

Indigo Bunting

Passerina cyanea

The Indigo Bunting is perhaps the most persistent songster we have in Vermont, singing boldly from treetops throughout the heat of the day. Their *fire, fire, fire, where, where, here, here, here* song is delivered, seemingly nonstop, from the time they arrive in mid-May until they complete their breeding cycle in August. Indigo Buntings breed throughout the eastern United States north into southern Ontario and Quebec. On the western edge of their range they hybridize with Lazuli Buntings. They winter in southern Mexico and Central America and on the Caribbean islands from mid-October through early April.

Male Indigo Buntings maintain territories in shrubby habitats, the edge of deciduous forests, and other secondary growth areas including power-line rights-of-way and clear-cuts. A male may host more than one female in his territory, and females may breed with several males in a season. Males arrive on their territories in Vermont in early May, some two weeks before females. Pairs form rapidly once the females arrive and nesting begins within a few days. The female builds the nest, low in dense shrubbery, and lays 3 to 4 eggs. The male may be attentive until the 12- to 13-day incubation period starts, when he resumes his incessant singing in hopes of attracting more females. The young may leave the nest in 9 days and are capable of moderate flights at 11 days of age.

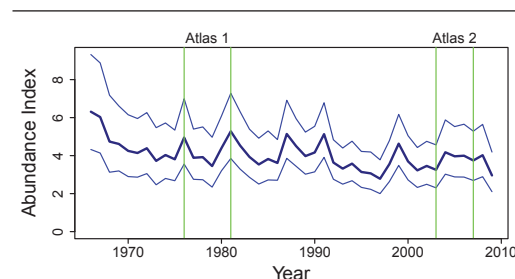
Ellison (1985) believed that females in New England raise only a single brood each summer, but most authors consider the species to be double-brooded (Payne 2006). About half of the males assist in feeding the fledged young, allowing the female to more quickly initiate a second nest, usually with the same mate (Westneat 1988a,b, R. Payne pers. comm.). First nests are commonly parasitized by Brown-headed Cowbirds, while second broods are much less frequently affected (Payne and Payne 1998). Experienced females can build a nest in as little as two days, and it is possible that at least a small percentage of Vermont pairs manage to raise two broods. During the second atlas fledglings were noted from the second week of June until the middle of August.

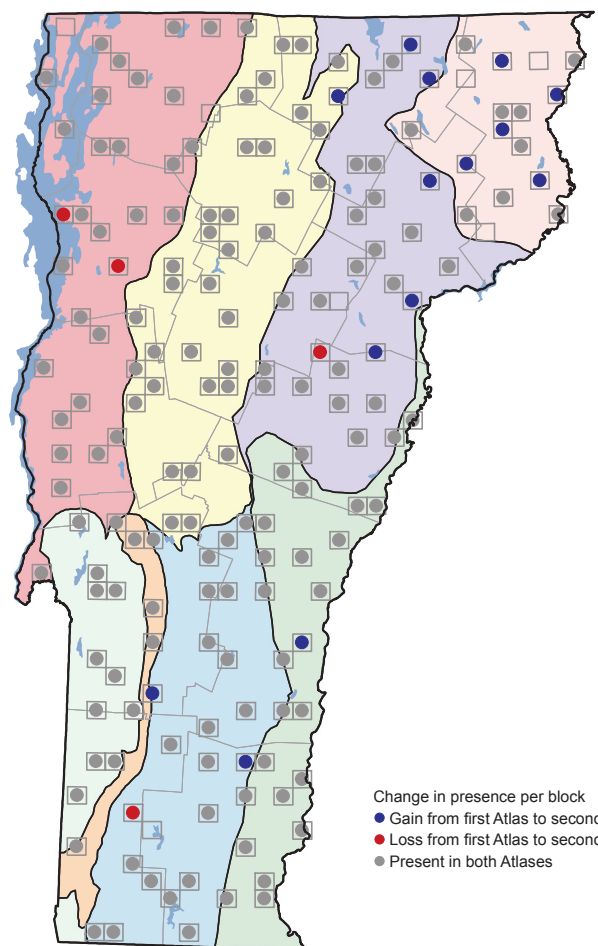


In the first Vermont atlas, Indigo Buntings were relatively scarce in the Northeastern Highlands but well represented in the remainder of the state. In the second atlas the number of occupied blocks in that region more than doubled, while occupancy remained high in the rest of the state. Indigo Buntings are one of the easiest species to detect, as males sing throughout the day from prominent perches in the taller trees in their territory. Atlas data likely provides an accurate reflection of their true distribution.

