

A trial of the use of motion-activated cameras to study Rufous Scrub-bird behaviour

Alan Stuart

133 Barrenjoey Road, Ettalong Beach, New South Wales 2257, Australia.
Email: alanstuart400@gmail.com

Received: 6 October 2022

Accepted: 4 November 2022

The Rufous Scrub-bird *Atrichornis rufescens* is a little-studied, cryptic species found only in a few remote locations in high altitude areas of south-eastern Australia; even its mode of locomotion and foraging methods are poorly documented. A trial of the use of motion-activated cameras (trail cameras) to study Rufous Scrub-bird behaviour was conducted in the New South Wales Gloucester Tops from 2020-2022. Cameras were deployed at two known Rufous Scrub-bird territories, targeting locations within the male bird's known singing areas. Through a process of trial and error, camera locations were found that yielded behavioural information about Rufous Scrub-birds, much of which is novel. Rufous Scrub-bird behaviours captured by cameras included foraging, eating, vocalisation and locomotion on the ground and through vegetation. Some insights into Rufous Scrub-bird territorial behaviour were also obtained, particularly the presence sometimes of more than one individual in the singing area. Locomotion was mostly by hopping (on the ground and in vegetation) or walking (in vegetation). When walking along grass stems or small branches, birds sometimes used their bill for assistance. Observations of birds flying were rare but sometimes they glided (i.e. wings outspread) and there were two recorded instances of birds flapping their wings when they ascended to a higher perch. Scrub-birds were seen eating, but the food items were too small to be identified. Vocalisations were usually emitted in brief interludes during another activity (locomotion or foraging) and often were given by birds at ground level or in only slightly elevated positions. All the insights gained from the trial are considered preliminary; many more data are required before definitive conclusions can be drawn about any of the observed behaviours. However, the initial results are encouraging and in this investigation motion-activated cameras have been shown to have a potentially valuable role in future Rufous Scrub-bird behaviour studies.

Keywords: Rufous Scrub-bird; motion-activated cameras; territorial behaviour; locomotion; foraging; vocalisation.