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HOST AND DISTRIBUTION LISTS OF CHIGGERS (TROMBICULIDAE AND
LEEUWENHOEKIIDAE), OF NORTH AMERICAN WILD VERTEBRATES
NORTH OF MEXICO

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ABSTRACT. - Information concerning chiggers found on wild vertebrates of North America north of Mexico is summarized. Included are lists a) of the chiggers organized taxonomically, b) hosts from which each species has been reported, and c) states and provinces with references for each separate record.

INTRODUCTION

This paper summarizes published information on chiggers found on North American wild vertebrates, including their hosts and their geographic distribution. Chiggers of domestic animals and man are excluded, as are nest records. Included are lists a) of the chiggers organized taxonomically, b) hosts from which each species has been reported, and c) states and provinces with references for each separate record.

Hosts listed only to genus are included only if a chigger was not recorded from a species in that genus. Hosts listed only by common name are omitted except when it is clear which species is involved or if it is the only record for a North American chigger species. This paper is similar to those of Whitaker and Wilson (1974) and Whitaker et al. (2007) for North American mammals.

A chigger bibliography by Goff et al. (1986) was helpful in gathering data. Some general works should be mentioned. Forrester (1992) has summarized information on parasites of Florida mammals. The American Society of Mammalogists has published three monographs with extensive chapters on parasites, one on *Peromyscus* with the chapter on parasites by Whitaker (1968), one on *Microtus* with the chapter by Timm (1985), and one on heteromyid rodents with the chapter by Whitaker et al. (1993). Webb and Loomis (1977) authored a chapter on ectoparasites in a monograph on new world phyllostomid bats. Whitaker and Morales-Malacara (2005) and Hoffmann (1990) summarized information on ectoparasites and chiggers of mammals of Mexico, respectively.

There are a few loose ends in chigger taxonomy. Several papers list new species that were never described (Allred 1962: *Leeuwenhoekiinae* sp. “B”; Allred 1963: Chigger sp B³; Allred and Goates 1964: *Trombicula* sp. n. “AB”, “BB”, “CB”, and “DB”; Eads et al. 1965: *Trombicula* n. sp.; Loomis and Wrenn 1973: *Fonsecia* n. sp. *Hyponeocula* n. sp., *Odontacarus* n. sp. and *Parasecia* n. sp.; Loomis et al. 1972: *Fonsecia* n. sp., *Hyponeocula* n. sp., *Odontacarus* n. sp., and *Pseudoschongastia* n. sp.). In addition, *Neotrombicula zapi* was reported in a paper by Whitaker (1979), however this species was never formally described.

THE FAMILIES OF CHIGGERS

Historically chiggers were placed in a single family, the Trombiculidae. Recently however, they have been divided into two families, Trombiculidae and Leeuwenhoekiidae. The “chiggers” themselves are the larval trombiculid and leeuwenhoekiid mites and are short term parasites on their hosts. Many chiggers often occur on specific hosts, but are not host specific. Rather they are habitat specific, i.e. they are most often found on a particular host because their habitat is near the host nest, burrow, etc., not because they are restricted or partial to that particular host. Other hosts in the same habitat may also be infested by the same species of chigger.

There are 12 genera currently recognized in the Leeuwenhoekiidae and 35 in the Trombiculidae in North America north of Mexico. There is great variation in the Trombiculidae, but the Leeuwenhoekiidae are characterized by having leg segmentation 6-6-6 (7-6-6 in some species of *Comatacarus*), scutum has two anteromedial setae and coxa 1 has two setae. There are several chigger keys available including keys to the genera of chiggers of the western hemisphere by Brennan and Goff (1977), keys to the chiggers of North America by Brennan and Jones (1959), and a key to the genus *Euschoengastia* in North America by Wrenn (1987).

Host species are designated as follows: H = herps (reptiles and amphibians), B = birds, and M = mammals.

LEEUWENHOEKIIDAE

Acomatacarus arizonensis Ewing, 1942 – AZ, CA, KS, NV, TX, UT

H: *Callisaurus draconoides*, *Chionactis occipitalis*, *Cnemidophorus tigris*,
Coleonyx variegatus, *Crotaphytus collaris*, *C. reticulatus*, *C. wislizeni*,
Dipsosaurus dorsalis, *Gambelia wislizenii*, *Holbrookia texana*, *Phrynosoma*
coronatum, *P. platyrhinos*, *Sceloporus jarrovii*, *S. magister*, *S. merriami*, *S.*
occidentalis, *S. orcutti*, *Urosaurus graciosus*, *Uta stansburiana*

M: *Neotoma lepida*, *Perognathus formosus*

A. brevicalcar Brennan and Jones, 1954 – CA

M: *Perognathus californicus*

A. polychaetus Greenberg, 1952 – AR

M: *Peromyscus leucopus*

A. whartoni Greenberg, 1952 – AR

M: *Sylvilagus floridanus*

Albeckia albecki Vercammen-Grandjean and Watkins, 1966 – CA, SD

M: *Antrozous pallidus*, *Myotis ciliolabrum*

A. senase (Greenberg, 1952) – AL, KS, OK, OR, TX

M: *Antrozous pallidus*, *Corynorhinus townsendii*, *Eptesicus fuscus*, *Myotis velifer*,

