

FEATURE ARTICLES

GROUP LIVING IN THE BLACK-BREASTED WOOD-QUAIL AND THE USE OF PLAYBACKS AS A SURVEY TECHNIQUE

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Abstract. I used playbacks of recorded group song to survey and capture Black-breasted Wood-Quail (*Odontophorus leucolaemus*), a cloud forest endemic, in Monteverde, Costa Rica. This species is abundant in the dense understory of large windbreaks, forest fragments, and continuous forest of the Monteverde Reserve Complex. Mean covey size was four adults (range = 2–9 adults) and mean density, which did not differ between fragmented and continuous forest, was one covey per 3.3 ha. Wood-Quail defended all-purpose group territories and coveys persisted from one year to the next, indicating a group structure that is very different from what is found in most New World quail. A peak in breeding activity occurred at the transition from the wet to the dry season and larger groups produced significantly more juveniles than smaller groups in this population. Playbacks were a useful technique for detecting Black-breasted Wood-Quail; coveys responded to 65% of survey attempts by chorus and approach. By repeating the survey just three times, I was able to detect 91% ± 5% of all coveys that were known from extensive searches to occur in the remnant forest patches of the Monteverde community. The year-round sociality that is seen in this species is due in part to the retention of young on the natal territory beyond the age of sexual maturity. The intriguing relationship between group size and reproductive success in this population suggests the wood-quail may provide the first demonstration of a cooperative breeding system in the Galliformes.

Key words: Galliformes, Odontophoridae, *Odontophorus leucolaemus*, playbacks, social birds, territory.