
Dispersal of Newly Hatched Orange-footed Scrubfowl *Megapodius reinwardt*

Christopher Healey

School of Social Sciences, Northern Territory University, Darwin, N.T. 0800

EMU Vol. 94, 220-221, 1994. Received 8-6-1993, accepted 6-8-1993

Scrubfowls *Megapodius* are widely distributed from the Nicobar Islands in the Indian Ocean, eastward through much of the Greater and Lesser Sunda Islands, the Philippines, Moluccas, north and north-east Australia, New Guinea and Bismarck Archipelago, Solomon Islands and Vanuatu (Ripley 1960; Blakers *et al.* 1984; Coates 1985; White & Bruce 1986; Andrew 1992). This distribution indicates an ability to colonise over water (Olson 1980). This paper reports on the capacity of chicks of the Orange-footed Scrubfowl *Megapodius reinwardt* (hereafter referred to as Scrubfowl) for sustained flight over water barriers.

The Scrubfowl favours closed forest habitats, principally rainforest, monsoon vine forest and mangroves. In Australia it is largely confined to coastal forests, but in New Guinea it may be found at considerable distances inland and at elevations of up to 1800 m asl (Blakers *et al.* 1984; Coates 1985; Bowman *et al.* 1994; Healey unpub. data).

The Scrubfowl conforms to the general megapode breeding pattern of constructing large incubation mounds of soil and organic matter. The highly precocial chicks are able to fly on emergence from the mound and receive no parental care (Jones 1989).

Scrubfowl are present on small offshore islands in the Moluccas, Lesser Sundas, New Guinea and Western Pacific regions and in Torres Strait, as well as in isolated patches of rainforest (Bell 1969; Coates 1985; Bishop 1992; Bowman *et al.* 1994). While small isolated islands may support breeding populations (Draffan *et al.* 1983, on Torres Strait), it is not clear whether this is always the case, or if some occurrences may represent regular or adventitious movements of birds (*cf.* Bell 1969). Draffan *et al.* (1983) report 'very young birds' reaching Booby Island in Torres Strait. The nearest island inhabited by Scrubfowl is Muralag (Prince of Wales), approximately 20 km distant.

There are few other records of movements by scrubfowls. In West New Britain, communal breeding sites have been identified, where another scrubfowl *M. fr-*

eycinet deposits eggs in volcanically heated soil, with adults observed subsequently dispersing overland, possibly as far as 100 km from breeding sites (Broome *et al.* 1984).

The following observation of a Scrubfowl chick was made on 21 October 1991, while travelling on the small inter-island freighter MV *Cendana* between the Kei and Aru Islands in the southeast of Maluku Province, Indonesia. Shortly after dawn, a small chick landed on the deck where it was captured by a passenger and tethered by one leg. When I first saw the bird about an hour after capture it showed no obvious signs of exhaustion or distress.

I examined and photographed the chick, which conformed to chicks of *M. reinwardt* (Coates 1985, plate 161; pers. obs., Darwin). No measurements were taken but I estimated the head and body length as 15 cm. The general body form was plump, with soft dusky brown plumage. The bill was short and somewhat arched and dull brown in colour. The legs and feet were orange. The eye-ring was dull orange. The remiges were fully developed, but the rectrices were not apparent. The small size of the bird and absence of tail suggested that the chick was only a few days old at most.

I was unable to determine the exact position of the vessel at the time the chick landed. Calculations based upon the approximate duration of the voyage, and the course and speed of the vessel, indicate that the chick was between 35 and 45 km from the nearest land of Wamar Island on the western side of the Aru archipelago.

The absence of obvious signs of stress suggest that the chick might have been able to continue flying had it not encountered the *Cendana*. There was no indication of the direction the chick was flying, however, and therefore its chances of reaching land. If its flight path from Aru had a westward component, its chances of survival would have been low, since the nearest land is the Kei group some 100 km due west.

