# Fauna notes

# Information about Western Australia's fauna



# No. 22 Australian ringneck

The Australian ringneck (*Barnardius zonarius*) is also known as the twenty-eight parrot in the south-west of Western Australia. Australian ringnecks occur naturally throughout mainland Australia, excluding Victoria.

Department of

Environment and Conservation

# Description

The Australian ringneck is a green parrot with a long-tail, black head, yellow collar, blue cheeks and a green rump. They are 36-45 centimetres in length and 102-218 grams in weight. Females and immature birds are duller in colour than males.

The Port Lincoln parrot (*B. z. zonarius*), has yellow on the lower breast (Figure 1) and the twenty-eight parrot (*B. z. semitorquatus*), has an entirely green breast (Figure 2). A hybrid zone occurs between the two subspecies and for these birds, the amount of yellow on the breast varies.

Similar parrots to the Australian ringneck include the red-capped parrot (*Purpureicephalus spurious*) which has a distinctive yellow rump visible when the bird is flying away and the western rosella (*Platycercus icterotis*) which has yellow cheek patches and does not have a yellow collar like the Australian ringneck.



Figure 1 Australian ringneck, wheatbelt subspecies known as Port Lincoln parrot (*Barnardius zonarius zonarius*) (Photo David Cook / <u>Canberra Ornithologists Group</u>).

# **Distribution and habitat**

Australian ringnecks occur throughout Western Australia, including the forested areas of the south, the semi-arid woodlands of the Wheatbelt and many areas of the interior. They are plentiful in the grain and fruit-growing areas of the south-west where they commonly occur on roadsides and in orchards, parks, gardens and farmlands.

There are two subspecies of Australian ringneck in Western Australia. The twenty-eight parrot (*B. z. semitorquatus*) is confined to areas west and south-west of the Great Southern Highway while the Port Lincoln parrot (*B. z. zonarius*) occurs to the north and east of this line (see Figure 3). There is a broad zone of hybridization between the two distributions (Figure 3).



Figure 2 Australian ringneck, south-west subspecies known as twenty-eight parrot (*Barnardius zonarius semitorquatus*) (www.avianweb.com).

# Breeding

Australian ringnecks nest in the hollows of mature eucalypts. They begin to explore hollows in February and females enter hollows in June. Between July and October, two to eight (average five) eggs are laid. The eggs hatch after 20-22 days of incubation by the female. The young fledge five to six weeks after hatching (between October and December) and continue to be fed by their parents for about a week. Young birds remain with their parents for some weeks, but eventually form groups by themselves. Breeding success (percentage of eggs that yield free-flying birds) varies greatly depending on the conditions but has been measured at 75 per cent.

# Population changes

The Australian ringneck lives in a variety of habitats, feeds on a range of grain and weed seeds and has the potential to produce many offspring. It is because of these attributes that is has survived well in areas that have been developed for agriculture. It has not suffered any local extinctions or declines in any of the 85 south-west shires and populations have increased in the 14 shires bounded by the eastern edge of the Jarrah forest, from Beverley to Tambellup since 1970.

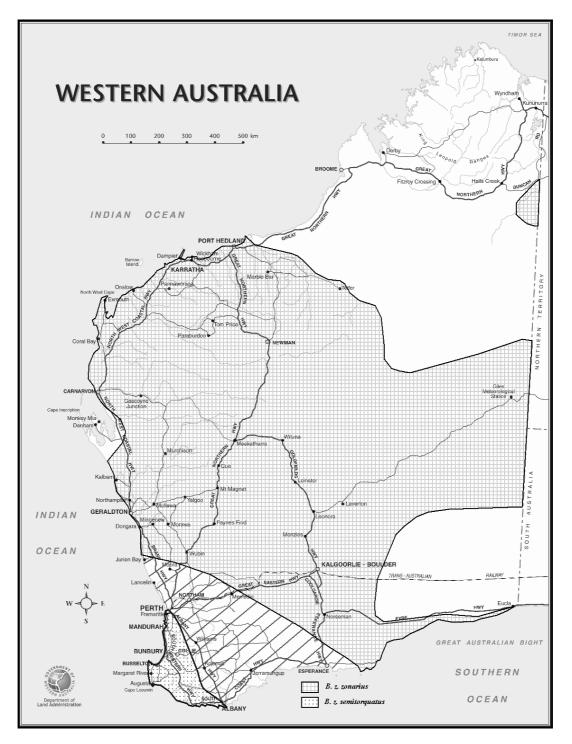


Figure 3 Distribution of the Australian ringneck in Western Australia showing the Port Lincoln parrot *(B. z. zonarius)* and the twenty-eight parrot *(B. z. semitorquatus)* with a hybrid zone between the two (Adapted from Johnstone and Storr (1998)).

