

<b>List number</b>	Higher Plant Species List <b>32</b>
<b>Location</b>	<b>Spion Kop, Manson Hut to Kiwi Mouth Hut, and Venison Tops, Kaweka Forest Park</b>
<b>Grid reference</b>	U20 911 091
<b>Date of visit(s)</b>	2-3 April 2003
<b>Author(s)</b>	Mike Thorsen
<b>Description of site</b>	Subalpine to river flat on steep greywacke rocks with tephra mantle on ridgetops. Some areas regenerating post-fire(s)
<b>Number of indigenous species</b>	163
<b>Number of exotic species</b>	29
<b>Total number of species</b>	<b>192</b>
<b>Percentage exotic species</b>	15.1

<b>Gymnosperms</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Halocarpus bidwillii</i> (bog pine)	Podocarpaceae	Not threatened	Rare	Subalpine
<i>Halocarpus biformis</i> (pink pine)	Podocarpaceae	Not threatened	Rare	Subalpine
<i>Lepidothamnus laxifolius</i> (pygmy pine)	Podocarpaceae	Not threatened	Occasional	Subalpine
<i>Podocarpus hallii</i> (totara)	Podocarpaceae	Not threatened	Rare	Lower altitudes
<i>Podocarpus nivalis</i> (snow totara)	Podocarpaceae	Not threatened	Occasional	Subalpine

<b>Dicot trees, shrubs and lianes</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Aristotelia fruticosa</i>	Elaeocarpaceae	Not threatened	Occasional	Subalpine
<i>Aristotelia serrata</i> (wineberry)	Elaeocarpaceae	Not threatened	Occasional	Lower altitudes
<i>Carmichaelia arborea</i> (native broom)	Fabaceae	Not threatened	Occasional	Lower altitudes
<i>Carpodetus serrata</i> (putaputaweta)	Escalloniaceae	Not threatened	Common	Lower altitudes
<i>Clematis paniculata</i>	Ranunculaceae	Not threatened	Occasional	Lower altitudes
<i>Coprosma "oreophila"</i>	Rubiaceae	Not threatened	Common	Subalpine
<i>Coprosma "taylorae"</i> ( <i>Coprosma</i> sp. t)	Rubiaceae	Not threatened	Occasional	Open sites
<i>Coprosma cheesemani</i>	Rubiaceae	Not threatened	Rare	River flats
<i>Coprosma colensoi</i> (narrow-leaved form)	Rubiaceae	Not threatened	Rare	Higher altitudes
<i>Coprosma colensoi</i> (wide-leaved form)	Rubiaceae	Not threatened	Rare	Higher altitudes
<i>Coprosma foetidissima</i> (stinkwood)	Rubiaceae	Not threatened	Occasional	Higher altitudes
<i>Coprosma propinqua</i> subsp. <i>propinqua</i>	Rubiaceae	Not threatened	Rare	Lower altitudes
<i>Coprosma propinqua</i> X <i>C. robusta</i>	Rubiaceae	Not threatened	Rare	Lower altitudes
<i>Coprosma pseudocuneata</i>	Rubiaceae	Not threatened	Occasional	Subalpine
<i>Coprosma rhamnoides</i>	Rubiaceae	Not threatened	Common	Lower altitudes
<i>Coprosma robusta</i>	Rubiaceae	Not threatened	Occasional	Lower altitudes
<i>Coprosma rugosa</i> subsp. <i>rugosa</i>	Rubiaceae	Not threatened	Rare	Lower altitudes
<i>Cyathodes juniperina</i>	Epacridaceae	Not threatened	Occasional	Scrub
<i>Dracophyllum recurvum</i>	Epacridaceae	Not threatened	Abundant	Subalpine
<i>Dracophyllum subulatum</i>	Epacridaceae	Not threatened	Occasional	Subalpine
<i>Epacris alpina</i>	Epacridaceae	Not threatened	Common	Subalpine
<i>Gaultheria antipoda</i> (snowberry)	Ericaceae	Not threatened	Common	Open sites
<i>Gaultheria macrostigma</i>	Ericaceae	Not threatened	Rare	Manson Hut
<i>Griselinia littoralis</i> (broadleaf)	Cornaceae	Not threatened	Rare	Higher altitudes
<i>Hebe corriganii</i> s.l. (Sinus variable. Common montane species in central NI)	Scrophulariaceae	Not threatened	Rare	Open sites
<i>Hebe hectorii</i> subsp. <i>subsimilis</i>	Scrophulariaceae	Not threatened	Common	Subalpine
<i>Hebe odora</i>	Scrophulariaceae	Not threatened	Common	Subalpine
<i>Helichrysum lanceolatum</i> var. <i>aggregatum</i>	Asteraceae	Not threatened	Occasional	Lower altitudes
<i>Kunzea ericoides</i> s.l. (kanuka)	Myrtaceae	Not threatened	Abundant	Lower altitudes
<i>Leptospermum scoparium</i> (manuka)	Myrtaceae	Not threatened	Common	Higher altitudes
<i>Leucopogon fascicularis</i> var. "southern" (mingimingi)	Epacridaceae	Not threatened	Common	Lower altitudes
<i>Myrsine divaricata</i> (weeping mapou)	Myrsinaceae	Not threatened	Rare	Higher altitudes
<i>Myrsine nummularia</i> (creeping mapou)	Myrsinaceae	Not threatened	Occasional	Subalpine

