



Listening for conservation: A comparison of acoustic methods used to monitor population trends and landscape-scale occurrence of two threatened birds on the south coast of Western Australia

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ABSTRACT

The south-coast of Western Australia is home to a number of cryptic threatened birds for which the only practical approach to population monitoring is acoustic survey. Djimalaap, the Noisy Scrub-bird, is one of these species and an index of the population size has been derived from mapping territorial males since the mid-1960s. This work relies on the human observer, with walked census routes maximising the chance of recording a male defending his territory. Monitoring Kyloriny, the Western Ground Parrot, is more challenging with this species occupying remote areas of coastal heath, and peak calling periods restricted to the hour before sunrise and the hour after sunset. Improving our capacity to use bioacoustics to understand trends and distribution of this species is essential. While the monitoring methods vary for the two species, the different techniques used are providing robust estimates of population trends, landscape-scale occupancy and response to management interventions. We will share some of the lessons and advances in bioacoustic monitoring of these two iconic south coast birds, including what these data are telling us about the status of these species and success of translocations. We also consider both the utility and limitations of passive acoustic monitoring approaches in terms of ensuring efficient investment in long-term monitoring programs.