

THE NESTING BIOLOGY OF THE BROWN HONEYEATER *Lichmera indistincta* IN THE DARWIN REGION OF NORTHERN AUSTRALIA, WITH NOTES ON TIDAL FLOODING OF NESTS

DONALD C. FRANKLIN¹ and RICHARD A. NOSKE²

¹P.O. Box 987, Nightcliff, Northern Territory, Australia 0814. *E-mail*: monsoon@topend.com.au

²Science Faculty, Northern Territory University, Darwin, Northern Territory, Australia 0909

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In the Darwin region of northern Australia, the Brown Honeyeater nests in mangals (mangrove communities), woodlands and urban areas. Based on observations of 75 nests whose laying date could be estimated, the breeding season extends from April to September, a pattern that is consistent across years and habitats. Nests are usually built in shrubs and low twiggy growth of small trees, with a median nest height of 1.1 metre above the ground. The modal clutch size was 2, with a mean of 1.84, a small clutch size for such a small species (10 g), even by Australian standards. Both the incubation and nestling periods were approximately 13 to 13.5 days, slightly shorter than the 14 days previously reported. Females alone build, incubate and brood, but both sexes feed the young. Nest success was estimated to be 42 per cent, with most egg or nestling failures being the result of predation of the entire nest contents, or of flooding. Ten mangal nests were flooded by sea water during spring high tides. The period between full lunar cycle spring tide sequences (29–30 days) is slightly less than the time it takes a Brown Honeyeater to build a nest, lay and incubate the eggs and fledge the young. As a consequence, all nests built in mangals below about 7.4 metres Chart Datum would have been flooded. In mangals, Brown Honeyeaters may therefore only nest successfully in landward zones that are on higher ground and are thus subject to less deep inundation. At least three mangrove-endemic bird species are also obligate shrub-nesters, so preservation of landward mangrove zones may be critical for the conservation of mangrove bird communities.