

Chairman's Ramblings

The past two years have seen some really significant and exciting developments in the Mangemangeroa Valley reserves.

This newsletter coincides with the distribution of the 2012 AGM minutes, financial report and Chairman's report. In my report I covered the main happenings prior to the date of the AGM.

The opening of the extension of the Mangemangeroa Walkway up to Hayley Lane was a milestone.

It's another step in fulfilling the former MCC policy in 'Making Connections'. For Mangemangeroa this means further extending a 'green corridor' through and beyond the Mangemangeroa Valley towards Murphy's Bush and Totara Park reserves, complete with walking access along loosely connected public reserves. As we walk through this 'corridor', the birds fly along it seeking out their food.

Planting Day results: Each year the Friends Society is increasing the area planted in eco-sourced native plants in the Mangemangeroa Valley reserves. In the past two years that was 17,000 plants. One result is expanding the narrowness of the bush fringe along the Mangemangeroa Creek. This helps to stabilise the slip-prone land while providing an increased food source for birds as well as shelter for vertebrates and invertebrates. Regeneration of native plants from self-sown seeds is now occurring naturally within the protection afforded by the Friends plantings of manuka, mahoe and karamu.

2012 Planting Dates: These commence this Saturday 19th May and then on the 26th May, convened respectively by Jim and Graham. Remember, it starts 9.00am from the barn in Somerville Road. Even if you can't attend, please spread the word. We have 7500 plants to get in over the next six weeks.

Community Awards: In 2011 the Friends were awarded the Environmental Award at the Howick Showcase dinner.

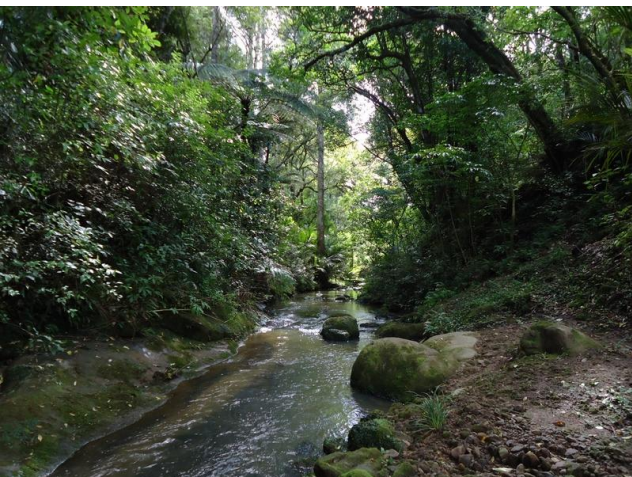
This year two of the Friends were individual nominees for the Environmental Award in the (renamed) Howick Community Awards. They were founding members, Jim Duckworth and Graham Falla.

The Environmental Award winners were Pigeon Mountain Primary School. Jim was awarded the Runner-up commendation in recognition of the great work he is, and has been doing in the Mangemangeroa Valley. Both Jim and Graham are an inspiration to all of us.

Allan Riley

Chairman

The Creek



With the extension of the track up the valley it is now possible to observe the changes which occur as the water changes from salty (estuarine) to that of a freshwater creek. Where the creek is undisturbed and the vegetation remains right to the edge the water is cool, the banks green, and the light reaching the water forms a dappled pattern. With the restoration planting now planned to extend along the recently opened track how the banks are planted will influence the aquatic life in these areas.



In some areas the wetland needs to be retained with emphasis on encouraging the native sedge *Cyperus ustulatus* (photo on left with brown head) and removing the introduced umbrella sedge *Cyperus congestus*.



It is the plant life along the edges of the creeks which stop pollutants entering the waterways.

The recent talk by Andrew Swales from NIWA at the AGM (see toward end of newsletter) described succinctly how sediments move with the tidal flow. In the estuary the estuarine water sediment can be observed moving up and down the estuary as the flow of the tide changes. Whether this sediment is from the development on private land or from the development at the head of the valley is not proven. What is known is that this turbidity in the water has an ongoing effect on marine life.

