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The Native Flora of the Bridal Veil Falls Scenic Reserve

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THIS reserve is situated on the western side of the Raglan-Kawhia Highway, in E. long. 174 53' 45", S. lat. 37 54' 31".

It has an area of 538 acres, with a very diverse relief. The Pakoka River, flowing to the west, enters the reserve at a height of approximately 650ft a.s.l., passes over some low falls and rapids, and runs almost at grade for nearly half a mile before dropping 170ft over columnar basalt rock to form the Bridal Veil Falls. From there it flows in a narrow valley with a low gradient as it turns in a south-westerly direction.

On the northern side the valley rises steeply to a height of 900ft, and on the southern side it slopes more gradually to heights of 730ft and 740ft.

To the left of the entrance there is a swamp which has not been thoroughly examined yet for plants.

The shape of the reserve was a square, with sides one mile long, and the area was 640 acres. However, as it was traversed by the Raglan-Kawhia Highway, some of the eastern part was excluded from the reserve and sold to neighbouring farmers.

The area was bought from the Native owners to form the Te Mata State Forest Reserve, but in 1952 it was constituted a scenic reserve, to be administered by a board of control.

There has been no felling of trees except a few that were used to build a bridge.

Farm stock has been kept out of most of the reserve, but goats and opossums are spoiling some of the vegetation.

The soil is mainly weathered basalt.

The rainfall is similar to that of Raglan, seven miles away, namely 45.5in per annum.

The prevailing winds are westerly.

SPECIAL FEATURES

1. A profusion of *Cyathea medullaris*, *C. dealbata*, *C. smithii*, *Dicksonia*

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squarrosa, *Hymenophyllum demissum*, *Rumohra hispida*, *R. adiantiformis*, *Tmesipteris tannensis*, *Freycinetia banksii*, *Astelia cunninghamii*, *Collospermum hastatum*, *Hedycarya arborea*, *Elaeocarpus dentatus*, *Lophomyrtus bullata*, *Parsonsia capsularis* and *Metrosideros* spp.

2. A scarcity of ground orchids, *Paratrophis microphylla*, and individuals of small-leaved species of *Coprosma*.

3. Apparent absence of *Podocarpus spicatus* and *Phyllocladus trichomanoides*.

NOMENCLATURE

I have followed the nomenclature of Allan's "Flora of New Zealand", Vol. 1, but have had to rely mainly on Cheeseman's "Manual of the New Zealand Flora", 1925 edition, for the naming of the Monocotyledons. In every case I have quoted an authority.

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THE SPECIES

The abbreviations following the names and the authorities have these meanings: A, abundant; C, common; O, occasional; R, rare. It must be remembered, however, that distribution within the reserve varies greatly according to the aspect and terrain.

PSILOTAGACEAE

Tmesipteris tannensis Bernh.—C

LYCOPODIACEAE

Lycopodium billardieri Spring—O
— *volubile* Forst. f.—O

MARATTIACEAE

Marattia salicina Smith—R

OSMUNDACEAE

Todea hymenophylloides A. Rich.—O

SCHIZAEACEAE

Lygodium articulatum A. Rich.—C

HYMENOPHYLLACEAE

Hymenophyllum flabellatum Labill.—O
— *dilatatum* (Forst. f.) Swartz—C
— *sanguinolentum* (Forst. f.) Swartz—C
— *scabrum* A. Rich.—O
— *demissum* (Forst. f.) Swartz—A
— *pulcherrimum* Col.—R
— *ferrugineum* Colla—C
— *revolutum* Col.—O
Trichomanes venosum R. Br.—C
— *reniforme* Forst. f.—O

DICKSONIACEAE

Dicksonia squarrosa (Forst. f.) Swartz—A
— *fibrosa* Col.—O

CYATHEACEAE

Cyathea dealbata (Forst. f.) Swartz—A
— *medullaris* (Forst. f.) Swartz—A
— *cunninghamii* Hook. f. in Hook.—O
— *smithii* Hook. f.—C

POLYPODIACEAE

Pyrrosia serpens (Forst. f.) Ching—C
Anarthropteris lanceolata (J. Smith) L. B. Moore—O
Phymatodes scandens (Forst. f.) Presl—C
— *diversifolium* (Willd.) Pic. Ser.—A

GRAMMITIDACEAE

Grammitis billardieri Willd.—O

THELYPTERIDACEAE

Thelypteris pennigera (Forst. f.) Allan—A

DENNSTAEDTIACEAE

Hypolepis distans Hook.—R

LINDSAEACEAE

Lindsaea trichomanoides Dryand.—O

PTERIDACEAE

Paesia scaberula (A. Rich) Kuhn—O
Histiopteris incisa (Thunb.) J. Smith—O
Pteridium aquilinum (L.) Kuhn var. *esculentum* (Forst. f.) Kuhn—C
Pteris macilenta A. Rich.—C

