



BIRD

Stagonopleura bella

Beautiful Firetail

AUS	SA	AMLR	Endemism	Residency
-	R	E	-	Resident



Photo: © David Paton

Conservation Significance

The AMLR distribution is disjunct, isolated from other extant occurrences within SA. The species has been described as 'probably declining' within the AMLR.² Within the AMLR the species' relative area of occupancy is classified as 'Extremely Restricted'.³

Nationally, a number of published reports record declines in parts of its range (Immelmann 1982, Paton et al. 1994, Barrett et al. 2003).²

Geographically isolated in the AMLR at or near the western extreme of the southern distribution (possibly linked to South-East via Coorong) (G. Carpenter *pers. comm.* 2002).¹

Description

Smallest of the *Stagonopleura* firetails (average weight 9-15 g) (Rowland 1996). The most striking feature of their plumage, like all firetails, is the bright crimson rump (Immelmann 1982). Back and wings olive-brown and finely barred with blackish-brown. Head is olive-brown but with less prominent barring. Under-parts light grey with fine, prominent blackish-brown barring. Male and female have similar plumage, except in the female the centre of the abdomen is barred like the remainder of the under-surface, while in the male the centre is black. Immature birds lack the red bill, and are duller in colour with less prominent barring (Rowland 1996).²

Distribution and Population

Endemic to Australia occurring mainly on the eastern side of the Great Dividing Range and as far west as

the MLR and Kangaroo Island in SA (Blakers et al. 1984, Barrett et al. 2003). Blakers et al. (1984) identify a gap in the distribution of this species which isolates the MLR population. The New Bird Atlas did not find this gap, but no breeding records exist for the area of the reputed gap and those records were restricted to the autumn/winter period (Barrett et al. 2003).²

Restricted distribution in the AMLR, which appears to be related to specific vegetation types. Its stronghold in the region is Fleurieu Peninsula with most records coming from three locations, Deep Creek CP, Newland Head CP and Cox Scrub CP. Has declined in both range and abundance having been almost completely lost from the Adelaide Plains sub-region. Average recording rate across the region has declined from 19% to 4% of surveys for the pre-1980 to post-1995 periods. Locations from which this species is likely to have disappeared include Mount Compass, Chain of Ponds area and Aldinga Scrub.² The SA Atlas reported a 38% reduction in grid squares where this species was reported between 1974-75 and 1984-85, and the New Bird Atlas recorded a greater than 20% decline in reporting rate for the MLR and Kangaroo Island (Barrett et al. 2003; Paton et al. 1994).²

Post-1983 AMLR filtered records restricted to the areas south of Mount Bold Reservoir concentrated in Cox Scrub, Newland Head and Deep Creek CPs on Fleurieu Peninsula. Isolated records also from Onkaparinga River CP and Myponga CP.³

Pre-1983 AMLR filtered records indicate the species formerly had a more northerly distribution with records from Mount Crawford Forest and Black Hill CP and further south from Onkaparinga River, Mount Compass and Waitpinga.³

Habitat

Habitat requirements not well known, but they are recorded in a range of habitats including dense heath and thick forests especially near sheoaks and tea-trees (Palmer in press; Vincent 1971; Lashmar 1972).⁴ Also occurs in coastal and sub-coastal heaths and heathy woodlands. Has declined in parts of its range where clearance has been extensive and is confined to larger remnants (>100 ha). Availability of suitable food (seeds) throughout the year, access to water and dense shrubs for nesting are essential habitat requirements for this species (G. Carpenter *pers. comm.*).

Within the AMLR the preferred broad vegetation

Further information:

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groups are Coastal, Heathy Woodland and Wetland.³

Biology and Ecology

Generally occurs singly or in pairs, but during the non-breeding season lives in small flocks of up to 12 birds. Appears to be sedentary and has a large home range, up to several square kilometres. May use specific parts of this large home range for a few days before moving to a different area, and thereby cover the whole area over a period of time. Builds roosting nests that are similar to breeding nests, except they lack a tunnel entrance and are not lined (Immelmann 1982; Rowland 1996).²

