

The Carillon landscape – then and now

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ABSTRACT

From late February to late April 2009, I recorded the established indigenous New Zealand plants on the Carillon ‘island’ at the National War Memorial, Wellington. This steep hillside was landscaped in the 1930s, mainly with local trees and shrubs. I compared a landscaping plan dated 1968 and two memos by Nancy Adams with the present gardens. Species growing there today that were not from the Sounds-Wellington Ecological Region were identified. There were many self-sown seedlings of *Coprosma*, *Metrosideros*, *Pittosporum*, *Pseudopanax* and *Sophora*, with visual evidence of some hybridisation.

INTRODUCTION

In 1929 the Government held a ‘National War Memorial, Art Gallery and Museum’ design competition for suitable public buildings for the site at 7 Buckle St., Wellington. This was won by Auckland architects Gummer and Ford. The site was on the former Mt Cook, or Pukeahu, the summit of which was reduced by 20 m in the 1840s for a garrison and another 10m for a prison in the 1870s (Anon. 1936; McLean 1998). It is north facing and steep, c.24 m above sea level. It has poor, compacted soils and is very exposed to Wellington’s northerly gales.

Old photos sourced from the National Library of New Zealand show that the site was bare and being terraced when the Carillon was built in 1931–1932. The Carillon is flanked by steps from Buckle St to the top of the site, leading to the Art Gallery and Museum buildings across the drive. At the base of the Carillon is the Hall of Memories, finished in 1964. This cuts the landscaping in half symmetrically. The slopes are terraced, grassed and mown, with wide borders of trees and shrubs along the encircling driveway. The Carillon was dedicated on 25 April 1932, Anzac Day (Fig. 1).

The Art Gallery and Museum building was completed four years later. It was renamed the Dominion Museum in the 1970s and vacated in 1996, when the Museum of New Zealand Te Papa Tongarewa opened on Wellington’s waterfront. Today, Massey University’s School of Design occupies this fine building and Massey is in charge of maintenance of the

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Figure 1. The Dedication of the Carillon War Memorial, Anzac Day, 25 April 1932. A crowd of 10,000 attended. Photographer Sydney Charles Smith. G20314 Alexander Turnbull Library. SC Smith Collection.

extensive grounds beyond the Carillon island. These grounds were not included in this study. After years of dispute the Carillon site itself is now Crown Land (McLean 1998).

A Memorial Park was proposed in 1990 to include more war memorials with plantings over the road from the existing area. The original scheme had proposed a boulevard from the Carillon to Courtney Place. The funding for this scheme has been postponed by the present Government but it is typical of the history of this site that proposals take decades to be actioned.

Since the Anzac Service was first televised from the Carillon in 1996, and the remains of an unknown soldier from the battle fields of Europe were interred in the Tomb of the Unknown Warrior in 2004, the profile of the National War Memorial has much increased. The Hall of Memories is staffed and is open daily. There is a steady flow of visitors.

At the time of the original landscaping the Director of Parks and Reserves was J.G. (“Pohutukawa”) McKenzie. He would have been in charge of the planting of the site (Walter Cook pers. comm.). Fig. 2 shows the small pohutukawa (*Metrosideros excelsa*) trees planted on the slopes. These are mature trees today, so from a distance the Carillon appears to be in a grove of pohutukawa, but within there are steep, extensive lawns.



Figure 2. Scene on Buckle St, Wellington with the National War Memorial Carillon, 1936. The building housing the National Museum and Art Gallery is behind. The first plantings of pohutukawa are just visible on the Terraces. Today the foreground is the site of the proposed Memorial Park. Photographer unknown. G1008351/2 Alexander Turnbull Library.

A landscaping plan (Fig. 3), drawn up and dated 12.6.1968 by Nancy Adams, the botanist, curator and illustrator whose place of work was in the National Museum, shows existing and proposed plantings. Also in the archives of the Museum of New Zealand Te Papa Tongarewa, there are two of her memos, one dated 1983 and the other undated, outlining suggestions for improving the plantings on the site. Nancy Adams retired in 1987 (Mark 2007).

The intention of my study, which was for the Waikato University's 'Flora of Aotearoa' course, was to compare Nancy Adams's plan with what is on the site today. As the original plantings are now over 70 years old there was a possibility that regeneration and hybridisation might be found. I researched the pre-European distributions of the species to establish what non-local species from other Ecological Regions have been brought on to the site.

