

NSW SCIENTIFIC COMMITTEE

Review of the Schedules of the *Threatened Species Conservation Act 1995*.

A summary report on the review of selected species prepared by the NSW Scientific Committee

Background

Under Section 25A(1) of the *Threatened Species Conservation Act 1995* (the TSC Act), the NSW Scientific Committee (the Committee) must keep the lists in Schedules 1, 1A, 2 and 3 of the TSC Act under review and must, at least every two years, determine whether any changes to the lists are necessary. Accordingly, between 2007 and 2009 the NSW Scientific Committee (the Committee) undertook a systematic review of the conservation status of a selection of plant and animal species listed under the TSC Act. Supplementary funding provided to the Committee allowed for the appointment of a Project Officer dedicated to this project for a period of some 18 months. Additional project officers assisted the Committee for varying periods during this 18 month project. Consultants were also engaged to conduct specific reviews.

This report highlights key aspects of the review process and summarises the determinations made by the Committee as part of the review (Table 1). It includes assessments and listings finalised as at 30th November, 2009. Some assessments are still under consideration (as indicated in Table 2) and will be finalised in the future as information is obtained and if resources to complete the assessments are available.

The Review Process

Setting Priorities

The Committee compiled an initial list of priority species, based on advice provided by the then Department of Environment and Climate Change (DECC), and the expert opinion of Committee members. Advice and supporting information was also sought from Catchment Management Authorities (CMAs). Final priorities for review were determined in consultation with the then Minister for Climate Change and the Environment.

Priorities for review were based on:

1. Species that had undergone a recent change in status under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), as this triggered statutory responsibilities under the TSC Act to consider the species' status in NSW;
2. Those species for which a change in status under the TSC Act was most likely to affect regulatory and/or recovery actions.

NSW SCIENTIFIC COMMITTEE

3. The likely effort (based on number of person hours) required to review the species' status, with priority given to species whose status could be resolved relatively easily (based on such things as amount of available information). This approach enabled the maximum number of species to be assessed within the time and resources available;
4. Those species for which a review of information was likely to result in listing as Critically Endangered. As this category has only been available since the TSC Act was amended in 2005, many more species are likely to meet the criteria for Critically Endangered than were currently listed. Moreover, given the importance of the Schedules to State-wide environmental reporting (e.g. State of the Environment, State of the Parks and CMA reporting), it was considered important to rectify the likely under-representation of Critically Endangered species to assist priority setting for recovery actions; and
5. Those species listed without formal review since the inception of the TSC Act, as it was considered likely that such species may no longer be assigned to the appropriate threat category.

The review excluded species that had been recently assessed and for which no further data had become available and species for which new data was considered unlikely to lead to a change in status under the TSC Act.

Species Information

Information on the species to be reviewed was collated from various sources, including databases managed by Department of Environment Climate and Change and Water (DECCW), such as the NSW Wildlife Atlas, records from the Commonwealth and State Herbaria, Recovery Plans, unpublished reports, the scientific literature, survey data, and personal communications with relevant experts. Review information was initially collated by the Project Officers and consultants. The review included an assessment of conservation status for each species using the *Threatened Species Conservation Regulation 2002* (Tables 3 and 5) and the internationally accepted IUCN Red List Criteria (Version 3.1, IUCN 2001) and associated guidelines for the application of these criteria (IUCN 2008) (Table 4). Assessments therefore considered a range of information, including;

- the distribution of the species, including, extent of occurrence, and area of occupancy;
- population sizes across all known locations;
- perceived threats;
- rates of declines (differentiating between past, present or future, and inferred, recorded or predicted);
- population structure and fragmentation; and
- ecological responses to disturbances.

NSW SCIENTIFIC COMMITTEE

Review reports were provided to the Committee for consideration and determination as to whether a change in status was required. Where a change in status was recommended, a Draft Preliminary Determination was developed and passed by the Committee before being placed on public exhibition for eight weeks. Following exhibition, the Committee reviewed submissions and further information relevant to the species before preparing a Proposed Final Determination for consideration by the then Minister for Climate Change and the Environment. After considering any advice received from the Minister, the Committee made a Final Determination regarding the status of that species, including, in some instances, a decision to de-list. Any change to the Schedules took effect on the day the notice of Final Determination was published in the NSW Government Gazette.

Outcomes

In total, the review considered 76 species and 1 population. The complete list of entities assessed by the Committee are given in Tables 1 and 3, along with summarised results of the Committee's findings. The majority of species assessed (roughly 60%) were considered by the Committee because they had not been formally reviewed since the inception of the TSC Act and over one third of species were reviewed on the basis that they may have warranted up-grading to the category of Critically Endangered.

Of the 76 species reviewed, 44 were found to be eligible for a change in conservation status; 36 of which were moved to a higher threat category, four of which were dropped to a lower category and three (two animals and one plant) of which were removed from the lists altogether on the basis that they no longer met the criteria for listing.

Twenty-one of the 76 species that were assessed required no change in status. A further 10 species remained on the list with their status un-changed pending re-assessment once further information on issues such as population size and threats becomes available. The one population assessed (for the Hooded Robin in the New England Tablelands), was found not to meet the criteria for listing. As a result of the review, a further 19 plant and 13 animal species are now included in Schedule 1A of the TSC Act (i.e. Critically Endangered species and ecological communities). The Final Determinations for species whose status was changed as a result of the review are provided in Appendix 1 of this report.

NSW SCIENTIFIC COMMITTEE

In general, changes in conservation status arose due to:

- increased knowledge of the taxon, particularly greater knowledge of distribution and population size as a result of targeted surveys;
- changes to the actual status of a taxon, particularly declines in total population size and geographic distribution due to continuing threats; and
- the qualitative nature of previous assessment techniques, rather than any changes in knowledge of the species or its status *per se*.

Discussion

The review of schedules undertaken by the Committee represented a discrete exercise, made possible through the availability of additional resources. While it is a legislative requirement for the Committee to keep the Schedules under review, bulk assessments, such as those reported on here, are only possible with additional funding and personnel.

Given the available resource and time constraints of the project, the Committee felt it had no alternative but to limit the review to species. A review of populations and ecological communities would be a much more complex, time and resource demanding project, and although important, would need to be undertaken at a later date should sufficient resources become available.

The Committee found that the assessment of species, particularly those proposed for de-listing, was often constrained by the availability of data. While anecdotal advice or perceptions may be received about the abundance of a species and whether it meets the criteria for listing or de-listing, anecdotal information is generally insufficient to comprehensively assess the conservation status of a species.

The recently completed assessment reports and the Committee's on-going review process will assist DECCW to prioritise recovery planning, develop priority action statements and allocate resources for species conservation more strategically. For example, an implication of removing species from the lists is that these species will no longer require consideration (triggered by the TSC Act) in development proposals that affect threatened species.

In addition, the review process has generated a considerably body of valuable and up to date information on the biology, ecology, threats and population status of those species reviewed. This information represents a valuable resource that will be made available on the DECCW website for use by the public, CMAs, consultants and researchers. The data will be available as summaries in relation to the criteria in the *Threatened Species Conservation Regulation 2002*, as well as reports for individual species.

NSW SCIENTIFIC COMMITTEE

The review reports for threatened species that cannot be determined due to inadequate information will also be publicly available and will identify what information is needed to complete the assessment of the species. This information can also be incorporated into actions in recovery plans and priority action statements.

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Bibliography

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