



Fauna Note No. 1

Reducing Fruit Damage by Baudin's Cockatoo

Baudin's Cockatoo

There are two species of White-tailed Black-Cockatoo in south-west Western Australia. The long-billed species *Calyptorhynchus baudinii* is known as Baudin's Cockatoo and the short-billed species *Calyptorhynchus latirostris* is known as Carnaby's Cockatoo (Figure 1). It can be difficult to distinguish between these two species and their ranges overlap, especially during the non-breeding season. Only Baudin's Cockatoo is known to damage pome fruit (apple and pear) crops.

Baudin's Cockatoo is a large, black cockatoo 53-60 cm in length, with white cheek patches (Figure 2) and white on the tail feathers. Baudin's Cockatoo has a wide range of calls including a distinctive, shortened whistle 'we-ow'. In contrast, Carnaby's Cockatoo has a longer drawn out 'whee-loo' call. Another difference between the two species is that Baudin's Cockatoo has a longer bill.



Figure 1 Comparison of the heads of Carnaby's Cockatoo (left) and Baudin's Cockatoo (right) showing the longer and finer upper bill in Baudin's Cockatoo. Image reproduced with permission from the WA Museum.

Distribution and Habitat

Baudin's Cockatoo occurs in the high rainfall forests of the south-west of Western Australia (Figure 3). It nests in the hollows of mature Marri *Corymbia calophylla*, Karri *Eucalyptus diversicolour* and Jarrah *Eucalyptus marginata* in the lower south-west.

This black cockatoo mainly feeds on the seeds and flowers of Marri in the forested regions of the south-west, the seeds of the Proteaceous *Banksia grandis*, *B. littoralis*, *B. ilicifolia*, *Hakea undulata*, *H. prostrata*, *H. trifurcata*, and *Dryandra* spp, as well as *Erodium botrys*, Jarrah and insect larvae. It also feeds on apple and pear seeds in orchards.

Status

Baudin's Cockatoo 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 **Perth Metropolitan region, the City of Armidale and selected regional Shires**.

As a native species, Baudin's Cockatoo is protected under provisions of the *Wildlife Conservation Act 1950*, administered by the Department of Environment and Conservation (DEC). Under this Act, Baudin's Cockatoo is declared 'rare and likely to become extinct', because it has declined from over 50% of its range during the past 50 years due to land clearing and shooting by humans. However, because this species is large, noisy and congregates in large flocks in the non-breeding season, few people realise it is endangered.

These birds are very long-lived and individuals may survive in the wild for 25 to 50 years. Only around 10% of the population breeds each year and in years when Marri seed production is poor, the population may fail to raise any young at all.



Figure 2 Baudin's Cockatoo feeding on Marri (Photo Tony Kirkby / WA Museum).