The area enclosed by the driveway—here referred to as the Carillon island—was surveyed. The flat, walled gardens, which in the original plans had openings only off the central stairs, have since had access cut through those walls into the slopes below, improving the pedestrian 'flow'. The Tomb of the Unknown Warrior on the forecourt of the Carillon has beds of

rosemary (*Rosmarinus officinalis*) for remembrance established on either side of it. Behind the Carillon, over-mature trees of *Pseudopanax ferox* and *P. crassifolius* were cut down recently, and today the bed is under mulch, awaiting replanting. A species list is provided in the Appendix.

During this survey I visited the site several times a week and at various times of day, from 26 February to 24 April 2009, to record all the plant species in the gardens. I paid special attention to seedlings and hybridisation. The lawns were not analysed. Sometimes the Carillon bells were playing, sometimes tui were calling in the trees. The site is always grand and peaceful.

NANCY ADAMS'S PLANS

From the landscaping plan (Fig. 3) and two memos by Nancy Adams (Adams undated, 1983), we know something of what she was proposing for this area. "A native ornamental garden, as we originally envisaged it, should become almost self maintaining." This would "... eliminate most of the awkward mowing by planting the steep, grassed banks with native tussocks and tough low growing shrubs that will withstand dry, windy conditions and that will remain attractive during the summer when the lawns are parched." This is shown on the landscaping sketch, Fig. 3, with informal plantings of *Coprosma*, *Discaria toumatou*, toetoe (*Cortaderia*), *Metrosideros perforata*, tussocks, *Sophora prostrata*, and *Corokia*. These plantings did not occur, but somehow the steep terraces were still mown (today with line-trimmers).

The trees Nancy Adams suggested for the borders were: "Native beeches, in particular *Nothofagus solandri*. Southern rata [*Metrosideros umbellata*] to complement the specimen of northern rata [*Metrosideros robusta*] on the upper corner of the western drive, also *M. perforata*, *scandens* + *carminea* [sic] against walls. Karaka [*Corynocarpus laevigatus*] in the shelter belts to the south east of the building, also native fuchsia [*Fuchsia excorticata*], rewarewa [*Knightia excelsa*], puriri [*Vitex lucens*], titoki, [*Alectryon excelsus*], kohekohe [*Dysoxylum spectabile*], all hardy coastal trees. Cabbage trees including *Cordyline banksii* and various cultivars with attractive foliage... Various manuka [*Leptospermum scoparium*] and kanuka [*Kunzea ericoides*] of which there was once a good selection... Kumarahou (*Pomaderris*); *Hebe* [*Heliohebe*] *hulkeana* and other species of *Hebe* of various forms, whipcords etc. *Myrsine divaricata*, *M. australis* and others if available."

With regard to various flax cultivars and forms of *Phormium tenax* and *P. cookianum*: "A reference collection of these would be both instructive and decorative".

Nancy Adams also listed: "Various *Olearia* and *Senecio* species; divaricating shrubs including *Coprosma*, *Hymenanthera* [now *Melicytus*],