Neotoma micropus, *Parastrellus hesperus*

Chatia cunninghamae Goff and Loomis, 1980 – WA

M: *Tamiasciurus douglasii*

C. setosa Brennan, 1946 – CA, ID, MT, OR, UT

M: *Marmota flaviventer*, *Neotoma cinerea*, *N. fuscipes*, *Ochotona princeps*,

Peromyscus maniculatus, *Spermophilus lateralis*, *Tamias townsendii*,

Tamiasciurus hudonicus

Comatacarus inconspicuous Reed, 1973 – UT

M: *Peromyscus maniculatus*

C. pusillus Goff and Loomis, 1974 – CO, KS

M: *Neotoma cinerea*, *Peromyscus maniculatus*, *Reithrodontomys megalotis*

C. stewarti (Gould, 1956) – CA, TX

M: *Neotoma lepida*, *Perognathus californicus*, *Peromyscus pectoralis*

Hannemannia bufonis Loomis and Welbourn, 1969 – AZ, CA, TX

H: *Bufo punctatus*

H. dunni Samson 1928 – AR, KS, OK, NC, WV

H: *Acris gryllus*, *Ambystoma maculatum*, *A. opacum*, *Desmognathus fuscus*,
Eurycea cirrigera, *E. guttto-lineata*, *Plethodon caddoensis*, *P. cylindraceus*, *P.*
glutinosus, *P. ouachitae*, *Pseudotriton montanus*, *Rana palustris*

H. eltoni Samson, 1928 – KS, TX

H: *Acris crepitans*, *A. gryllus*, *Ambystoma tigrinum*, *Bufo woodhousii*, *Rana*
pipiens, *R. sphenocephala*

H. hegneri Hyland, 1956 – FL, GA

H: *Acris crepitans*, *Rana pipiens*

H. hylae (Ewing, 1925) – AZ, CA, TX, UT

H: *Eleutherodactylus guttilatus*, *Hyla arenicolor*, *H. cadaverina*, *Syrrhophus*
guttulatus

H. mexicana Hoffmann, 1965 – TX

H: *Rana pipiens*

H. monticola Welbourn and Loomis, 1970 – TX

H: *Eleutherodactylus marnockii*

H. multifemorala Loomis, 1956 – AK, AR, KS, MO, NB, NE, OK, TX

H: *Acris gryllus*, *Bufo terrestris*, *B. woodhousii*, *Gastrophryne olivacea*,

Microhyla olivacea, *Rana pipiens*

H. ochotona Radford, 1942 – MT

M: *Ochotona princeps*

H. penetrans Ewing 1931 – NC, VA

H: *Bufo fowleri*, *Rana catesbeiana*, *R. pipiens*, *R. sphenocephala*

Leeuwenhoekia americana (Ewing, 1942) – CA, CO, GA, ID, IN, KS, MS, NV, ON, OR,

SC, TN

M: *Blarina brevicauda*, *B. carolinensis*, *Dipodomys ordii*, *Microtus californicus*,

M. montanus, *Myodes occidentalis*, *Neotoma cinerea* N. *fuscipes*, *N. lepida*, N.

mexicana, *Peromyscus leucopus*, *P. maniculatus*, *Reithrodontomys megalotis*,

Scapanus sp., *Sorex hoyi*, *S. pacificus*, *S. trowbridgii*, *S. vagrans*,

Spermophilus beecheyi, *Tamias striatus*, *Thomomys bottae*

L. dolosa Gould, 1956 – CA, ID

M: *Mus musculus*, *Peromyscus californicus*, *P. maniculatus*, *Tamiasciurus*

hudsonicus, *Thomomys bottae*

Odontacarus cayolargoensis Brennan, 1959 – FL, TX

M: *Liomys irroratus*, *Peromyscus leucopus*, *Sigmodon hispidus*

O. chiapanensis (Hoffmann, 1948) – NV

M: *Neotoma lepida*

O. dentatus (Ewing, 1925) – KS, TX

M: *Chaetodipus hispidus*, *Cynomys ludovicianus*, *Lepus californicus*, *Odocoileus virginianus*, *Peromyscus maniculatus*, *Sylvilagus audubonii*, *S. floridanus*
O. hirsutus (Ewing, 1931) – CA, NV, UT

M: *Aplodontia rufa*, *Bassariscus astutus*, *Dipodomys venustus*, *Microtus californicus*, *Mus musculus*, *Neotoma cinerea*, *N. fuscipes*, *N. lepida*,
Perognathus californicus, *Peromyscus boylii*, *P. maniculatus*, *Spermophilus beecheyi*, *S. lateralis*, *Sylvilagus nuttalli*, *Tamias* sp., *Thomomys bottae*

O. kromani Goff and Loomis, 1973 – CA

M: *Neotoma lepida*
O. linsdalei (Brennan & Jones, 1954) – CA, ID, NV, UT

H: *Coluber taeniatus*, *Pituophis catenifer*
M: *Dipodomys agilis*, *D. ordii*, *D. microps*, *Neotoma lepida*, *Onychomys torridus*,
Perognathus californicus, *P. formosus*, *P. longimembris*, *P. parvus*,
Peromyscus maniculatus, *Spermophilus beecheyi*

O. micheneri (Greenberg, 1952) – CO, ID, NV, UT

H: *Sceloporus occidentalis*
M: *Dipodomys ordii*, *Neotoma cinerea*, *N. lepida*, *Onychomys torridus*,
Perognathus parvus, *Sylvilagus* sp.

