

White-throated Sparrow

Zonotrichia albicollis



Hiking the spine of the Green Mountains or fly-fishing a beaver pond hemmed with spruce can often place one in close proximity to the White-throated Sparrow. Both sexes sing, and the species' distinctively whistled call is arguably Vermont's most idiosyncratic birdsong. The White-throated Sparrow ranges across Canada south of the tree line and east of the Rocky Mountains to Newfoundland, and south around the Great Lakes and New England into northeastern Pennsylvania and adjacent New Jersey. Isolated breeding has been recorded in the upper elevations of the Appalachian Mountains to West Virginia (Falls and Kopachena 1994). Forest clearings created by logging, fire, windstorms, insect outbreaks, and beaver activity provide preferred habitat. Populations of this opportunistic sparrow increase as the forest opens and decrease as succession occurs (Falls and Kopachena 1994). In Vermont, the bird nests along the edges of bogs, beaver ponds, and meadows in coniferous and mixed hardwoods, and in elfin timber on high peaks of the Green Mountains (Ellison 1985).

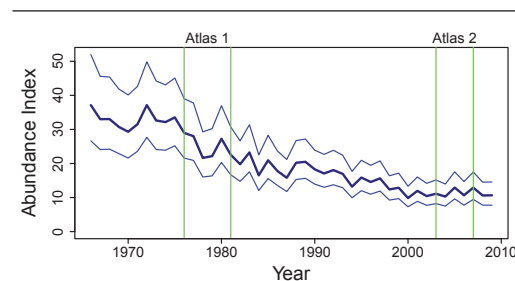
Intensive research revealed two non-sex-biased phenotypes that occur in all populations, each with correspondingly different behavior and genetics (Falls and Kopachena 1994, Spinney et al. 2006). The white-striped morph is more aggressive, nests in more open habitats, often in close proximity, and is a more conspicuous singer than the timid tan-striped morph. In fact, females with white crown stripes sing more than males with tan crown stripes. The female tan-striped morph, however, provides more parental care than its polymorphic counterpart. Each morph nearly always mates with the opposite morph.

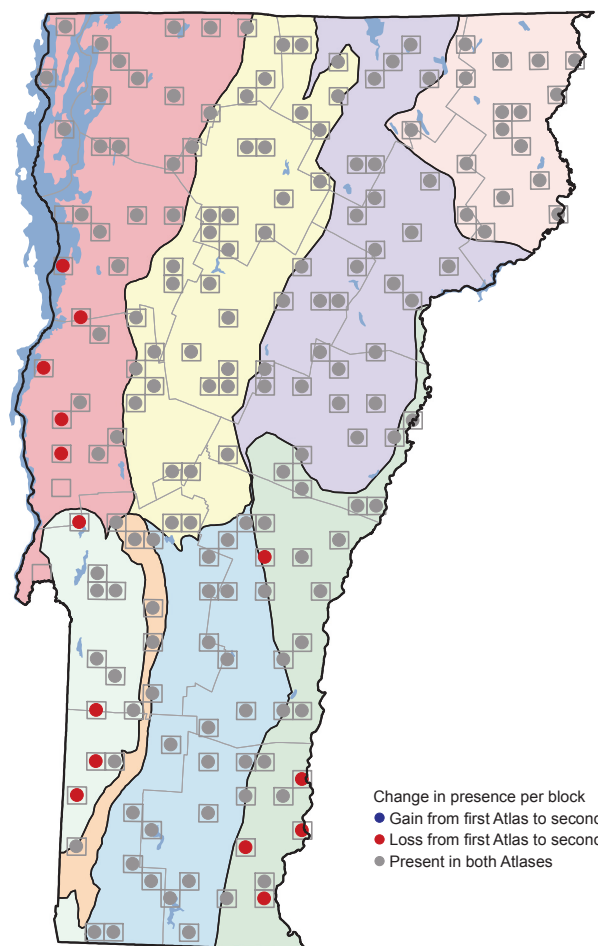
Although the White-throated Sparrow is double-brooded in Vermont, it remains a cryptic nester, a fact corroborated by both atlas data and high-elevation nest data (VCE unpubl. data). In the high-elevation nest study, conducted between 1995 and 2007, the earliest initiation (first egg laid) was 21 May and the latest was 22 July (N = 112). Atlasers found nests with eggs between 1 June and 17 July (N = 8), and nests with young between 6 June and

15 August (N = 10). High-elevation hatching dates ranged from 5 June to 1 August (N = 87) and fledging dates from 15 June to 9 August (N = 64). Atlas observations of fledged young, by far the most common source of CO records, ranged from 27 May to 2 August (N = 110).

