

Singing behaviour of male Rufous Scrub-birds in the New South Wales Gloucester Tops

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Received: 9 March 2021

Accepted: 12 August 2021

Monitoring programs for the endangered, cryptic Rufous Scrub-bird, *Atrichornis rufescens* are mainly based upon detecting singing males on their territories, but a problem with this approach is that little is known about singing activity variation during the year and therefore which are the optimal months for monitoring. We attempted to rectify this deficiency by documenting the year-round singing activity of five males (subspecies *ferrieri*) on well-separated territories in the same general area of the New South Wales Gloucester Tops from 2015-2019 using an automated recording unit. We analysed temporal variability in the number of characteristic territorial chipping songs of males. Parameters assessed were the number of songs emitted per day, the percentage of 20-minute periods per day in which singing occurred and the median number of songs per 20-minute period in which singing occurred, the last two being daylengthindependent. Results for all parameters showed that males sang frequently from mid-September to December, with song levels dropping sharply in January and then further in February. Daily singing activity varied considerably from February to August, but was mostly much lower than in other months. Our study thus indicated that for maximum efficacy Rufous Scrub-bird population monitoring programs in the Gloucester Tops should be conducted between mid-September and December, the only period when scrub-birds sing consistently and can thus reliably be detected.

Key words: Rufous scrub-bird; chipping song; singing activity; automatic recording unit; implications for population monitoring.