

## **Plant species of the Lake Taupo Reserves;**

**including the Kawakawa Bay walk reserves (Whangamata stream S.R, Okaia Stream S.R, Otakatake Stream Scenic Reserve and Kawakawa Bay S.R. NZMS 260. Grid ref. T18 605783), Whakaipo Headland Reserves NZMS 260. Grid ref. T18635745, Waikino Scenic Reserve NZMS 260. Grid ref. T18 475675, Waihaha Scenic Reserve and Waihaha Maori Trust Land NZMS 260. Grid ref. T18 480724**

The species lists were compiled by;

- Hingarae Scenic Reserve by Nicholas J.D.Singers 26 August 1999.
- Kawakawa Bay reserves by Nicholas J.D.Singers, 25 Feb.1999 (including orchids found by Doreen Abrham over numerous years) and 5 Dec.2003
- Waikino Scenic Reserve, Nicholas J.D.Singers, 26 August 1999.
- Whakaipo Headland, Nicholas J.D.Singers 26 August 1999 and 4 September 2001.
- Waihaha Scenic Reserve T18 435 746–443 744, R Whyman 27 November 2000 and Waihaha waterfall track (Waihaha Maori Lands Trust), N.Singers 6 October 2004.
- Whakaipo Headland and Waikino Scenic Reserve (Rotorua Botanical Society, 3 February 2002)

## **Abundance Key**

Species abundance was quantified subjectively using the following abundance key.

φ = present without an abundance score

r = rare

u = uncommon

l = local

o = occasional

c = common, also lc = locally common

a = abundant, also la = locally abundant

\* = exotic/adventive species

## **Vegetation Description**

### **Hingarae**

- Kamahi (10–12m) / mahoe – hanghange – *Coprosma lucida* on lower slopes and first terrace near lake

- Fivefinger – kamahi – hangehange (5–6m) on slopes
- Manuka – kamahi – kohuhu (2–4m) / coral and raindeer lichen on second terrace up from lake
- Rautahi – kiokio wetland in valley floor

### **Kawakawa Bay reserves**

- Largely Fivefinger - Kohuhu forest with areas of kanuka, kamahi and rewarewa.

### **Waikino**

- Kamahi – black beech forest
- Black beech / black beech – kamahi / *Coprosma lucida*
- Kamahi – mahoe
- Kanuka – kamahi – maupo – akeake

### **Whakaipo Headland**

Below cliffs and within 200m from lake shore

- Kohuhu–kowhai–ngaio–maupo–kapuka  
Headland and higher slopes
- Rewarewa–kamahi
- 

### **Waihaha Scenic Reserve and Waihaha Maori Lands Trust**

- Kanuka–rewarewa–kamahi–mahoe–fivefinger–kohuhu

### **Wetland**

- Dense harakeke
- Harakeke–*Baumea rubiginosa*–*Carex secta* with occasional grey willow
- *Eleocharis sphacelata*–*Juncus bulbosus*–*Ranunculus flammula*

### **Reserves Key**

HIN = Hingarae Scenic Reserve

KAW = Kawakawa Bay Reserves

WAI = Waikino Scenic Reserve

WHK = Whakaipo Headland reserves (Whareroa Pt.)