<i>Nothofagus solandri</i> var. <i>cliffortioides</i> (mountain beech)	Fabaceae	Not threatened	Abundant	Higher altitudes
<i>Olearia furfuracea</i> var. "southern NI"	Asteraceae	Not threatened	Occasional	Lower altitudes
<i>Olearia nummulariifolia</i> "North Island"	Asteraceae	Not threatened	Occasional	Subalpine
<i>Ozothamnus leptophylla</i> (tauhinau)	Asteraceae	Not threatened	Occasional	Subalpine
<i>Pimelea oreophila</i>	Thymelaeaceae	Not threatened	Occasional	Subalpine
<i>Pimelea prostrata</i> var. <i>alpina</i>	Thymelaeaceae	Not threatened	Rare	Subalpine
<i>Pittosporum ralphii</i>	Pittosporaceae	Not threatened	Rare	Lower altitudes
<i>Pittosporum tenuifolium</i> subsp. <i>tenuifolium</i> (kohuhu)	Pittosporaceae	Not threatened	Occasional	Lower altitudes
<i>Pseudopanax colensoi</i>	Araliaceae	Not threatened	Rare	Higher altitudes
<i>Rubus schmidelioides</i> (bush lawyer)	Rubiaceae	Not threatened	Occasional	Lower altitudes