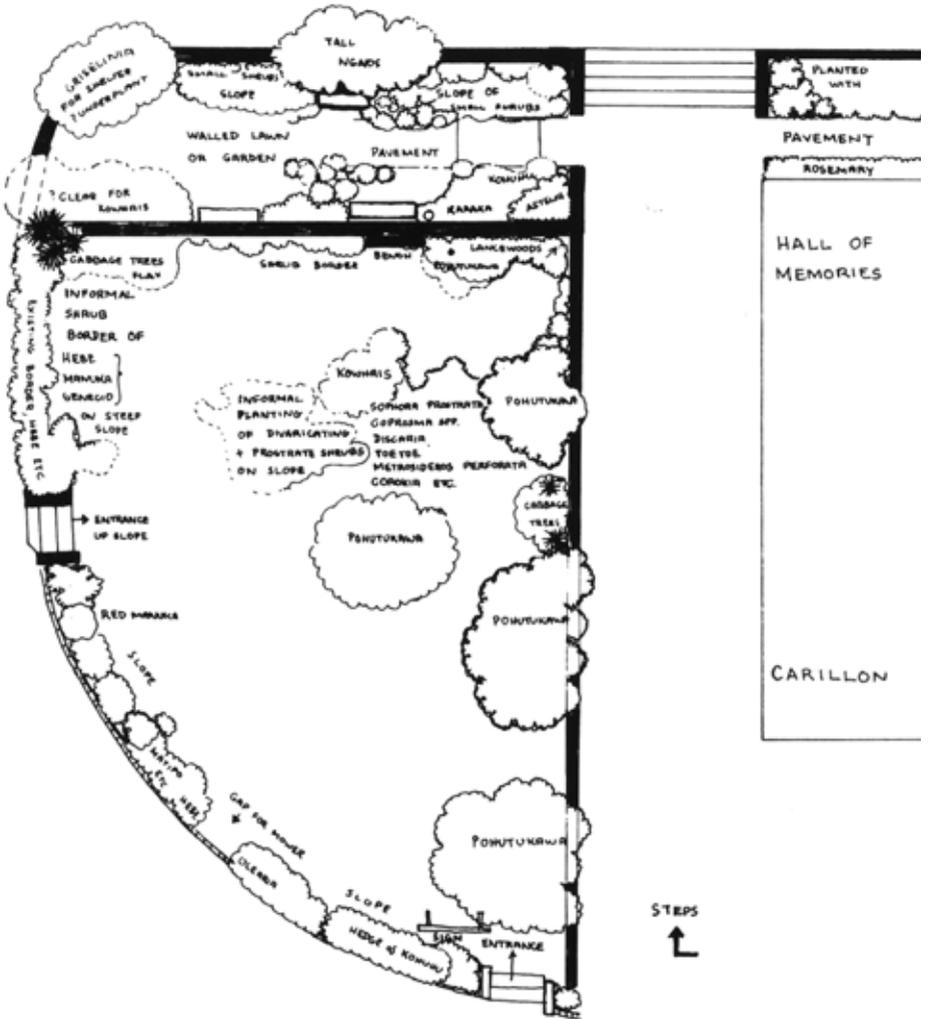
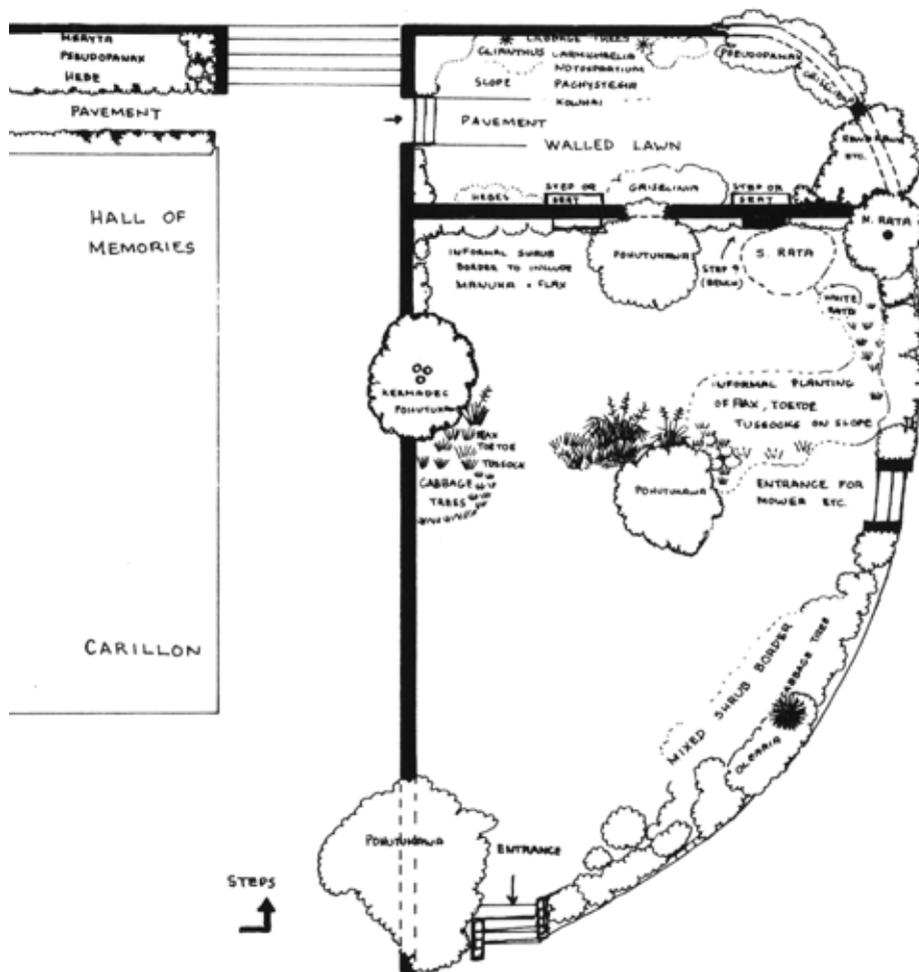


Figure 3. Buckle Street Museum Site: Landscape Plantings; 12 Jun 1968; Nancy Adams; MU000448/001/0003/0004; Museum of New Zealand Te Papa Tongarewa.



