

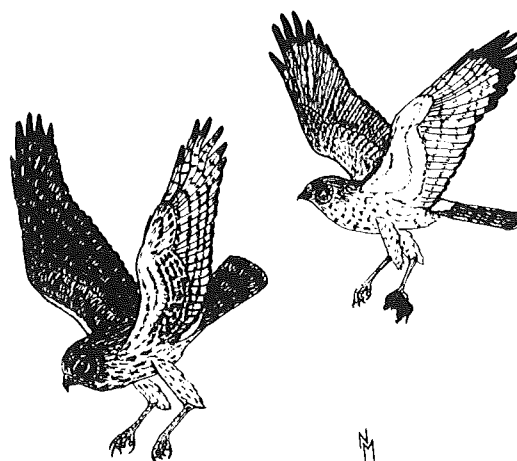
Northern Harrier

Circus cyaneus

The Northern Harrier (formerly called the Marsh Hawk) is an elegant and graceful bird of prey that inhabits open country and wetlands. Harriers tend to nest in low, usually wet areas, such as marshes, heaths, shrubby swales, and sedge meadows, and occasionally use hayfields and fallow cropland. Some representative habitats in which harriers occur in Vermont include large cattail marshes, low, wet hayfields dominated by reed canary grass and sedge, and broad heath-sedge mats at the edges of boreal ponds. The harrier's nest is usually placed in dense, rather tall, brushy vegetation rather than in open locations (Brown and Amadon 1968).

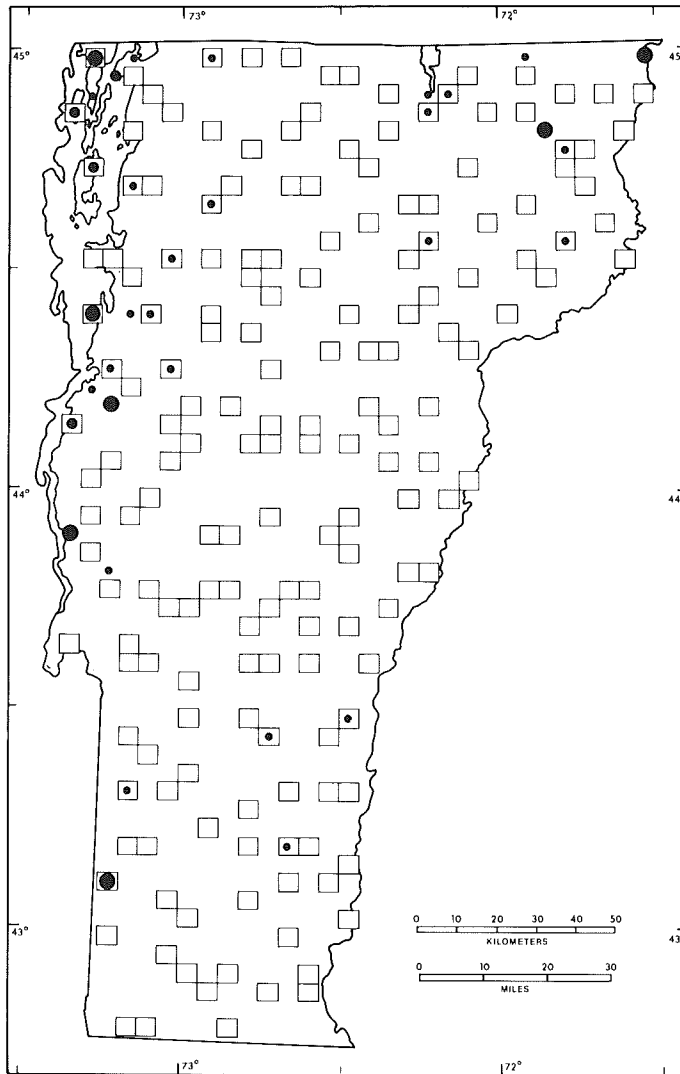
Harriers are tireless aerial hunters and thus easy to locate. Their April courtship flights, which consist of a series of steep undulating climbs and dives over the nesting area (Bent 1937; Brown and Amadon 1968), also make them conspicuous. Nests may be located by watching for aerial food passes from the male to the female and noting from which point the female rises and descends; watching for females returning to the nest after early morning preening activity; and noting the defensive stooping behavior of pairs (Hamerstrom 1969; Sharrock 1976; ASR, S. B. Laughlin; ASR, L. N. Metcalf). The young are usually vocal and visible after fledging, and remain in the vicinity of the nest for several weeks (Hamerstrom 1969).

The species normally winters in the southern U.S., returning to Vermont from mid March to early April. Adult males arrive up to a week and a half ahead of adult females. Nesting commences in late April. Dates for five Vermont nests containing eggs are between May 14 and June 18. The incubation period is from 29 to 31 days (Brown and Amadon 1968). Nestlings have been reported in Vermont on three dates: June 23, July 16, and July 31. The nestling period generally lasts from 30 to 35 days (Brown and Amadon 1968). There is no informa-



tion on dependent young for Vermont. Immature harriers begin departing southward in late August and early September; migration peaks during October, and by November many of the migrants seen are adult males (Nagy 1977; RVB, Fall 1981). In most years, a few harriers overwinter in the Champlain Lowlands.

The status of the Northern Harrier has changed significantly over the years in Vermont. The species has declined considerably in the course of the last 150 years, with the most notable drop during the last 100 years. Thompson (1853) found the Northern Harrier "very common," and in 1914 Ross considered it "the most common hawk" in Bennington County. At present, the species is rare over much of the state. The decline appears to be attributable to a combination of factors, foremost being the reforestation of Vermont over the last 50 years, together with the drainage of wetlands, especially outside of the Champlain Lowlands. Other factors include persecution by farmers early in the century; the effects of persistent pesticides on the wintering grounds (Hamerstrom 1969); and changes in agricultural practices, including earlier haying and harrowing (Kibbe 1975). During the Atlas Project, the harrier population appeared to be stable, if low. The species is presently carried on the *American Birds'* Blue List of species suffering declines over large portions of their ranges, and has



No. of priority blocks in which recorded

TOTAL 22 (12%)
 Possible breeding: 16 (73.0% of total)
 Probable breeding: 3 (13.5% of total)
 Confirmed breeding: 3 (13.5% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	12	39	54.5
Green Mountains	0	0	0
North Central	3	16	14.0
Northeast Highlands	2	13	9.0
East Central	0	0	0
Taconic Mountains	2	13	9.0
Eastern Foothills	3	12.5	13.5

been recommended for Vermont's Species of Special Concern List.

The present Vermont distribution of the Northern Harrier has two major centers. The majority of breeding season records are from the Champlain Lowlands, where the largest agricultural acreage and extant wetlands are to be found. Approximately two thirds of the records from other regions are from the North Central region and the Northeast Highlands, where the species occupies extensive dairylands and the borders of northern ponds. The remaining records, most of which refer to possible breedings, are widely scattered, suggesting wandering,

nonbreeding individuals. The one record of confirmed breeding outside of the major regions of occurrence, in the Batten Kill River valley, seems to represent an isolated incidence.

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