EYRE-CAIRNARD

BIOLOGICAL TREASURE TROVE

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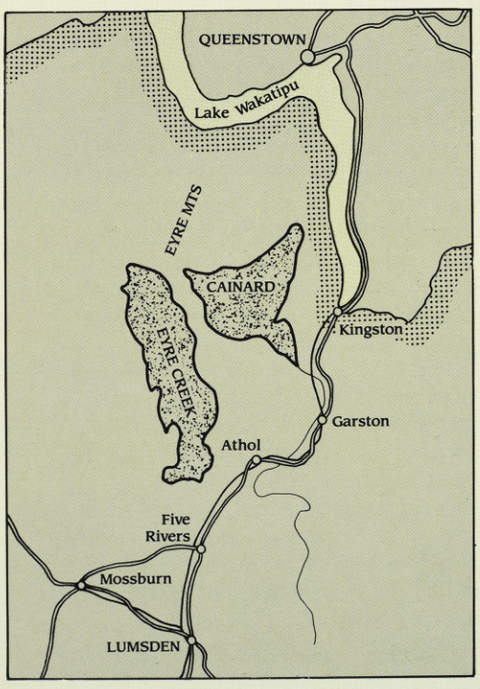
In many ways Southland's Eyre Mountains remain a scientific mystery. Lying between Lake Wakatipu and Fiordland, they present access problems with the lake discouraging visitors from the north and east, while to the south and west Fiordland and Mt Aspiring's mountains have always proved a greater lure to scientists.

Best known of the high country pastoral lease properties in the Eyre Mountains are those adjoining the lake. The 25,000-hectare Walter Peak station and the 13,300-hectare Cecil Peak station have featured in tourist schemes for many years. Even larger, the 36,000-hectare Mt Nicholas and the smaller Half Way Bay stations are less well known. Equally poorly known are two former pastoral leases; Cainard and Eyre Creek which lie in the heart of the Eyre Mountains. These 34,000 hectare properties were taken over in severely eroded state by the Crown in the 1950s and have since been farmed to protect water and soil values. Yet despite this until recently little was known of their natural values.

Imagine then the excitement of our small team of scientists this summer when we unearthed a biological treasure trove during an ecological survey of the Eyre Creek-Cainard block.

Among our finds were: the first population of rock wren found away from the Southern Alps; numerous yellow-crowned parakeet, a species now described as vulnerable; a widespread population of the threatened falcon, and many rare plants including two mountain daisies, one of which had pink colours — unheard of for a New Zealand alpine daisy.

Maori onion, *Bulbinella angustifolia* carpets the shore of a small tarn in Little Jungle Creek, Eyre Creek Crown land block. Rock wren were discovered in boulders at the headwaters of this stream. *Photo: Gerry McSweeney*



Representative tussock sequences

But most significant of all, our party of 13 biologists recorded largely unmodified sequences of native vegetation from valley floor to mountain top. In the rapidly changing world of New Zealand's pastoral high country, such sequences, examples of what the country used to be like, are now becoming scarce. Because of the soil conservation programme, substantial eroded areas on Cainard have been fenced to exclude stock. Free from grazing, there has been a great resurgence of native herbs and tussocks. Head-high snow tussocks and waving masses of native blue wheatgrass amongst the short tussock are sights described throughout the high country by early European settlers but rarely seen since, because of the continued pressure of grazing and burning.

Transition zone from west to east

Why are the Eyre Mountains so special? The answer seems to be that they are a transition zone of rocks, landforms and climate. Sandwiched between the craggy glacial-carved gneiss of Fiordland and the rolling schist tops of Central Otago, the greywacke dominated Eyres, like the Takitimus further south, physically resemble the ranges of Canterbury. Geologically distinct and isolated from surrounding Otago and Southland mountains plant species and communities have evolved quite different from anywhere else.