

Dark-eyed Junco

Junco hyemalis

There has been controversy about whether regionally distinct populations of the Dark-eyed Junco in North America constitute separate species or subspecies; the taxonomic issues have not yet been resolved (Nolan et al. 2002). Vermont's Dark-eyed Juncos belong to the population called "slate-colored." The breeding range of this population extends north to the tree line in eastern Canada, through the Northern Tier states from the Great Plains eastward, and south along the Appalachian Range to northern Georgia (AOU 1998).

The Dark-eyed Junco has been in Vermont since the state's earliest known records, from the first half of the nineteenth century (Thompson 1842). Although migratory, it occurs year round in Vermont, especially in the south (Murin and Pfeiffer 2002). Slate-colored populations are widely distributed in winter in the eastern United States, from Georgia north into central Vermont (Nolan et al. 2002).

The Dark-eyed Junco is Vermont's highest-elevation breeder, nesting at elevations from 150 meters (500 feet) to over 1220 meters (4000 feet; Ellison 1985). Nests are built on the ground in open woodland or near edges, often on slopes. Thirteen observations of nest building ranged from 7 May to 4 July. Nests with eggs were found from 14 May to 21 July (N = 10). Nestlings were found from 25 May to 15 August (N = 16), and fledglings from 8 June to 7 August (N = 81).

In the second Vermont atlas, Dark-eyed Juncos were found across Vermont, with notable gaps along the western edge of the Champlain Valley and around the southern margin of Lake Memphremagog. Both areas are low in elevation, characterized by urban development and agricultural lands. Still, records from the Champlain Valley increased by 18 percent. This increase was offset by a 20 percent decline in the Southern Vermont Piedmont. There was otherwise little change in block occupancy between the first and second atlases statewide.

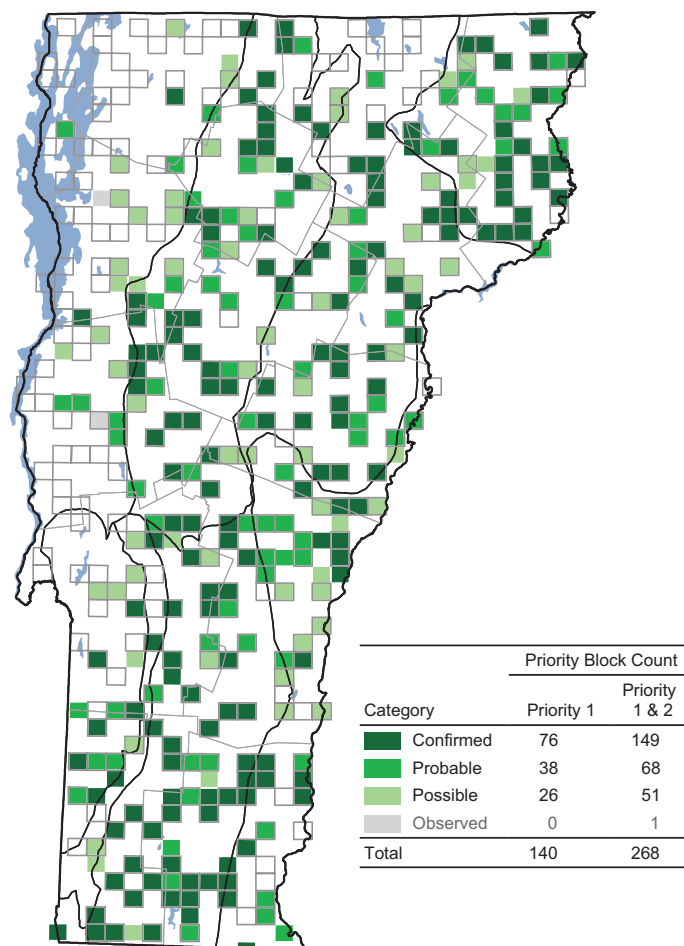
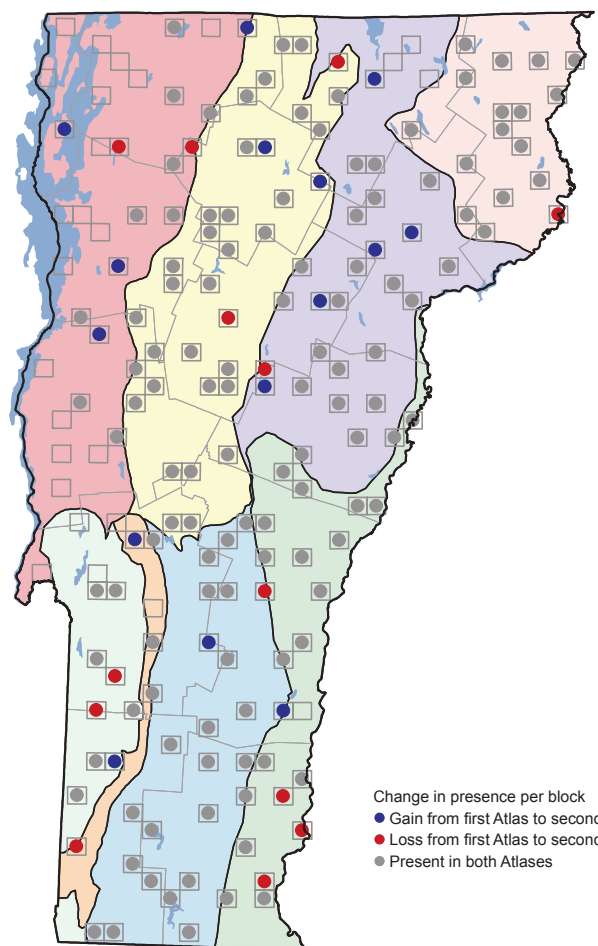
The roadside Breeding Bird Survey showed no change in Dark-eyed Junco abundance from 1982 through 2007 for Vermont or New York, but New Hampshire exhib-



