



Major Mitchell's cockatoo *Cacatua leadbeateri*

The Major Mitchell's cockatoo *Cacatua leadbeateri* is found in open woodland of semi-arid and arid inland Australia, from south west Queensland and central NSW to southern and northern inland Western Australia. Processes known to threaten this species are illegal collection and habitat loss and fragmentation due to clearing. Possible threatening processes are habitat disturbance and inappropriate fire regimes. Important measures to protect this species include establishing protective buffers excluding clearing and *Callitris* harvesting around known nest trees; modifying vegetation clearing around feed trees; habitat tree retention; and minimising illegal collection.



Major Mitchell's cockatoo *Cacatua leadbeateri* Photo: EPA

Description

Adult Major Mitchell's cockatoos have a body length of around 35cm. It is a white cockatoo with a washed pink face and breast. At the top of the head is a narrow upswept crest of feathers that is whitish when folded. The crest has bands of scarlet and yellow when extended. In flight the underwing and under tail are a deep pink.

Habitat and distribution

The Major Mitchell's cockatoo inhabits a wide variety of semi-arid and arid inland habitats, provided there is fresh surface water and large hollow trees for nesting. It has been recorded in forest, woodland and shrubland, including mulga, mallee, *Acacia*, and *Callitris* associations. It has also been recorded in cropping areas throughout its range.

This cockatoo is known to have declined in the eastern and southern parts of its range. It is found from central New South Wales and south west Queensland to southern and northern inland Western Australia. In Queensland it is usually seen west of a line between Mitchell and St George, occasionally occurring as far east as the western fringe of the Darling Downs.

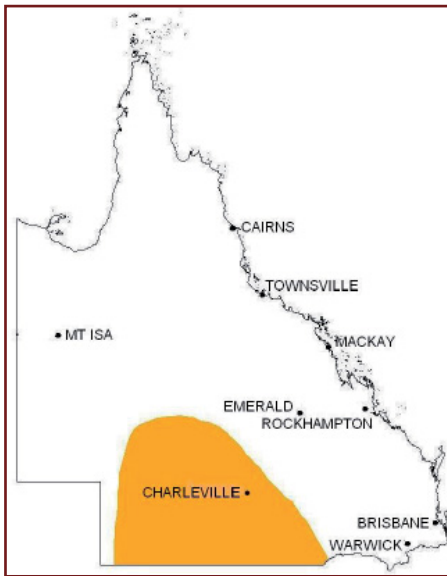
Conservation status

The Major Mitchell's cockatoo is listed as vulnerable under the Queensland *Nature Conservation Act 1992*. It is not listed as a threatened species under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. It is recognised internationally as least concern under the *IUCN Red List of Threatened Species*.

A species recovery outline for the Major Mitchell's cockatoo in the *Action Plan for Australian Birds* (Garnett et al. 2000) sets out research and management actions needed to support the recovery of the Major Mitchell's cockatoo.

Biology and ecology

The cockatoo is usually seen in pairs or small groups, and sometimes join flocks of galahs and little corellas. It forages on the ground and in the foliage of trees and tall shrubs. The species feeds on seeds, fruits, nuts and tubers from a wide variety of plants including the seeds of *Callitris* spp. and *Acacia* spp. Adult pairs mate for life, and occupy permanent breeding territories. Unlike many other cockatoos (e.g. galah and sulphur-crested cockatoo), Major Mitchell's cockatoo nesting pairs need a large feeding area surrounding the nest, so nests of adjacent pairs are well separated (no closer than 1km in Western Australian studies). The spatial distribution of hollow trees for nest sites is important – they must be present over large areas (hundreds of hectares) rather than concentrated in small patches. Nesting occurs from July to January inclusive. Nests are located in the hollows of eucalypts or dead *Callitris* spp., where usually three to four eggs are laid. The young leave the nest when they are about eight weeks old. Pairs on average raise less than two young per season.



Estimated distribution of the Major Mitchell's cockatoo in Queensland.



Major Mitchell's cockatoo Photo: EPA

Threats to the Major Mitchell's cockatoo

Since European settlement, nesting and feeding resources have been lost, particularly as a result of forest, woodland and shrub-land clearing for agriculture. The species has also experienced high rates of illegal collection for the illegal bird trade. Low breeding densities and low recruitment levels make the Major Mitchell's cockatoo vulnerable to threats which reduce the population and/or available breeding habitat.

Specific threats to the Major Mitchell's cockatoo include:

- loss of habitat and habitat fragmentation due to clearing of woodland and shrub-land;
- illegal collection of eggs, adults and nestlings for the illegal bird trade;
- loss of nesting hollows due to inappropriate fire regimes and/or vegetation clearing; and
- inappropriate grazing regimes and weed invasion which impede recruitment of trees for future breeding.

Managing threats

The recommendations below should be considered against local conditions, regional ecosystem values and this species' requirements. Habitat and biological characteristics required by the Major Mitchell's cockatoo are described in the above sections 'Biology and ecology' and 'Habitat and distribution'.

Using buffers

No vegetation clearing or destruction of known nest trees should occur.

Establish a protective buffer that excludes clearing and the harvesting of *Callitris* within at least a 400m radius of any known nest tree. Where non-*Callitris* species are harvested within the buffer, machinery disturbance of *Callitris* and *Acacia* species is to be minimised. All harvesting is to be excluded from the buffer during the breeding period from July to January inclusive.

Where vegetation clearing may legally take place a minimum of six live habitat trees (at least one hollow over 10cm in diameter above 2m) and two recruitment trees (those that may grow into habitat trees) per hectare should be retained. Where six live habitat trees are not available per hectare then additional recruitment trees should be retained. Where the vegetation clearing intensity will remove more than half the trees, consider retaining small clumps and corridors of vegetation, including recruitment trees.

Weed management

The Department of Natural Resources and Water have information on weed and pest animal management on their website, visit <http://www.nrw.qld.gov.au/pests/index.html>, to obtain copies of their fact sheets. Information includes details on prevention and various methods of control and local contact details.

Sustainable grazing

Monitor the impacts of total grazing pressure on sites where Major Mitchell's cockatoo occurs (particularly understorey vegetation within 1km of known breeding and roost sites) and adjust grazing management to minimise adverse impacts.

Fire management

Minimise the risk of fire damage to Major Mitchell's cockatoo habitat. The aims of fuel management regimes should minimise the risk of fire entering the buffer areas of active nests during the breeding period from July to January inclusive.

Where heavy fuel is observed at the base of known roost/maternity trees and there is a substantial risk to the roost tree, fuel should be removed from around the base of the tree, outside the breeding season of July to January inclusive.

If you have known or potential habitat for Major Mitchell's cockatoo, your local QPWS office may be able to provide advice on appropriate grazing and fire regimes (visit www.epa.qld.gov.au/about_the_epa/contact_us/ to find the office closest to you). Land managers should consult with their local council or rural fire brigade (www.ruralfire.qld.gov.au) for further information about local requirements, restrictions and responsibilities with respect to prescribed burns and fire management.

Other issues

Notify local Environmental Protection Agency officers if any illegal activities are suspected. To minimise illegal collection Major Mitchell's cockatoo nest site locality information should be kept confidential.

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