

The estimate of canopy foliage weight reported in the present study (9.8 t/ha) exceeds by nearly three-fold similar values found in the literature. Whittaker (1966) estimated tree foliage weights in large deciduous forests as 3.5-4.2 t/ha. The data of Ovington *et al.* (1963) and Rothacher *et al.* (1954) yielded similar values (3.5 and 3.3 t/ha) for an oakwood and a mixed oak stand respectively. The estimate offered in the present study lies near Whittaker's estimate (1966) for high elevation conifer forests and apparently results from the over-estimation of leaf weight by the equations of Monk *et al.* (1970) when applied to relatively dense (577 canopy trees/ha) mature stands having many large trees (115 trees/ha ≥ 38 cm dbh).

The age and size relationships of the dominant vegetation in a stand may be assessed by means of a biomass accumulation ratio (aboveground biomass/aboveground net annual production) (Whittaker, 1966). The resulting ratio from the present study (27.8) compares favorably with the mean of 25.0 (range: 8.9-51.5) based on 12 deciduous forests studied by Whittaker (1966) and lies between the ranges mentioned by Whittaker (1966) for forests comprised of small trees (13-21) and medium-sized oak and spruce forests (29-40).

Reference to Table 3 indicates that the basal area occupied in the present stand (43 m²/ha) lies within the expected range for a mature mixed deciduous forest and near the maximum for such a forest.

It is recognized that any estimate of net annual aboveground productivity based on means other than actual harvest is subject to error, particularly in the estimates of the various individual parameters comprising the overall productivity estimate. However, the present effort demonstrates the feasibility of obtaining reasonable estimates of a mixed stand's aboveground productivity and biomass from empirically determined stem dimension measurements in conjunction with suitable regression equations. Such an approach, it is felt, yields a useful estimate of a community's productivity and biomass in relation to other stands and minimizes the expenditure of time, personnel, and equipment

and instrumentation usually necessitated in obtaining such estimates.

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A SURVEY OF THE CRICETINE RODENTS OF WEST TENNESSEE

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ABSTRACT

A total of 539 specimens representing the subfamily Cricetinae was examined. *Oryzomys palustris* was collected throughout the area where suitable habitat was present. Few *Reithrodontomys humulis* were taken. *Peromyscus maniculatus* was found distributed throughout the study area. *Peromyscus leucopus* was collected

readily and ranged throughout the area. *Peromyscus gossypinus* was not taken readily but was distributed throughout the area where suitable habitat was available. *Ochrotomys nuttalli* was not abundant in most localities but was collected throughout the area. *Sigmodon hispidus* was found in all of West Tennessee except the northeastern corner. *Neotoma floridana* is known to be present only along the Mississippi River Bluffs in the vicinity of Reelfoot Lake.

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INTRODUCTION

Little has been published concerning the taxonomy of the mammalian fauna of West Tennessee. Most of the studies were of short duration and limited to only a few localities. Rhoads (1896) published an account of the mammals of Tennessee based on communication with the local inhabitants, historical reports, and a survey made during May and June, 1895. In 1937, fifty-one days were spent collecting mainly in the Reelfoot Lake area and in Shelby and Fayette counties of West Tennessee. Kellogg (1939) published an annotated list of Tennessee mammals based on this work. Also included were specimens in the U. S. National Museum and the Biological Survey Collections. Calhoun (1941) conducted a distribution and food study of the mammals in the vicinity of Reelfoot Lake which included notes on three species of cricetine rodents. Miller and Robertson (1950) recorded two *Reithrodontomys humulis* from Lauderdale County. The most recent survey was conducted at various times in the years 1937, 1940, 1949, 1950, and 1951. The total amount of time spent in the field was reported to be about four months. Collecting was confined to Obion, Lake, and Lauderdale counties (Goodpaster and Hoffmeister, 1952).

A survey was undertaken from 5 April 1968 through 24 November 1968 in an attempt to determine the presence and distribution of species within the study area. This study was based on examination of 539 specimens, 220 of which are in the Museum of Natural History at the University of Illinois, 13 in the collection at the University of Tennessee at Martin, and 306 in the Memphis State University Museum of Zoology.

In this study, West Tennessee is defined as that portion of Tennessee between the Tennessee and Mississippi rivers, bounded by Kentucky on the north, and Mississippi on the south. The area is divided into all or part of 21 counties encompassing approximately 11,000 square miles (Fig. 1).