<b>Dicot herbs (inc. Composit)</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Acaena anserinifolia</i> (bidibid)	Rosaceae	Not threatened	Occasional	Open sites
<i>Acaena emittens</i>	Rosaceae	Not threatened	Occasional	Montane
<i>Anaphalioides bellidioides</i>	Asteraceae	Not threatened	Common	Subalpine
<i>Bellis perennis</i> (everlasting daisy)*	Asteraceae	Exotic	Local	Track to Kiwi Mouth (Plants more dentate than lowland populations)
<i>Brachyglottis lagopus</i>	Asteraceae	Not threatened	Occasional	Subalpine
<i>Brachyscome radicata</i> var. <i>radicata</i>	Asteraceae	Not threatened	Rare	Subalpine
<i>Brachyscome radicata</i> ? (leaves small, toothed, apiculate; achenes flattened, mod. hairy, not glandular)	Asteraceae	Unknown	Local	Subalpine
<i>Celmisia gracilentia</i> agg.	Asteraceae	Not threatened	Occasional	Subalpine
<i>Celmisia spectabilis</i> subsp. <i>spectabilis</i>	Asteraceae	Not threatened	Abundant	Subalpine
<i>Cerastium fontanum</i> (mouse-ear chickweed)*	Caryophyllaceae	Exotic	Rare	Open sites
<i>Cirsium vulgare</i> (Scotch thistle)*	Asteraceae	Exotic	Rare	Lower altitudes
<i>Conyza alba</i> (fleabane)*	Asteraceae	Exotic	Local	Lower altitudes
<i>Coprosma perpusilla</i>	Rubiaceae	Not threatened	Occasional	Subalpine
<i>Coriaria kingiana</i>	Coriaceae	Not threatened	Local	Higher altitudes
<i>Craspedia uniflora</i> var. <i>uniflora</i>	Asteraceae	Not threatened	Local	Lower altitudes
<i>Craspedia viscosa</i>	Asteraceae	Not threatened	Rare	Lower altitudes
<i>Epilobium glabellum</i>	Onagraceae	Not threatened	Rare	Subalpine
<i>Epilobium insulare</i>	Onagraceae	Not threatened	Rare	Montane forest, ID unconfirmed as not flowering
<i>Epilobium pubens</i>	Onagraceae	Not threatened	Occasional	Open sites
<i>Euchiton</i> ? (minute; folded leaf)	Asteraceae	Not threatened	Rare	Higher altitudes
<i>Euchiton delicatula</i>	Asteraceae	Not threatened	Occasional	Open sites
<i>Euchiton polylepis</i>	Asteraceae	Data Deficient	Occasional	Subalpine
<i>Euchiton ruahinacum</i>	Asteraceae	Not threatened	Rare	Lower altitudes
<i>Euchiton traversii</i>	Asteraceae	Not threatened	Rare	Manson
<i>Galium perpusillum</i>	Rubiaceae	Not threatened	Rare	Lower altitudes
<i>Gamochaeta purpurea</i> (creeping cudweed)*	Asteraceae	Exotic	Local	Lower altitudes
<i>Gaultheria depressa</i>	Ericaceae	Not threatened	Common	Higher altitudes