WAH = Waihaha Scenic Reserve and Waihaha Maori Lands Trust

| Species Name   | Common Name   | Hingarāe | Kawakawa | Waikino | Whakaipo | Waihaha |
|--|---------------|----------|----------|---------|----------|---------|
| <b><u>Gymnosperm Trees</u></b>                           |               |          |          |         |          |         |
| <i>Dacrycarpus dacrydioides</i> <sup>1</sup>             | kahikatea     |          | φ        |         |          | r       |
| <i>Pinus radiata</i>                                     | Monterey pine |          | φ        |         | φ        |         |
| <i>Podocarpus totara</i> <sup>2</sup>                    | totara        |          | φ        | u       |          |         |
| <i>Phyllocladus trichomanoides</i>                       | tanekaha      |          |          | o       |          | l       |
| <i>Prumnopitys ferruginea</i>                            | miro          |          |          |         |          | r       |
| <i>Prumnopitys taxifolia</i>                             | matai         |          | φ        |         |          |         |
| <b><u>Monocot Trees</u></b>                              |               |          |          |         |          |         |
| <i>Cordyline australis</i>                               | cabbage tree  |          | φ        | φ       | φ        | u       |
| <b><u>Dicot Trees and shrubs</u></b>                     |               |          |          |         |          |         |
| * <i>Acacia longifolia</i>                               | blackwood     |          | φ        |         |          |         |
| <i>Aristotelia serrata</i>                               | makomako      | φ        | φ        | o       | φ        | o       |
| <i>Brachyglottis repanda</i>                             | rangiora      | φ        | c        | o       | c        | c       |
| * <i>Buddleja davidii</i>                                | buddleia      |          | φ        |         |          |         |
| * <i>Calluna vulgaris</i>                                | Ling heather  |          | φ        |         |          |         |
| <i>Carmichaelia australis</i>                            | N.Z broom     | φ        | φ        |         | o        | u       |
| <i>Carpodetus serratus</i>                               | putaputaweta  |          |          | o       | u        |         |
| * <i>Chamaecytisus palmensis</i>                         | tree lucerne  |          | φ        |         |          |         |
| <i>C. propinqua subsp. propinqua</i> X <i>C. robusta</i> |               |          |          |         |          | u       |
| <i>Coprosma grandifolia</i>                              | kaono         | φ        |          | c       |          | c       |
| <i>Coprosma lucida</i>                                   | karamu        | c        | φ        | c       | l        | o       |
| <i>Coprosma robusta</i>                                  | karamu        | a        | φ        | c       | φ        | o       |
| <i>Coriaria arborea</i>                                  | tutu          | c        | a        | u       |          | a       |
| <i>Corokia cotoneaster</i>                               |               |          |          |         |          | φ       |
| * <i>Cotoneaster franchetii</i>                          | cotoneaster   |          | r        |         |          |         |

<sup>1</sup> Kahikatea has been planted near the Whangamata Stream and near the Waihaha Marae

<sup>2</sup> Totara has been planted by Mel Scott at Kawakawa Bay and by Doreen Abraham near Kinloch

| Species Name   | Common Name        | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|--|--------------------|----------|----------|---------|----------|---------|
| <i>*Cotoneaster glaucophyllus</i>                    | cotoneaster        |          |          |         |          |         |
| <i>Cyathodes fraseri</i>                             | patotara           |          | φ        |         |          | la      |
| <i>Cyathodes juniperina</i>                          | prickly mingimingi | c        | φ        | l       | φ        | l       |
| <i>*Cytisus scoparius</i>                            | Spanish broom      |          | φ        |         |          | l       |
| <i>Dodonaea viscosa</i>                              | akeake             |          | φ        | c       |          |         |
| <i>Dracophyllum strictum</i>                         |                    | l        |          | l       |          | l       |
| <i>Elaeocarpus dentatus</i>                          | hinau              |          |          | o       |          |         |
| <i>*Erica lusitanica</i>                             | Spanish heath      |          | φ        |         |          | φ       |
| <i>Fuchsia excorticata</i>                           | kotukutuku         | φ        | φ        | o       | φ        | o       |
| <i>Gaultheria antipoda</i>                           | bush snowberry     |          | φ        | φ       | φ        | o       |
| <i>Gaultheria oppositifolia</i>                      | snowberry          |          | φ        | u       |          | l       |
| <i>Gaultheria paniculata</i>                         | snowberry          | φ        |          |         |          |         |
| <i>Geniostoma rupestre</i>                           | hangehange         | φ        | φ        | c       | c        | c       |
| <i>Griselinia littoralis</i>                         | broadleaf          |          | φ        | u       |          | φ       |
| <i>Griselinia lucida</i>                             | kapuka             | u        |          |         | l        | l       |
| <i>Haloragis erecta</i>                              | toatoa             |          | φ        | r       |          | φ       |
| <i>Hebe stricta</i> var. <i>stricta</i>              | koromiko           | φ        | φ        | φ       | φ        | c       |
| <i>Helichrysum lanceolatum</i>                       | hells bells        |          | φ        |         | φ        |         |
| <i>Hoheria populnea</i> var. <i>lanceolata</i>       | hoheria            |          |          |         |          | l       |
| <i>Knightia excelsa</i>                              | rewarewa           | c        | a        | c       | a        | c       |
| <i>Kunzea ericoides</i>                              | kanuka             | c        | a        | c       | φ        | a       |
| <i>Leptospermum scoparium</i>                        | manuka             | φ        | φ        |         |          | c       |
| <i>Leucopogon fasciculatus</i>                       | mingimingi         | φ        | φ        | c       | c        | o       |
| <i>*Lupinus arboreus</i>                             | lupin              |          | φ        |         |          | lc      |
| <i>Macropiper excelsum</i>                           | kawakawa           |          |          |         | lc       |         |
| <i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i> | mahoe              | c        | φ        | o       | φ        | o       |
| <i>Metrosideros excelsa</i>                          | pohutukawa         |          |          | r       |          |         |
| <i>Metrosideros robusta</i>                          | northern rata      | u        |          |         |          |         |
| <i>Myoporium laetum</i>                              | ngaio              |          |          | l       |          |         |
| <i>Myrsine australis</i>                             | maupo              |          | φ        | φ       | c        | φ       |
| <i>Nothofagus solandri</i> var. <i>solandri</i>      |                    |          |          | la      |          |         |
| <i>Olearia arborescens</i>                           |                    |          |          |         |          | φ       |
| <i>Parahebe catarractae</i>                          | parahebe           |          |          | φ       |          |         |

