**Consultation Document on Listing Eligibility and Conservation Actions**

*Calyptorhynchus baudinii (Baudin's cockatoo)*

You are invited to provide your views and supporting reasons related to:

1) the eligibility of *Calyptorhynchus baudinii* (Baudin's cockatoo) for inclusion on the EPBC Act threatened species list in the Endangered category; and

2) the necessary conservation actions for the above species.

Evidence provided by experts, stakeholders and the general public are welcome. Responses can be provided by any interested person.

Anyone may nominate a native species, ecological community or threatening process for listing under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or for a transfer of an item already on the list to a new listing category. The Threatened Species Scientific Committee (the Committee) undertakes the assessment of species to determine eligibility for inclusion in the list of threatened species and provides its recommendation to the Australian Government Minister for the Environment and Energy.

Responses are to be provided in writing either by email to: [species.consultation@environment.gov.au](mailto:species.consultation@environment.gov.au)

or by mail to:

The Director

Marine and Freshwater Species Conservation Section

Wildlife, Heritage and Marine Division

Department of the Environment and Energy

PO Box 787

Canberra ACT 2601

**Responses are required to be submitted by 19 May 2017**.

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**General background information about listing threatened species**

The Australian Government helps protect species at risk of extinction by listing them as threatened under Part 13 of the EPBC Act. Once listed under the EPBC Act, the species becomes a Matter of National Environmental Significance (MNES) and must be protected from significant impacts through the assessment and approval provisions of the EPBC Act. More information about threatened species is available on the Department’s website at:

<http://www.environment.gov.au/biodiversity/threatened/index.html>.

Public nominations to list threatened species under the EPBC Act are received annually by the Department. In order to determine if a species is eligible for listing as threatened under the EPBC Act, the Committee undertakes a rigorous scientific assessment of its status to determine if the species is eligible for listing against a set of criteria. These criteria are available on the Department’s website at: <http://www.environment.gov.au/biodiversity/threatened/pubs/guidelines-species.pdf>.

As part of the assessment process, the Committee consults with the public and stakeholders to obtain specific details about the species, as well as advice on what conservation actions might be appropriate. Information provided through the consultation process is considered by the Committee in its assessment. The Committee provides its advice on the assessment (together with comments received) to the Minister regarding the eligibility of the species for listing under a particular category and what conservation actions might be appropriate. The Minister decides to add, or not to add, the species to the list of threatened species under the EPBC Act. More detailed information about the listing process is at: <http://www.environment.gov.au/biodiversity/threatened/nominations.html>.

To promote the recovery of listed threatened species and ecological communities, conservation advices and where required, recovery plans are made or adopted in accordance with Part 13 of the EPBC Act. Conservation advices provide guidance at the time of listing on known threats and priority recovery actions that can be undertaken at a local and regional level. Recovery plans describe key threats and identify specific recovery actions that can be undertaken to enable recovery activities to occur within a planned and logical national framework. Information about recovery plans is available on the Department’s website at: <http://www.environment.gov.au/biodiversity/threatened/recovery.html>.

**Information about this consultation process**

Responses to this consultation can be provided electronically or in hard copy to the contact addresses provided on Page 1. All responses received will be provided in full to the Committee and then to the Minister.

In providing comments, please provide references to published data where possible. Should the Committee use the information you provide in formulating its advice, the information will be attributed to you and referenced as a ‘personal communication’ unless you provide references or otherwise attribute this information (please specify if your organisation requires that this information is attributed to your organisation instead of yourself). The final advice by the Committee will be published on the Department’s website following the listing decision by the Minister.

Information provided through consultation may be subject to freedom of information legislation and court processes. It is also important to note that under the EPBC Act,the deliberations and recommendations of the Committee are confidential until the Minister has made a final decision on the nomination, unless otherwise determined by the Minister.

*Calyptorhynchus baudinii*

Baudin's cockatoo

Taxonomy

Conventionally accepted as *Calyptorhynchus baudinii* (Lear 1832).

