# **Description**

Muir's Corella is a medium-sized white cockatoo, 43-48 cm in length and 560-815 g in weight. The birds' white feathers are often stained or dirty because they dig most of their food out of the ground with their long bills. The undersides of the wings and tail are sulphur yellow in colour and the birds have a blue-grey ring of bare skin around the eye (Figure 1). The feathers between the eye and bill (and the bases of the feathers on the head and underparts) are a rich salmon-pink. This colour can be seen when the bird preens or the when the wind ruffles its feathers. These birds give a variety of loud, raucous calls.

### **Distribution and Habitat**

Two subspecies of the Western Long-billed Corella occur in Western Australia. Butler's Corella *Cacatua pastinator butleri* occurs in the northern and western central wheatbelt and Muir's Corella *Cacatua pastinator pastinator* is confined to the far south-west of Western Australia near Lake Muir (Figure 2). Muir's Corella is rare and likely to become extinct.

Muir's Corella once inhabited woodlands and open country to the east of the main forest block in south-western Australia. It occurred north to the Swan and Avon Rivers, south to Albany and Augusta and east to Broomehill and the Stirling and Porongurup Ranges. Flocks of small numbers of birds were distributed in widely separated colonies.

The one remaining population occurs in south-west Western Australia from Boyup Brook and Qualeup, south to the lower Perup River, Lake Muir, Cambellup and east to Rocky Gully and Frankland (Figure 2).

Muir's Corella is locally common, but patchily distributed. It relies on remnant patches of woodland for nesting sites and the majority of nests are found in or adjacent to farmland and along roadsides and watercourses. This population, which once numbered only 100 is now thought to contain about 9,000 individuals.

### Diet

Muir's Corella feeds on corms, tubers and seeds from a variety of introduced and native plants. The corms of Guildford Grass *Romulea rosea* appear to be an important food item from May to November, while cereal grains such as Oats *Avena sativa*, Barley *Hordeum vulgare*, and Wheat *Triticum aestivum* are commonly eaten the rest of the year. Other introduced plants eaten include Storksbill *Erodium* spp., and Winter Grass *Poa annua*. These corellas have also been recorded eating native plant species, including the bulbs of Sundews *Drosera* spp., the roots of 'orchidaceous plants' and seeds from Marri *Corymbia calophylla*, and Spear Grass *Stipa* spp.



Figure 1 Muir's Corella Cacatua pastinator pastinator (Photo Tony Kirkby / WA Museum).

Muir's Corella DEC Fauna Note No. 4

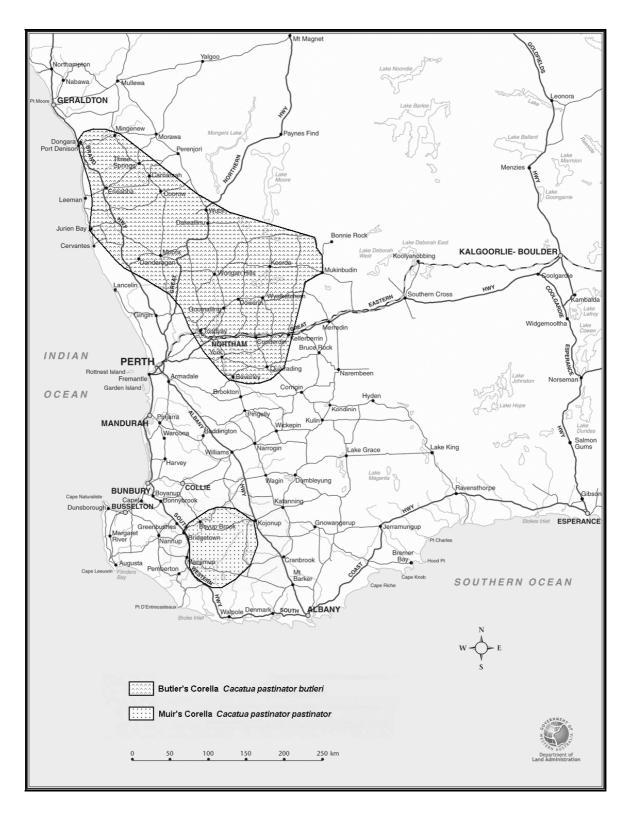


Figure 2 Distribution of Butler's Corella Cacatua pastinator butleri and Muir's Corella Cacatua pastinator (based on information taken from Johnstone and Storr (1998)).

