

## NATIVE PLANTS IN A FENDALTON GARDEN

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Usually private gardens come and go with little record of their existence. Often their duration is short and determined by the period of care the gardener who created them is able to give to them. Through creating and caring for a garden, a gardener inevitably acquires knowledge of the plants in the garden and their requirements for adequate growth. While most gardeners are happy to show and talk to people about their gardens, few leave a written record of the knowledge they acquired about the plants they grew or attempted to grow in their garden. This is a record of plants of the garden of Derek Cook created at 27 Glandovey Road, Fendalton Christchurch. As described by Mary Lovell-Smith (2001) in *The Press*, it is a garden that was developed as a consequence of a passionate interest in native plants.

The garden is a plant collector's garden. Consequently its form is determined by the objective to grow as many different species of native plant as possible, rather than a concern for decorative appearance. Through this approach information has been obtained about which native plants are most likely to succeed in a Christchurch garden. The first list (Table 1) prepared by Derek Cook recorded plants present in the garden in August 2000 that had survived "Christchurch frosts and dry nor'westers for 5–10 years." A list made in September 2001 recording acquisitions made since the list of August 2000 is given at the end of Table 1. In comparing this list to one prepared for the Canterbury Botanical Society in 1994 it was noted that there had been a very high success rate with trees and shrubs. By comparison, although given much care, the survival rate of alpine plants had been very poor. Genera with especially poor survival included *Anisotome*, *Celmisia*, *Chionohebe*, *Myosotis*, *Oreobolus*, *Ourisia*, *Pimelea* and *Ranunculus*.

With the prompting that it would also be useful to know which species had been tried and had failed a second list (Table 2) naming these plants was prepared in March 2001. A third list (Table 3), prepared in August 2001, records species severely damaged by heavy frosts in June and July 2001. Most of these had survived the previous 5–8 winters and were assumed to be acclimatized. Many of these species had partial cover from trees in the garden, the *Elingamita johnsonii* was covered on three sides and above by a house porch, and the *Metrosideros excelsa* was protected with shade cloth. While it was at first thought these plants had been killed, most had resprouted when observed in December 2001.

Other comments made by Derek Cook with these lists indicated that although many higher altitude species had not survived some attempt had been made to modify the garden environment to meet their needs. These comments included:

*"Some alpiners may find it too hot here in the summer (although have used shade cloth from December to February) or too cold in winter (not kept snug and warm under snow), or too much or not enough UV."*

*"Celmisia just seem to rot at ground level (although on a 30° slope as recommended by Lawrie Metcalf)."*

“Isolated plants have been frosted and also the occasional one eaten by grass grub or smothered by fibrous roots of surrounding trees.”

There has been experimentation to find suitable cultivation methods for some species. *Disphyma australe* grown in sand in a reasonably sunny position has been provided with drip-feeding and given rock salt. While this has induced prolific leaf growth, the plant has not flowered in 10 years. *Desmoschoenus spiralis* planted in sand died, but another planted in clay survives and flowers 5 years later.

Other notes provided with this list provide information about the specific environment of the Christchurch garden. It is on old Waimakariri riverbed, with shingle below 0.5 m in parts and with some riverbed clay and sand. Alpines grown in a rock scree garden have a 60 cm base of boulders and shingle with a top layer of fine shingle and compost to provide good drainage. They are watered by spray irrigation.

Trees modify the microenvironment of the garden. *Nothofagus fusca*, *N. menziesii*, and *Agathis australis* (now cone bearing) trees planted after the Wahine storm (1968) are now 10–15 m high. A *Podocarpus hallii* planted at the same time has a similar height but another only a few metres away is only 1 m tall. A 30-yr-old *Dacrycarpus dacrydioides* is only 0.5 m tall whereas a *Melicytus ramiflorus* beside it is now a huge 10 m. *Elaeocarpus hookerianus* and *Alectryon excelsus*, both very frost tender in their early years, avoided frost damage in later years.

In the 40 years he has lived at the address Derek Cook has increased the area of the garden to 8000 m<sup>2</sup> by purchase of land from neighbouring properties. His expectation is that when he is no longer able to care for the garden it will be flattened by a bulldozer and subdivided for housing. Meanwhile his mission to add to his collection of native plants continues.

## REFERENCE

Lovell-Smith, M. 2001: Cooking up a treat. *The Press* (Christchurch), *Saturday, March 17, 2001*: p. 25.