O. morlani Brennan, 1959 – NM, TX

M: *Neotoma albicula*, *N. micropus*, *Peromyscus leucopus*
O. pinnatus Goff and Loomis, 1977 – TX

H: *Cnemidophorus tigris*, *Cophosaurus texanus*, *Crotaphytus collaris*, *C. reticulatus*, *Phrynosoma modestum*, *Uta stansburiana*

O. shawi Brennan, 1959 – CA

H: *Coleonyx variegatus*, *Masticophis flagellum*, *Phyllorhynchus decurtatus*

O. villosus Goff and Loomis, 1973 – CA

M: *Peromyscus boylii*, *P. maniculatus*

Sasacarus whartoni (Hoffmann, 1951) – CA, NV, TX

M: *Dipodomys merriami*, *D. microps*, *Neotoma albicula*, *N. lepida*, *N. micropus*,

Perognathus sp., *Peromyscus eremicus*, *P. pectoralis*

Shunsennia ochotona (Radford, 1942) – CA, ID, MT, UT

M: *Corynorhinus townsendii*, *Microtus longicaudus*, *Myodes californicus*, *M.*

occidentalis, *Neotoma cinerea*, *Ochotona schisticeps*, *Peromyscus boylii*, *P.*

maniculatus, *Sorex trowbridgii*

Wagenaaria similis Brennan, 1967 – TX

M: *Mormoops megalophylla*

Whartonia carpenteri (Brennan, 1962)

M: *Antrozous pallidus*, *Parastrellus hesperus*

W. glenni Vercammen-Grandjean, Watkins and Beck, 1965 – CA

M: *Macrotus californicus*

W. perplexa (Brennan, 1947) – AZ, CA, MT, NV, OR, TX, UT

M: *Antrozous pallidus*, *Eptesicus fuscus*, *Myotis californicus*, *M. velifer*,

Parastrellus hesperus

Xenodontacarus brevicalcar (Brennan and Jones, 1954) – CA

M: *Perognathus californicus*, *Peromyscus crinitus*

X. plumosus Greenberg, 1951 – KS, SD, TX

M: *Dipodomys ordii*, *Liomys irroratus*, *Neotoma micropus*, *Peromyscus leucopus*,
P. maniculatus, *Sylvilagus floridanus*

TROMBICULIDAE

Acariscus hominis (Ewing, 1933) – AL, FL

B: *Sturnella magna*, *Toxostoma rufum*

Aplodontophila aplodontiae Brennan, 1946 – CA, OR, WA

M: *Aplodontia rufa*, *Mustela frenata*

A. pacifica Wrenn and Maser, 1981 – OR

M: *Aplodontia rufa*

Beamerella acutascuta Brennan, 1958 – TX

M: *Mormoops megalophylla*

Blankaartia pauli Crossley and Atyeo, 1972 – AL, FL

B: *Rallus longirostris*

B. sinnamayri (Floch and Fauran, 1956) – FL, TX

B: *Dumetella carolinensis*, *Grus canadensis*, *Hylocichla mustelina*

Cheladonta crossi Lipovsky, Crossley, and Loomis, 1955 – UT

M: *Peromyscus maniculatus*

C. micheneri Lipovsky, Crossley, and Loomis, 1955 – KS, NE, TX

M: *Chaetodipus hispidus*, *Cynomys ludovicianus*, *Mus musculus*, *Neotoma floridana*, *Perognathus hispidus*, *Peromyscus leucopus*, *P. maniculatus*,
Sciurus carolinensis, *Sylvilagus floridanus*

C. ouachitensis Lipovsky, Crossley, and Loomis, 1955 – AR, FL, IN, NC

M: *Cryptotis parva*, *Neotoma floridana*, *Sorex cinereus*, *S. fumeus*, *S. palustris*

Chiroptella mexicana (Ewing, 1937) – AZ, NM, TX

M: *Myotis velifer*, *Tadarida brasiliensis*

Digenualaea carterae (Brennan and Wharton, 1950) – NC

M: *Peromyscus leucopus*, *P. maniculatus*

Durmadelema furmani (Gould, 1956) – AZ, CA, NV, TX, UT

M: *Ammospermophilus leucurus*, *Dipodomys agilis*, *D. deserti*, *D. merriami*, *D. microps*, *D. panamintinus*, *D. stephensi*, *Neotoma albicula*, *N. lepida*, *Onychomys torridus*, *Perognathus baileyi*, *P. californicus*, *P. fallax*, *P. formosus*, *P. furmani*, *P. longimembris*, *P. penicillatus*, *P. spinatus*, *Peromyscus crinitus*, *P. eremicus*, *P. maniculatus*, *P. truei*, *Reithrodontomys megalotis*, *Spermophilus beecheyi*, *S. leucurus*, *Tamias* sp., *Thomomys bottae*