The distribution of the White-throated Sparrow has contracted and populations have declined both regionally and within Vermont in recent decades. According to Breeding Bird Survey data, from 1982 to 2007 the sparrow decreased significantly by 1.0 and 1.2 percent annually in the Atlantic Northern Forest (Bird Conservation Region 14) and the Lower Great Lakes / St. Lawrence Plain (Bird Conservation Region 13), respectively (Sauer et al. 2011). In Vermont, the sparrow significantly decreased by 1.8 percent annually. Between 1989 and 2006, Vermont's Forest Bird Monitoring Project also documented a significant decline in White-throated Sparrow of 4.6 percent annually (Rimmer et al. 2007). Results from the atlas mirrored these data; there was an 8 percent decrease in block occupancy statewide, with a 17 percent decrease in the Champlain Valley. Second atlases in Pennsylvania (Wilson et al. 2012) and New York (McGowan and Corwin 2008) recorded declines of 26 percent and 14 percent, respectively, but Ontario detected virtually no change (Cadman et al. 2007).

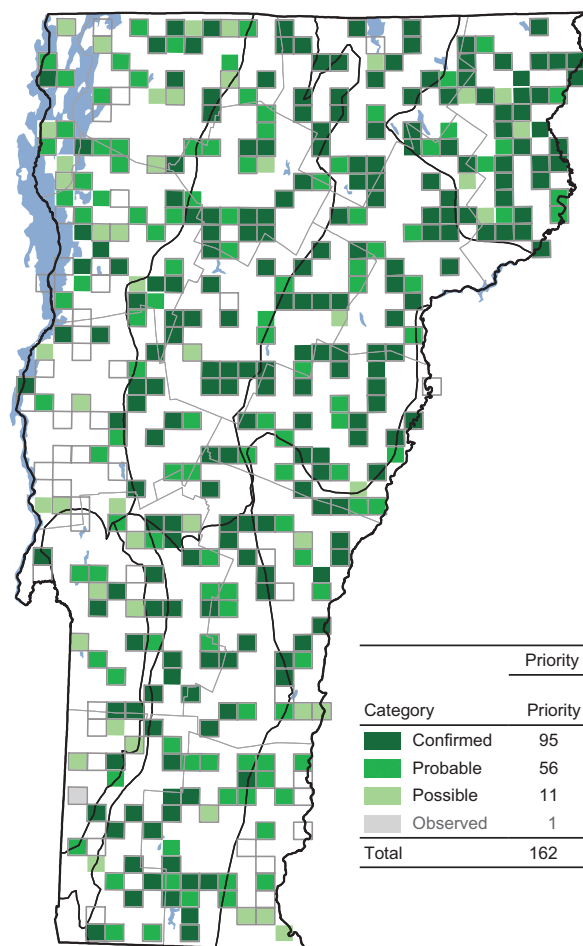
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	30	25	- 5	- 17
Northeastern Highlands	17	17	+ 0	+ 0
Northern Green Mountains	35	35	+ 0	+ 0
Northern Vermont Piedmont	30	30	+ 0	+ 0
Southern Green Mountains	27	27	+ 0	+ 0
Southern Vermont Piedmont	21	16	- 5	- 24
Taconic Mountains	11	7	- 4	- 36
Vermont Valley	5	5	+ 0	+ 0
Totals	176	162	- 14	- 8



Category	Priority Block Count	
	Priority 1	Priority 1 & 2
Confirmed	95	199
Probable	56	98
Possible	11	25
Observed	1	1
Total	162	322

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	68	16
Northeastern Highlands	100	11
Northern Green Mountains	98	20
Northern Vermont Piedmont	98	20
Southern Green Mountains	96	17
Southern Vermont Piedmont	77	10
Taconic Mountains	71	5
Vermont Valley	87	2

The declining trend for White-throated Sparrow populations in Vermont may be a result of the steady maturation of the state's extensive forests. An early successional specialist, the White-throated Sparrow withdraws from stands of mature woods unless the habitat maintains a mosaic of openings with regenerating scrub. On the mountaintops of the Northeast, where natural disturbances and climatic conditions maintain favored habitat, the White-throated Sparrow was the most common of the five species recently monitored: 1.02 per point count (N = 139) in 2007 and 0.95 (N = 115) in 2008, rebounding to

levels not seen since 2001–2 (Lloyd and Hart 2008, K. McFarland pers. comm.). Throughout Vermont, both beaver activity and logging would be expected to provide pockets of suitable habitat and, although declines have been documented, the White-throated Sparrow should remain abundant and widespread in the state.

TED LEVIN