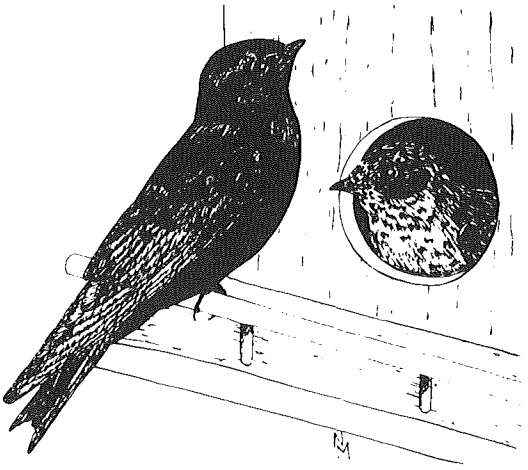
# Purple Martin

*Progne subis*



The Purple Martin is a colonial, cavity-nesting bird that has benefited from human activities. Before European settlement, Native Americans often provided the species with nest cavities in the form of hollowed-out gourds (Bent 1942). Two major factors that influence the species' habitat selection are preexisting cavities for nesting and extensive open areas for foraging. At this time it is likely that all Purple Martins in Vermont nest in specially constructed multiple-roomed martin houses.

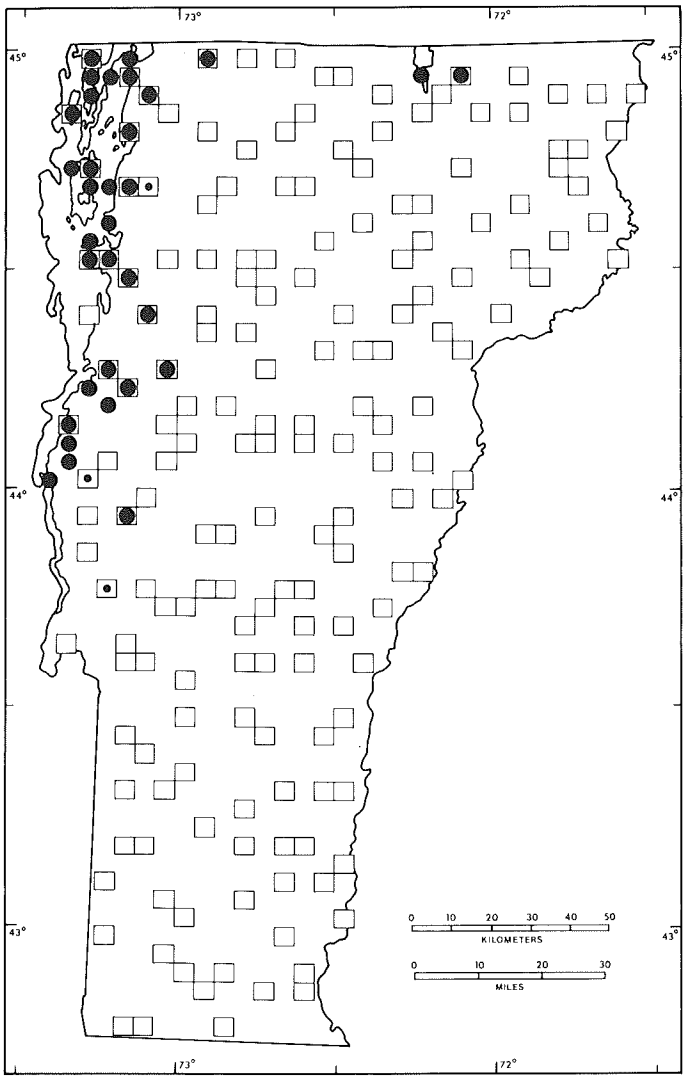
The pleasant chirruping voice of the Purple Martin is often an observer's first indication of its presence. The species may also be seen foraging aloft, or perched on wires and snags in open areas. Once martins are located, it is usually a simple matter to find an occupied martin house in the vicinity. For this reason, martins were confirmed as nesters in 86% of the priority blocks in which they occurred, despite their limited Vermont distribution. Eighty-eight percent of all confirmations related to the location of an active nest.

After wintering in South America, Purple Martins arrive in Vermont during mid April; the mean arrival time in Rutland from 1904 to 1935 was April 15 (dates ranged from April 8 to May 8) (Kirk, Field notes). Rooms in martin houses are claimed and pair bonds established during the first week after arrival. The base of the nest is built during the next 2 to 4 weeks (Finlay 1971). The nest is made of sticks, grass, weed stems, and mud, and lined with fresh green leaves.

The eggs are laid from 1 to 2 months after martins have returned. Purple Martin eggs are dull white and number from 3 to 8 per clutch; the average of 11 Vermont sets was 4.5. Fourteen Vermont egg dates range from June 11 to July 9. The incubation period lasts from 15 to 18 days (Allen and Nice 1952; Finlay 1971). Nine Vermont nestling dates range from July 2 to August 1. The nestling period is quite long, lasting about 28 days (Allen and Nice 1952). There are no Vermont records of dependent young, but New York State records range from late July to mid August (Bull 1974). Much of the species' autumn migration occurs in August. Purple Martins are scarce in Vermont by September; an extreme date is September 18.

The Purple Martin was apparently much more widespread and numerous in Vermont during the nineteenth century (Cutting 1884). By the turn of the century the species had declined considerably (Perkins and Howe 1901). In June of 1903 a prolonged cold and rainy period took a heavy toll of adults and nestlings, eliminating the species from many areas (Forbush 1929). Horton (1908) stated that there were "several" colonies in Brattleboro around 1880 that had dwindled to one by 1903; no martins bred at Brattleboro after 1903 despite reintroduction attempts. A survey by Horton (1910) located colonies in seven communities in the Champlain Lowlands, and one colony in Lyndonville.

The present distribution of the Purple Martin in Vermont is almost entirely restricted to the Champlain Lowlands. Ninety percent of the priority block records of the species were from this region. Two records in the North Central region, including one for a priority block, reflect a small population found in the dairylands near Lake Memphremagog. Reasons for this restricted distribution remain speculative; most im-




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

TOTAL 21 (12%)

| | |
|---|---|
| Possible breeding: | 3 (14% of total) |
| Probable breeding: | 0 (0% of total) |
| Confirmed breeding: | 18 (86% of total) |

**Physiographic regions in which recorded**

| | no. of priority blocks | % of region's priority blocks | % of species' total priority blocks |
|---|---|---|---|
| Champlain Lowlands | 19 | 61 | 90 |
| Green Mountains | 0 | 0 | 0 |
| North Central | 1 | 5 | 5 |
| Northeast Highlands | 0 | 0 | 0 |
| East Central | 0 | 0 | 0 |
| Taconic Mountains | 1 | 6 | 5 |
| Eastern Foothills | 0 | 0 | 0 |

portant among these may be climate. The Champlain Lowlands region is the warmest and driest in the state and lacks some of the climatic extremes in other parts of the state. The reforestation of Vermont, which started during the nineteenth century, may have reduced the available open land needed by the species for foraging. Also pernicious, though manageable, are the effects of European Starlings and House Sparrows competing for martin houses (Jackson and Tate 1974; Brown 1981).

If the Purple Martin is to be retained in Vermont, present colonies should not be allowed to deteriorate. The most controllable detrimental factor, competition from introduced species, can be manipulated by taking martin boxes down in winter or blocking the compartments until the martins' return in spring. It is difficult to eliminate House Sparrows and starlings, however. An active nest box placement scheme in the Champlain Lowlands and the Newport area might encourage the martin population to expand.

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