D. lynnae Pomeroy and Loomis, 1984 – CA, NM, TX

M: *Dipodomys merriami*, *Perognathus longimembris*

D. mojavense Pomeroy and Loomis, 1984 – CA

M: *Dipodomys heermanni*, *D. merriami*, *D. nitratoides*, *D. panamintinus*, *Neotoma lepida*, *Onychomys torridus*, *Perognathus fallax*, *P. formosus*, *P. longimembris*, *Peromyscus eremicus*

D. sleeperi Pomeroy and Loomis, 1984 – CA

M: *Dipodomys merriami*, *D. microps*, *D. panamintinus*, *Perognathus formosus*, *P. longimembris*, *Thomomys bottae*

Euschoengastia ambocalis Wrenn and Loomis, 1973 – CA

M: *Ammospermophilus leucurus*, *Dipodomys agilis*, *D. merriami*, *Microtus californicus*, *Neotoma fuscipes*, *N. lepida*, *Onychomys torridus*, *Perognathus californicus*, *P. fallax*, *Peromyscus boylii*, *P. californicus*, *P. crinitus*, *P. eremicus*, *P. maniculatus*, *P. truei*, *Reithrodontomys megalotis*, *Tamias speciosus*

E. americana Ewing, 1938 – CA, ID

M: *Tamias* sp.

E. blarinae (Ewing, 1931) – DC, MI, MN, NB, NC, NJ, NY, ON, PA, SC, VA

M: *Blarina brevicauda*, *Microtus chrotorrhinus*, *Myodes gapperi*, *Peromyscus leucopus*, *P. maniculatus*, *Sorex cinereus*, *S. fumeus*, *S. longirostris*, *S. palustris*

E. brennani Wrenn and Loomis, 1974 – CA, OR

M: *Microtus longicaudus*, *Neotoma fuscipes*, *Ochotona princeps*, *Peromyscus boylii*, *P. maniculatus*, *P. truei*, *Rattus rattus*

E. carolinensis Farrell, 1956 – NC

M: *Microtus pinetorum*, *Peromyscus leucopus*

E. campi Brown and Brennan, 1952 – AB

M: *Spermophilus richardsoni*

E. chisosensis Loomis, Baccus, and Wrenn, 1972- TX

M: *Peromyscus boylii*, *P. pectoralis*

E. citellicola Gould, 1956 – CA

M: *Spermophilus beldingi*, *S. lateralis*

E. cordiremus Brennan, 1948 – CA, ID, MT, NV, UT

M: *Dipodomys ordii*, *Marmota* sp., *Ochotona* sp., *Perognathus parvus*,
Peromyscus maniculatus, *Spermophilus beldingi*, *S. lateralis*

E. crateris Farrell, 1956 – PA

M: *Myodes gapperi*, *Peromyscus leucopus*, *P. maniculatus*
E. criceticola Brennan, 1948 – AB, CA, CO, ID, KS, MT, NV, SD, TX, UT

M: *Cynomys ludovicianus*, *Dipodomys ordii*, *D. venustus*, *Microtus californicus*,
M. pennsylvanicus, *Mus musculus*, *Neotoma albigena*, *N. cinerea*, *N. floridana*, *N. fuscipes*, *N. lepida*, *N. mexicana*, *N. micropus*, *Ochotona princeps*, *Onychomys torridus*, *Perognathus boylii*, *P. californicus*, *P. formosus*, *P. parvus*, *Peromyscus boylii*, *P. californicus*, *P. difficilis*, *P. eremicus*, *P. leucopus*, *P. maniculatus*, *P. pectoralis*, *P. truei*,
Reithrodontomys megalotis, *Scapanus latimanus*, *Sigmodon ochrognathus*,
Sorex beecheyi, *S. ornatus*, *S. tenellus*, *Spermophilus armatus*, *S. beecheyi*, *S. lateralis*, *Tamias minimus*, *Thomomys bottae*

E. cynomyicola Crossley and Lipovsky, 1954 – KS, NE, UT

M: *Cynomys ludovicianus*, *Perognathus hispidus*, *Spermophilus spilosoma*, *S. tridecemlineatus*

E. decipiens Gould, 1956 – CA, CO, ID, NM, NV, TX, UT

B: *Bubo virginianus*, *Zonotrichia leucophrys*

M: *Chaetodipus hispidus*, *Dipodomys elator*, *D. elephantinus*, *D. merriami*, *D. microps*, *D. ordii*, *D. panamintinus*, *Erethizon dorsatum*, *Lepus californicus*,
Neotoma cinerea, *N. lepida*, *N. mexicana*, *Perognathus flavus*, *P. formosus*, *P. longimembris*, *P. parvus*, *Peromyscus crinitus*, *P. eremicus*, *P. maniculatus*,

