

BRIEF NOTE

The Masked Shrew, *Sorex cinereus*, in Southwestern Ohio¹

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ABSTRACT. A population of masked shrews (*Sorex cinereus*) was found in June, 1987 at the Miami University Ecology Research Center, Butler County, Ohio. This is the first published record of the masked shrew in southwestern Ohio.

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INTRODUCTION

On 11 June 1987, four masked shrews (*Sorex cinereus*) were hand-captured live at the Miami University Ecology Research Center (ERC), Butler County, near Oxford, Ohio. This is the first published record of the masked shrew in southwestern Ohio. Gottschang (1965, 1981) reported the masked shrew from west-central Ohio (Mercer and Shelby counties) and south-central Ohio (Scioto, Jackson, Vinton, and Hocking counties). The masked shrew is one of three species of long-tailed shrews in the state and the second smallest mammal in Ohio (Gottschang 1981).

RESULTS AND DISCUSSION

Standard measurements were taken on the four shrews captured (Table I). The shrews were caught in a pile of concrete blocks at the edge of a 4-ha, second growth, beech-maple woods. The dominant vegetation was bush honeysuckle (*Lonicera maackii*), black locust (*Robinia pseudoacacia*), and osage-orange (*Maclura pomifera*). There was an abundance of ground litter. The population of adult masked shrews used the same "burrow" system, consistent with past reports (Tuttle 1964, Wrigley et al. 1979). This suggests the masked shrew is gregarious even during the breeding season.

Several studies (Getz 1961, Spencer and Pettus 1966, Anderson 1981) documented the importance of soil moisture as a critical limiting factor in the local distribution of masked shrews. The amount of precipitation at the ERC, however, was 23.7 cm (43%) less than normal from January through June, 1987.

It is possible that insect food abundance may also influence shrew distribution. Hamilton (1930) and Getz (1961) noted that the abundance of invertebrate foods was an important factor in the local distribution of the

TABLE I
Weights and measurements of four specimens
of *S. cinereus* from Butler County, Ohio.

Sex	Body and tail (mm)	Tail (mm)	Hind foot (mm)	Weight (g)	Comments
F	73	30	11	2.5	No embryos
F	77	31	11	2.8	Four embryos
M	76	29	10	2.7	Testes (2 mm)
M	75	33	11	2.4	Released

masked shrew. Emergence of the periodical cicada (Cicadidae: *Magicicada*) along the wood's edge and within the concrete block pile provided an abundant food resource. Five 1-m² sample plots, within 25 m of the capture site, averaged 97.6 (SD = ±44.8) cicada emergence holes. If these holes represent the number of emerging nymphs, with a mean biomass of 0.98 g in an upland habitat (Dybas and Davis 1962), there was an estimated cicada standing crop biomass of 188 kg within the sampling area. The shrews readily consumed adult cicadas in the laboratory. The interaction of soil moisture and food abundance on the distribution of the masked shrew needs further investigation.

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