Baudin’s Black-Cockatoo
_Calyptorhynchus baudinii_ Lear, 1832
Cacatuidae

**Conservation status**
Endangered A3cde+4cde

**Reasons for listing**
Ongoing population decline estimated >50% over 3 generations (58 years) inferred from shooting by orchardists and loss of nest hollows to bees and other cockatoos

**Status 2000**
Endangered A3cde+4cde

**Status 1990**
Endangered A3cde+4cde

**Taxonomy**
No infraspecific taxa described
Taxonomic uniqueness: high (7 genera/family, 5 species/genus, 1 subspecies/species)

**Range**
Endemic to higher rainfall parts of the south-west of Western Australia (Saunders 1979; Saunders _et al._ 1985). It ranges north to Gidgegannup and Hoddy Well and east to Clackline, Wundowie, the lower Darkin River, Boyagin Rock, Wandering, Williams, Kojonup and the King River also west to the eastern strip of the Swan Coastal Plain including West Midland, Armadale, Byford, Mundijong, Serpentine, North Dandalup and further west to the coast at Lake Clifton, Australind, Bunbury, Busselton, Dunsborough, Leeuwin-Naturaliste National Park and Augusta, also the Stirling and Porongurup Ranges and east along the south coast to Waychinicup National Park (Johnstone _et al._ 2007). The EOO probably stable since settlement (Saunders _et al._ 1985; Saunders and Ingram 1995), but lost from about 25% of its range since the 1950s (Johnstone 1997). Breeding occurs in the south, from Nornalup north to near Bridgetown, sometimes further north to Lowden and Harvey, following which most birds move to the Darling scarp south-west of Perth (Higgins 1999). The AOO is assessed here as about 10 000 km² based on the area most birds occupy during winter.

**Abundance**
Surveys in 1995–2004 suggest that the population is probably 10 000–15 000 individuals but only about 10% breed in any year (P. Mawson _in litt._). The population density is believed to have declined (Johnstone 1997), a trend that is continuing at an unquantified rate (Johnstone _et al._ 2007). The reporting rate probably declined between the 1977–1981 and 1998–2001 (Olsen _et al._ 2003) but taxonomic changes in the first Birds Australia Atlas and confusion with other Black-Cockatoos since make comparisons difficult. Given the lack of any recent quantitative data, the rate of decline is inferred from changes in habitat and competition to be >50% in 3 generations (58 years).

**Ecology**
Occurs in temperate forest and woodland dominated by the eucalypts Jarrah _Eucalyptus marginata_, Karri _E. diversicolor_ and Marri _Corymbia calophylla_. They mainly feed on the seeds and flowers of Marri, with their long beak making them particularly efficient at extracting the seed (Cooper _et al._ 2002), but also take seeds of Jarrah, cultivated apples and pears, _Banksia_ and _Hakea_ spp, _Erodium botrys_ and insect larvae (Long 1985; Halse 1986; Department of Environment and Conservation (WA) 2007; Johnstone _et al._ 2010). They nest in hollows in mature eucalypts, particularly Marri, Karri and Wandoo _E. wandoo_ and Bullich _E. megacarpa_ (Johnstone _et al._ 2010), usually laying 2 eggs, although breeding success is only estimated at 0.6 young per pair (Johnstone and Storr 1998). Nests are thinly dispersed through the available feeding habitat, with greater densities perhaps being prevented by intense competition between nesting females (Saunders _et al._ 1985). A generation time of 19.2 years (BirdLife International 2011) is derived from an age at first breeding of 4.0 years and maximum longevity of 34.4 years, both extrapolated from Carnaby’s Black-Cockatoo _C. latirostris_.

**Threats**
Nest hollow shortage is considered the principal threat, as suitable hollows are considered scarce, only forming in trees at least 130 to 220 years of age, many of which have been preferentially felled (Abbott and Whitford 2002; Chapman 2007). Nest hollows are likely to continue to be lost to mining (Chapman 2007) and fire. Fires caused by lightning or arson, and sometimes planned fires, cause older trees containing hollows to fall, and temporarily reduce food availability (Department of Sustainability, Environment, Water, Population and Communities 2011). Competition for hollows is also severe with other cockatoos, including Carnaby’s Black-Cockatoo and...
corellas *Cacatua* spp., Wood Ducks *Chenonetta jubatta* and feral European Honey Bees *Apis mellifera* all successfully displacing Baudin’s Black-Cockatoos (Johnstone and Cassarchis 2004; Chapman 2007; Johnstone and Kirkby 2007). Although the species has been fully protected since 1996 (Mawson and Johnstone 1997), illegal shooting by orchardists still occurs when they feed on apples and pears; in 1 study, 9.2% of 67 377 apples were damaged in 2 months (Halse 1986). The species no longer occupies up to 25% of former habitat that has been cleared for agriculture (Mawson and Johnstone 1997).

**Conservation objectives**
1. Area of occupancy stable or increasing
2. Number of breeding pairs stable or increasing
3. Numbers in each roosting flock stable or increasing
4. Proportion of juveniles in each roosting flock increasing

**Information required**
1. Demographic trends and relative impacts of threatening processes
2. Factors affecting the number of breeding attempts and breeding success
3. Spatial distribution of feeding and breeding habitat

**Management actions required**
1. Prevent illegal shooting in and around commercial orchard areas by enforcing anti-shooting legislation more vigorously
2. Assist orchardists in developing a non-lethal damage mitigation strategies
3. Monitor demographic indicators (population size, trends, recruitment), including the effectiveness of management actions and the need to adapt them if necessary
4. Map feeding and breeding habitat
5. Determine and implement ways to minimise the effects of mining on habitat loss
6. Determine and implement ways to manage forests for the conservation of the species
7. Develop and implement a management plan for the control and reduction of non-managed feral European Honey Bees in the region
8. Develop and implement a communication strategy to stop illegal shooting and improve compliance with the relevant legislation
9. Continue to support coordination of management by the Forest Cockatoo Recovery Group

**Bibliography**


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Johnstone RE, Johnstone C, Kirkby T (2010) ‘Carnaby’s Cockatoo (Calyptorhynchus latirostris), Baudin’s Cockatoo (Calyptorhynchus baudinii) and the Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii nasso) on the Swan Coastal Plain (Lancelin–Dunsborough), Western Australia. Studies on distribution, status, breeding, food, movements and historical changes’. Report to the Department of Planning, Perth.


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