

# Northern Harrier

## *Circus cyaneus*

A resident of grasslands, Northern Harriers are equally at home in wetland and upland situations. The Ohio population originally occupied wet prairies, damp meadows, and the grassy margins of large wetlands (Campbell 1968, Price 1934b). As these habitats were converted to cultivated crops, harriers were forced to occupy pastures, hayfields, and even some cultivated fields. In recent years, reclaimed strip mines have provided extensive grassland habitats suitable for nesting harriers.

Harriers normally nest on the ground, although in wetlands they may utilize muskrat houses or build platforms that are 6–15 inches above the water (Palmer 1988, Peck and James 1983). They prefer to place these nests in the middle of rose thickets or similar dense shrubby vegetation. In wetlands, thick patches of cattails provide suitable cover while on reclaimed strip mines, their nests may be located in strips of bush-clovers. In pastures and hayfields lacking woody vegetation, they place their nests in areas with the densest grasses. These nests are normally well concealed, although their location may be divulged by the behavior of the adults.

Courtship displays of harriers have been observed during March but are most prominent in April. The earliest Ohio egg date is April 28 (Williams 1950) but most clutches are laid during May. Renesting attempts are responsible for clutches through July 15 (Walker and Franks 1928). The females perform all incubation and brooding chores while the males may wander over hunting territories that vary between 0.3–2.0+ square miles in extent (Palmer 1988). Nests with young in Ohio have been reported as early as May 29 (Price 1940a), but most have been reported between June 10 and July 15. Fledged young may be encountered between the first half of July and August 10. The family groups may remain in the vicinity of the nest for at least 2–3 weeks after fledging, although the young may move in the direction of the fields where the adults are hunting (Palmer 1988).

The status of Northern Harriers in Ohio reflects the health of our grasslands. Their numbers may have increased during the last decades of the 19th century (Price 1934b). However, their population trends have been entirely negative during this century. Hicks (1935) cited nesting records from 51 counties south through Columbiana, Muskingum, Fairfield, Fayette, and Montgomery, but felt their numbers were “much reduced”. In contrast, Campbell (1940) considered them to be “the most numerous hawk” in Lucas County during the 1930s. Their Ohio breeding populations plummeted after 1940. Despite nesting records south to Clermont County (Kemsies and Randle 1953), harriers disappeared from most interior counties and became scarce along western Lake Erie. By the 1970s, very few summering harriers were reported anywhere in Ohio (Peterjohn 1989a).

One of the surprises of the Atlas Project was the unexpected numbers of summering harriers. Although they remain a casual to rare and very locally distributed summer resident, they were encountered in a total of 35 priority blocks and 9 additional sites

