

Dramatic landforms of the Central Otago uplands



by Alan Mark*

Most people who live or travel in Central Otago are aware of the gentle tussock grassland clad slopes, flat skylines and generally dry climate of this region.

The few who venture on to the uplands, however, experience a unique environment of extensive plateaux studded with impressive pillars of schist rock, called tors, up to 16 m high. These tors contrast strikingly with the short snow tussock and dwarfed cushion vegetation that, like the tors, reveal obvious signs of wind blasting and sculpturing.

The relatively severe climate of these uplands, particularly the persistent strong winds and frequent freeze-thaw cycles even throughout summer, is reflected in the fascinating tundra-like

plant cover on all but sheltered sites. Among about 30 genera of alpine plants there, almost all are represented by their smallest species.

Despite the severe climate there is a surprising amount of bird life: pied oyster catchers, banded dotterels and pipits are conspicuous, especially while nesting here during early summer.

The curious and striking patterning of the ground is a special feature of the range summits. Soil hummocks and stripes, solifluction terraces and lobes, stone nets and stripes, occur in different situations, each with a distinctive micro-pattern of plant cover. Leeward edges of the plateaux are scalloped into a series of small cirques where snow often persists through most summers.

Although it is the climate rather than terrain that is rugged on the Central Otago uplands — mean annual air temperatures are close to zero — they nevertheless have an interest and value for naturalists and scientists in many fields. They also offer a range of recreation both in summer and winter and, given promotion, I predict will be of growing interest for tourism.

The virtual absence of any formal reserves in all of Central Otago has given rise to the Protected Natural Area programme, aimed at identifying the needs of, and areas for, an adequate

Ski touring on the summit of the Garvie Ranges

Photo: P. Gresham

The summit of the Old Man Range: wind blasted and sculptured.

Photo: Brian Enting

system of representative reserves. The Central Otago uplands, however, are sufficiently distinctive and important nationally that they justify special recognition in the same way that Grasslands National Park in Canada, Flinders Range National Park in Australia, Torres del Paine Parque Nacional in Chile were all created recently from grazing land, and a Prairies National Park is being considered in USA.

Of the various mountains in Central Otago, those southwest of the Alexandra are notable because their greater extent has ensured that the most remote parts have been barely modified by more than a century of pastoralism. Moreover, it is possible to link up with the Remarkables-Hector mountains of the Lakes Region to create a most impressive Central Otago Uplands tussock grassland reserve: the Old Man-Garvie-Remarkables Scenic Reserve, that would surely qualify as a national reserve.

This reserve would include the upper slopes (above about 1400 m) of the Old Man Range which has easy road access from Alexandra. The Old Man Range is remarkable for its ecological diversity and its many impressive tors (including the region's tallest, Obelisk, at its highest point), even if it does not have the same degree of naturalness as the Garvie Mountains further west.

Much of the area proposed for the



Remarkables-Hector Mountains was recommended for reservation as scenic reserve by the Lands and Survey Department Remarkables-Hector management study in 1977. The Hector ranges would include the only known location of the recently discovered brown woolly chafer beetle (*Prodontria pinguis*).

The potential for wilderness recreation has already been recognised for a large part of the remainder — the Garvie Wilderness is one of ten recommended by the 1981 Wilderness Conference.

Only land with limited or negligible productive potential (Class 7 and 8) would be involved over perhaps 17 pastoral leases including the 50,988 hectare Glenary run, this country's largest pastoral lease. Some lessees may be willing to surrender their title to part of the least productive area of their run in exchange for a right to freehold some of their lower altitude more productive country.

The Government's review of procedures for freeholding pastoral lease land should ensure that this can occur and thus open the way to protect one of New Zealand's finest natural areas.

* Associate Professor of Botany, University of Otago. Society National Executive Councillor.