"Here, then, is where increased turbidity levels (more precisely, increased concentrations of suspended particulate matter (SPM) in the water column), which are characteristic of estuaries within disturbed catchments, can have an effect: The increased supply of fine mineral silt that is eroded from the catchment reduces the ratio of edible to inedible particles suspended in the water column, and the shellfish have to work harder at filtering to feed themselves. The more energy they spend on feeding, the less they have available to grow and reproduce, which can lead to loss of condition and, ultimately, death."

<http://www.niwa.co.nz/our-science/freshwater/tools/nzestuaries/ails>



Howick College students (seen on the left setting fishtraps) are undertaking monitoring of the creek in an effort to provide baseline data from which changes in the water can be quantitatively expressed. Unfortunately no fish were found but the traps are being used again in an attempt to monitor what native fish are in the creek.

This creek is home to a number of native fish including some rather large koura. With the Transpower development, the iwi undertook to translocate a number of giant kokapu from the Mangemangeroa stream in an effort to limit the expected adverse effect from silting on the native fish populations.

UP THE CREEK WITH A PADDLE by Warwick Kitchen

I was curious to know what was causing the apparent silting up the lower reaches of the Mangemangeroa Estuary. So on a big high tide I kayaked up the estuary to find out, but I got distracted by what I saw on the way.

Even before launching in still conditions at Broomfields Road I could see several schools of good sized mullet in the shallows which was a real surprise. This was a positive omen for the rest of the journey.

I passed several markers with a yellow X on top, which appeared to be part of some on-going project studying the condition of the estuary. Enquiries revealed that both NIWA and ARC (now Auckland City Council) had been monitoring the silt build up for the last decade although neither knew who was responsible for the markers. Crossing over to the mangroves I managed to get close to a pair of blue herons before cruising under the puriri where I have seen shags roosting at night. Voices from the track drifted over the water and the boardwalk appeared. Floating puriri flowers gave colour to the increasingly murky waters. A keruru passed overhead.



Voices from barely visible contractors noisily grooming the path for the Big Day drifted down. Then up to the bridge through mangroves and into thick scum (which I now know is called surface plume) and deafening cicadas.

Onward sliding over a log and ducking under a willow, the scum had gone, and I was into the tunnel of bush near Hayley Lane. Just wonderful drifting in stunning bush with few signs or sounds of human activity. A fallen tree and bank of silt barred my way. 45 minutes later I was back where I started, content, with more questions than answers but another enjoyable option on a 3.1 metre tide.

Are there koura in the fishpond?

with thanks to Chummy and Jenny Cooper

Grandchildren, like all kids, like to catch anything which moves.

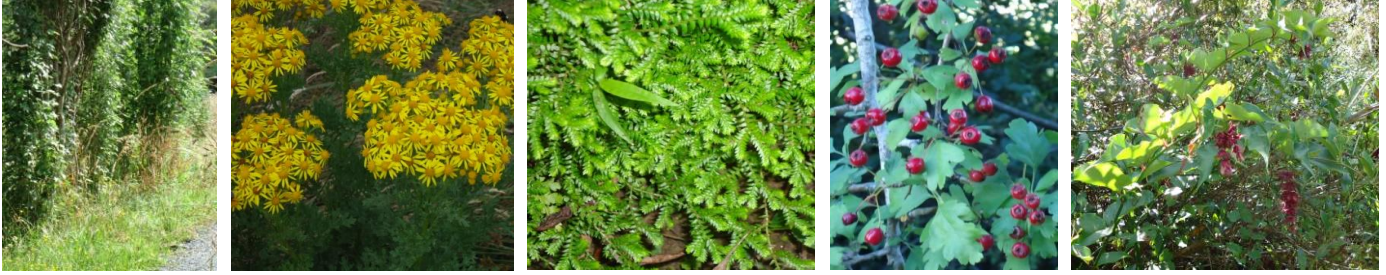
About nine years ago Chummy and Jenny's grandson presented them with koura they had caught in the creek which feeds into the Mangemangeroa Stream. These koura were released into the ornamental fishpond where they were in company of the gold fish and forgotten. A few weeks back the local resident heron, feeling in need of sustenance made good use of the fishpond. To try and offer some protection to the fish Chummy set about designing and installing aluminium screens. He noticed among the weed a rather cleaned but brown exoskeleton of a koura! Had this been eaten and returned or was it the casing left behind by a moulting koura? Further



investigation revealed a "second" koura; this one just alive but dark in colour. Chummy thinks he may have rolled a stone on it.