| Species Name   | Common Name      | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|--|------------------|----------|----------|---------|----------|---------|
| <i>Pimelea tomentosa</i>                               | pimelea          |          | r        |         |          |         |
| <i>Pimelea prostrata</i>                               | Strathmore weed  |          |          |         |          | φ       |
| <i>Pittosporum eugenioides</i>                         | tarata           |          | u        | φ       | o        |         |
| <i>Pittosporum tenuifolium</i> var. <i>colensoi</i>    | kohuhu           | l        |          |         |          | φ       |
| <i>Pittosporum tenuifolium</i> var. <i>tenuifolium</i> | kohuhu           | φ        | a        |         | a        | c       |
| <i>Pomaderris phyllicifolia</i> var. <i>ericifolia</i> | tauhinu          | φ        | φ        |         |          | φ       |
| <i>Pseudopanax arboreus</i>                            | fivefinger       | a        | a        | a       | a        | a       |
| <i>Pseudopanax crassifolius</i>                        | lancewood        | φ        |          | l       | φ        | φ       |
| * <i>Prunus</i> spp.                                   | flowering cherry |          | φ        |         | φ        |         |
| * <i>Rosa rubiginosa</i>                               | briar rose       |          | φ        |         |          | φ       |
| * <i>Salix cinerea</i>                                 | grey willow      |          |          |         |          | φ       |
| * <i>Salix fragilis</i>                                | crack willow     |          | φ        |         | φ        | φ       |
| <i>Schefflera digitata</i>                             | pate             |          | φ        | l       | φ        | φ       |
| <i>Solanum aviculare</i>                               | poroporo         |          |          |         | φ        |         |
| <i>Sophora tetraptera</i>                              | kowhai           | l        | *        |         | lc       | la      |
| <i>Toronia toru</i> <sup>3</sup>                       | toru             |          |          |         |          | φ       |
| * <i>Ulex europaeus</i>                                | gorse            |          | φ        |         |          | φ       |
| <i>Urtica ferox</i>                                    | ongaonga         |          |          |         | l        |         |
| <i>Weinmannia racemosa</i>                             | kamahi           | c        | c        | a       | a        | c       |

### **Dicot lianes**

|                                |                  |  |   |   |   |   |
|--------------------------------|------------------|--|---|---|---|---|
| <i>Calystegia silvatica</i>    | greater bindweed |  | φ |   |   |   |
| <i>Clematis forsteri</i>       | clematis         |  |   |   |   | φ |
| <i>Clematis paniculata</i>     | white clematis   |  | φ | o | φ | φ |
| <i>Metrosideros diffusa</i>    | climbing rata    |  |   | u | φ |   |
| <i>Metrosideros perforata</i>  | climbing rata    |  | φ | u |   |   |
| <i>Muehlenbeckia australis</i> | pohuehue         |  | φ | u |   | φ |
| <i>Parsonsia capsularis</i>    |                  |  |   |   | u | φ |
| <i>Passiflora tetrandra</i>    | kohia            |  |   | o | φ |   |
| <i>Rubus cissoides</i>         | bush lawyer      |  | φ | o |   |   |

