

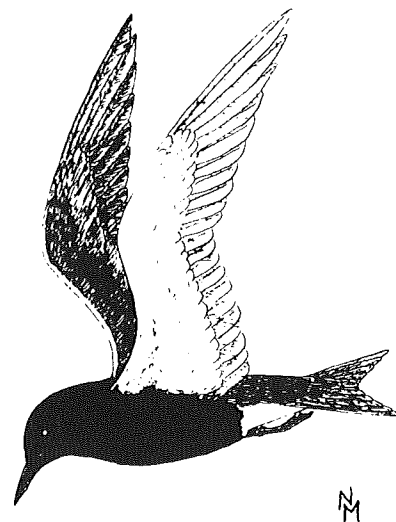
## Black Tern

*Chlidonias niger*

In Vermont the graceful Black Tern is largely limited to the extensive riparian marshlands on or near the two major lakes, Lake Champlain and Lake Memphremagog. The species occurs in both cattail and shrub marshland. On the breeding grounds the species is highly insectivorous, feeding largely upon *Odonata* (dragonflies and damselflies) and *Ephemeroptera* (mayflies). Dunn (1979) found that fish provided important nutrition for the young, although they were taken in smaller numbers than insects.

The Black Tern was easily located by Atlas Project workers in appropriate habitat, as it is a tireless flier and is conspicuously plumaged. The birds protect their nests and young aggressively, diving at and often striking intruders. The relative ease of confirmation is reflected in the tern's confirmation in 86% of the priority blocks and 58% of all blocks in which the species occurred. Seven of the nine confirmations (in priority and non-priority blocks) for this tern were of nests with eggs.

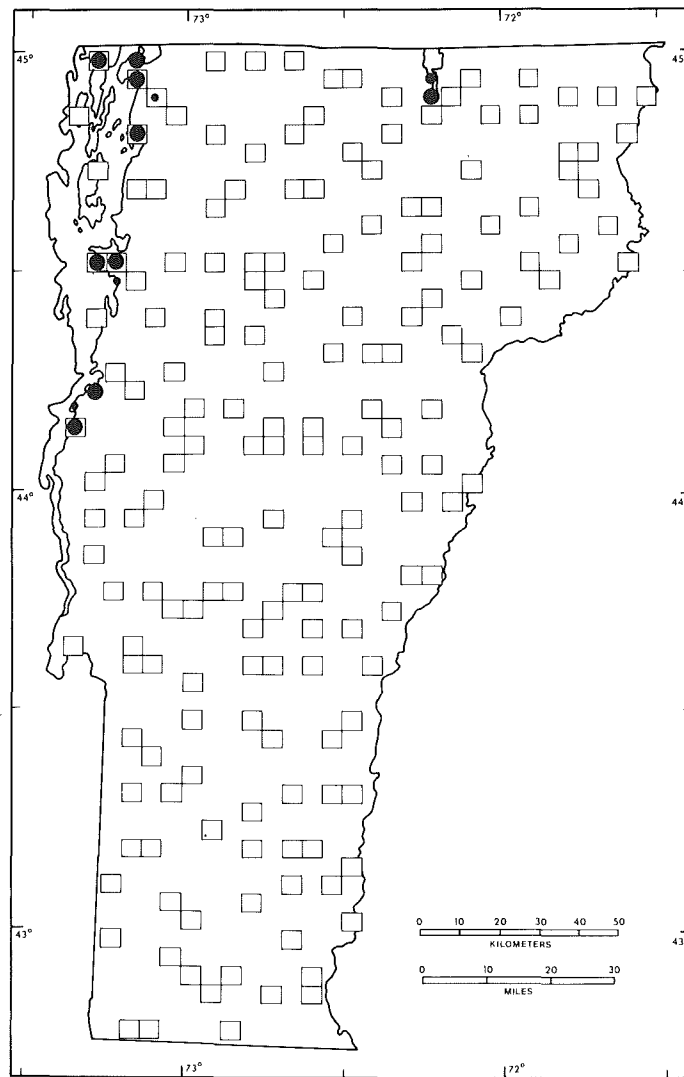
Black Terns arrive in their Vermont breeding areas in early May. From emergent vegetation, waterweeds, and debris they construct a nest on stumps, logs, planks, floating or matted plants, or old muskrat houses (Harrison 1975). Nest sites tend to be in thin spots in the emergent vegetation, where either water flow or cuttings by muskrats create openings (Bent 1921; Cuthbert 1954). Because fieldworkers were not required to submit nest dates, and because few historical data on the species exist, the Atlas Project has little Vermont nesting information for the Black Tern. Data from nearby states indicate a range of egg dates from late May to late July, with the peak of laying in early June (Bent 1921; Cuthbert 1954; Bull 1974). July 1 is the only nest date available for Vermont (nest with 4 eggs, at Lake Memphremagog). The eggs range from oval to pyriform in shape, and vary from buff to olive in color, with many dark brown or black blotches and spots. Clutch size may range



