Blackburnian Warbler

Setophaga fusca

With a blazing orange throat and chest, unique among North American warblers, and a thin, high-pitched song, typically broadcast from a lofty conifer, the Blackburnian Warbler is both brilliantly colored and difficult to see. Vermont lies at the eastern end of this warbler's breeding range, which extends from southern Newfoundland westward to central Alberta and the Great Lakes states, southward through New England and New York, and along the Appalachian Mountains to Georgia (Morse 2004).

The Blackburnian Warbler nests in coniferous or mixed forests, particularly in mature stands with tall trees, rarely nesting in stands with trees less than 18 meters (59 feet) tall (Morse 1976). Because it forages and nests high in the canopy and its high-pitched song is beyond the hearing range of some observers, the species can be difficult to detect. Nest building occurred between 21 May and 1 August (N = 7), and fledged young were observed between 22 June and 3 August (N = 45). The August dates are quite late and probably represent a second breeding attempt after nest failure.

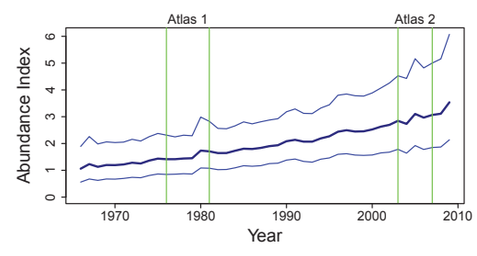
The Blackburnian Warbler is widely distributed in Vermont, occurring in all regions of the state. The species was found in 75 percent or more of priority blocks in six regions, including all blocks in the Northeastern Highlands, 95 percent in the Northern Green Mountains, and 92 percent in the Southern Green Mountains. It is more thinly distributed in the agriculturally dominated Champlain Valley, occurring in 36 percent of priority blocks there.

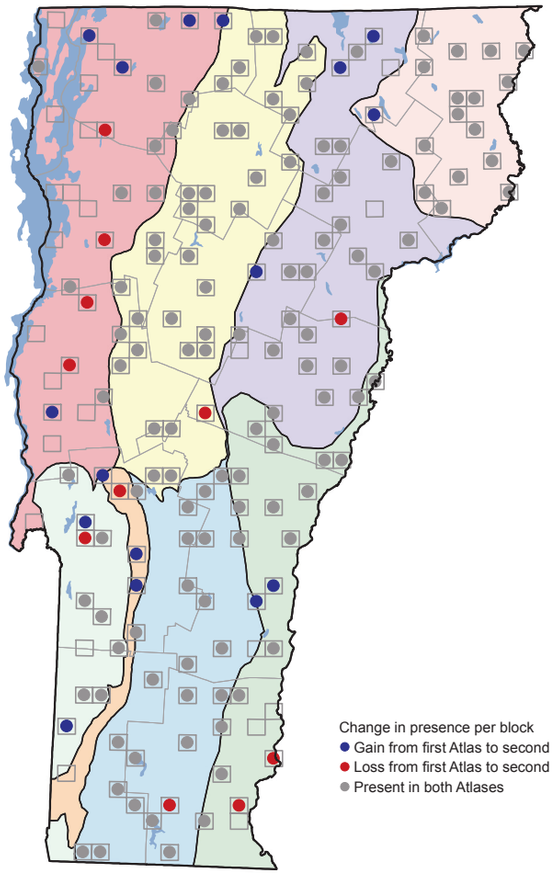
The range of the Blackburnian Warbler has changed little since the first atlas. A statewide increase of 4 percent was recorded, perhaps due to forest maturation that resulted in more of the tall trees that the species prefers. Between 1973 and 1997, however, Vermont forest composition shifted away from conifers and towards hardwoods (Vermont Agency of Natural Resources 2003)—a trend that could have negative implications for Blackburnian Warblers in the future.

