

Gray Jay

Perisoreus canadensis

A well-known bird to campers, hunters, and other people who frequent the northern woods, the Gray Jay glides in quietly and waits, having learned that humans are a regular source of food. Tightly linked to boreal forest, the Gray Jay is found in a broad swath across Canada and Alaska, dipping southward in the sub-alpine regions of the Rocky Mountains. Vermont is on the edge of this range, and the Gray Jay is restricted to the northeast part of the state, where it seeks out spruce and fir forests. It may very well have been extirpated in Vermont during the mid-1800s when mature forests were scarce.

The Gray Jay breeds in coniferous or mixed hardwood-coniferous forests, preferring large expanses of mature spruce-fir forests. A sedentary species that occupies a year-round territory, home ranges in Vermont average 121 hectares (300 acres; W. H. Barnard unpubl. data), and vary seasonally. Nests are typically placed next to the trunk of a spruce or fir tree located along the northern edge of a forest opening. Such nest placement takes advantage of the southern exposure, helping this early-nesting species to keep eggs and nestlings warm. Courtship feeding has been seen between 22 January and 15 March (W. H. Barnard unpubl. data). Nest building has been observed on 8 and 11 March. A female was observed on the nest 25 March, and there is one observation of nestlings being fed on 6 May (W. H. Barnard unpubl. data). Fledglings are seen as early as 16 May and independent juveniles are observed in early June (W. H. Barnard unpubl. data). Most atlasing is carried out after the young leave the nest, increasing the likelihood of spotting this rare but conspicuous bird.

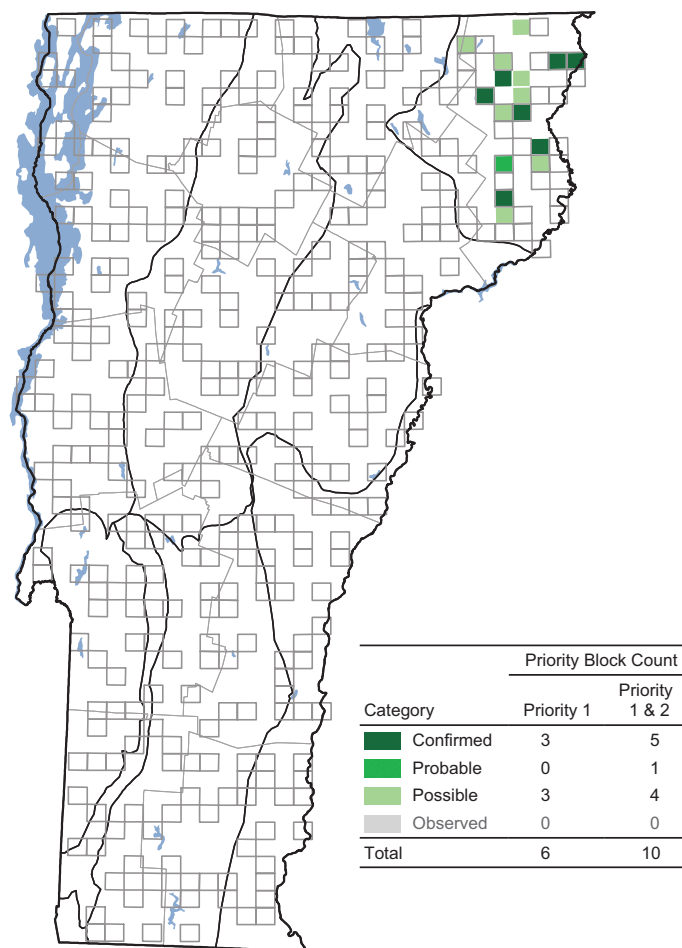
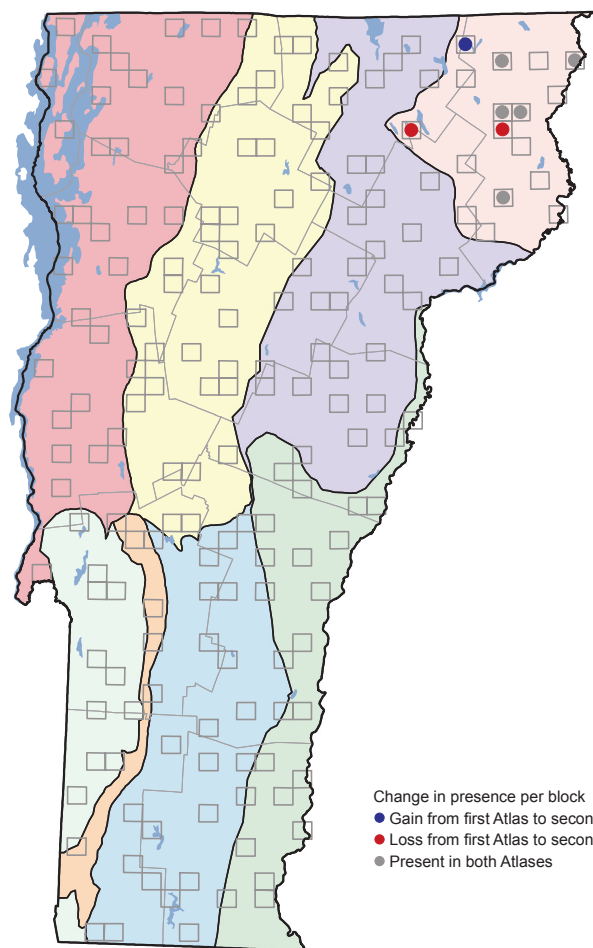
The Gray Jay is seldom found in Vermont outside of the Northeastern Highlands. All seven CO records are from Essex and Caledonia counties. Occasional “extra-limital” records are noted outside their northeast haunts and occur at food sources such as compost piles and bird feeders. Irruptions have been noted at irregular intervals and probably consist of non-territorial younger birds (Strickland and Ouellet 1993).

Although its overall block occupancy changed little,



the Gray Jay was found breeding in fewer blocks during the second atlas. During the first atlas, it was a confirmed or probable breeder in 7 blocks. In the second atlas, CO or PR records were reported in only 3 Priority 1 blocks and 6 priority blocks in all. A population of Gray Jays studied at Victory Bog for twenty years appears to have produced fewer territorial pairs in recent years (W. H. Barnard pers. obs.). The distribution of the species remains confined to the Northeastern Highlands, where heavy logging might account for the loss of birds in 2 blocks. Gray Jay habitat is historically subject to small-scale, temporary habitat fluctuations caused by fire and insect infestations, but recolonization occurs quickly.

The Gray Jay is presently listed in Vermont as a Species of Special Concern. The 1995 New Hampshire Partners in Flight Master Plan listed Gray Jay as a “species to watch.” Waite and Strickland (2006) documented a population decline in Algonquin Park, Ontario, over the past three decades, where the number of territories occupied fell by over 60 percent from 1980 to 2005. There was a concurrent downward trend in nesting success and a strong association of warmer than average fall temperatures with poorer than average production of young in the following breeding seasons. The Gray Jay spends much of the fall caching food, on which it relies the following spring in order to breed early. Waite and Strickland (2006) ad-



CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	0	0	+ 0	+ 0
Northeastern Highlands	7	6	- 1	- 14
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	7	6	- 1	- 14

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	0	0
Northeastern Highlands	27	100
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

vanced a “hoard-rot hypothesis,” showing that reduced reproductive success followed warm autumns when stored food was more likely to spoil. They predicted that, if the warming trend continued, a contraction of the southern edge of the geographic range would occur.

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