<i>Gentiana bellidifolia</i>	Gentianaceae	Not threatened	Common	Subalpine
<i>Gentiana grisebachii</i>	Gentianaceae	Not threatened	local	Subalpine
<i>Geranium sessiliflorum</i>	Geraniaceae	Not threatened	Occasional	Open sites
<i>Gonocarpus aggregatus</i>	Haloragaceae	Not threatened	Occasional	Open sites
<i>Hieracium pilosella</i> (mouse-ear hawkweed)*	Asteraceae	Exotic	Common	Open sites
<i>Hydrocotyle microphylla</i>	Apiaceae	Not threatened	Occasional	Open sites
<i>Hydrocotyle moschata</i>	Apiaceae	Not threatened	Occasional	Lower altitudes
<i>Hypochoeris radicata</i> (catsear)*	Asteraceae	Exotic	Common	Open sites
<i>Kelleria laxa</i>	Epacridaceae	Not threatened	Common	Subalpine
<i>Lagenifera pumila</i>	Asteraceae	Not threatened	Local	Lower altitudes
<i>Lagenifera strangulata</i>	Asteraceae	Not threatened	Occasional	Venison Tops
<i>Lapsana communalis</i> (nipplewort)	Asteraceae	Exotic	Occasional	Lower altitudes
<i>Leucopogon fraseri</i> agg.	Epacridaceae	Not threatened	Common	Open sites
<i>Mycelis muralis</i> (wall lettuce)*	Asteraceae	Exotic	Occasional	Throughout
<i>Nertera setulosa</i>	Rubiaceae	Not threatened	Occasional	Lower altitudes
<i>Oreomyrrhis colensoi</i> var. <i>colensoi</i>	Apiaceae	Not threatened	Occasional	Subalpine
<i>Oreomyrrhis ramosa</i>	Apiaceae	Not threatened	Common	Subalpine
<i>Oxalis exilis</i> (native oxalis)	Oxalidaceae	Not threatened	Occasional	Throughout
<i>Oxalis lactea</i>	Oxalidaceae	Not threatened	Occasional	Open sites
<i>Pratia angulata</i> (panakenake)	Lobeliaceae	Not threatened	Occasional	Lower altitudes
<i>Prunella vulgaris</i> (selfheal)*	Lamiaceae	Exotic	Local	Lower altitudes
<i>Pseudognaphalium luteoalbum</i> "inland"	Asteraceae	Not threatened	Occasional	Open sites
<i>Ranunculus multiscapus</i>	Ranunculaceae	Not threatened	Local	Manson
<i>Ranunculus reflexus</i> (hairy buttercup)	Ranunculaceae	Not threatened	Occasional	Open sites
<i>Ranunculus repens</i> (creeping buttercup)*	Ranunculaceae	Exotic	Local	Kiwi Mouth Hut
<i>Raoulia glabra</i>	Asteraceae	Not threatened	Rare	Subalpine
<i>Raoulia hookeri</i> agg.	Asteraceae	Not threatened	Occasional	Subalpine
<i>Raoulia tenuicaulis</i> var. <i>tenuicaulis</i>	Asteraceae	Not threatened	Rare	Lower altitudes
<i>Rumex acetosella</i> (sheep's sorrel)*	Polygonaceae	Exotic	Rare	Scrub
<i>Sagina procumbens</i> (pearlwort)*	Caryophyllaceae	Exotic	Rare	Lower altitudes
<i>Schizeilema trifoliolatum</i>	Apiaceae	Not threatened	Rare	Higher altitudes
<i>Senecio jacobea</i> (ragwort)*	Asteraceae	Exotic	Local	Lower altitudes
<i>Sherardia arvensis</i> (field madder)*	Rubiaceae	Exotic	Rare	Lower altitudes
<i>Sonchus asper</i> (prickly sow thistle)*	Asteraceae	Exotic	Rare	Lower altitudes
<i>Spergula arvensis</i> (spurrey)*	Caryophyllaceae	Exotic	Occasional	Open sites
<i>Trifolium repens</i> (white clover)*	Fabaceae	Exotic	Rare	Open sites
<i>Urtica incisa</i> (nettle)	Urticaceae	Not threatened	Rare	Lower altitudes
<i>Verbascum thaspis</i> (woolly mullein)*	Scrophulariaceae	Exotic	Local	Lower altitudes
<i>Viola lyallii</i>	Violaceae	Not threatened	Occasional	Open sites
<i>Vittadinia australis</i> (fuzzweed)	Asteraceae	Data Deficient	Rare	Rocks near Manson Hut and beside Ngaruroro River
<i>Wahlenbergia pygmaea</i> subsp. <i>pygmaea</i>	Campanulaceae	Not threatened	Common	Subalpine
<i>Wahlenbergia violacea</i>	Campanulaceae	Not threatened	Rare	River valley

Monocots (except orchids, grass)	Family	Threat ranking	Abundance at site	
<i>Astelia solanderi</i>	Liliaceae	Not threatened	Occasional	Lower altitudes

<i>Collospermum microspermum</i>	Liliaceae	Not threatened	Occasional	Lower altitudes
<i>Libertia grandiflora</i>	Iridaceae	Not threatened	Rare	Lower altitudes
<i>Phormium cookianum</i> (whariki)	Agavaceae	Not threatened	Occasional	Rock faces

<b>Orchids</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Aporostylis bifoliata</i>	Orchidaceae	Not threatened	Rare	Subalpine
<i>Microtis unifolia</i>	Orchidaceae	Not threatened	Occasional	Open sites
<i>Prasophyllum colensoi</i>	Orchidaceae	Not threatened	Occasional	Subalpine
<i>Pterostylis venosa</i>	Orchidaceae	Not threatened	Rare	Montane forest

