Kāpiti-Mana Forest and Bird Newsletter January 2024

Editorial – Tōtara, A pioneer plant?

A few months ago, I heard about the Tīmata method of restoring native ecosystems (learn more here: http://tinyurl.com/23rcz64p). Tīmata means 'commence' or 'start' or 'kick off'. The advantage of the method is said to be the low cost of about $20,000 per hectare. To date about 10,000 ha of retired land has been planted using this method. The method involves planting mānuka or kānuka, 5 metres apart, over the retired area - so about 1250 plants per ha. Both species are tough pioneer plants and attractive to birds and insects. As they grow, they provide environments that are suitable for other natives to establish in - shade, reduced grass cover, less wind and more retained moisture. As they flower, birds are attracted to them and they provide seed from nearby native areas.

It will take about 5 years to achieve canopy closure but by that time, other natives should be starting to appear. This is a slow process and relies on nearby forest to bring in other plant species.

This process is also being tried with pines, not for producing timber but for storing carbon. Because they grow so fast, pinus radiata absorb carbon faster than most plants (A 28-year-old pinus radiata block will store 3 times that of an equivalent tōtara block. Read more here: http://tinyurl.com/ydzwc6sa) If pines are planted at wide spacings, natives will grow underneath. But the problems are many. There is the spread of pines into adjoining land areas. If these areas are native, especially if they are low vegetation wetlands, and scrublands are downwind, that is a problem. The resulting forest is going to be a mongrel of native and exotics, and undervalued. Pines may not be so great when halting erosion, slowing the spread of fire, or absorbing high rainfall compared to natives. But planting pines is cheap and they

survive on all sorts of land and absorb carbon fast, and that is their attraction. This is particularly desirable by airlines because they disperse their carbon as they fly and wish to reabsorb it as soon as possible.

On a recent trip though the King Country and Whanganui districts, we saw examples of the Tīmata method using mānuka/kānuka and pinus radiata. But in the paddocks and growing along the fences were totara. All the trees (more than 6 in the photo below) and the plant entwined with the fence are tōtara.

Some years ago, Paul Callister decided that totara were a good bet to use as pioneer plants. They have a few advantages. The seed and seedlings are plentiful and easy to collect. They will grow in the open and do not require fertile soil to grow in. They are pretty well drought adapted. They grow quite fast for an extremely large NZ native and will live and absorb carbon for about 800 years.

When we applied for the 'Inspired by Sanderson' grant, growing 1000 tōtara was the first project. Two and a half years later they are planted, most on one of the stable sand dunes in QEP. We used the Tīmata method without knowing that the method existed and was named. They are growing exceedingly well in very sandy soil and we cannot find any that have died. The tops of some of them have been burnt by the wind but their lower halves look very healthy. This one is sheltered from the wind.

That got me thinking. If tōtara are successful pioneer species, don't need fertilizer, will pack away carbon for years, and grow in many of the areas that are going to be retired around the country, used as offsets by our airlines and planted for carbon sequestration, then they are a good alternative to pine, so perhaps tōtara should be used instead of pine. They may not sequester carbon as fast as pine but no mongrel forests would be made and that would be good for biodiversity and carbon would be sunk for a very long time indeed.

Russell

Park fires update – Whitireia and West Belmont

Unfortunately, wildfires are more likely with climate change. We have had two fires affect parks in our district this summer, so we need to increase our awareness.

Robyn Smith, who has long been involved with planting at Whitireia Park, visited the area affected by fire after cordons were lifted and noted that sadly a lot of the planting done for Greater Wellington over five years, after the 2010 fire, have been lost – plants 1-3m tall. (with quite a bit of gorse growing within it), and some of the areas planned for this year's planting. The mown tracks largely stopped the fire. It is critical to keep motorbikes and 4x4s off the grassland to reduce fire risk, and hopefully more mown firebreaks will be added following this event. In the burnt area, weeds will thrive so blackberry, karo, liquorice plant, pampas and gorse will invade and require effort and funding to eliminate, and of course replanting will be required. Whitireia Park was closed for a fortnight.

The Whitireia Fire outcome: 10 ha plantings lost, significant lizard, bird and insect loss as well, however tracks had fortunately been mowed just prior to Christmas, the fire was not at the driest time of year, and the winds weren't strong, so Whitireia 'dodged a bullet'. Robyn estimates this fire has put back restoration efforts by 14 years and that will cost both the environment, and ratepayers, but if we can keep fire out and keep planting for about another five years, the fire risk will then be greatly reduced for the future. As Greater Wellington notes on their website: The decision to restore former grazing land in certain parks to native forest has also temporarily increased the risk of fire as we wait for planted natives to establish. So, let's count that as short-term pain for long term gain….

Sef Truyens, ex-chair of Friends of Maara Roa, informs me that the fire that broke out behind Porirua College almost exactly a month later (12 February) spread through an area of slash and up into Belmont Regional Park. Once again paths seemed to help stop the fire, and the Friends most recent plantings were

not damaged, though some areas have been singed. However, the wind caused the fire to jump and burn approximately 7 hectares of West Belmont. Fortunately, the wind changed direction, and this helped bring the fire under control. Had the fire reached the grasslands at the top of the ridge, the effect could have been far more serious - potentially closing Transmission Gully and burning towards Lower Hutt.

