# Black Tern

*Chlidonias niger*

Small, dark, and swallow-like, the Black Tern's statewide distribution is currently limited to a few marshes along the eastern shore of Lake Champlain. Few Vermonters have seen this species, and if the present decline continues, it may vanish from the state. The species was apparently not known to breed in New England prior to the 1920s (Forbush 1925). Black Terns were first reported in Vermont in 1937 on Lake Champlain (Richardson 1937), then in 1949 on Lake Memphremagog (Smith 1950). A fairly large colony bred on the northern end of Lake Champlain (Smith 1950), presumably in marshes at the Missisquoi NWR, where the species maintains a toehold today. The Black Tern's contiguous breeding range extends from western Quebec nearly to Alaska and south to Colorado; Vermont lies on the extreme southeastern edge.

The Black Tern breeds in large, shallow, freshwater marshes, where individuals forage for fish and invertebrates. Birds return to Vermont in early May, but courtship and pairing can last for weeks before nesting begins. The fragile nest is placed on small floating mats of vegetation, generally on the open-water side of the marsh. This behavior protects the birds from predators, but subjects the nests to flooding. Although renesting may occur, nest failure has been a major problem for this species. Nests with eggs were reported (N = 2) on 23 May and 30 June. One nest with young was noted on 21 June. Incubation and nestling periods are both about 28 days, making nest integrity an important requisite for successful reproduction. Black Terns are some of the first waterbirds to depart Vermont, leaving the state from mid-August to the end of September (Ellison 1985). The Black Tern prefers marshes greater than 20 hectares (49 acres; Brown and Dinsmore 1986), yet most of Vermont's marshes are smaller than this. Annual surveys show that the Black Tern has disappeared from the wetlands on the south end of Lake Memphremagog and at Dead Creek Wildlife Management Area in Addison County (VFWD unpubl. data). Missisquoi NWR hosted 66 pairs in 2008, far below the 180 to 300 pairs estimated there during the first atlas (Ellison 1985), but more intensive monitoring would likely be needed to document breeding success. In 2009, the estimate at Missisquoi jumped to 121 pairs; such drastic fluctuations have been typical over the years. Reasons for the Black Tern's disappearance from areas where it was a regular breeder during the first atlas are speculative. Invasion of some portions of the wetlands by *Phragmites* and/or purple loosestrife may have rendered the habitat unsuitable for nesting or foraging (Mazzocchi and Muller 2008).

Widespread declines of Black Tern, including in the Prairie Pothole Region—the core of its range—may underlie declines in Vermont. In New York's second atlas, the number of occupied blocks declined from 73 to 44 (McGowan and Corwin 2008), while in Pennsylvania they dropped from 11 to 8 (Wilson et al. 2012). In Ontario, the species disappeared from the Niagara Peninsula and declined by up to 50 percent in other regions of the province (Weseloh 2007).

The Black Tern has been classified as endangered in Vermont and in several other northeastern states. Although events in the core of the range may be driving fluctuations, protecting and managing habitat in Vermont will ensure that nesting continues to be an option for the species in the state. Such measures should include protection of colonies from invasive species, boating activity, and extreme water fluctuations during the breeding season. Additional measures might include the provision of artificial nest platforms (Shealer et al. 2006) and research to determine the reasons behind regional declines. A specific plan to manage Black Tern currently does not exist, but may help to ensure coordinated management efforts on the protected lands where they nest.

