

AN OVERVIEW OF THREATENED SPECIES RECOVERY

Andrew A. Burbidge, Department of Conservation and Land Management, WA Threatened Species and Communities Unit, PO Box 51, Wanneroo, WA 6065. Telephone (08) 9405 5128, fax (08) 9306 1066, Email andrewb@calm.wa.gov.au.

THE EXTINCTION CRISIS

Species are becoming extinct throughout the world at an alarming rate. While extinction is a natural process, the present rate is well above the natural background rate and is mostly due to human actions. Preventing the loss of threatened species and ecological communities is the cutting edge of the conservation of biological diversity. Other biodiversity conservation actions, such as conservation through reservation and the protection of natural bush on private land, are necessary to prevent species and communities from becoming threatened.

The theme of this weekend is mammal conservation but mammals, although an obvious and high profile group, comprise only a very small proportion of the total number of species on Earth. To put mammal conservation into context in Australia, threatened mammals comprise only 4.3% of species listed as threatened at the Commonwealth level.

Table 1. Number of Endangered, Vulnerable and Extinct species listed in Schedule 1 of the Commonwealth *Endangered Species Protection Act 1992*.

	Endangered	Vulnerable	Extinct
Invertebrates	0	3	0
Fish	11	10	0
Amphibians	13	3	0
Reptiles	12	40	0
Birds	34	62	23
Mammals	36	21	19
Non-vascular plants	1	0	0
Vascular plants	372	700	68
Totals	479	840	110

Table 2. Number of threatened and extinct taxa listed pursuant to the Western Australian *Wildlife Conservation Act 1950*, as at May 1998.

	Plants	Animals	Total
Presumed Extinct	23	13	36
Critically Endangered	95	12	107
Endangered	128	25	153
Vulnerable	104	88	192
Total threatened	327	125	452

Tables 1 and 2 show that most listed threatened species are vascular plants. Of the 125 listed threatened animal taxa in Western Australia, 33 are mammals (7% of listed taxa). Of the 12 Critically Endangered mammals in WA, three are mammals - Gilbert's Potoroo (single wild population at Two Peoples Bay), Antina or Central Rock-rat (not known to occur within the State) and the Mala or Rufous Hare-wallaby central Australian subspecies (no wild populations in WA, recently introduced to the Montebello Islands and a captive breeding colony established at Dryandra).

Tables 1 and 2 make it clear that most listed species are from comparatively well known groups - vertebrates and vascular plants. There are very few listed invertebrates and non-vascular plants, which together comprise well over 95% of living species. As our knowledge of these organisms improves it will be clear that many are extinct or threatened with extinction.

RECOVERY PLANNING AND ACTIONS

The conservation of threatened species in Australia is based on the 'recovery process':

1. Review conservation status of taxa,
2. Prepare priority lists of threatened species,
3. Conduct necessary research,
4. Produce costed Recovery Plans
and for each Recovery Plan
5. Obtain funding,
6. implement, and
7. Monitor and review.

The key to the preparation and successful implementation of Recovery Plans is the setting up of a Recovery Team, comprising representatives of those that have a stake in the species' recovery from threatened to secure status. In Western Australia Recovery Teams are chaired by a senior CALM staff person and usually comprise land owners and managers, scientists with knowledge of the species, and representatives of local conservation groups, volunteers, local government and those funding implementation.

Recovery Plans must include an achievable objective (usually a change in status from critically endangered to endangered, endangered to vulnerable or de-listing) and criteria against which progress can be evaluated. It is important that the recovery actions prescribed in Recovery Plans are well thought through and cost-effective. Actions need to be carefully costed so that funding bodies know exactly what they are paying for and a responsible agency or person to implement each action must be shown. Recovery Plans need evaluation as they are implemented to ensure that they remain relevant.

SETTING PRIORITIES

With so many threatened species in Australia it is not currently possible to prepare and implement recovery plans for all of them. Setting priorities for the allocation of scarce resources is therefore very important.

In Western Australia, the World Conservation Union (IUCN) Red List Categories and Criteria are used to set priorities. The WA Threatened Species Scientific Committee allocated every listed taxon to one of the IUCN Categories of threat. It is CALM policy that recovery actions shall commence within one year of a taxon being allocated to Critically Endangered and that allocation being endorsed by the Minister for the Environment.

At the Commonwealth level a very similar approach is taken, with the Endangered Species Advisory Committee preparing 'Priority A' and 'Priority B' lists, closely equating to the IUCN Critically Endangered and Endangered categories.

Another Western Australian approach, particularly with plants, has been to conserve a number of threatened species within a particular area under the one plan. This multiple-species approach is becoming increasingly successful in areas, such as the agricultural areas of the south-west, where there are numerous threatened species.

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