KAPITI-MANA
Forest and Bird Society

Summer Issue 2019

Next Club Meeting

Paraparaumu Library Room,
9 Iver Trask Pl, Paraparaumu 5032
On March 27th at 7.30 pm.

Speaker: **Alex Pezza**

Senior Climate Scientist for
Greater Wellington Regional Council.

Subject: Climate Change

All Members and non-members welcome

In this issue

Dear Forest and Bird members

In about 2, maybe 3, year's time, decisions will be made that determine what happens to the land that was acquired to build the Transmission Gulley expressway. This consists of Perkin's farm between the expressway and Paekakariki and other land to the east of Paekakariki to Queen Elizabeth Park (QEP). When lands acquired for motorways are no longer required, they are usually sold to the highest bidder but that may not apply to the "Perkins plus" land.

A group chaired by Mayor Guru and Jenny Rowan has been set up to try to reach a comprehensive agreement that satisfies the wish list of the community and negotiate a settlement. The community wishes includes some community housing, 5 wind turbines, recreational opportunities, clean streams, revegetation and climate change opportunities and a wetland to prevent flooding of part of Paekakariki.

From an F&B point of view, we support all of the above. There are areas of forest, unseen within the farm and escarpment vegetation. There are undoubtedly areas with important lizard habitats. There are definite recreational opportunities. The Remnant Forest in QEP could be connected with the forests of the Akatarawas via Mt Wainui. The Wainui Stream could have a wetland associated with it improving it and enhancing native fish habitat. We would also support the potential for climate mitigation opportunities, alleviation from flooding of residences, extension of QEP to include more of the Wainui Stream and more sustainable energy.

Some things wished for are not within F&B's mandate however this deal will be achieved only if all parties reach agreement. All parties therefore have to be accommodating.

This is a very big ecological opportunity. They seldom come along, so I will be representing F&B through what will be a long and probably torturous process. There are many hurdles to cross with land ownership being one of the biggest.

I predict that this will be an important focus for F&B for years to come. If any of you have any expertise in this sort of activity and want to be involved, please contact me at russelljamesbell@gmail.com or 0212266047.

Regards and best wishes for 2019 *Russell*

Happy Hihi

A group of hihi that were reintroduced to a scenic reserve in Taranaki are loving their new home. Shortly after the birds were reintroduced Rotokare Scenic Reserve in 2017, remote devices recorded a number of happy hihi calls. The calls sound like two marbles clanging together.

John Ewen, who studied the recordings said the calls meant re-introduction was successful, and the birds were settled in their new surroundings. He said it was often difficult to measure the success of re-introduction programmes, which made this finding very exciting.
Physically monitoring animals in the field or fitting them with radio-trackers could be invasive, he said, and had the potential to influence bird behaviour. Using acoustic recording devices allowed Dr Ewen and his team to remotely monitor the hihi in a non-invasive way.

Rotokare Scenic Reserve sanctuary manager Simon Collins said he was thrilled by the news. He said any kind of bird transition could be fraught with unknowns, and carried a huge responsibility for the new minders. Mr Collins said he hoped the hihi population would establish and thrive in the reserve, and later, throughout New Zealand.
He said the hihi population at Rotokare were just one of seven in the whole world.
The hihi is one of New Zealands rarest birds, and until this reintroduction has not been seen in Taranaki for more than 130 years.

Wellington council using death by chocolate to reduce rat numbers. No Poisons!

Wellington's councils are putting a new twist on the idea of death by chocolate. The regional and city council plan to use chocolate to lure rats into traps that will kill them instantly, to see how well rats can be controlled without poison. The regional council's biosecurity team has set up several traps on Te Ahumairangi Hill, in the suburb of Northland. Senior officer Paul Horton says because there are no possums in the area, it's an ideal site for focusing on rodents. The rodent numbers on Te Ahumairangi Hill are being monitored by tracking tunnels - cards in tunnels with ink on the floor that show footprints. These are showing rat numbers remain at low levels.

Wellington's councils are putting a new twist on the idea of death by chocolate. The chocolate lures can last six months and the trap can kill 24 rodents before CO2 needs to be replaced. Urban Ecology Manager for Wellington City Council Daniela Biaggio said protecting biodiversity in urban environments needed continuous improvement.
"This is a great example of how we embrace new ideas and innovation so we can stay ahead of our biosecurity challenges and have a city thriving with wildlife."

