

Cerulean Warbler

Setophaga cerulea

To find a Cerulean Warbler in Vermont requires perseverance and a bit of luck. Despite the state's vast acreages of potentially suitable habitat, the whereabouts of this species is somewhat unpredictable. Vermont lies outside of its patchy breeding range, which stretches from central Minnesota and Michigan's Upper Peninsula southward to Arkansas, eastward to western North Carolina, and northward into southern New York and southern Ontario (Hamel 2000b).

Cerulean Warblers breed in mature forest stands with an open understory and some gaps in the canopy. Habitat types include stream corridors, dry forested slopes, floodplains, swamps, and secondary growth following agricultural abandonment (Hamel 2000b). In the current atlas, a pair was observed building a nest on 27 May, and previous records from Vermont and New York report nests with eggs 19 May to 23 June (Ellison 1985). Because the bird's buzzy song can be mistaken for that of the Black-throated Blue Warbler, visual confirmation is essential.

In the current atlas Cerulean Warbler was found in mature mixed or deciduous woods on slopes near ridgelines, and on a Lake Champlain floodplain. One to three males were detected in each of the four blocks where the species was found. A pair was found in Colchester, where atlasers made a focused effort to confirm breeding. Of the scattered reports between atlas surveys, two led to atlas records: in Highgate a female was found in 2000 (Rosenberg et al. 2000), and in Colchester males were singing in 2002. Post-atlas records include a 2008 nesting confirmation in Bridport in Addison County (T. Murin pers. comm.), and sightings on Snake Mountain (Addison County) and Georgia Mountain (Franklin County), as well as at Blueberry Hill Wildlife Management Area in Ira (Rutland County), where an individual was observed from 11 to 29 May 2010 (R. Pilcher pers. obs.). There appears to be a limited, dynamic, and possibly underestimated breeding population in Vermont.

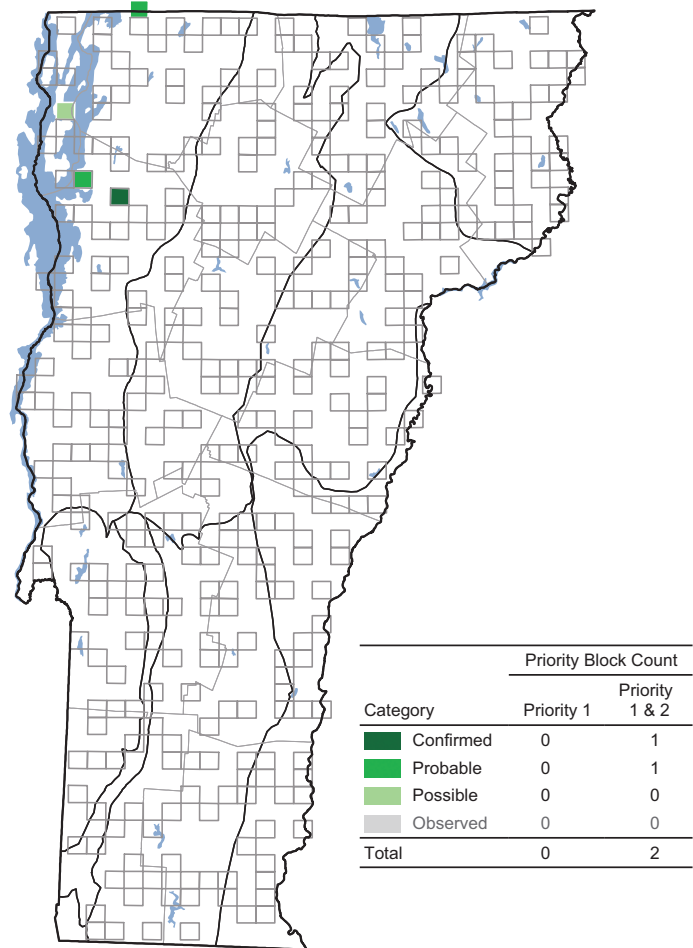
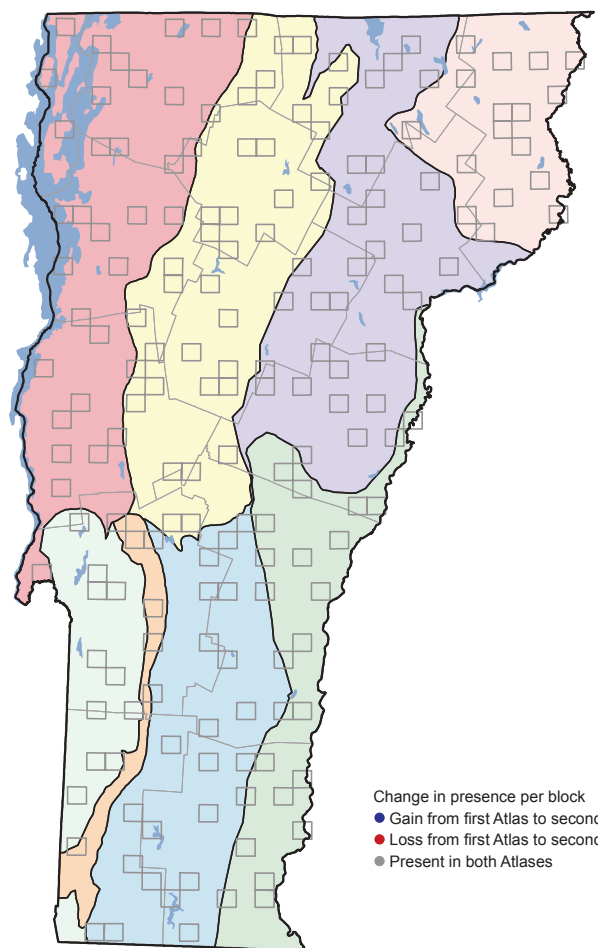
The number of blocks with Cerulean Warbler doubled



