

## Okere Falls Scenic Reserve, December 2022

Elizabeth Miller

On Sunday 4<sup>th</sup> December 2022, 10 people, including an amiable toddler and his parents, met at the carpark at the Okere Falls Scenic Reserve, north-east of Rotorua. It was a fine, warm day, plenty of visitors were enjoying the tracks to the Trout Pool, and occasional excited cries drifted up through the bush from rafters on the Okere River, that flows through a narrow gorge and over waterfalls beside the reserve. The reserve is approximately bounded by the Okere River (often referred to as the Kaituna River) on the east and by Okere Falls Road on the west.

The main track is mostly beneath the shade of tall rewarewa (*Knightia excelsa*), treeferns (*Cyathea* spp.), kamahi (*Pterophylla* (*Weinmannia*) *racemosa*), with mahoe (*Melicytus ramiflorus*), *Coprosma* spp., tree fuchsia (*Fuchsia excorticata*), pate (*Schefflera digitata*), kawakawa (*Piper excelsum* subsp. *excelsum*) and five finger (*Pseudopanax arboreus*) frequent in the understorey.

But the track banks have plenty of small ferns, bryophytes and *Tmesipteris* to slow down a botanical party. We were armed with a species list compiled by Bruce Clarkson and Dave King in 1987 but there have been changes in the Reserve over the intervening 35 years, so we were interested to note differences.

We agreed to turn up the hill towards the west on the ridge track, which branches off a short way along the main path, then from the Trout Pool, complete the circle back on the main track on our return to the carpark. The ridge track provided more interest than we expected. It is a relatively recent addition to the Reserve, through younger vegetation that had a lower canopy, with treeferns and kamahi common, the leaves glistening in the sun on the day. Occasional tall bracken fronds occurred amongst the understory, suggesting that much of the western part of the reserve had transitioned from bracken to the present broadleaf canopy and mixed understorey. Clarkson and King mentioned kamahi on the ridge, so this canopy species was already characteristic at that time. Clumps of ferns such as kiokio (*Blechnum novae-zealandiae*) were prominent and rhizomatous species including *Lecanopteris* (*Microsorium*) *scandens* grew on the ground and up into the trees in places, but the understorey was fairly open, reflecting a history of browsing. More recently, pest control has been occurring, including by the company who operate rafting and zipline tours from the Reserve.

The more open areas allowed development of track-side weeds, but also a few *Thelymitra* and several *Pterostylis banksii* with very large capsules. We admired a patch of flowering *Lobelia* (*Pratia*) *angulata* covering about 6 m<sup>2</sup> beside the track. Other species noted along the ridge track, often with discussion, included *Hydrocotyle moschata*, *Carex breviculmis* (the only one with a hairy utricle), *Lycopodium deuterodensum* and *L. volubile*, *Gamochaeta americanum* (G.

*spicatum*), *Pelargonium inodorum*, *Rytidospermum racemosum*, and both *Tmesipteris elongata* and *T. lanceolata*.

We enjoyed views over the surrounding farmland and forested hills towards the northern end of the ridge track, before descending to the road-end carpark, and after a short walk beside the river near the Trout Pool, we farewelled the Renner family, then took the pleasantly shaded main track. We were now beneath large, tall tawa (*Beilschmiedia tawa*), rewarewa, a few large pukatea (*Laurelia novae-zelandiae*), occasional kohekohe, (*Didymocheton (Dysoxylum) spectabilis*), tall tree ferns and associated understorey on the steep slopes above and below the well-graded path cut into the hillside. On some slopes, trees were densely festooned with supplejack (*Ripogonum scandens*) and the bigger trees supported large epiphytes on their branches. Our botanists' pace during the morning meant that we abandoned the idea of lunch and an afternoon walk at another site, on nearby Te Akau Peninsula. Instead, partway along the track we took advantage of the benches at the top of the steps to the river-viewing platform and the caves, for a pleasant lunch stop beneath two attractive rimu (*Dacrydium cupressinum*), probably planted during early development of tourism at the site. We carried on beneath similar forest, with occasional discussion on trackside plants, to the carpark, where another person departed and the remaining six adjourned to the Millers' home for a cold drink and more botanical discussions in the garden. The consensus was that this had been an easy, enjoyable trip on a warm December day, with plenty of botanical interest and congenial company.

## Reference

Clarkson, BD; King, DR. 1987. Okere Falls Scenic Reserve. Unpublished report. D.S.I.R., Rotorua.

