

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

**Soil and vegetation disturbance as a result of marble mining**  
(Potentially Threatening Process)

Date of receipt of the nomination: 7 July 1989  
Date of preliminary recommendation: 10 March 1992  
Date of final recommendation: 21 May 1992

File No.: 89/3488

**Validity:**

The nomination is for a valid item and the prescribed information was provided. In the opinion of the SAC the process is adequately defined and described.

The nominated process is the damage to soil and vegetation caused by mining and quarrying for marble. The nominated process encompasses the destabilisation of soils resulting from use of heavy machinery or detonation of explosive devices; interment, uprooting or fatal damage to plants resulting from the dumping of overburden or rubble; and dieback caused by introduction of plant pathogens e.g. *Phytophthora cinnamomi*.

The nominated process may occur wherever marble rock is mined. High quality marble rock is found in East Gippsland, and a large scale marble quarry is planned in the upper Tambo Valley.

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 (see sub-criterion 5.1.1).

**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:**

Destabilisation of the soil by heavy machinery and removal of subterranean rock pose a threat to the survival of rare flora at "Marble Gully" in East Gippsland, on an area proposed for marble mining. The nominated process has the potential to destroy the habitat of the Limestone *Pomaderris* Shrubland Community and *Olearia astroloba* (Marble Daisy-bush), both of which are known from an area of only about 40ha in Victoria, at "Marble Gully". Other species which may be threatened by the process are:

- . *Asplenium trichomanes* (rare)
- . *Helichrysum adnatum* (vulnerable)
- . *Pomaderris oraria* ssp. *calcicola* (rare)
- . *Pultenaea densifolia* (rare)

(Conservation status from Gullan *et al.* 1990)

A number of liverworts that are restricted to limestone soils occur at "Marble Gully". Of these, four are uncommon or rare and may be threatened by the nominated process i.e. *Anomodon tasmanicus*, *Encalypta vulgaris*, *Orthotrichum cupulatum* and *Pseudoleskea imbricata*.

**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 of flora and fauna.*

**Evidence:**

The nominated process is proposed to occur at the only known site of the Limestone *Pomaderris* Shrubland Community, at "Marble Gully" in the upper reaches of the Tambo Valley in East Gippsland.

This community is very rare and occupies only a small area on skeletal, marble-derived soils on steep slopes. It appears to be restricted to such soils. If mining proceeds, the community would come under threat from soil destabilisation due to the use of heavy machinery and removal of subterranean rock. Because of its rarity, any disturbance to or loss of any part of the community would threaten its survival.

#### **Background Information:**

- *Olearia astroloba* is categorised as "vulnerable" in Victoria by Gullan *et al.* (1990). It is listed on Schedule 2 of the FFG Act as a threatened taxon.
- Limestone *Pomaderris* Shrubland Community is listed on Schedule 2 of the FFG Act as a threatened community.
- A further six regionally significant plant species occur at "Marble Gully" and may be affected by the process (additional expert opinion, National Herbarium).
- Detonation of explosive devices is not currently planned for the Marble Gully site.

#### **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-criterion 5.1.1 has been satisfied and that no evidence exists to suggest that primary criterion 5.1 cannot be satisfied as a consequence of sub-criterion 5.1.1 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:**

Briggs, J.D. & Leigh, J.H. (1988) *Rare or threatened Australian plants*. Revised ed. Special Publ. 14. Aust. Nat. Parks & Wildlife Service.

Churchill, D.M. & de Corona, A. (1972) *The distribution of Victorian plants*. Royal Botanic Gardens and National Herbarium, and Botany Department, Monash University.

Gullan, P.K., Cheal, D.C. & Walsh, N.G. (1990) *Rare or threatened plants in Victoria*. Dept. of Conservation and Environment, Melbourne.

Lander, N.S. & Walsh, N.G. (1989) *Olearia astroloba* (Asteraceae: Asterae), a new species endemic to Victoria. *Muelleria* 7(1): 123-125.

LCC (1982) *Report on the Alpine Study Area* Rev. ed. Land Conservation Council, Melbourne.

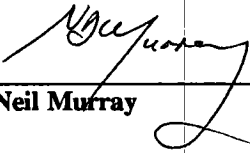
Walsh, N.G. (1990) The *Pomaderris oraria* complex in Australia. *Muelleria* 7(2): 271.

Walsh, N.G. (unpub.) "Botanical attributes of Marble Gully". report to CFL Bairnsdale Region.

Endorsement by the Convenor of the Scientific Advisory Committee

Date

18 June 1992



Dr. Neil Murray