Wedge-tailed Eagle (*Aquila audax*)

# Description

The Wedge-tailed Eagle is Australia's largest living bird of prey and one of the largest eagles in the world. It reaches 0.85 − 1.05m in length and has a wingspan of 2.3m. Females are larger than males, averaging 4.2kg in weight and occasionally reaching 5.3kg. Males usually weigh about 3.2kg but may reach 4.0kg.

Young Wedge-tailed Eagles are mid-brown in colour with reddish-brown heads and wings. They become progressively blacker for at least the first ten years of their lives. Adults are mostly dark blackish-brown. Adult females are generally slightly paler than their mates. There are no other plumage differences between the sexes. The bill is pale pink to cream, the iris brown to dark brown, and the feet off-white.

The Wedge-tailed Eagle has long wings, a characteristic long, wedge-shaped tail, and legs that are feathered all the way to the base of the toes. In comparison, Australia's second largest eagle, the White-bellied Sea-Eagle, Haliacetus leucogaster, has shorter, more rounded wings and no feathers on its lower legs. The White-bellied Sea Eagle is 0.75 − 0.85m long and has a wingspan of 1.8 − 2.2m and weighs 2.5 − 3.7kg (male) and 2.8 −4.2kg (female).

# Distribution and Habitat

The Wedge-tailed Eagle is found throughout mainland Australia, Tasmania and southern New Guinea, from sea level to mountainous alpine regions. It prefers wooded and forested land and open country, generally avoiding rainforest and coastal heaths. Eagles can be seen perched on trees or poles or soaring overhead to altitudes of up to 2000m.

Wedge-tailed Eagles build their nest in a prominent location with a good view of the surrounding countryside. It may be built in either alive or dead tree, but usually the tallest one in the territory. In some parts of Australia, where tall trees are absent, small trees, shrubs, cliff faces or even the ground may be used. The nest is a large structure of dead sticks, usually reused for years, often reaching considerable size. Nests 1.8m across, 3m deep and weighing about 400kg are known. Nests have a shallow cup on the top, lined with fresh twigs and leaves. Sticks are added while the bird stands in the nest. If these sticks are dropped outside the nest, no effort is made to retrieve them. Piles of dropped sticks 1.8m high have been recorded under the nest trees.

The density of active nests depends on the abundance of prey and other resources. In many years, nests are usually 2.5 − 4km apart. If conditions are particularly good, the distances apart may be less than 1km because the birds require smaller areas to find sufficient food.

# Human Impacts

The Wedge-tailed Eagle is the most common of the world's large eagles. It is nonetheless affected by several human activities. It has benefited by the opening of forests in eastern Australia and the increased availability of rabbits. Wedge-tailed Eagles however, are sensitive to forestry operations. In the more arid zones, extensive clearing has reduced the nesting resources. If a breeding pair is disturbed when preparing to lay eggs, they may abandon the nest.

Wedge-tailed Eagles were persecuted for many years for supposedly killing lambs. Bounties were offered for dead eagles, and large numbers were poisoned or shot − 147,237 in Western Australia between 1928 and 1968, and 162,430 in Queensland between 1951 and 1966. Indirect poisoning through Dingo baits and pesticides continues to be a major hazard. In Tasmania, the Wedge-tailed Eagle is threatened by habitat loss and deliberate persecution.

# Food and Feeding

Wedge-tailed Eagles eat both live prey and carrion. Their diet reflects the available prey, but the most important live items are rabbits and hares. Rabbits usually make up about 30 − 70% of the diet, but may be up to 92%. Other food items include lizards, birds (weighing over 100g) and mammals (usually weighing over 500g). Wedge-tailed Eagles will kill lambs, but these make up only a small percentage of their total prey.

Carrion is a major food source. Road kills and other carcasses are readily eaten. Many reports of preying on lambs result from birds scavenging already dead animals. Up to 20 birds may be seen around a carcass, although only two or three feed at a time.

Wedge-tailed Eagles may hunt singly, in pairs or in larger groups. Working together, a group of eagles can attack and kill animals as large as adult kangaroos. This explains the scientific name of the Wedge-tailed Eagle, which means 'bold eagle'. Under ideal conditions, an eagle can lift about 50% of its body weight. Often, eagles may store food items on a branch near the nest area.

# Breeding

Wedge-tailed Eagles are monogamous and apparently mate for life. If one bird of a pair is killed, the survivor will find a new mate. Established breeding pairs are territorial and live in the one area throughout the year, defending the area around their nest sites from other Wedge-tailed Eagles. (They are also known on occasion to attack intruding model airplanes, hang gliders, gliders, fixed-wing aircraft and helicopters). Beyond the territories are large home ranges where the birds hunt for food but do not defend. There is usually overlap between the home ranges of two or more breeding pairs and of non-breeding birds.

Breeding takes place between April and September, with most of it occurring in July. The timing may vary from location to location and from year to year according to the local availability of food. Both parents share in the duties of nest building, incubation and feeding of the young.

A clutch consists of one to three, usually two, 73 x 59 mm white eggs with varying amounts of reddish brown spots and blotches. These are laid at intervals of 2 − 4 days. Incubation starts with the laying of the first egg and requires 42 − 45 days. Because of the intervals between laying, the eggs do not hatch simultaneously. The first chick hatches larger than the second, which in turn is larger than the third. Survival rates of the chicks vary considerably depending on local conditions, including abundance of prey and the amount of disturbance in the nest area. A breeding pair usually rears only one young per clutch, although in a good year, two chicks may fledge in some nests. Because of the differences in size, the oldest and largest chick has the best chance of surviving. If food is scarce, it will kill and eat its smaller nest mates.

Chicks hatch covered with a white down. For five weeks or so, the adults must deliver food to their mouths. After this the chicks are able to recognise bits of food on the floor of the nest and can feed themselves. The young acquire their first feathers during the second week after hatching. If threatened by predators, the chicks lie flat in the nest, but will defend themselves if required. The adults, in contrast, do little to defend the young. The juveniles remain with the adults for about 11 weeks after leaving the nest. Young and non-breeding birds disperse, moving to wherever conditions are suitable. Juveniles are known to have moved over 850km in a 7-8 month period.