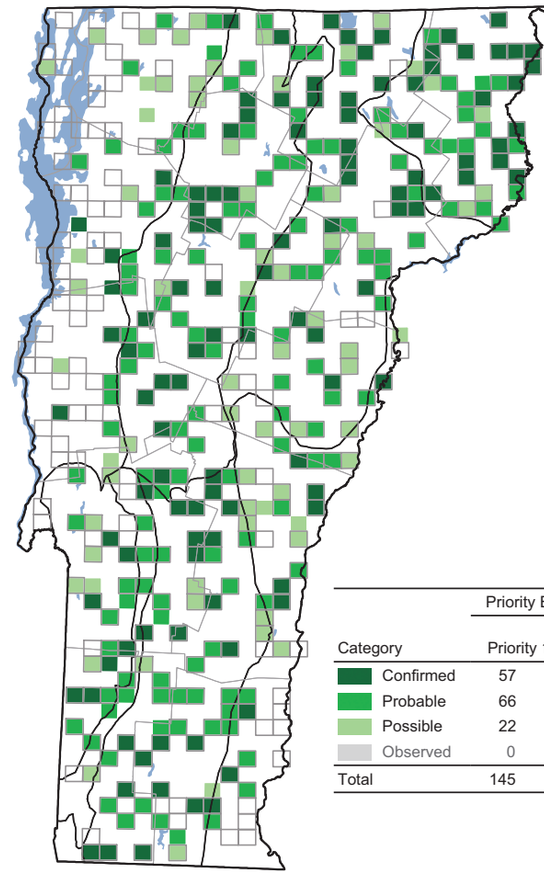
The slight increase in occupied blocks for Blackburnian Warbler is consistent with abundance data from a variety of regional and national surveys, including the Vermont Forest Bird Monitoring Program and the Breeding Bird Survey. According to Forest Bird Monitoring Program results from 13 interior forest study sites statewide, Blackburnian Warbler abundance increased by 5.5 percent annually between 1989 and 2006 (Rimmer et al. 2007). Results from 19 Vermont BBS routes indicate an annual increase of 2.4 percent for the same period. Regionally, BBS data document a significant annual increase of 0.9 percent from 280 routes across the Atlantic Northern Forest between 1966 and 2009 (Sauer et al. 2011). The Blackburnian Warbler increased between first and second atlases in New York (19 percent; McGowan and Corwin 2008), Pennsylvania (72 percent; Wilson et al. 2012), and Ontario (6 and 35 percent in the southern and northern regions, respectively; Cadman et al. 2007).

Although populations appear to be increasing, Partners in Flight ranked Blackburnian Warbler as a "continental and regional stewardship species" in the Atlantic Northern Forest, acknowledging that this region supports a large percentage of the species' breeding population. Because the Blackburnian Warbler nests in tall

RELATIVE ABUNDANCE OVER TIME







Category	Priority Block Count: Priority 1	Priority 1 & 2
Confirmed	57	109
Probable	66	125
Possible	22	53
Observed	0	0
Total	145	287

CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	14	15	+ 1	+ 7
Northeastern Highlands	16	17	+ 1	+ 6
Northern Green Mountains	35	34	- 1	- 3
Northern Vermont Piedmont	24	26	+ 2	+ 8
Southern Green Mountains	26	25	- 1	- 4
Southern Vermont Piedmont	16	16	+ 0	+ 0
Taconic Mountains	8	9	+ 1	+ 13
Vermont Valley	1	3	+ 2	+ 200
Totals	140	145	+ 5	+ 4

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	36	9
Northeastern Highlands	100	13
Northern Green Mountains	95	22
Northern Vermont Piedmont	89	20
Southern Green Mountains	92	18
Southern Vermont Piedmont	67	9
Taconic Mountains	85	6
Vermont Valley	75	2

conifers, a reduction in evergreen cover or a shift to a younger age class of trees may be detrimental to the bird's populations. Potential threats to the Blackburnian Warbler population in Vermont include the spread of the hemlock woolly adelgid (see Black-throated Green Warbler) and the loss of spruce and fir due to climate change.

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