

Eastern Bluebird

Sialia sialis

Eastern Bluebirds generally inhabit rural areas and farmlands, but they will also take advantage of open glades, beaver meadows, and forest openings created by fire or logging (Conner and Adkisson 1974; DeGraaf et al. 1980; Kiviat 1982). Their primary habitat requirements are the presence of elevated foraging perches and suitable nesting cavities, either natural or man-made (Pinkowski 1977b). Studies by Pinkowski (1977b, 1979) and Goldman (1975) showed that Eastern Bluebirds usually hunt by dropping to the ground after locating prey from a perch; therefore low vegetation facilitates foraging.

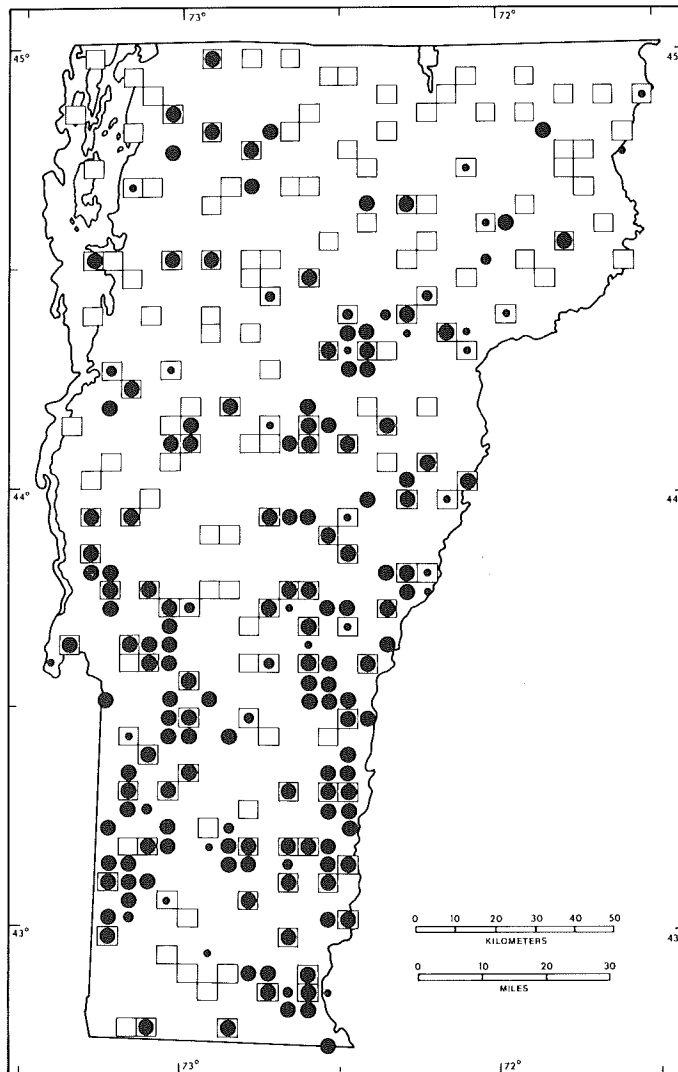
Bluebirds are not as easily located as many other open-country species, but careful scanning of fencerows and yards with nest boxes often leads to their detection. Their soft, warbling song does not carry long distances. Confirmation is not difficult, primarily because the species tends to use nest boxes. In Atlas Project priority blocks, 78% of the records were confirmations. The location of nests accounted for 69% of all Vermont Atlas Project confirmations; 39% of these nests contained young. Recently fledged young contributed an additional 18% of the confirmations.

Eastern Bluebirds winter in the central and southern U.S., returning to Vermont in late March. The female gathers dry grass or pine needles for the nest and begins egg laying within a few days of nest completion, continuing until a full clutch of 3 to 8 blue eggs (usually 4 to 5) is laid (Bull 1974). The average of 19 Vermont clutches is 4.4 eggs. Up to 3 clutches are laid in a season (Hamilton 1943; Thomas 1946; Hartshorne 1962). Dates for 24 nests containing eggs in Vermont range from April 20 to July 29. The young hatch after an incubation period of 13 to 15 days (Thomas 1946; Hartshorne 1962). Nests with young have been reported on 24 dates between May 15 and August 15 in Vermont. Nestlings fledge after 17 to 18 days, at which time the male takes over



their care and the female prepares for subsequent broods (Thomas 1946; Hartshorne 1962). Fledgling dates for Vermont range from May 21 to August 23. Pinkowski (1977b) found that predation and inclement weather were common causes of nesting failure among bluebirds in Michigan, and that many pairs succeeded in raising only one brood. Family groups often stay together during migration. The peak of fall movement is during late September to early October. A few individuals may successfully winter in southwestern Bennington County during mild winters.

Early accounts of the birds of Vermont indicate that the Eastern Bluebird was common throughout the state in the mid to late 1800s (Thompson 1853; Cutting 1884). Early in the twentieth century writers described the bluebird as a common summer resident in some areas (Perkins and Howe 1901; Fortner et al. 1933). However, in the early 1900s, as bluebirds lost habitat to reforestation, they also began to experience competition for nest sites from introduced House Sparrows and European Starlings. Both of these species, being more or less sedentary, are able to claim nesting cavities before bluebirds arrive in the spring, and the larger starling can easily evict bluebirds from cavities with large enough entrances (Bent 1949; Zeleny 1976). Pruning and cutting in orchards and woodlot edges have



No. of priority blocks in which recorded

TOTAL 92 (51%)

Possible breeding: 14 (15% of total)

Probable breeding: 7 (7% of total)

Confirmed breeding: 71 (78% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	14	45	15
Green Mountains	18	33	20
North Central	8	42	9
Northeast Highlands	2	13	2
East Central	14	74	15
Taconic Mountains	14	88	15
Eastern Foothills	22	92	24

also contributed to bluebird decline by decreasing the number of natural cavities (Bent 1949; Zeleny 1976). During the winter and when they first arrive in the spring, many bluebirds die if ice or snow covers the fruit they depend on for winter food. It may take bluebird populations several years to recover after particularly harsh winters (Forbush 1929; Bent 1949).

In Vermont, two Audubon chapters—Rutland County and Ascutney Mountain—have had active nest box placement and monitoring programs. Perhaps as a result of these efforts, the Eastern Foothills and Taconic Mountains had the highest concentration of bluebird records in Atlas Project

priority blocks, followed closely by the East Central region. In the Champlain Lowlands, where competition with introduced species is most severe, bluebirds were located in only 45% of the priority blocks. The areas of lowest bluebird density in Vermont are the heavily forested high elevations of the Green Mountains and the Northeast Highlands. The Eastern Bluebird has been on the National Audubon Society's Blue List since 1978. In Vermont, numbers of bluebirds could probably be increased by the placement and monitoring of additional nest boxes in suitable habitat.

NANCY L. MARTIN