P. truei, *Spermophilus lateralis*, *Sylvilagus audubonii*, *S. idahoensis*, *S. nuttalli*, *Tamias minimus*, *Thomomys talpoides*

E. diversa Loomis, 1956 – IA, IL, KS, OH, PA

B: *Cardinalis cardinalis*, *Parus atricapillus*, *Passer domesticus*

M: *Blarina brevicauda*, *Canis latrans*, *Geomys bursarius*, *Microtus ochrogaster*,

M. pennsylvanicus, *M. pinetorum*, *Mus musculus*, *Myodes gapperi*,

Napeozapus insignis, *Neotoma floridana*, *N. magister*, *Peromyscus leucopus*,

P. maniculatus, *Rattus norvegicus*, *Reithrodontomys megalotis*, *Sciurus niger*,

Sigmodon hispidus, *Sylvilagus floridanus*, *Synaptomys cooperi*, *Zapus*

hudsonius

E. eadsi Loomis and Crossley, 1963 – TX

M: *Bassariscus astutus*, *Lepus californicus*, *Sylvilagus auduboni*

E. enemi Brennan and Jones, 1954 – CA

M: *Perognathus californicus*

E. fassola Brennan and Beck, 1955 – ID, NV, SD, UT

M: *Neotoma lepida*, *Perognathus parvus*, *Reithrodontomys megalotis*, *Tamias*

dorsalis, *T. minimus*

E. finleyi Crossley, 1955 – CO

M: *Neotoma cinerea*, *N. lepida*, *N. mexicana*

E. frondifera Gould, 1956 – CA

M: *Neotoma lepida*, *Peromyscus californicus*, *P. maniculatus*

E. guntheri (Radford, 1942) – CO

M: *Neotoma cinerea*, *Ochotona princeps*

E. hamiltoni Brennan, 1947 – AL, IN, NY, ON, VA, WV

M: *Eptesicus fuscus*, *Myotis lucifugus*, *M. subulatus*

E. hardyorum Wrenn and Somerby, 1974 – CA

M: *Dipodomys merriami*, *D. microps*, *Perognathus formosus*, *Thomomys umbrinus*

E. heteromyicola Wrenn and Loomis, 1974 – CA, NV

M: *Dipodomys agilis*, *D. merriami*, *D. microps*, *D. panamintinus*, *D. stephensi*,
Neotoma fuscipes, *Perognathus californicus*, *P. formosus*, *P. longimembris*,
Peromyscus maniculatus, *P. truei*, *Sylvilagus audubonii*

E. hoffmannae Gould, 1956 – CA, CO, UT

M: *Neotoma mexicana*, *Ochotona princeps*, *Sceloporus occidentalis*,
Spermophilus lateralis

E. jamesoni (Brennan 1948) – IN, NC, NY, ON, PA, SC, TN, WV

M: *Blarina brevicauda*, *Sorex cinereus*, *S. dispar*, *S. fumeus*, *S. hoyi*, *Tamias striatus*

E. jonesi Lipovsky and Loomis, 1954 – KS, MO, OK

M: *Blarina brevicauda*, *Cryptotis parva*, *Myotis velifer*, *Neotoma micropus*,
Peromyscus leucopus, *P. maniculatus*, *Sciurus carolinensis*, *Sorex cinereus*, *S. fumeus*, *S. palustris*, *Sylvilagus floridanus*

E. lanceolata Brennan and Beck, 1955 – UT

M: *Neotoma lepida*, *Peromyscus eremicus*

E. lanei Brennan and Beck, 1955 – CO, ID, NV, UT

M: *Ochotona princeps*, *Peromyscus maniculatus*, *P. truei*, *Reithrodontomys megalotis*

E. latchmani Brennan and Yunker, 1964 – CA

B: *Zonotrichia coronata*

M: *Lepus californicus*, *Odocoileus hemionus*

E. luteodema Brennan, 1948 – CA, ID, MT, UT

M: *Lepus californicus*, *Marmota flaviventris*, *Peromyscus maniculatus*,
Spermophilus columbianus, *S. lateralis*, *Tamiasciurus hudsonicus*

E. magna Farrell, 1956 – PA

M: *Myodes gapperi*, *Neotoma magister*

E. marginalis Wrenn and Somerby, 1974 – CA

M: *Dipodomys merriami*, *D. panamintinus*, *Neotoma fuscipes*, *N. lepida*,
Perognathus fallax, *Peromyscus eremicus*, *P. truei*

E. marmotae Farrell, 1956 – IN, NJ, PA

M: *Marmota monax*

E. maseri Wrenn, 1983 – OR

M: *Apodemus rufa*

E. micheneri Gould, 1956 – CA

M: *Rattus norvegicus*, *Spermophilus beecheyi*

E. michiganensis Wrenn, 1974 – MI, PA

M: *Microtus pennsylvanicus*, *Spermophilus tridecemlineatus*, *Tamias striatus*,
Tamiasciurus hudsonicus