These koura must be descendents of the original few released by his grandsons. Was the heron catching koura or was she enjoying meaty goldfish?

The Nasties



The photographs above show the poplar being dealt to by the Council, ragwort, African Club moss, hawthorn with its wonderful red berries just waiting to be eaten and spread by the birds and lastly the Japanese Honeysuckle; an original garden escapee.

Considerable work by Graham Falla and his weed busting team has seen the lower end of the valley almost weed free. With the track extension, the focus now shifts to this area and how best to eradicate and keep weed infestation to a minimum. Some of these are not present in the lower areas, others in pasture which will eventually be planted but until then these weeds need to be “kept in check”. Of particular concern is the African

Club moss which will be spread as people walk through the infestation.

African club moss (*Selaginella kraussiana*) is not found further down the valley it is originally from Africa (as its name suggests) and thrives in damp conditions with limited light. Unfortunately it smothers young native seedlings and thus prevents the revegetation of native species occurring naturally.

The Banded Rail by Bruce Keeley

Because of its retiring temperament and its preference for thickly vegetated and oozy, mushy habitat, the bantam-sized banded rail (*Moho-pereru*) may be more numerous and widespread than it appears. However it is a vulnerable species on two counts at least: its habitat is often polluted, drained, reclaimed or otherwise abused by humans and, being a ground nester, it must cope with the depredations of rats and stoats etc. Given all that is stacked against this delightful recluse, it retains a foothold in the marshes and

mangroves of the Auckland isthmus, and is occasionally seen and heard within the Mangemangeroa reserve. It is described as crepuscular – that is, more active in the early morning and at dusk. However the careful observer may be lucky throughout the day as well, as the bird ventures out from the cover of rushes or mangroves to feed on crabs, snails and worms on the wet mud, dashing back to safety at the slightest noise or movement.

The rail's plumage, when seen in a good light and at close quarters, is very beautiful, with white spotting on the generally brown upper parts, and exquisitely narrow black and white barring on belly and sides. A chestnut band adorns its breast, and another runs through the eye below a bold white eye-stripe. Vocally, its repertoire might be best described as variations on a ‘squeaky gate’, quite different from the pukeko which is sometimes its near neighbour.

While the banded rail is widespread in Australia and the islands of the southwest Pacific, from Polynesia westward to Indonesia, it has a much reduced distribution in New Zealand since the impact of European settlement began. We do well to consider the tenacity of this lovely bird in our midst as a precious gift, and do all we can to reduce or, better still, to halt the degradation of its habitat on our urban fringe



Tanekaha *Phyllocladus trichomanoides* by Sally Barclay



Tanekaha is found not far from Hayleys Lane exit from the walkway. It is also known as the celery pine because of the resemblance of the photosynthetic "leaves" to that of the celery plant. These "leaves" are modified stems correctly called phylloclades.

This conifer is a striking upright growing tree with a most attractive bark.

The specimen present in the newly opened part of the walkway appears beside the track and is a handsome specimen. Although there are no seedlings present under it now that the



undergrowth has been cleared as part of the track construction these may appear. The species is monoecious (both male and female on the one tree). It is a tree often associated with kauri.

Tree Monitoring

Howick College has become part of a global tree monitoring program. A small group of



students have undertaken to record the growth of trees over a period of years. This data is entered onto the world database set up by the Smithsonian Institute. The equipment needed (wire bands, small springs and a set of digital calipers was provided by Microsoft) have now been used to band 10 trees within the reserve and the growth rate will be recorded on a six monthly basis. Putting the bands on the trees and getting GPS readings was undertaken easily but returning to do the first reading the trees could not be located. We have now learnt that finding metal bands round large tairaire is most easily done from below, approached from above they are very hard to spot!

