Blue-gray Gnatcatcher

Polioptila caerulea

The Blue-gray Gnatcatcher is often first detected by its characteristic alarm call—a querulous wheezing or mewing. Gnatcatchers flit around the branches of deciduous trees, darting after insects and flashing their long white outer tail feathers, always busy, always moving. Vermont lies at the northeastern periphery of the species' range, which includes most of the contiguous United States, exclusive of the northern Great Plains and Pacific Northwest. It is a recent addition to the avifauna of the Northeast. The first nesting records in Connecticut, Massachusetts, and New Hampshire were in 1947, 1961, and 1965, respectively (Veit and Petersen 1993, Foss 1994). The first recorded nesting in Vermont was 1954 (Laughlin and Kibbe 1985). Gnatcatchers winter in Florida, the Gulf Coast states and into Central America.

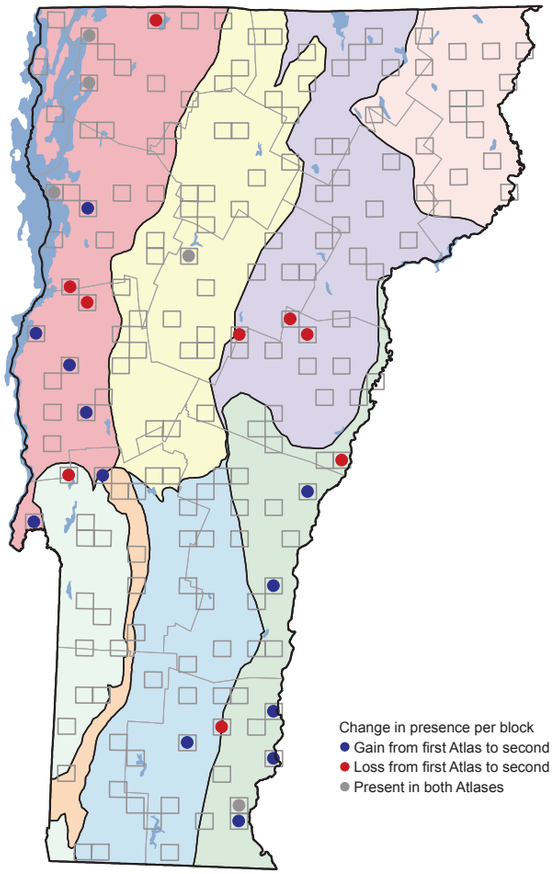
A summer visitor to Vermont, the Blue-gray Gnatcatcher is confined to the lowlands of the Champlain Valley and the Connecticut River floodplain. Birds return to the state in late April, where their preferred nesting habitats are generally deciduous forests, particularly riparian and lakeside forests, forest edges, and shelterbelts. Nesting begins as soon as the adults arrive. Ellison (1991) found nest building in southwest Vermont occurred between 5 May and 14 June, and chicks fledged by late June (Ellison 1991). The nest is placed between 3 and 18 meters (12 and 60 feet) above ground in a deciduous tree, either on a thin branch or suspended from a forked twig. The small, relatively deep cup is made of plant fibers and bark chips, bound by spider webbing or caterpillar silk and decorated with lichens (Harrison 1978, Ellison 1992).

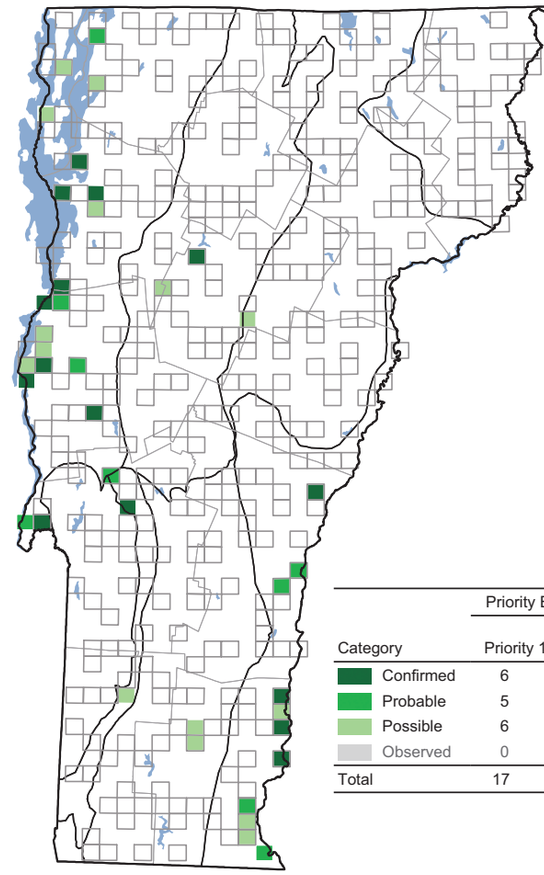
The first Vermont atlas reported Blue-gray Gnatcatcher in 14 blocks, and it looked as though a further colonization of the state might follow. Evidence from the second atlas, however, shows that the gnatcatcher's range expansion has been limited at best. Only 3 additional blocks were occupied in the second atlas, and the distribution of the species was similar to that found in the first atlas. While there have been apparent increases in some biophysical regions (from 2 to 6 occupied blocks in the Southern Piedmont, for example), numbers are too small to support any conclusions about a local range expansion. In two biophysical regions, numbers declined between the first and second atlases but the small number of occupied blocks again limits interpretation.

Data from other northeastern states indicate that the Blue-gray Gnatcatcher has become more firmly established in areas that were newly occupied during the first atlas but has not further expanded its distribution. The number of occupied blocks increased by 14 percent between the first and second Pennsylvania atlases (Wilson et al. 2012). The second New York atlas showed a 19 percent increase in the number of occupied blocks but no change in distribution (McGowan 2008). In Ontario, occupancy increased in all regions, up to 48 percent, but this was due more to a "consolidation" of the bird's range rather than an expansion (McCracken 2007). Breeding Bird Survey results from 1982 to 2007 show a significant 1.2 percent annual increase for eastern North America (Sauer et al. 2011).

Plausible explanations for the initial northward expansion of the Blue-gray Gnatcatcher into Vermont include global warming and forest maturation in the state; both phenomena have increased steadily over the past half-century. Why this species has not continued to extend its range throughout the state (as other southern species such as the Northern Cardinal or Tufted Titmouse have done) is not known. Perhaps the warming trend has not yet been great enough to allow this species to spread further, or perhaps it is dependent on other ecological factors that limit its northward expansion.

HECTOR GALBRAITH





Category	Priority Block Count: Priority 1	Priority 1 & 2
Confirmed	6	11
Probable	5	7
Possible	6	10
Observed	0	0
Total	17	28

CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	6	8	+ 2	+ 33
Northeastern Highlands	0	0	+ 0	+ 0
Northern Green Mountains	1	1	+ 0	+ 0
Northern Vermont Piedmont	3	0	- 3	- 100
Southern Green Mountains	1	1	+ 0	+ 0
Southern Vermont Piedmont	2	6	+ 4	+ 200
Taconic Mountains	1	0	- 1	- 100
Vermont Valley	0	1	+ 1	+ 100
Totals	14	17	+ 3	+ 21

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	19	50
Northeastern Highlands	0	0
Northern Green Mountains	3	7
Northern Vermont Piedmont	0	0
Southern Green Mountains	1	4
Southern Vermont Piedmont	25	36
Taconic Mountains	0	0
Vermont Valley	12	4