E. miricoxa Brennan, 1948 – NY

M: *Myotis lucifugus*

E. nihii Brennan and Jones, 1954 – CA

M: *Perognathus californicus, Spermophilus beecheyi*

E. numerosa Wrenn and Loomis, 1974 – CA, ID, MT, OR, TX, UT

B: *Aphelocoma coerulescens, Bubo virginianus, Carpodacus purpureus, Junco caniceps, Lophortyx californica, Oreortyx picta, Toxostoma rufum, Zonotrichia coronata*

M: *Dipodomys merriami, Lepus californicus, L. townsendi, Neotoma albigenula, N. cinerea, Ochotona princeps, Odocoileus hemionus, O. virginianus, Sigmodon ochrognathus, Sylvilagus bachmani, Tamiasciurus douglasii, Urocyon cinereoargenteus*

E. obesa Brennan and Beck, 1955 – NV, UT

M: *Cynomys leucurus, Neotoma lepida, Perognathus formosus, Peromyscus maniculatus*

E. obscura Wrenn and Loomis, 1974 – CA

M: *Dipodomys merriami, D. stephensi, Neotoma fuscipes, N. lepida, Perognathus fallax, P. formosus, P. longimembris, Peromyscus eremicus, P. truei*

E. ohioensis Farrell, 1956 – IL, IN, NJ, NY, OH, PA

M: *Microtus chrotorrhinus, M. pinetorum, Myodes gapperi, Sorex cinereus, Synaptomys cooperi*

E. oregonensis (Ewing, 1929) – AB, CA, ID, OR, UT

B: *Salpinctes obsoletus*

M: *Glaucomys sabrinus*, "Mole," *Microtus californicus*, *M. longicaudus*, *M. montanus*, *M. oregoni*, *Myodes occidentalis*, *Neotoma cinerea*, *Neurotrichus gibbsii*, *Ochotona princeps*, *Perognathus parvus*, *Peromyscus maniculatus*, *Sorex obscurus*, *S. pacificus*, *S. palustris*, *S. trowbridgii*, *S. vagrans*, *Spermophilus beldingi*, *S. lateralis*, *S. richardsoni*, *Tamias quadrivittatus*, *T. townsendi*, *Tamiasciurus douglasii*

E. otophila Loomis and Bunnell, 1962 – CA

M: *Peromyscus californicus*

E. peromysci (Ewing, 1929) – CA, CO, DE, FL, GA, IL, IN, KS, KY, MA, MD, MI, MS, NC, NJ, NY, OH, OK, OR, PA, SC, TN, WI, WV

B: *Corvus brachyrhynchos*

M: *Blarina brevicauda*, *Glaucomys sabrinus*, *Marmota monax*, *Microtus californicus*, *M. chrotorrhinus*, *M. longicaudus*, *M. ochrogaster*, *M. pennsylvanicus*, *M. pinetorum*, *Mus musculus*, *Mustela frenata*, *M. nivalis*, *Myodes gapperi*, *M. occidentalis*, *Napaeozapus insignis*, *Neotoma cinerea*, *N. floridana*, *N. fuscipes*, *N. magister*, *Ochrotomys nuttalli*, *Ondatra zibethicus*, *Oryzomys palustris*, *Peromyscus boylii*, *P. californicus*, *P. floridanus*, *P. gossypinus*, *P. leucopus*, *P. maniculatus*, *P. nuttalli*, *P. polionotus*, *P. truei*, *Rattus norvegicus*, *R. rattus*, *Reithrodontomys humulis*, *R. megalotis*, *Sciurus carolinensis*, *Sigmodon hispidus*, *Sorex cinereus*, *S. fumeus*, *S. palustris*, *S. trowbridgii*, *Sylvilagus floridanus*, *Synaptomys cooperi*, *Tamias striatus*, *T. townsendii*, *Tamiasciurus hudsonicus*, *Zapus hudsonius*, *Z. pacificus*

E. pipistrelli Brennan, 1947 – AL, AR, IL, IN, KS, KY, MO, NJ, NY, OH, OK, PA, SC, SD, TN, WV

M: *Eptesicus fuscus*, *Myotis austroriparius*, *M. grisescens*, *M. lucifugus*, *M. septentrionalis*, *M. sodalis*, *Perimyotis subflavus*

E. pomerantzi Brennan and Jones, 1954 – CA, ID, OR, UT

M: *Microtus californicus*, *Mus musculus*, *Neotoma cinerea*, *N. fuscipes*,
Perognathus californicus, *Peromyscus boylii*, *P. californicus*, *P. maniculatus*,
P. truei, *Spermophilus beecheyi*, *S. lateralis*, *Tamias minimus*, *Tamiasciurus douglasii*

