

TECHNICAL NOTE



Bell Miner Associated Dieback
WORKING GROUP

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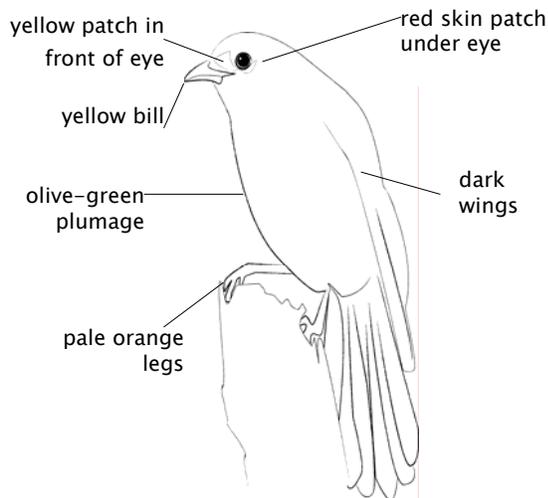
Bell Miner (*Manorina melanophrys*)

Taxonomy

Manorina, Greek origins describing the linear, arrow-shaped nostrils, *melanophrys* in reference to the black brow, common name derived from the call sounding like miners hammering rock in the distance.

Bird description

A small honeyeater about 190 mm and weighing between 25–35 gm. Birds are gregarious and are found in colonies of up to several hundred birds. Colonies of Bell miners are aggressive and are known to chase other species from their territory. They will also fiercely mob and scold intruders in their territory, including humans.



Bird call

It has a distinctive “tink tink” call that is piercing to the ear when the birds are in the lower canopy.

Biology

Breeding occurs throughout the year, with nests constructed by the female. However, an increase in breeding activity may occur during high rainfall periods, particularly between August through to

January. Young can breed after nine months but most do not until after fifteen months, many do not gain a breeding position until after they are fifteen months of age. Bell miners are monogamous (only have one mate). Birds other than the breeding pair assist in raising the brood. Anywhere up to 28 helpers may assist in raising a single brood of just two young. The males tend to remain in or habitually return to their natal territory, while females tend to disperse to a neighbouring colony around eight months of age, rarely moving further than 1.5 kilometres from the colony where they hatched.

Nests are built in low dense mid-storey vegetation below three metres. They are cup shaped and made of grass, rootlets, fine twigs and spiders web and are around 10 cm wide. Clutches vary between 1–3 eggs and are white to pale-pink with purplish or red-brown spots. Despite the breeding pairs being assisted by ‘helpers’ in rearing the young birds, the survival rate is low with only one in seven making it to three months of age. This is due mostly to predation by other bird species and reptiles.

Preferred food

Although Bell miners are described as honeyeaters, they feast on a sugary coating (lerp) found on the underside of leaves. The lerp is secreted by a tiny sap-sucking insect called a psyllid (*Glycaspis* spp.). Bell miners also eat a number of other invertebrates including spiders, flies, beetles and cockroaches, including the predators of psyllids. Nectar is consumed from some *Eucalyptus* and *Proteaceae* plants.

Distribution

Common along the east coast of Australia from Melbourne (Victoria) in the South to around Gympie (Queensland), and restricted more to coastal forest types, rarely found west of the Great Dividing Range.



Habitat

Bell miners prefer Eucalypt forests with dense understorey vegetation which is important for nesting and roosting. Colonies of Bell miners are often found in close proximity to riparian habitat, *Lantana* thickets, rainforest or wet sclerophyll understorey in central and northern NSW.

Ecology

Bell miners have been implicated in the demise of forests by assisting in the increasing abundance of psyllids that eventually lead to Bell miner Associated Dieback. The aggressive behaviour of Bell miners exclude other forest honeyeaters and removal trials show that soon after Bell miners are reduced in abundance (via habitat modification), other birds rapidly recolonise sites. Investigations are currently under way to find out more about the complex condition that has come to be known as 'Bell miner Associated Dieback'.

Further Reading

Information on Bell miner Associated Dieback is compiled on our web site found at <http://www.bmad.nsw.com.au>.

References

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