 students – \$5,000 each, Victoria, Massey, Christchurch, Waikato. Possibility of 1 Victoria student in 2020 to work at Wairio. Emma has given suggestions to unis of topics of study.

General

Ian Jensen – vote of thanks to Board members and for the organisation of the AGM weekend.

Meeting closed at 10am.

Spoonbills  New Zealand

Reports of sightings in the past decade point to a growing population of royal spoonbills in New Zealand. Te Papa bird expert Dr Colin Miskelly backs this up, saying there are signs that the spoonbill, *kōtuku ngutupapa*, is "increasing at a rapid rate".

The first spoonbill sighting was recorded in New Zealand at Castlepoint in 1861. Sightings increased through the 1900s, with breeding first recorded next to the white heron colony at Okarito, south Westland, in 1949.

Since then it has successfully colonised New Zealand from Australia and is now widespread, breeding on both main islands, and dispersing to coastal sites across the country after the breeding season.

In 1977 the New Zealand population was estimated at 52 birds. The most up-to-date estimate (in 2012) was 2,360 birds, though the population is now thought to have exceeded 3,000.

A colony and nest count during the 2013-14 breeding season found 19 colonies with at least 614 nests.

It breeds in the exposed canopy of tall kahikatea trees, on the ground near estuaries, rivers and harbours, in reeds, in low shrubs, and on steep rocky headlands, tending to breed near white heron and shag colonies.

It prefers freshwater to saltwater but can inhabit both. Royal spoonbill is one of six spoonbill species worldwide but the only one that breeds in New Zealand.

■ Source: Szabo, M.J. 2013 [updated 2017]. Royal spoonbill. In Miskelly, C.M. (ed.) *New Zealand Birds Online*. www.nzbirdsonline.org.nz.



A spoonbill visits Lake Huritini, Levin.
 Photo Will Abel



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.