

# Nest abandonment by Little Eagles *Hieraaetus morphnoides*: A comment on Rae *et al.* (2023)

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**Abstract.** Rae *et al.* (2023, *Australian Field Ornithology* 40, 17–19) suggested that a pair of Little Eagles *Hieraaetus morphnoides* might have abandoned their nest because of infestation of the nest by dermestid beetles. Here the context of their observations is discussed, leading to the conclusion that the nest abandonment might have alternative explanations.

A paper by Rae *et al.* (2023) described nest abandonment, at the renovation and lining stage, by a pair of Little Eagles *Hieraaetus morphnoides* in the Australian Capital Territory (ACT) after the nest was infested by beetles (Coleoptera), most likely dermestids which can be detrimental to the breeding of raptors. Missing from their paper is an account of the full context of the episode, which may help to explain the behaviour of the pair of Eagles. That context was given elsewhere (Olsen 2019; Larkin *et al.* 2020; Debus 2022) but not addressed by Rae *et al.* (2023).

The original, light-morph pair occupying the subject nest (here Nest 1) was known as the 'Strathnairn' pair, of which the colour-banded male was satellite-tracked on autumn migration to the Top End of the Northern Territory in 2017, after the pair had raised a fledgling to independence from this nest in summer 2014–2015 and 2015–2016 (Olsen *et al.* 2017a,b; Brawata *et al.* 2018; Olsen 2019). The male was briefly re-sighted (by colour-bands) back on his Strathnairn territory in August 2017, after his transmitter had failed, but neither he nor his mate (which had not been marked or tracked) was subsequently detected on that territory. Meanwhile, the area had been urbanised to within 600 m of the nest and the fledgling's roosting and ranging habitat had been removed, while the male had been absent on his autumn–winter migration (Dabb 2018; Olsen 2019). This substantial loss of key habitat was inferred to have caused subsequent territory abandonment (Olsen 2019).

The pair described by Rae *et al.* (2023) that renovated, courtship-fed and mated (though did not lay) at the Strathnairn nest (Nest 1) in September 2017 was the neighbouring pair known as the 'Land's End' pair – a dark male and a light female with a twisted primary that, along with behavioural differences, readily distinguished her from the original Strathnairn female (Olsen 2019). The members of the Land's End pair were apparently not marked at the time, but were stated to be individually identifiable by distinctive damage to their primaries (Rae *et al.* 2023). The Land's End pair, after aborted activity at the Strathnairn nest, then returned to their own territory (Olsen 2019; Rae *et al.* 2023). Meanwhile, the Land's End pair had also attended their original, now flimsy nest (Nest 2) in August, and the female was seen sporadically over Nest 2 from September to December; she laid and incubated in a third, previously unknown nest (Nest 3) by early October 2017 (as described by Rae *et al.* 2023). Nest 3 was intermediate

in distance between Nest 1 and Nest 2 (Rae *et al.* 2023), i.e. closer to the now vacant Strathnairn territory.

The behaviour of the Land's End pair might have been a variation of similar behaviour by other established pairs of Little Eagles in the ACT, which made excursions into neighbours' territories at the start of the breeding season if a mate was slow to or did not return from winter migration, in this largely migratory population (Rae *et al.* 2021; Rae 2022). One satellite-tagged male briefly visited a neighbouring nest and female before returning to his own, and another moved to a new nest site (apparently with a new female) 12 km from his nest that had been used in previous years, though still within his foraging range (Rae *et al.* 2021). Rae (2022) subsequently described additional instances of satellite-tagged adults investigating vacant territories up to 10 km away from their own territory, and some fluidity in neighbouring breeding territories within and between years, upon return from migration.

It is apparent that breeding Little Eagles are well aware of happenings in neighbouring territories that might present opportunities for territory expansion or alternative nest sites or mates, if vacancies, mate absence or breeding failure occur (as described by Rae *et al.* 2021 and Rae 2022 for satellite-tagged birds). It therefore appears that the Land's End pair investigated and claimed the vacant Strathnairn nest, found it wanting for whatever reason (beetle infestation, proximity of urbanisation, or both), and returned to their own territory to attempt to breed, though now closer to Nest 1 than previously. It was also suggested that the Land's End pair might have rejected Nest 2 after a nest camera had been installed in the tree in July 2017 (Olsen 2019), which might partly explain why they investigated alternative nests. Rae *et al.* (2023) did not address this suggestion, beyond stating that the camera had been installed at Nest 2 before the Eagles were attending the nest.

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