METHODS

Collecting sites were selected that offered the greatest diversification of habitats such as old fields, forest edge, fence rows, low deciduous forest, and upland deciduous forest. Snap traps of different sizes baited with rolled oats were used. The specimens were prepared as standard study skins and are now housed in the Memphis State University Museum of Zoology.

The following skull measurements, as defined, were taken in millimeters: (1) condylobasal length, measured from the anterior edge of the alveoli of the median incisors to the posterior edge of the occipitocondyle; (2) basilar length, measured from the posterior edge of the alveoli of the median incisors to the anterior edge of the foramen magnum; (3) zygomatic breadth, measured across the least width of the zygomata at right angles to the long axis of the skull; (4) interorbital breadth, measured across the narrowest point on the dorsal surface of the skull between the orbits; (5) molar length, measured from the anterior edge of the alveoli of the first to the posterior edge of the last upper molar; (6) and braincase breadth, measured across the greatest width of the braincase.

Body measurements were taken as follows: (1) total length from the tip of the nose to the tip of the tail with the animal lying on its back along a ruler; (2) tail length from the base of the tail to the tip when held perpendicular to the body; (3) hind foot length from the heel to the tip of the longest claw; (4) and ear length from the notch to the farthest edge of the pinna.

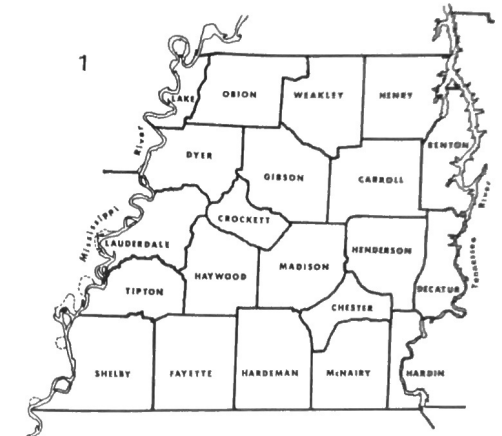


Fig. 1. Map showing the counties of West Tennessee.

RESULTS

The sequence of species follows the order of Hall and Kelson (1959). Localities from which specimens have been examined are shown on distribution maps by solid circles; records from literature not personally examined are indicated by half-black circles. The mean value of each measurement is followed by maximum and minimum values which are set off by parenthesis. The species lists are arranged alphabetically by county, followed by specific locality, number examined, and the museum in which they are housed. Specimens in the museums at the University of Illinois and University

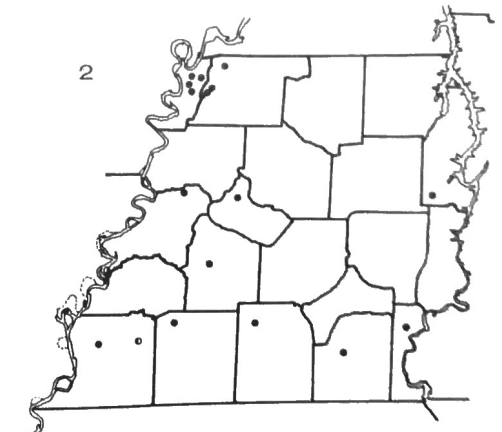


Fig. 2. Records of occurrence of *Oryzomys palustris palustris* in West Tennessee. Symbols indicate records of occurrence as follows: solid symbols, specimens examined; half-black symbols, records from literature.

of Tennessee at Martin are designated by UI and UTM; undesignated specimens are in the Museum of Zoology at Memphis State University.

Oryzomys palustris palustris Harlan. Marsh rice rat.—The range of this species is shown to include all of West Tennessee where suitable habitat was present (Fig. 2). With the exception of one specimen taken on a damp sericea covered hillside, all rice rats were collected in lowland areas subject to flooding. Of the rice rats collected during this study, 44% were collected in fescue and other grasses, 25% in marshy sericea fields, 25% in brush and honeysuckle in low deciduous forests, and 6% in debris along rivers.

Approximately 69% of the specimens examined were males. Although a lactating female was collected on 25 October, and another on 26 October, no pregnant females were taken.

