



Fig. 1 Main kinds of ptyxis, leaf in t.s. (but l.s. in 'circinate', 'replicate').



Puhinui Reserve at Wiri on the Manukau Harbour ABS Field trip 6 May 1998

Sandra Jones & Mike Wilcox

In the Newsheet advertising this field trip, our leader (Rhys Gardner) described the reserve as consisting of coastal scrub, open spaces and salt marsh, with an expanse of old cabbage trees a feature of the Puhinui Stream which forms the southern boundary. An additional lure for thirty-nine BotSoccers was the hope that we might see a number of locally uncommon species such as *Chenopodium glaucum*, *Mimulus repens* and *Nertera scapanioides*.

This very extensive piece of land (199 ha) was purchased by the Manukau City Council in 1991. The land was originally part of the Clendon Grant, and farmed by McLaughlin from 1845. It later became known as Thurlow's Farm. It occupies the southern portion of the Puhinui Peninsula between the tidal Puhinui Stream and the Manukau Harbour. Wiri Mountain and McLaughlin's Mountain (Matukurua) are nearby. The Council's intention, according to the February 2000 Draft Management

Plan, is to "deliver quality leisure opportunities for the people of Manukau while protecting and enhancing Puhinui Reserve and its outstanding environmental landscape and heritage values". The "Reserve will be a passive reserve which is managed through grazing, rather than a farm reserve." Aucklanders will recall that the Sweetwaters Music Festival was held here in January 1999. Approval in principle was given in 1993 for the development of an ethno-botanic garden on the reserve. However, at February 2000, the garden has not yet been established.

As usual on our field trips, we didn't progress far or fast enough to cover the whole reserve. From Price Road, we followed the northern boundary across pasture and beside a swampy water course to the Harbour foreshore. From there we turned south and followed the coast for some distance before stopping for lunch while we watched a couple of shower squalls come to us across the harbour. We

then turned inland to investigate the narrow strip of manuka scrub that runs parallel to the shore. After pottering around this area for some time and admiring the *Nertera scapanioides* we walked a short way further south, but then decided to call it a day. We followed the stream, across pasture, back to Price Road. Unfortunately, this meant that we didn't make it as far as the southern salt marsh to see the *Chenopodium glaucum* and the *Mimulus repens*.

The report below doesn't attempt to list the full range of species present, even in the areas we visited. Instead, it represents fairly random jottings by the authors in their note books on the day. A more comprehensive (but clearly incomplete) species list is published in the Draft Management Plan for the Reserve (February 2000) available from the Manukau City Council. Put the two lists together and that will be a good start. Adventive species are identified by an asterisk (*).

There were a few old trees of note on the reserve, for example **Pinus radiata*, **P. muricata* and poplars. We spent some time examining leaves of a **Eucalyptus botryoides* which were being attacked simultaneously by three defoliating insect pests, the combined effect sufficient to cause mortality. One of these, the brown lace lerp (*Cardiaspina fiscella*), makes a "lerp", which attracted much curiosity, and which one person observed resembled a shuttlecock. Apparently the insect not only sucks the leaf, it also releases toxins. On the other hand, the larvae of the leaf mining sawfly (*Phylacteophaga froggatti*) causes blisters on the leaves, and the eulophid gall (*Ophelium* sp.) forms galls, as its name would suggest.

Investigation of a fresh-water pond (described in the official description of the Reserve as a "small lake", partly man-made) near the entrance at Price Road and a larger swamp formed in a slow-flowing water course closer to the harbour, revealed a number of aquatic and semi-aquatic plants and other species which either like damp places, or simply don't care one way or the other. The native species included abundant *Myriophyllum propinquum*, a thick sward of flowering *Isolepis prolifer*, *Eleocharis acuta* which was difficult to spot in the sea of *Isolepis*, *Potamogeton cheesemani*, *Cotula coronopifolia*, *Isachne globosa* in seed, and the fern *Hypolepis ambigua*. *Polygonum salicifolium* with pink flowers and *Epilobium pallidiflorum*, a robust, erect species, sporting large bright pink/mauve buds, were also present. In the pond, a tuft of *Carex secta* caught our attention, and brave Juliet created impressive waves as she trod carefully on the vegetation which

formed a false floor over pond water to inspect it on our behalf. *Carex virgata*, the other swamp carex, was present in the gully swamp, as was *Carex maorica*. Other monocots included *Schoenoplectus tabernaemontani* and *Baumea articulata*. The adventive species included **Ludwigia peploides* (primrose willow) with pretty yellow flowers, **L. palustris*, **Alternanthera philoxeroides* (in flower), **Potentilla reptans*, a flowering *Ranunculus* (**R. flammula*), **Polygonum hydropiper* with its drooping inflorescence still in bud, **Paspalum distichum*, **Juncus effusus* and **J. articulatus*.

The Manukau Harbour foreshore at the northern end of the Reserve has abundant mangroves (*Avicennia marina* ssp. *australasica*) with some patches of eelgrass (*Zostera novazelandica*) found among mangrove pneumatophores, and salt marsh plants such as *Sarcocornia quinqueflora*, *Selliera radicans*, *Samolus repens*, *Apium prostratum*, *Triglochin striata*, the jointed wire rush oioi (*Apodasmia similis*), *Baumea juncea*, *Bolboschoenus fluviatilis*, *B. medianus*, *Cyperus ustulatus*, *Isolepis nodosa*, *I. cernua*, and sea rush (*Juncus kraussii*) together with occasional shore ribbonwood (*Plagianthus divaricatus*) on higher ground.