Porirua and Mana members - Please read and send in your thoughts.

Dear Porirua and Mana members

You may remember that I have been exploring ways Kapiti Mana Forest and Bird can represent and connect more with you. I received about 4 email replies. I am now less sure about what would be successful.

I have become more familiar with some Mana issues and have connected with Friends of Taupo Swamp. I will look at how Forest and Bird can support them, and I have not given up on the idea of a public meeting in the area but realize because meetings are not a regular occurrence, it would need to be well advertised.

I don't know what the final outcome will be but urge you all to email me any thoughts you have. In a few years' time, I may look back and wonder "What was so hard about that?"

Russell Bell *Russell*

If you are interested in being involved in any of the options above,
contact Russell Bell 0212266047 or
russelljamesbell@gmail.com

OUT and ABOUT

Lichens in the garden. Did you know lichens are not a single organism, but their own mini ecosystem? One special group lives only on leaf surfaces while other types of lichen live in crowded communities as shown on this bird feeder. Lichens are prominent examples of symbiotic organisms, combining fungi and algae and/or cyanobacteria in an intimate biological union. A lichen is a composite organism that arises from algae or cyanobacteria living among fungal hyphae. Different kinds of *lichens* have different growth forms as can be seen in the photo but also different growth forms can be found in the same species .

A *lichen* is a composite organism that arises from algae or cyanobacteria living among ... They grow on rock, walls, gravestones, roofs, exposed soil surfaces, and in the soil as part of a *biological* soil crust. Different kinds of *lichens* have reproductive parts which are often circular, raised, plate-like or disc-like outgrowths, with crinkly edges. Also Lichens do not have roots that absorb water and nutrients as plants do, but like plants, they produce their own nutrition by photosynthesis. When they grow on plants, they do not live as parasites, but instead use the plants as a substrate.

It is estimated that 6% of Earth's land surface is covered by lichens. There are about 20,000 known species of lichens. Many lichens are very sensitive to environmental disturbances and can be used to cheaply assess air pollution, ozone depletion, and metal contamination. Lichens have been used in making dyes, perfumes, and in traditional medicines. A few lichen species are eaten by insects or larger animals, such as reindeer. Lichens are widely used as environmental indicators or bio-indicators. If air is very badly polluted with sulphur dioxide there may be no lichens present, just green algae may be found. If the air is clean, shrubby, hairy and leafy lichens become abundant. A few lichen species can tolerate quite high levels of pollution and are commonly found on pavements, walls and tree bark in urban areas. The most sensitive lichens are shrubby and leafy while the most tolerant lichens are all crusty in appearance. Since industrialisation many of the shrubby and leafy lichens such as species that have very limited ranges, often being confined to the parts with the purest air.

Are Dung Beetles native to New Zealand?

No, since **New Zealand** lacks **native** mammals (with the exception of bats), we have no **native dung beetles** either. Jenny Dymock, an Auckland entomologist, believes that African dung beetles would be a worthwhile addition to our fauna. “There would be quite a few significant advantages,” she explained. “Dung beetles assist worms in improving the aeration of soil, and, by incorporating dung, increase nutrient cycling and soil fertility. By reducing the amount of dung on the ground, pasture growth should be increased, fly numbers reduced, and there will be less faecal contamination of waterways.” Overseas studies have shown that the load of parasites on pasture can be reduced by 80-90 per cent in the presence of a vigorous population of dung beetles, and the numbers of intestinal worms affecting calves can be substantially knocked back.

New Zealand actually has some dung beetles resident here already. Mexican dung beetles were imported into Whangarei, Nelson and Canterbury in 1956, but now they only flourish north of Whangarei. Two Australian species were accidentally introduced more than a century ago, and, although widely distributed, have not had a great impact. They seem most adept at dealing with marsupial droppings. Australia and the USA have already adopted the African species Jenny Dymock is recommending, Onthophagus binodis. At the time of reporting this information the importation has been approved, New Zealand will obtain fresh, surface-sterilised eggs from Tasmania, to reduce the possibility of also importing dung beetle pathogens or soil-borne microbes. Researchers hope to learn more soon, with on-farm trials about to get under in the greater Wellington region. Four species of dung beetle are being offered to famers in packages for the trails.