Species Information

Description

Baudin's cockatoo is a large cockatoo that measures 50–57 cm in length, with a wingspan of approximately 110 cm, and a mass of 560–770 g. It is mostly dull black in colour, with pale whitish margins on the feathers, large, rounded patches (white to yellowish-white in the female and dusky-white to brownish-white in the male) on the ear coverts, and rectangular white panels in the tail. It has a large bill (with a very elongated upper mandible) that is coloured black in the male and whitish-grey with a black tip in the female; a dark brown iris that is surrounded by a reddish-pink eye-ring in the male and a grey eye-ring in the female; a short, rounded, erectile crest; and grey feet (Higgins 1999; Johnstone & Storr 1998). Juvenile birds are like the adults in appearance, but the bill of the juvenile male is like that of the adult female. The bill of the juvenile male begins to darken after the second year (Johnstone & Storr 1998).

Distribution

Baudin's cockatoo is endemic to south-west Western Australia (Western Australian Museum 2017). The range of the species occurs between Margaret River and Albany, extending northward to Gidgegannup and Mundaring (east of Perth), and inland to the Stirling Ranges and near Kojonup (BirdLife International 2016; Davies 1966; DSEWPaC 2012; Saunders 1974, 1979; Saunders et al. 1985; Storr 1991).

Breeding occurs in the south-west of the species range, bounded by Leschenault (near Bunbury), Collie (inland east of Bunbury) and Albany (DSEWPaC 2012). Breeding has also been recorded north of this area at Perth Hills, Harvey (BirdLife International 2016), Lowden (Johnstone & Storr 1998), Serpentine (hills area), and to the east at Kojonup (Johnstone & Kirkby 2008).

The southern and northern limits of the species range, from Albany to Gidgegannup and Mundaring, are for the most part connected by extensive tracts of forest (Saunders 1979). This, together with the dispersion of recent records, suggests that overall, the distribution of Baudin's Cockatoo is not particularly fragmented.

Relevant Biology/Ecology

Baudin's cockatoo occurs in temperate forest and woodland dominated by *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (Marri) and *E. diversicolor* (Karri). The species mainly feeds on the seeds and flowers of Marri, with their long beak making them particularly efficient at extracting the seed (Cooper et al. 2002). The species also takes the seeds of Jarrah, cultivated apples and pears, *Banksia* and *Hakea* species, *Erodium botrys* and insect larvae (Long 1985; Halse 1986; Department of Environment and Conservation (WA) 2007; Johnstone et al. 2010).

Baudin's cockatoo nests in the hollows of mature eucalypts, particularly Marri, Karri, *E. wandoo* (Wandoo), *E. gomphocephala* (Tuart) and *E. megacarpa* (Bullich) (Johnstone et al.2010, Western Australian Museum 2017). The species usually lays two eggs between August and December, although only one young is reared (Western Australian Museum 2017). Breeding success is only estimated at 0.6 young per pair (Johnstone & 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).

Baudin's cockatoo is gregarious. It is usually seen in groups of three (comprising the adult pair and a single dependent young) or in small parties, but will occasionally gather in large flocks of up to 300 birds during the non-breeding season, usually at sites where food is abundant (Higgins 1999; Storr 1991).

A generation time of 19.2 years (Garnett et al. 2011) is derived from an age at first breeding of 4.0 years and maximum longevity of 34.4 years, both extrapolated from *C. latirostris* (Carnaby’s black-cockatoo).

Threats

The primary threats to Baudin’s cockatoo are nest hollow shortage, ongoing illegal shooting by orchardists and competition for nest hollows with other species.

**Table 1** – Threats impacting the Baudin’s cockatoo in approximate order of severity of risk, based on available evidence.