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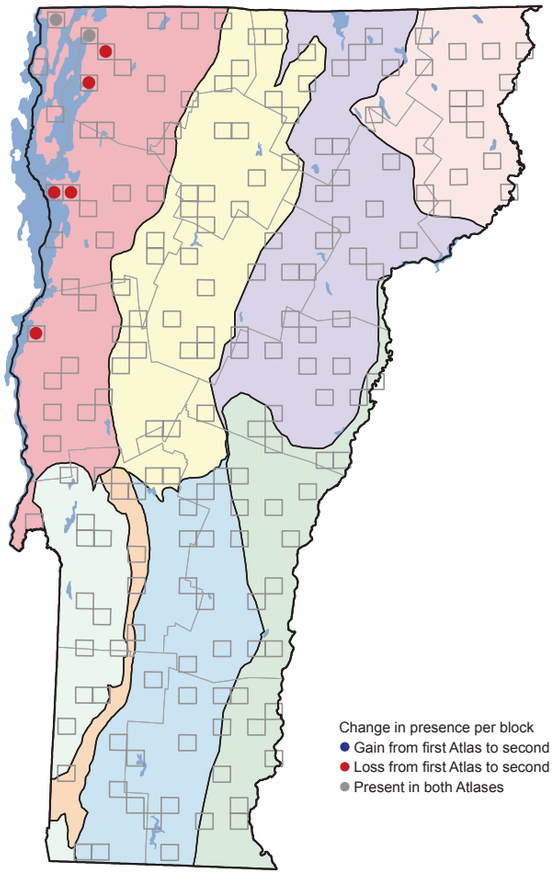


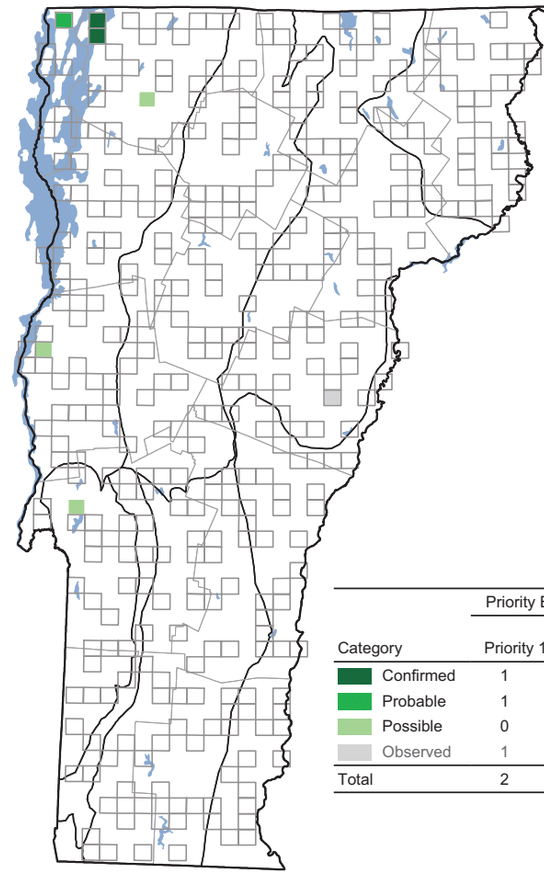

| Category | Priority Block Count: Priority 1 | Priority 1 & 2 |
|---|---|---|
| Confirmed | 1 | 2 |
| Probable | 1 | 1 |
| Possible | 0 | 0 |
| Observed | 1 | 1 |
| Total | 2 | 3 |

**CHANGE IN DISTRIBUTION BETWEEN ATLASES**

| Biophysical Region | First Atlas | Second Atlas | Change | % Change |
|---|---|---|---|---|
| Champlain Valley | 7 | 2 | - 5 | - 71 |
| Northeastern Highlands | 0 | 0 | + 0 | + 0 |
| Northern Green Mountains | 0 | 0 | + 0 | + 0 |
| Northern Vermont Piedmont | 0 | 0 | + 0 | + 0 |
| Southern Green Mountains | 0 | 0 | + 0 | + 0 |
| Southern Vermont Piedmont | 0 | 0 | + 0 | + 0 |
| Taconic Mountains | 0 | 0 | + 0 | + 0 |
| Vermont Valley | 0 | 0 | + 0 | + 0 |
| Totals | 7 | 2 | - 5 | - 71 |

**DISTRIBUTION IN CURRENT ATLAS**

| Biophysical Region | % of region species occupies | % of all records for this species found in region |
|---|---|---|
| Champlain Valley | 4 | 100 |
| Northeastern Highlands | 0 | 0 |
| Northern Green Mountains | 0 | 0 |
| Northern Vermont Piedmont | 0 | 0 |
| Southern Green Mountains | 0 | 0 |
| Southern Vermont Piedmont | 0 | 0 |
| Taconic Mountains | 0 | 0 |
| Vermont Valley | 0 | 0 |