

THE GENUS MALURUS

8 THE RED-BACKED WREN



Photo: "Bec"

The Red-backed Wren, *Malurus melanocephalus*, is endemic to Australia and can be found near rivers and coastal areas along the northern and eastern coastlines from the Kimberley in the northwest to the Hunter Region in New South Wales. Like other malurid wrens, this species displays marked sexual dimorphism. The male adopts striking breeding plumage of a black head and upperparts and tail, and brightly coloured red back and brown wings. The female has brownish upperparts and paler underparts. The



Photo: "Aviceda"

in eclipse plumaged male and juveniles resemble the female. Some males remain in non-breeding plumage while breeding.

This wren is predominately insectivorous, but supplements its diet with seeds and small fruits.

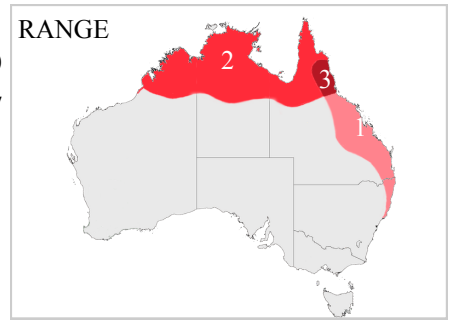
The preferred habitat is heathland and savannah, particularly where low shrubs and tall grasses provide cover. In areas where there are frequent bushfires it is nomadic, but pairs, or small groups, maintain and defend territories year-round in other parts of its range. A typical group consists of a socially monogamous pair with one or more "helper-birds" who assist in raising the young. "Helpers" are progeny that have attained sexual maturity but remain with the family group for one or more years after fledging. This species is sexually promiscuous, either partner may mate with other individuals and even assist in raising the young from such liaisons. During the courtship display, the male plucks red petals to exhibit to females.

The Red-backed Wren is most closely related to the White-winged Wren, *M. leucopterus*, with which it makes up a phylogenetic clade¹, with the White-shouldered Wren, *M. alboscapularius*, of New Guinea being the next closely related. Termed the *bicoloured wrens* by the ornithologist Richard Schodde, these three species are notable for their lack of head patterns and ear-tufts, and their mono-coloured black or blue plumage with contrasting shoulder or wing colour; they replace each other geographically across northern Australia and New Guinea.

¹ A clade is a group consisting of an organism and all its descendants.

There are two recognised subspecies:

- *M. m. melanocephalus*, the nominate subspecies, has an orange back and the longest tail and is found from northern coastal New South Wales through to North Queensland. This form was previously called the Orange-backed Wren.
- *M. m. cruentatus* occurs across Northern Australia from the Kimberleys to northern Queensland. It is smaller and brighter than the nominate subspecies, *Cruentatus* 'bloodstained' is derived from the Latin verb *cruentare* 'to stain with blood'.



1. *M. m. melanocephalus*
2. *M. m. cruentatus*
3. Broad hybrid zone

Map: "Gnangarra"

The smallest member of the malurid wrens, the Red-backed Wren measures 11.5cm (4½") and weighs between 5–10g (0.18–0.35oz), averaging around 8g (0.21 oz). The 6cm (2½") long tail is black in the breeding male, and brown in eclipse males, females and juveniles. The beak is relatively long, narrow and pointed, averaging 8.6mm (0.3"), and is wider at the base.

Like other malurid wrens, the Red-backed Wren shows marked sexual dimorphism; the male adopts full breeding plumage by the fourth year, later than all the others of the genus, apart from the closely related White-winged Wren. The female is similar to the eclipse male, with a buff brown body and a yellowish spot under the eye. The female of this species differs from those of other malurid species in that there is no blue tint in the tail. Juveniles of both sexes look very similar to females.

The territorial song of the Red-backed Wren is similar to that of other malurid species, a rolling reel consisting of an introductory note followed by repeated short song segments, starting low and soft and ending high and shrill with several syllables. The territorial song is most commonly given by the male during mating season. Foraging birds communicate with each other with a soft *ssst*, which is barely audible further than 10-15m (30-50 feet) away. The alarm call, common to both sexes, is a high-pitched *zit*.

The Red-backed Wren is endemic to Australia and can be found along rivers and the coast from Cape Keraudren in northern Western Australia through the Kimberleys, Arnhem Land and the Gulf Country and into Cape York, with the Selwyn Range and the upper reaches of the Flinders River being the southern limit. It is also found on nearby offshore islands: Groote Eylandt, Sir Edmund Pellew, Fraser, Melville and Bathurst Islands. It then occurs down the east coast, east of the Great Dividing Range, to



Blady-grass, a preferred habitat
Imperata cylindrica

Photo: "Sphl"

the Hunter River in New South Wales, the preferred habitat is wet, grassy, tropical or sub-tropical areas, that abound with tall grasses such as Blady-grass, species of *Sorghum*, and *Eulalia*.