Discaria (once found growing naturally on this site in the 1860s [Mount Victoria is the closest site to the Carillon for *Discaria toumatou* noted by Elder 1966]); *Muehlenbeckia astonii*, *Pachystegia insignis* (beautiful specimen grubbed out a few years ago)."

Of the trees mentioned above, there are today three puriri, fruiting prolifically, ready for the native pigeons when they arrive from Zealandia (the Karori Wildlife Sanctuary). A commemorative planting, with plaque, of a rewarewa stands conspicuously in the lawn. *Olearia* and *Brachyglottis* (formerly *Senecio*) species, *Muehlenbeckia astonii*, *Melicytus* (formerly *Hymenanthera*) and a superb *Myrsine divaricata* are well established. The site is still waiting for the *Pachystegia* and *Discaria*, the *Fuchsia* and kohekohe, the titoki and beech.

Further suggestions included: "Native conifers e.g. totara [*Podocarpus totara*], kaikawaka [*Libocedrus* spp.], pygmy pine [*Lepidothamnus laxifolius*], rimu [*Dacrydium cupressinum*] etc—the only native conifer on the site is the young kauri [*Agathis australis*]." Today, the kauri, in a bed outside my study area, is a fertile specimen c. 8 m tall. There are a few young totara, including one in the border with a commemorative plaque.

Nancy Adams suggested planting native ground covers; e.g., "*Acaena* spp., *Coprosma*, *Carex*, *Danthonia*, *Chionochloa*, *Pratia*, *Libertia* spp. especially *L. peregrinans*. *Blechnum penna-marina* and other hardy ferns. *Arthropodium cirratum* and blue-berry, *Dianella*. *Astelia* spp. *Rubus* spp. particularly *R. parvus*." These plants would "cover bare soil and suppress weeds... More demanding species can be added... as suitable spaces become available e.g. *Clematis*, *Celmisia*, *Aciphylla* and ferns."

Clumps of *Arthropodium cirratum* and *Dianella nigra* are now well established in the borders. The one *Clematis paniculata* is now 5 m high, in a *Hoheria populnea*.

DISCUSSION

It is 70 years since these gardens were laid out. My studies show that the layout of wide borders along the driveway and lines of pohutukawa and cabbage trees beside the steps up the centre of the site remains the same, but the detail of the plantings has changed. The trees and shrubs have matured. The more short-lived plants, like *Sophora prostrata* and kaka beak (*Clianthus* sp.) are still in the borders, but not where they were originally planted. There are no toetoe (*Cortaderia*) or matagouri (*Discaria toumatou*), despite suggestions by Nancy Adams. Compare her original plan (Fig. 3) with the contemporary site (Fig. 4).

When the drive-on access to the Hall of Memories was created at the time the Tomb of the Unknown Warrior was installed in 2004, the new cutting



Figure 4. Carillon island, 2009. Mature pohutukawa around Carillon and Hall of Memories. Fenced off in the foreground is the vacant land suitable for an extended Memorial Park on Buckle St. Photo: Julia Stace Brooke-White.

was planted with a 20 metre border of *Sophora molloyi* ‘Dragon’s Gold’. This mass planting, with its visual simplicity, is favoured in contemporary landscaping. However, it contrasts with the earlier border plantings with their huge variety of individual species. Would Nancy Adams have approved?

Of the more than 80 native species recorded, several are from outside the Sounds-Wellington Ecological Region (Appendix). Plants of note include:

- six *Pomaderris aspera*, an exotic from Australia that is commonly planted by mistake instead of the native *Pomaderris apetala* and of very similar appearance (Geoff Davidson pers. comm., 13 May 2009) (Fig. 5).
- an intriguing, mature, dwarf, weeping *Podocarpus* specimen of unknown provenance. It may have some genes from *P. nivalis* to give this form. (Bruce Clarkson pers. comm., 24 Aug. 2009) (Fig. 6).