#### Diet

Wheat (*Triticum aestivium*) and oats (*Avena sativa*) form a major part of the Australian ringneck's diet (oats were found in 95 per cent of birds in winter in one study). They also consume weed seeds including wild oats (*Avena fatua*), storksbill (*Erodium botrys*), capeweed (*Arctotheca calendula*) and thistles (*Carduus* spp.). They eat the seeds of flooded gum (*Eucalyptus rudis*) and marri (*Corymbia calophylla*), the flesh of apples and stone fruits, insect larvae and nectar. When nectar production by marri trees is poor, crop damage may increase.

#### Behaviour

Australian ringnecks are sedentary, remaining close to their breeding sites and roosting and foraging nearby. They are often seen in pairs or small parties feeding on the ground or in foliage. However, larger flocks gather at food sources like orchards or spilt grain, particularly during summer and autumn when parrot numbers are high due to the recruitment of young birds. The ringnecks can cause damage to crops when food shortage is combined with a large number of young.

# Damage

In the south-west of Western Australia, Australian ringnecks damage cultivated fruit crops (particularly red and yellow apple varieties) between February and June. The damage is usually low (usually less than 5 per cent), but it occasionally becomes moderate or high. The birds can also damage nut crops and grape vine shoots when the vines are being trained onto trellises. Damage to protea flower crops occurs mainly between May and September but levels vary from area to area.

Ringnecks damage blue gums (*E. globulus*) and other tree crops by stripping the bark from the stem, apparently seeking the sap and plant tissue. The damaged stems sometimes break off causing trunk deformities, which can make the trees unsuitable as sawlogs and lower their value as chip logs. Damage levels vary between sites.

Damage to the grass tree (*Xanthorrhoea preissii*) occurs in native vegetation remnants in the Wheatbelt. Ringnecks chew the green fronds which can result in the death of the tree. This can cause local extinction of grass trees in some areas.

# Status and damage reduction

The Australian ringneck is 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 various areas of the state.

As a native species, the Australian ringneck is protected under the provisions of the *Wildlife Conservation Act 1950*, administered by the Department of Environment and Conservation (DEC). Under this Act, ringnecks can be shot on private land in accordance with an open season notice without the need to obtain a damage licence from DEC. The area covered by the notice comprises the south-west land division and Eucla division, excluding the Perth metropolitan region and the municipal districts of Bunbury and Mandurah. In these open season areas ringneck populations are secure and damage to agriculture is likely to be an ongoing problem.

Outside the open season area, a damage licence must be obtained from DEC prior to shooting. For more information, contact DEC and refer to Fauna note no. 9. Destruction of birds to reduce damage. DEC, Western Australia.

Destruction should be viewed as a last resort after all other control options have been attempted. For other management options see the notes listed under further reading. A strategy comprising a number of techniques will probably be needed to reduce damage caused by Australian ringnecks.

**Further reading** 

- Fauna rote no. 9. Destruction of birds to reduce damage. DEC, Western Australia.
- Fauna note no. 18. Options for parrot control. DEC, Western Australia.
- Fauna note no. 23. Red-capped parrot. DEC, Western Australia.
- Fauna note no. 24. Western rosella. DEC, Western Australia.
- <u>TreeNote 29</u>. Rectifying parrot damage in eucalypts in the greater than 450 mm rainfall zone of Western Australia.
  Department of Agriculture and Food, Western Australia.

### References

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

McNee, S.A. (1997) Damage to *Xanthorrhoea preissii* (Blackboy) by the Port Lincoln ringneck in the south-west of Western Australia. Boyup Brook Land Conservation District Committee Unpublished Report.

Mawson, P.R. and Long, J.L. (1995) Changes in the status and distribution of four species of parrot in the south of Western Australia during 1970-90. Pac. Cons. Biol. 2 (2): 191-199.

Ritson, P. (1995) Parrot damage to bluegum tree crops. Agriculture Western Australia Resource Management Technical Report 150.

Massam, M.C. (1990) Protea yields are reduced by native birds in south-west Western Australia. Agriculture Protection Board Unpublished Report.

Long, J.L. (1989) Breeding biology of four species of parrots in the south of Western Australia. Tech. Series No. 6. Agriculture Protection Board, South Perth.

Long, J.L. (1985) Damage to cultivated fruits by parrots in the south of Western Australia. Aust. Wildl. Res. 12: 75-80.

Long, J.L. (1984) The diets of three species of parrots in the south of Western Australia. Aust. Wildl. Res. 11:357-371.

# **Further information**

Contact your local DEC office.

See the department's website for the latest information: <u>www.dec.wa.gov.au</u>.

Last updated 22 June 2009

#### **Further Information**

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

See the Department's website for the latest information: www.dec.wa.gov.au.



Department of Environment and Conservation

Our environment, our future

Disclaimer: This publication may be of assistance to you but the State of Western Australia and its officers do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.