Trelissick Park restoration history for Wellington Botanical Society visit 6 May 2023

Abbreviations:

TPG = Trelissick Park Group

WCC = Wellington City Council

GW = Greater Wellington Regional Council

DOC = Department of Conservation

OMB = Old Mans's Beard

OWB = Otari Wilton's Bush

VUW = Victoria University

Definitions:

Heritage trees = podocarp & other long-lived species.

The Forest Remnant Track = traverses along the forested slope below Trelissick Crescent/Ngaio Gorge Road, emerging at the lower Kaiwharawhara valley.

Refer to gridded map on Trelissick Park Group for locations - first 3 numbers: E-W, last 3 numbers: N-S.

<u>Interferences</u> – 19th century logging, ongoing infrastructure upgrades (road/rail above either side and sewer through the middle), stream scouring/flooding from fast stormwater runoff in large catchment, exotic species from garden escapes/dumping/wind/birds. Also, non-indigenous natives, notably puriri, Pōhutukawa, *Psuedopanax lessonii* hybrids, karaka, karo, *Pittosporum ralphii*, lacebark (*Hoheria populnea*).

<u>Problem pest plants</u> – Apart from blackberry, gorse, and montbretia mentioned below: OMB, Japanese honeysuckle, climbing asparagus, Asiatic knotweed (a couple of feeble infestations), cherry/sycamore (especially below Hanover Street), bindweed, tradescantia, climbing dock, buddleia, broom, Montpellier broom, Australian wattle from railway slopes above lower Kaiwharawhara Stream in magazine building area. All tackled with mixed success by WCC/GW contractors and TPG. Willows along streambanks and below Crofton Downs Station were an early problem, dealt with by WCC. One willow was missed and a number of small trees have established from branches carried down the stream. A couple of European alder have established from seed on streambanks and need to be removed before they get any larger. Large pine trees falling across Kaiwharawhara Stream into park from slopes below Hanover Street. Himalayan balsam invaded stream banks about 20 years ago – eliminated by TPG. An exotic fern, Cretan brake has established on the track below Hanover Street and other scattered locations.

<u>Planting comments</u> – Around 95,000 planted in park since 1991. Flax losses – see below. Many ferns were planted (GW's 'Take Care' fund) but most perished. 2,000 bush rice grasses from OWB: mixed success with some naturally seeding. Discovered rabbits have a penchant for coprosmas, hebe, cabbage tree, kōwhai. Some spraying by-kill. Frost in the valleys killed some plantings up until about 2006, but frosts are rare these days.

Restoration history and aspects for the walk starting from Waikowhai Street entrance

Slope below entrance down to the stream was clothed in buddleia in early 2000s - cleared by WCC, planted by TPG. There is a single kauri tree on the slope below the entrance (not visible from the track).

TPG has lost several trees planted alongside the stream (including tree fuchsia) going down from bridge 1, due to scouring.

Slope above Wightwick's Field was gorse-covered in early 2000s – cut gorse left on ground and mulch added to shade out seedling regrowth, then planted – all by TPG.

Note recent 'heritage' tree planting around Wightwick's Field (kahikatea, mātai, tōtara and titoki).

Note maturing pukatea, miro, nīkau, rimu and kahikatea between 007063 and 005055. Nikau are just starting to develop trunks after 30+ years.

Upstream of Bridge 2

More recent 'heritage' tree planting above stream bank upstream of bridge 2

Much streambank montbretia along there.

Maturing totara tree just upstream of bridge 2 was planted in memory of someone about 10 years ago.

Trench next to track upstream of bridge 2 contained flax until they died mysteriously about 3-5 years ago. Most flax in the park succumbed to yellow leaf disease about 10 years ago. Blackberry still comes up in the mowed area, despite grubbing out.