|  |  |  |
| --- | --- | --- |
| **Threat factor** | **Threat type and status** | **Evidence base** |
| Breeding hollows | | |
| Shortage of hollows | known present | Nest hollow shortage is considered a 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 & Whitford 2002; Chapman 2008). Nest hollows are likely to continue to be lost to vegetation clearance associated with mining (Chapman 2008) and fire. Fires caused by lightning or arson, and sometimes planned fires, cause older trees containing hollows to fall, and also temporarily reduce food availability (DSEWPaC 2011). |
| Competition for hollows | known present | Competition for hollows is severe, with other cockatoos, including Carnaby’s black-cockatooand *Cacatua* species (corellas), *Chenonetta jubatta* (wood ducks) and feral European honey bees (*Apis mellifera)* all successfully displacing Baudin’s cockatoos (Johnstone & Cassarchis 2004; Chapman 2008; Johnstone & Kirkby 2007). |
| Illegal killing | | |
| Shooting by orchardists | known present | Baudin’s cockatoo is known to damage fruit crops, particularly pears and apples, and there is ongoing evidence that farmers still illegally shoot birds as a method of control (Chapman 2008), despite the species being protected since 1996 (Mawson & Johnstone 1997). Illegal shooting by orchardists may be limiting recovery of the population (Chapman 2008). |
| Land clearing | | |
| Land clearing for agriculture | known past | The species no longer occupies up to 25 percent of former habitat that has been cleared for agriculture (Mawson & Johnstone 1997). |

Assessment of available information in relation to the EPBC Act Criteria and Regulations

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| **Criterion 1. Population size reduction (reduction in total numbers)**  Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4 | | | | |
|  | **Critically Endangered**  **Very severe reduction** | | **Endangered**  **Severe reduction** | **Vulnerable**  **Substantial reduction** |
| **A1** | **≥ 90%** | | **≥ 70%** | **≥ 50%** |
| **A2, A3, A4** | **≥ 80%** | | **≥ 50%** | **≥ 30%** |
| A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.  A2 Population reduction observed, estimated, inferred or suspected in the past where the causes of the reduction may not have ceased OR may not be understood OR may not be reversible.  A3 Population reduction, projected or suspected to be met in the future (up to a maximum of 100 years) [(*a) cannot be used for A3*]  A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible. | | (a) direct observation [*except A3*]  (b) an index of abundance appropriate to the taxon  *based on any of the following:*  (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat  (d) actual or potential levels of exploitation  (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites | | |

Evidence:

Baudin’s cockatoo has disappeared from about 25 percent of its range and has likely declined in density over a further 25 percent (Garnett & Crowley 2000). Thus, the species has declined over more than 50 percent of its range (Garnett & Crowley 2000) over the past 50 years. The principal cause of the decline in range was clearing of the eastern margins of the forests for agriculture (Mawson and Johnstone 1997). The population appears to be declining because the reporting rate for the Atlas of Australian Birds (Birds Australia WA) declined by up to 49 percent between the 1977–1981 and 1998–2001 surveys (Olsen et al. 2003).

Given the lack of any recent quantitative data, Garnett et al. (2011) inferred the rate of decline from changes in habitat and competition to be more than 50 percent in three generations (58 years).

The evidence presented above suggest that it is likely that the species is eligible for **listing as Endangered** under this criterion. However, the purpose of this consultation document is to elicit additional information to better understand the species’ status. This conclusion should therefore be considered to be tentative at this stage, as it may be changed as a result of responses to this consultation process.

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| **Criterion 2.** **Geographic distribution as indicators for either extent of occurrence AND/OR area of occupancy** | | | |
|  | **Critically Endangered**  **Very restricted** | **Endangered**  **Restricted** | **Vulnerable**  **Limited** |
| B1. Extent of occurrence (EOO) | **< 100 km2** | **< 5,000 km2** | **< 20,000 km2** |
| B2. Area of occupancy (AOO) | **< 10 km2** | **< 500 km2** | **< 2,000 km2** |
| AND at least 2 of the following 3 conditions indicating distribution is precarious for survival: | | | |
| (a) Severely fragmented OR Number of locations | **= 1** | **≤ 5** | **≤ 10** |
| (b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals | | | |
| (c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations;( iv) number of mature individuals | | | |

Evidence:

The extent of occurrence (EOO) is estimated at 146 000 km2 and the area of occupancy (AOO) is estimated at 4 200 km2. These figures are based on the mapping of point records from 1997 to 2017, obtained from state governments, museums, CSIRO and Birdlife Australia. The EOO was calculated using a minimum convex hull, and the AOO calculated using a 2x2 km grid cell method, based on the IUCN Red List Guidelines 2014 (DOEE 2017).