since the first atlas, but the breeding population apparently has not increased. The small population adjacent to the Lamoille River in Milton recorded in the first atlas (Ellison 1985) was last documented in 1991 (RVB), although individuals were reported there in 1993 and 2000 (RVB, Rosenberg 2000). Two of the sightings from the current atlas were within 13 kilometers (8 miles) of this location, indicating some regional persistence.

The species may have been more common in the Northeast before intensive logging altered the landscape in the late 1800s, but historical data are lacking. As forests reclaimed agricultural clearings, the bird's population expanded in the Northeast (Oliarnyk 1996), but the trend has reversed in recent decades. This warbler's range-wide abundance declined significantly by 2.3 percent per year from 1982 to 2007 (Sauer et al. 2011). Atlases in nearby states suggest a similar story. Block occupancy decreased by 13 and 7 percent in New York and Pennsylvania, respectively (McGowan and Corwin 2008, Wilson et al. 2012), and Ontario reports a non-significant decrease (Cadman et al. 2007).

Due to its small population size and significant population declines, Cerulean Warbler is of high conservation concern in the eastern United States (Hamel 2000a,b), where it has earned a place on the Partners in Flight Watch List (Rich et al. 2004). In Vermont and many other states, it is a Species of Special Concern. Losses of both wintering and breeding habitat have been identified as factors contributing to population declines (Hamel 2000a). Development, loss of mature trees, deforestation on South American wintering grounds, and mountaintop-removal coal mining are among the current problems that plague



CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	0	0	+0	+0
Northeastern Highlands	0	0	+0	+0
Northern Green Mountains	0	0	+0	+0
Northern Vermont Piedmont	0	0	+0	+0
Southern Green Mountains	0	0	+0	+0
Southern Vermont Piedmont	0	0	+0	+0
Taconic Mountains	0	0	+0	+0
Vermont Valley	0	0	+0	+0
Totals	0	0	+0	+0

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	2	100
Northeastern Highlands	0	0
Northern Green Mountains	0	0
Northern Vermont Piedmont	0	0
Southern Green Mountains	0	0
Southern Vermont Piedmont	0	0
Taconic Mountains	0	0
Vermont Valley	0	0

the Cerulean Warbler (Rosenberg 2007). Forest clearing may present a serious threat in agricultural landscapes (Hamel et al. 1998).

Management priorities for Cerulean Warbler include promoting shade-grown coffee on its wintering grounds and developing mine reclamation guidelines (USFWS 2006, 2007a). Breeding populations appear to coexist with small-scale forest management activities in landscapes that are at least 60 to 70 percent forested (Oliarnyk 1996). Targeted surveys in the Champlain Valley, perhaps

in larger tracts of mature forest with gaps such as old forest roads, would better elucidate the species' true status in the state, and refine our description of its local habitat preferences—the first steps toward a management strategy for a species with a dynamic distribution.

ROSALIND B. RENFREW