

Flora & Fauna Guarantee Action Statement

#13

This Action Statement was first published in 1992 and remains current. This version has been prepared for web publication. It retains the original text of the action statement, although contact information, the distribution map and the illustration may have been updated.

© The State of Victoria,
Department of
Sustainability and
Environment, 2003

Published by the
Department
of Sustainability and
Environment, Victoria.
8 Nicholson Street,
East Melbourne,
Victoria 3002 Australia

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

ISSN 1448-9902



Extinct Mammals 1

Species presumed extinct throughout their range:

- Pig Footed Bandicoot (*Chaeropus esaudatus*)
- Eastern Hare-Wallaby (*Lagorchestes leporides*)
- Lesser Stick Nest Rat (*Leporillus apicallis*)
- Rabbit Eared Tree Rat (*Conilurus albipes*)



Previous known distribution of Pig-footed Bandicoot in Victoria (DSE 2003)



Previous known distribution of Eastern Hare-wallaby in Victoria (DSE 2003)



Previous known distribution of Lesser Stick-nest Rat in Victoria (DSE 2003)

Description and Distribution

This Action Statement is one of two that concern mammals presumed extinct in Victoria. It covers the four Victorian mammals that are extinct throughout their range. Three of the four species—the Pig-footed Bandicoot (*Chaeropus ecaudatus* Ogilby 1838), Eastern Hare-wallaby (*Lagorchestes leporides* Gould 1841) and Lesser Stick-nest Rat (*Leporillus apicalis* Gould 1853)—were arid zone species, and were limited in Victoria to the Mallee area in the north-west of the State, which was no more than 5 or 10% of their ranges. The former range of the fourth species (the Rabbit-eared Tree-rat or White-footed Rabbit-rat, *Conilurus albipes* Lichtenstein 1829) is not clear.

Action Statement 14 deals with the mammal species that still have populations extant elsewhere in Australia. The Eastern Hare-wallaby, which weighed about 2.5 kg, was limited to the central and southern sections of the Murray-Darling Basin. Its decline was rapid and it became extinct before any detailed ecological information was collected. The most recent specimen was collected at Booligal, NSW, in 1890 (Strahan 1988b).

The Pig-footed Bandicoot (about 0.5 kg) inhabited more than one-third of arid southern and central-west Australia. It was described as very common in some parts of its former range, but Krefft (1866) described it as rare on the Murray Plains. Presumably it was rare in Victoria (Aitken 1988). The Pintupi people of north-central Western Australia provided the last known record; the species disappeared from their lands about 30 years ago. The habitat was described as sandplains and dunes with spinifex and tussock grass, sometimes with mulga (Burbidge *et al.* 1988).

In Victoria, the Lesser Stick-nest Rat (about 150 g) was probably only found along the Murray River. Krefft (1866) collected specimens only north of the river, but reported the species' presence on both north and south sides. It may have occurred as far east as Barmah. The rats built their own elaborate stick nests, and also used hollow trees and nests built by the Greater Stick-nest Rat (*Leporillus conditor*). The last record of the species was in 1933, in South Australia (Copley 1988).

The distribution of the Rabbit-eared Tree-rat in Victoria is unclear, although Gould (1853) suggested it was "dispersed over all parts of...Port Phillip". The only non-fossil specimens the Museum of Victoria were collected in about 1860-62 by A.W. Howitt; they may have been taken in Gippsland (Mansergh & Hercus 1980). Mahoney (1982) reported a specimen collected near Portland by Thomas Mitchell in 1836, and the Tasmanian Society (1846) also recorded a specimen from that part of Victoria. Parris (1950) provides a literature record of the species from near Broadford, and there are subfossil remains of indeterminate age reported from East Gippsland (Wakefield 1972, Norris *et al.* 1983) and from south-western Victoria (Wakefield 1963, 1974).

Full descriptions of these species are provided in Strahan (1988a).

Conservation Status

Current Status

Strahan (1988a) Presumed extinct in Australia

The Rabbit-eared Tree-rat was nominated for listing under the Flora and Fauna Guarantee, but the nomination was rejected as invalid because the Committee believed there was no conclusive evidence that the species occurred in Victoria at the time of European settlement.

The other species have been listed as threatened on Schedule 2 of the *Flora and Fauna Guarantee Act 1988*.

Reasons for Conservation Status

The species are presumed extinct, and no live animals have been recorded in Victoria for over 100 years. Although several species once presumed extinct have subsequently been found in Victoria (e.g. Leadbeater's Possum, *Gymnobelideus leadbeateri*, and the Mountain Pygmy-possum, *Burramys parvus*), it is unlikely that living populations of any of these four species will be rediscovered, especially in Victoria.

The reasons for the extinctions are not clearly understood but presumably were a combination of habitat destruction by introduced stock and Rabbits (*Oryctolagus cuniculus*) and predation by introduced animals such as the Red Fox (*Vulpes vulpes*).