ASPLENIACEAE

Asplenium lucidum Forst. f.—C
— *falcatum* Lam.—C
— *bulbiferum* Forst. f.—C
— *flaccidum* Forst. f.—C

BLECHNACEAE

Blechnum fraseri (A. Cunn.) Luer.—O
— *filiforme* (A. Cunn.) Ettingshausen—A
— *patersonii* (R. Br.) Mett.—R
— *capense* (L.) Schlecht.—A

- *nigrum* (Col.) Mett.—R
- *discolor* (Forst. f.) Keys.—A
- *lanceolatum* (R. Br.) Sturm—C
- *membranaceum* (Col.) Mett.—R
- *fluviatile* (R. Br.) Salom.—C

DROPTERIDACEAE

- Ctenitis glabella* (A. Cunn.) Cop.—O
- Rumohra adiantiformis* (Forst. f.) Ching—C
- *hispida* (Swartz) Cop.—A

ADIANTACEAE

- Adiantum cunninghamii* Hook.—O

PODOCARPACEAE

- Podocarpus dacrydioides* A. Rich.—O
- *ferrugineus* G. Benn. ex D. Don.—C
- *totara* G. Benn. ex D. Don.—R
- *hallii* Kirk—O
- Dacrydium cupressinum* Lamb.—C

TYPHACEAE

- Typha muelleri* Rohrb.—O

PANDANACEAE

- Freycinetia banksii* A. Cunn.—A

GRAMINEAE

- Oplismenus undulatifolius* Beauv.—C
- Microlaena avenacea* Hook. f.—A
- *stipoides* (Labill.) R. Br.—O

CYPERACEAE

- Scirpus inundatus* Poir.—C
- *antipodus* V. J. Cook—C
- Gahnia setifolia* Hook. f.—O
- *affinis* (Brongn.) Steud.—O
- Ucinia riparia* R. Br.—C
- Carex virgata* Sol. ex Hook. f.—O
- *geminata* Schkuhr—C
- *dissita* Sol. ex. Hook. f.—C
- *solandri* Boott—O

PALMAE

- Rhopalostylis sapida* Wendl. et Drude—C

JUNCACEAE

- Juncus polyanthemus* Buchenau—O
- *prismatocarpus* R. Br.—O

LILIACEAE

- Ripogonum scandens* J. R. & G. Forst.—A
- Cordylina banksii* Hook. f.—C
- *australis* Hook. f.—O
- Astelia solandri* A. Cunn.—A
- Collospermum hastatum* (Col.) Skottsberg—A
- Dianella intermedia* Endl. var. *norfolkensis* F. B. H. Brown—O

ORCHIDACEAE

- Dendrobium cunninghamii* Lindl.—O
- Bulbophyllum pygmaeum* (Smith) Lindl.—R
- Earina mucronata* Lindl.—A
- *autumnalis* (Forst. f.) Hook. f.—O
- Sarcophilus adversus* Hook. f.—R
- Thelymitra longifolia* J. R. et G. Forst.—O
- Acianthus fornicatus* R. Br. var. *sinclairii*

