

Mangemangeroa Valley Reserves

20 Years of Biosecurity Progress

The Friends of Mangemangeroa (FOM), is a small volunteer group formed in 2003 which has worked tirelessly to restore and protect the narrow strip of coastal forest along the side of the Mangemangeroa Estuary. Within the group are members who have a wealth of knowledge both from a plant growing perspective and pest control perspective and apply this knowledge to benefit this ecologically significant area.



2000



2020

After twenty years of restorative planting the edge of the forest has been extended and erosion prone hillsides planted with a variety of pioneer species; cabbage trees, manuka, karamu, pigeon wood and mahoe. Larger canopy trees such as taraire, kahikatea, puriri, and kowhai, all eco-sourced from within the forest and grown from seed by volunteers, are now pushing through the pioneer species. FOM continues to grow and organise the planting of these species; this year we have 6000 pioneer species planted and another 120 canopy species to infill among the pioneer species from earlier plantings.

Whether we leave behind, for future generations, a vibrant and lush example of coastal forest, depends now, on how successfully we can eliminate or control pest species. FOM has removed weeds where possible and in the last eighteen months FOM has been supportive in the pest control methodology put in place along the 5.25km of track, extending trap lines.

The Path to Biosecurity Success

Three documents govern how care of the reserve is achieved. The area of land, referred to as the “Mangemangeroa Valley Reserves” (commonly referred to as the Mangemangeroa Reserve) is now part of the Auckland Council Parks and as such comes under the jurisdiction of Parks Auckland. The partnership agreement was updated in 2019. The Mangemangeroa Valley Restoration Plan, first drafted in 2005, was rewritten and adopted in 2019 by Council. This guides the restoration work within the valley. The second document, the Mangemangeroa Valley Reserves Development Plan, deals with how the park will be developed and maintained from an infrastructure perspective. A substantial part of these documents has been through consultation between the two parties, Auckland Council and Friends of Mangemangeroa. A copy of these plans can be seen in the minutes of the Howick Local Board September 2019 meeting when both were adopted.

Noxious and Invasive Plants

Any habitat is a dynamic environment for plant and animal pests especially an area of coastal forest which has been stripped of its undergrowth by meandering stock. Initially wattle and gorse were two major weeds which were prevalent along with garden escapees such as tradescantia and ginger. These were dealt with by Manukau City Council. African club moss and plectanthus remain an issue but are in isolated locations.

Common weeds such as moth plant, Japanese Honeysuckle, and wattles are dealt with, by FOM using the cut and paste technology or injection.



Exhausted after tackling large moth plants



Blackberry too big to grub out

Blackberry, particularly as it is not recognised as a serious weed by Council, is grubbed out before planting unless the area is too large and needs spraying (undertaken by FOM members who have their Growsafe certificates). The Climbing Asparagus, which covered a considerable area of regenerating forest was sprayed by Manukau City Council and the few missed pockets are now reappearing, particularly on private land. This is particularly noticeable near the Chisbury Terrace Reserve where FOM and the landowners are working with Biosecurity to try and clear large areas of weeds including this reinfestation. As a group we cannot attack all the weeds present but work to target one species at a time, returning to mop up the seedlings the following years. Age of members too is a hinderance, the brain is willing but the body not so keen!

Animal Pest Control

Coastal forest provides excellent food and shelter for possum, rat and mustelid species. These animals feast on large seeds of the canopy species and devour the young flowering shoots. As well the eggs and young of the native birds are preyed upon. Thus to maintain a dynamic coastal forest ecosystem controls of these pests is essential. FOM needed to consider how, with limited resources, it could best combat this problem.

Possum control throughout the Reserves has been by Council contractors. When FOM has become aware of possum activity both within the reserve and outside of it they have taken action in these locations. Where forest, on adjacent private land, was not targeted by the contractor, Timms traps (funded through grant application by Friends of Mangemangeroa) who have worked effectively to reduce possum numbers and thus possum grazing within the reserve.

Possums, as young adults may travel considerable distances. To try and reduce the possums moving from land around the reserve into the reserve funds were sought from the Howick Local Board to purchase Timms traps and A24 rodent and stoat traps from the Howick trap library. During the Covid-19 lockdown and the closure of the reserves

private landowners fortunately were still able to check and reset rodent and possum traps on their land. Those set close enough to the Council reserve would have given some protection from wandering animal pests too.

As a small aging group, FOM needed to enlist younger members of the local Howick population. This was possible through PestFree Howick as well as local schools who have assisted when requested.