The external measurements of 11 adult specimens averaged: total length 224.4 (199-255), tail length 111.6 (95-125), hind foot 28.6 (26-31), and ear 14.9 (13-17). Average skull measurements of 22 adult specimens are as follows: condylobasal length 28.2 (25.7-31.1), basilar length 23.4 (21.2-26.5), zygomatic breadth 16.0 (14.9-18.4), interorbital breadth 5.1 (4.3-5.8), molar length 4.4 (4.1-4.8), and braincase breadth 11.6 (11.0-12.3).

Specimens examined.—55, from: Benton Co., Holladay, 0.5 mi. N. (5); Crockett Co., Crockett Mills, 4 mi. N. (2); Fayette Co., Braden, 3 mi. SE (1); Hardeman Co., Whiteville, 3 mi. E (1); Hardin Co., Morris Chapel, 1 mi. SE (2); Haywood Co., Brownsville, 5.5 mi. W (1); Lake Co., Gray's Landing (5 UI); Samburg, 2 mi. S, 3 mi. W (1 UI); Tiptonville, 2 mi. NE (2 UI); 2.5 mi. E (2 UI); 2.5 mi. NE (3 UI); Lauderdale Co., Potter Gap, 2 mi. NW (1); McNairy Co., Selmer, 6 mi. NW (1); Obion Co., Clayton, 3 mi. W (2); Samburg (1 UI); 0.5 mi. SW (2 UI); Lasiter's Corner (7 UI); 0.5 mi. W (2 UI); Tiptonville, 4 mi. E (1 UI); 4.25 mi. ESE (1 UI); 4.5 mi. ESE (2 UI); 6.5 mi. NE (8 UI); Shelby Co., Memphis, 1 mi. N (2).

Records from the literature.—Kellogg (1939), Shelby Co., Arlington (1); Calhoun (1941), Reelfoot Lake Area (10).

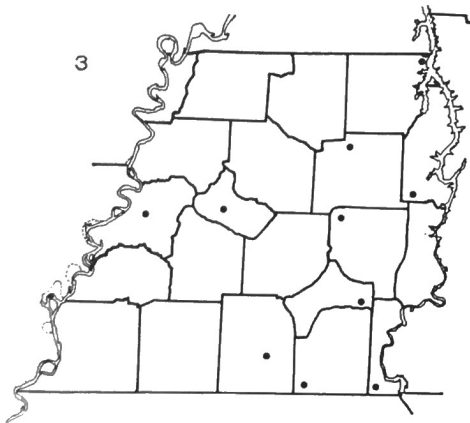


Fig. 3. Records of occurrence of *Reithrodontomys humilis humilis* in West Tennessee. For explanation of symbols see Fig. 2.

Reithrodontomys humilis humilis Audubon and Bachman. Eastern harvest mouse.—During this study few harvest mice were collected, but specimens were taken from enough different localities (Fig. 3) to verify the range as shown by Hall and Kelson (1959).

During this study 89% of the harvest mice were collected in or near broom sedge, and the remaining 11% in honeysuckle and brush at the edge of woods. Elaborate networks of runways were often noticed in the grass. Trapping revealed that *Microtus* and *Reithrodontomys* utilize the same runs.

On 16 August a female was collected containing three embryos, which measured 13 mm (crown rump length).

The external measurements of 11 adult specimens averaged: total length 121.7 (107-135), tail length 56.6 (48-64), hind foot 15.0 (14-16), and ear 12.7 (11-16). Average skull measurements of 7 adult specimens are as follows: condylobasal length 17.8 (17.3-18.3), basilar length 14.5 (14.2-15.0), zygomatic breadth 9.9 (9.6-10.3), interorbital breadth 3.2 (2.9-3.3), molar length 2.8 (2.8-3.0), braincase breadth 8.3 (7.7-8.7).

Specimens examined.—13, from: Benton Co., Holladay, 0.5 mi. N. (1); Carroll Co., McKenzie, 2 mi. SW (1); Chester Co., Enville, 3 mi. N. (1); 4 mi. N. (2); Crockett Co., Maury City, 1 mi. W (1); Hardeman Co., Bolivar, 10.5 mi. S (1); Hardin Co., Counce, 3 mi. W (1); Henderson Co., Bargerton, 3 mi. NW (1); Henry Co., Oak Hill, 3 mi. N. (1); Lauderdale Co., Open Lake, 2 mi. E (1 UI); 3.5 mi. E (1 UI); McNairy Co., 4.5 mi. E Hardeman Co. Line on Hwy 57 (1).

