

## ANNOTATED CHECKLIST OF THE MAMMALS OF WESTERN TENNESSEE

MICHAEL L. KENNEDY  
Memphis State University  
Memphis, TN 38152

### ABSTRACT

This study reports an annotated checklist of the mammals of western Tennessee. Data were obtained from literature records and selected mammal collections in North America. Taxa included in the checklist represent 8 orders, 17 families, and 54 species.

### INTRODUCTION

Several works have contributed to our understanding of the mammalian fauna of western Tennessee. The most comprehensive in regard to occurrence and distribution of species are annotated lists of Tennessee mammals by Rhoads (1896) and Kellogg (1939) and studies conducted in western Tennessee by Calhoun (1941), Goodpaster and Hoffmeister (1952), Beasley and Severinghaus (1973), Severinghaus and Beasley (1973), and Graves and Harvey (1974). In general, literature records and museum specimens representing mammals of western Tennessee are scattered and have not been summarized at this time. Therefore, the purpose of the present work is to provide an annotated checklist of the mammals that occur in western Tennessee.

### MATERIALS AND METHODS

Scientific and common names are those used by Jones et al. (1982) with the exception of *Myotis septentrionalis* (northern long-eared bat) which follows van Zyll de Jong (1985). The list of species in the present report is based on published accounts and voucher specimens in museum collections as follows: Carnegie Museum of Natural History; Field Museum of Natural History; Louisiana State University, Museum of Natural Science; Memphis State University Museum of Zoology; National Museum of Natural History; University of Illinois, Museum of Natural History; University of Kansas, Museum of Natural History; University of Michigan, Museum of Zoology; University of Tennessee at Martin, Department of Biological Sciences. Following Beasley and Severinghaus (1973) and Severinghaus and Beasley (1973), western Tennessee is defined as that part of Tennessee west of the Tennessee River. In the list of species, references to the status of taxa as common or uncommon and to abundance of individual species are based on the number of published records and number of museum specimens available in collections.

### LIST OF SPECIES

#### ORDER MARSUPIALIA—Marsupials

##### FAMILY DIDELPHIDAE (OPOSSUMS)

*Didelphis virginiana* (Virginia opossum). Region-wide in distribution; common in most habitats.

#### ORDER INSECTIVORA—Insectivores

##### FAMILY SORICIDAE (SHREWS)

*Sorex longirostris* (southeastern shrew). Occurs region-wide; in

preferred habitat (e.g., river floodplains and river swamps), the species may be quite abundant; occupies a number of habitat types including old fields, along sandy river bluffs, and at edges of pine woods.

*Blarina carolinensis* (southern short-tailed shrew). Reported region-wide; locally abundant and may occur in a variety of habitats that includes woodlands, grasslands, marshy areas, and relatively dry uplands.

*Cryptotis parva* (least shrew). Region-wide in distribution; a common species that is most abundant in upland-field habitats (especially meadows, weedy fencerows, and grassy roadsides).

##### FAMILY TALPIDAE (MOLES)

*Scalopus aquaticus* (eastern mole). Known region-wide; a common fossorial species inhabiting a variety of habitats; most often found in relatively light, well-drained soils.

#### ORDER CHIROPTERA—Bats

##### FAMILY VESPERTILIONIDAE (VESPERTILIONID BATS)

*Myotis lucifugus* (little brown myotis). Found only in the eastern portion of the region; an uncommon species, primarily inhabiting caves and buildings.

*Myotis austroriparius* (southeastern myotis). Region-wide in distribution; most common *Myotis* in the region; inhabits trees, caves, and buildings.

*Myotis grisescens* (gray myotis). In the region, known primarily from counties along the Tennessee River; a federally endangered species that is almost unknown outside of areas with caves or cave-like habitats.

*Myotis septentrionalis* (northern long-eared bat). Found only in the eastern portion of the region; an uncommon species known primarily from caves, mines, or similar shelters; formerly *M. keenii* (Keen's myotis).

*Myotis sodalis* (Indiana myotis). In the region, known primarily from counties along the Tennessee River; only one specimen is known from west of the Tennessee River (Shelby County; Graves and Harvey 1974); a federally endangered species that usually occurs in caves, mines, or similar sites; in summer, females form maternity colonies in hollow trees and behind loose slabs of bark.

*Lasionycteris noctivagans* (silver-haired bat). Region-wide in distribution; no large numbers of this species have been recorded; it is an uncommon migratory tree dweller.

