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The Wilson Journal of Ornithology 120(2):407–409, 2008

Nest Site Selection by a Male Black-capped Vireo

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ABSTRACT.—We observed a male Black-capped Vireo (*Vireo atricapilla*) exhibiting nest site selection in east-central Texas. The paired male was observed to deconstruct the nest the female was assembling. To our knowledge, male nest site selection has not been observed and reported in the literature for vireos. *Received 11 December 2006. Accepted 6 September 2007.*

It is not uncommon for male passerines to begin building nests before they form pair bonds (James 1978, Collias and Collias 1984). Coop-

erative and male-initiated nest-building behaviors are related to pair bonding, parental quality, and the ability of males to invest in reproduction (Collias and Collias 1984, Hoi et al. 1996, Soler et al. 1998). Nest building by males prior to pairing has been observed in several vireo species including Plumbeous Vireo (*Vireo plumbeus*) (DeMarco et al. 2000), Bell's Vireo (*V. bellii*) (Brown 1993), and Yellow-throated Vireo (*V. flavifrons*) (James 1978, Rodewald and James 1996). James (1978) observed male Blue-headed Vireos (*V. solitarius*) building nests before pairing. James (1978) also noted that commencement of paired nest building occurred soon after pairing and hypothesized that males were selecting nest sites. Graber (1961) ob-

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served that male Black-capped Vireos (*V. atricapilla*) began building nests before pairing. She reported that, after pairing, a nest would be built by the pair and concluded it was the female that selected the nest site. We observed a male Black-capped Vireo exhibiting nest site selection in April 2006. We also observed the male deconstructing the nest the female was assembling. To our knowledge, these behaviors have not been observed and reported for vireos.

OBSERVATIONS

We conducted nest searching as one component of research to monitor occupancy and population trends of Black-capped Vireos on private land in Coryell and Hamilton counties in east-central Texas. We monitored 17 pairs of Black-capped Vireos for ~864 hrs from 16 March to 31 July 2006. We monitored each nesting pair 2 days per week.

We first observed the male Black-capped Vireo on 17 April as it carried nest building material twice to a fork in a branch of a shin oak (*Quercus sinuata*) ~0.5 m from a large downed Ashe juniper (*Juniperus ashei*). The male was observed for >3 hrs and a female was not detected. We observed the male singing within 20 m of this first nest (nest A) and up to 250 m distant. Nest A consisted of strands of webbing in a slightly cup-shaped platform typical of a partially built vireo nest. We observed the male within 5 m of nest A on 20 April. Nest A was unchanged and a female was not detected. We observed the male for 3 hrs singing within 20 m of nest A and up to 250 m distant on 24 April. We did not observe a female on 24 April and the condition of the nest A was unchanged.

We observed a female Black-capped Vireo with the male on 27 April. We observed the male singing within 10 m of the female at 0920 hrs. The female carried nesting material to nest A at 0935 hrs which was ~15% built. At 1000 hrs the female carried nesting material north to a different location where nest B was later found. The female carried nesting material to nest B again at 1115 hrs. While the female was arranging nesting material at nest B, the male landed next to her and the female flushed from the nest. The male pulled material from nest B and flew in the direction of nest A. Nest B was ~10% built at that time. We observed the male and female at nest A

at 1130 hrs. Between 1130 and 1200 hrs the male flew to nest A without nesting material and perched ~1 m from the nest five times. During the same period, the female carried nesting material to nest A twice.

Nest A was completed on 1 May and we observed the male singing within 10 m of the nest. The condition of nest B was unchanged from 27 April. Nest A was empty on 4 May and still in completed condition. We observed four Black-capped Vireo eggs and one Brown-headed Cowbird (*Molothrus ater*) egg in nest A on 8 May. Nest A was empty and undamaged on 11 May. We observed this pair for approximately 29 hrs throughout the breeding season. During this time, the pair built and laid eggs in three additional nests. We did not locate any other breeding pairs of Black-capped Vireos within ~1.5 km of their territory.

DISCUSSION

Our observations suggest the male Black-capped Vireo preferred one nest over another, selecting it while the female was actively building both nests. Our observations may reflect behaviors involved in the process of nest site selection. It is possible the male began building both nests and then selected one. It is not uncommon for male Black-capped Vireos to begin building nest rims prior to pairing (Grzybowski 1995). These beginning nests are often displayed to females as part of courtship and may subsequently serve as an active nest with approval of the female. We have observed Black-capped Vireo pairs deconstructing old nests for material to be used in new nests. Bent (1950) and Nolan (1960) described aggressive interactions between male and female vireos during courtship and nest building. However, we were unable to find reports in the literature of males selecting nests sites to the contrary of the female's choice or males deconstructing a nest being built by a female by actively removing nest material. It is possible this behavior occurs occasionally but is not observed or reported. Grzybowski (1990) reported that Black-capped Vireos often nest in aggregations and smaller aggregations contain a greater proportion of second-year males. We did not detect other Black-capped Vireos nesting within 1.5 km of this pair. We did not ascertain the age of these birds and speculate the male may have been in his second-year;

the behavior we observed may be the result of a lack of breeding experience or inequality in experience between the male and female.

It is difficult to draw any conclusions concerning male nest site selection in Black-capped Vireos based on the observations of one pair. We suggest that researchers consider this behavior to document the frequency of male nest site selection. If male nest site selection is not uncommon, there may be opportunities for researchers to examine differences in male initiated nests versus female initiated nests including nest success, nest site characteristics, and initiation dates.

ACKNOWLEDGMENTS

Funding was provided by a grant from the U.S. Department of Defense, Environmental Readiness Program. We thank the private land owners who allowed us to work on their properties, M. L. Morrison and R. N. Wilkins for guidance in our research and constructive comments on this manuscript, and our field technicians for their efforts.

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The Wilson Journal of Ornithology 120(2):409–412, 2008

Nests of Black-throated Green Warblers in Tree Cavities

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ABSTRACT.—Black-throated Green Warblers (*Dendroica virens*) typically place their nests within the dense foliage of a limb or in a branch fork against the trunk of a living conifer. I report four unusual nests from Algonquin Provincial Park, Ontario, Canada: three in feeding cavities of Pileated Woodpecker (*Dryocopus pileatus*) in snags (i.e., dead trees), and one in a sugar maple borer (*Glycobius speciosus*, Coleoptera: Cerambycidae) scar in a tree of declining health. These data are the first documentation of this species nesting

within cavities and enhance our understanding of the importance of snags and trees in declining health for wildlife. *Received 15 February 2007. Accepted 20 September 2007.*

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Black-throated Green Warblers (*Dendroica virens*) are common breeding birds in a variety of forest types ranging from mostly coniferous to predominantly deciduous across the southern half of Canada east of Alberta, and in parts of the eastern United States (Morse 1993). Throughout its range, the species is