Recent reintroductions of medium-sized mammals in several States suggests the Red Fox can efficiently eliminate isolated populations. In Western Australia, trial reintroductions of the Numbat (*Myrmecobius fasciatus*) and the recovery of the Black-footed Rock-wallaby (*Petrogale lateralis*) and Brush-tailed Bettong (*Bettongia penicillata*) populations have indicated that the Red Fox (*Vulpes vulpes*) is a major cause of population reduction.

In its final recommendations the Scientific Advisory Committee determined that the three species to be listed had been known to have occurred in Victoria after European settlement but have not been sighted in the State for at least 40 years.

Major Conservation Objective

In the unlikely event that extant populations are discovered in Victoria, the objective will be to conserve them and their habitats.

Management Issues

At present, there are no management issues.

Social and Economic Issues

There are no social or economic issues concerning these species.

Management Action

If any populations are discovered in Victoria, their critical habitat will be determined, declared and protected as a high priority.

There will be no searches for these species. Their status (i.e. the discovery of extant populations) will be monitored through the literature and the professional contacts of DCE zoologists.

Flora & Fauna Guarantee Action Statement

Given the very low likelihood of rediscovery and the restricted former ranges in Victoria, future re-establishment of populations in Victorian is not probable or possible. Remains of these species that are found will be lodged at the Museum of Victoria.

Predation by the Red Fox (*Vulpes vulpes*) has been listed as a threatening process under Schedule 3 of the *Flora and Fauna Guarantee Act 1988*, on the recommendation of the Scientific Advisory Committee.

Legislative Powers Operating

A rediscovered population would be protected under the *Flora and Fauna Guarantee Act 1988* and the *Wildlife Act 1975*.

Implementation, Evaluation and Review

There is no need to review this Action Statement until any of the species is rediscovered.

Compilers

John Seebeck and Ian Mansergh

Further information

Further information can be obtained from Department of Sustainability and Environment Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are available from the Department of Sustainability and Environment website: <http://www.dse.vic.gov.au>

References

- Aitken, P.F. (1988) Pig-footed Bandicoot, in Strahan, R. (ed.) *The Complete Book of Australian Mammals*. 2nd edn. Angus & Robertson: Sydney.
- Burbidge, A., Johnson K., Fuller P.J. & Southgate R.I. (1988) Aboriginal knowledge of the mammals of the central deserts of Australia. *Aust. Wildl. Res.* **15**:9-39.
- Copley, P. (1988) *The Stick-nest Rats of Australia*. SA Department of Environment & Planning: Adelaide.
- DSE (2003) Atlas of Victorian Wildlife (Electronic Fauna Database). Parks, Flora & Fauna, Department of Sustainability & Environment, East Melbourne.
- Gould, J. (1853) *The Mammals of Australia*. Part 5. *Hapalotis albipes* Licht plate and text. Published by the author, London.
- Krefft, G. (1866) On the vertebrated animals of the lower Murray and Darling, their habits, economy, and geographical distribution. *Trans. Phil. Soc. N.S.W.* **1862-65**:1-33.
- Mansergh, I. & Hercus, L. (1981) An Aboriginal vocabulary of the fauna of Gippsland. *Mem. Nat. Museum of Vict.* **42**:201-228.
- Mahoney, J.A. (1982) Identities of the rodents (Muridae) listed in T. L. Mitchell's, "Three expeditions into the interior of eastern Australia, with descriptions of the recently explored region of Australian Felix and of the present colony of New South Wales" (1st edition 1832; 2nd edition 1839). *Aust. Mamm.* **5**:15-36.
- Norris, K, Mansergh, I, Ahern, L, Belcher, C, Temby, I. & Walsh, N., (1983) Vertebrate Fauna of the Gippsland Lake Catchment, Victoria. Fish & Wildl. Vict. Occas. Pap. No. 1, Fisheries & Wildlife Service, Victoria.
- Parris, M.S. (1950) From Melbourne to the Murray in 1839. *Vict. Nat.* **66**:187-88.
- Strahan, R. (ed.) (1988a) *The Complete Book of Australian Mammals*. 2nd edn. Angus & Robertson: Sydney.
- Strahan, R. (1988b) Eastern Hare-wallaby, in Strahan, R. (ed.) *The Complete Book of Australian Mammals*. 2nd edn. Angus & Robertson: Sydney (page 196).
- Tasmanian Society (1846) Minutes of the Tasmanian Society , August 20, 1845. *Tasmanian Journal of Natural Science, Agricultural, Statistics, etc.* **2**:460.
- Wakefield, N.A. (1963) Mammal sub-fossils from near Portland. *Vict. Nat.* **80**:39-45.
- Wakefield, N.A. (1972) Palaeoecology of fossil mammal assemblages from some Australian caves. *Proc. R. Soc. Vict.* **85**:1-26.
- Wakefield, N.A. (1974) Mammals of Western Victoria, in Douglas, M.H. & O'Brien, L (eds) *The Natural History of Western Victoria*. Australian Institute of Agricultural Science: Horsham, (pages 35-51).