

<i>Rubus fruticosus</i> *	JS		<i>Carex solandri</i>	ABS
<i>Salix</i> sp. *	JS		<i>Carex uncinata</i>	JS ABS
<i>Schefflera digitata</i>	JS	ABS	<i>Carex virgata</i>	JS
<i>Solanum mauritianum</i> *	JS	ABS	<i>Cenchrus clandestinus</i> *	JS
<i>Streblus heterophyllus</i>	JS	ABS	<i>Cordyline australis</i>	JS ABS
<i>Syzygium smithii</i> *	JS		<i>Crocasmia</i> × <i>crocasmiiiflora</i> *	JS ABS
<i>Vitex lucens</i>	JS	ABS	<i>Earina mucronata</i>	ABS
Monocots			<i>Ficinia nodosa</i>	JS
<i>Asparagus asparagoides</i> *	JS		<i>Freycinetia banksia</i>	JS ABS
<i>Astelia hastata</i>	JS		<i>Microlaena avenacea</i>	JS ABS
<i>Astelia solandri</i>	JS	ABS	<i>Microlaena stipoides</i>	ABS
<i>Carex banksiana</i>		ABS	<i>Oplismenus hirtellus</i>	JS ABS
<i>Carex dissita</i>	JS		? <i>Phyllostachys nigra</i> *	JS
<i>Carex subviridis</i>	? JS	ABS	<i>Rhopalostylis sapida</i>	JS ABS
<i>Carex divulsa</i> *		ABS	<i>Ripogonum scandens</i>	JS ABS
<i>Carex geminata</i>	JS		<i>Tradescantia fluminensis</i> *	JS
<i>Carex ochrosaccus</i>		ABS		

Awaawaroa Bay Village, Waiheke Island

Mike Wilcox

The Auckland Botanical Society (ABS) held an excursion to Awaawaroa Bay, Waiheke Island, on 16 February 2019 (Fig. 1).

We were hosted and guided by *Rob Morton* and *Hanne Sorensen* of Gulf Trees (a commercial nursery business at the Awaawaroa Village which they founded with others in 1994), and we were accompanied by several other residents from Waiheke Island: *Susan Barker*, *Rob Brennan* (Gulf

News), *Magdalena Fazzolari*, *Manu Irianni*, *Tony King-Turner*, *Peter Lumsden*, *Flynn Washington*. Those attending from ABS were *Yumiko Baba*, *Colleen Brewer*, *Warren Brewer*, *Ewen Cameron*, *Frances Duff*, *Beth Gibbs*, *Paula Godfrey*, *Shelley Heiss-Dunlop*, *Cam Kilgour*, *John Millett*, *Wendy John*, *Helen Preston Jones*, *Dhahara Ranatunga*, *Joshua Salter*, *Lydia Smith*, *Adrienne Stanton*, *Samantha Sutherland*, *Cheryl Taylor*, *Mike Wilcox* and *Maureen Young*.



Fig. 1. Location of Awaawaroa Bay Village, Waiheke island (short arrow). Topo50 map modified by Joshua Salter.

The Village covers an area of 169 ha (Fig. 2). There are 15 share-holders, each with a building site and adjoining horticultural land. Organic horticulture and small-scale farming are conducted on some of the land. Around 75 ha of the land (wetlands, mature bush, regenerating bush) is protected from development under a Department of Conservation covenant.

Our transport from Matiatia to Awaawaroa Bay Village and return was provided by Waiheke Shuttles. On arrival at the Village we had a welcome cup of tea and scones (cooked by Rob) at the Village community centre (Fig. 2) and then headed off to explore. Several generations of the Gordon family used to own the property, and the surviving bush was not cleared by them on account of it being too steep for pasture. Other parts of the original farm now part of the Village land have regenerated back into young native forest in succession to heavy colonisation by gorse (*Ulex europaeus*) and woolly nightshade (*Solanum mauritianum*) – a common mix on Waiheke Island (Chapple, Ebbett & Kitson 2001). Silver fern (*Cyathea dealbata*) is also prominent as a coloniser (Fig. 4).