Peromyscus maniculatus bairdii Hoy and Kennicott. Deer mouse.—Hall and Kelson (1959) show the range of this species to include all of west Tennessee except the southeastern corner. All the specimens collected or examined during this study fell within or near this range (Fig. 4).

Approximately 36% of the deer mice collected were taken in forest edge (grass, honeysuckle, brush, and trees), 26% in low, damp sericea fields, 16% in brush

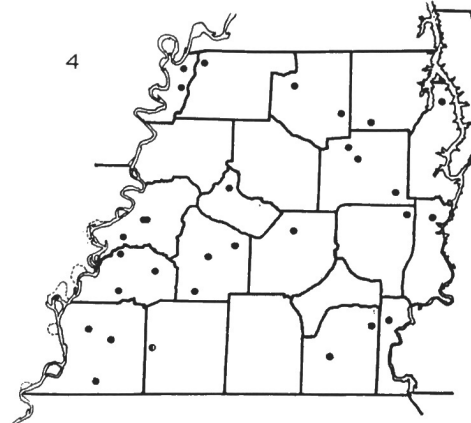


Fig. 4. Records of occurrence of *Peromyscus maniculatus bairdii* in West Tennessee. For explanation of symbols see Fig. 2.

in upland forest, 10% in broom sedge, honeysuckle, and blackberry vines, 6% in lespedeza and grass fields, 3% in brush in lowland forest, and 3% in debris along rivers.

Three lactating females were taken, one on 6 April and two on 20 April. A pregnant female taken 8 April contained three embryos 22 mm long. Another taken the same day contained three embryos 19 mm long.

The external measurements of 27 adult specimens averaged: total length 143.4 (128-158), tail length 63.5 (50-79), hind foot 18.8 (17-20), and ear 15.3 (14-17). Average skull measurements of 23 adult specimens are as follows: condylobasal length 22.4 (21.0-23.4), basilar length 18.8 (17.0-20.1), zygomatic breadth 13.0 (12.2-13.8), interorbital breadth 4.1 (3.8-4.5), molar length 3.5 (3.0-3.7), and braincase breadth 9.5 (8.8-12.3).

Specimens examined.—59, from: Benton Co., Big Sandy, 3 mi. NE (1); Carroll Co., Huntington, 1 mi. W (1 UTM); McKenzie, 2 mi. SW (1); Yuma, 3 mi. N. (1); Crockett Co., Crockett Mills, 4 mi. N. (1); Decatur Co., Jeanette, 1 mi. N. (1); Gibson Co., Milan, 4 mi. S (2); Hardin Co., Morris Chapel, 1 mi. SE (8); Haywood Co., Brownsville, 5.5 mi. W (1); Stanton, 8 mi. E (1); Union, 4 mi. N. (2); Henderson Co., Natchez Trace Park, 0.5 mi. E (3); Henry Co., Henry, 2 mi. SW (2); Lake Co., Phillippy, 6 mi. SW (1); Reelfoot Lake (4 UI); Tiptonville, 2 mi. SE (1 UI); Lauderdale Co., Cherry, 9 mi. W (1); Open Lake, 2 mi. E (1 UI); 3.8 mi. E (1 UI); Madison Co., Jackson, 2 mi. N. (1); McNairy Co., Adamsville, 6 mi. N. (1); Selmer, 6 mi. NW (1); Obion Co., Reelfoot Lake, Walnut Log Camp (1); Shelby Co., Memphis (11); 0.5 mi. N. (1); 1 mi. N. (3); Tipton Co., Covington, 6 mi. E (2); Garland, 4 mi. NW (1); Munford, 3.3 mi. S (1); Weakley Co., Gleason, 2 mi. NE (1); Martin (1 UTM).

Records from the literature.—Kellogg (1939), Fayette Co., Hickory Withe (7).

Peromyscus leucopus leucopus Rafinesque. White-footed mouse.—Of all the species collected during this study, the white-footed mouse was the most frequently collected. It was taken at least once in every county except Haywood (Fig. 5).