<b>Grass</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Agrostis capillaris</i> (browntop)*	Agrostidinae	Exotic	Local	Lower altitudes
<i>Anthoxanthum odoratum</i> (sweet vernal)*	Phalaridinae	Exotic	Occasional	Open areas
<i>Bromus lithobius</i> (Chilean brome)*	Bromeae	Exotic	Rare	Kiwi Mouth Hut
<i>Chionochloa pallens</i> subsp. <i>pallens</i> (mid-ribbed snow tussock)	Danthoniinae	Not threatened	Common	Subalpine
<i>Chionochloa rubra</i> (red tussock)	Danthoniinae	Not threatened	Common	Subalpine
<i>Cortaderia fulvida</i>	Cortaderiinae	Not threatened	Occasional	Lower altitudes
<i>Dactylis glomerata</i> (cocksfoot)*	Poeae	Exotic	Local	Kiwi Mouth Hut
<i>Deschampsia chapmanii</i>	Aveninae	Not threatened	Local	Venison Tops
<i>Deyeuxia aucklandica</i>	Agrostidinae	Not threatened	Local	Subalpine
<i>Echinopogon ovatus</i> (hedgehog grass)	Agrostidinae	Not threatened	Occasional	Lower altitudes
<i>Elymus solandri</i>	Hordeae	Not threatened	Rare	Lower altitudes
<i>Hierachloe redolens</i>	Phalaridinae	Not threatened	Occasional	Subalpine
<i>Holcus lanatus</i> (Yorkshire fog)*	Aveninae	Exotic	Rare	Open areas
<i>Lachnagrostis filiformis</i> (tumble grass)	Agrostidinae	Not threatened	Occasional	Higher altitudes
<i>Lolium perenne</i> (perennial ryegrass)*	Poeae	Exotic	Local	Kiwi Mouth Hut
<i>Poa anceps</i>	Poeae	Not threatened	Occasional	Rock faces
<i>Poa annua</i> *	Poeae	Exotic	Occasional	Open areas
<i>Poa cita</i> (silver tussock)	Poeae	Not threatened	Local	Subalpine
<i>Rytidosperma unarede</i> (cliff fairy grass)	Danthoniinae	Not threatened	Occasional	Higher altitudes
<i>Rytidosperma viride</i>	Danthoniinae	Not threatened	Common	Subalpine
<i>Schedonorus phoenix</i> (tall fescue)*	Poeae	Exotic	Local	Kiwi Mouth Hut
<i>Stenostachys gracilis</i>	Hordeae	Not threatened	Rare	River flat

<b>Rushes and Sedges</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Carex comans</i>	Cyperaceae	Not threatened	Local	Subalpine
<i>Carex forsteri</i>	Cyperaceae	Not threatened	Rare	Lower altitudes
<i>Carex spinirostris</i>	Cyperaceae	Not threatened	Rare	Lower altitudes
<i>Isolepis pottsii</i>	Cyperaceae	Not threatened	Local	Hare exclosures
<i>Juncus antarcticus</i>	Juncaceae	Not threatened	Local	Wetter sites
<i>Juncus articulatus</i> (jointed rush)*	Juncaceae	Exotic	Local	Wetter sites
<i>Juncus tenuis</i> (slender rush)*	Juncaceae	Exotic	Rare	Lower altitudes
<i>Luzula migrata</i>	Juncaceae	Not threatened	Common	Subalpine
<i>Luzula picta</i> var. <i>picta</i>	Juncaceae	Not threatened	Occasional	Lower altitudes
<i>Machaerina sinclairii</i>	Cyperaceae	Not threatened	Rare	Lower altitudes
<i>Oreobolus pectinatus</i>	Cyperaceae	Not threatened	Occasional	Subalpine
<i>Schoenus pauciflorus</i>	Cyperaceae	Not threatened	Occasional	Open sites