<sup>3</sup> The southern limit of toru is at western Taupo, (it occurs near the Waihaha River on SH 32 Grid ref. NZMS 260 T20 434746 though may occur elsewhere)

| Species Name                            | Common Name | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|---|-------------|----------|----------|---------|----------|---------|
| * <i>Rubus sp. (R. fruticosus agg.)</i> | blackberry  |          | φ        |         |          | φ       |

### Lycopods, fern allies and mosses

|                              |               |   |   |   |  |    |
|------------------------------|---------------|---|---|---|--|----|
| <i>Tmesipteris tannensis</i> | clubmoss      |   | φ |   |  |    |
| <i>Lycopodium scariosum</i>  | clubmoss      | c | φ | u |  | φ  |
| <i>Lycopodium varium</i>     | clubmoss      | φ | φ | o |  | φ  |
| <i>Lycopodium volubile</i>   | clubmoss      |   |   |   |  | φ  |
| <i>Sphagnum cristatum</i>    | sphagnum moss |   |   |   |  | lc |

### Ferns

|                                       |                          |   |   |   |   |   |
|---------------------------------------|--------------------------|---|---|---|---|---|
| <i>Adiantum cunninghamii</i>          | maiden-hair fern         |   | φ | o | φ | φ |
| <i>Anarthropteris lanceolata</i>      | lance fern               |   |   | o | φ |   |
| <i>Asplenium bulbiferum</i>           | hen and chicken fern     |   | φ | o | φ | φ |
| <i>Asplenium flabellifolium</i>       |                          |   |   |   | φ |   |
| <i>Asplenium flaccidum</i>            | hanging spleenwort       | φ | φ | c | φ | φ |
| <i>Asplenium gracillium</i>           | spleenwort               | φ |   |   |   | φ |
| <i>Asplenium hookerianum</i>          |                          |   |   | o | l |   |
| <i>Asplenium oblongifolium</i>        | shining spleenwort       | φ | φ | u | φ | φ |
| <i>Asplenium polyodon</i>             | sickle leaved spleenwort |   | φ | o | φ | φ |
| <i>Azolla filiculoides var. rubra</i> | azolla                   |   |   |   |   | φ |
| <i>Blechnum chambersii</i>            | lance fern               | φ | φ | o | φ | φ |
| <i>Blechnum discolor</i>              | crown fern               |   | φ |   |   | φ |
| <i>Blechnum fluviatile</i>            | kiwikiwi                 |   | φ | o |   | φ |
| <i>Blechnum minus</i>                 | swamp kioko              |   |   |   |   | φ |
| <i>Blechnum nigrum</i>                | black hard fern          |   |   |   |   | φ |
| <i>Blechnum novae-zelandiae</i>       | kiokio                   | c | φ | o |   | φ |
| <i>Blechnum pennamarina</i>           |                          |   |   |   |   | φ |
| <i>Blechnum procerum</i>              |                          | φ |   |   |   | φ |
| <i>Blechnum triangularifolium</i>     | trangular kiokio         | φ |   | o | φ | φ |
| <i>Blechnum vulcanicum</i>            |                          | φ | φ | o |   | φ |
| <i>Ctenopteris heterophylla</i>       |                          |   |   | u |   | φ |