Slope above the other side of the track upstream of bridge 2 was all in blackberry 20 years ago. Helicopter-spayed by GW/WCC, then planted by WCC. Tōtara planted at the same time show mixed success. The ones on the edges have grown well but the ones under taller lemonwoods have died or been suppressed. Lemonwoods were removed 2-3 years ago but the tōtara have been slow to respond to improved light levels.

Between Bridges 2 and 5

The two railway-leased areas between bridges 2 and 3 and bridges 4 and 5 were all in blackberry in 2006. It was cut and regrowth sprayed under GW's 'Take Care' fund. Planted by TPG.

Slope above bridge 4 was all in blackberry 20 years ago. Helicopter-spayed by GW/WCC then monoculture of lemonwood planted by WCC. TPG subsequently thinned out lemonwood and interplanted with other species.

Steep slope opposite grassy area upstream of bridge 5 was all in blackberry 20 years ago. Helicopter-spayed by GW/WCC, then TPG planted toetoe and other species, the former dominating for a while until shaded out by the latter and infill planting.

Note 'heritage' trees planted behind seat in grassy area, in memory of Martin Hunt.

Mature kamahi – beside track at 030018. Flowered for the first time in 2022.

Downstream of Bridge 5

Blackberry-covered riparian shelf on railway land downstream of bridge 5 cut and sprayed in 2009 by a contractor under DOC-instigated Community Conservation Fund, encouraged by GW. Planted by TPG, potted-on from root trainers from Taupo Native Plant Nursery from Wellington-sourced seed.

Note recently planted 'heritage' trees around/in grassy area downstream of bridge 5, including the memorial tree grove at the downstream end. Olaf John's tree is the tītoki. Blackberry seedlings keep reappearing, despite previous grubbing out.

Forest Remnant

At the 'crossroads': huge tōtara, mātai, tawa and rewarewa. One of two large kamahi died a couple of years back. Look out for sapling and adult milk trees.

A short distance down the branch track around 034018: an old hinau in tall forest of tawa, titoki and rewarewa.

A short distance down the Northern Walkway from there: large kānuka. Also note tōtara and mātai regeneration in this area. (kahikatea seedlings join tōtara and mātai further up the track towards Trelissick Crescent).

Over Bridge 6 - track up to Hanover Street

Worth looking at the boggy '51 trees' mosque victim memorial planting area (take minor track branching left off Northern Walkway just after crossing bridge 6, enroute to Wadestown). The site is at 044018. Kahikatea don't mind being planted close together and are growing well. Some other species, e.g. nīkau have failed. Replacement kahikateas are coming. Note 4-5 m high kahikatea planted in late 1990s, one jeopardised by continued bank scouring. These trees are now reproductively mature and produced pollen cones (male trees) and fruited heavily (female) in 2022.

The slope up to Wadestown from there was thickly carpeted with tradescantia in the early 2000s, now largely eliminated, except for a few patches (combination of contractor spraying and TPG hand-removal). The lower slopes were blackberry covered – more helicopter spraying 20 years ago. Good canopy closure has been achieved. Of note are about 20 well established totara that should start reproducing in the next few years.

In the upper valley, closer to Hanover Street, mature lemonwood plantings have become top-heavy and are falling due to windthrow. It started about 5-10 years ago and continues, opening up the canopy for enhanced growth of plantings of rewarewa, tawa, kohekohe and nīkau.

Gorge track downstream of Bridge 6

Both sides of track at 040018: rimu planted around 2006. One tree beside the track is decorated as a Christmas tree every December.

The track leads through remnant forest in the gorge. This area was heavily shaded but has been opened up over the last decade through the death of mature trees and large slips.

Look out for a large overhanging tutu where the track crosses a rock outcrop beside the stream.

Huge tawa beside lower sewer tunnel entrance above the end of the vehicle track.

A lone northern rātā is visible on the ridge above the sewer tunnel. It can be seen by looking back from further down the track. It is only one of two wild northern rātā in the lower Kaiwharawhara Valley (the other grows on a road bank in the top part of Old Porirua Road).