As neither the extent of occurrence or area of occupancy are limited, the data presented above appear to demonstrate the species is **not eligible for listing under this criterion**. However, the purpose of this consultation document is to elicit additional information to better understand the species’ status. This conclusion should therefore be considered to be tentative at this stage, as it may be changed as a result of responses to this consultation process.

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| **Criterion 3. Population size and decline** | | | | |
|  | | **Critically Endangered**  **Very low** | **Endangered**  **Low** | **Vulnerable**  **Limited** |
| Estimated number of mature individuals | | **< 250** | **< 2,500** | **< 10,000** |
| AND either (C1) or (C2) is true | |  |  |  |
| C1 An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future) | | **Very high rate**  **25% in 3 years or 1 generation**  **(whichever is longer)** | **High rate**  **20% in 5 years or 2 generation**  **(whichever is longer)** | **Substantial rate**  **10% in 10 years or 3 generations**  **(whichever is longer)** |
| C2 An observed, estimated, projected or inferred continuing decline AND its geographic distribution is precarious for its survival based on at least 1 of the following 3 conditions: | |  |  |  |
| (a) | (i) Number of mature individuals in each subpopulation | **≤ 50** | **≤ 250** | **≤ 1,000** |
| (ii) % of mature individuals in one subpopulation = | **90 – 100%** | **95 – 100%** | **100%** |
| (b) Extreme fluctuations in the number of mature individuals | |  |  |  |

Evidence:

There is no recent robust estimate of the adult population for Baudin’s cockatoo. Surveys in 1995–2004 suggested that the population was probably 10 000–15 000 individuals, but that only ten percent bred in any one year (Garnett et al. 2011). The Bird Action Plan 2010 (Garnett et al. 2011) estimated the total population was around 12 500 and likely declining. This estimate was thought to have a medium reliability.

The data presented above appear to demonstrate the species is **not eligible for listing under this criterion**. However, the purpose of this consultation document is to elicit additional information to better understand the species’ status. This conclusion should therefore be considered to be tentative at this stage, as it may be changed as a result of responses to this consultation process.

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| **Criterion 4. Number of mature individuals** | | | |
|  | **Critically Endangered**  **Extremely low** | **Endangered**  **Very Low** | **Vulnerable**  **Low** |
| Number of mature individuals | **< 50** | **< 250** | **< 1,000** |

Evidence:

There is no recent robust estimate of the adult population for Baudin’s cockatoo. Surveys in 1995–2004 suggested that the population was 10 000–15 000 individuals, but that only ten percent bred in any one year (Garnett et al. 2011). The Bird Action Plan 2010 (Garnett et al. 2011) estimated the total population was around 12 500 and likely declining. This estimate was thought to have a medium reliability.

The data presented above appear to demonstrate the species is not eligible for listing under this criterion. However, the purpose of this consultation document is to elicit additional information to better understand the species’ status. This conclusion should therefore be considered to be tentative at this stage, as it may be changed as a result of responses to this consultation process.

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| **Criterion 5. Quantitative Analysis** | | | |
|  | **Critically Endangered**  **Immediate future** | **Endangered**  **Near future** | **Vulnerable**  **Medium-term future** |
| Indicating the probability of extinction in the wild to be: | **≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)** | **≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)** | **≥ 10% in 100 years** |

Evidence:

As a population viability analysis appears not to have been undertaken, there is insufficient data to demonstrate if the species is eligible for listing under this criterion. However, the purpose of this consultation document is to elicit additional information to better understand the species’ status. This conclusion should therefore be considered to be tentative at this stage, as it may be changed as a result of responses to this consultation process.

Conservation Actions

Recovery Plan

Baudin’s cockatoo is currently included in the Forest Black Cockatoo (Baudin’s Cockatoo *Calyptorhynchus baudinii* and Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso*) Recovery Plan (Chapman 2008). This recovery plan sunsets in October 2021. A decision about whether there should be a recovery plan for this species after that plan has expired has not yet been determined, and should only be made after the current plan is reviewed.