<i>Schoenus pauciflorus</i>	Cyperaceae	Not threatened	Rare	Lower altitudes
<i>Uncinia fuscovaginata</i>	Cyperaceae	Not threatened	Occasional	Subalpine
<i>Uncinia scabra</i>	Cyperaceae	Not threatened	Rare	River flats
<i>Uncinia uncinata</i> (hook grass)	Cyperaceae	Not threatened	Common	Lower altitudes

<b>Ferns and allies</b>	<b>Family</b>	<b>Threat ranking</b>	<b>Abundance at site</b>	
<i>Asplenium appendiculatum</i> subsp. <i>terrestre</i>	Aspleniaceae	Not threatened	Occasional	Rock crevices
<i>Asplenium flabellifolium</i> (necklace fern)	Aspleniaceae	Not threatened	Local	Lower altitudes
<i>Asplenium flaccidum</i> (hanging spleenwort)	Aspleniaceae	Not threatened	Rare	Lower altitudes
<i>Asplenium hookerianum</i> var. <i>hookerianum</i>	Aspleniaceae	Not threatened	Rare	Higher altitudes
<i>Blechnum chambersii</i>	Blechnaceae	Not threatened	Occasional	Lower altitudes
<i>Blechnum fluviatile</i> agg.	Blechnaceae	Not threatened	Common	Lower altitudes
<i>Blechnum montanum</i> (mountain kiokio)	Blechnaceae	Not threatened	Rare	Lower altitudes
<i>Blechnum novaezelandiae</i> (kiokio)	Blechnaceae	Not threatened	Common	Lower altitudes
<i>Blechnum penna-marina</i>	Blechnaceae	Not threatened	Common	Higher altitudes
<i>Blechnum procerum</i>	Blechnaceae	Not threatened	Rare	Throughout
<i>Cheilanthes humilis</i> (rock fern)	Pteridaceae	Not threatened	Local	Rock crevices
<i>Ctenopteris heterophylla</i>	Grammitidaceae	Not threatened	Occasional	Montane
<i>Grammitis poeppigiana</i>	Grammitidaceae	Not threatened	Rare	Rock crevices
<i>Histiopteris incisa</i> (water fern, mata)	Dennstaedtiaceae	Not threatened	Local	Venison Tops
<i>Hymenophyllum cupressiforme</i>	Hymenophyllaceae	Not threatened	Rare	Rock crevices
<i>Hymenophyllum multifidum</i>	Hymenophyllaceae	Not threatened	Common	Lower altitudes
<i>Hymenophyllum peltatum</i>	Hymenophyllaceae	Not threatened	Occasional	Subalpine
<i>Hypolepis millefolium</i> (thousand-leaved fern)	Dennstaedtiaceae	Not threatened	Occasional	Higher altitudes
<i>Lycopodiella fastigiatum</i>	Lycopodiaceae	Not threatened	Occasional	Subalpine
<i>Lycopodiella scariosum</i>	Lycopodiaceae	Not threatened	Occasional	Subalpine
<i>Lycopodium ramulosum</i>	Lycopodiaceae	Not threatened	Occasional	Subalpine
<i>Microsorium pustulatum</i> (hounds-tongue fern)	Polypodiaceae	Not threatened	Occasional	Lower altitudes
<i>Paesia scaberula</i> (hard fern)	Dennstaedtiaceae	Not threatened	Occasional	Lower altitudes
<i>Pellaea rotundifolia</i>	Pteridaceae	Not threatened	Occasional	Lower altitudes
<i>Polystichum richardii</i> (common shield fern)	Dryopteridaceae	Not threatened	Occasional	Lower altitudes
<i>Polystichum sylvaticum</i>	Dryopteridaceae	Not threatened	Rare	Higher altitudes
<i>Polystichum vestitum</i> (prickly shield fern)	Dryopteridaceae	Not threatened	Occasional	Throughout
<i>Pteridium esculentum</i> (bracken)	Dennstaedtiaceae	Not threatened	Local	Lower altitudes
<i>Pyrrosia elaeagnifolia</i> (serpent's tongue fern)	Polypodiaceae	Not threatened	Occasional	Lower altitudes