*Pipistrellus subflavus* (eastern pipistrelle). Reported region-wide; a common bat found in caves and trees.

*Eptesicus fuscus* (big brown bat). Known region-wide; a common bat found in several habitats (e.g., old buildings, caves, hollow trees, and deep crevices in rocky cliffs).

*Lasiurus borealis* (red bat). Occurs region-wide; a common bat that roosts in trees.

*Lasiurus seminolus* (Seminole bat). Known only from two sites

in the region (Hardin and Shelby counties; Kennedy et al. 1984); this uncommon species occurs most commonly in trees.

*Lasiurus cinereus* (hoary bat). Region-wide in distribution; an uncommon tree-dwelling species.

*Nycticeius humeralis* (evening bat). Reported region-wide; a common bat that is frequently found in forested habitat and in attics of old buildings.

*Plecotus rafinesquii* (Rafinesque's big-eared bat). Occurs region-wide; a very uncommon species that occurs in forested areas; it often roosts in unoccupied buildings, caves, and trees.

#### ORDER EDENTATA—Edentates

##### FAMILY DASYPODIDAE (ARMADILLOS)

*Dasyppus novemcinctus* (nine-banded armadillo). Region-wide in distribution; an uncommon mammal that is known from isolated records; occupies a variety of habitats.

#### ORDER LAGOMORPHA—Lagomorphs

##### FAMILY LEPORIDAE (HARES AND RABBITS)

*Sylvilagus floridanus* (eastern cottontail). Region-wide in distribution; a common species that occurs in a variety of habitats that includes old fields, brushy edges, and other habitats with a mixture of herbaceous and shrubby plants.

*Sylvilagus aquaticus* (swamp rabbit). Known region-wide; this species may be quite abundant in preferred habitat (floodplains).

#### ORDER RODENTIA—Rodents

##### FAMILY SCIURIDAE (SQUIRRELS)

*Tamias striatus* (eastern chipmunk). Occurs region-wide; a common species in forests of rural and urban areas.

*Marmota monax* (woodchuck). Known region-wide; a common species in woodlands, roadside habitats, and fields.

*Sciurus carolinensis* (gray squirrel). Region-wide in distribution; a common species found in forests of rural and urban areas.

*Sciurus niger* (fox squirrel). Known region-wide; a common species of hardwood forests.

*Glaucomys volans* (southern flying squirrel). Occurs region-wide; it may be locally abundant in a variety of forested habitats.

##### FAMILY CASTORIDAE (BEAVERS)

*Castor canadensis* (beaver). Reported region-wide; a common mammal in a variety of aquatic habitats; locally abundant in many areas.

##### FAMILY CRICETIDAE (CRICETIDS)

*Oryzomys palustris* (marsh rice rat). Region-wide in distribution; a common species in a variety of habitats (especially marshes and wet meadows).

*Reithrodontomys humulis* (eastern harvest mouse). Known region-wide; occurs in old fields, meadows, and thickets; however, records for the species are scattered, and no large numbers have been reported at any site.

*Peromyscus maniculatus* (deer mouse). Occurs region-wide; an uncommon species of open habitats (e.g., meadows, pastures, cultivated fields, and along field borders and fencerows).

*Peromyscus leucopus* (white-footed mouse). Reported region-wide; a common species in a variety of woodland habitats.

*Peromyscus gossypinus* (cotton mouse). Occurs region-wide; usually found in moist, timbered areas (e.g., swamps and river bottoms) in the western part of the region and near and in caves and crevices around rocky bluffs in the eastern part; locally abundant in some areas.

*Ochrotomys nuttalli* (golden mouse). Found region-wide; generally restricted to woodland habitats where it may be locally abundant.

*Sigmodon hispidus* (hispid cotton rat). Known region-wide; abundant in grassy fields, along roadsides in dense, grassy overgrowth, and borders of cultivated fields.

*Neotoma floridana* (eastern woodrat). Found region-wide, but it is uncommon in occurrence; recorded specimens are few; in the western part of the region, the species occurs in timbered areas; in the eastern portion, caves in limestone bluffs or crevices of rocky outcroppings represent primary habitat; may occupy old buildings throughout the region.

*Microtus ochrogaster* (prairie vole). Occurs region-wide; locally abundant in grassy habitats.

*Microtus pinetorum* (woodland vole). Reported region-wide; common in a variety of habitats (e.g., fields adjacent to wooded areas, in orchards, along fencerows, and thickets along forest edges).

*Ondatra zibethicus* (muskrat). Occurs region-wide; locally abundant in many aquatic habitats.

