



Wildlife Notes



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Information Notes for the
Land for Wildlife Scheme in Western Australia

Requirements for native mammals

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INTRODUCTION

If native mammals are to survive in today's landscape, with its mix of housing, industry, farmland and bush, it is important to be aware of what conditions they need, especially the size and condition of remnant vegetation needed to support a population.

What do animals need?

- food through all the four seasons and enough space in which to find it
- shelter from the elements and predators, especially foxes and cats
- the chance of meeting a mate
- the chance to disperse safely to new or vacant territories when the area in which they are born is 'full up', or becomes less suitable after an event such as a fire.

What are the main threats to survival?

- loss of suitable habitat with its food and shelter
- change in the intensity of predation or competition
- introduction of new predators, competitors or disease
- change in the frequency or severity of events such as fires or droughts
- destruction by modern technology, eg electrocution on powerlines or death on the roads

Landholders may be able to manage their property to provide conditions in which native fauna can flourish. Usually this will be by providing appropriate habitat, but it may also involve actions such as predator control, for example, fox and cat control to protect medium weight range mammals such as quendas or possums.

Below is a list of some of the native mammals which may now occur in remnant vegetation in the south-west of Western Australia, together with the size and type of habitat that they need, and some other requirements. It can be used to see if a particular remnant may be suitable for specific mammal populations, or how it could be improved. Management of remnant vegetation for



Fat-tailed Dunnart

specific fauna should also assist in maintaining other native fauna in the area, but care should be taken to ensure that very specific management requirements are not applied in such a manner so as to disadvantage other fauna.

It should also be noted that despite having a remnant of a suitable size with apparently suitable vegetation, the target fauna will not necessarily be present, nor will it necessarily be able to be established in the area.

For further information, contact *Land for Wildlife*.

About the authors

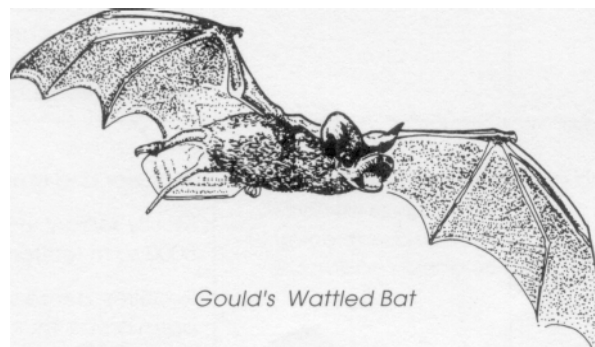
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Requirements for the 'home range' of some native mammals

| Animal | Size of remnant | Vegetation type | Other notes |
|--|--|---|--|
| Echidna <i>Tachyglossus aculeatus</i> | At least 200ha, providing there are termites. | Principally woodlands and heathlands. | Eats 10,000 termites a day, so remnant must have a large termite population. Nomadic, can cross 1 km-wide paddocks, moves when food exhausted or searching for mate. Requires safe resting sites under boulders or in hollow logs (large entrance size). |
| Chuditch <i>Dasyurus geoffroii</i> | At least 1000ha, forages widely, 10,000ha best for a chance of a viable population. | Any. Often patrols roadsides. | Top level carnivore, eats anything it can catch. Requires a medium hollow at ground level, or will dig a burrow under log or stump. Will also use old birds' nests. |
| Mardo <i>Antechinus flavipes</i> | At least 20ha | Prefers wooded areas with dense understorey, free of Phythophthora Dieback. | Eats invertebrates, so needs good litter layer for invertebrate density and diversity. Needs small hollow low down. |
| Red-tailed Phascogale <i>Phascogale calura</i> | At least 20ha | Woodland - especially stands of Rock Sheoak next to Wandoo. | Arboreal hunter of invertebrates, needs dense, continuous crown vegetation. Require small hollows, often high up. |
| Wambenger <i>Phascogale tapoatafa</i> | At least 200ha | Forest and Jarrah woodland. | Arboreal hunter of invertebrates, prefers dense crown vegetation. Require small hollows, often high up. Will use nest boxes. |
| Fat-tailed Dunnart <i>Sminthopsis crassicaudata</i> | Small, can survive in a rock pile in the centre of a paddock, moving up to 100m from it to forage. | Any, but most often found in open woodland and grassland. | Eats insects and other small organisms, will burrow for root-eating larvae. Requires small hollows or shelters beneath piles or rocks or fallen branches. |
| Numbat <i>Myrmecobius fasciatus</i> | 50-100ha per animal, probably at least 3000 ha for a viable population. | Prefers woodland and open forest. | Eats termites, so bushland must have a good litter layer for a healthy termite population. Shelters in hollow logs. |
| Quenda <i>Isoodon obesulus</i> | Around 5ha for a population, but larger is better. | Forest, woodland, thickets and coastal heaths. | An omnivore, it eats mainly invertebrates but will take young House Mice, for example. Often digs for prey, or to eat roots, tubers and fungi. Requires a rich ground level and soil invertebrate population, so dense leaf litter important. Requires dense low vegetation for daytime shelter. |
| Ring-tailed Possum <i>Pseudocheirus occidentalis</i> | At least 20 - 50ha depending on quality and diversity of habitat. | Forest of Jarrah, Marri and WA Peppermint in coastal areas. | Eats leaves, flowers and fruits. Prefers dense, lush vegetation in drainage lines (or gardens). Requires medium-sized hollows 3-6m off the ground. If hollows not available, eg in Peppermint woodland, it may build a drey. If it cannot find a suitable resting site by dawn, it may just curl up at the base of a tree or in sedges. Will use nest boxes. |