In the last 18 months the chairman of FOM, as a member of PestFree Howick, has undertaken to encourage and promote animal pest control within the valley. Howick College Eco Group are working in the northern sector of the valley and have A24 traps on loan from FOM. They have also installed timber DOC 200' rat and stoat traps. Student-led by Ethan McCormick their project has been a huge success. Their predator (kill) numbers 101 pests form part of the data on CatchIT.



Chewed off cabbage tree

To extend the trapline southwards, FOM applied for, and received Howick Local Board funds for the purchase of traps. This line has been monitored since February 2020 by FOM. To date the traps have eliminated 24 rats, 2 stoats, a few mice and 2 hedgehogs.

At the southern end of the valley from Hayley Lane northwards, residents reported a serious problem with a large variety of invasive plants and vines. This was assessed as a threat to the Hayley Reserve sector of the MMR Valley reserves to the FOM. An approach to land owners to encourage pest control on their properties. FOM asked Biosecurity to investigate this problem. NZ Biosecurity were contracted for this work.

Chisbury Terrace Reserve and adjacent private land bordering Mangemangeroa Reserve was overgrown with weeds making it a wonderful habitat for the various animal pests which made their way into the reserve. FOM discussed the issue with Council Biosecurity aware of them. After Council investigation financial assistance was allocated to help residents set up of an animal pest control program and commence the clearance of invasive weeds.

Success with improved animal pest control can be measured in many ways. One way is to see the plentiful number of taraire and other seeds able to be gathered within the reserve for propagation in recent seasons. Unfortunately the drought of 2019/2020 summer saw a number of these mature trees die.

Now planting over 6000 plants a year (20 years ago our first plantings involved about 200 plants) has seen up to 500 volunteers involved in plant raising and planting out each year. Primary school children help with the pricking out, Intermediate and Secondary school students have their own planting days while community groups such as the two local Rotary Clubs, Indian Environmental groups, Chinese Association Groups and general public attend the two public planting days. One organised by FOM and Rotary and the other the Forest and Bird planting day. For the past few years protectors are now widely used, having seen the damage introduced pests cause for native species and the benefits of using corflute protectors. Things do not always go according to plan.

Our pioneer planting includes on several slip-prone and open pasture grass slopes. A major restoration issue for the last three years has been pukeko and rabbit. The pukeko pull out new plants to get the grubs in the newly disturbed ground. Rabbits chew off anything, other than manuka, almost to ground level. To overcome these pests we need

to seek funding from Howick Local Board for plant protectors and animal pest control baits and traps. Board support has been gratefully received.



Taraira in plant unit



Taraira planted out



Taraira in reserve showing effects of drought



Front Page of the Howick Times 2020 photo Nick Krause

A different problem occurs with canopy species which are planted within the existing planting and along the edges of some of the tracks. Here over enthusiastic council contractors with their brush cutters chop off three to four year old trees. These now need a larger plant protector. Nature too does not always help us!

Large slips have opened up exposed surfaces. Where these have been on council land remediation work and then layering with manuka brush and later actual planting have stabilised the surfaces and reduced weed infestation. Where the slips have been mostly on private land the owners approached FOM. With knowledge of who to contact they have enlisted the help of Council Biosecurity having first dealt with a variety of other nasty pests including pampas and inkweed. Himalayan Honeysuckle is another coloniser of slips which has been appearing.



Himalayan Honeysuckle



Pampas colonising a slip face



Planting on a slip

What we have today is strip of coastal forest along the side of the estuary where natural occurring regeneration of a variety of species is possible because the rodents and possums numbers are in check and the mature plant species are not smothered by the encroachment of invasive species but it is an **ongoing battle**.

Building on Successes of the last 20 Years

FOM has worked tirelessly for many years to ensure that a margin of coastal forest along the Mangemangeroa Estuary has become a habitat in which native species, both plant and animal, can exist and reproduce. This has required four basic undertakings:

- Defining the role of council and FOM.
- Restoring previous grazed land through the growing of eco-sourced plants.
- Recognising the importance of weed removal and setting about doing it.
- Monitoring and sourcing funds by which pest control can best be managed.

The carrying out of these tasks, through a “hands on” approach by FOM have actively engaged large numbers of the local population in caring for their environment and recognising the importance that biosecurity must play if a coastal forest is to be sustainable along the sides of the Mangemangeroa Estuary.



Gifting the Conservation Baton