

TABLE 1. Range of cave and hibernation site temperatures, and numbers (N) of *Pipistrellus subflavus* found in seven caves in eastern Tennessee. Temperatures of hibernation sites are those where 75% or more of the *P. subflavus* were found.

Cave	N	Temperature range (°C)	
		Hibernation site	Cave
GREGORY	391	8.5-10.7	8.4-12.1
SALTPETER	108	8.0- 8.5	2.0- 8.5
SCOTT GAP	65	8.3- 9.0	5.1-10.7
BLOWHOLE	1,305	8.2-10.8	5.0-14.3
TORY SHIELDS	9	10.0-10.5	2.3-10.5
HATCHER	315	8.5-10.5	8.5-13.5
BULL	300	9.3- 9.8	8.5-11.4

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OCCURRENCE OF THE HAIRY-TAILED MOLE IN CLAIBORNE COUNTY, TENNESSEE

SHORT NOTE

During the Spring of 1978 a hairy-tailed mole (*Parascalops breweri*) was found lying along side the gravel road connecting the communities of Tiprell and Arthur in Claiborne County, Tennessee, approximately one and one-half miles north of Arthur at an elevation of 1300 feet. The mole was a male. It weighed 33 gm, the total length was 149 mm, tail length was 22 mm and hind foot was 17 mm. It is assumed the mole was forced from its tunnel due to flooding since the find was made during a period of heavy rains. The specimen was prepared as a study skin and has been deposited in the Lincoln Memorial University collection.

In Tennessee, the hairy-tailed mole is known to occur in the extreme eastern portion of the state. Kennedy and Harvey (1980) in discussing and illustrating the distribution of this species, do not report it as occurring in Claiborne County. Hall and Kelson (1959) show the range as possibly extending into Claiborne County but report no "marginal records" from this vicinity. Thus this finding notates an extension of the previous known range of the hairy tailed mole within Tennessee. The Tennessee Wildlife Resources Agency has deemed the hairy-tailed mole to be in need of management. Populations, therefore, should be located and observed. The occurrence of this specimen within Claiborne County is indicative of a previously unknown population.

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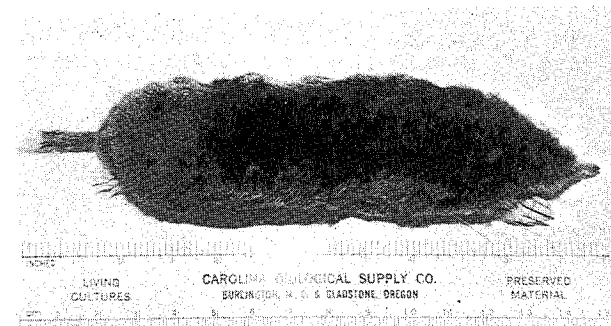


FIG. 1. Hairy-tailed mole (*Parascalops breweri*) from Claiborne County, Tennessee.

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INTESTINAL HELMINTHS FROM WILD TURKEYS OF SHELBY FOREST WILDLIFE MANAGEMENT AREA

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ABSTRACT

In April of 1978 and 1979 intestinal tracts from 34 wild turkeys (*Meleagris gallopavo silvestris*) were collected from the Shelby Forest Wildlife Management Area and examined for helminth parasites. Six species of parasites were found including two cestodes, three nematodes, and one trematode.

INTRODUCTION

Since 1940 the wild turkey population (*Meleagris gallopavo silvestris*) in the United States has increased sevenfold to 750,000 birds. This increase is due to habitat restoration and stocking operations (Prestwood et al., 1973). Because stocking continues to play an important role in wild turkey management, the possibility of transmitting helminth parasites needs to be considered. The Shelby Forest Wildlife Management Area provides wild turkeys for stocking throughout Tennessee. This is a report of the intestinal helminth parasites from turkeys of this area.

MATERIALS AND METHODS

In April of 1978 and 1979 the intestinal tracts of 34 hunter-killed turkeys were obtained at the ranger station located in Shelby Forest near Memphis, Tennessee. Prior to laboratory examination the intestines were kept at -4°C. For recovery of parasites the intestines were thawed, opened, and the contents successively washed through a 10-mesh and a 40-mesh screen. Helminths were removed from material trapped on the screen and stored in 70% ethanol before mounting. Nematodes were mounted in Hoyer's or Turtox mounting media. Cestodes and trematodes were stained with hematoxylin or Grenacher's borax carmine using standard procedures.

RESULTS AND DISCUSSION

Six species of helminth parasites were found in the intestinal tracts of 34 turkeys examined (Table I). In a previous study (Maxfield et al., 1963), 9 species of gastrointestinal helminth parasites were found in 24 wild turkeys taken at Shelby Forest (Table I).

Both studies showed *Raillietina williamsi*, *Ascaridia dissimilis*, and *Heterakis gallinarum* were widespread. *Heterakis gallinarum* is particularly important because *Histomonas meleagridis*, the infective agent for black-head disease in wild turkeys of the southeastern states, is transmitted by ingestion of *Heterakis* eggs (Prestwood et al., 1973). In Maxfield's study six helminths were reported which were not found in the present study. Conversely *Hymenolepis carioca* and *Postharmostomum gallinum* were found only in the present study. The latter are commonly found in poultry and their presence in wild turkeys may be due to increased poultry production on farms adjacent to the Shelby Forest area. *Postharmostomum gallinum* has not been reported previously from North America (Newsome

TABLE I. Intestinal helminth parasites of 34 turkeys examined by Newsome et al. (1979) and 24 turkeys examined by Maxfield et al. (1963) from Shelby Forest.

Parasite	Number Parasitized		Percentage Parasitism	
	1963	1979	1963	1979
Cestoda				
Davainea meleagridis	10	—	41.7	—
Hymenolepis carioca	—	10	—	29.4
Raillietina ransomi	1	—	4.2	—
Raillietina williamsi	23	29	95.8	85.3
Nematoda				
Ascaridia dissimilis	19	18	79.2	52.9
Capillaria bursata	4	—	16.7	—
Capillaria obsignata	17	—	70.8	—
Capillaria sp.	—	3	—	8.8
Heterakis gallinarum	24	14	100.0	41.2
Trematoda				
Cotylurus				
flabelliformis	8	—	33.3	—
Echinoparyphium recurvatum	2	—	8.3	—
Postharmostomum gallinum	—	1	—	2.9

et al., in press) but has been reported from poultry elsewhere. In the study by Maxfield and in our study, turkeys taken in the spring months represented sample sizes of approximately three and eight percent respectively. A comparison of the two studies (Table I) suggests that a modification of the intestinal helminth fauna has taken place. The introduction of a new parasite (*P. gallinum*) to North America, observed in our study, may be significant since trapped birds are transported to other areas of Tennessee.

The role of parasitism as a limiting factor of wild turkey populations is poorly understood. However it is believed parasitism and disease could account for a large proportion of the total annual mortality presently attributed to unknown causes (Prestwood et al., 1973).

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