The white-footed mouse was found in many different types of habitat. Approximately 37% were collected in forest edge consisting mainly of poison ivy, grass, honeysuckle, and brush. In old fields overgrown with ragweed, goldenrod, sericea, broom sedge, honeysuckle, blackberry, and smilax, 17% were taken. Trap sites in deciduous forest subject to flooding accounted for 16%. Upland deciduous woods yielded 11% of the specimens. About 10% were collected in upland grass fields, and the remaining 9% were taken in low grass fields subject to flooding. From the above data it seems that *Peromyscus leucopus* prefers the forest edge, but can be found anywhere in West Tennessee that offers suitable food and shelter.

Lactating females were collected on 26 June, 27 June, and 5 October. One pregnant female containing three embryos 16 mm long was taken 25 October.

The external measurements of 40 adult specimens averaged: total length 149.2 (134-169), tail length 66.9 (55-83), hind foot 19 (17-20), and ear 15.6 (14-17). Average skull measurements of 31 adult specimens are as follows: condylobasal length 23.1 (22.1-24.5), basilar

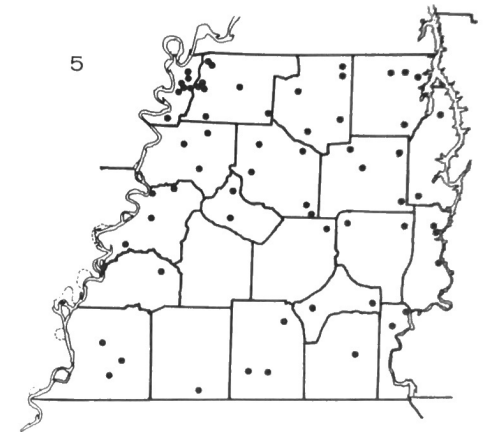


Fig. 5. Records of occurrence of *Peromyscus leucopus leucopus* in West Tennessee. For explanation of symbols see Fig. 2.

length 19.8 (18.2-21.5), zygomatic breadth 13.3 (12.2-14.1), interorbital breadth 4.1 (3.8-4.4), molar length 3.4 (3.2-3.8), and braincase breadth 10.1 (9.5-10.6).

Specimens examined.—217, from: Benton Co., Big Sandy, 3 mi. NE (7); Holladay, 0.5 mi. N. (1); Carroll Co., Hollow Rock, 2 mi. N. (1); Huntington, 1 mi. W (3 UTM); McKenzie, 2 mi. SW (2); Yuma, 3 mi. N. (1); Chester Co., Chickasaw Park (1); Enville, 4 mi. N. (3); Crockett Co., Crockett Mills, 4 mi. N. (1); Maury City, 1 mi. W (4); Decatur Co., Jeanette, 1 mi. N. (4); Lick Creek Lake (2); Perryville Marina, 1 mi. N. (2); Dyer Co., Dyersburg, 6 mi. N. (1); Four Points, 4 mi. W (6); Newbern, 7 mi. NW (1); Fayette Co., Rossville, 5 mi. E (2); Gibson Co., Bradford, 1 mi. N. (1); Central, 1 mi. E (1); Medina, 2 mi. E (1); Milan, 4 mi. S (2); Rutherford, 2.5 mi. W (1); Hardeman Co., Hickory Valley, 5 mi. SE (1); 5 mi. SW (1); Jct. 18 and 100, 0.5 mi. E (5); Hardin Co., Morris Chapel, 1 mi. SE (3); Sallito (1); Henderson Co., Bargerton, 3 mi. NW (1); Natchez Trace Park, 0.5 mi. E (4); Henry Co., Mansfield, 2 mi. NE (1); Paris Landing, 4 mi. SW (3); Puryear, 2 mi. E (3); 6 mi. E (1); Lake Co., Lasiter's Corner, 0.5 mi. W (2 UI); Phillippy, 6 mi. SW (5); Ridgely, 6 mi. SW (1); Samburg, 2 mi. S, 3 mi. W (2 UI); Tiptonville, 2 mi. E (5 UI); 2 mi. NE (1 UI); 2 mi. S (5 UI); 2 mi. SE (25 UI); 4 mi. NE (1 UI); 5 mi. SE (2 UI); Wynnburg, 3 mi. W (2); Lauderdale Co., Cherry, 9 mi. W (1); Hales Point (1); Open Lake (1); 1.9 mi. E (1 UI); Potter Gap, 2 mi. NW (1); Madison Co., Spring Creek, 2 mi. SW (1); McNairy Co., Selmer, 5 mi. E (2); Obion Co., Clayton, 3 mi. W (4); Cloverdale, 0.5 mi. W (1); Kenton, 3 mi. NE (4); Samburg, 2 mi. S, 1 mi. W Landing (3 UI); Tiptonville, 4 mi. E (15 UI); 4.25 mi. ESE (4 UI); 4.5 (3 UI); Tiptonville, 4 mi. E (15 UI); 6 mi. E (7 UI); Troy (1 mi. ESE (1 UI); 5 mi. NE (1 UI); 6 mi. E (7 UI); Memphis (1); Shelby Co., Germantown, Poplar Ave. (2); Memphis (8); 0.5 mi. N. (2); 1 mi. N. (5); Tipton Co., Covington, 6 mi. E (1); Weakley Co., Gleason, 2 mi. NE (8); Greenfield, 1 mi. N. (1); Martin (6 UTM); Palmersville, 1 mi. E (1); 3 mi. N. (3).