##### FAMILY MURIDAE (MURIDS)

*Rattus rattus* (black rat). Occurs region-wide; locally abundant in upper stories of buildings.

*Rattus norvegicus* (Norway rat). Reported region-wide; found in a variety of habitats, but usually most common near human habitation.

*Mus musculus* (house mouse). Known region-wide; common in a variety of habitats.

##### FAMILY ZAPODIDAE (JUMPING MICE)

*Zapus hudsonius* (meadow jumping mouse). Occurs region-wide; an uncommon species that occupies open grassy fields; may also occur in thick vegetation near ponds, streams, and marshes in wooded areas.

#### ORDER CARNIVORA—Carnivores

##### FAMILY CANIDAE (CANIDS)

*Canis latrans* (coyote). Reported region-wide; common in a variety of habitats.

*Vulpes vulpes* (red fox). Known region-wide; locally common along borders of forested areas and adjacent open lands.

*Urocyon cinereoargenteus* (gray fox). Occurs region-wide; common in many forested areas and some relatively open brushland.

##### FAMILY PROCYONIDAE (PROCYONIDS)

*Procyon lotor* (raccoon). Reported region-wide; common in a wide variety of habitats; most abundant in bottomland hardwood forest.

##### FAMILY MUSTELIDAE (MUSTELIDS)

*Mustela frenata* (long-tailed weasel). Known region-wide; an uncommon species found in a variety of habitats (e.g., forest edges, streambanks, brushland, and fencerows).

*Mustela vison* (mink). Occurs region-wide; locally abundant in moist bottomlands and along streams.

*Spilogale putorius* (eastern spotted skunk). Known only from a few counties in the eastern part of the region; an uncommon species

that occupies rugged terrain (rocks and cliffs) as well as fencerows, brushy fields, and farmlands.

***Mephitis mephitis* (striped skunk).** Reported region-wide; a common species in a variety of habitats.

***Lutra canadensis* (river otter).** Recorded region-wide; status uncertain, but may be fairly common in some habitats; has been listed as a threatened species in western Tennessee; occupies streams, rivers, and lakes, usually bordered by woods.

#### FAMILY FELIDAE (CATS)

***Felis rufus* (bobcat).** Known region-wide; may be locally abundant in river bottoms and forested areas with thick underbrush.

### ORDER ARTIODACTYLA—Even-toed ungulates

#### FAMILY SUIDAE (PIGS)

***Sus scrofa* (wild pig).** Introduced into bottomland hardwood forest in southwestern Tennessee during recent years; probably only a few remaining (status uncertain).

#### FAMILY CERVIDAE (CERVIDS)

***Odocoileus virginianus* (white-tailed deer).** Reported region-wide; common in a variety of habitats.

### DISCUSSION

Mammals currently recognized in western Tennessee represent 8 orders, 17 families, and 54 species. Not included in this checklist are five species that recently occurred in western Tennessee but have been extirpated. These are *Canis rufus* (red wolf), *Ursus americanus* (black bear), *Felis concolor* (mountain lion), *Cervus elaphus* (elk), and *Bison bison* (bison).

Many mammals of western Tennessee are poorly known, especially many of the nongame species. Few distributional records exist for a number of taxa (e.g., *Myotis* spp., *L. noctivagans*, *L. seminolus*, *L. cinereus*, *P. rafinesquii*, *C. parva*, *G. yolans*, *R. humulis*, *O. nuttalli*, *N. floridana*, *R. rattus*, *Z. hudsonius*, *M. frenata*, and *S. putorius*). While more records exist for species like *B. carolinensis* and *S. longirostris*, the biology of these species is poorly known. Generally, the mammalian fauna of western Tennessee needs additional study. Future investigation may add several species to the list of mammals known from

the region. The following species have been reported in proximity to western Tennessee: *S. hoyi* (pygmy shrew), *B. brevicauda* (northern short-tailed shrew), *M. leibii* (small-footed myotis), *Tadarida brasiliensis* (Brazilian free-tailed bat), *Geomys bursarius* (plains pocket gopher), *R. megalotis* (western harvest mouse), *R. fulvescens* (fulvous harvest mouse), and *Synaptomys cooperi* (southern bog lemming). Specimens of *Taxidea taxus* (badger) have been recorded in western Tennessee, but they are thought to represent captive animals that escaped or were released; breeding populations are unknown. Until the mammalian fauna is completely inventoried, the status and distribution of several species will remain questionable.

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