

Large-billed Scrubwrens Co-operatively Rear a Cuckoo

There has been only one report, cited in Dow (1980), of Large-billed Scrubwrens *Sericornis magnirostris* breeding co-operatively. It was reported that three birds, followed by different people, were attending one nest containing young. Co-operative breeding is also common in a close relative, the White-browed Scrubwren *Sericornis frontalis* (Bell 1983, Ambrose 1987, Ambrose & Davies 1989). Scrubwrens are often parasitised by cuckoos, particularly Fan-tailed Cuckoos *Cuculus pyrrhophanus* and Black-eared Cuckoos *Chrysococcyx osculans*, which prefer domed nests (Beruldsen 1980).

On 11 December 1988 I discovered a nest of Large-billed Scrubwrens at my study site 8 km west of Paluma, North Queensland, altitude 900 m. The nest was a small domed structure located 9 m high in a clump of dead mistletoe in an *Allocasuarina torulosa* tree. In approximately one hour's observation that day, I determined that at least three Large-billed Scrubwrens were bringing food to the nest. I could not see the nestling(s) but it was very quiet so was thought to be quite young.

The next day I mist-netted three adults near the nest and banded them with ANPWS metal bands and unique combinations of colour bands. One of the birds was already metal-banded, having first been captured approximately 100 m from the present nest site in August 1985 (Townsville Bird Study Group records).

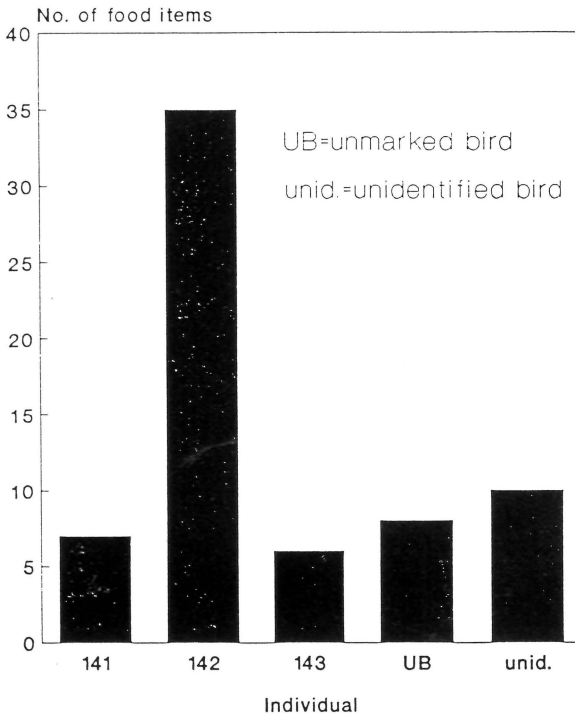


Figure 1. Total number of food items brought to the nest by Large-billed Scrubwrens in a total of 360 minutes of observations.

On 13 December the nest contents were examined. The nest was found to contain one young, bearing no resemblance whatsoever to a scrubwren. Eventually it was concluded that it was a cuckoo: probably a Fan-tailed Cuckoo because these were the only commonly seen cuckoos in the area and are the most common parasites of Large-billed Scrubwrens (North 1984). The young weighed 15.6 g and was estimated to be approximately one week old.

On 16, 17, 20 and 21 December, 90 minute observation periods were spent observing events at the nest. I sat approximately 15 m from the nest, watching with binoculars. On the first day of observations the birds scolded me two or three times but after that they appeared to ignore me. Four Large-billed Scrubwrens were observed feeding the nestling: the three adults that I had colour-banded on the 13th and an unmarked bird. Also, on one occasion a White-cheeked Honeyeater *Phylidonyris nigra* investigated the nest while the nestling was calling, searched and found an insect, and delivered it to the nestling. Figure 1 shows the total number of food items brought to the nest by each scrubwren in the four observation periods. Clearly 142 fed the nestling the most during the observation periods but it is not known if it was mother, father or helper.

The nest was checked again on 24 and 25 December. The nestling was still being fed on both days at frequent intervals and was making a lot of noise. On 8 January 1989 the nest was deserted and the cuckoo has not been seen again.

These observations lend support to Bell's (1983) prediction that Large-billed Scrubwrens breed co-operatively. Observations on four other groups of Large-billed Scrubwrens on the study site show that all groups consist of three or four birds which may co-operate in rearing young.

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