Primary Conservation Actions

The primary conservation actions for this species are to limit the amount of illegal shooting and to increase the number of nest hollows through limiting further mature tree loss and by installing artificial nest hollows.

Conservation and Management Priorities

Nest hollow shortage

Determine and implement ways to remove feral honeybees from nest hollows.

Identify factors affecting the number of breeding attempts and breeding success and manage nest hollows to increase recruitment.

Limit activities that lead to a loss of mature hollow-bearing trees.

Illegal shooting

Determine and promote non-lethal means of mitigating fruit damage by Baudin’s cockatoo in orchards.

Eliminate illegal shooting through a targeted education and communication program combined with appropriate enforcement strategies.

Develop and implement guidelines to allow for the use of noise emitting devices in orchards in areas near population centres.

**Survey and Monitoring priorities**

Undertake monitoring to assess population size and distribution.

**Information and Research priorities**

Determine and implement methods to minimise habitat loss from mining and urban development.

Determine and implement ways to manage forests for the conservation of forest black-cockatoos.

Identify important sites for Baudin’s cockatoo, and implement appropriate manage actions to protect the species from threatening processes.

Determine the patterns and significance of movement throughout the range of Baudin’s cockatoo.

Map feeding and breeding habitat critical to survival and important populations, and prepare management guidelines for these habitats.

**Collective list of questions – your views**

1. Do you agree with the current taxonomic position of the Australian Faunal Directory and Birdlife Australia for this species (as identified in the draft conservation advice)?
2. Can you provide any additional references, information or estimates on longevity, age of maturity, average life span and generation length?
3. Has the survey effort for this species been adequate to determine its national distribution and adult population size?
4. Do you accept the estimate provided in the nomination for the current population size of the species?
5. For any population with which you are familiar, do you agree with the population estimate provided? If not, are you able to provide a plausible estimate based on your own knowledge? If so, please provide in the form:

Lower bound (estimated minimum):

Upper bound (estimated maximum):

Best Estimate:

Estimated level of Confidence: %

1. Can you provide any additional data, not contained in the current nomination, on declines in population numbers over the past or next 10 years or 3 generations, whichever is the longer?
2. Is the distribution as described in the nomination valid? Can you provide an estimate of the current geographic distribution (extent of occurrence or area of occupancy in km2) of this species?
3. Has this geographic distribution declined and if so by how much and over what period of time?
4. Do you agree that the species is eligible for inclusion on the threatened species list, in the category listed in the nomination?
5. Do you agree that the threats listed are correct and that their effects on the species are significant?
6. To what degree are the identified threats likely to impact on the species in the future?
7. Can you provide additional or alternative information on past, current or potential threats that may adversely affect this species at any stage of its life cycle?
8. In seeking to facilitate the recovery of this species, can you provide management advice for the following:

* What individuals or organisations are currently, or need to be, involved in planning to abate threats, and any other relevant planning issues?
* What threats are impacting on different populations, how variable are the threats and what is the relative importance of the different populations?
* What recovery actions are currently in place, and can you suggest other actions that would help recover the species? Please provide evidence and background information.

1. Can you provide additional data or information relevant to this assessment?
2. Can you advise as to whether this species is of cultural significance to Indigenous Australians?

**References cited in the advice**

Abbott I & Whitford K (2002) Conservation of vertebrate fauna using hollows in forests of south-west Western Australia: strategic risk assessment in relation to ecology, policy, planning, and operations management. *Pacific Conservation Biology* 7, 240–255.

BirdLife International (2016). *Zanda baudinii.* The IUCN Red List of Threatened Species 2016. Viewed: 23 February 2017. Available on the internet at: <http://www.iucnredlist.org/details/full/22684727/0>

Chapman T (2008) *Forest Black Cockatoo (Baudin's Cockatoo Calyptorhynchus baudinii and Forest Redtailed Black Cockatoo Calyptorhynchus banksii naso) Recovery Plan*. Western Australia, Department of Environment and Conservation.

Cooper C (2000) Food manipulation by southwest Australian cockatoos. *Eclectus*, 8:3-9.