The region-wide release is the first in New Zealand and is part of an initiative by Greater Wellington Regional Council and Dung Beetle Innovations. Dung beetle use is approved by the Government and the Environmental Protection Agency.

The release of the packages (based on the size of farms) took place on Sunday, November 11 2018 at a sold out function at Featherston's Kaiwaiwai Dairies, which is part of the national Fonterra Open Gates 2018 programme.

"Managing nutrient build-up and run-off is a key priority, and the dung beetle option is one we are happy to support," said Greater Wellington Environment Committee chair Sue Kedgley. "It's encouraging to see the strong interest of local farmers in the scheme - particularly in south Wairarapa, where we are focusing on improving water quality in and around Lake Wairarapa. Any comments please send to the editor - M.Latimer - emailmlatimer@gmail.com

Signs of hope

Kapiti beaches have begun the year 2019 with signs of hope for Conservationists who have worked hard to bring some of the smallest seabirds to our shores. The Conservationists hope the birds they have released on Mana Island will accept it as their home. John McKoy says “their aim is to establish a colony of white-faced storm Petrels on predator-free Mana Island to help restore the cycle of nutrients from sea to land, and improve the habitat of other animals and plants”. About 50 white-faced storm petrel chicks were flown by plane from the Chatham Islands and each chick was housed in an artificial burrow high on the cliff tops. Each burrow entrance is gated until the chick is ready to come outside and fly away.

Volunteers will be hand feeding the chicks on sardine smoothies and monitoring their growth to ensure they survive. It is hoped 200 more chicks will be relocated on Mana Island to establish a viable population.
The chicks are expected to fledge within 7-15 days and fly out to sea. They will stay at sea for 3-4 years before looking for a place to breed.
Hopefully this will be Mana Island.
White faced storm petrels used to live on Mana island before any people inhabited It. A few have been seen in recent years but they have not bred.

Northern NZ Dotterel

The first known NZ dotterel chick hatched at the Wai-kanae Estuary in spring 2018 and now again in 2019.. It’s not new for the birds to visit the estuary but this successful breeding two years running is a first.
This may be a sign of a breeding population starting.

Northern NZ Dotterel are a species in trouble. They are mainly at risk from disturbance by people, vehicles and dogs, as well as predation from hedgehogs, stoats, cats and rats. As you can see the nest is completely unprotected.

Good news for mainland Albatross

After "tragic" losses at the only mainland northern royal albatross colony during breeding last year, things are looking positive with 29 chicks hatched this summer. But don't count your albatross yet.
Last breeding season extreme weather conditions meant more nests than usual failed at Pukekura-Taiaroa Head on the Otago Peninsula and only 13 chicks fledged from 29 fertile eggs, of which just over half hatched.
Even in really good breeding years chicks have been lost to viruses in the final few weeks before they leave.

Concerns for the birds are centred around climate change.
If periods of extreme summer heat continue, it could impact the ability of the colony of about 250 birds to reproduce at Taiaroa Head.

Item and photograph provided by Alan Froggatt

North Island Kokako

Other names Blue-wattled crow
New Zealand Endemic
At Risk

For many years the South island bird with it orange wattles and longer legs was considered extinct. That was until one was seen in Mt Aspiring National Park in 1967. The last confirmed sighting was near Reefton on the West Coast in 2007. This sighting was officially accepted as genuine by the Ornithological Society of New Zealand in 2013. The Socety rated another 11 sightings over 1990-2008 as 'possible' or 'probable.

In 2013 DOC changed the conservation status of the South Island species (Also known as Grey Ghost) from extinct to data deficient, pending something it could authenticate and continues to encourage interested parties to put evidence forward. Then in 2016, it announced it would support recovery efforts if there if proof of a living kokako found. In response the South Island Kakoko Charitable Trust promptly announced a reward in 2017 of $10,000 for confirmation that the bird is still alive. This was later doubled by a donation from the Morgan Foundation.