**Table 1.** Native plants present in the garden at 27 Glandovey Rd, Fendalton Christchurch in August 2000 and additions to September 2001.

<i>Acaena anserinifolia</i> x <i>inermis</i>	<i>Anisotome haastii</i>
<i>Aciphylla aurea</i>	<i>Aristotelia fruticosa</i>
<i>Aciphylla dobsonii</i>	<i>Aristotelia serrata</i>
<i>Aciphylla monroi</i>	<i>Aristotelia xfruserrata</i>
<i>Aciphylla scott-thompsonii</i>	<i>Arthropodium candidum</i>
<i>Aciphylla similis</i>	<i>Arthropodium cirratum</i>
<i>Aciphylla spendenii</i>	<i>Astelia chathamica</i>
<i>Aciphylla subflabellata</i>	<i>Astelia fragrans</i>
<i>Adiantum cunninghamii</i>	<i>Astelia nervosa</i>
<i>Agathis australis</i>	<i>Beilschmiedia tarairi</i>
<i>Alectryon excelsus</i>	<i>Beilschmiedia tawa</i>
<i>Alseuosmia macrophylla</i>	<i>Blechnum discolor</i>
<i>Anisotome aromatica</i>	<i>Brachycome sinclairii</i>
<i>Anisotome flexuosa</i>	<i>Brachyglottis cassinioides</i>

*Brachyglottis compacta*  
*Brachyglottis elaeagnifolia*  
*Brachyglottis greyi*  
*Brachyglottis hectorii*  
*Brachyglottis laxifolia*  
*Brachyglottis monroi*  
*Brachyglottis repanda*  
*Brachyglottis rotundifolia*  
*Brachyglottis spedenii*  
*Bulbinella angustifolia*  
*Bulbinella hookeri*  
*Carex secta*  
*Carex testacea*  
*Carmichaelia aligera*  
*Carmichaelia angustata*  
*Carmichaelia appressa*  
*Carmichaelia astonii*  
*Carmichaelia australis*  
*Carmichaelia cunninghamii*  
*Carmichaelia egmontiana*  
*Carmichaelia kirkii*  
*Carmichaelia monroi*  
*Carmichaelia petriei*  
*Carmichaelia williamsii*  
*Carpodetus serratus*  
*Celmisia angustifolia*  
*Celmisia bellidioides*  
*Celmisia discolor*  
*Celmisia incana*  
*Celmisia laricifolia*  
*Celmisia lindsayi*  
*Celmisia spectabilis*  
*Chionochloa conspicua*  
*Chionochloa flavescens*  
*Chordospartium muritai*  
*Chordospartium stevensonii*  
*Clematis afoliata*  
*Clematis australis*  
*Clematis cunninghamii*  
*Clematis foetida*  
*Clematis forsteri*  
*Clematis paniculata* ♀ and ♂  
*Clianthus puniceus*  
*Coprosma acerosa*  
*Coprosma areolata*  
*Coprosma chathamica*  
*Coprosma cunninghamii*  
*Coprosma foetidissima*  
*Coprosma grandifolia*  
*Coprosma linariifolia*  
*Coprosma microcarpa*  
*Coprosma propinqua*  
*Coprosma pseudocuneata*  
*Coprosma repens*  
*Coprosma robusta*  
*Coprosma rubra*  
*Coprosma tenuicaulis*  
*Coprosma tenuifolia*  
*Corallospartium crassicaule*  
*Cordateria richardii*  
*Cordyline australis*  
*Cordyline pumilio*  
*Corokia cotoneaster*  
*Corokia macrocarpa*  
*Corokia xcheesemanii*  
*Corynocarpus laevigatus*  
*Craspedia lanata*  
*Cyathea dealbata*  
*Cyathea medullaris*  
*Cyathea smithii*  
*Cyathodes colensoi*  
*Cyathodes juniperina*  
*Dacrycarpus dacrydioides*  
*Dacrydium cupressinum*  
*Dianella nigra*  
*Dichondra repens*  
*Dicksonia fibrosa*  
*Dicksonia squarrosa*  
*Discaria toumatou*  
*Disphyma australe*  
*Dodonaea viscosa*  
*Dracophyllum longifolium*  
*Dracophyllum pronum*  
*Dracophyllum traversii*  
*Dysoxylum spectabile*  
*Elaeocarpus dentatus*  
*Elaeocarpus hookerianus*  
*Elingamita johnsonii*  
*Epacris pauciflora*  
*Forstera sedifolia*  
*Fuchsia excorticata*  
*Fuchsia perscandens*  
*Fuchsia procumbens*  
*Gaultheria antipoda*  
*Gaultheria crassa*  
*Gaultheria depressa*  
*Geranium sessiliflorum*  
*Geranium traversii*  
*Gingidia montana*  
*Gnaphalium mackayi*  
*Griselinia littoralis*  
*Halocarpus bidwillii*  
*Hebe albicans*  
*Hebe amplexicaulis*  
*Hebe annulata*  
*Hebe armstrongii*  
*Hebe barkeri*  
*Hebe buchananii*  
*Hebe chathamica*

