P. coronopus	DS
Plectranthus ciliatus	DS, ABS, AK
Podranea ricasoliana	ABS*, AK
Prunella vulgaris	ABS*
Ranunculus repens	DS, ABS
Rhus succedanea	ABS*, AK
Rubus fruticosus agg.	EE, DS, ABS
Rumex brownii	DS
R. crispus	DS, ABS
R. obtusifolius	ABS*
Senecio bipinnatisectus	ABS*
S. esleri	ABS*
S. mikanioides	DS
S. skirrhodon	ABS*
Silybum marianum	DS
Solanum mauritianum	EE, DS, ABS
S. nigrum	ABS*
Sonchus oleraceus	DS, ABS
Stachys sylvatica	ABS*, AK
Syzygium smithii	ABS*
Tropaeolum majus	ABS*
Ulex europaeus	EE, DS, ABS
Veronica serpyllifolia	ABS*

Monocots	
Asparagus asparagoides	ABS*
A. scandens	ABS*
Carex divisa	ABS*, AK
Cortaderia selloana	EE, DS, ABS
Cyperus eragrostis	DS, ABS
Dactylis glomerata	DS, ABS
Gladiolus undulatus	ABS*
Hedychium gardnerianum	EE, DS, ABS
Holcus lanata	DS, ABS
Juncus acuminatus	DS,
J. articulatus	DS, ABS
J. effusus	ABS*
J. gerardii	DS
Paspalum vaginatum	ABS*
Pennisetum clandestinum	ABS*
Schedonorus phoenix	DS, ABS
Tradescantia fluminensis	DS, ABS
Zantedeschia aethiopicum	ABS*

Update on the Auckland Botanic Gardens Threatened Native Plant Garden – August 2006

Steve Benham

The Threatened Native Plant Garden has proved to be one of our foremost attractions since its formal opening on that balmy, almost summer-like day on the 29 September 2001 by the Prime Minister, Helen Clark.

Accolades have been showering down upon this garden from a wide-ranging audience despite its 'unfinished' appearance. Our visitors from these islands and overseas have cherished the opportunity to become informed about our unique and treasured natural heritage.

The Threatened Native Plant Garden is probably unique in so far as threatened plants are being showcased together with naturally occurring associated non-threatened species in replicated habitats.

Replicating habitats, albeit a mere 'snapshot' of our wild environment, has meant that we have been able to show the natural diversity of our region from the mighty world of the Waitakere Ranges to the local lavafields of what is now industrial Penrose!

For the past five years we have been trying very hard to secure funding for the completion of the remaining coastal components i.e. salt meadow, dunes, including stabilised and foredunes, and shellbanks.

Finally news came through earlier this year that our application to the Lottery Environment and Heritage Fund had been successful to the sum of $33,100 with the Friends of the Gardens contributing a further $13,000.

Botanic Gardens staff prepared concept design sketches after a visit to the Puhinui Reserve on the Manukau Harbour. This reserve has regionally significant saline wetlands and provided much inspiration for this amazing project. Excavation work begun on the 22 May with the site being re-contoured and construction undertaken by Dave Johnson of Outdoor Images. Construction work was completed on schedule in September and planting began in October 2006.

Brief descriptions of the vegetation categories that we are emulating:

Salt meadow / marsh

A replicated sequence of vegetation zones within this saline wetland *viz.* below mid-tide, above mid-tide, reached only by spring tides, reached only by storm tides is planned. The last three are usually referred to as lower-, middle-, and upper-marsh respectively. Key species will be mangrove (Avicennia *marina*), glasswort (*Sarcocornia quinqueflora*), coastal rush (*Juncus krausii),* oioi (*Apodasmia similis*), *L. dioica* subsp*. dioica, Samolus repens*, *Selliera radicans,* and *Suaeda novae-zelandiae*.

Extension of Threatened Native Plant Garden coastal habitats. August 2006. (Pics: Jack Hobbs).

Threatened species will include NZ spinach (*Tetragonia tetragonioides*), *Leptinella tenella, Mimulus repens* and the Regionally threatened *Puccinellia stricta.*

Sand dune (foredune and stabilised dunes) / dune forest

The sand dune habitat will interpret the fragility of coastal dunes and explain the importance of its integrity in maintaining diverse coastal ecology. Coastal dune systems within the Auckland region are collapsing due to inappropriate recreational disturbance. Why do we continue to allow fragile coastal areas to be used for vehicular traffic? Interpretation will include solutions on how everyone can help protect these fragile ecosystems. The endemic, sand-binding plant pingao (*Desmoschoenus spiralis*) will be a feature plant of the replicated mobile dune together with *Spinifex sericeus*.

A stabilised dune system will be established showing the transition from mobile dune to dune forest. Species to be included: *Carmichaelia australis, Corynocarpus laevigatus, Dysoxylum spectabile, Leptospermum scoparium*, *Kunzea ericoides, Mida salicifolia* and the regionally threatened *Hebe diosmifolia, Pseudopanax ferox* and sand tussock (*Austrofestuca littoralis*).

Shell bank

The shell bank will feature transient species such as the NZ spinach (*Tetragonia tetragonioides*) now rarely found in the region and the closely related, commonly occurring native spinach (*Tetragonia implexicoma*). Cook's scurvy grass (*Lepidium oleraceum*) will also feature.

Now that this project is well under way my attention now turns to funding for the South Pacific pavilion, which has been planned for this garden since 1999. I trust that it won't take another five years to secure funds for this development! The pavilion will be of a contemporary design with overhead sailcloth, low-rammed earth walls and timber slatted seating. A place to ponder, rest, shelter and perform cultural performances such as harakeke weaving and storytelling.

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Vascular flora and fauna of twelve small northern New Zealand islands

Ewen K. Cameron

This article covers material from my talk to the Auckland Botanical Society, 5 April 2006 – with additional observations on two islands (Hikunui and Watchman).

This talk covers 12 islands and islets from the Three Kings Islands (34° 11′ S) in the north to Opoutere (37° 7' S) on the southeast coast of the Coromandel Peninsula (Fig. 1). Exploring and documenting the flora and vegetation of small northern islands has been an enjoyable activity often carried out in my holidays or weekends over the last 25 years. Islands' definite boundaries make them ideal study areas. Not knowing what may be present is what interests me the most. Physical difficulty of access is all part of the challenge which may involve quite an adventure to get ashore, or to reach cliff-vegetation, or to get off the island when the weather deteriorates. Unusual native plants or surprising weeds all help to indicate the wider picture: the status of the native flora and the spread of exotic species. Islands with large seabird populations and no rats make interesting