

Eastern Screech-Owl

Otus asio

Strictly nocturnal in their habits and an occupant of cavities, Eastern Screech-Owls are very difficult to detect during daylight hours. Fortunately, these owls are very responsive to imitations of their whistled calls, especially on calm nights. As a result of repeated nocturnal surveys by a dedicated group of observers, the distribution of Eastern Screech-Owls was accurately determined during the Atlas Project.

Easily the most widely distributed of our resident owls, Eastern Screech-Owls were encountered in 745 priority blocks representing 97.5% of the statewide total. Recorded within every county, these owls were nearly equally distributed in every physiographic region with records from 94.3–100% of the regional priority blocks. In the few blocks where they were not recorded, their absence is largely the result of inadequate nocturnal surveys rather than a lack of suitable habitats for these owls.



Alvin E. Staffan

The relative abundance of screech-owls within Ohio exhibits a slightly different pattern. They are fairly common to common throughout most of the state, but become locally uncommon in the northeastern counties of Ashtabula, Trumbull, Geauga, and Lake where excessive snow cover during the winter months reduces the size of their breeding population (Peterjohn 1989a).

As was true for most cavity nesters, breeding screech-owls were difficult to confirm during the Atlas Project. There were confirmed records from only 74 priority blocks, with these records nearly equally divided between active nests and adults accompanied by recently fledged young. The “30” code was not

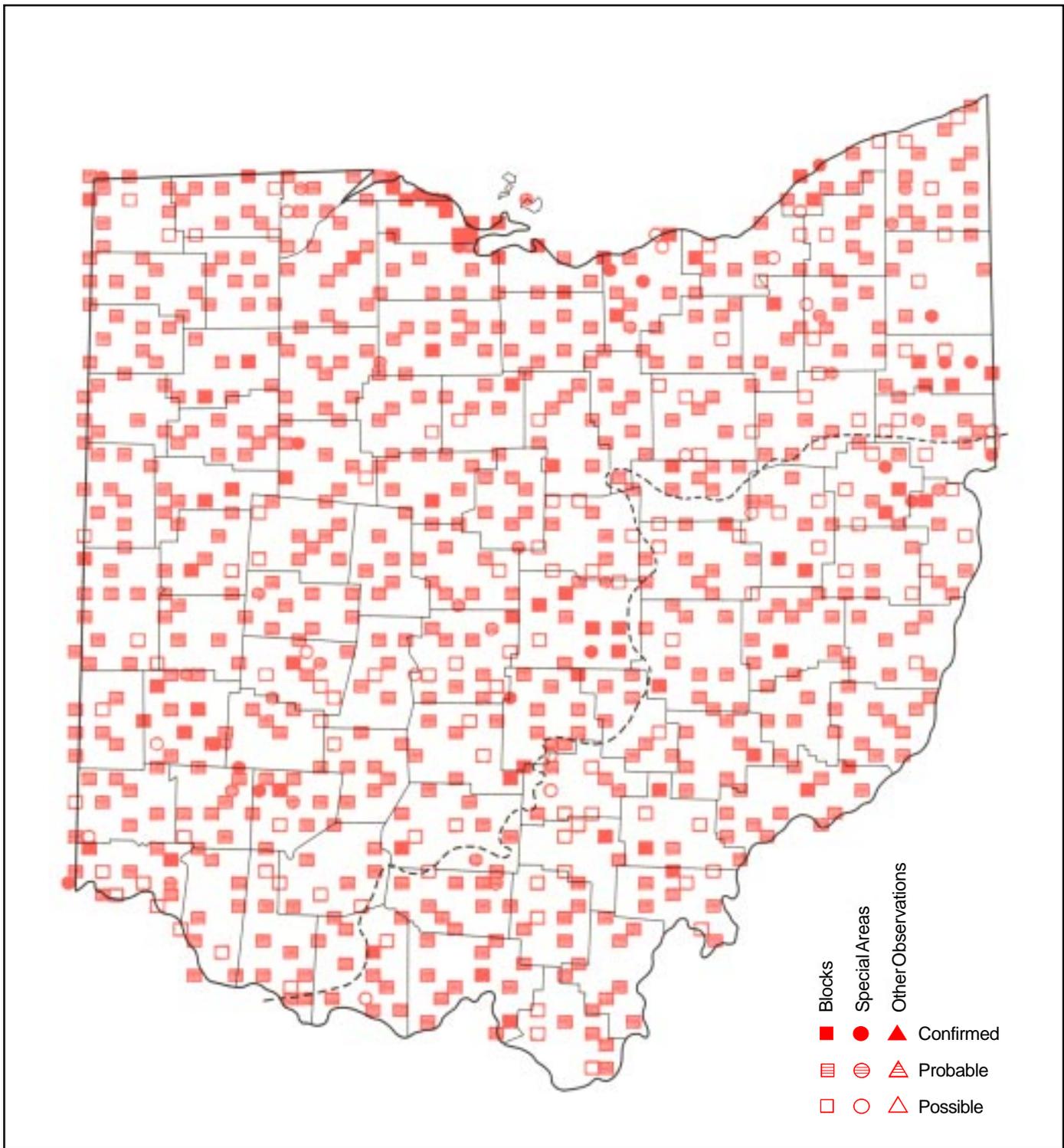
accepted for this species. Probable breeding records constituted most of the Atlas Project reports, primarily territorial owls and pairs in suitable habitats. These results are not surprising since most data were obtained through responses to imitated calls during nocturnal surveys.