| Species Name                             | Common Name        | Hingarāe | Kawakawa | Waikino | Whakaipo | Waihaha |
|--|--------------------|----------|----------|---------|----------|---------|
| <i>Cyathea dealbata</i>                  | silver fern        | φ        | φ        | o       | φ        | φ       |
| <i>Cyathea medullaris</i>                | mamaku             | φ        | φ        | o       | φ        | φ       |
| <i>Cyathea smithii</i>                   | soft fern          |          |          |         | φ        |         |
| <i>Doodia australis</i>                  | rasp fern          |          |          |         | φ        |         |
| <i>Dicksonia fibrosa</i>                 | wheki-ponga        | φ        |          |         |          | φ       |
| <i>Dicksonia squarrosa</i>               | ponga              | φ        | φ        | o       | φ        | φ       |
| <i>Diplazium australe</i>                |                    |          | φ        | o       | o        | φ       |
| <i>Grammitis billardierii</i>            |                    |          |          | u       | φ        |         |
| <i>Grammitis</i> spp.                    |                    |          |          | U       |          |         |
| <i>Histiopteris incisa</i>               | matata             |          |          | u       |          |         |
| <i>Hymenophyllum cupressiflorum</i>      | filmyfern          |          |          |         | φ        |         |
| <i>Hymenophyllum demissum</i>            | filmy fern         | φ        |          | o       |          |         |
| <i>Hymenophyllum dilatatum</i>           | filmy fern         | φ        |          | u       | φ        | φ       |
| <i>Hymenophyllum ferrugineum</i>         | mauku              |          |          | u       |          |         |
| <i>Hymenophyllum flabellatum</i>         | filmy fern         | φ        |          | u       |          | φ       |
| <i>Hymenophyllum flexuosum</i>           | filmy fern         |          |          |         | φ        |         |
| <i>Hymenophyllum multifidum</i>          | mauku              |          |          | u       |          |         |
| <i>Hymenophyllum rarum</i>               | mauku              |          |          | u       |          |         |
| <i>Hymenophyllum sanguinolentum</i>      | filmy fern         |          | φ        | o       |          | φ       |
| <i>Hymenophyllum scabrum</i>             | filmy fern         |          |          | φ       |          | φ       |
| <i>Hypolepis ambigua</i>                 |                    |          |          |         |          | φ       |
| <i>Hypolepis millefolium</i>             |                    |          |          |         |          | φ       |
| <i>Hypolepis rufobarbata</i>             |                    |          |          | u       |          |         |
| <i>Lastreopsis glabella</i>              | smooth shield fern | φ        |          | u       | φ        | φ       |
| <i>Lastreopsis microsora</i>             |                    |          |          |         |          | φ       |
| <i>Lastreopsis velutina</i> <sup>4</sup> |                    |          |          |         | u        |         |
| <i>Leptolepia novae-zelandiae</i>        |                    |          |          | u       |          |         |
| <i>Leptopteris hymenophylloides</i>      | crepe fern         | φ        | φ        | o       |          | φ       |
| <i>Lindsaea trichomanoides</i>           |                    | φ        |          |         |          |         |
| <i>Lindsaea viridis</i>                  |                    |          |          | u       |          |         |
| <i>Microsorium pustulatus</i>            | hounds tounge      | c        | a        | a       | c        | φ       |

<sup>4</sup> This is the only known location of this plant within Tongariro/Taupo Conservancy, Whareroa Pt.

| Species Name                      | Common Name        | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|-----------------------------------|--------------------|----------|----------|---------|----------|---------|
| <i>Microsorium scandens</i>       | hounds tounge      |          |          | o       | lc       |         |
| <i>Ophioglossum coriaceum</i>     | Adders toungue     |          |          |         | φ        |         |
| <i>Paesia scaberula</i>           | lace fern          |          | φ        | u       |          | φ       |
| <i>Pellaea rotundifolia</i>       | tarawera           |          |          | u       | φ        |         |
| <i>Pneumatopteris pennigera</i>   | feather fern       | o        | φ        | o       |          | φ       |
| <i>Polystichum richardii</i>      | shieldfern         |          | φ        | u       | φ        |         |
| <i>Polystichum vestitum</i>       | prickly shieldfern | φ        | φ        | u       |          | φ       |
| <i>Pteridium esculentum</i>       | bracken            | φ        | φ        | o       |          | φ       |
| <i>Pteris macilenta</i>           |                    |          |          | o       | φ        | φ       |
| <i>Pteris tremula</i>             | brake fern         |          |          |         | φ        |         |
| <i>Pyrrhosia eleagnifolia</i>     | leather leaf fern  | φ        | φ        | c       | φ        | φ       |
| <i>Rumohra adiantiformis</i>      |                    |          |          |         |          | u       |
| <i>Trichomanes elongatum</i>      |                    |          |          | u       |          |         |
| <i>Trichomanes endlicherianum</i> |                    |          |          | u       |          |         |
| <i>Trichomanes reniforme</i>      | kidney fern        | φ        | φ        | c       | φ        | φ       |
| <i>Trichomanes venosum</i>        |                    |          |          | u       |          |         |

