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CALLING RATES OF MALE BOBWHITES DURING SUMMER IN NORTH FLORIDA

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ABSTRACT

The summer call-count survey is a common method used as an index of abundance for male northern bobwhites (*Colinus virginianus*). Typically, abundance estimates have limited use and transference to other analyses because they lack estimates of detection and availability. Incorporating availability into abundance estimates has not been common because of the difficulty in attaining an availability estimate. We monitored the calling rates of radio-marked northern bobwhites, April–July, to ascertain the proportion of males available for detection within biweekly periods to attain a direct measure of availability. We measured daily and seasonal peaks in calling rates and investigated potential parameters that may influence the calling rate. We used a 5-min survey period and observed a mean calling rate of 0.40, which increased to 0.493 when a 10-min survey period was used. The biweekly calling rates were similar during May and June, but were significantly lower in April and July. Daily call rates within the 4-hr survey time period were consistent for May and June, but were more variable in July. Incorporating availability estimates into standard distance sampling procedures allowed us to produce more robust estimates of summer bobwhite density. Little is known about the variability of male bobwhite calling rates regionally or at different densities and we encourage other researchers to attain availability estimates from other landscapes and population densities.

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Key words: call-counts, calling rates, *Colinus virginianus*, Florida, northern bobwhites

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