We paid most attention to a piece of remnant broadleaved forest occupying a steepish sheltered valley (Fig. 2). Taraire (*Beilschmiedia tarairi*) was the dominant canopy tree, with a sprinkling of tawa (*Beilschmiedia tawa*), kohekohe (*Dysoxylum spectabile*), puriri (*Vitex lucens*), tanekaha (*Phyllocladus trichomanoides*) and mamangi (*Coprosma arborea*). A single tree of pukatea (*Laurelia novae-zelandiae*) was recorded, and Rob Morton later found an adult milk tree (*Streblus heterophyllus*). The canopy height was 20–23 m, the understorey sparse, and the forest floor rather bare save for a diverse assemblage of ferns in favourable places such as near the main creek. Nikau (*Rhopalostylis sapida*) was prevalent. Prominent epiphytes and climbers were *Metrosideros diffusa* and *M. perforata*, *Astelia hastata*, and climbing ferns (especially *Microsorium scandens* and *Blechnum filiforme*). The botanical highlight was the discovery in the valley floor of a 3 m tall single specimen of *Dicksonia fibrosa* (Fig. 3). This visit is the fifth the



Fig. 2. Awaawaroa Bay Village land. A: community building; B: nursery; C: bush visited. Map from Auckland Council website, modified by Joshua Salter.



Fig. 3. *Dicksonia fibrosa* in the valley of the bush remnant. Photo: Rob Brennan, 16 Feb 2019.

Auckland Botanical Society has had in recent years to Waiheke Island (Wilcox, Spence & White 2002; White 2003; Cameron 2009; Wilcox & Jane 2009), and none of these previous visits recorded this tree fern.

The wetlands (Fig. 4) are dominated by raupo (*Typha orientalis*), purua grass (*Bolboschoenus fluviatilis*) and cutty grass (*Carex lesssoniana*). Other native species there were swamp millet (*Isachne globosa*), *Carex secta*, *Carex virgata* and *Calystegia sepium* subsp. *roseata*, and, unusually, *Veronica stricta*.

Exotic plants were plentiful in the more open approaches to bush and in recent openings created by windfalls and a large slip at the head of the gully. Australian sedge (*Carex longibrachiata*) was one of these marginal plants, while in the wetland fringes were recorded gypsywort (*Lycopus europaeus*), Brazilian fireweed (*Erechtites valerianifolia*), water pepper (*Persicaria hydropiper*), water purslane (*Ludwigia palustris*) and *Juncus effusus*. Fast-growing colonisers of a recent windfall opening were woolly nightshade, cape gooseberry (*Physalis peruviana*), inkweed (*Phytolacca octandra*) and fleabane (*Erigeron sumatrensis*), as well as the native poroporo (*Solanum aviculare*), fireweed (*Senecio bipinnatisectus*) and karamu (*Coprosma robusta*). Ewen Cameron collected a piece of fruiting poroporo from the slip site for the Museum herbarium; upon pressing the specimen in the dryer a pinkish guava moth caterpillar (c. 8 mm long) crawled out of one of the fruit two days later!

We had a look at the Gulf Trees plant nursery (Fig. 2). There was a big selection of native plants eco-sourced for supply to Waiheke revegetation projects. Fruit trees are also grown (apple, plum, apricot, peach, nectarine, cherry guava, tamarillo, fig, banana), including cultivars selected on the island, e.g. 'Matiatia' peach.

Acknowledgements

We are grateful to Rob Morton and Hanne Sorensen for hosting our visit, guiding us around, and arranging for other Waiheke residents to join us. Maureen Young kindly compiled the collective plant list, which was also contributed to by Ewen Cameron, Yumiko Baba, Cameron Kilgour, Rob Morton, and others.



Fig. 4. Wetland on Awaawaroa Bay Village land. Photo: Mike Wilcox, 16 Feb 2019.

References

- Cameron, E.K. 2009: Te Matuku Bay Catchment, Waiheke Island (ABS Camp, January 1994). *Auckland Botanical Society Journal* 64(1): 54–69.
- Chapple, D.; Ebbett, R.; Kitson, I. 2001. *Greening our Gulf Islands. A manual for native revegetation, with special reference to Waiheke*. Privately published.
- White, P. 2003: Field trip: Forest & Bird Onetangi Reserve, Waiheke Island 20/09/03. *Auckland Botanical Society Journal* 58(2): 93–98.
- Wilcox, M.; Spence, A.; White, P. 2002: Botanical features of Whakanewha Regional Park Waiheke Island. *Auckland Botanical Society Journal* 57(1): 34–46.
- Wilcox, M.; Jane, G. 2009. Waiheke Island: Labour Weekend, October 2008. *Auckland Botanical Society Journal* 64(1): 1–9.

Appendix. Native flora recorded during the ABS field trip to Awaawaroa Village, 16 Feb 2019.