## Okere Falls Scenic Reserve, hill track, Trout Pool main track

Graeme Jane & Gael Donaghy

### Key

Visit Date: 04-12-2022

\* = exotic or introduced species

A column = Okere Falls Scenic Reserve, Clarkson & King 1987

B column = Trout Pool hill track 2022

C column = Trout Pool main track2022

ABC

x__ *	<i>Acacia mearnsii</i>	black wattle
_x_	<i>Acaena anserinifolia</i>	bidibid
x__ *	<i>Acaena novae-zelandiae</i>	red bidibid; pipiripi
x__ *	<i>Acer pseudoplatanus</i>	sycamore
x__ *	<i>Achillea millefolium</i>	yarrow
x_x	<i>Adiantum cunninghamii</i>	maidenhair fern

x_x	<i>Alectryon excelsus</i> ssp. <i>excelsus</i>	titoki
x_x	<i>Alseuosmia macrophylla</i>	toropapa; shrubby honeysuckle
xxx *	<i>Anthoxanthum odoratum</i>	sweet vernal
_x_ *	<i>Aphanes arvensis</i>	parsley piert
xxx	<i>Aristotelia serrata</i>	wineberry; makomako
x__	<i>Asplenium bulbiferum</i>	hen and chickens fern; moku
xxx	<i>Asplenium flaccidum</i>	hanging spleenwort; makawe
xxx	<i>Asplenium oblongifolium</i>	shining spleenwort
x_x	<i>Asplenium polyodon</i>	sickle spleenwort; petako
_x_	<i>Astelia solandri</i>	kowharawhara
x__	<i>Azolla rubra</i>	
xxx	<i>Beilschmiedia tawa</i>	tawa
xx_ *	<i>Bellis perennis</i>	lawn daisy
xx_	<i>Blechnum chambersii</i>	nini; lance fern
_x_	<i>Blechnum filiforme</i>	climbing hard fern; thread fern
x__	<i>Blechnum membranaceum</i>	
_x_	<i>Blechnum minus</i>	swamp kiokio
xxx	<i>Blechnum novae-zelandiae</i>	kiokio
_xx	<i>Blechnum parrisiae</i>	pukupuku; rasp fern
xxx	<i>Brachyglottis repanda</i>	rangiora; bushmans friend
xxx *	<i>Bromus catharticus</i> var. <i>catharticus</i>	prairie grass
_x_ *	<i>Bromus valdivianus</i>	
x__ *	<i>Buddleja davidii</i>	summer lilac; buddleia
x__ *	<i>Buxus sempervirens</i>	box
_x_ *	<i>Cardamine flexuosa</i>	wavy bitter cress
_xx	<i>Carex breviculmis</i>	
xxx	<i>Carex imbecilla</i>	
_x_	<i>Carex lambertiana</i>	
_x_	<i>Carex megalepis</i>	
x__	<i>Carex solandri</i>	
_x_	<i>Carex subviridis</i>	
xxx	<i>Carex uncinata</i>	watu
x__	<i>Carpodetus serratus</i>	putaputaweta; marbleleaf
_x_ *	<i>Centaurium erythraea</i>	centuary
_x_ *	<i>Cerastium fontanum</i> ssp. <i>vulgare</i>	mouse-eared chickweed
x__ *	<i>Cerastium glomeratum</i>	annual mouse-eared chickweed
x__ *	<i>Ceratophyllum demersum</i>	hornwort
x__ *	<i>Chamaecyparis lawsoniana</i>	Lawson's cypress
_x_	<i>Chiloglottis cornuta</i>	green bird orchid
_x_ *	<i>Cirsium arvense</i>	Californian thistle
xx_ *	<i>Cirsium vulgare</i>	Scotch thistle
_xx	<i>Clematis paniculata</i>	clematis; puawhananga
xxx	<i>Coprosma autumnalis</i>	raurekau; kanono; mamono
xxx	<i>Coprosma lucida</i>	karamu; shining karamu
xxx	<i>Coprosma robusta</i>	karamu
xx_	<i>Cordyline australis</i>	cabbage tree; ti-kouka
x__	<i>Coriaria arborea</i> var. <i>arborea</i>	tree tutu
_x_ *	<i>Cornus capitata</i>	