### **Orchids**

|                                  |                     |   |   |   |   |   |
|----------------------------------|---------------------|---|---|---|---|---|
| <i>Acianthus sinclairii</i>      |                     | φ | φ |   |   | φ |
| <i>Caladenia lyallii</i>         |                     |   | φ |   |   |   |
| <i>Caladenia catentata</i>       |                     |   | φ |   |   |   |
| <i>Corybas trilobus</i>          | Spider orchid       |   | φ |   |   | φ |
| <i>Corybas macranthus</i>        | Spider orchid       |   | φ |   |   |   |
| <i>Chiloglottis cornuta</i>      |                     |   | φ |   |   |   |
| <i>Cyrtostylis reniformis</i>    |                     |   | φ |   |   |   |
| <i>Earina autumnalis</i>         | Autumn orchid       |   | φ | c | φ | φ |
| <i>Earina mucronata</i>          | Bamboo orchid       | φ | φ | c | φ | φ |
| <i>Gastrodia cunninghamii</i>    | potato orchid       |   | φ |   |   |   |
| <i>Gastrodia minor</i>           | small potato orchid |   | φ |   |   |   |
| <i>Gastrodia sesamoides</i>      | potato orchid       |   | φ |   |   |   |
| <i>Microtis unifolia</i>         | onion leaved orchid |   | φ | u |   | φ |
| <i>Orthoceras novaezelandiae</i> |                     |   | φ |   |   |   |

| Species Name                   | Common Name         | Hingarāe | Kawakawa | Waikino | Whakaipo | Waihaha |
|--------------------------------|---------------------|----------|----------|---------|----------|---------|
| <i>Thelymitra</i> spp.         | sun orchid          | φ        | φ        |         |          | φ       |
| <i>Thelymitra longifolia</i>   | sun orchid          |          | φ        |         |          |         |
| <i>Thelymitra nervosa</i>      | sun orchid          |          | φ        |         |          |         |
| <i>Pterostylis</i> spp.        | green hooded orchid |          | φ        |         |          | φ       |
| <i>Pterostylis banksii</i>     | green hooded orchid |          | φ        |         |          | φ       |
| <i>Pterostylis trullifolia</i> | green hooded orchid |          | φ        |         |          | φ       |
| <i>Pterostylis foliata</i>     | green hooded orchid |          | φ        |         |          |         |
| <i>Pterostylis patens</i>      | green hooded orchid |          | φ        |         |          |         |
| <i>Thelymitra longifolia</i>   | sun orchid          |          | φ        |         |          |         |
| <i>Thelymitra decora</i>       | sun orchid          |          | φ        |         |          |         |
| <i>Winika cunninghamii</i>     |                     |          | φ        |         |          | φ       |

### **Grasses**

|                                |                     |   |   |   |   |   |
|--------------------------------|---------------------|---|---|---|---|---|
| * <i>Agrostis stolonifera</i>  | creeping bent       |   | φ |   |   |   |
| * <i>Aira praecox</i>          | early hair grass    |   | φ |   |   |   |
| * <i>Anthoxanthum odoratum</i> | sweet vernal        |   | φ |   |   |   |
| <i>Cortaderia fulvida</i>      | toetoe              | φ | φ | u |   | φ |
| <i>Deyeuxia avenacea</i>       | mountain oat grass  |   |   |   |   | φ |
| <i>Dichelachne crinata</i>     | plume grass         |   | φ |   |   |   |
| <i>Echinopogon ovatus</i>      | Hedge-hog grass     |   |   |   | φ |   |
| * <i>Holcus lanatus</i>        | Yorkshire fog grass |   | φ | u |   | φ |
| <i>Microlaena stipoides</i>    | meadow rice grass   |   | φ |   |   | φ |
| <i>Poa anceps</i>              | broad-leaved poa    |   | φ | l | φ | φ |
| <i>Poa imbecilla</i>           | small forest poa    |   |   |   | φ |   |
| <i>Rytidosperma gracile</i>    | danthonia           |   | φ |   | φ |   |
| <i>Schedonorus phoenix</i>     | tall fescue         |   |   |   |   | φ |

### **Sedges and rushes**

|                          |  |  |  |  |  |   |
|--------------------------|--|--|--|--|--|---|
| <i>Baumea rubiginosa</i> |  |  |  |  |  | φ |
| <i>Baumea tenax</i>      |  |  |  |  |  | φ |