While not a true migrant, the species may be locally nomadic due to seasonal changes in vegetation, and may wander from its usual territory after the breeding season. It will retreat to fire-resistant cover during a fire. Arid habitats are avoided.

The Red-backed Wren is diurnal, and is most active at dawn and then, in bursts, throughout the day. When not foraging they often roost side-by-side in dense cover and engage in mutual preening. The usual form of locomotion is hopping, with both feet leaving the ground and landing simultaneously. However, when performing the *rodent-run* display the bird involved may run. Balance is assisted by the relatively long tail, which is usually held upright and is rarely still. Like the other members of the genus the short, rounded wings provide good initial lift and are useful for short flights, but not for extended periods. Flight is generally a series of undulations for a maximum of 20 to 30m (60-100 feet).

Cooperative breeding is less common with this species than with others of the genus. Helper-birds have been reported, but as the Red-backed Wren has been little studied further study may prove that cooperative breeding is more commonly practiced than now thought.

Both sexes may utilise the *rodent-run* display to distract predators from the nest or young birds. Birds exhibiting this behaviour lower the head, neck and tail, hold out the wings and fluff out the feathers while rapidly running in an erratic manner and voicing a continuous alarm call.

The Red-backed Wren is insectivorous; eating a wide variety of insects, including beetles, bugs, grasshoppers, moths, wasps and cicadas. Spiders, insect larvae and eggs are also taken. Small amounts of seed and fruit are also eaten. Leaf litter, shrubbery and water edges are favourite foraging sites.

During the breeding season, the male moults its brown eclipse plumage and displays a livery of fiery red and black. It may fluff its red back and shoulder feathers out so they cover part of the wings in a *puffball-display*, which it uses to confront rival males, or to assert dominance over a female. Red petals and sometimes red seeds are plucked and presented to other birds. Ninety percent of the time, the male presents these offerings

to a female. In the other ten percent of cases, it presents the offering to another male, apparently as an act of aggression.

Paternity tests have shown that a mature male with bright plumage has the most mating success in the breeding season, usually mating with more than one female. A male of this type has a high sex drive and therefore makes more mating overtures towards females than one with browner or less bright plumage. A younger male with bright plumage, but with a lower sex drive, has a much lower mating success rate than a bright, older, male.

The breeding season is from August to February, which coincides with the arrival of the rainy season in northern Australia. The female does the bulk of the nest building although, unusually for the genus *Malurus*, the male does assist. The spherical nest is concealed in grass tussocks or low shrubs, and constructed of dried grasses, lined with smaller, finer grasses and hair. A series of nests examined in south-east Queensland were found to be larger and untidier than those in northern Australia. The Queensland nests measured 12-15cm (4.7-6") high by 9-12cm (3.5-6") wide with a partly covered 3-6cm (1.2-2.4") diameter entrance. Whereas the northern ones averaged around 10-13cm (4-5") in height by 6-8cm (2.4-3.2") wide with a 2-4cm (0.78-1.6") entrance. Nest building takes approximately seven days, but there may be an interval of up to another week before eggs are laid. The average clutch is three to four, white with reddish-brown spotted eggs that measure 14.5-17 x 10-13mm (0.57-0.67 x 0.39-0.51"). However, those of the southern subspecies are a little larger than those of the northern.

The female alone incubates the eggs for two weeks. The chicks fledge 11-12 days after hatching and are then hidden under cover for about a week. They are dependent on the parents and helpers for approximately a month after leaving the nest. Broods hatched early in the season help raise subsequent broods. The young stay as a clutch group for the season after hatching.

Red-backed Wrens, and their young, are preyed upon by feral cats, *Felis catus*, Foxes, *Vulpes vulpes*, as well as some rodent species. Native predatory birds, such as the Australian Magpie, *Gymnorhina tibicen*, Butcherbirds, *Cracticus* spp., the Blue-winged Kookaburra, *Dacelo leachii*, Crows and Ravens, *Corvus* spp., and Shrike-thrushes, *Colluricincla* spp., also take their toll. Goannas, *Varanus* spp., have been recorded as taking eggs or chicks.



Blue-winged Kookaburra
Photo: Adrian Pingstone



Goanna at Mount Coot-tha, Queensland

R.V.C. with help from Wikipedia