_x_ *	<i>Cortaderia selloana</i>	pampas
x__ *	<i>Cotoneaster glaucophyllus</i>	
x__ *	<i>Cotoneaster microphyllus</i>	
xx_ *	<i>Crataegus monogyna</i>	hawthorn
_x_ *	<i>Crepis capillaris</i>	hawksbeard
x__ *	<i>Crocasmia xcrocosmiiflora</i>	montbretia
x__ *	<i>Cryptomeria japonica</i>	Japanese cedar
x_x	<i>Cyathea cunninghamii</i>	slender tree fern; gully tree fern
xxx	<i>Cyathea dealbata</i>	ponga; silver fern
xxx	<i>Cyathea medullaris</i>	mamaku; korau; black tree fern
x__ *	<i>Cynodon dactylon</i>	indian doab
__x	<i>Dacrycarpus dacrydioides</i>	kahikatea, white pine
xxx	<i>Dacrydium cupressinum</i>	rimu, red pine
x_x *	<i>Dactylis glomerata</i>	cocksfoot
x__ *	<i>Delairea odora</i>	German ivy
xx_	<i>Dianella nigra</i>	blueberry; turutu
xxx	<i>Dicksonia squarrosa</i>	wheki; harsh tree fern
xx_	<i>Didymocheton spectabilis</i>	kohekohe
xx_ *	<i>Digitalis purpurea</i>	foxglove
_x_ *	<i>Digitaria sanguinalis</i>	hairy finger grass
__x	<i>Diplazium australe</i>	
x__	<i>Drosera auriculata</i>	
xx_	<i>Drymoanthus adversus</i>	
x__	<i>Earina autumnalis</i>	Easter orchid; raupeka
xx_	<i>Earina mucronata</i>	spring orchid; peka-a-waka
x_x	<i>Elaeocarpus dentatus</i> var. <i>dentatus</i>	hinau
x__ *	<i>Elodea canadensis</i>	Canadian pond weed
x__	<i>Epilobium pedunculare</i>	
x__	<i>Epilobium rotundifolium</i>	round-leaved willowherb
xxx *	<i>Erica lusitanica</i>	Spanish heath
xx_ *	<i>Erigeron sumatrensis</i>	broad-leaved fleabane
x__	<i>Euchiton audax</i>	
x__	<i>Euchiton japonicus</i>	
xxx	<i>Freycinetia banksii</i>	kiekie
xxx	<i>Fuchsia excorticata</i>	fuchsia; kotukutuku
x__ *	<i>Fumaria muralis</i> ssp. <i>muralis</i>	scrambling fumitory
x_x *	<i>Galium aparine</i>	cleavers
xxx *	<i>Gamochaeta americana</i>	purple cudweed
x_x	<i>Gaultheria antipoda</i>	snowberry; tawiniwini
x__	<i>Gaultheria oppositifolia</i>	niniwa
xxx	<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange; privet
xx_ *	<i>Genista monspessulana</i>	Montpellier broom
xx_ *	<i>Geranium molle</i>	dove's foot crane's bill
_x_ *	<i>Geranium robertianum</i>	herb Robert
x__	<i>Gonocarpus micranthus</i>	
xx_	<i>Haloragis erecta</i> ssp. <i>erecta</i>	toatoa
xxx	<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
xxx	<i>Hedycarya arborea</i>	pigeonwood; porokaiwhiri