Contact details for
Friends of the Mangemangeroa Society Inc

Allan Riley – Chairperson
Ph: 534 4067 allan.r@ihug.co.nz

Deborah Grant – Secretary
Ph 535 7072 debsgrant@ihug.co.nz

web address:
www.aerolink.co.nz/mangemangeroa/main.html

Election of Officers:

Chairman: Allan Riley
Secretary: Deborah Grant
Treasurer: James Lee
Auckland Council member: Bobbie Hanson

Committee: Sally Barclay, Graham Falla, John Spiller (Howick Community Board), Warwick Kitchen, Jim Duckworth, Bruce Keeley and Winston Cooper

People Page

Special Thanks to Trudy McNie:



On behalf of the Friends of Mangemangeroa Trudy was presented with a beautiful bouquet of flowers at the recent AGM

Trudy has been a wonderful parks person to work with ensuring that progress and development within the reserve has gone according to plan

In her new role as Parks Advisor she will not be sitting on the FOM committee

Bobbie Hanson (nee Marshall) our new parks person.



Bobbie and husband Paul planting a coconut tree in Rarotonga

I am the Volunteer Biodiversity Coordinator for the Southern sector Local and Sports Parks.

I gained a double science major in Geography and Marine Science and since leaving university I have done a variety of volunteer work from working with Turtles at Mon Repos in Queensland to working with Kiwi on Ponui island in the Hauraki Gulf.

I have worked for Council now for 3 years in a variety of different roles from ranging from Summer Ranger in both local and regional parks to Asset Data Coordinator in the North.

My job is to coordinate with Volunteer groups throughout the southern sector (local parks) this area extends from Otahuhu to Awhitu Peninsular.

I look forward to working with the Friends of Mangemangeroa and getting to know you all.

Bobbie



Jim Duckworth with his award

Photo: Howick and Pakuranga Times

Jim Duckworth was presented with "Environmentalism of the year runner up" at the recent Howick Community Awards. Jim has worked tirelessly for many years raising seedlings to plant in the reserve including the nikau which you now see coming away in the area below the barn. He has met with Council to discuss issues such as fencing, erosion issues and stray animals; gates and stiles have quietly been installed. When Jim thinks a job needs doing he does it.

Research in the Mangemangeroa (with thanks to Andrew Swales)

Andrew Swales gave a very informative talk at the AGM on how the Mangemangeroa Creek has changed over the last 150 years. He described how most of the eroded catchment soil is delivered to the creek during floods and how a large proportion of this sediment being trapped. These processes include the development of salt wedges (i.e., freshwater and silt plumes on the surface and seawater at the bed), low setting speed of silts and the channelized nature of the creek and Whitford Bay. The result is that the plumes are largely restricted to the channels and are pushed up and down these pathways over several tidal cycles after flood peaks. Much of this fine silt is deposited in the creeks at high tide at slack water.

Two photos below, included in his talk show how little change in mangrove forest there has been in the last 150 years



1864 University of Auckland library collection



2011

Andrew has spent a number of years working as a scientist for NIWA and was able to produce evidence from research undertaken in the southern Firth of Thames to show that:

- mangroves invade areas where sediment deposition has built tidal flats above mean sea level (i.e., half way between high and low tides)
- do not increase sedimentation rates over years–decades.

The work in the Firth also shows that on open intertidal flats, waves largely control seedling recruitment as bed sediments are frequently eroded by waves. In fact, in the southern Firth the 700 hectare mangrove forest that has developed over the last 50 years is the result of only 4 or 5 summer's recruitment. These forest-expansion events most likely coincide with extended periods of calm-weather. It appears that in the Mangemangeroa Estuary the slope of the channels down which the creek flows influences the wave action. The steeper the sides the more likely the edges are eroded and along with them the young mangroves. Thus expansion of mangrove forests is indirectly controlled by the shape of the estuary channel.

