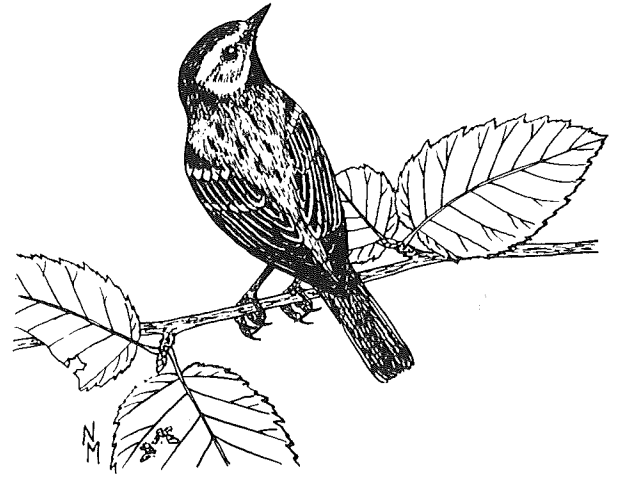# Black-throated Green Warbler

Dendroica virens

The Black-throated Green Warbler is generally considered common in coniferous woodlands, yet Collins (1983) has shown this to be an oversimplification; the species may be found in a broad array of woodland habitats. Sabo and Holmes (1983) indicated that mixed woodland constitutes the species' usual habitat in northern New Hampshire, and this also appears to be true in Vermont. In the Green Mountain State the Black-throated Green generally occurs in northern hardwood forest having stands of or scattered individual hemlocks or red spruce. Only occasionally does it inhabit pure deciduous or coniferous forests in this state.

Though an active and not particularly shy bird, the Black-throated Green Warbler spends much of its time concealed in thick midstory foliage, which often makes it difficult to see. The species can be located easily by listening for its distinctive, high-pitched, wheezy song. The song consists of 5 to 6 notes of varying intensity. There are two common arrangements of notes: one is of 2 high notes, followed by 2 low notes and another high note; the other is of 3 to 4 high notes, 1 low note, and a final high note.

The Black-throated Green Warbler arrives in Vermont during the first week of May; most have reclaimed territory by midmonth. Nests are placed at low to intermediate heights. The average height of six Vermont nests was 3.7 m (12.2 ft). Nests are constructed in either a conifer or a hardwood in a trunk fork, or on a side fork of a branch well out from the trunk. The nest is built of twigs, bark strips, grasses, and rootlets, and decorated externally with birch bark. The lining is composed of grass, rootlets, hair, and a few feathers.

The eggs are white with red-brown spots concentrated around the large end, and number from 4 to 5; the usual clutch is 4 eggs. Egg dates from six Vermont records range from May 27 to June 13. Notations on sets in the Pember Collection at the University of Vermont in Burlington indicate that eggs may not hatch until at least the fourth week of June. The incubation period lasts about 12 days (Pitelka 1940). There is one report of nestlings for Vermont; young have been seen in the nest from June 14 to 21. Nestlings have been reported in New York State from mid June to late July (Bull 1974). The nestling period lasts from 8 to 10 days (Forbush 1929; Pitelka 1940), and fledglings remain with their parents for about a month (Pitelka 1940). Five dates for dependent young in Vermont range from June 24 to July 27. Seventy-seven percent of all Atlas Project confirmations for the species were by observation of parents with food for their young. The autumn migration begins in late August, and peaks from early to mid September. Most Black-throated Green Warblers have departed from the state by late September; a few may be seen to mid October in most years.

The Black-throated Green Warbler occurs widely in Vermont in moderate numbers. The species averaged 0.92 per route on U.S. Fish and Wildlife Service Breeding Bird surveys from 1976 to 1979 (BBS 1966–79), and one field observer recorded approximately 4 per block during the Atlas Project (W. G. Ellison, pers. observ.). Densities of 5 to 31 pairs per 40.5 ha (100 a) were demonstrated by territory-mapping studies in coniferous forests (Metcalf 1977) and
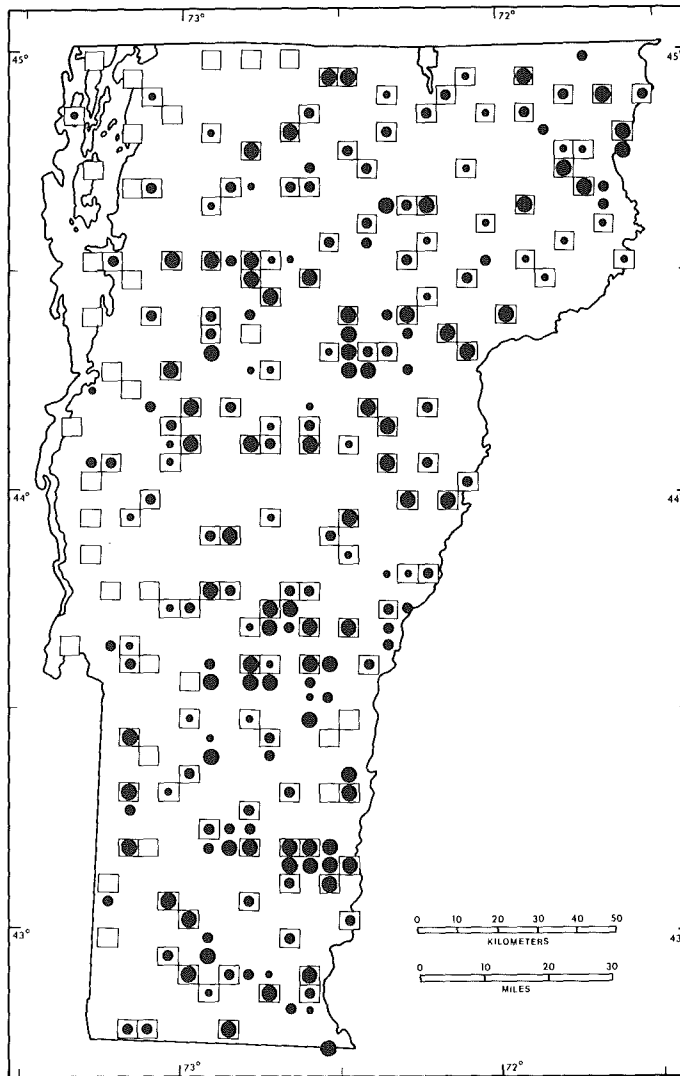
No. of priority blocks in which recorded

TOTAL 148 (83%)

Possible breeding: 36 (24% of total)
Probable breeding: 57 (39% of total)
Confirmed breeding: 55 (37% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	13	42	9
Green Mountains	52	96	35
North Central	19	100	13
Northeast Highlands	16	100	11
East Central	19	100	13
Taconic Mountains	8	50	5
Eastern Foothills	21	87	14

deciduous-coniferous forests (Carpenter 1973). Atlas Project data reveal that the species is much more widespread in the cooler eastern part of the state than in the Taconic Mountains and Champlain Lowlands.

WALTER G. ELLISON

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