- Hebe coarctata*  
*Hebe colensoi*  
*Hebe cupressoides*  
*Hebe decumbens*  
*Hebe diosmifolia*  
*Hebe divaricata*  
*Hebe elliptica*  
*Hebe epacridea*  
*Hebe evenosa*  
*Hebe gibbsii*  
*Hebe glaucophylla*  
*Hebe lycopodioides*  
*Hebe ochraceae*  
*Hebe odora*  
*Hebe pareora*  
*Hebe pauciramosa*  
*Hebe pinguiifolia*  
*Hebe pinguiifolia var. sutherlandii*  
*Hebe propinqua*  
*Hebe recurva*  
*Hebe rupicola*  
*Hebe salicifolia*  
*Hebe salicornioides*  
*Hebe speciosa*  
*Hebe stricta*  
*Hebe strictissima*  
*Hebe subalpina*  
*Hebe tetrasticha*  
*Hebe topiaria*  
*Hebe townsonii*  
*Hebe traversii*  
*Hebe tumida*  
*Hebe venustula*  
*Hedycarya arborea*  
*Helichrysum coralloides*  
*Helichrysum dimorphum*  
*Helichrysum lanceolatum*  
*Helichrysum plumeum*  
*Helichrysum selago var. intermedium*  
*Helichrysum var. 'Graeme Patterson'*  
*Heliohebe lavaudiana*  
*Heliohebe raoulii*  
*Hoheria angustifolia*  
*Hoheria populnea*  
*Hoheria sexstylosa*  
*Kellaria dieffenbachii*  
*Knightia excelsa*  
*Kunzea ericoides*  
*Lagarostrobos colensoi*  
*Laginifera pumila*  
*Leptinella pectinata ssp. villosa*  
*Leptospermum scoparium*  
*Leucogenes grandiceps*  
*Leucopogon fraseri*  
*Libertia grandiflora*  
*Libertia ixioides*  
*Librocedrus bidwilli*  
*Librocedrus plumosa*  
*Litsea calicaris*  
*Lophomyrtus bullata*  
*Lophomyrtus obcordata*  
*Mazus novaezeelandiae*  
*Melicope ternata*  
*Melicytus alpinus*  
*Melicytus chathamicus*  
*Melicytus crassifolius*  
*Melicytus flexuosus*  
*Melicytus lanceolatus*  
*Melicytus micranthus*  
*Melicytus novae-zelandiae*  
*Melicytus obovatus*  
*Melicytus ramiflorus*  
*Meryta sinclairii*  
*Metrosideros colensoi*  
*Metrosideros excelsa*  
*Metrosideros fulgens*  
*Metrosideros umbellata*  
*Muehlenbeckia astonii*  
*Muehlenbeckia australis*  
*Myoporum laetum*  
*Myosotidium hortensia*  
*Myrsine australis*  
*Myrsine divaricata*  
*Myrsine nummularia*  
*Myrsine salicina*  
*Neomyrtus pedunculata*  
*Nestigis lanceolata*  
*Nestigis montana*  
*Nothofagus fusca*  
*Nothofagus menziesii*  
*Nothofagus solandri var. cliffortioides*  
*Nothofagus solandri var. solandri*  
*Nothofagus truncata*  
*Notospartium glabrescens*  
*Notospartium torulosum*  
*Olearia angulata*  
*Olearia bullata*  
*Olearia chathamica*  
*Olearia cheesemanii*  
*Olearia colensoi*  
*Olearia coriacea*  
*Olearia cymbifolia*  
*Olearia fragrantissima*  
*Olearia haastii*  
*Olearia hectori*  
*Olearia ilicifolia*  
*Olearia lineata var. dertonii*  
*Olearia macrodonta*  
*Olearia mathewsii*  
*Olearia moschata*