Both species are handsome with soft beautifully soft silky feathers, rakish mask and a long-curved tail. It's about the size of an Australasia Magpie and has a loud and varied call that ranges from a loud cackle and full organ song with beautiful notes that can be heard for some distance to a tui- like soft talking Some have described the call as a "stunning piece of music. Slow, haunting, bell-like and clear. Many observers believe it produces the most beautiful song of all New Zealand native birds.

One of New Zealand's' earliest conservationists, Thomas Henry Potts, described the males call as a "very sweet whistle, consisting of six notes as "Te,to, ta, tu, tu, tu." He observed the female sings one note less than the male. It usually only calls at dawn when the bell-like song of a breeding pair can last up to an hour and is said to be the longest of any songbird in the world.

Because of its short round wings, it can only fly short distances. It is seldom seen out of cover but can sometimes be heard crashing around high in the tree tops. Like their crow ancestors they can be inquisitive, shy, crafty and intelligent. Their ancestors emerged in New Zealand in the centuries following the destruction of Gondwana and the creation of the Southern Hemisphere.

The male likes to display himself before his chosen female, arching is neck, spreading its wings and dancing around his mate in what Lawry Buller (the author of the classic 1887 'New Zealand Birds') described as "in a very ludicrous manner." Buller also reported a Maori told him he had seen "20 South Island birds traveling rapidly over the ground with rapid hops and in Indian file."

When feeding it uses its feet like a parrot and likes Clematis flowers, puauhmanga, kaiwinria, kareao, thistle and wild cabbage but its favourite fruit is native fuchsia.

It nests in dense foliage and lays two to three eggs. One large oval nest found in Fiordland measured 380 centimetres. They tend to be loosely constructed from leaves and twigs but always have a well fashioned cup. Both parents feed the chicks for up to four months and in good months may raise two or three broods.

While is seems likely the South Island Kokako is extinct the North Island Kokako can be found in 18 populations ranging from Pureora Forest, Kapiti Island, Pukaka Mount Bruce, Bay of Plenty, King Country to Tiritiri Matangi Island and Little Barrier Island but Otamatuna forest of Te Urewera National Park remains a stronghold with some 100 pairs "bunding about like squirrels."

The bird in the photograph was injured when handed into Pukaha Mount Bruce Wildlife Reserve. Unfortunately, it became habituated to human contact during recovery and can no longer fend for itself in the world. As a result, it will live out its life under similar conditions as it would but for its protection will remain behind a Fence.

The New Zealand explorer Charlie Douglas wrote of kokako " Their notes are very few, but the sweetest and most mellow tones I ever heard a bird produce,"

Photo Arthur Paul Harvey 1865-1955.
Arthur Paul, Charles Douglas (on the left) and their dog Jane Betsy in the Cobb Creek Valley.

Photograph courtesy Alexander Turnball Library.