This observation indicates that even at the age of

probably only a few days *M. reinwardt* has the capacity to make long flights over water. It is unclear whether such flights are oriented to distant, perhaps visible, land or occur as random dispersal from hatching sites.

References

- Andrew, P. 1992. The Birds of Indonesia: a Checklist (Peter's Sequence). Indonesian Ornithological Society, Jakarta.
- Bell, H.L. 1969. Recent Papuan breeding records. *Emu* 69, 235-237.
- Bishop, K.D. 1992. New and interesting records of birds in Wallacea. *Kukila* 6, 8-34.
- Blakers, M., Davies, S.J.J.F. & Reilly, P.N. 1984. The Atlas of Australian Birds. RAOU and Melbourne University Press.
- Bowman, D.M.J.S., Woinarski, J.C.Z. & Russell-Smith, J. 1994. Environmental relationships of Orange-footed Scrubfowl *Megapodius reinwardt* nests in the Northern Territory. *Emu* 94, 181-185.
- Broome, L.S., Bishop, K.D. & Anderson, D.R. 1984. Population density and habitat use by *Megapodius freycinet erimata* in West New Britain. *Australian Wildlife Research* 11, 161-171.
- Coates, B.J. 1985. The Birds of Papua New Guinea, Vol. 1. Dove Publications, Brisbane.
- Draffan, R.D.W., Garnett, S.T. & Malone, G.J. 1983. Birds of the Torres Strait: an annotated list and biogeographical analysis. *Emu* 83, 207-234.
- Jones, D.N. 1989. Modern megapode research: a post-Frith review. *Corella* 13, 145-154.
- Olson, S.L. 1980. The significance of the distribution of the Megapodiidae. *Emu* 80, 21-24.
- Ripley, S.D. 1960. Distribution and niche differentiation in species of megapodes in the Moluccas and western Papuan area. Pp. 631-640 in *Proceedings of the 12th International Ornithological Congress, Helsinki, 1958*.
- White, C.M.N. & Bruce, M.D. 1986. The Birds of Wallacea (Sulawesi, The Moluccas & Lesser Sunda islands, Indonesia): An Annotated Check-list. British Ornithologists' Union, London.

Galahs Play in a Willy-willy in the Northern Territory

Julian Reid

CSIRO Division of Wildlife and Ecology, Centre for Arid Zone Research, P.O. Box 2111, Alice Springs, N.T. 0871

EMU Vol. 94, 221-222, 1994. Received 26-5-1994, accepted 15-7-1994

A recent article by McNaught & Garradd (1992) attracted my interest concerning the behaviour of Galahs *Catua roseicapilla* at willy-willies in central New South Wales. The authors documented several observations of flocks deliberately entering willy-willies and spiralling acrobatically while calling loudly. This activity was described as 'play behaviour' for which the species is fondly renowned (Rowley 1990). McNaught & Garradd concluded their observations of Galahs at play represented 'purely cultural behaviour and [was] not necessarily common to all Galahs in all localities' within Australia, adding that more observations were necessary. Here, I report a further instance of this behaviour by Galahs in the Northern Territory and then speculate on a second species that could be expected to behave similarly.

On 20 May 1994 at 1400 h while at work at CSIRO's Centre for Arid Zone Research (on the outskirts of Alice

Springs, in semi-natural, tall open Ironwood *Acacia estrophiolata* woodland on the floodplain of the Todd River), I was watching from my office window a small willy-willy tracking to the north-west across paddocks. A flock of c. 80 Galahs flew to the willy and entered the vortex at 10-20 m height and quickly spiralled in clockwise direction for a half turn, appeared to leave the vortex, quickly caught up with it again and re-entered. This sequence happened five or six times rapidly in succession (perhaps spanning 30-40 seconds). The willy continued in the same direction out of view and the galahs, still in a tight flock, flew leisurely back to a group of Ironwoods around the Centre's buildings, dispersing and settling in small groups and pairs in the trees.

Since the publication of McNaught & Garradd's article, I have consciously watched for this type of avian behaviour while working and travelling in central