

Water Rat (Rakali) *Hydromys chrysogaster* (Geoffroy, 1804)

Size

Head and body length
231–345 (310) mm in males
245–370 (290) mm in females

Tail length

227–320 (275) mm in males
242–325 (272) mm in females

Weight

0.40–1.30 (0.80) kg in males
0.30–1.00 (0.60) kg in females



Photo: Babs & Bert Wells/Department of Conservation and Land Management

Subspecies

None officially recognised.

Description

The water rat is a large rodent with partial webbing between the toes of its hind feet, which act as paddles when swimming. The body colour is variable, from slate grey to black above, white to orange below. The fur is dense, soft and lustrous. The tail is thick, covered with black hair but with a white tip at the end. The muzzle is long, with many whiskers, and the ears are small.

Other common names

Beaver rat, over 50 Aboriginal names, which include 'Rakali' in south-west Western Australia.

Distribution



Key To Map: Dark grey = present distribution (distribution patchy within range)

The water rat is widely distributed around Australia and its offshore islands, New Guinea and some adjacent islands. It occurs in fresh brackish water habitats in the south-west of Western Australia, but occurs in marine environments along the Pilbara coastline and offshore islands.

Habitat

The water rat occupies habitat in the vicinity of permanent water, be this fresh, brackish or marine.

Behaviour

Nests are constructed in logs or at the end of tunnels dug into banks. In the winter months, the water rat spends less time in the water, and tends to feed on larger vertebrate prey. Prey is often carried to a frequently used feeding site. Unlike many other Australian rodents, the

water rat is not entirely nocturnal, with activity usually high at sunset, though animals have been seen foraging during the day. Individuals form territories. Home ranges in south-eastern Queensland are known to cover two to ten hectares, though these vary with habitat.

Diet

The water rat is an opportunistic predator, feeding upon large aquatic insects, fish, crustaceans and mussels. They are also known to feed on frogs, lizards, small mammals, fresh carrion, and birds. On Barrow Island, Western Australia, they are known to feed on turtle eggs and hatchlings.

Breeding

The water rat is known to breed throughout the year, but most breeding occurs from spring to late summer. Studies have identified that social factors, individual age, and climate can influence the time of breeding. Individual females usually breed when eight months old. Gestation is approximately 34 days. Up to five litters, each with three to four young, can be produced annually. Young gain independence after eight weeks.

Threatening processes

Natural predators include snakes (especially pythons), birds of prey, cats and large fish.

Conservation status

2000 IUCN Red List of Threatened Species	Not Listed
Western Australian Wildlife Conservation Act	Not Listed (Priority 4)
Environment Protection and Biodiversity Conservation Act	Not Listed

Management in Western Australia

- Curtail clearing and grazing around watercourse habitat by establishment of fencing.
- Reduce salinity around aquatic environments, which provide saline-sensitive food sources for the species.

Other interesting facts

- The water rat, platypus and seals are the only amphibious Australian mammals.

Selected references

Watts, C. H. S. and Aslin, H. J. (1981). The rodents of Australia. Angus and Robertson, Sydney.

Olsen, P.D. (1995). Water-rat. In R. Strahan (Ed.) The Mammals of Australia. Australian Museum and Reed Books. Chatswood, NSW.

Lee, A. K. (1995). The action plan for Australian rodents. Australian Nature Conservation Agency, Endangered Species Program Project Number 130.

Braithwaite, R.W., Morton, S.R., Burbidge, A.A. and Calaby, J.H. (1995). Australian names for Australian rodents. Australian Nature Conservation Agency in association with CSIRO Division of Wildlife and Ecology.

Website links

http://www.naturebase.net/projects/west_shield.html