



***Ranunculus godleyanus*.** This large buttercup grows on screes and bluffs in the high Southern Alps only between Arthurs Pass and Mt Cook. It has been so devastated by tahr and chamois grazing that it is listed as vulnerable in the New Zealand Red Data book. Unlike the tahr, this species is found nowhere else in the world. Godley's buttercup has recovered well in the last 10 years since tahr numbers have been dramatically reduced by helicopter hunting.

Photograph: G. McSweeney

assist a vegetation recovery when the tahr are removed. Dr Wardle comments that *Chionochloa pallens* is beginning to return onto an area in the Karangarua and Douglas River headwaters which formerly had high numbers of tahr.

The eastern watersheds, particularly in the greywacke zone, are geologically less stable. They have been subjected to severe faulting and crushing which makes them susceptible to erosion if put under stress. The soils derived from the greywacke have low natural fertility which retards the vigour of recolonising plants following erosion. The physical differences between the western and eastern watersheds are highlighted by the more rapid recovery of erosion scars on the west of the divide; but rainfall will also have an effect. Vegetation recovery from grazing is slower on the drier eastern side.

Future dispersal

There is concern about the future dispersal of tahr.

Anderson and Henderson, writing on tahr dispersal, suggest tahr will colonise the Waimakariri River catchment and country north, but consider the extensive low heavily bushed country to the south, at Haast Pass, will form a natural barrier for some time.

Caughley came to similar conclusions

on northward dispersal in that the Spenser Mountains are good tahr country, and eventually the north-west Nelson inland and the seaward Kaikoura ranges would be colonised. To the south, Caughley postulated that tahr, after crossing the Haast Valley, would disperse down the high country through the areas which are predominately within the Mt Aspiring and Fiordland National Parks. (Caughley 1970b)

The Forest Service recognises with concern the possibility of future dispersal and places a high importance on population control operations to prevent this.

Many foot hunters have observed how tahr will ascend to the ridge top when disturbed and "disappear" into the adjoining catchment. My conclusion is that shooting can aid dispersal, and herds which are retained for sporting purposes will always provide a nucleus for further dispersal.

Helicopter hunting — the only effective Tahr control

Populations of tahr are not in the best management interests of the land. Tustin (1980) suggests the present New Zealand tahr population is about 6000 ± 2000 , and this population appears to sustain a harvest of 1–2000 tahr shot annually. The implication is that without this harvest the

population will rapidly build up again.

With helicopter hunting, tahr can be held at extremely low numbers and for the reasons outlined this is required. Tahr control is not a question of weekend shoot-ups by sportsmen. The Mount Cook National Park control figures show that large tahr numbers existed in the park and show the extent sportsmen have contributed to tahr population control (Fig 2). The steep, rugged terrain that tahr occupy presents considerable difficulties to the foot hunter. The recreational hunter, to be rewarded for the toils and dangers of tahr hunting, requires a common population of tahr. Due to the habitat, and the gregarious nature of the animal, this population is too high for the preservation of the vegetation. There can be no compromise. Tahr control is difficult and hazardous: it is a question of a planned South Island policy to hold the population at very low levels. Most importantly, control measures must prevent any extension in the range of tahr.

Tahr give a warning whistle when disturbed. Their warning whistle has sounded in the New Zealand alps for 80 years. New Zealanders must choose between the survival of alpine plant associations and species, the retention of the mountain landscapes, soil and watershed protection and preservation, or a stalking sport for the very few.