Records from the literature.—Rhoads (1896), Obion Co., Samburg (6); Shelby Co., Raleigh (8); Kellogg (1939), Benton Co., Big Sandy (9); Henderson Co., Lexington (2); Obion Co., Reelfoot Lake, 5 mi. W Hornbeak (5); Samburg (1); Shelby Co., Arlington (4); Calhoun (1941), Reelfoot Lake (16).

Peromyscus gossypinus megacephalus Rhoads. Cotton mouse.—Cotton mice were collected in only a few localities (Fig. 6), but this may have been due to the topography since they seem to prefer caves or areas subject to flooding. Of the specimens collected during this study, 55% were taken from forest subject to flooding, and 45% from caves. They were not collected in upland forests.



Fig. 6. Records of occurrence of *Peromyscus gossypinus megacephalus* in West Tennessee. For explanation of symbols see Fig. 2.

The external measurements of 14 adult specimens averaged: total length 169.2 (159-185), tail length 75.4 (71-84), hind foot 22.7 (22-25), and ear 17.7 (16-19). Average skull measurements of 41 adult specimens are as follows: condylobasal length 24.9 (22.7-26.6), basilar length 20.8 (19.0-23.1), zygomatic breadth 14.0 (13.1-15.3), interorbital breadth 4.3 (4.0-4.7), molar length 3.8 (3.3-4.2), and braincase breadth 10.8 (10.3-11.6).

Specimens examined.—63, from: *Crockett Co.*, Crockett Mills, 4 mi. N (2); *Decatur Co.*, Lick Creek Lake (1); Perryville Marina, 1 mi. N (6); *Jeanette*, 1 mi. N (5); *Obion Co.*, Reelfoot Lake (1); Walnut Log Camp (2); Tiptonville, 4.25 mi. ESE (1 UI); 4.5 mi. NE (2 UI); 6 mi. E (2 UI); 6.5 mi. NE (30 UI); *Lake Co.*, Gray's Landing, State Woods (11 UI).

Records from the literature.—Rhoads (1896), *Obion Co.*, Samburg (16); *Shelby Co.*, Raleigh (1); Kellogg (1939), *Benton Co.*, Big Sandy (3); *Shelby Co.*, Arlington (1); Calhoun (1941), Reelfoot Lake (30).

Ochrotomys nuttalli Audubon and Bachman. Golden mouse.—Though not abundant in most locations, golden mice were collected throughout the study area (Fig. 7). All the specimens caught during the study were collected in secondary growth (honeysuckle, blackberry vines, grass, small trees, and brush). Although this species is arboreal, all specimens were taken on the ground. They were collected in the same trap lines with *Oryzomys*, *Reithrodontomys*, *Peromyscus maniculatus*, *Peromyscus leucopus*, and *Peromyscus gossypinus*.

The external measurements of 13 adult specimens

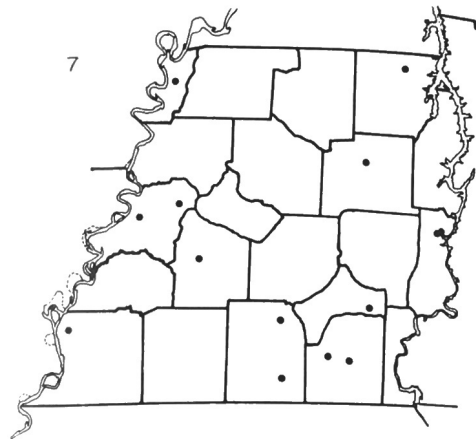


Fig. 7. Records of occurrence of *Ochrotomys nuttalli* in West Tennessee. For explanation of symbols see Fig. 2.

averaged: total length 155.8 (143-175), tail length 74.0 (65-85), hind foot 17.2 (15-19), and ear 16.2 (14-17). Average skull measurements of 11 adult specimens are as follows: condylobasal length 22.9 (21.8-24.0), basilar length 19.1 (18.2-20.0), zygomatic breadth 13.5 (12.5-14.2), interorbital breadth 4.3 (4.0-4.6), molar length 3.8 (3.7-4.0), and braincase breadth 10.1 (9.9-10.5).