Insect Extinctions

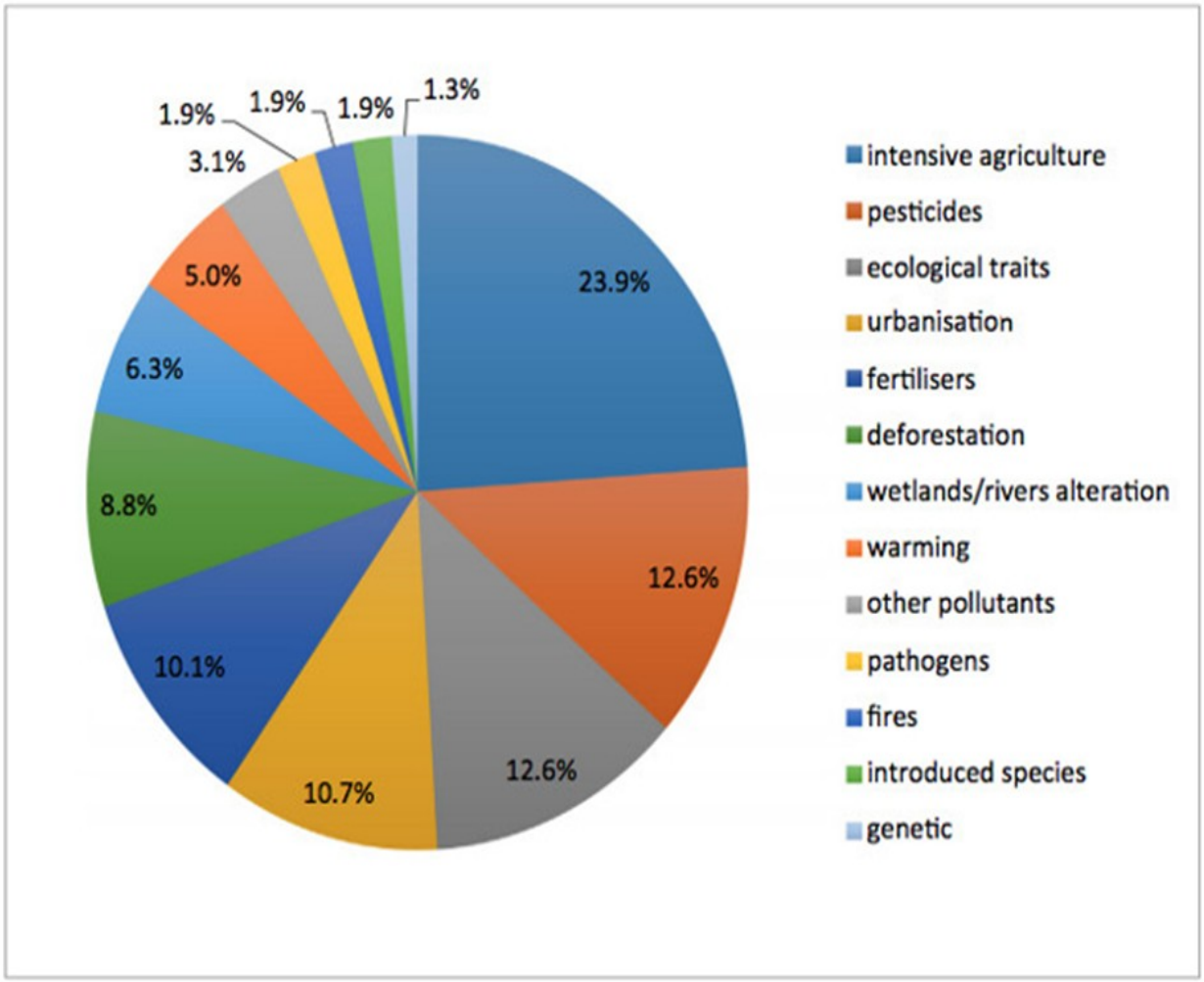
Insect numbers are collapsing around the world. Over 40 percent of insect species are threatened with extinction, and total insect biomass is decreasing at a rate of 2.5 percent per year. Based on current trends, insects could be extinct within a century and there will be no escape for New Zealand. Local bug expert Ruud Kleinpaste warns that if they go, the results would be "catastrophic" and we would have "no hope in hell of surviving".

Insects are everywhere, doing "extremely important" jobs in New Zealand's ecosystem we normally take for granted. We rely on them for our agriculture, to remove animal waste and bodies, and to feed other creatures. They do composting, pollination, dung removal, create fertility in soil. They encourage forests to grow healthy, They do pest control. Keep the balance between species. They're the base of the food chain, which affects all predators.

The main cause of insect losses has been blamed on agricultural intensification, and the use of pesticides and herbicides which results in habitat loss by conversion to intensive agriculture and urbanisation, pollution by synthetic pesticides and fertilisers, pathogens and introduced species, as well as climate change.

Many insects species seem unlikely to go extinct to me. Populations of pests such as invasive ants, cockroaches, grass grubs, mosquitoes and social wasps seem to be doing just fine. Some of these species even seem to be benefiting from climate change and agricultural intensification.

Besides all the important functions that insects play in our ecosystems — such as pollination, or recycling nutrients — they are also an essential element in the food chain that supports life on our planet. When the insects go, the frogs, birds and mammals don't have food.



Main factors associated with insect declines

Is 'Insect decline' happening in your garden?

