

Vesper Sparrow

Pooecetes gramineus



The sweet song of this “poet of the plain, unadorned pastures” (Burroughs 1871) has long been appreciated by birders. Formerly common across Vermont’s rural landscape (Perkins and Howe 1901) following nineteenth-century clearing of forests for agriculture, the Vesper Sparrow has greatly declined in abundance across much of New England in recent decades, as farmlands have reverted to forests or have been developed. Vermont is near the northeastern periphery of the Vesper Sparrow’s breeding range, which spans the continent from California to the Canadian Maritime Provinces (Jones and Cornely 2002).

The Vesper Sparrow breeds in dry, open habitats with short, sparse vegetation, some bare ground, and hedgerows or other elevated song perches (Jones and Cornely 2002). In Vermont, these habitats occur almost exclusively in agricultural and other human-modified landscapes such as airports. Nests have been found in Vermont from late May to early July, though the breeding period is probably longer (Ellison 1985). Breeding males are conspicuous singers and are readily detected. Given its sporadic occurrence, the Vesper Sparrow may have been overlooked in some atlas blocks, but it is undoubtedly a very uncommon breeder in the state.

Vesper Sparrows occurred in a cluster of 11 blocks in the southern Champlain Valley, the most intensively agricultural area of the state; a group of 5 blocks along the border of the Southern and Northern Vermont piedmonts; and in scattered blocks elsewhere in the state, for a total of 29. The two CO records in northern Vermont were both from airports with short grass habitat: Franklin County and John H. Boylan state airports. Reflecting the species’ dependence on agricultural habitats, few records were from mountainous areas.

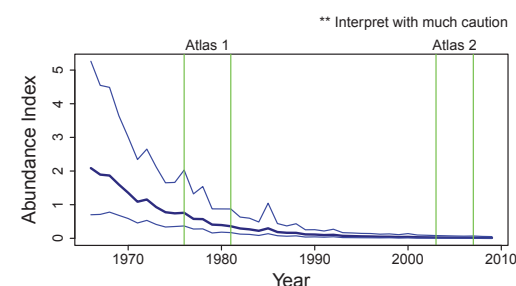
Data from the second atlas show a clear contraction in the Vesper Sparrow’s distribution since the first atlas. Records for Priority 1 blocks decreased from 35 to 11, with confirmations declining from 8 to 2. This reduction was a continuation of a trend that now spans many decades (Ellison 1985). Furthermore, this trend parallels regional declines in Vesper Sparrow and other grassland birds. Ac-

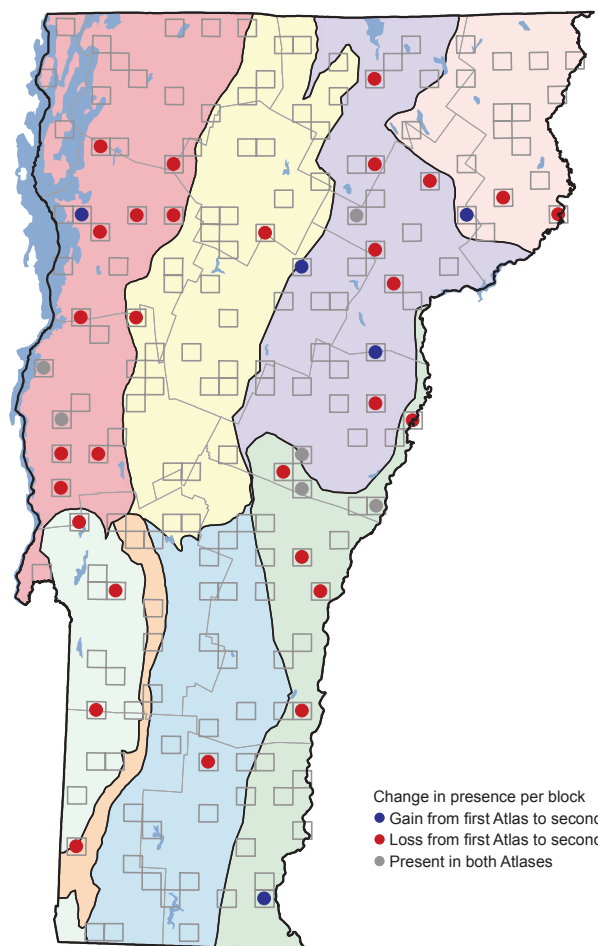
cording to Breeding Bird Survey data, from 1982 to 2007 the Vesper Sparrow decreased by 2.3 percent per year in eastern North America (Sauer et al. 2011). Block occupancy declined by 49 percent in the second New York atlas (McGowan and Corwin 2008), while the second Pennsylvania atlas found a 19 percent decline (Wilson et al. 2012). The second Ontario atlas documented a 29 percent decline and a distinct range shift to the southwest (Cadman et al. 2007).

