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| * Paratroplis microphylla | * Schizeillema trifoliolatum |
| * Phormium cookianum | * Senecio sp. |
| Plantago sp. | Thelymitra sp. |
| * Plantago novae-zelandiae | * Todea hymenophylloides |
| * Poa sp. | Tupeia antarctica |
| Pseudopanax anomalus | * Uncinia rubra |
| * Pseudopanax arboreus | Urtica ferox |
| * Raoulia glabra | Vittadinia australis |
| Raoulia subsericea | Wahlenbergia sp. |
| Rumex flexuosus | |

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| Flora of New Zealand I | - Allan |
| Flora of New Zealand II | - Moore and Edgar |
| New Zealand Alpine Plants | - Mark and Adams |
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| The Natural History of Canterbury | - ed. Knox |

VICTORIAN FERNS

John Thompson

Victoria is not so rich in fern species as is New Zealand, however some 85 species of ferns can be found there. Of these ferns some 55 species grow in New Zealand. On a visit to Victoria, therefore, one can expect to find quite a number of ferns with which one is familiar.

In our three day's stay at Wilsons Promontory we met up with 22 species of ferns and fern allies; most of these were seen on the Lilly Pilly Gully track.

Of these the following species can be found in New Zealand:-

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| Adiantum aethiopicum | Lindsaea linearis |
| Asplenium flabellifolium | Pteridium esculentum |
| Phymatosorus diversifolius | Gleichenia microphylla |
| Pellaea falcata | Blechnum lanceolatum |
| Rumohra adiantiformes | Hypolepis rugosula |
| Trichomanes diversifolium | Tmesipteris billardieri |
| Histiopteris incisa | |

The new ferns and fern allies seen were:-

Blechnum nudum - the Fishbone water fern, with lanceolate fronds up to a metre or more tall, the pinnae being straight and narrow, margins entire, the middle pinnae being longest.

Culcita dubia - the False Bracken, with pale green triangular fronds $1\frac{1}{2}$ metres high, sori being marginal.

Cyathea australis - the Rough Tree fern. It has dark brown stipes bearing bright brown scales at the base and dull green fronds.

Dicksonia antarctica - the Soft Tree fern, with its thick trunk covered with brown fibrous roots, fronds dark, glossy above and pale below. The base of the stipes are clothed with hairs.

Lastreopsis shepherdii - the Shiny Shield fern, tufted, growing in dark places with dark green shiny fronds and hairy rachises.

Polystichum proliferum - the Mother Shield fern with dull green fronds and proliferous buds near the apex of the rachis and glossy scales with pale margins.

Selaginella uliginosa - the Swamp Selaginella, with erect stems, pinnate branching and underground rhizomes.

At the Derby River we saw another fern new to us:-

Sticherus tener - the Silky Fan fern with erect fronds forming tiers of umbrella like pinnae, pinnules set at 45° to 60° angle to rachis with silky hairs underneath.

Bulga National Park is a small but magnificent remnant of rain forest. What immediately takes the eye are the tremendous Giant Gums, Eucalyptus regnans, rising up to 300ft high. Below the giant gums were many specimens of the Slender Tree ferns, Cyathea cunninghamii reaching up to some 60ft in height.

Covering the valley floor were masses of the tree ferns Cyathea australe and Dicksonia antarctica. Filmy ferns abounded.

The ferns noticed but not seen previously of those that grow in New Zealand were Hymenophyllum rarum, H. flabellatum, H. cupressiforme, H. australe, Asplenium bulbiferum, Blechnum fluviatile and Grammitis billardieri.

Angahook Forest Park is a wettish forest with ferns in plenty in the gullies. Two newcomers, for me, seen were:-

Dennstaedtia davalloides - the Lacy Ground fern, with erect fronds to 4ft high, the fronds being dark green and lacy, the indusium is cup like.

Hypolepis punctata - the Downy Ground fern, with rachis covered with dense sticky hairs, the fronds being tall, triangular, dull green covered with sticky hairs when young. This grows in the North Island of New Zealand.

One outstanding fern seen in the Grampians was Todea barbara.

Todea barbara - the King fern with a massive broad trunk bearing several crowns of fronds, fronds some 5ft long, pinnules lanceolate with serrate margins, sori globular massed on lower pinnae, the spores are green. Also found in Northland, New Zealand now rare.

On Mt. Zero, growing in the crevice of a large rock was one plant of Pleurosorus either rutifolius or subglandulosus. One Australian authority I have read believes that P. rutifolius is doubtfully distinct from P. subglandulosus.

In the three weeks we were in Victoria we identified 36 species of fern and fern allies of which 26 can be found in New Zealand.

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- D.L. Jones & S.C. Clemesha : Australian Ferns and Fern Allies 1976.
- J. Ros Garnett : The Wildflowers of Wilson's Promontory National Park 1971.
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COOKING WITH BULL KELP

Y. Elder

I can remember many years ago eating the most delicious cooked fish, ever. Our Maori friends were catching kaiwai and cod at the mouth of the Kahutara on lines. One line I remember was made from flax fibre firmly twisted into a fine line, yards and yards long. Bull kelp, which had been collected was cut into two foot lengths, more or less, punched open down the middle with the hand to form a pouch, into which the whole fish was slid and a stone placed in the opening to keep it in, then placed on hot stones and embers to cook. When the underside was nearly burnt through it was turned over for a few moments then removed from the fire. The top side of the kelp was scraped off and with fingers the tasty meal was eaten. A moonlight feast for the Gods.