The expansion of the Indigo Bunting's distribution in Vermont contrasts with results from New York's second atlas: the number of occupied blocks in the Adirondack Mountains decreased by 15 percent (McGowan 2008), possibly resulting from restrictions on land development that have reduced forest fragmentation. Despite the loss of Indigo Buntings from that area, Breeding Bird Survey data from 1982 to 2007 indicate that populations have remained stable in the Lower Great Lakes / St. Lawrence Plain (Bird Conservation Region 13), the Atlantic North-

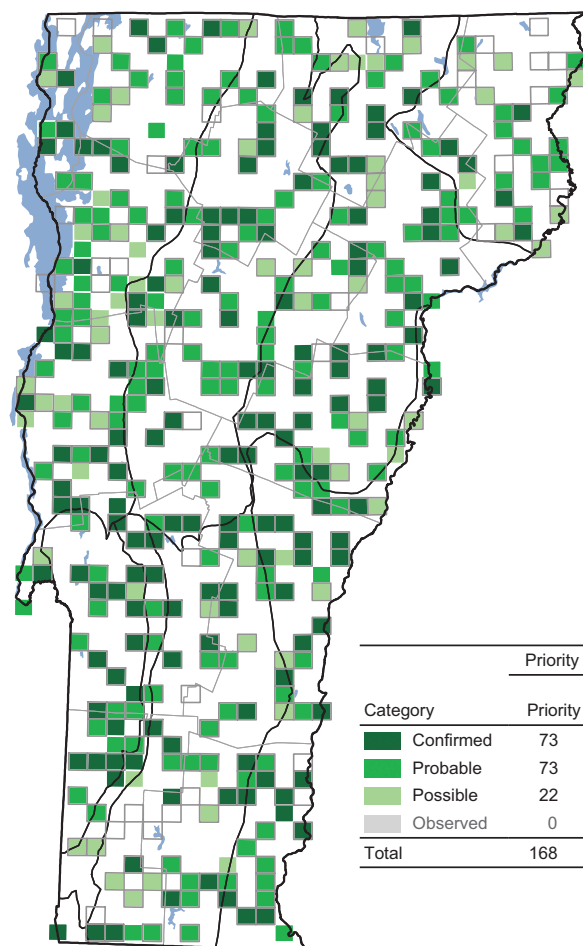
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	31	29	- 2	- 6
Northeastern Highlands	9	14	+ 5	+ 56
Northern Green Mountains	34	35	+ 1	+ 3
Northern Vermont Piedmont	24	28	+ 4	+ 17
Southern Green Mountains	24	25	+ 1	+ 4
Southern Vermont Piedmont	20	21	+ 1	+ 5
Taconic Mountains	11	11	+ 0	+ 0
Vermont Valley	5	5	+ 0	+ 0
Totals	158	168	+ 10	+ 6



Category	Priority Block Count	
	Priority 1	Priority 1 & 2
Confirmed	73	142
Probable	73	143
Possible	22	48
Observed	0	0
Total	168	333

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	89	20
Northeastern Highlands	75	8
Northern Green Mountains	96	19
Northern Vermont Piedmont	95	19
Southern Green Mountains	85	14
Southern Vermont Piedmont	95	11
Taconic Mountains	100	6
Vermont Valley	100	2

ern Forest (Bird Conservation Region 14), and in the states of New York and Vermont (Sauer et al. 2011).

At present Vermont's forests continue to offer the edges and secondary growth that are preferred by Indigo Buntings. As the state's forests mature, a decrease in early successional growth may lead to an eventual decline in the species' population. At the same time, however, the increased distribution in the northeastern portion of the state accurately mirrors a predicted expansion due to climate change (Matthews et al. 2007). Because changes in land use and climate (along with their synergistic effects)

may affect populations of this species in different ways, future trends in Vermont are difficult to predict.

DOUGLAS P. KIBBE