A special botanical feature of this site is the numerous hybrid seedlings derived from parents in the same genus that are planted in the borders; e.g., *Coprosma*, *Metrosideros*, *Pittosporum*, *Pseudopanax*, and *Sophora*. All these species and their hybrids are common in the plantings around Wellington city as well. Some species are wind dispersed, some are bird dispersed. However the numbers of mature trees in this site provide a huge seed source and there is visual evidence of hybridisation.



Figure 5. *Pomaderris aspera*. There is a cluster of six mature trees >5m tall, on the lower slopes. New buds, first seen in April 2009 and photographed in August, flowered in November. Upper leaf surface usually glabrous, unlike the native *P. apetala*. Photo: Julia Stace Brooke-White.



Figure 6. *Podocarpus* specimen. Mature weeping totara. Natural unpruned shape (Phillipa Gould pers. comm., 17 Apr. 2009). Possibly with genes from *P. nivalis* (Bruce Clarkson pers. comm., 24 Aug. 2009). Photo: Julia Stace Brooke-White.

The three *Metrosideros* tree species have many seedlings and one of the seedlings may well be *M. excelsa* × *M. robusta*. There were great drifts of sharp seed on the steps in late April being tidied up before the ANZAC Day celebrations.

The biggest numbers of seedlings derive from the *Pseudopanax* parents. A wide range of characters, in fact a hybrid swarm of *P. crassifolius* × *P. lessonii*, occurs there (Leon Perrie pers. comm., 18 Mar. 2009). However, the *Pseudopanax laetus* and *P. arboreus* do not appear to be involved. *Pseudopanax ferox* has been cut down since but self-sown seedlings with its characters are still there. *Pseudopanax discolor* grows nearby but is not on this site. However, some young plants have distinctly bronzed leaflets. Plants were classified on their visual characters such as number, length and breadth of leaflets, whether petiolules were present, and whether petioles were jointed.

There are many *Sophora* seedlings. Only time and maybe DNA analyses will reveal what parentage they have. Perhaps they, too, comprise a hybrid swarm.

There is one possible *Pittosporum eugenioides* × *P. tenuifolium*; a thin-leaved, glabrous and diseased specimen only 0.5 m high. There are also variegated and tiny-leaved *Pittosporum* plants which are not yet fertile. Karo (*P. crassifolium*) seedlings abound, mainly with diseased leaves. These are caused by the *Pittosporum* psyllid, a native sap sucking bug, *Trioza vitreoradiata*, common on most *Pittosporum* species (John Early pers. comm., 2 Dec. 2009).

There are several *Coprosma* species and two variegated cultivars, popular late last century. No fruit were seen on these. There is a suckering 3.5 m tall *Coprosma* 'Middlemore' hybrid (*C. repens* × ?) first found in the gardens of Middlemore Hospital (Metcalf 2000). The small-leaved divaricating *Coprosma* species are hard to distinguish. There are some plants that remain unidentified.

Seedlings of *Cordyline australis*, *Macropiper excelsum*, *Melicytus ramiflorus* and *Myoporum laetum* are common and perhaps escape being weeded out because they are native.

The soils on the site are compacted and not very fertile. In the late 1800s convicts built a prison on this site, making bricks from these clays (Anon. 1936). The site gets the full force of the northerly winds. In April, bare ground in the borders was cracking open, as a result of the dry autumn. Despite these conditions and restricted budgets, gardeners' efforts over the decades have maintained a fine garden.

The formal layout around the National War Memorial is very attractive. Many people are drawn here, to lie on the grass or to let their children

run around. Students from Massey University, who currently occupy the National Museum building, and Wellington High School beyond, socialise on the lawns. Down-and-outs wait for the nearby soup kitchen or night shelter to open. Wedding parties use the formal steps to tier their group photos. Despite notices to the contrary, cyclists and skate boarders use the concrete walls and wide steps for stunt practice when the place is deserted. Only when one visits regularly and at odd hours does one get an idea of the continuous, diverse activities going on in this attractive, formal public space.

It is impossible not to become fond of this garden, and all those spoken to hope that the proposed Memorial Park on the vacant site across the road will come to fruition. Part of the original brief was that the Carillon should be visible from the harbour. At 52 m high this is still the case. The original plans for this site in the 1930s had a tree-lined boulevard running from Courtney Place up to the National War Memorial. It is too late for that now as there are many city buildings in the way and the streets on either side of these blocks, Taranaki and Tory, are major thoroughfares.

