Grey Falcon – ecological insights from resightings of colour-banded and satellite-tagged individuals

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The Grey Falcon *Falco hypoleucos* is a rare Australian endemic bird of prey confined to the arid/semi-arid zone of the continent. The species is listed since 2020 as threatened under the EPBC Act 1999, category Vulnerable. Before the commencement of this ongoing research project in 2004 the species was known largely from anecdotal information and obtainments from museum specimens. The aim of this study was, therefore, to increase our knowledge about this species. During 2004–2023, and across Australia's arid/semi-arid zone, I banded 23 individuals, and fitted 11 of these with satellite-transmitters. Capture, handling and banding/tagging of the birds were subject to a strict protocol to ensure their welfare; protocol details are presented. I observed the birds before and after capture, and recorded their behaviour and circumstances. Sixteen (70%) of the 23 tagged individuals were resighted or generated, by means of satellite-telemetry, location data pertinent to this study. My observations of resighted tagged birds were complemented by those of volunteer informants. The data collated provide novel insights into the ecology of the Grey Falcon, specifically pertaining to age at first breeding, breeding preparedness, pair bond, furthest distance travelled from banding site, overcoming illness, longevity, and natural cause of death. These insights may provide crucial information for conservation considerations.

Keywords: banding ethics; bird of prey; conservation; Falco hypoleucos; threatened species