Breeding season appears to be from September to January and two broods may be reared in succession. Two records of breeding in the MLR were in September and November (White Collection SA Museum). Nests are usually built relatively low in thick foliage and have been found in *Banksia*, introduced shrubs, namely Hawthorn (*Crataegus* spp.) and Gorse (*Ulex europaeus*). Nest is typical of firetails, being a spherical dome with a long tunnel entrance constructed with long pieces of green grass, but sometimes thin creepers such as *Clematis* sp. are used (Immelmann 1982; P. Cale pers. obs.).²

May lay clutches of five to eight eggs (Immelmann 1982; Rowland 1996). Incubation is performed in shifts by both sexes and takes 20-22 days, a longer period than for other grass-finch species. Nestlings remain in the nest for approximately 23 days (Rowland 1996). Palmer (in press) reports the maximum distance for dispersals from the ABBBS banding data is just over 2 km.²

Granivores foraging predominantly from low shrubs and grasses or on the ground. They take seed directly from plants and gather fallen seed. Food plants include both native and introduced species (Immelmann 1982, Palmer in press). The diet is most diverse during winter/spring, suggesting that this is the period of greatest seed scarcity for the species (Read 1994).²

As with most granivores, they need to drink and do so by scooping water into their beaks (Rowland 1996). Read (1994) reported all three species of firetail taking green vegetation as part of their diet and proposed that this behaviour might be a means of supplementing water when it is less readily available.²

Aboriginal Significance

Post-1983 records indicate the majority of the AMLR distribution occurs in Ngarrindjeri Nation. It also occurs

in Peramangk and Kaurna Nations.³

Threats

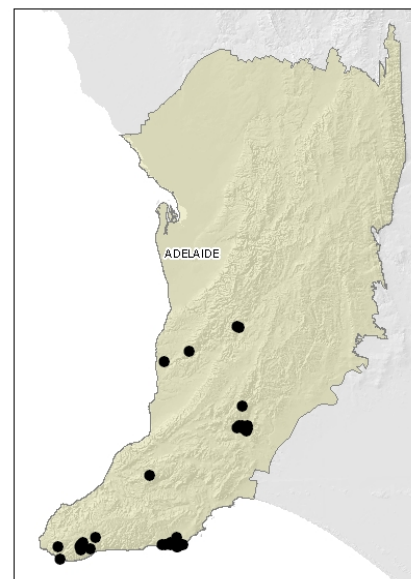
As with most bird species in the MLR, habitat loss or degradation is likely to be a major reason for the decline from wet forest and heathy woodland to swamps and coastal heathlands (Immelmann 1982, Rowland 1996). Habitat fragmentation is also having an impact and while the habitat types used by this species appear to have been naturally patchy, they have now been substantially reduced in both size and quality.²

Other threats may include: impacts of grazing and feral animals, weed invasion and fire (catastrophic loss from wildfires or inappropriate fire regimes).²

Wildfire events and inappropriate fire regimes are likely to be a major threat to current sub-populations of this species. The 1983 Ash Wednesday fires which burnt Cox Scrub CP resulted in the loss of Beautiful Firetails from this site, and it was two years before the species recolonised (Paton et al. 1994).²

Additional current direct threats have been identified and rated for this species. Refer to the main plan accompanying these profiles.

Regional Distribution



Map based on filtered post-1983 records.³ Note, this map does not necessarily represent the actual species' distribution within the AMLR.

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References

Note: In some cases original reference sources are not included in this list, however they can be obtained from the reference from which the information has been sourced (the reference cited in superscript).

1 Armstrong, D. M., Croft, S. N. and Foulkes, J. N. (2003). *A Biological Survey of the Southern Mount Lofty Ranges, South Australia, 2000-2001*. Department for Environment and Heritage, South Australia.

2 Cale, B. (2005). *Towards a Recovery Plan for the Declining Birds of the Mount Lofty Ranges*. Scientific Resource Document for Birds for Biodiversity. Unpublished Report.

3 Department for Environment and Heritage (2007). *Adelaide and Mount Lofty Ranges Regional Recovery Pilot Project Database*. Unpublished data extracted and edited from BDBSA, SA Herbarium (July 2007) and other sources.

4 Turner, M. S. (2001). *Conserving Adelaide's Biodiversity: Resources*. Urban Forest Biodiversity Program, Adelaide.

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