<i>Olearia odorata</i>	<i>Pomaderris phyllicifolia</i>
<i>Olearia paniculata</i>	<i>Pratia angulata</i>
<i>Olearia rani</i>	<i>Prumnopitys ferruginea</i>
<i>Olearia solandri</i>	<i>Prumnopitys taxifolia</i>
<i>Olearia townsonii</i>	<i>Pseudopanax arboreus</i>
<i>Olearia traversii</i>	<i>Pseudopanax colensoi</i>
<i>Olearia virgata</i>	<i>Pseudopanax crassifolium</i>
<i>Olearia waikariensis</i>	<i>Pseudopanax discolor</i>
<i>Oxalis exilis</i>	<i>Pseudopanax edgerleyi</i>
<i>Ozothamnus fulvida</i>	<i>Pseudopanax ferox</i>
<i>Ozothamnus vauvilliersii</i>	<i>Pseudopanax macintyreii</i>
<i>Pachystegia insignis</i>	<i>Pseudopanax simplex</i>
<i>Pachystegia minor</i>	<i>Pseudowintera axillaris</i>
<i>Pachystegia rufa</i>	<i>Pseudowintera colorata</i>
<i>Parahebe cataractae</i>	<i>Ranunculus reflexus</i>
<i>Parahebe decora</i>	<i>Raoulia australis</i>
<i>Parsonsia capsularis</i>	<i>Raoulia glabra</i>
<i>Parsonsia heterophylla</i>	<i>Raoulia hookerii</i> var. <i>makara</i>
<i>Passiflora tetrandra</i>	<i>Raoulia subsericea</i>
<i>Pennantia corymbosa</i>	<i>Raoulia tenuicaulis</i>
<i>Pernettya macrostigma</i>	<i>Rhapalostylis sapida</i>
<i>Phormium cookianum</i>	<i>Schefflera digitata</i>
<i>Phormium tenax</i>	<i>Scleranthus uniflorus</i>
<i>Phormium tenax</i> 'Goliath'	<i>Solanum laciniatum</i>
<i>Phormium</i> var. 'Needles'	<i>Sophora longicarinata</i>
<i>Phyllocladus alpinus</i>	<i>Sophora microphylla</i>
<i>Phyllocladus trichomanoides</i>	<i>Sophora tetraptera</i> var. 'Gnome'
<i>Phymatosorus diversifolium</i>	<i>Streblus heterophyllus</i>
<i>Pimelea tomentosa</i>	<i>Tecomanthe speciosa</i>
<i>Pittosporum anomalum</i>	<i>Teucriidium parvifolium</i>
<i>Pittosporum cornifolium</i>	<i>Toronia toru</i>
<i>Pittosporum crassicaule</i>	<i>Vitex lucens</i>
<i>Pittosporum crassifolium</i>	<i>Wahlenbergia albomarginata</i>
<i>Pittosporum dalli</i>	<i>Wahlenbergia congesta</i>
<i>Pittosporum eugenioides</i>	<i>Weinmannia racemosa</i>
<i>Pittosporum fairchildii</i>	<i>Weinmannia silvicola</i>
<i>Pittosporum huttonianum</i>	
<i>Pittosporum obcordatum</i>	Plants added since August 2000
<i>Pittosporum pimeleoides</i>	recorded in September 2001
<i>Pittosporum ralphi</i>	
<i>Pittosporum tenuifolium</i>	<i>Entelea arborescens</i>
<i>Pittosporum umbellatum</i>	<i>Euphorbia glauca</i>
<i>Plagianthus divaricatus</i>	<i>Heliohebe hulkeana</i>
<i>Plagianthus regius</i>	<i>Machaerina sinclairii</i>
<i>Podocarpus acutifolius</i>	<i>Metrosideros bartlettii</i>
<i>Podocarpus hallii</i>	<i>Metrosideros carminea</i>
<i>Podocarpus nivalisi</i>	<i>Xeronema callistemon</i>
<i>Podocarpus totara</i>	
<i>Polystichum</i> sp	

**Table 2.** Plants introduced to the garden at 27 Glandovey Rd, Fendalton Christchurch, that had failed in the period to March 2001. Those marked \* have been replaced since.

