BLACK RAIL RESPONSE TO TAPE PLAYBACK

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ABSTRACT

The response of radio-tagged Black Rails to taped playback of vocalizations was monitored at 2 sites in Florida between May 1992 and August 1995. The objective of the study was to refine tape playback census techniques for this poorly known species by documenting the frequency of response to tape playback and movement before vocal response. Forty-three individual Black Rails (26 male, 17 female) were fitted with transmitters and monitored for their response to playback tape. During the first 3 minutes after tape playback of Black Rail vocalizations, 50% of males were detected by vocal response, while only 20% of females were detected. The type of vocalization (*Kic-kic-kerr, Growl, Churt)* given in response to tape playback differed between males and females. Males responded most frequently with *Kic-kic-kerr*, females with *Churt*. Birds of both sexes moved toward the tape playback before vocalizing (males $\bar{x}$=9.5 m; SD=12.8; n=92; females $\bar{x}$=4.9 m; SD=8.5; n=42). In addition to radio telemetry experiments, playback surveys along fixed routes were conducted throughout the breeding season to determine optimal timing based on varying conditions during tape playbacks. Numbers of birds detected during playback surveys was influenced by the year of survey, month, and ambient temperature; cloud coverage, wind velocity, and daily timing (morning or evening) did not affect response rate. I determined Black Rail density was 0.25 birds/ha at the St. Johns site by using the response rate and distance measurements obtained in this study to calibrate circular plot density estimates.