| Animal | Size of remnant | Vegetation type | Other notes |
|---|---|---|---|
| Brush-tailed Possum <i>Trichosurus vulpecula</i> | At least 2ha for one animal, depending on quality and diversity of habitat. | Open forest and woodland. | Eats leaves, flowers and fruits of a variety of species, including mistletoe. Also eats insects, eggs and small mammals. Can move quite long distances while foraging. Territorial, using scent and sound to maintain their space. Requires a medium-sized hollow 3-6m off the ground. The roof space of a house is ideal! Will also use nest boxes. |
| Pygmy Possum <i>Cercartetus concinnus</i> | Probably at least 25ha of suitable vegetation. | Sandplain, mallee, banksia woodland, Wandoo woodland. | Eats insects, mostly those attracted to flowers, thus requires a wide diversity of flowering plants. Mostly arboreal, but it may hunt on the ground. Can move up to 200m a night. Becomes torpid during the day, so requires a safe nest, often in Balga skirts. |
| Honey Possum <i>Tarsipes rostratus</i> | Probably at least 25ha of suitable vegetation. | Sandplain, mallee, banksia woodland. | Requires nectar every day of the year, thus must have a wide diversity of nectar-producing plants. Can move up to 200m a night to where plants are in flower. Requires daytime shelter in small hollows, often in Balga skirts. |
| Woylie <i>Bettongia penicillata</i> | At least 150ha. | Forest, woodlands and mallee. | Eats fungi, bulbs and tubers, seeds and some insects, thus an intact ground layer with leaf litter and bulbous plants is essential for its survival. Requires dense low vegetation for daytime shelter. |
| Black-flanked Rock Wallaby <i>Petrogale lateralis</i> | Probably at least 50ha, depending on Resources. | Complex rocky outcrops, with ledges, boulder piles, crevices and caves. | Grazer. Live in colonies on suitable rocks, feeding in open areas. Requires shelter beneath boulders, so the rock outcrops must have piles of tumbled boulders, crevices and caves. |
| Tammar Wallaby <i>Macropus eugenii</i> | Remnants 50-100ha in size, with good cover and food available. | Open forest, woodland with dense thickets. | A grazer of many different palatable leaves - including crop plants. Lives in loose family groups. Requires dense low vegetation for daytime shelter and open grassed areas for night-time feeding, thus remnants among paddocks are ideal. May move up to 1 km from its bush refuge to the feeding area, but often much less. |
| Brush Wallaby <i>Macropus irma</i> | Remnants 50-100ha in size. | Open forest and woodland - always feeds close to cover, seldom in paddocks. | A grazer and browser, including eating flowers. Mostly solitary, may spend its entire life within its 5000 sq m territory. Requires dense shrubby cover adjacent to small open areas, thus Wandoo wet flats often ideal. |

| Animal | Size of remnant | Vegetation type | Other notes |
|---|---|--|--|
| Grey Kangaroo <i>Macropus fuliginosus</i> | Home range probably around 1 sq km. | Any. Bushland adjacent to open areas favoured, | A grazer and browser. Lives in family groups led by a female, using a home range which varies in area according to the availability of resources. Males may wander further in search of mating opportunities. Requires shrubby understorey to rest during the day, with access to grazing. |
| Euro <i>Macropus robustus</i> | variable | Woodland and thickets, usually rocky, drier regions. | A grazer and browser. Tends to be solitary. Requires shelter among shrubs or boulders, grazing in open areas. Often uses lateritic breakaways or granite outcrops. |
| Bats | varies | Tree hollows, caves etc. | South west WA bats are mostly insectivorous and usually take insects on the wing. Require roosting space in daytime, varies according to species. |
| Water Rat <i>Hydromys chrysogaster</i> | 2 - depends on how productive the waterbody is. | Fresh-water rivers that flow all year. | A predator, it eats water insects, molluscs and crustaceans as well as frogs, small mammals and water birds. Requires a healthy fresh water habitat containing diverse water and bank life. Can survive where the water is marginally brackish if there is still a good food supply. Solitary, individuals defend their territories. Constructs a burrow in a bank or under a log or boulder. |
| Hopping mouse <i>Notomys mitchelli</i> | ? - now found only in large remnants. | Sandplain, mulga, mallee heath and spinifex over white and yellow sands. | Eats seeds and some insects. Lives communally in deep burrow systems, so requires sandy soil for digging. |
| Southern Bush Rat <i>Rattus fuscipes</i> | Probably around 2ha per individual. | Sandplain, woodland and open forest. | Principally eats seeds but also some other plant material, invertebrates and fungi. Prefers to forage in dense understorey, especially sedges. Constructs a burrow for breeding. |



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