

## ABSTRACTS FOR *CONDOR* 103(3) AUGUST 2001

### SHORT COMMUNICATIONS

#### CORRELATION OF RED-SHOULDERED HAWK ABUNDANCE AND MACROHABITAT CHARACTERISTICS IN SOUTHERN OHIO

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Manuscript received 28 July 2000; accepted 9 March 2001.

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*Abstract.* We measured an index of Red-shouldered Hawk (*Buteo lineatus*) abundance along streams in southern Ohio and related differences in abundance index to landscape-scale habitat characteristics within the surveyed areas. Fifteen study sites, each a 5.8-km reach of a permanent stream, were surveyed four times using broadcasts of Red-shouldered Hawk calls and Red-tailed Hawk (*Buteo jamaicensis*) calls. We determined the landcover types in a corridor surrounding each surveyed area using a GIS landcover data grid, and counted the number of small ponds within each corridor. We calculated hawk response rate for each species as the mean number of visual or aural detections per survey. Red-shouldered Hawk response rate was inversely correlated to Red-tailed Hawk response rate ( $r = -0.52$ ,  $P < 0.04$ ), and was positively correlated to the number of small ponds within each stream corridor ( $r = 0.77$ ,  $P < 0.01$ ), suggesting that the number of small ponds was an important factor associated with Red-shouldered Hawk abundance.

*Key words:* *Buteo jamaicensis*, *Buteo lineatus*, *habitat*, *Red-shouldered Hawk*, *Red-tailed Hawk*, *survey*.

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