Several factors are probably responsible for the Vesper Sparrow’s decline in Vermont, the most important being loss of suitable nesting habitat. Farmland acreage in Vermont decreased from about 660,000 hectares (1.6 million acres) in 1978 to 500,000 hectares (1.2 million acres) in 2007, continuing a long-term reversion of agricultural lands to forests (Wildmann 2001, USDA 2009c). Additionally, changing agricultural practices over the past forty years that appear to have reduced survival and population sizes of other grassland bird species in Vermont (Perlut et al. 2008a,b) also may have affected the Vesper Sparrow. Regional declines in Vesper Sparrow populations probably reduce the potential for annual immigration of this species into Vermont, compounding the effects of habitat changes occurring within the state.

Because of its small and diminishing population, the

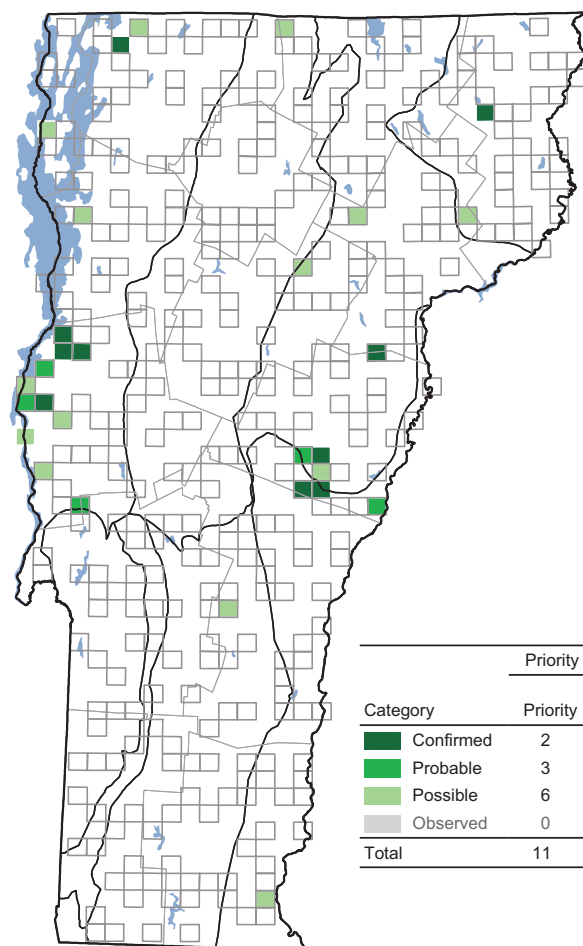
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	11	3	- 8	- 73
Northeastern Highlands	2	1	- 1	- 50
Northern Green Mountains	2	0	- 2	- 100
Northern Vermont Piedmont	8	4	- 4	- 50
Southern Green Mountains	1	0	- 1	- 100
Southern Vermont Piedmont	7	3	- 4	- 57
Taconic Mountains	3	0	- 3	- 100
Vermont Valley	1	0	- 1	- 100
Totals	35	11	- 24	- 69



DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	15	50
Northeastern Highlands	2	5
Northern Green Mountains	1	5
Northern Vermont Piedmont	7	23
Southern Green Mountains	1	5
Southern Vermont Piedmont	7	14
Taconic Mountains	0	0
Vermont Valley	0	0

Vesper Sparrow has been designated a Species of Special Concern in Vermont. It is classified as threatened in Massachusetts and as a Species of Special Concern in New York. Continentally, however, this widely distributed species is not considered to be at great risk (Rich et al. 2004). Continued persistence of the Vesper Sparrow in the Northeast is likely to depend on maintaining relatively large patches (greater than 20 hectares [50 acres]) of suitable habitat, striking a balance between its requirements for sparse vegetation and its vulnerability to mechanized disturbances and predation during

the nesting cycle (Rodenhouse and Best 1983, Vickery et al. 1994).

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