E. puerilis Gould, 1956 – CA

M: *Scapanus latimanus*

E. radfordi Brennan and Jones, 1954 – CA, ID, NV, TX, UT

B: *Amphispiza belli*, *Carpodacus purpureus*, *Centrocercus urophasianus*,
Chordeiles minor, *Eremophila alpestris*, *Junco caniceps*, *J. oreganus*, *Lanius ludovicianus*, *Leucosticte tephrocotis*, *Lophortyx californica*, *Melospiza melodia*, *Oreortyx picta*, *Parus inornatus*, *Pipilo fuscus*, *P. maculatus*,
Toxostoma redivivum, *Zonotrichia coronata*, *Z. leucophrys*

M: *Dama hemionus*, *Dipodomys merriami*, *D. microps*, *D. ordii*, *D. venustus*,
Erythizon dorsatum, *Lepus californicus*, *Marmota flaviventris*, *Microtus californicus*, *M. longicaudus*, *Mus musculus*, *Myodes californicus*, *M. occidentalis*, *Neotoma cinerea*, *N. fuscipes*, *N. lepida*, *Neurotrichus gibbsii*,
Ochotona princeps, *Odocoileus hemionus*, *Perognathus californicus*, *P. formosus*, *P. parvus*, *Peromyscus boylii*, *P. californicus*, *P. eremicus*, *P.*

maniculatus, *P. truei*, *Reithrodontomys megalotis*, *Sciurus griseus*, *Sigmodon ochrognathus*, *Spermophilus beecheyi*, *S. beldingi*, *S. lateralis*, *Sylvilagus auduboni*, *S. bachmanni*, *S. idahoensis*, *S. nuttallii*, *Tamias townsendi*, *Tamiasciurus douglasii*, *Thomomys bottae*, *Zapus princeps*

E. romola Brennan and Jones, 1954 – CA

M: *Dipodomys venustus*, *Perognathus californicus*, *Spermophilus beecheyi*

E. rotunda Brennan and Beck, 1955 – UT

M: *Ochotona princeps*

E. rubra Farrell, 1956 – NC

M: *Napaeozapus insignis*, *Peromyscus leucopus*, *P. nuttalli*, *Sylvilagus floridanus*

E. samboni (Radford, 1942) – MT

M: *Myodes* sp., *Ocotonota princeps*

E. sciruicola (Ewing, 1925) – AB, BC, CA, ID, MT, OR, UT

M: *Glaucomys sabrinus*, *Lepus californicus*, *Marmota flaviventris*, *Ochotona princeps*, *Peromyscus maniculatus*, *Phenacomys intermedius*, *Spermophilus armatus*, *S. beecheyi*, *S. lateralis*, *S. variegatus*, *Tamias amoenus*, *T. minimus*, *T. townsendii*, *T. umbrinus*, *Tamiasciurus hudsonicus*

E. setosa (Ewing, 1937) – AR, GA, IN, KS, MA, MD, MI, MT, NB, NC, NH, NJ, NY, PA, QC, SD, TN, WI, WV

M: *Cryptotis parva*, *Microtus chrotorrhinus*, *M. ochrogaster*, *M. pennsylvanicus*, *Myodes gapperi*, *Napaeozapus insignis*, *Neotoma cinerea*, *N. floridana*, *N. micropus*, *Oryzomys palustris*, *Peromyscus gossypinus*, *P. leucopus*, *P.*

maniculatus, *Sciurus carolinensis*, *S. niger*, *Sorex cinereus*, *Sylvilagus florianus*, *Synaptomys cooperi*, *Tamias striatus*, *Tamiasciurus hudsonicus*

E. simulans Wrenn and Loomis, 1974 – CA, OR

M: *Dipodomys merriami*, *D. panamintinus*, *Neotoma fuscipes*, *N. lepida*,
Perognathus fallax, *Peromyscus boylii*, *P. californicus*, *P. crinitus*, *P. eremicus*, *P. maniculatus*, *P. truei*, *Tamiasciurus douglasii*

E. soricinus Gould, 1956 – CA, UT

M: *Ochotona princeps*, *Sorex palustris*, *S. trowbridgii*

E. staffordi Brennan and White, 1960 – AL

M: *Eptesicus fuscus*, *Perimyotis subflavus*

E. trigenuala Loomis, 1956 – GA, IL, IN, KS, MO, OK

M: *Blarina brevicauda*, *Geomys bursarius*, *Microtus ochrogaster*, *Onychomys leucogaster*, *Perognathus hispidus*, *Peromyscus maniculatus*, *Scalopus aquaticus*, *Sciurus niger*, *Sigmodon hispidus*, *Tamias striatus*

E. utahensis Brennan and Beck, 1955 – NV, UT

M: *Neotoma lepida*, *Perognathus formosus*

E. velata Brennan and Yunker, 1966 – MT

M: *Neotoma cinerea*

E. whitakeri Wrenn, 1984 – IN

M: *Sorex fumeus*

Euschoengastoides arizonae Loomis, 1971 – AZ, CA, NM, TX

M: *Dipodomys deserti*, *D. merriami*, *D. ordii*, *D. spectabilis*, *Neotoma albicula*,
N. lepida, *Onychomys torridus*, *Pappogeomys castanops*, *Perognathus*

amplus, *P. baileyi*, *P. flavus*, *P. formosus*, *P. intermedius*, *P. merriami*, *P. nelsoni*, *P. pennicillatus*, *P. spinatus*, *Peromyscus boylii*, *P. maniculatus*,
Sigmodon hispidus, *Thomomys bottae*

