Tree Swallow

Tachycineta bicolor

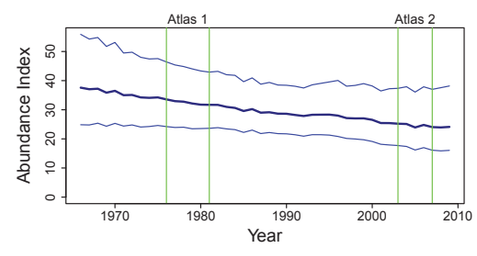
Pugnacious Tree Swallows are intense competitors for cavity nest sites, as bluebird enthusiasts know well. Tree Swallows breed across North America from tree line southward to northern Georgia and southern California (Robertson et al. 1992). Breeding pairs are limited by the availability of nesting cavities. In their drive to find and occupy a suitable nest site, Tree Swallows flirt with disaster each spring, returning from the southern United States and Mexico in mid-March, well before the threat of snow and freezing temperatures has passed. An assessment of laying dates since 1959 indicated that Tree Swallows now begin breeding more than a week earlier, presumably due to climate change (Dunn and Winkler 1999). Inclement weather may have devastating consequences on the vanguards that are unable to find sufficient food. Some Tree Swallows winter as far north as Long Island and coastal Massachusetts, feeding on bayberries—a strategy apparently aimed at shortening their flight to the breeding grounds (Robertson et al. 1992).

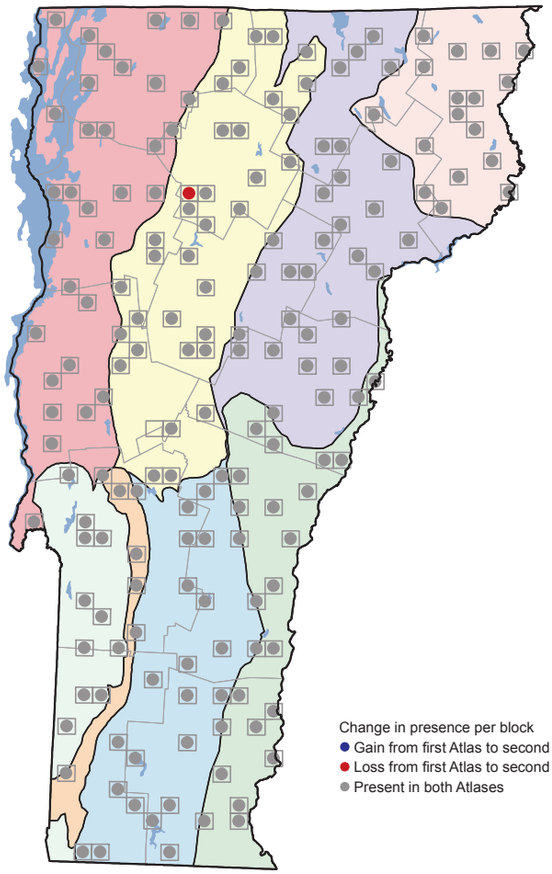
Tree Swallows readily accept natural or man-made cavities for nesting, provided there are open areas nearby for foraging. Beaver ponds with standing trees, lakeshores, and old stands of fire-killed forest are ideal breeding habitats. Suggestions that provision of nest boxes may facilitate the population growth of Tree Swallows (Holroyd 1975) are overly optimistic, however; productivity of pairs utilizing artificial structures only amounts to about 2 percent of the total annual production and would counterbalance a lack of natural cavities only at a local scale (Erskine 1979).

