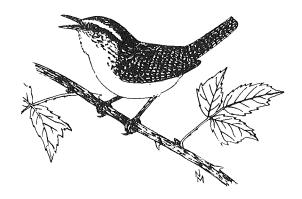
## Carolina Wren

Thryothorus ludovicianus

The first Vermont breeding record for the Carolina Wren was established during the Atlas Project. The major habitat requirements of this southern species are thick, often vine-covered, shrubbery and brush, and nesting cavities. In eastern Texas, Conner et al. (1983) found that the species was adversely affected by high densities of polesized trees and by the presence of large numbers of pines; they believed that increased canopy shading led to low shrub densities, suggesting that Carolina Wrens select areas with relatively open canopies. Graber and Graber (1979) noted that birds with southern affinities in southern Illinois survive harsh winter conditions better in urban situations. Carolina Wrens are sedentary and highly susceptible to the deleterious effects of severe winters; for these reasons, it is logical that most records for this species in Vermont, where winters are traditionally harsh, are from residential areas having thick ornamental shrubs for cover and fruit, as well as suet feeders.

Breeding Carolina Wrens are most easily detected by song. The song consists of a series of loud, ringing, whistled triplets. The harsh chattering and churring call notes also attract attention to these feisty birds. The species often nests near humans, especially in the North, where it may depend on suet feeders and fruit plantings for its winter survival. These wrens will accept nest boxes, as well as a wide variety of human artifacts, for nest sites.

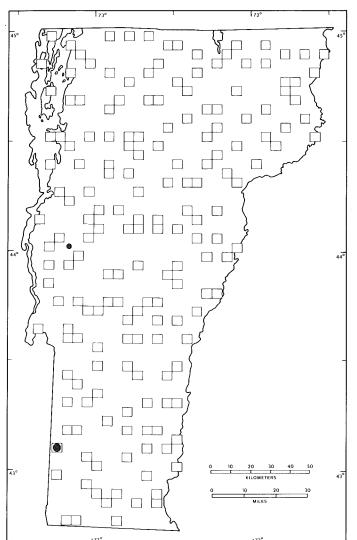
The nest, built in a cavity, is a bulky, often globular, structure of grass, weed stems, twigs, and plant fibers. Carolina Wrens are early nesters, often laying eggs in early and mid April even in the northern part of their range. One Vermont pair was observed nest building as early as March 31 (ASR, W. Scott and K. Wolff). This pair constructed three nests in one season but showed no signs of incubating in any of them; such behavior suggests that the Carolina Wren, like many wrens, constructs dummy nests. The eggs



are white with reddish brown spotting, and number from 4 to 6 per clutch. An average of 4.7 eggs was recorded for 18 New York State clutches (Bull 1974). Egg dates for New York State range from the first week of April to the first week of August (Bull 1974). The incubation period lasts about 14 days, and the young remain in the nest for another 14 days (Nice and Thomas 1948). In the southern U.S., Carolina Wrens are double-brooded and perhaps triple-brooded.

Before the Atlas Project, the Carolina Wren was not known to breed in Vermont and was considered a vagrant from southern New England. Because Carolina Wrens are sedentary and populations decline significantly during severe winters, the species has always occurred in low numbers in New England. Mild periods permit the species' population to build up and allow marginal habitat and geographic regions to be explored; subsequent harsh winters reduce the species to low numbers again (Forbush 1929; Bent 1948). Vague references to the occurrence of the Carolina Wren in Vermont date back to 1884 (Cutting 1884). The first documented record was from Burlington in 1936 (Smith 1938). Subsequent sightings included two from Rutland County, in 1939 and 1943 (Potter 1944), and one from Northfield in 1958 (GMAS records, D. Alan).

A remarkable increase in the number of Carolina Wrens was reported in Vermont during the mid 1970s. This increase may be explained in part by increased observer coverage and knowledge and, in part, by high population densities of this species to the south of Vermont at that time (Able 1974).



## No. of priority blocks in which recorded

TOTAL 1 (0.6%)

Possible breeding: o (o% of total)
Probable breeding: o (o% of total)
Confirmed breeding: I (100% of total)

## Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	0	0	0
Green Mountains	0	0	0
North Central	0	0	0
Northeast Highlands	0	0	0
East Central	0	0	0
Taconic Mountains	I	6	100
Eastern Foothills	0	0	0

From 1974 to 1982, 29 records reported a total of 31 Carolina Wrens in Vermont; 56% of these records were for 1974–75, after which the species declined dramatically (RVB 1974–83). The severe winter of 1976–77 caused major declines over much of the East (Smith 1977), eliminating most Vermont Carolina Wrens as well as the source population for northern New England colonists.

Both Vermont Atlas Project records were of holdovers from this decline. The records were of a pair that nested in Arlington (Bennington County) in 1978 (ASR, C. S. Chapin and D. Reid), and a pair that was seen building a nest in Middlebury (Addison County)

in 1977 (ASR, W. Scott and K. Wolff). A series of mild winters might induce the Carolina Wren to attempt to colonize Vermont again, but the species' presence must currently be considered marginal in the state.

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