(cult.) = cultivated

Clubmosses

Lycopodium volubile
Phlegmariurus varius

Ferns

Adiantum cunninghamii
Adiantum viridescens
Arthropteris tenella
Asplenium bulbiferum
Asplenium gracillimum

Asplenium lamprophyllum
Asplenium flaccidum
Asplenium polyodon
Blechnum chambersii
Blechnum filiforme
Blechnum fluviatile
Blechnum membranaceum
Blechnum novae-zelandiae
Cyathea dealbata
Cyathea medullaris

Deparia petersenii
Dicksonia fibrosa
Dicksonia squarrosa
Diplazium australe
Doodia australis
Hypolepis ambigua
Lastreopsis glabella
Lastreopsis hispida
Leptopteris hymenophylloides
Loxogramme dictyopteris

Microsorium pustulatum
Microsorium scandens
Paesia scaberula
Pneumatopteris pennigera
Pteris macilenta
Pteris saxatilis
Pteris tremula
Pyrrosia elaeagnifolia
Tmesipteris lanceolata
Trichomanes endlicherianum

Conifers

Agathis australis
Dacrycarpus dacrydioides
Phyllocladus trichomanoides
Podocarpus totara

Monocots

Astelia hastata
Astelia solandri
Bolboschoenus fluviatilis
Carex dissita
Carex flagellifera
Carex lessoniana
Carex ochrosaccus
Carex secta
Carex solandri
Carex uncinata
Cordyline australis (?cult.)
Cyperus ustulatus
Gahnia setifolia
Gahnia xanthocarpa
Earina mucronata
Eleocharis acuta
Freycinetia banksii
Isachne globosa
Isolepis prolifera
Isolepis reticularis
Juncus prismatocarpus
Juncus sarophorus
Microlaena stipoides
Oplismenus hirtellus
Phormium tenax
Rhopalostylis sapida
Ripogonum scandens
Schoenus maschalinus
Typha orientalis

Dicot trees, shrubs & woody climbers

Alectryon excelsus
Beilschmiedia tarairi
Beilschmiedia tawa
Brachyglottis repanda
Calystegia sepium subsp. *roseata*
Clematis paniculata
Coprosma arborea
Coprosma macrocarpa subsp. *minor*
Coprosma rhamnoides
Coprosma robusta
Coprosma spathulata
Corynocarpus laevigatus
Elaeocarpus dentatus
 (MDW 9 Feb 2005)
Dysoxylum spectabile
Geniostoma ligustrifolium
Hedycarya arborea
Knightia excelsa
Kunzea robusta
Laurelia novae-zelandiae
Leptospermum scoparium
Leucopogon fasciculatus
Melicytus ramiflorus
Metrosideros diffusa
Metrosideros perforata
Muehlenbeckia complexa
Myrsine australis
Piper excelsum
Pseudopanax crassifolius
Pseudopanax lessonii
Solanum aviculare
Streblus heterophyllus
Veronica stricta
Vitex lucens

Dicot herbs

Callitriche muelleri
Centella uniflora
Cotula coronopifolia
Euchiton sphaericus
Persicaria decipiens
Senecio bipinnatisectus
Solanum americanum

Some exotic flora

Acacia dealbata (cult.)
Acacia longifolia
Acacia mearnsii (cult.)
Acacia melanoxylon (cult.)

Ageratina riparia
Agrostis capillaris
Anthoxanthum odoratum
Araujia hortorum
Asparagus scandens
Axonopus fissifolius
Callitriche stagnalis
Carex divulsa
Carex longibrachiata
Cenchrus clandestinum
Dactylis glomerata
Elaeagnus × reflexa
Epilobium ciliatum
Erechtites valerianifolia
Erigeron sumatrensis
Eucalyptus leucoxylon (cult.)
Eucalyptus saligna (cult.)
Euphorbia maculata
Galium palustre
Gamochaeta simplicicaulis
Geranium gardneri
Holcus lanatus
Isolepis sepulcralis
Jacobaea vulgaris
Juncus effusus
Leycesteria formosa
Liquidambar styraciflua (cult.)
Lonicera japonica
Lotus angustissimus
Lotus pedunculatus
Ludwigia palustris
Lycopus europaeus
Malus × domestica (cult.)
 several heritage apple cultivars
Olea europaea (cult.)
Paspalum dilatatum
Persicaria hydropiper
Persicaria maculosa
Physalis peruviana
Phytolacca octandra
Potentilla indica
Prunella vulgaris
Rubus fruticosus
Selaginella kraussiana
Solanum mauritianum
Ulex europaeus
Verbena incompta