| Species Name                          | Common Name            | Hingarāe | Kawakawa | Waikino | Whakaipo | Waihaha |
|---------------------------------------|------------------------|----------|----------|---------|----------|---------|
| <i>Carex breviculmis</i>              | grassland sedge        |          | φ        |         |          |         |
| <i>Carex dissita</i>                  |                        |          | φ        |         |          |         |
| <i>Carex geminata</i>                 | rautahi, cutting grass | φ        |          |         |          | φ       |
| <i>Carex secta</i>                    | purei                  |          |          |         |          | φ       |
| <i>Gahnia xanthocarpa</i>             |                        |          |          |         | φ        |         |
| * <i>Juncus articulatus</i>           | jointed rush           |          |          |         |          | φ       |
| * <i>Juncus bulbosus</i>              | bulbous rush           |          |          |         |          | φ       |
| <i>Juncus gregiflorus</i>             |                        |          |          |         |          | φ       |
| * <i>Juncus tenuis</i>                | track rush             |          | φ        |         |          |         |
| <i>Luzula picta</i> var. <i>picta</i> |                        |          |          | u       |          | φ       |
| <i>Luzula</i> spp.                    |                        |          | φ        |         |          |         |
| <i>Morelotia affinis</i>              |                        | φ        | φ        |         |          | φ       |
| <i>Uncinia gracilentata</i>           | hook grass             | φ        | φ        | u       |          | φ       |
| <i>Uncinia scabra</i>                 | matau                  |          |          | u       | φ        |         |
| <i>Uncinia uncinata</i>               | hook grass             |          | φ        | u       |          | φ       |

### **Monocot Herbs (other than orchids, grasses, sedges rushes)**

|                                  |                |   |   |   |   |   |
|----------------------------------|----------------|---|---|---|---|---|
| <i>Arthropodium cirratum</i>     |                |   |   |   | φ |   |
| <i>Astelia fragrans</i>          | kakaha         |   | φ | u |   | φ |
| <i>Astelia solandri</i>          | kakaha         | φ | φ | u | l | φ |
| <i>Collospermum microspermum</i> | pearching lily |   |   |   | φ |   |
| <i>Dianella nigra</i>            | turutu         | φ | φ | o | φ | φ |
| <i>Lemna minor</i>               | duckweed       |   |   |   |   | φ |
| <i>Libertia grandiflora</i>      | N.Z Iris       |   |   |   | o |   |
| <i>Machaerina sinclairii</i>     |                |   |   |   | φ |   |
| <i>Phormium cookianum</i>        | mountain flax  | φ |   |   |   | φ |
| # <i>Phormium tenax</i>          | flax, harakeke |   | φ |   |   | φ |

### **Composite Herbs**

|                                |                |  |   |  |   |   |
|--------------------------------|----------------|--|---|--|---|---|
| <i>Anaphalioides trinervis</i> |                |  | φ |  | u | φ |
| * <i>Bidens frondosa</i>       | beggar's ticks |  |   |  |   | φ |

| Species Name                       | Common Name         | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|------------------------------------|---------------------|----------|----------|---------|----------|---------|
| <i>Celmisia gracilentia</i>        | mountain daisy      | φ        | l        |         |          |         |
| * <i>Cirsium vulgare</i>           | Scotch thistle      |          | φ        | r       | φ        | φ       |
| * <i>Conyza albida</i>             | Canadian fleabane   |          | φ        | u       | φ        | φ       |
| <i>Crepis capillaris</i>           |                     |          |          | u       |          |         |
| <i>Euchiton audax</i>              | cudweed             |          | φ        | r       | φ        |         |
| * <i>Hypochoeris radicata</i>      | catsear             |          | φ        | r       |          |         |
| * <i>Lactuca</i> spp.              | wild lettuce        |          | φ        |         |          |         |
| <i>Lagenifera pumila</i>           |                     |          | φ        |         |          |         |
| * <i>Mycelis muralis</i>           | wall lettuce        |          |          | u       | φ        | φ       |
| <i>Pseudognaphalium luteoalbum</i> | jersery cudweed     |          | φ        |         |          | φ       |
| <i>Senecio bipinnatisectus</i>     | Australian fireweed |          |          |         | r        |         |
| * <i>Senecio jacobaea</i>          | ragwort             |          | φ        |         | φ        | φ       |
| <i>Senecio glomeratus</i>          | fireweed            |          |          |         | φ        |         |
| <i>Senecio minimus</i>             | fireweed            |          | φ        |         |          | φ       |
| * <i>Sonchus aspera</i>            | prickly sow thistle |          | φ        |         |          | φ       |
| <i>Sonchus oleraceus</i>           | sow thistle         |          |          |         | r        | φ       |

