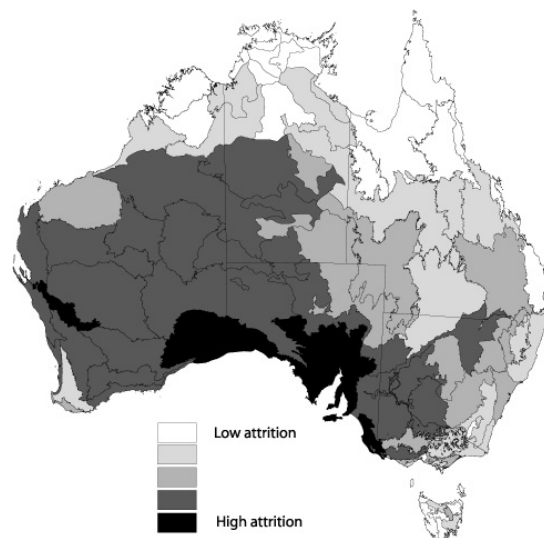


35. BIODIVERSITY OF MAMMALS, BIRDS, ACACIAS AND EUCALYPTS IN AUSTRALIA

The Audit's Terrestrial Biodiversity Assessment used four groups to assess patterns in biodiversity: mammals, birds, acacias and eucalypts. A detailed analysis of mammals and birds can help us understand the impact of land use on biodiversity. An analysis of endemic *Acacia* and eucalypt species (those that only occur in localised areas) can determine where highly restricted species may be threatened. These analyses for other species groups would help provide a more comprehensive picture of biodiversity priorities.

MAMMALS

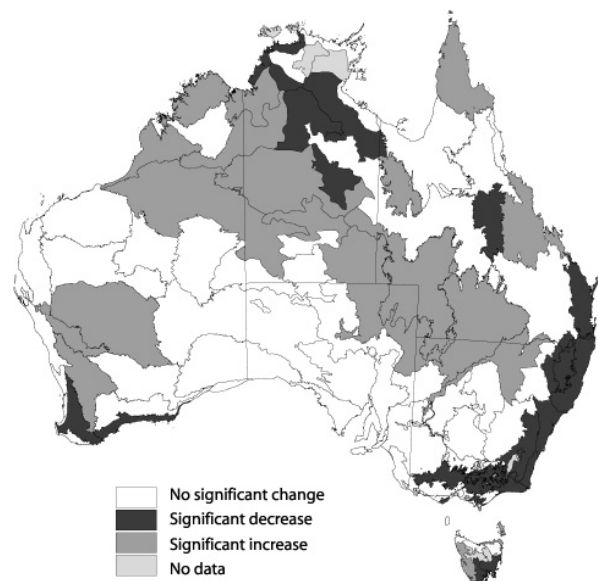
- Since European settlement, there has been a massive contraction in the distribution of mammals in arid and semi-arid parts of Australia, particularly the small to medium critical weight range species.
- 22 Australian mammals have become extinct since European settlement - which is one third of the world's recent mammal extinctions - with 8 other species remaining only on islands.
- Evidence suggests that mammal extinctions in Australia are continuing.
- Cape York Peninsula is a key region that retains a large number of species that have limited distributions.
- The pattern of mammal attrition resembles rainfall patterns, with higher levels of decline in bioregions with lower annual rainfall (Map 1).



Map 1: Attrition of Australia's mammal fauna.

BIRDS

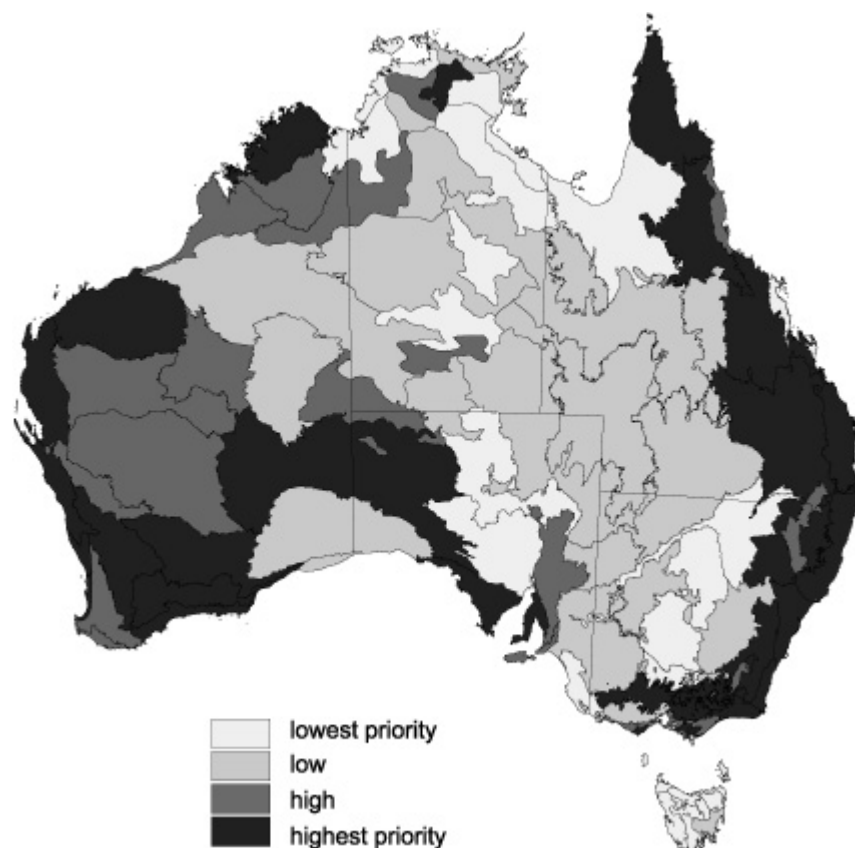
- 29 species show a significant decrease in south-east and south-west of Australia, eastern Tasmania and the Top End within a 20 year period between the two comprehensive Bird Atlas surveys across Australia (Map 2).
- The greatest decline is in grassland, woodland and ground-nesting species.
- Threatening process include: broad-scale vegetation clearing, urbanisation, intensified agriculture and feral predators.
- There is an extinction lag for birds (when compared with mammals) but bird extinctions will also occur.



Map 2: Trends in reporting rate of Australian breeding species between the first Bird Atlas (1977-1981) and the second Bird Atlas (1998-2001).

ACACIAS AND EUCALYPTS

- 40 bioregions and 61 subregions were identified to have high irreplaceable value in terms of endemism. This assessment identified additional areas of specific importance for the conservation of endemic *Acacia* and eucalypt species to those identified in previous studies. These include the Pilbara, Carnarvon, Great Victoria Desert, Einasleigh Uplands bioregions
- Map 3 shows bioregions that are priority for the conservation of endemic species and which have high species diversity.
- Important regions for endemic species such as south-west Western Australia, and parts of New South Wales Western Slopes, Brigalow Belt and Victoria coincide with extensive clearing, fragmentation and salinisation. This is of concern for the conservation of *Acacia* and eucalypt species restricted to these regions and their associated ecological communities.



Map 3: Priority bioregions for the conservation of acacias and eucalypts.

Further Information:

See *Australian Terrestrial Biodiversity Assessment 2002* for more details.
Or go to the Australian Natural Resources Atlas (www.environment.gov.au/atlas).
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