Specimens examined.—23, from: *Carroll Co.*, Huntington, 1 mi. N (1 UTM); *Chester Co.*, Enville, 3 mi. N (1); *Decatur Co.*, Jeanette, 1 mi. N (1); Lick Creek Lake (1); *Hardeman Co.*, Bolivar, 10.5 mi. S (3); 0.5 mi. E Hwy 18 and 100 (3); *Haywood Co.*, Brownsville, 5.5 mi. W (1); *Henry Co.*, Puryear, 2 mi. E (1); *Lake Co.*, near Tiptonville (1 UI); *State Woods*, Gray's Landing (2 UI); Reelfoot Lake (2 UI); *Lauderdale Co.*, Open Lake (1 UI); *McNairy Co.*, Selmer, 5 mi. E (2); 6 mi. NW (2); *Shelby Co.*, Memphis, 6 mi. N (1).

Signodon hispidus hispidus Say and Ord. Hispid cotton rat.—The cotton rat is found in all West Tennessee except the northeastern corner according to Hall and Kelson (1959). All of the specimens collected fell within this range with the exception of two. One of these was trapped in the northeastern corner of Obion Co., and the other was a roadkill, in too poor condition to keep, found in the northwestern corner of Weakley Co. This sight record was not included on the distribution map (Fig. 8). During this study 70% of the specimens were collected in old fields overgrown with ragweed, goldenrod, sericea, Johnson grass, broom sedge, or some combination of these. In various combinations of blackberry vines, honeysuckle, broom sedge, fescue, and brush along the forest edge, 17% were trapped. Approximately 9% of the specimens were found killed on the road. This species seems to prefer areas with moderate to heavy cover since only 4% were taken in grazed fields.

Few pregnant females were collected. On 27 June a female was taken that contained 10 embryos 13 mm long; the following day another was trapped that con-

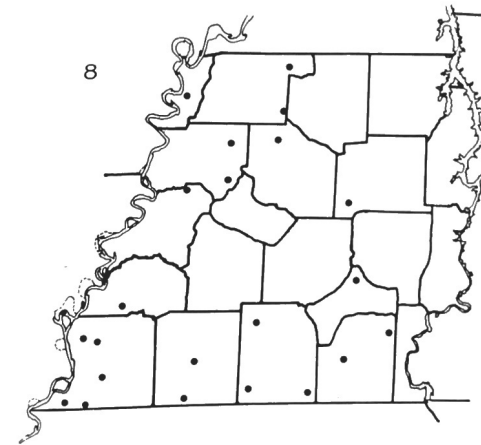


Fig. 8. Records of occurrence of *Sigmodon hispidus hispidus* in West Tennessee. For explanation of symbols see Fig. 2.

tained 7 embryos 37 mm long. The only other pregnant female was collected 6 October, containing 5 embryos 8 mm long.

The external measurements of 11 adult specimens averaged: total length 242.5 (218-279), tail length 102.7 (81-123), hind foot 29.5 (27-32), and ear 18.5 (15-20). Average skull measurements of 23 adult specimens are as follows: condylobasal length 31.8 (28.4-36.2), basilar length 26.9 (23.6-31.4), zygomatic breadth 18.8 (17.5-20.5), interorbital breadth 5.0 (4.7-5.4), molar length 6.2 (5.9-6.6), and braincase breadth 14.8 (13.9-15.6).