<i>Aciphylla glaucescens</i>	<i>Anisotome imbricata</i>
<i>Aciphylla scott thompsonii</i>	<i>Archeria traversii</i>
<i>Aciphylla squarossa</i>	<i>Astelia linearis</i>

<i>Brachyglottis lagopus*</i>	<i>Luzula crenulata</i>
<i>Brachyglottis sciadophila</i>	<i>Macropiper excelsum*</i>
<i>Carmichaelia enysii</i>	<i>Metrosideros carminea</i>
<i>Celmisia allanii</i>	<i>Metrosideros kermadecensis</i>
<i>Celmisia gracilentia</i>	<i>Metrosideros parkinsonii</i>
<i>Celmisia lyallii</i>	<i>Metrosideros robusta</i>
<i>Celmisia mackau</i>	<i>Microtis unifolia</i>
<i>Celmisia polyvena</i>	<i>Muehlenbeckia axillaris</i>
<i>Chionohebe pulvinaris</i>	<i>Myosotis australis</i>
<i>Chionohebe tetragona</i>	<i>Myosotis colensoi</i>
<i>Clematis marata</i>	<i>Nertera depressa</i>
<i>Clematis marmoraria</i>	<i>Olearia chathamica</i>
<i>Colobanthus acicularis</i>	<i>Olearia lacunosa</i>
<i>Colobanthus strictus</i>	<i>Oreobolus impar</i>
<i>Coprosma kirkii</i>	<i>Oreobolus pectinatus</i>
<i>Coprosma lucida</i>	<i>Ourisia macrocarpa</i>
<i>Coprosma petriei*</i>	<i>Ourisia sessilifolia</i> var. <i>simpsonii</i>
<i>Cordyline banksii</i>	<i>Parahebe hookeriana</i>
<i>Cordyline indivisa</i>	<i>Parahebe lyallii</i>
<i>Craspedia lanata</i>	<i>Pimelea oreophila</i>
<i>Craspedia uniflora</i>	<i>Pimelea prostrata</i>
<i>Exocarpus bidwillii</i>	<i>Pimelea traversii</i>
<i>Forstera tenella</i>	<i>Pomaderris phyllicifolia</i>
<i>Gaultheria rupestris</i>	<i>Pterostylis venosa</i>
<i>Gnaphalium mackayi</i>	<i>Quintinia acutifolia</i>
<i>Gunnera monoica</i>	<i>Ranunculus godleyanus</i>
<i>Halocarpus biformis</i>	<i>Ranunculus gracilipes</i>
<i>Hectorella caespitosa</i>	<i>Ranunculus insignis</i>
<i>Helichrysum bellidioides*</i>	<i>Raoulia eximia</i>
<i>Heliohebe lavaudiana</i>	<i>Raoulia grandiflora</i>
<i>Ixerba brexioides</i>	<i>Raoulia haastii</i>
<i>Leptinella atrata</i>	<i>Raoulia mammillaris</i>
<i>Leptinella pyrethrifolia</i>	<i>Rhabdothamnus solandri</i>
<i>Leucogenes leontopodium</i>	<i>Ripogonum scandens*</i>
<i>Leucopogon fasciculatus</i>	<i>Scutellaria novae-zelandiae</i>
<i>Liparophyllum gunnii</i>	<i>Selliera radicans</i>
<i>Lobelia linnaeoides</i>	<i>Thelymitra longifolia</i>

**Table 3.** Plants introduced to the garden at 27 Glandovey Rd, Fendalton Christchurch, which were severely damaged by cold during winter 2001. The list was made in August 2001. Those marked \* were resprouting when observed in December 2001.

<i>Ascarina lucida</i>	<i>Elingamita johnsonii</i>
<i>Beilschmedia tarairi*</i>	<i>Hebe speciosa*</i>
<i>Brachyglottis elaeagnifolia*</i>	<i>Hedycarya arborea*</i>
<i>Brachyglottis hectorii*</i>	<i>Leucogenes grandiceps*</i>
<i>Brachyglottis repanda*</i>	<i>Metrosideros excelsa*</i>
<i>Celmisia lyndsayi*</i>	<i>Myrsine salicina*</i>
<i>Clematis forsteri</i>	<i>Pennantia corymbosa*</i>
<i>Clematis paniculata*</i>	<i>Pseudowintera axillaris*</i>
<i>Clematis petriei</i>	<i>Rhabdothamnus solandri</i>
<i>Corynocarpus laevigatus*</i>	<i>Schefflera digitata*</i>
<i>Cyathea medullaris*</i>	
<i>Cyathodes juniperina</i>	
<i>Cyathodes robusta*</i>	