Article and photos by
M Latimer

Yes, I believe it is but we don't really take that much notice! Thinking back over the years I can remember opening the door onto a rising blue mist of Meadow Blues. Now there are very few around and also a lot of other common butterflies have disappeared. In recent years there has been efforts to save the Monarch butterfly and each we look for them but the distribution is patchy depending on their food supply, weather conditions and the presence of predators.

In order to find out what was happening to this 2019 population in my garden I set out to record what occurred over time. I started at the beginning of January. My swan plants had grown well and were very leafy. Although there were a few Monarchs flying about they were not settling or laying eggs which are very small. Each day I inspected the swan plants for signs of activity. By the third day the yellow aphid had landed and were quickly producing the next generation by parthenogenesis (**Parthenogenesis** is a form of asexual reproduction whereby offspring are produced without the embryo being fertilised by a male. .) As the aphids sucked the sap from the swan plants they formed droplets of honey dew that beckoned the ants. By the next day the plants were smothered with aphid and ants and any eggs that were there were eaten or killed.

On my next inspection I was amazed to see the swan plants were in pristine condition, no aphids and no ants, no Monarch eggs and no caterpillars.

Where had the aphid and ants gone? Something had happened? Was an insecticide sprayed over the district? I hadn't heard of any mass spraying event but other people had noticed the same thing happening.

Two weeks later the plants were in full bloom and the butterflies were around again laying eggs which soon hatched into small munching machines. They soon grew out of their skins and passed through the 5 instars (moults)

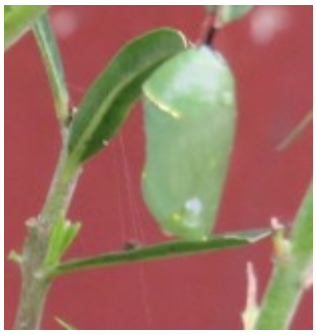
From Pinrest .com

Eating before preparing to pupate.

By the end of the fourth week the caterpillars were preparing to pupate. Some crawled away to a ledge on the shed while another one stayed where it had had its last meal.

Pupa: The Transition Stage

The pupa of butterflies is also called a chrysalis. It may look like nothing is going on but big changes are happening inside. Special cells that were present in the larva are now growing rapidly. They will become the legs, wings, eyes and other parts of the adult butterfly. Many of the original larva cells will provide energy for these growing adult cells.



It takes 3-4 weeks before the chrysalis breaks open and the adult butterfly emerges.

Monarch butterfly emerging from chrysalis as the fluid in the enlarged body is pumped into the veins of the wings, permanently stiffening them as the newly minted butterfly rests in place after emergence.

High temperatures and drought conditions

The Monarch caterpillars can withstand difficult climatic conditions by changing their behaviour. In very high temperatures they will stop eating and then seek shady places especially if there is some moisture. The ones on my plants ate every leaf on the plant and then started wandering away. I had heard they would eat pumpkin and/or zucchini if they were desperate so I gave them some lodged in the branches of my leafless plants. They did eat them especially during the night time. It allowed them to grow to the size where they could pupate.
At the present time I am waiting for the leaves to grow again.

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List of some of the organisations concerned with Conservation in our region .

- Greater Wellington Council Biodiversity Strategy Group
- Kapiti Restoration Group
- Guardians of the Kapiti Marine Reserve https://www.facebook.com/groups/161934010888715/

- **Wellington Regional Native Plant guide pdf**
- http://www.nzta.govt.nz/assets/resources/guidelines-highway-landscaping/docs/highway-landscaping-appendix-5.pdf
- http://www.kapiticoast.govt.nz/contentassets/81cf8e07395c466da729ff9337412620/best-practice-subdivision-and-development-guide.pdf how whole sub divisions are planned and planted.
- http://www.rnzih.org.nz/pages/2003_conference_proceedings_pdfs/13_john_sawyer.pdf
- http://kapitiindependentnews.net.nz/cinema/ good info about Kapiti
-
- How to Put Nature into Our Neighbourhoods
- LRSS35 nature_neighbourhoods.pdf
- http://www.forestandbird.org.nz/get-involved/backyard-projects/backyard-biodiversity/create-coastal-garden Good ref for home projects.
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- **WAIKANAE ESTUARY CARE GROUP**
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- **Save our sea lions**