from 2 to 4 eggs; however, clutches rarely vary from 3 eggs: 85% of 114 New York State clutches contained 3 eggs (Bull 1974). The incubation period lasts 21 to 22 days (Cuthbert 1954). Day-old young may swim up to 30 m (100 ft) from the nest when danger threatens (Cuthbert 1954); they first fly at 25 days of age.

The flying juveniles remain in the natal marsh, being fed by their parents for about another 3 weeks (Cuthbert 1954). Cuthbert (1954) indicated that flying juveniles will establish feeding "territories" in their natal marsh even while being fed by the parents. Parental defense of the nests and young is vigorous, as is typical of terns; Atlas Project workers on Lake Memphremagog observed a colony of Black Terns pursue a Peregrine Falcon (D. P. Kibbe, pers. comm.). Black Terns are Vermont's earliest departing waterbirds, often leaving the state before mid August.

According to Forbush (1925), the Black Tern had not nested in New England as of the early 1920s. It is uncertain whether the species expanded its range eastward into New England and maritime Canada, or whether improved fieldwork in marshlands in the northeastern U.S. led to its rather recent addition to the breeding avifaunas of Maine, New Brunswick, and Vermont (AOU 1957). The Black Tern was first recorded in the literature of Vermont breeding birds in



**No. of priority blocks in which recorded**

TOTAL 7 (4%)

Possible breeding: 1 (14% of total)

Probable breeding: 0 (0% of total)

Confirmed breeding: 6 (86% of total)

**Physiographic regions in which recorded**

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	7	23	100
Green Mountains	0	0	0
North Central	0	0	0
Northeast Highlands	0	0	0
East Central	0	0	0
Taconic Mountains	0	0	0
Eastern Foothills	0	0	0

1937 when a Black Tern nest on Lake Champlain was photographed by L. Babbit (Richardson 1937). In 1950 Smith noted the presence of a "fairly large colony at [the] northern end of Lake Champlain" (Smith 1950a). The species was first reported from the South Bay of Lake Memphremagog in 1949 (Smith 1950a); breeding was established there in 1963 (J. D. Stewart, pers. comm.). The species was first reported from Addison County in 1965 at Dead Creek (GMAS record, F. Bellinger).

The present Vermont distribution of the Black Tern is restricted to the basins of Lakes Memphremagog and Champlain. Eleven of the 13 Atlas Project records for the species

were from the Champlain Lowlands, and the other two records indicated the Memphremagog population. Estimates of the Vermont population at the eight known breeding locations are between 180 and 300 pairs. More than half the pairs breed at the Missisquoi National Wildlife Refuge; other breeding locations are at the Dead Creek Wildlife Management Area, South Bay of Lake Memphremagog, Mud Creek Wildlife Management Area, the Burlington Intervale, Little Otter Creek, and St. Albans Bay.

WALTER G. ELLISON