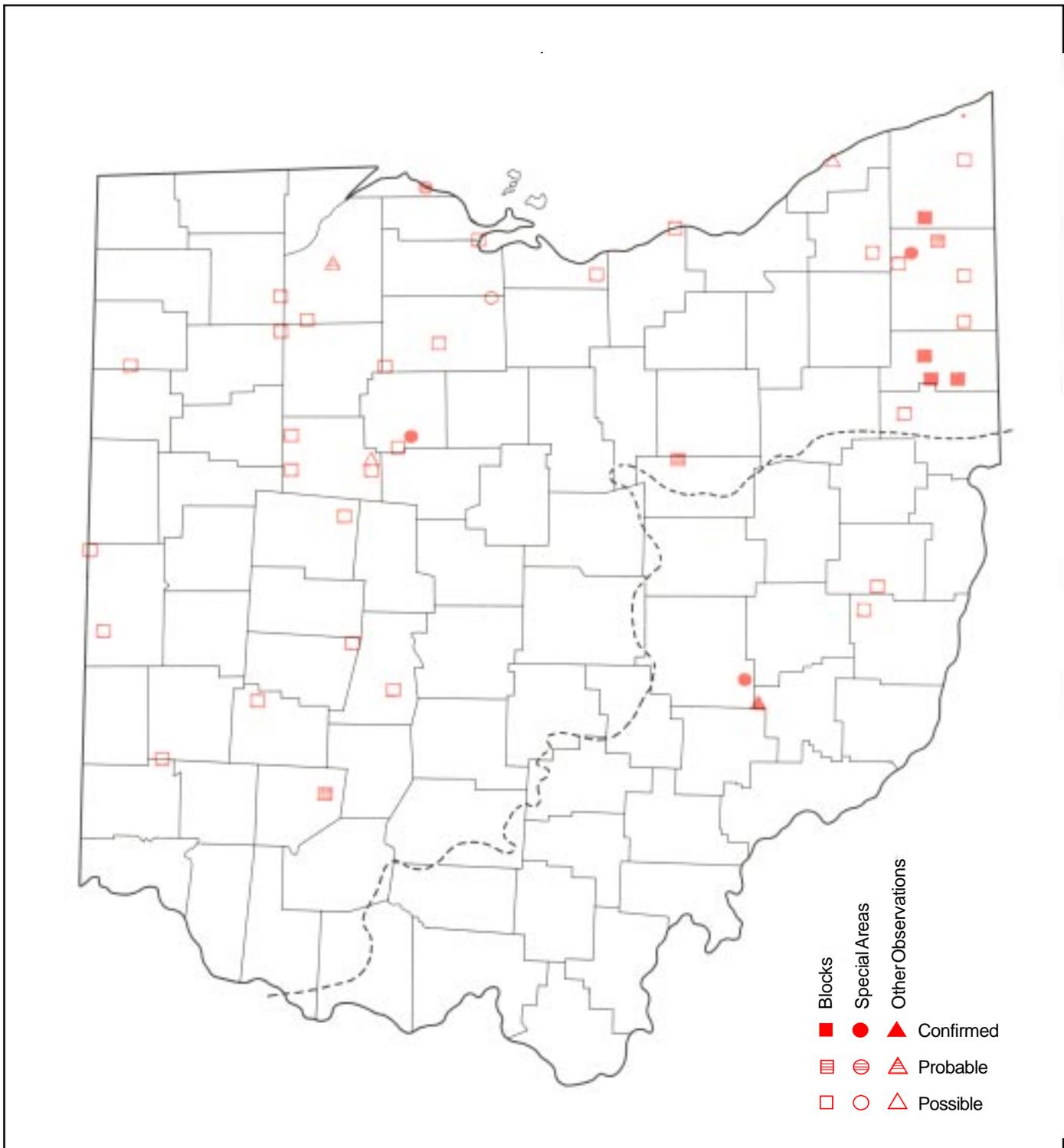
within 29 counties south to Butler, Clinton, Muskingum, Noble, and Belmont. Harriers were most frequently reported from the Glaciated Plateau, Lake Plain, and Till Plain physiographic regions where they were found in 5.5–8.6% of the regional priority blocks. They were unrecorded from the Illinoian Till Plain and appeared in less than 1% of the blocks in the Unglaciated Plateau region. However, many large reclaimed strip mines on this plateau fell outside these blocks, and their nesting population may have been under-represented in this data.

The breeding status of Northern Harriers was difficult to establish conclusively. Of the 44 atlas records, breeding was confirmed at only eight locations while probable nesting status was indicated at five other sites. Most remaining records pertained to single harriers foraging over grassy fields whose breeding status was uncertain; these records were assigned possible status, although some may have been nonbreeders. These possible records also included a few reports of adults accompanied by flighted young, which may not have nested within the priority block.



*Division of Natural Areas and Preserves*

In most locations, Northern Harriers were reported for only a single year during the Atlas Project. This evidence suggests that many sites are infrequently occupied by summering harriers. They were most regularly reported in northeastern Ohio, especially Ashtabula, Trumbull, and Mahoning counties. Small numbers may also regularly nest along western Lake Erie and in some reclaimed strip mines. Based on the records accumulated during the Atlas Project, the statewide population may approach 15–25 pairs during most years, a slightly higher estimate than that provided by Peterjohn (1989a) but well below their numbers of earlier decades.



**Analysis of Block Data by Physiographic Region**

Physiographic Region	Total Blocks Surveyed	Blocks with Data	% with Data	Regional % for Ohio	Ave. # Individ per BBS Route (1982–1987)
Lake Plain	95	6	6.3	17.1	<0.1
Till Plain	271	15	5.5	42.9	–
Ill. Till Plain	46	–	–	–	–
Glaciated Plateau	140	12	8.6	34.3	–
Unglaciated Plateau	212	2	0.9	5.7	–

**Summary of Breeding Status**

No. of Blocks in Which Species Recorded		
<b>Total</b>	<b>35</b>	<b>4.6</b>
Confirmed	4	11.4
Probable	3	8.6
Possible	28	80.0