(Hook. f.) Hatch—O

Microtis unifolia (Forst. f.) Reichenbach f.—O

Pterostylis banksii R. Br.—C

Chiloglottis cornuta Hook. f.—R

Corybas macranthus (Hook. f.) Reichb. f.—O

— *trilobus* (Hook. f.) Reichb. f.—O

— *rivularis* (A. Cunn.) Reichb. f.—R

LAURACEAE

Beilschmiedia tawa (A. Cunn.) Benth. et Hook. f. ex Kirk—A

Litsea calicaris (A. Cunn.) Benth. et Hook. f. ex Kirk—C

MONIMIACEAE

Hedycarya arborea J. R. et G. Forst.—A

Laurelia novae-zelandiae A. Cunn.—C

RANUNCULACEAE

Ranunculus hirtus Banks et Sol. ex DC.—A

Clematis paniculata Gmel.—O

— *forsteri* Gmel.—O

PIPERACEAE

Macropiper excelsum (Forst. f.) Miq.—O

Peperomia urvilleana A. Rich.—R

CRUCIFERAE

Cardamine debilis Banks ex DC.—A

VIOLACEAE

Melicytus ramiflorus J. R. et G. Forst.—A

CARYOPHYLLACEAE

Stellaria parviflora Banks et Sol. ex Hook. f.—O

POLYGONACEAE

Muehlenbeckia australis (Forst. f.) Meissn.—C

GERANIACEAE

Geranium australe Nees—C

OXALIDACEAE

Oxalis lactea Hook.—O

— *corniculata* L.—O

HALORAGACEAE

Haloragis erecta (Banks ex Murr.) Eichl.—O

ONAGRACEAE

Epilobium rotundifolium Forst. f.—O

— *nerterioides* A. Cunn.—O

Fuchsia excorticata (J. R. et G. Forst.) Linn. f.—O

— *colensoi* Hook. f.—R

PROTEACEAE

Knightia excelsa R. Br.—A

CORIARIACEAE

Coriaria arborea Lindsay—O

PITTOSPORACEAE

Pittosporum tenuifolium Sol. ex Gaertn.—R

— *cornifolium* A. Cunn.—R

PASSIFLORACEAE

- Tetrapathaea tetrandra* (Sol.) Cheesem.
—O

MYRTACEAE

- Leptospermum scoparium* J. R. et G.
Forst.—O
— *ericoides* A. Rich.—O
Metrosideros robusta A. Cunn.—O
— *fulgens* Sol. ex Gaertn.—A
— *perforata* (J. R. et G. Forst.) A. Rich.
—C
— *carminea* W. R. B. Oliver—A
— *diffusa* (Forst. f.) Smith—C
Eugenia maire A. Cunn.—R
Lophomyrtus bullata (Sol. ex A. Cunn.)
Burret—A

ELAEOCARPACEAE

- Elaeocarpus dentatus* (J. R. et G. Forst.)
Vahl—A
Aristotelia serrata (J. R. et G. Forst) W.
R. B. Oliver—C

MALVACEAE

- Hoheria populnea* A. Cunn.—C

GUNONACEAE

- Weinmannia racemosa* Linn. f.—A

ESCALLONACEAE

- Quintinia serrata* A. Cunn.—C
Ixerba brexioides A. Cunn.—O
Carpodetus serratus J. R. et G. Forst.—C

ROSACEAE

- Rubus cissoides* A. Cunn.—C
Acaena anserinifolia (J. R. et G. Forst.)
Druce—O

MORACEAE

- Paratrophis microphylla* (Raoul) Ckn.—
O

URTICACEAE

- Urtica* sp?—O
Elatostema rugosum A. Cunn.—C

SANTALACEAE

- Mida salicifolia* A. Cunn.—O

MELIACEAE

- Dysoxylum spectabile* (Forst. f.) Hook. f.
—C

SAPINDACEAE

- Alectryon excelsus* Gaertn.—O

ARALIACEAE

- Schefflera digitata* J. R. et G. Forst.—A
Neopanax arboreum (Murr.) Allan—A
Pseudopanax edgerleyi (Hook. f.) C.
Koch—O
— *crassifolium* (Sol. ex A. Cunn.) C.
Koch—O

CORNACEAE

- Griselinia lucida* Forst. f.—C

UMBELLIFERAE

- Hydrocotyle moschata* Forst. f.—O
— *dissecta* Hook. f.—C
Centella uniflora (Col.) Nannf.—A

EPACRIDACEAE

- Cyathodes fasciculata* (Forst. f.) Allan
—O

MYRSINACEAE

- Myrsine salicina* Hew. ex Hook. f.—O
— *australis* (A. Rich.) Allan—A

OLEACEAE

- Gymnelaea lanceolata* (Hook. f.) L. John-
son—O

LOGANIACEAE

- Geniostoma ligustrifolium* A. Cunn.—A

APOCYNACEAE

- Parsonia heterophylla* A. Cunn.—O
— *capsularis* (Forst. f.) R. Br.—A

CAPRIFOLIACEAE

- Alseuosmia macrophylla* A. Cunn.—C

RUBIACEAE

- Coprosma parviflora* Hook. f.—O
— *rotundifolia* A. Cunn.—O
— *tenuicaulis* Hook. f.—O
— *areolata* Cheesem.—O
— *rhamnoides* A. Cunn.—O
— *spathulata* A. Cunn.—O
— *arborea* Kirk—C
— *australis* (A. Rich.) Robinson—A
— *robusta* Raoul—A
— *lucida* J. R. et G. Forst.—O
Nertera depressa Banks et Sol. ex Gaertn.
—A
— *dichondraefolia* (A. Cunn.) Hook. f.—
O
Galium propinquum A. Cunn.—O

COMPOSITAE

- Lagenophora pumila* (Forst. f.) Cheesem.
—O
Olearia furfuracea (A. Rich.) Hook. f.—
O
— *rani* (A. Cunn.) Druce—A
Brachyglottis repanda J. R. et G. Forst.—
A
Centipeda orbicularis Lour.—O
Senecio kirkii Hook. f. ex Kirk—O

CAMPANULACEAE

- Pratia angulata* (Forst. f.) Hook. f.—A

SOLANACEAE

- Solanum aviculare* Forst. f.—O

SCROPHULARIACEAE

- Hebe stricta* (Benth.) L. B. Moore—O

GESNERIACEAE

- Rhabdothermus solandri* A. Cunn.—R