Outcome of both fires: Whitireia Park and West Belmont (including Māra Roa and Waihora Loop) is closed from 1pm to 9pm, and drones may not be flown in the area during this time. Most of East Harbour Regional Park is also closed. Find out more about access here: https://www.gw.govt.nz/parks/wildfires-in-regional-parks/. *Use the parks only when it is cool and always walk with a cell phone for safety, so you can work out an escape route in event of fire.*

Part of the ecosystem

On arriving home last evening, I noticed a beetle lying on the doorstep.

© P Burton Bell

I had seen them before but didn't know what species it was so, using my phone camera and iNaturalist, I discovered that it is Brown Beetle (very descriptive) of the odontria species (identified by its fuzzy/velvety appearance). A member of the scarab beetle family, they are also known as chafer beetles and are adult grass grubs. Quite beautiful really, when you consider their bronze velvet jacket wings speckled with golden polka dots). They might not be great for a perfect lawn, but still native, and still, no doubt, an important part of our local ecosystem.

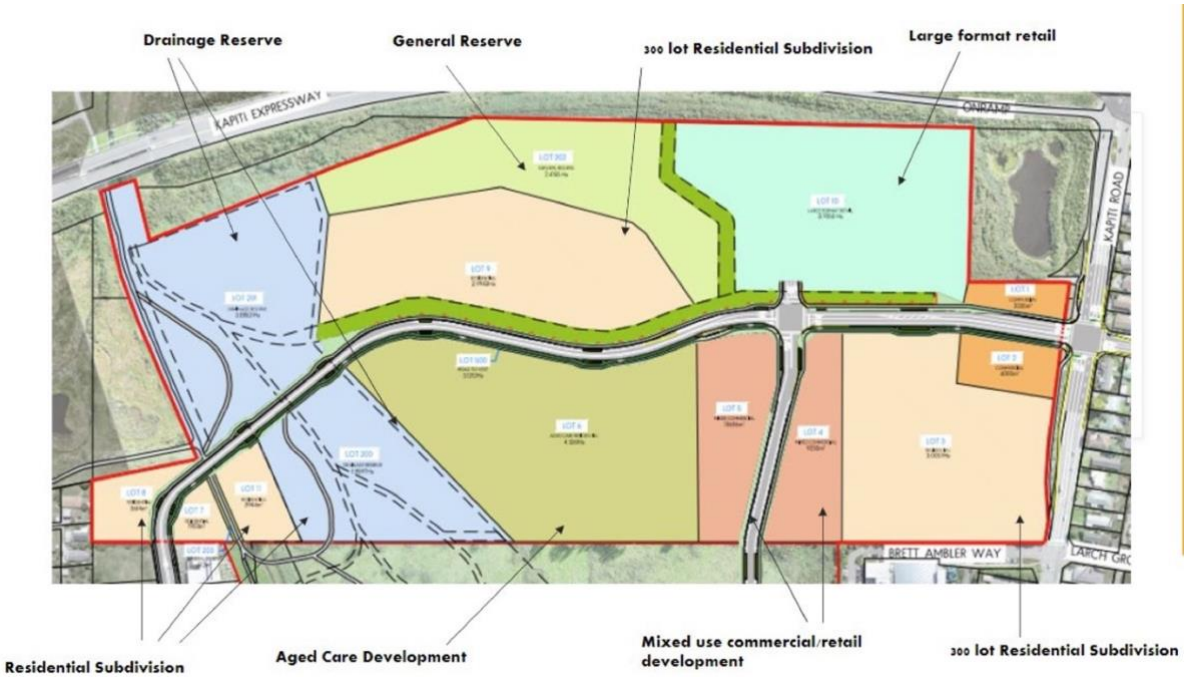
Pene

Paraparaumu 'central park'/Wharemauku stream

You may remember that Forest and Bird along with Low Carbon Kapiti and Kapiti Coast Biodiversity Project produced a flier showing the area of land west of Paraparaumu City Centre could be a Paraparaumu Central Park. We were concerned about the use of drained peat wetlands, flooding issues and the loss of amenity. We will never know whether we influenced the outcome and we will only know the outcome when due process is complete. You may have seen what local papers had to say - Restoring 8ha of nearby wetland and returning the Wharemauku Stream to its original bed were two features mentioned and those are of concern to us. The other issue is the use of peatlands. Digging out peat and replacing it with sand allows the peat to become exposed to atmospheric oxygen and become carbon dioxide. The rate of conversion is 29 tonnes per hectare per year. Hence its carbon footprint is substantial. If peat remains in wetlands, its fine because it will be kept sufficiently wet to not oxidize.

