

OHIO MOLES AND SHREWS.

JAS. S. HINE.

The Ohio members of the Order Insectivora, commonly called moles and shrews, have been quite extensively collected in the state and some things in regard to their habits and distribution may be said. The moles are easily distinguished from the shrews by their larger size and wider front feet. Three of each have been taken and there is a possibility that other species of shrews exist within our territory, at least the adjoining states that have published lists of mammals all enumerate more than three, but as Ohio is between the East and the West from the faunal standpoint one is not surprised when some of the species listed from Pennsylvania and Indiana are not taken.

The common or short tailed shrew, *Blarina brevicauda*, is the most abundant species of the order in the state. Trapping in any section and under various conditions is sure to reveal this species at the outset and it continues to appear in the traps day after day until the collector, who is always desirous of variety, feels more or less disgusted and resolves to try another locality only to find the same condition of things. Deep woods, open fields, high or low grounds seem to attract it, in fact, one is not able to name a single place where it may not be found.

This little animal is near the size of the common house mouse and is largely carnivorous in its feeding habits. Some authors state that habitually it never takes vegetable food. Insects of various kinds are taken in large numbers, angle worms and snails are eaten commonly and small rodents, like mice of some species, often lose their lives to satisfy its insatiable appetite. Shull has given a very full account of the short-tailed shrew in the *American Naturalist* from observations taken at Ann Arbor and one should read this paper in order to know the economic value of the species. Since mice and injurious insects are so often used as food by it the amount of good done is considerable and since it is not known to eat anything of special value we should consider this shrew almost wholly beneficial and worthy of consideration.

The shrews do not have the habit of heaving the ground to the same extent as the moles and consequently are not considered particularly injurious from that standpoint. Although the common shrew is so abundant and found in every section of the state it is not seen usually by people who are not looking for it. Its retiring and more or less nocturnal habits prevent it from being seen often, and the odor which is associated with it is more or less of a protection from some animals which would otherwise prove

to be its serious enemies. Hawks and owls as well as various species of snakes are known to feed upon the common shrew occasionally but it seems that this animal, although so abundant, is not used as food by various carnivorous animals to the extent that is the case with some of the small rodents.

The least shrew, *Blarina parva*, appears to be present in most parts of Ohio as it has been observed and taken in Ashtabula, Summit, Franklin and Hamilton counties. The appearance of the species in Ashtabala county is of interest as most authors do not record it so far north. R. J. Sim, who lives at Jefferson, states that he usually sees three or four each year without making special efforts to find them, so it is not particularly rare. In Summit county numerous specimens have been taken and some of them are in the museum at the University.

The long-tailed or masked shrew, *Sorex personatus*, has been taken in Mahoning and Ashtabula counties only, but from its range in adjoining states, probably exists in other sections but on account of its retiring habits and small size has been overlooked.

The prairie mole, *Scalop aquaticus machrinus*, is known to be distributed quite generally over western Ohio. It is a subspecies of the common mole of eastern United States east of the Allegheny Mountains. Rhodes studied the fauna of Pennsylvania west of the Allegheny Mountains very carefully without finding evidence of the existence of either the common mole or its subspecies. Since the prairie mole is known to be very common in western Ohio from Michigan to the Ohio River, the eastern limit of this subspecies falls within the state and so we are interested in determining the most eastern station where specimens have been taken. It is well known from Columbus but in the vicinity of Akron where I have collected quite extensively it has not been taken. Because one does not take a certain species in a locality is not always conclusive proof that it does not occur but on the other hand the distribution of animals is stated from the actual evidence procured and this evidence points towards the conclusion that the mole in question does not appear in Summit and Medina counties but is replaced by the two other species of Ohio moles, both of which have been taken. It is very desirable that persons finding any of the moles and shrews in their localities, let the facts be known so that some of these questions of distribution may be better understood.

The very peculiar star-nosed mole, *Condylura cristata*, is known to be a resident of Ohio by the capture of more than a dozen specimens, including one taken as late as 1910. Summit county can claim most records, for at least nine specimens have been captured in this county as the records kept by Eugene F. Crazz, of Ira, show. The species is known from Ashtabula,

Cuyahoga, Richland and other counties, and if the facts were known I suspect it occurs throughout northern Ohio, at least wherever suitable conditions are to be found.

The hairy-tailed or Brewer mole, *Parascalops breweri*, is abundant in some parts of eastern Ohio where its injuries to lawns and gardens compare favorably with the work of the prairie mole in the western part of the state. Records of the occurrence of the species are at hand from Cuyahoga, Summit, Franklin and Adams counties which so far as known marks what has been considered somewhere near the western limit of the range of the species, although recently Hahn mentions it in his *Mammals of Indiana* and says that the occurrence in that state is not beyond the range of possibilities. I would like to know of any records which extend the known distribution of this mole westward from the line indicated by the counties named.

It develops therefore that the known records of Ohio moles give each species a somewhat definite distribution in the state and that so far no locality is known to have all three although two are known from various places.

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