



FLORA AND FAUNA GUARANTEE - SCIENTIFIC ADVISORY COMMITTEE
FINAL RECOMMENDATION ON A NOMINATION FOR LISTING

Soil erosion and vegetation damage and disturbance in the Alpine regions
of Victoria caused by Cattle Grazing.
(Potentially Threatening Process)

Date of receipt of the nomination: 21 November 1991
Date of preliminary recommendation: 17 December 1991
Date of final recommendation: 21 May 1992

File No.: 91/6078

Validity:

The nomination is for a valid item and the prescribed information was provided. The nominated process was adequately defined and described.

The nominated process is the damage to soil and vegetation caused by grazing, trampling, deposition of faeces, and introduction of weeds caused by cattle.

Summer grazing of domestic animals in the alpine regions of Victoria has occurred since about 1852. It has gradually been phased out over the years, but continues to occur in large areas of the alpine country. The process has led to decline in the populations of palatable rare species and alteration in the composition and distribution of alpine communities.

The range of flora or fauna affected or potentially affected was adequately stated in the nomination.

Significance of the threat which the potentially threatening process poses or has the potential to pose was adequately stated in the nomination.

Eligibility for listing as a potentially threatening process under the Flora and Fauna Guarantee

The nominated item satisfies at least one criterion of the set of criteria prepared and maintained under Section 11 of the *Flora and Fauna Guarantee Act* 1988, and stated in Schedule 1 of the *Flora and Fauna Guarantee Regulations* 1990.

Evidence that criteria are satisfied:

Criterion 5.1 *The potentially threatening process, in the absence of appropriate management, poses or has the potential to pose a significant threat to the survival of a range of flora or fauna.*

Evidence:

Clear evidence (Costin (1957), (1977), McDougall (1982), Walsh *et al.* (1984), etc.) was provided to show that the nominated process leads to:

- deterioration of *Sphagnum* bogs and bog pools
- soil compaction, erosion and an increase in areas of bare ground
- loss of species and diversity
- changes in vegetation structure

Costin (1957), (1977) reported particularly severe damage to snowpatch vegetation and *Sphagnum* bogs.

The impact of cattle on the alpine vegetation can be seen through the physical trampling of plants, which is particularly harmful to herbs, grasses and mosses (van Rees & Hutson 1983, Lee 1979), and selective grazing of perennial herbs and then annual herbs and grasses (Williams 1985).

Sub-criterion 5.1.1 *The potentially threatening process poses or has the potential to pose a significant threat to the survival of two or more taxa.*

Evidence:

The SAC has recommended for listing five species which are threatened in varying degrees by alpine cattle grazing (SAC 1991). These species listed on Schedule 2 of the FFG Act are *Brachyscome tenuiscapa* (Mountain Daisy), *Kelleria laxa* (Drapetes), *Carex paupera* (Dwarf Sedge), *Epilobium willisii* (Carpet Willow-herb) and *Poa saxicola* (Rock Tussock-grass). Grazing is continuing in areas where these species occur.

Sphenomorphus kosciuskoi (Alpine Water Skink), is also likely to be threatened by the process, as it occurs in *Sphagnum* bogs which are damaged by cattle trampling (additional expert opinion, DCE Wildlife Branch).

Sub-criterion 5.1.2 *The potentially threatening process poses or has the potential to pose a significant threat to the survival of a community.*

Evidence:

The process has the potential to threaten the survival and integrity of four communities, all of which have been recommended for listing. The Alpine Bog Community and Fen (Bog Pool) Community have been listed on Schedule 2 of the FFG Act. Reasons for their listing included that they were threatened by alpine cattle grazing (SAC Final Recommendation Reports, 1991). Alpine Snowpatch Community and *Caltha introloba* Herbland Community have received the SAC's preliminary recommendations to be listed.

All these communities occur in wet areas and are particularly susceptible to trampling, which causes loss of vegetation cover, channelling of waterflows through bogs and snowpatches, erosion and major soil loss, alteration of drainage patterns and weed invasion.

Background Information:

- The Alpine Water Skink is categorised as "vulnerable" in Victoria by Baker-Gabb (1991).
- The survival of the *Poa costiniana* community, which is a subset of alpine grassland community, may also be threatened as it is very weed-infested, probably as a result of cattle grazing.

Advertisement for public comment

In accordance with the requirements of Section 14 of the *Flora and Fauna Guarantee Act 1988*, the preliminary recommendation was advertised for public comment for a period of at least 30 days.

The preliminary recommendation was advertised in:

"The Age" - on 8 April 1992

"The Weekly Times" - on 8 April 1992

Government Gazette - on 8 April 1992

Submissions closed on 15 May 1992.

Further evidence provided:

One submission was received against the recommendation, but no new evidence was provided to warrant a review of the Scientific Advisory Committee's preliminary recommendation that the potentially threatening process is eligible for listing.

Documentation

The published information and research data provided to the SAC have been assessed. To the best of their knowledge, the SAC believes that the data presented are not the subject of scientific dispute and the inferences drawn are reasonable and well supported.

Final Recommendation of the Scientific Advisory Committee:

The Scientific Advisory Committee concludes that on the evidence available the nominated item is eligible for listing in accordance with Section 11 of the Act because primary criterion 5.1 is satisfied.

The SAC also concludes that sub-criteria 5.1.1 and 5.1.2 have been satisfied and that no evidence exists to suggest that primary criterion 5.1 cannot be satisfied as a consequence of sub-criteria 5.1.1. and 5.1.2 being satisfied.

The Scientific Advisory Committee recommends that the nominated item be supported for listing on Schedule 3 of the *Flora and Fauna Guarantee Act 1988*.

Selected references:

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