Damp cliffs and the depression behind the dunes further south support a variety of herbs, ferns, shrubs and monocots. Among the herb & shrub species were *Lobelia anceps* (in flower), *Haloragis erecta*, *Leucopogon fasciculatus*, *Olearia furfuracea*, *O. solandri* with seed heads, *Myrsine australis*, *Melicactus ramiflorus*, *Muehlenbeckia complexa*, *Coprosma robusta* and *Geniostoma rupestre* var. *ligustrifolium*.

The fern flora was represented by *Doodia australis*, *Asplenium polyodon*, *Histiopteris incisa*, *Pteris tremula*, *Pteridium esculentum*, *Blechnum triangularifolium*, *B. novae-zelandiae*, *Paesia scaberula*, *Cyathea medullaris* and *Gleichenia dicarpa*. Monocots present included *Oplismenus imbecillis*, *Cordyline australis*, *Typha orientalis*, *Juncus planifolius*, *J. australis*, *J. gregiflorus*, *J. caespiticius*, *Phormium tenax*, *Gahnia setifolia* with ripe brown seeds, and *G. lacera*. The weedy element included abundant florist's smilax (**Asparagus asparagoides*), African boxthorn (**Lycium ferocissimum*), and **Cortaderia selloana*. Common plants on the coastal perimeter are tall fescue (**Schedonorus phoenix*), brush wattle (**Paraserianthes lophantha*), and **Atriplex prostrata*.

Manuka (*Leptospermum scoparium*) scrublands form an extensive belt of about 10.5 ha behind the

foreshore along to the Puhinui Creek in the south. Cattle grazed through here up until about 10 years ago, but the almost pure manuka canopy is in good condition, and of a fairly uniform height of 4-7m.

Coprosma tenuicaulis was common in the understorey, and a *Coprosma* hybrid was seen.

Despite the presence of one large kahikatea (*Dacrycarpus dacrydioides*) standing well above the surrounding canopy, we could find only one juvenile nearby. *Carex virgata* was abundant and *C. geminata* was common. There were patches of *Nertera scapanioides* on *Sphagnum* moss. Only one ripe red fruit could be found. Other species recorded were *Centella uniflora*, abundant *Isachne globosa*, *Histiopteris incisa*, *Leucopogon fasciculatus*, *Blechnum novae-zelandiae* (the swamp form),

Cyathea dealbata, *Baumea rubiginosa*, *B. tenax*, *Cordyline australis*, *Muehlenbeckia australis*, *M. complexa*, *Pteridium esculentum*, *Geniostoma rupestre* var. *ligustrifolium*, *Hydrocotyle novae-zeelandiae*.

It was clear that both authors had run out of steam by the time they left the manuka scrub to return to their cars, as their note books are silent on the subject of the stream-side flora. One author does however recall that while we were crossing pasture to the stream, Wendy found (and carefully uprooted) a Bathurst bur (**Xanthium spinosum*) with really vicious-looking spines. The native freshwater buttercup, *Ranunculus amphitrichus*, has also been recorded from the reserve.

Reference:

"Puhinui Reserve: Draft Management Plan" February 2000, Manukau City Council.



Remembering Edith Katie Reynolds 25 February 1910 - 25 December 1999

Alan Esler (Coordinator)

Katie Reynolds touched many hearts. Her life and character were recalled the long-time friend Rosemary Roberts in the Northern Advocate, Whangarei. Auckland Botanical Society is grateful to this newspaper's editor for permission to reprint Rosemary's tribute. When it was known that Katie would be remembered in this Journal her friends volunteered words from the heart in her praise. We are proud to pay our respects to this remarkable lady. Lucy Cranwell wished to express her compliments also but her own death sadly came too soon. She would have recalled many outings such as the Hen Island trip in 1934 which Katie described in an article in the *Auckland Botanical Society Journal* 43: 35-39 (1988).

Rosemary Roberts (writing for the Northern Advocate 27 Jan 2000, p. 2; reproduced with permission.)

Notes in square brackets are corrections to Rosemary's original text.

Katie Reynolds of Whangarei, a self-taught botanist who never attended university but was consulted by leading scientists, has died. She was 89.

Her achievements won her some of New Zealand's highest awards for those who study plants — she was a Fellow and an Associate of Honour of the Royal N.Z. Institute of Horticulture, and was also awarded the Institute's prestigious Loder Cup for the preservation of native flora. In nominating her for an award, Emeritus Professor of Botany at Auckland University, F. J. Newhook described her as, "legendary in botanical and horticultural circles ... unreservedly accepted by professional scientists as an authority." A gifted communicator, Mrs Reynolds combined a research role sharing her encyclopaedic knowledge of plants — particularly New Zealand native plants — with people of all ages and levels of learning, over several decades.

Described at her funeral as "fearless but never fierce," Mrs Reynolds was a tenacious battler on conservation issues, always presenting her arguments with meticulously researched factual evidence.

She led the charge on moves to save Waipoua kauri forest and other less well-known areas of ecological importance in Northland; she was affectionately dubbed "Coppermine Kate" after playing a leading role in defeating proposals to mine Coppermine Island in the Hen and Chickens group off the east coast of Northland, in the early 1970s.

She was one of the first people to speak out about the damage being done by possums, particularly to pohutukawa. In careful research completed before "going public," she proved beyond doubt that possums were responsible for the damage and