

MOUNT LOFTY RANGES  
**SOUTHERN  
EMU-WREN**

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The endangered Mount Lofty Ranges Southern Emu-wren is a secretive bird that is unique to the Mount Lofty Ranges and Fleurieu Peninsula of South Australia. It is dependent upon our vanishing Fleurieu Swamps for its survival.



A female MLRSEW

Since 1993, habitat changes and restrictions have caused a steady drop in Mount Lofty Ranges Southern Emu-wren (MLRSEW) numbers on the Fleurieu Peninsula. Although this trend is clear, it is difficult to measure the true impact of habitat degradation on such a sensitive bird that is so seldom seen.

These wrens move secretively and close to the ground, their short, rounded wings keep their flight slow and journeys brief. Their tendency towards short flights of several metres makes it difficult to broaden MLRSEW populations, and highlights the importance of ideal swampy habitats to conceal their movement.

#### The Mount Lofty Ranges Southern Emu-wren

Emu-wrens (genus *Stipiturus*) are members of the passerine family *Maluridae* (Australian and New Guinean fairy-wrens) and are endemic to Australia. The MLRSEW (*S. malachurus intermedius*) is one of eight subspecies of the Southern Emu-wren.

#### Diet

The MLRSEW feeds mainly on small invertebrates, mostly insects, such as beetles, bugs, wasps and moths.

#### Appearance

The MLRSEW is a small bird weighing around 7 grams and is about 16–19 cm long, including the 9–12 cm characteristic filamentous tail comprising just six feathers (that look similar to emu feathers). Its wings are short and rounded. Both sexes are tawny-brown with dark striations on their upper-sides. Males are distinguished from females by pale-blue upper-breast, throat and eyebrows. Males retain their blue colouration throughout the year.

#### Communication

Pair or family group members tend to remain close together and maintain contact using faint high-pitched calls. The typical territorial call is a delicate high-pitched trill, often issued from an exposed perch (e.g. top of shrub), mostly by males. Alarm/scolding calls are brief, low-pitched and buzzy.

#### Breeding

The MLRSEW breeds during spring–summer. One or two broods are raised each season, with most young hatching between September and December. In good quality habitat, breeding pairs require around one hectare to breed successfully. Nests are domed, constructed mainly from loosely woven fine-leaved grasses and sedges, and are typically well concealed in dense cover around 30 cm above ground or water. The usual clutch size is three eggs, with young fledging around two weeks after they hatch. The young then remain hidden in dense cover for 1–2 weeks until they are more capable of flight and movement during family group foraging. MLRSEW young are independent by about three months of age and capable of breeding in the following season. Pairs sometimes commence a second brood before their young are fully independent.

#### Habitat

The MLRSEW inhabits two general habitat types: swamp and dry heath. A key structural feature of swamp and dry heath habitats is a low dense layer (>70% foliage cover and vertically dense), usually up to about one metre above ground, dominated by shrubs, sedges and ferns in swamps, and shrubs, sedges and wiregrass in dry heath. The MLRSEW is found in Fleurieu Peninsula Swamps, which are listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999*.



The filamentous tail of the MLRSEW is an iconic feature

Of the 16 known remaining Mount Lofty Ranges Southern Emu-wren populations are found in Fleurieu Swamps.

#### Distribution and population

The MLRSEW currently inhabits the Southern Mount Lofty Ranges–Fleurieu Peninsula region of South Australia, from Mount Compass in the north to Deep Creek in the south and east to the lower Finniss River. Its overall historical range is similar. It probably occurred wherever suitable habitat existed throughout its historical range, with a distribution that was naturally continuous in some areas and naturally fragmented in others.

#### Threats to our wrens

Surveys prior to 1993 are limited but the MLRSEW is known to have disappeared from several separate locations between 1920 and 1993 (Back Valley, Currency Creek, and Yundi), and from several specific sites adjacent current or recently occurring populations during the same period (including the Mount Compass area, Cox Scrub Conservation Park, Hindmarsh Tiers area).

Mount Lofty Ranges Southern Emu-wren distribution and abundance has continued to diminish since 1993, largely due to the ecological breakdown resulting from earlier vegetation clearance (e.g. habitat loss, small population size, isolation) but also due to land-use impacts (e.g. stock grazing) and natural habitat changes.

- From 1993–2012, 19 populations of MLRSEW were lost and there was a 35% decline in naturally occupied areas, although overall range effectively remained unchanged.
- In 2012, surveys found that only 16 of 54 previously known sites had MLRSEW.
- 10 of the 16 known populations are found in swamps with nearly all on privately owned land.
- Deep Creek Conservation Park holds the largest group of MLRSEW estimated to be around 100–250 mature individuals (in 2012).

#### Key threats

- Insufficient/poor habitat
- Vegetation structural/species changes (including land-use and climate change impacts)
- Wildfire
- Small population size
- Population/habitat isolation
- Swamp hydrology changes (including land-use and climate change impacts)
- Predation (relative importance of impacts uncertain, but potentially a major threat, especially to small populations).



#### Conservation status

The Mount Lofty Ranges Southern Emu-wren is listed as Endangered under the *Australian Government Environment Protection and Biodiversity Conservation Act (EPBC) 1999* and the *South Australian National Parks and Wildlife Act 1972*, due to its restricted geographical range, severely fragmented population, decline in distribution/habitat and small population size.

A rare sighting of the secretive MLRSEW



**A conservation strategy since 1994 has included a recovery plan to translocate some birds.**

Left: MLSREW wing feather detail

Right: A MLSREW nest at Cox Scrub Conservation Park

**Saving a local icon**

A conservation strategy since 1994 has included a recovery plan to translocate some birds and rehabilitate habitat in swamp and heath areas of the Fleurieu Peninsula.

Habitat and population management methods include:

- general education resources (e.g. newsletters, fact sheets, website)
- habitat management guidelines
- weed management advice and control
- grazing management advice and fencing
- site action plans for private landholders
- habitat suitability manipulation trials (using fire)

- population reintroduction to Cox Scrub Conservation Park
- new reserves, as direct initiative of recovery program (Stipiturus Conservation Park, Hesperilla Conservation Park, Gum Tree Gully Conservation Park, and several Heritage Agreement areas)
- extensive input to external management plans (e.g. fire-management)
- various research and monitoring projects
- population studies
- habitat studies (including external post-graduate projects)
- habitat/population fire-response
- population censuses.

**The factsheet series**



**For further information**

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