xxx *	<i>Holcus lanatus</i>	Yorkshire fog
_x	<i>Hydrocotyle heteromeria</i>	wax weed
_x	<i>Hydrocotyle microphylla</i>	hydrocotyle
xxx	<i>Hymenophyllum demissum</i>	piripiri; irirangi
_x	<i>Hymenophyllum dilatatum</i>	lop-sided filmy fern
x_	<i>Hymenophyllum flabellatum</i>	fan fern
x_	<i>Hymenophyllum multifidum</i>	
x_	<i>Hymenophyllum nephrophyllum</i>	kidney fern; raurenga
x_	<i>Hymenophyllum rarum</i>	wire-stemmed filmy fern
x_	<i>Hymenophyllum revolutum</i>	
xxx	<i>Hymenophyllum sanguinolentum</i>	blood-scented filmy fern
xx_ *	<i>Hypochaeris radicata</i>	catsear
xx_ *	<i>Jacobaea vulgaris</i>	ragwort
_x_ *	<i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush
x_ *	<i>Juncus effusus</i> var. <i>effusus</i>	soft rush
x_	<i>Juncus planifolius</i>	
_x_ *	<i>Juncus tenuis</i> ssp. <i>tenuis</i>	track rush
_xx	<i>Knightia excelsa</i>	rewarewa; NZ honeysuckle
x_	<i>Lagenophora pumila</i>	
x_x	<i>Lastreopsis hispida</i>	hairy fern, hairy legs
_x	<i>Lastreopsis microsora</i> ssp. <i>pentangularis</i>	velvet fern
x_x	<i>Laurelia novae-zelandiae</i>	pukatea
xxx	<i>Lecanopteris pustulata</i> ssp. <i>pustulata</i>	hound's tongue; kowaowao
xxx	<i>Lecanopteris scandens</i> ( <i>Microsorium</i> )	mokimoki; fragrant fern
xxx	<i>Leptopteris hymenophylloides</i>	single crepe fern; heruheru
xxx	<i>Leptospermum scoparium</i> var. <i>scoparium</i>	manuka; red teatree
x_ *	<i>Leucanthemum vulgare</i>	oxeye daisy
xxx	<i>Leucopogon fasciculatus</i>	mingimingi; kaikaitau
x_	<i>Leucopogon fraseri</i>	patotara
xxx *	<i>Leycesteria formosa</i>	himalayan honeysuckle
x_	<i>Libertia ixioides</i>	mikoikoi; native iris
_x_ *	<i>Ligustrum sinense</i>	Chinese privet
x_ *	<i>Linum bienne</i>	pale flax
x_ *	<i>Liquidambar styraciflua</i>	liquidamber
_xx	<i>Litsea calicaris</i>	mangeo
_x_	<i>Lobelia angulata</i>	panakenake
_x_ *	<i>Lolium arundinaceum</i> ssp. <i>arundinaceum</i>	
_x_ *	<i>Lolium perenne</i>	perennial ryegrass
xxx *	<i>Lonicera japonica</i>	Japanese honeysuckle
xx_ *	<i>Lotus pedunculatus</i>	lotus major
x_ *	<i>Lotus suaveolens</i>	hairy birdsfoot-trefoil
x_	<i>Lupinus xregalis</i>	Russell lupin
_x_	<i>Luzula picta</i> var. <i>picta</i>	
x_	<i>Lycopodiella cernua</i>	
_x	<i>Lycopodium deuterodensum</i>	
xxx	<i>Lycopodium volubile</i>	waewae-koukou; climbing clubmoss
xx_ *	<i>Lysimachia arvensis</i> ssp. <i>arvensis</i> var. <i>arvensis</i>	scarlet pimpernel
x_ *	<i>Malus xdomestica</i>	apple

xxx	<i>Melicytus ramiflorus</i> ssp. <i>ramiflorus</i>	mahoe
_x *	<i>Mentha spicata</i> ssp. <i>spicata</i>	spearmint
xxx	<i>Metrosideros diffusa</i>	white climbing rata; akatea
x_x	<i>Metrosideros fulgens</i>	scarlet rata; winter rata
xxx	<i>Metrosideros perforata</i>	aka; small white rata; torotoro
x_x	<i>Microlaena stipoides</i>	forest rice grass
xx_	<i>Microtis unifolia</i>	onion orchid
xx_ *	<i>Miscanthus nepalensis</i>	Himalayan fairy grass
xxx	<i>Morelotia affinis</i>	
xxx	<i>Muehlenbeckia australis</i>	pohuehue
xx_ *	<i>Mycelis muralis</i>	wall lettuce
x_ *	<i>Myosotis arvensis</i>	field forget-me-not
xxx	<i>Myrsine australis</i>	red matipo; mapou
_x_	<i>Nertera depressa</i>	common nertera
x_x	<i>Notogrammitis ciliata</i>	hairy strap fern
x_ *	<i>Orobanche minor</i>	broomrape
x_ *	<i>Oxalis latifolia</i>	fishtail oxalis
x_	<i>Paesia scaberula</i>	scented fern; matata; ring fern
xxx *	<i>Pakau pennigera</i>	gully fern; pakau; pakauharoha
_x	<i>Parapolystichum glabellum</i>	felted fern
_xx	<i>Parsonsia heterophylla</i>	Maori jasmine; kaihu; kaiwhiria
_x_ *	<i>Paspalum dilatatum</i>	paspalum
_x_	<i>Pelargonium inodorum</i>	
_x	<i>Pellaea rotundifolia</i>	tarawera; button fern
xx_	<i>Pentapogon crinitus</i>	long-hair plume grass
_x_	<i>Pentapogon quadriseta</i>	
x_x	<i>Phlegmariurus varius</i>	hanging clubmoss; iwituna
x_	<i>Phormium tenax</i>	flax
x_ *	<i>Phytolacca octandra</i>	inkweed
x_	<i>Pimelea prostrata</i> ssp. <i>thermalis</i>	
xx_ *	<i>Pinus radiata</i>	Monterey pine; radiata
xxx	<i>Piper excelsum</i> ssp. <i>excelsum</i>	kawakawa; pepper tree
xxx	<i>Pittosporum colensoi</i>	
x_	<i>Pittosporum cornifolium</i>	tawhirikaro; perching kohukohu
x_	<i>Pittosporum tenuifolium</i>	black matipo; kohuhu
x_ *	<i>Plantago lanceolata</i>	ribwort; narrow-leaved plantain
x_ *	<i>Plantago major</i>	broad-leaved plantain
_x_	<i>Poa anceps</i> ssp. <i>anceps</i>	coastal poa
xxx *	<i>Poa annua</i>	annual poa
_x_ *	<i>Poa pratensis</i>	Kentucky blue grass
_x_	<i>Poa pusilla</i>	
_xx	<i>Podocarpus totara</i> var. <i>totara</i>	totara
_x	<i>Polystichum wawranum</i>	common shield fern; pikopiko
x_ *	<i>Populus nigra</i>	Lombardy poplar
xx_ *	<i>Prunella vulgaris</i>	selfheal
x_ *	<i>Prunus cerasifera</i>	cherry plum
xx_	<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed
xxx	<i>Pseudopanax arboreus</i>	five finger; puhou; whaupaku

