



FLORA AND FAUNA GUARANTEE - SCIENTIFIC ADVISORY COMMITTEE

FINAL RECOMMENDATION ON A NOMINATION FOR LISTING

**Predation of native wildlife by the introduced Red Fox *Vulpes vulpes* L.
(Potentially threatening process)**

Date of receipt of the nomination: 17 May 1990
Date of preliminary recommendation: 22 January 1991
Date of final recommendation: 22 May 1991

File No.: 90/1688

Validity:

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

The Red Fox occurs in virtually all terrestrial habitats in Victoria. Predation by Red Foxes is common throughout the State, in virtually all terrestrial habitats. Native species in the Mallee, East Gippsland, the Grampians and on the Murray River are threatened by this predation.

The range of flora and 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:

Fox predation on several threatened species has been extensively documented. Predation of native wildlife by the Red Fox has the potential to limit species in terms of potential natural population growth, range expansion and the success of future reintroductions. Bennett *et al.* (1989) attributed fox predation as a contributing factor in the extinction of six small mammals in mallee areas.

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:

Significant threatened fauna affected by Red Fox predation in Victoria are the Long-footed Potoroo, Eastern Barred Bandicoot, Brush-tailed Rock-wallaby, Mallee Fowl and the Broad-shelled Tortoise. The Tiger Quoll is likely to be affected by direct competition for food with the Red Fox. Red Fox predation probably affects other species which have not yet been closely studied.

Sub-criterion 5.2.1 *the potentially threatening process poses or has the potential to pose a significant threat to the evolutionary development of two or more taxa.*

Evidence:

The evolutionary development of all the species noted in sub-criterion 5.1.1 is threatened, as fox predation limits natural population growth, range expansion and successful future reintroductions. Many studies were documented to show the effects of predation by the Red Fox on a wide variety of native animals, including the potential of prey populations to expand in both numbers and range when successful Red Fox reduction programs were instituted.

Background Information:

- Evidence to show that the Red Fox was a significant factor in the decline of a number of species was provided:
 - . Eastern Barred Bandicoot - Seebeck (1983), Brown (1987);
 - . Brush-tailed Rock wallaby - ABRG (1988b);
 - . Mallee Fowl - Newsome (1989), Priddel (1989);
 - . Broad-shelled Tortoise - additional expert opinion;
 - . Remains of Long-nosed Potoroos have been found in fox scats in East Gippsland (Chesterfield *et al.* 1983, Horrocks *et al.* 1984, Hill & Triggs 1985, Scotts & Seebeck 1989, etc.); and
 - . the Tiger Quoll has similar dietary requirements to the fox, so may be suffering from direct competition (Edgar 1983).
- Of these species, Baker-Gabb (1991) categorises the Potoroo, Bandicoot and Rock-wallaby as "endangered"; the Tiger Quoll and Mallee Fowl as "vulnerable; and the Tortoise as "insufficiently known"; in Victoria.
- The following species have received the SAC's final recommendation for listing: Eastern Barred Bandicoot, Brush-tailed Rock-wallaby, Long-nosed Potoroo and Tiger Quoll. The Mallee Fowl has received a preliminary recommendation for listing.
 - Heinsohn (1968) and Brown (1987) noted that a number of small mammals e.g. Long-nosed Potoroo, Eastern Barred Bandicoot, are still common in Tasmania where the Fox is absent.
 - Extensive evidence was provided to show that predation by Red Foxes has adversely affected the distribution and abundance of a range of mammal species throughout Australia.

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 6 February 1991

"Weekly Times" - on 6 February 1991

Government Gazette - on 6 February 1991

Submissions closed on 8 April 1991.

Further evidence provided:

No public comments were received by the Scientific Advisory Committee.

No 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(3) of the Act because primary criterion 5.1 is satisfied.

The SAC also concludes that sub-criteria 5.1.1 and 5.2.1 have been satisfied and that no evidence exists to suggest that primary criteria 5.1 and 5.2 cannot be satisfied as a consequence of sub-criteria 5.1.1 and 5.2.1 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*.

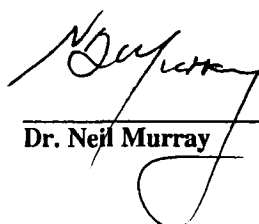
Selected references:

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Endorsement by the Convenor of the Scientific Advisory Committee

Date



 Dr. Neil Murray

19 June, 1991