However, a wide vacant strip, created during the motorway bypass road-works across Buckle St, could accommodate the proposed memorials for the Allied Forces in a special landscape of native plants. The two parts of the National War Memorial grounds could be joined by a spectacular modern bridge, of the calibre of that joining the Civic Square with the Waterfront. Perhaps the garden could have a variety of interesting native plants to be viewed by visitors who do not get out to Otari-Wilton's Bush. New plantings could be guided by those proposed by Nancy Adams. Her ideas are just as pertinent today and generally evoke those plant species that were common to this area in pre-European times, many of which are visually spectacular and very robust, being well adapted to Wellington conditions.

CONCLUSION

That so much remains of the original plan is a tribute to the foresight of Nancy Adams, and her advice in a memo of 1983 remains pertinent, so we should let her have the last word...

"The best use of the grounds would appear to be the provision of pleasant areas in which visitors may sit or stroll and some kind of notice informing them of the native content of the garden... A native ornamental garden, as we originally envisaged it, should become almost self maintaining."

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APPENDIX

Native species list

* Not naturally occurring in the Sounds-Wellington Ecological Region.

Gymnosperms

Podocarpus totara

Podocarpus hybrid? *

Dicot trees and shrubs

Beilschmiedia tarairi *

Brachyglottis compacta *

Carmichaelia aligera *

Clianthus sp.*

Coprosma lucida

Coprosma 'Middlemore' (? *C. crassifolius* × *C. repens*) *

Coprosma repens (including 'Picturata' cv.)

Coprosma propinqua

Coprosma propinqua × *C. robusta*

Coprosma robusta

Coprosma rhamnoides

Corokia × *cheesemanii* (*C. buddleioides* × *C. cotoneaster*) *

Corynocarpus laevigatus *?

Dodonaea viscosa

Entelea arborescens *?

Griselinia littoralis

Griselinia lucida

Hebe elliptica

Hebe macrocarpa *

Hebe odora *

Hebe parviflora

Hebe salicifolia *

Hebe topiaria *

Hoheria angustifolia *

*Hoheria populnea**
Knightsia excelsa
Leptospermum scoparium (including prostrate form)
Lophomyrtus bullata
Macropiper excelsum subsp. *excelsum*
Melicope ternata
Melicytus crassifolius
Melicytus ramiflorus
*Meryta sinclairii**
*Metrosideros excelsa**
*Metrosideros kermadecensis**
Metrosideros robusta
Metrosideros sp.
Muehlenbeckia astonii
Myoporum laetum
Myrsine australis
*Olearia lineata**
Olearia paniculata
Ozothamnus leptophyllus
*Pittosporum crassifolium**
Pittosporum eugenioides
Pittosporum tenuifolium
Pseudopanax arboreus
Pseudopanax colensoi
Pseudopanax crassifolius
Pseudopanax crassifolius × *P. lessonii* (including 'Sabre' cv.)*
Pseudopanax ferox
*Pseudopanax laetus**
*Pseudopanax lessonii**
Sophora microphylla
Sophora molloyi ('Dragon's Gold' cv.)
*Sophora prostrata**
*Sophora tetraptera**
*Vitex lucens**

Monocot trees

Cordyline australis
Rhopalostylis sapida

Dicot lianes

Clematis paniculata
Muehlenbeckia complexa

Ferns

Asplenium obtusatum
Blechnum discolor
Blechnum novae-zelandiae
Cyathea medullaris
Microsorium pustulatum

*Nephrolepis flexuosa**²
Pellaea rotundifolia

Sedges

Carex testacea
Cyperus sp.
Ficinia nodosa
*Machaerina sinclairii**

Grass

*Chionochloa flavescens**

Monocots herbs

*Arthropodium cirratum**²
Astelia fragrans
Dianella nigra
Libertia ixioides
Libertia peregrinans
*Myosotidium hortensia**
Phormium tenax

Composite herbs

Centella uniflora
Pseudognaphalium luteoalbum

Exotic species list

Weeds are present in very small numbers

** Part of formal plantings

*Asplenium ×lucrosum***
Conyza sumatrensis
Clematis vitalba
Hedera helix
Iris foetidissima
Parietaria judaica
*Pomaderris aspera***
Prunus sp.
*Rosmarinus officinalis***
Solanum nigrum
Sonchus oleraceus

2 Plants lack the tubers of the exotic *N. cordifolia*.