x__	<i>Pseudopanax crassifolius</i>	lancewood; horoeka
xxx	<i>Pteridium esculentum</i>	bracken; rauaruhe
_x_	<i>Pteris macilenta</i>	sweet fern
xx_	<i>Pteris tremula</i>	turawera
xxx	<i>Pterophylla racemosa</i>	kamaha; towai; tawhero
xx_	<i>Pterostylis banksii</i>	tutukiwi
_x_	<i>Pterostylis cardiostigma</i>	
x__	<i>Pterostylis trullifolia</i>	trowel-leaved orchid
x__ *	<i>Pyracantha angustifolia</i>	firethorn
x__ *	<i>Pyracantha crenatoserrata</i>	Nepalese firethorn
xx_	<i>Pyrrosia elaeagnifolia</i>	leather-leaf fern
xx_	<i>Ranunculus reflexus</i>	maruru; hairy buttercup
xx_ *	<i>Ranunculus repens</i>	creeping buttercup
__x	<i>Rhopalostylis sapida</i>	nikau
xxx	<i>Ripogonum scandens</i>	supplejack; kareao
x__ *	<i>Rosa rubiginosa</i>	sweet briar
xx_	<i>Rubus cissoides</i>	bush lawyer; tataramoa
xxx *	<i>Rubus fruticosus</i>	blackberry
x__ *	<i>Rumex acetosella</i>	sheep's sorrel
xxx	<i>Rytidosperma gracile</i>	forest fairy grass
_x_ *	<i>Rytidosperma racemosum</i>	
x__ *	<i>Salix xfragilis</i>	crack willow
x_x	<i>Schefflera digitata</i>	pate; patae; kotete
xx_	<i>Senecio bipinnatisectus</i>	Australian fireweed
x__ *	<i>Sequoia sempervirens</i>	redwood
x__	<i>Solanum aviculare</i> var. <i>aviculare</i>	poroporo
x__ *	<i>Solanum nigrum</i>	black nightshade
_x_ *	<i>Sonchus arvensis</i>	perennial sow thistle
x__	<i>Sophora microphylla</i>	kowhai
x__ *	<i>Sporobolus africanus</i>	needle grass; rat's tail
x__ *	<i>Stellaria media</i>	chickweed
xx_ *	<i>Taraxacum officinale</i>	dandelion
x__	<i>Thelymitra longifolia</i>	white sun orchid
x__	<i>Tmesipteris elongata</i>	
__x	<i>Tmesipteris lanceolata</i>	
__x	<i>Tmesipteris sigmatifolia</i>	
xx_ *	<i>Tradescantia fluminensis</i>	wandering Jew
x__ *	<i>Trifolium pratense</i>	red clover
xx_ *	<i>Trifolium repens</i>	white clover
xx_ *	<i>Ulex europaeus</i>	gorse
x__ *	<i>Veronica arvensis</i>	field speedwell
x__ *	<i>Vinca major</i>	periwinkle
__x	<i>Vitex lucens</i>	puriri; kauere
xx_	<i>Wahlenbergia violacea</i>	blue harebell; rimu-roa