Friends of the Wharemauku Stream recently attended a Paraparaumu Community Board meeting where Ian Cassels and Steve McConnell of The Wellington Company gave a presentation

of their vision for the development of the 28ha block of pastoral land between Kapiti Road and Ihakara Street, just east of the Expressway. Waikanae Watch also attended. Their report includes this image (read more report here: http://tinyurl.com/yc6utkc8)



It has been lodged for subdivision consent and being considered by GWRC and KCDC now; a further 5 or 6 future more specific applications will be made for each part of the development i.e. residential, commercial, etc. The following points were made at the presentation:

- The application is for mixed use - 1,000 medium to high density residential properties and a retirement village, a commercial /shopping area, with the idea to create a new town centre linking Coastlands and Kapiti Landing.
- It will include key transport routes going north-south and east-west to improve the Paraparaumu roading network; provision for bus stops is included. The Wellington Company stated that the road works are an infrastructure project for KCDC.
- It includes 5.8 ha of wetland restoration (not 8ha as stated in Waikanae watch) with native plantings and realignment of the Wharemauku Stream back to its natural course. The Wellington Company is aware of the need to be hydro neutral so that all buildings will have stormwater storage tanks built underneath which will release slowly into the stream.
- They are working closely with Whalesong who are looking at options for a new site.
- Existing walking and cycle paths will remain, plus a new boardwalk over the new Wharemauku watercourse.

The picture (overpage) that was handed out at the meeting shows the Wharemauku Stream and wetlands looking very much better than now. The picture however is somewhat misleading because some of the restoration is outside the development. We have added a diagonal black line which shows the eastern extent of the development. While this picture would allay environmental concerns (apart from the use of drained peat swamps), it is the developer's presentation of what the area may look like.

The issues for us so far are:

- Are 5.8 ha or 8 ha of wetland going to be restored?
- Will and when will the eastern restoration of the Wharemauku Stream happen?
- How will the peat in the area to the north of the development be stopped from turning into carbon dioxide and adding to our carbon footprint?

Encouraging Lizards at Home

Paul Callister gave a very interesting talk about lizards at our recent branch public meeting. He began by saying that in the early days we would have seen lizards 'everywhere' in every habitat and niche, and every environment (including in our homes). While in the house might seem a little too local, we can still encourage lizards into our gardens (and garages and woodpiles etc.) and try to keep their predators at bay. At our meeting,

the question was asked "How?" so here are ten things you can do to improve the chances of lizards appearing at your place.

1. Mulch deeply – allow leaf litter to collect and branches etc. These provide hiding places and trap moisture which breeds the small insects lizards love to munch.
2. Plant densely, a range of vines and shrubs. Vines on rocky walls help lizards hide and get around. A north-facing site is ideal for lots of sun.
3. Lizards need fruiting native plants, especially scrambly shrubs and vines – some examples include: muehlenbeckia, coprosmas (propinqua, acerosa, rugosa, taupata) and fuchsia procumbens – try to ensure they fruit at different times to provide a year-round food supply.
4. Nectar-rich plants are great as well – e.g. flax, rata, kowhai, kānuka and mānuka.
5. Keep a few logs or sunny rocks available so the lizards can sun themselves.
6. Use some sheets of old corrugated iron or onduline separated by about 1cm width to allow lizards to crawl in and out – let these get covered/surrounded by plantings.
7. Build a rock or log pile with small cracks that lizards can escape into, and let plants grow up around them so they can migrate in and out without being exposed.
8. Use organic materials (few/no sprays, no treated timber or mulch)
9. Protect the area from cat hunting – a rock wall may look great, but if a cat can spend its days watching it, lizards are unlikely to survive very long. Better still, don't replace the cat!
10. Keep trapping hedgehogs and mice in the area – we've found lizards at our house with mouse nibble marks on their limbs and tails!

Finally, you might be surprised where you find lizards – we've found forest geckos on our fig tree and in a leafy gutter, and Wellington green gecko on our lemon tree, an ornate skink on the edge of a shrubby garden, and a ngahere gecko in a forgotten wood pile. You could try spotlighting at night occasionally if you suspect they're there and you're missing them. When we moved into our property we decided to try and garden to make habitat that was suitable on the principle "if you build it, they will come", and it has worked for us.

Learn more here:

http://tinyurl.com/3534hpr7 (DOC guide)
http://tinyurl.com/mt94yafm (brochure)
http://tinyurl.com/yctnexw7 (for Students)
http://tinyurl.com/49nesk7e (GW report)

Pene

Next meeting: 24 April 2024, 7.10 - 9pm & AGM

Upcoming AGM - our next public meeting will be on 24 April 2024, and will be our AGM. Speaker details to follow.
We are a small committee, and one member is standing down, so we'd love to encourage a couple of new people to join us.

Russell and Pene

Many hands make light work, and political changes are likely to make more hands more necessary, so please call me if you want to discuss the options. 021 159 2409.

Please consider joining on our committee

Your feedback on this newsletter would be most welcome, as would contributions to future newsletter.

Editors: Russell Bell & Pene Burton Bell
Email: russelljamesbell@gmail.com
Phone: 021 22 66 047