Cooper C, Withers PC, Mawson PR, Bradshaw SD, Prince J & Robertson H (2002) The metabolic ecology of cockatoos in the southwest of Western Australia. *Australian Journal of Zoology* 50, 67-76.

Davies SJJF (1966). The movements of the White-tailed Black-Cockatoos (*Calyptorhynchus baudinii*) in south-western Australia. *Western Australian Naturalist*, 10:33-42.

Department of the Environment and Energy (DOEE) (2017). Area of Occupancy and Extent of Occurrence for *Calyptorhynchus baudinii*. Unpublished report, Australian Government Department of the Environment, Canberra.

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2011) *Calyptorhynchus baudinii*. In ‘Spe­cies Profile and Threats Database’. Department of Sustain­ability, Environment, Water, Population and Communities, Canberra.

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2012) *Referral guidelines for three species of Western Australian black cockatoos*. DSEWPaC. Available from: <http://www.environment.gov.au/epbc/publications/wa-black-cockatoos.html>.

Garnett ST & Crowley GM (2000) *The Action Plan for Australian Birds 2000*. Canberra, ACT: Environment Australia and Birds Australia.

Garnett ST, Szabo JK & Dutson G (2011) *The Action Plan for Australian Birds 2010*. CSIRO Publishing, Collingwood, Victoria.

Halse SA (1986) *Parrot damage in apple orchards in south-western Australia - a review*. Department of Conservation and Land Management, Technical Report Number 8, Perth.

Higgins PJ (Ed.) (1999) *Handbook of Australian, New Zealand and Antarctic Birds*. Volume 4: Parrots to Dollarbird. Oxford University Press, Melbourne.

Johnstone RE & Cassarchis C (2004) ‘Review of cockatoo research project and Cockatoo Care 2004’. Water Corporation and the Western Australian Museum, Perth.

Johnstone RE & Kirkby T (2007) Feral European honey bees: a major threat to cockatoos and other tree hollow users. *Western Australian Naturalist* 25, 252–254.

Johnstone RE & Kirkby T (2008) Distribution, status, social organisation, movements and conservation of Baudin's Cockatoo (*Calyptorhynchus baudinii*) in South-west Western Australia. Records of the Western Australian Museum. 25:107-118.

Johnstone RE & Storr GM (1998) *Handbook of Western Austral­ian* Birds. Volume 1: Non-passerines (Emu to Dollarbird). Western Australian Museum, Perth.

Johnstone RE, Johnstone C & Kirkby T (2007) ‘White-tailed Black Cockatoos (Baudin’s Cockatoo *Calyptorhynchus baudinii* and Carnaby’s Cockatoo *Calyptorhynchus latirostris*) on the southern Swan Coastal Plain (Bunbury - Dunsbor­ough) Western Australia’. Western Australian Museum, Perth.

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 naso*) 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.

Long JL (1985) Damage to cultivated fruit by parrots in the south of Western Australia. *Australian Wildlife Research* 12, 75-80.

Mawson PR & Johnstone RE (1997) Conservation status of parrots and cockatoos in Western Australia. *Eclectus* 2, 4–9.

Olsen P, Weston M & Silcocks A (2003) The state of Australia’s birds 2003. *Wingspan* (Supplement) 13.

Saunders DA (1974) The occurrence of the White-tailed Black Cockatoo, *Calyptorhynchus baudinii*, in *Pinus* plantations in Western Australia. *Australian Wildlife Research* 1, 45-54.

Saunders DA (1979) Distribution and taxonomy of the White-tailed and Yellow-tailed Black Cockatoo *Calyptorhynchus* spp. *Emu* 79, 215-227.

Saunders DA, Rowley I & Smith GT (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 and Management'*. (Eds A Keast, HF Recher, H Ford and DA. Saunders) pp. 309-321.

Storr GM (1991) Birds of the South-west Division of Western Australia. Records of the Western Australian Museum. Suppl. 35.

Western Australian Museum (2017) Baudin’s cockatoo. Government of Western Australia. Viewed: 24 February 2017. Available on the internet at: <http://museum.wa.gov.au/explore/online-exhibitions/cockatoo-care/baudins-cockatoo>