Muir's Corella DEC Fauna Note No. 4

# **Breeding**

Most of the known nest hollows used by Muir's Corellas are located on private property in paddock trees, on roadsides and on the edge of forested areas. The hollows used are in both live and dead eucalypts, particularly Marri *Corymbia calophylla* and Jarrah *Eucalyptus marginata*. Some breeding has been recorded in Flooded Gum *E. rudis*, yates and paperbarks *Melaleuca* spp. The birds remove bark from around the entrance of the hollow.

One to three eggs are laid from September to November and these are incubated for 26 to 29 days. Survival rates of adult and immature Muir's Corellas are unknown, but most young birds probably die before reaching breeding age. On average, these birds must be at least 3 to 5 years old before they can breed and a breeding pair must breed for 10 years to replace itself. The average life expectancy of adult birds is estimated at 14 years for females and 17 years for males.

Little else is known about the breeding biology of this species, but research is being undertaken by staff from the Western Australian Museum.

### **Hollow and Food Availability**

At present, hollow and food availability is sufficient to sustain the Muir's Corella population. However, recent changes in land use where remnant vegetation and paddock trees are being cleared to make way for the planting of blue gums *E. globulus*, and other species, may threaten Muir's Corella. Blue gum plantation managers can take a number of simple steps to assist in the conservation of this threatened species, as outlined in the publication: Managing Muir's Corella in Blue Gum Plantations, DEC, Western Australia.

### Behaviour

Muir's Corella is a sociable bird, forming widely distributed flocks of 10 to 1,000 individuals. Flocks have traditional roosting sites (usually dense timber) from which they leave to feed in the morning and to which they return at night.

During the breeding season, the nest tree is the focus of the birds' activities and the birds feed nearby. After fledging, the young and their parents are joined by other family groups to form large flocks that often disperse to summer feeding areas. At the end of summer, breeding adults return to their breeding areas. Immature birds form locally nomadic flocks and may return to the area where they were raised or they may remain in the summer feeding areas.

# **Damage**

Muir's Corella has been reported to damage newly sown oat crops, horticultural crops, newly planted trees, home gardens, television aerials and power lines. The species may consume stock feed, particularly in the summer months, and cause a noise problem around homes.

### **Status and Damage Reduction Measures**

Muir's Corella is endangered because it persists only in one, small, isolated population, it has a low reproductive rate and it is vulnerable to changes in land management. It may also be at risk from the Eastern Long-billed Corella *C. tenuirostris*. This species is now present in the Perth, Bunbury, Busselton and Albany areas as a result of escapes or releases from aviaries. If the Eastern Long-billed Corella became established in the Lake Muir area, it could compete with Muir's Corella for food and pose a threat to the species through interbreeding. A Recovery Plan for Muir's Corella has been prepared that seeks to strike a balance between the needs of landholders and the wider community in conserving these endangered birds.

Muir's Corella is listed as a Declared Pest of Agriculture under the provisions of the *Agriculture and Related Resources Protection Act 1976*, administered by the Western Australian Department of Agriculture and Food. This declaration allows for the approval and implementation of a management program in the **Boyup Brook, Cranbrook and Manjimup shires**.

As a native species, Muir's Corella is protected under the provisions of the Wildlife Conservation Act 1950, administered by the Department of Environment and Conservation. Under this Act Muir's Corella is listed as 'rare or likely to become extinct'. Because of this listing, it is illegal to destroy Muir's Corella and offenders will be subject to prosecution.

Before scaring the birds, a damage licence must be obtained from the Department of Environment and Conservation. For management options see 'Living with Muir's Corella' under *Further Reading*. A strategy comprising a number of techniques will probably be needed to reduce the damage caused by Muir's Corella.

### **Further Reading**

- Fauna Note No. 2. <u>Scaring and Repelling Birds to Reduce Damage</u>. DEC, Western Australia.
- <u>Living with Muir's Corella</u>. DEC, Western Australia.

Muir's Corella DEC Fauna Note No. 4

• <u>Managing Muir's Corella in Blue Gum Plantations</u>. DEC, Western Australia.

### References

DEC (2007) Draft Muir's Corella *Cacatua pastinator* pastinator Recovery Plan 2007-2016. Department of Environment and Conservation, Western Australia.

Johnstone, R.E. and Storr, G.M. (1998) Handbook of Western Australian Birds. Volume 1. Non-passerines. WA Museum.

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Saunders, D.A., Rowley, I., and Smith, G.T (1985). The effects of clearing for agriculture on the distribution of cockatoos in the southwest of Western Australia. In 'Birds of Eucalypt Forests and Woodlands: Ecology, Conservation, Management.' (Eds. Keast, A., Ford, H. and Saunders, D.) RAOU and Surrey Beatty and Sons, NSW.

### **Further Information**

Contact your local office of the Department of Environment and Conservation.

See the Department's website for the latest information: www.naturebase.net.

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