### Dicot Herbs

|                                |                       |   |   |   |   |    |
|--------------------------------|-----------------------|---|---|---|---|----|
| * <i>Anagallis arvensis</i>    | pimpernel             |   | φ |   |   |    |
| <i>Cardamine debilis</i> agg.  |                       |   |   | o |   | φ  |
| * <i>Centaurium erythraea</i>  | centarium             |   | φ |   |   | φ  |
| <i>Centella uniflora</i>       |                       |   |   |   |   | φ  |
| * <i>Cerastium fontanum</i>    | mouse-eared chickweed |   |   |   |   | φ  |
| <i>Dactylanthus taylorii</i>   | pua o te reinga       |   |   |   | r |    |
| * <i>Dianthus ameria</i>       | Deptford pink         |   | φ |   |   |    |
| <i>Digitalis purpurea</i>      | foxglove              |   |   |   |   | φ  |
| <i>Drosera peltata</i>         | spoon-leaved sundew   |   | φ |   |   | φ  |
| <i>Drosera spathulata</i>      | sundew                | φ |   |   |   |    |
| <i>Epilobium brunnescens</i>   | willow herb           |   |   |   |   | φ  |
| * <i>Epilobium cinereum</i>    |                       |   |   |   |   | lc |
| <i>Epilobium pallidiflorum</i> | willow herb           |   | φ |   |   | φ  |
| <i>Epilobium nerteroides</i>   | willow herb           |   |   | r | φ |    |

| Species Name                                  | Common Name            | Hingarae | Kawakawa | Waikino | Whakaipo | Waihaha |
|---|------------------------|----------|----------|---------|----------|---------|
| <i>Epilobium rotundifolium</i>                | willow herb            |          |          | r       |          | φ       |
| * <i>Galium palustre</i>                      | marsh bedstraw         |          |          |         |          |         |
| <i>Hydrocotyle heteromeria</i>                | hydrocotyle            |          |          | u       |          | φ       |
| <i>Hydrocotyle novae-zelandiae</i>            | hydrocotyle            |          | φ        |         |          |         |
| * <i>Lotus pedunculatus</i>                   | lotus                  |          | φ        |         |          | φ       |
| <i>Ludwigia palustris</i>                     | ludwigia               |          |          |         |          | φ       |
| * <i>Mimulus moschatus</i>                    | hairy monkey-musk      |          | φ        |         |          |         |
| * <i>Myosotis laxa</i> var. <i>caespitosa</i> | water forget-me-not    |          | φ        |         |          |         |
| <i>Nertera depressa</i>                       |                        |          |          | r       |          |         |
| <i>Nymphaea</i> sp.                           | water-lily             |          |          |         |          | φ       |
| <i>Oxalis</i> sp.                             |                        |          |          |         |          | φ       |
| <i>Parietaria debilis</i>                     |                        |          |          |         | φ        |         |
| <i>Pelargonium inodorum</i>                   | kopata                 |          |          | φ       |          | φ       |
| * <i>Plantago lanceolata</i>                  | narrow-leaved plantain |          | φ        |         |          |         |
| * <i>Plantago major</i>                       | plantain               |          | φ        |         |          |         |
| <i>Pratia angulata</i>                        | pratia                 |          | φ        | r       |          | φ       |
| * <i>Prunella vulgaris</i>                    | selfheal               |          | φ        | r       |          |         |
| * <i>Ranunculus flammula</i>                  | spearwort              |          |          |         |          | φ       |
| <i>Ranunculus reflexus</i>                    | hairy buttercup        |          | φ        | r       | φ        | φ       |
| <i>Ranunculus macropus</i>                    |                        |          |          |         |          | φ       |
| * <i>Rorippa nasturtium-aquaticum</i>         | watercress             |          | φ        |         |          |         |
| * <i>Rumex obtusifolius</i>                   | dock                   |          |          |         |          | φ       |
| <i>Solanum americanum</i>                     | poroporo               |          | φ        |         | φ        |         |
| <i>Solanum nigrum</i>                         | black-nightshade       |          |          | r       |          |         |
| <i>Stellaria parviflora</i>                   | native chickweed       | φ        | φ        | o       | φ        | φ       |
| * <i>Trifolium repens</i>                     | white clover           |          | φ        |         |          |         |
| * <i>Verbascum thapsus</i>                    | woolly mullein         |          |          |         |          | φ       |
| <i>Wahlenbergia gracilis</i>                  | N.Z. harebell          |          |          | φ       |          | φ       |