Specimens examined.—100, from: *Carroll Co.*, Lavina, 0.5 mi. E (1); *Chester Co.*, Mifflin, 1 mi. S (2); *Dyer Co.*, Four Points, 4 mi. SE (1); Newbern, 5 mi. NW (1); *Fayette Co.*, Somerville, 6 mi. W (1), Rossville, 5 mi. E (2); *Gibson Co.*, Rutherford, 2.5 mi. W (1); *Hardeman Co.*, Hickory Valley, 5 mi. SW (1); Pocahontas, 0.5 mi. W (1); Whiteville, 3 mi. E (1); *Lake Co.*, Wynnburg, 3 mi. W (1); *Lauderdale Co.*, Open Lake, 2 mi. E (1 UI); Pote Gap, 2 mi. NW (1); *McNairy Co.*, Selmer, 6 mi. NW (1); Adamsville, 6 mi. N (1); *Obion Co.*, Kenton, 3 mi. NE (1); Lasiter's Corner (26 UI); Samburg, 0.5 mi. S (3 UI); Tiptonville (2 UI); 4.25 mi. ESE (1 UI); 4.5 mi. SE (2 UI); Union City, 6 mi. NE (1); *Shelby Co.*, Memphis (4); 1 mi. N (3); 6 mi. N (2); Germantown (3); Whitehaven (2); *Shelby Co.*, Airport (24); Brooks Rd. 0.5 mi. W Airways (2); Thomas Rd. 1 mi. NW Hwy 70 (3); Fite Rd. (1); 0.5 mi. S I-55 on Horn Lake Rd. (2); *Tipton Co.*, Munford, 3.3 mi. S (1).

Records from the literature.—Kellogg (1939), *Fayette Co.*, Hickory Withe (3).

Neotoma floridana illinoensis A. H. Howell. Eastern wood rat.—Hall and Kelson (1959) show the range of this subspecies to include most of West Tennessee. This subspecies was not collected during this study, however, nine specimens, collected during a previous study in the Reelfoot Lake area (Goodpaster and Hoffmeister,

1952), are housed in the Museum of Natural History at the University of Illinois.

Goodpaster and Hoffmeister (1962) described seven nests found near Reelfoot Lake. Two of the nests were found in deserted cabins near Samburg. On 7 June three immatures were found in one of these nests. The other five nests were found along the bluff above the bottomland. Three of these were basket-shaped nests 2.5 to 3 ft. above the ground. Two of the three nests were found in tangles of vines and the other in the top of a fallen tree. The nests were made of sticks, mosses, and leaves. Another nest was found eight feet above the ground in the crotch of an osage orange tree. In a nest along a fallen log, a female was taken which gave birth to three young during April while in captivity.

The external measurements of four adult specimens averaged: total length 390 (373-416), tail length 180 (169-188), hind foot 39 (37-42), and ear 29 (28-31). Average skull measurements of four adult specimens are as follows: condylobasal length 47.7 (45.1-51.3), basilar length 42.0 (39.8-45.1), zygomatic breadth 24.8 (23.8-26.8), interorbital breadth 6.5 (6.0-6.9), molar length 9.2 (8.9-9.5), braincase breadth 20.0 (19.2-20.8).

Specimens examined.—9, from: *Lake Co.*, Lasiter's Corner, 1 mi. S (1 UI); *Obion Co.*, Samburg, 1 mi. E (1 UI); 2 mi. NE (1 UI); 3.5 mi. SE (4 UI); 5 mi. NE (1 UI); Tiptonville, 8 mi. NE (1 UI).

Neotoma floridana magister Baird. Eastern wood rat.—Although no specimens of this subspecies were collected or recorded in the literature, their range is supposed to extend over the eastern counties according to the map in Hall and Kelson (1959). Several caves and upland forests were trapped in hopes of catching these animals. Tracks were found in one cave, but these proved to be those of *Rattus norvegicus*.

SUMMARY

Eight species of cricetine rodents were found in West Tennessee. These included: *Oryzomys palustris*, *Reithrodontomys humilis*, *Peromyscus maniculatus*, *Peromyscus leucopus*, *Peromyscus gossypinus*, *Ochrotomys nuttalli*, *Signodon hispidus*, and *Neotoma floridana*.

Peromyscus leucopus was collected more frequently than any other species. During this study *Neotoma* was not taken but was examined in the collection at the University of Illinois. The only records of this species are from the Reelfoot Lake area. *Peromyscus maniculatus*, *Peromyscus leucopus*, *Peromyscus gossypinus*, *Reithrodontomys*, *Oryzomys*, and *Ochrotomys* were found distributed throughout the area. *Signodon* was collected throughout the area except for the northeastern corner.

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