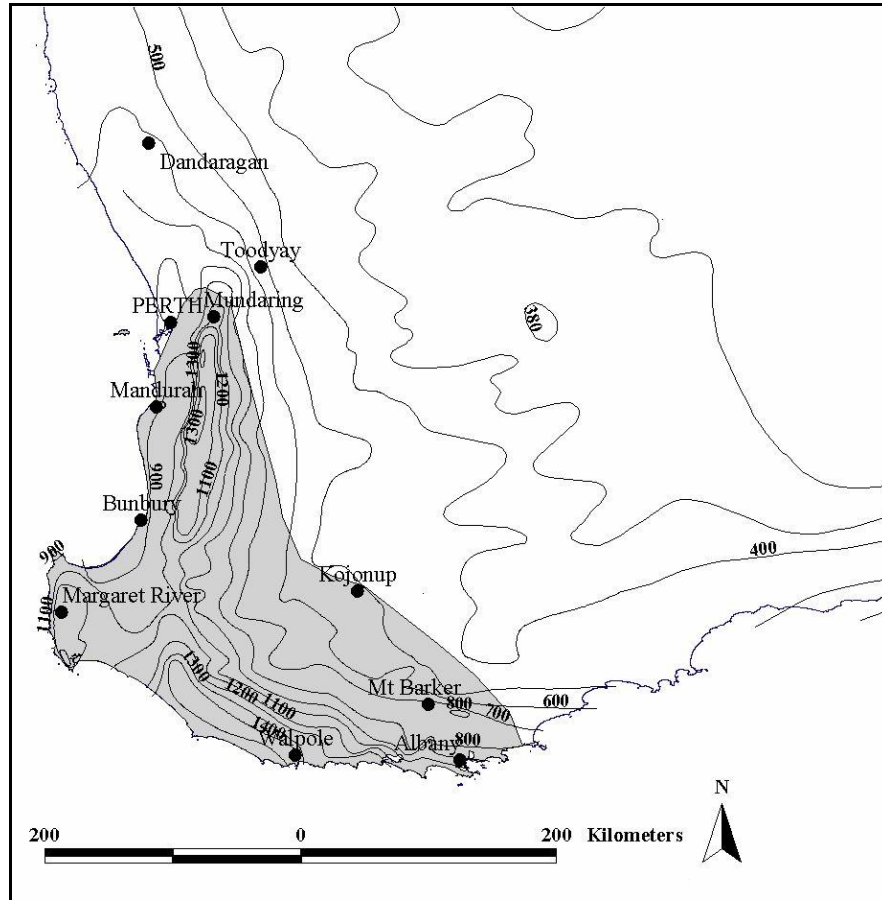


Figure 3 Distribution of Baudin's Cockatoo showing isohyets of average annual rainfall.

What damage do they cause?

Baudin's Cockatoo damages apples (particularly red-skinned varieties) and pears in commercial orchards. The fruit is damaged when the cockatoos extract the seeds. The branches of fruit trees may also be damaged by chewing, or in the process of landing and taking off.

In most years, the damage caused by Baudin's Cockatoo in individual orchards is minimal. However, localised damage can be severe and damage may be increasing in areas where Marri is declining.

Why do they cause damage?

The main reason Baudin's Cockatoo damages fruit trees is thought to be because of a local or seasonal shortage of Marri seed. Damage appears to be greater in years when Marri fails to produce seed or after loss of Marri trees due to clearing and fire.

Can I destroy them?

NO. *Baudin's Cockatoo is fully protected and it is illegal to kill it. Anyone found killing these birds may be prosecuted and the penalties are high.*

DEC's Wildlife Officers monitor interactions between people and wildlife in Western Australia and investigate reports of illegal shooting of Baudin's Cockatoo.

If you are prosecuted for killing Baudin's Cockatoo, you face:

- Confiscation of your firearms.
- A fine of up to \$10,000 for each offence under State legislation and a substantial fine or jail term under Commonwealth legislation.

Destroying cockatoos is not an effective means of controlling damage. Damage can be controlled effectively using well planned and managed non-lethal scaring techniques.

What is DEC doing about the damage caused by Baudin's Cockatoo in fruit crops?

DEC has an obligation to protect wildlife and it is up to private landholders to lawfully protect their crops from damage by birds. Baudin's Cockatoo is threatened by illegal shooting and DEC must act to protect the cockatoos. If illegal shooting of Baudin's Cockatoo continues at the present rate, the cockatoos are likely to become extinct.

In December 2004, a combined Baudin's Cockatoo and Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso* recovery team was established. The team has members from DEC, the Western Australian Museum, the Department of Agriculture and Food and the Western Australian Fruit Grower's Association. The recovery team has developed a plan to develop, research and communicate means of protecting apple and pear crops without having to kill the cockatoos.

Damage Control

Exclusion netting is the most effective means to prevent damage to crops by Baudin's Cockatoo. Apart from netting, the best means of controlling the damage caused by Baudin's Cockatoo is to use gas guns in combination with Bird Frite® cartridges. Studies indicate that scaring devices used in isolation may be ineffective, but when a number of devices (including Gas Guns and Bird Frite®) are used in combination, damage can be reduced.

It is important not to allow the birds to develop a habit of feeding at the crop. The birds should be repelled as soon as they approach the crop. The firing interval for gas guns should be changed frequently. Gas guns should be moved every two days, turned off at night and during the middle of the day. The use of gas guns and other noise emitting devices must comply with the laws governing noise production (e.g. [Environmental Protection \(Noise\) Regulations 1997](#)).

For more information on non-lethal damage control techniques, see *Further Reading*.

Further Reading

- Fauna Note No. 2. [Scaring and Repelling Birds to Reduce Damage](#). DEC, Western Australia.
- Fauna Note No. 3. [Netting to Reduce Bird Damage](#). DEC, Western Australia.
- [Bird Control in Orchards](#). DEC, Western Australia.

References

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

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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