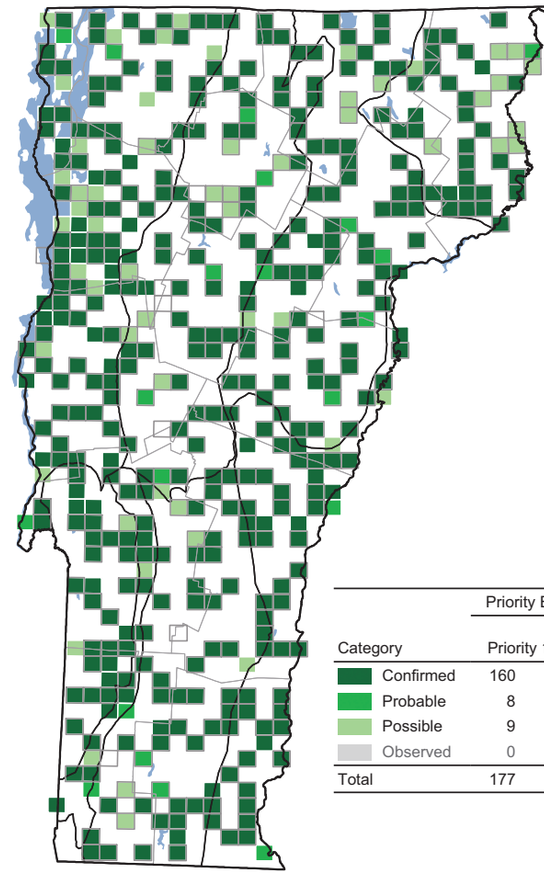
Early arrival on the breeding grounds allows the Tree Swallow to secure a nest site, but a month may pass before a pair finishes the nest and lays a clutch of 4 to 7 eggs. The nest is guarded furiously by the female's mate; nevertheless, more than half of all broods may contain offspring not fathered by the resident male (Robertson et al. 1992). Nest building occurs between 5 April and 21 July (N = 28); nests with eggs (N = 21) between 15 May and 4 July; nestlings between 26 April and 1 August (N = 83); and fledglings between 5 June and 29 July (N = 63). By August thousands roost in Vermont marshes (Metcalf and Martin 1985), staging before migration; late migrants may be found through October.

Tree Swallows have continued to be one of the most widespread species in Vermont, occurring in more than 97 percent of Priority 1 blocks in the second atlas. The second atlas in New York found a statewide increase of 4 percent in the number of blocks occupied by Tree Swallows, but there was a local decrease of 11 percent in the heavily forested Adirondacks (Medler 2008). Pennsylvania found an increase of 26 percent during the second atlas (Wilson et al. 2012), while in Maryland the increase was 142 percent (Ellison 2010). Canadian populations have undergone significant declines from 1982 to 2007 (Sauer et al. 2011), and Ontario found a 17 percent decrease in the probability of observation during the second atlas (Cadman et al. 2007).

RELATIVE ABUNDANCE OVER TIME







Category	Priority Block Count: Priority 1	Priority 1 & 2
Confirmed	160	315
Probable	8	14
Possible	9	28
Observed	0	0
Total	177	357

CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	33	33	+ 0	+ 0
Northeastern Highlands	17	17	+ 0	+ 0
Northern Green Mountains	34	33	- 1	- 3
Northern Vermont Piedmont	30	30	+ 0	+ 0
Southern Green Mountains	27	27	+ 0	+ 0
Southern Vermont Piedmont	21	21	+ 0	+ 0
Taconic Mountains	11	11	+ 0	+ 0
Vermont Valley	5	5	+ 0	+ 0
Totals	178	177	- 1	- 1

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	98	20
Northeastern Highlands	100	10
Northern Green Mountains	93	17
Northern Vermont Piedmont	98	18
Southern Green Mountains	96	15
Southern Vermont Piedmont	100	11
Taconic Mountains	100	6
Vermont Valley	100	2

Based on Breeding Bird Survey data, Vermont supports some of the highest densities of Tree Swallows in the United States. From 1982 to 2007, BBS data indicate that Tree Swallow populations have declined significantly range-wide (0.6 percent per year) and in the Atlantic Northern Forest (3.0 percent per year; Sauer et al. 2011). Populations in Pennsylvania and Maryland have been increasing significantly during the same time period.

As forest canopy closure continues, Tree Swallow numbers may decline. Observed declines in the Adirondacks, for example, likely reflect a loss of foraging habitat as mature forest replaces early successional stages. Competition with starlings for nest sites, and the toxic burdens of chemicals are other potential limiting factors (Robertson et al. 1992, Bishop et al. 1995, Gerrard and Louis 2001). The species appears to be in no immediate danger, however, and will likely take advantage of any new nesting situation presented by fire, flooding, or other perturbations that open unbroken forest.

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