This statewide distribution and relative abundance has remained reasonably constant during this century. Both Jones (1903) and Hicks (1935) considered screech-owls to be the most numerous of our resident owls, with breeding records cited from 85 counties in the latter survey. Since the 1930s, some local declines have been evident within intensively farmed areas where most woodlands have been converted to agricultural fields. Additionally, statewide declines have been apparent following severe winters, but these numbers recover within a few years following the return to normal winter weather conditions.

Breeding Eastern Screech-Owls are found anywhere there are large trees with suitable cavities for roosting and nesting. They regularly occupy shaded residential areas, city parks, open pastures with scattered large trees, and narrow wooded corridors bordering streams. Their greatest densities are reached in small open woodlots of 5–15 acres in extent, although they will also occur along the edges of larger woodlots (Trautman 1940). However, they generally avoid the interiors of extensive mature forests. When natural cavities are unavailable, screech-owls will utilize nest boxes erected for Wood Ducks (Van Camp and Henny 1975). There is even a record of screech-owls occupying a Purple Martin house (Buchanan 1980).

The life history and population ecology of Eastern Screech-Owls were described in the landmark study by Van Camp and Henny (1975). While their study was conducted in northwestern Ohio, the results are generally applicable throughout the state. Egg laying normally begins around March 15, although a few pairs produce clutches 5–10 days earlier. The first young owls hatch between April 11 and April 20 with most hatching between April 20 and May 10. Most fledglings leave the nest between late May and the first week of June. Their breeding cycle may be 7–10 days earlier in the extreme southern counties. Screech-owls will renest if their first attempt is unsuccessful. Since nests with young have been regularly reported into the first half of July and occasionally into August (Campbell 1968, 1973), some adults may incubate clutches into the first half of June.

Like most cavity nesters, screech-owls are relatively successful in their breeding attempts. Van Camp and Henny (1975) reported a 69.2% success rate in northwestern Ohio, with an average of 3.8 young fledged per successful nest. After fledging, the owls tend to be rather sedentary with few moving more than 20 miles from their place of birth. While approximately 70% of the owls die during their first year, with the greatest mortality shortly after they become independent, the mortality rate of adults is only 34% per year. Predation by larger owls and road kills are the chief causes of mortality of young and adult Eastern Screech-Owls.



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	93	97.9	12.5	–
Till Plain	271	268	98.9	36.0	–
Ill. Till Plain	46	46	100.0	6.2	<0.1
Glaciated Plateau	140	132	94.3	17.7	–
Unglaciated Plateau	212	206	97.2	27.7	–

Summary of Breeding Status

No. of Blocks in Which Species Recorded		
Total	745	97.5%
Confirmed	74	9.9%
Probable	556	74.6%
Possible	115	15.4%