NIWA is now developing a methodology using plant-labeled soils to determine the sources of sediments deposited in estuaries. This method is based on the unique stable-isotope signatures of the organic (carbon) compounds secreted by different plants. Initial results show that mangrove leaves and roots secrete different types of alkanes (paraffin) waxes. It is believed that this property as well as radioisotope dating of sediment cores can be utilized to reconstruct mangrove-forest development before aerial photographic surveys began in the late 1930s. For example, if leaf alkanes are present in a sediment core in the year 1920, this would indicate that mangrove trees were not too far away and the absence of root alkanes would indicate that trees were not growing at the core site itself.

As part of the ongoing investigation Andrew and his team is looking at the age of sediments in the estuary and comparing these with the surrounding valley. This will entail taking small soil samples from about 100 sites in the valley under different vegetation types e.g., native bush, pine pasture, gorse, bracken etc. From these samples it is hoped to establish where the sediment deposited in the estuary has originated.

Mangemangeroa Southern Track Extension Opening 17-03-2012



Mayor Brown and Local Board member John Spiller cutting the flax (someone took the ribbon while the ceremony was being held up the hill!!)

Good morning everyone and welcome to this special place, *and unique occasion*, to help celebrate the inclusion of this exciting new section of the Mangemangeroa Valley Walkway. I'd like to acknowledge, and thank, the mayor of Auckland, Len Brown, for taking time out of his busy schedule to be here today to take part in this opening ceremony, and invite him to take a stroll along the path with others who wish to do so, after the ribbon cutting has been completed.

I welcome MP for Botany, Jami-Lee Ross and, if they are here, Councillors Sharon Stewart and Dick Quax, and hope they may be able to spend time later enjoying the new walk.

I would also like to acknowledge Kaumatua Eru Thompson, and thank him for the input of mana whenua into the track shaping, and overall project.

There are so many people to thank for seeing this section of the Mangemangeroa track through to fruition, and I would like to mention some of them.

Austen Gate and the late Jack McKenzie for their original vision for the reserves land, Allan Riley – chairman of the Friends of Mangemangeroa group, Jim Duckworth – a very supportive neighbour and friend of the project,

all the F.O.M. committee members for their unstinting dedication to the project, the council officers who have made it happen on the ground, and Howick Local Board members, all who have been unreservedly behind this and all stages of development of the Mangemangeroa walkway.

As we all know the Mangemangeroa Valley is a very special place, and deserves special consideration from those people and groups charged with its protection and advancement. The Howick Local Board acknowledges its role in providing this support and makes specific reference to the reserve in its Aspirations document. This includes supporting further extensions to the track, and the possibility of an education environmental centre being established in an appropriate location. The walkway also helps meet the board's goals of providing exceptional recreational opportunities for the local community and encouraging participation in outdoor activities for the health and wellbeing of everyone.

The Mangemangeroa Valley is an exceptional place. I have tramped and walked in most parts of New Zealand, and recently some of Tasmania, and I can say without fear of contradiction that this walkway is amongst the very best of comparable location and development. The wonderful variety of habitat, outstanding birdlife and undulating terrain provides an unforgettable experience, and is one which many people return to enjoy time and time again.

The only small improvement I could imagine would be the installation of an escalator from the bottom of the new track to the top of Hayley Lane – it's a damned steep climb up from there to the ridge on Point View Drive.

Unfortunately, funding for this is not available within the Howick Local Board's current budget but I might have a quiet talk with Len later and see if this falls within the governing body's overall public transport policy!

Meantime, enjoy the walk, the opportunity and the exercise, in the knowledge that you are doing something good for yourselves and participating in a superb facility that will continue to be supported by both council and your local board, as well as the terrific work that the F.O.M group do behind the scenes.

I would now like to invite Len Brown, mayor of Auckland super city, to say a few words.....

John Spiller, Howick Local Board.