ited a significant declining trend (Sauer et al. 2011). In a separate study at New Hampshire's Hubbard Brook area, a significant decrease of 8.3 percent per year occurred from 1969 to 1998 (Holmes and Sherry 2001). In Maryland, where Dark-eyed Juncos are restricted to a relatively small portion of the state in the northwestern hills, block occupancy nearly doubled from the first to second atlases (Ellison 2010). Pennsylvania's second atlas showed an increase of 38 percent (Wilson et al. 2012), while the second New York atlas showed an increase of 23 percent (Smith 2008). In the second Ontario atlas, the distribution of blocks was similar despite population declines in the southern part of the province indicated by BBS data (Rising 2007).

Changes in the breeding distribution and abundance of juncos in Vermont since the first atlas appear to have been minor. Eaton and Barrowclough (1998) attributed a major expansion of the species' breeding range in New York to reforestation of former agricultural lands. The same changes may also underlie the slight increase in blocks occupied by the birds in Vermont. The Dark-eyed Junco is highly likely to remain common in the state for the foreseeable future.

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CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	11	13	+ 2	+ 18
Northeastern Highlands	17	16	- 1	- 6
Northern Green Mountains	33	33	+ 0	+ 0
Northern Vermont Piedmont	22	26	+ 4	+ 18
Southern Green Mountains	25	26	+ 1	+ 4
Southern Vermont Piedmont	20	17	- 3	- 15
Taconic Mountains	8	7	- 1	- 13
Vermont Valley	2	2	+ 0	+ 0
Totals	138	140	+ 2	+ 1

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	26	7
Northeastern Highlands	94	13
Northern Green Mountains	92	22
Northern Vermont Piedmont	78	19
Southern Green Mountains	96	20
Southern Vermont Piedmont	82	12
Taconic Mountains	61	5
Vermont Valley	37	1