

Fauna notes

Information about Western Australia's fauna











No. 17 Wedge-tailed eagle

Description

The wedge tailed eagle (*Aquila audax*) is Australia's largest bird of prey at 85-106 centimetres in length, 3.9-5.4 kilograms in weight and 1,900-2,500 centimetres in wing span. It is a large dark-brown to black eagle, with a wedge-shaped tail and feathered legs. The males are smaller than the females.

Immature birds, up to five years of age, are brown in colour and they darken as they age. Mature birds are almost black with reddish-brown feathers on the nape and wing coverts.



Figure 1 Wedge-tailed eagle (Photo www.australianfauna.com).

Distribution and habitat

The wedge-tailed eagle occurs over much of Western Australia in a range of habitats. It is most common in arid areas (pastoral country and the Nullarbor Plain) and uncommon in settled areas. Since European settlement, it has also become established in some areas where it did not previously occur. The clearing of forests, introduction of sheep and rabbits, and vehicles providing road-killed animals, have enabled the eagles to survive.

Diet

The wedge-tailed eagle has a generalised diet and preys on animals according to their relative abundance. It feeds mainly on mammals larger than 500 grams and will only feed on smaller animals when larger prey is unavailable.

The European wild rabbit *Oryctolagus cuniculus* is the main prey item of the wedge-tailed eagle across much of Australia and larger

rabbits are preferred. The eagles take a range of other live prey, including kangaroos, wallabies, other native mammals, foxes *Vulpes vulpes*, feral cats *Felis catus*, birds and lizards. They also feed on carrion such as dead livestock, especially lambs and road-killed animals.

Although it is considered a diurnal species (active during the day), the wedge-tailed eagle also hunts for prey before sunrise, after sunset and on moonlit nights.

Breeding

The wedge-tailed eagle constructs a very large stick nest up to 1.8 metres in diameter in the fork of a tree or on the ground on some islands. The nest is lined with fresh eucalyptus leaves. Although old nests may be revived with new material in successive years, the eagles may also build new nests.

Two eggs are usually laid between June and September in the south-west, and a month earlier further to the north and east. Both parents incubate the eggs and feed the chicks. The eggs are incubated for 42-44 days and the young fledge after 79-88 days in the nest. If the food supply is poor, only one young survives to fledge.

The wedge-tailed eagle only begins to breed at three to four years of age and most begin to breed at six to seven years. Its ability to breed is regulated by the composition and quality of its diet.

In many areas the eagles rely heavily on a single food source, such as rabbits, and rabbit populations fluctuate widely due to the effects of drought, myxomatosis and rabbit calicivirus. The frequency and success of breeding varies with rabbit populations and non-breeding periods can last for up to four years. However, in the south-west of Western Australia, there has been no evidence of a decline in wedge-tailed eagle numbers since the introduction of calicivirus disease.

Behaviour

The wedge-tailed eagle is usually observed singly or in pairs, but large groups sometimes feed on carrion. It is commonly observed soaring at height, perching on dead trees or on the ground.

Even in times of food shortage due to drought, the wedge-tailed eagle is sedentary. It is territorial and will defend its territory when breeding. Territories are 30-100 kilometres squared and the size of the territory is thought to be related to long-term food availability. At three sites studied in different areas of Western Australia, the density

of eagles was three to six birds per 100 kilometres squared. Young eagles can disperse up to 800 kilometres from the nest site.

Damage

Wedge-tailed eagles are often blamed for killing lambs and other young domestic animals and are therefore regarded as a pest by some pastoralists and sheep farmers. In Western Australia, bounties were paid on wedge-tailed eagles between 1928 and 1968. However, bounties were abandoned when studies showed that the number of lambs taken by eagles in the arid zone made up only a small proportion of the total lambs lost each year. In fact, the eagles probably play an important role in helping to dispose of dead animals and in controlling rabbit numbers.

Post-mortem examination of carcases is recommended to establish if wedge-tailed eagles are killing healthy animals. It is important to establish the cause of death of healthy animals because the actual cause of death may be overlooked if eagles are falsely thought to be responsible. For more information see Farm note 62/2001: Are foxes killing your lambs? Department of Agriculture, Western Australia.

Status and damage reduction methods

The wedge-tailed eagle 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 wedge-tailed eagle is protected under the provisions of the *Wildlife Conservation Act 1950*, administered by the Department of Environment and Conservation (DEC). The shooting of wedge-tailed eagles is not permitted but damage licences may be issued by DEC to shoot to scare the eagles away from livestock.

References

Sandell, P.R. and Start, A.N. (1999) Rabbit Calicivirus Disease Program Report 4: Implications for Biodiversity in Australia. A report of research conducted by participants of the Rabbit Calicivirus Disease Monitoring and Surveillance Program and Epidemiology Research Program. Prepared for the RCD Management Group. Bureau of Rural Sciences, Canberra.

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

Richards, J.D. and Short, J. (1998) Wedge-tailed eagle *Aquila audax* predation on endangered mammals and rabbits at Shark Bay, Western Australia. *Emu* 98: 23-31.

Robertson, G. (1987) Effect of drought on a breeding population of wedge-tailed eagles *Aquila audax*. *Emu* 87:220-223.

Ridpath, M.G. and Brooker, M.G. (1986) Age, movements and the management of the wedge-tailed eagle, *Aquila audax* in arid Western Australia. *Aust. Wildl. Res.* 13: 245-260.

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Brooker, M.G. and Ridpath, M.G. (1980) The diet of the wedge-tailed eagle, *Aquila audax* in Western Australia. *Aus. Wildl. Res.* 7: 433-452.

Further reading

- Fauna note no. 2. Scaring and repelling birds to reduce damage. DEC, Western Australia.
- Fauna note no. 13. Decoy feeding providing alternative food to birds to reduce damage. DEC, Western Australia.

Further information

Contact your local DEC office.

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

Options for reducing damage caused by wedge-tailed eagles

Option	Application	Benefits	Costs
Sheep management	Time lambing to coincide with your neighbours so that eagles are not attracted to the one area. Use small well-sheltered lambing paddocks near the homestead so ewes are present to defend and feed lambs, lambs are kept warm and farm activities scare off birds. Farmnote 62/2001: Are foxes killing your lambs? Department of Agriculture, Western Australia.	Low-cost solution. Management is usually only required for a short period each year until lambs and other animals are one to two weeks old.	
Scaring	Various devices, most effective when used in combination. Fauna Note No. 2. Scaring and Repelling Birds to Reduce Damage. DEC, Western Australia.	Humane and safer in built-up areas. Scaring is most likely to be effective when used as soon as eagles appear.	Often costly, must be applied intensively. Scarers may breach noise regulations and explosive cartridges can be a minor fire risk.
Alternative food	Place animal carcases away from stock paddocks. Continue shooting to scare around stock so the eagles move to the undisturbed carcase. Fauna note no. 13. Decoy feeding – providing alternative food to birds to reduce damage. DEC, Western Australia.	Less expensive than other methods.	Food supply must always be available during lambing otherwise the birds could shift back to the protected stock.
Poisoning	Illegal under the Wildlife Conservation Act 1950.		Baits/carcases can remain poisonous for months, affecting other animals, including farm dogs.

Last updated 18 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.



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