You will pass two impressive tītoki beside where the vehicle track has been washed away in last year's floods.

The Lower Valley

Beside grassy area 070033 to 077038: recent 'heritage' tree plantings (also upstream) of tōtara, kahikatea, mātai, rimu, rātā, tītoki and hīnau.

Look out for three young adult northern rātā. One is a memorial tree for Green Party leader Rod Donald (about opposite where the Forest Remnant track comes out).

Further down the vehicle track is the karaka zone. WCC removed some close to the track to placate dog owners whose dogs were poisoned by eating fallen berries.

Note black plastic covered tradescantia heaps next to vehicle track. Compressed and left to decompose it makes good compost after four years or so. The jury is out on the alternative large bags provided by WCC.

Open areas beside vehicle track upstream of eel sign: recent planting and more 'heritage' trees – mainly tōtara and kahikatea. These were supplemented last year by a mass planting of regeneration species and further heritage trees.

'Flood plain' at 104040: all grass and weeds in early 2000s, planted and maintained since (TPG's 'adopt a spot' scheme).

Look for mature large leaved milk tree directly behind the sign board up from the debris weir. We originally learned about it from Geoff Park. It was opened up to view last year by the felling of a karaka.

Scattered milk trees are a feature of the forest remnants and regenerating forest in Trelissick Park and the lower Kaiwharawhara Valley. There are trees that fit the description of both the large-leaved and small-leaved species, and they could well represent a hybrid swarm.

Another local feature are the two <u>Melicope</u> species, whārangi and poataniwha. Intermediate hybrids can be seen further down valley, above the lower section of Old Porirua Road.

Wild kowhai are a feature of rocky outcrops and ridges on both sides the stream, below the debris weir. They are part of the only health population of <u>Sophora microphylla</u> on the Wellington peninsula. There are around 50 trees growing in the forests between the bottom of the gorge and the historic magazine building.

Look for a number of northern rātā upstream of magazine building. They've grown well since they were released 3-4 years ago, following overtopping by faster-growing species.

Magazine building area: currently very weedy due to three years barricaded due to Ngaio Gorge Road slip stabilisation project above. Large fennel grove next to building. The raised stream bank opposite the building was planted by WCC in 2005. Further downstream towards the park entrance was planted by

TPG (VUW and 'adopt-a-spot'). Totara are growing well in this area and the larger individuals should reach reproductive maturity in the next few years.

Returning up Forest remnant Track to Trelissick Crescent and Zig-zag track then back to Waikowhai Street Going up the Forest Remnant Track, note milk trees just below the track on the left around 067037.

If you exit to upper Ngaio Gorge Road, note the huge tītoki trees below the bend around 057058.

It's then worth walking around Trelissick Crescent all the way to park entrance 3 to admire Marilyn Hester's dense verge planting to thwart the rubbish and garden waste dumpers. There are some mature hīnau behind.

The party could then return to Waikowhai Street via the grassy slope below entrance 3 – the LHS was once lined with beautiful flax (succumbed to yellow leaf disease). To the right below the entrance is a recent revegetation project that has been recently mulched.

Jonathan Anderson says that 'on and outside corner of the zig-zag track is a grouping of three maire trees'. Richard Grasse says he found four (black ones?) below the grassy slope. [Around 2007 Manawa Kariori Society nursery supplied 5 white and 5 black maire].

Planting both sides of the zig-zag track feature healthy plantings of heritage trees, notably tōtara, mataī, northern rātā, rewarewa and tawa. Kamahi was also planted but it hasn't fared well. The conditions were either too dry or it was overtopped before it could establish.

Finally, look out for successfully under planting of older lemonwoods along a small stream on the lower part of this track. Nīkau, kahikatea, miro and rewarewa are all growing well.

For more, see 'History' page of TPG's website: Trelissick Park Group.