E. eadsi (Loomis and Crossley, 1963) – TX

M: *Sylvilagus auduboni*

E. hoplai (Loomis, 1954) – KS, NM, TX, UT

M: *Antrozous bunkeri*, *Cynomys ludovicianus*, *Dipodomys merriami*, *Neotoma albicula*, *N. lepida*, *N. mexicana*, *N. micropus*, *Perognathus apache*, *P. hispidus*, *P. merriami*, *P. nelsoni*, *P. parvus*, *P. penicillatus*, *Peromyscus leucopus*, *P. truei*, *Spermophilus leucurus*, *S. spilosoma*, *S. tridecemlineatus*, *Sylvilagus floridanus*

E. imperfectus (Brennan and Jones, 1954) – AZ, CA, NM, TX

M: *Ammospermophilus leucurus*, *Dipodomys merriami*, *D. spectabilis*,
Perognathus baileyi, *P. californicus*, *P. flavus*, *P. formosus*, *P. longimembris*,
P. penicillatus, *P. spinatus*, *Peromyscus eremicus*, *P. maniculatus*

E. longitarsala (Powder and Loomis, 1962) – CA

H: *Crotaphytus collaris*, *C. wislizeni*, *Dipsosaurus dorsalis*, *Phrynosoma coronatum*, *P. platyrhinos*, *Sceloporus magister*, *S. occidentalis*, *Uta stansburiana*

E. loomisi (Crossley and Lipovsky, 1954) – KS, OK, TX

M: *Cynomys ludovicianus*, *Dipodomys merriami*, *D. ordii*, *Liomys irroratus*,
Neotoma albicula, *N. micropus*, *Onychomys* sp., *Perognathus flavus*, *P. hispidus*, *P. merriami*, *P. nelsoni*, *P. penicillatus*, *Peromyscus eremicus*, *P.*

leucopus, *P. maniculatus*, *P. pectoralis*, *Reithrodontomys* sp., *Sigmodon hispidus*, *S. ochrognathus*, *Sylvilagus floridanus*

E. neotomae Loomis 1971 – AZ, CA, CO, KS, NM, TX, UT

M: *Ammospermophilus leucurus*, *Antrozous pallidus*, *Dipodomys merriami*, *D. spectabilis*, *Neotoma albigena*, *N. lepida*, *N. mexicana*, *N. micropus*, *Onychomys leucogaster*, *Parastrellus hesperus*, *Perognathus apache*, *P. californicus*, *P. crinitus*, *P. fallax*, *P. formosus*, *P. nelsoni*, *P. penicillatus*, *Peromyscus boylii*, *P. eremicus*, *P. leucopus*, *P. maniculatus*, *P. pectoralis*, *P. truei*, *Reithrodontomys megalotis*, *Sigmodon hispidus*, *Spermophilus beecheyi* (nr.)

E. similis Loomis, Baccus, and Wrenn, 1972 – TX

M: *Dipodomys merriami*, *Neotoma albigena*, *N. micropus*, *Perognathus merriami*, *P. nelsoni*, *P. penicillatus*, *Peromyscus eremicus*, *P. pectoralis*

E. sleeperi Loomis, Baccus, and Wrenn, 1972 – TX

M: *Dipodomys merriami*, *Peromyscus eremicus*, *Reithrodontomys megalotis*

E. tanigoshi Loomis, 1971 – NM

M: *Neotoma albigena*, *Perognathus penicillatus*

E. tumidus Loomis, 1971 – AZ, NM

M: *Neotoma* sp., *Peromyscus boylii*

E. webbi Loomis, 1971 – AZ, CA

M: *Perognathus penicillatus*, *Peromyscus crinitus*, *P. eremicus*

Eutrombicula alfreddugesi (Oudemans, 1910) – AL, AR, CA, CO, DE, FL, GA, IL, IN, KS, MA, MI, MN, NC, NE, NY, OH, OK, SC, SD, TN, TX

H: *Acris gryllus*, *Agkistrodon contortrix*, *A. mokasen*, *Anolis carolinensis*, *Bufo terrestris*, *B. woodhousii*, *Cnemidophorus gularis*, *C. inornatus*, *C. sacki*, *C. sexlineatus*, *C. tesselatus*, *C. tigris*, *Coluber constrictor*, *Crotalus atrox*, *C. horridus*, *C. molossus*, *C. viridus*, *Crotaphytus collaris*, *C. reticulatus*, *Diadophis punctatus*, *Drymarchon corais*, *Elaphe guttata*, *E. obsoleta*, *E. subocularis*, *E. vulpine*, *Eumeces brevilineatus*, *E. fasciatus*, *E. laticeps*, *E. obsoletus*, *Gerrhonotus liocephalus*, *Gopherus berlandieri*, *G. polyphemus*, *Heterodon contortix*, *H. nasicus*, *H. platyrhinos*, *H. simus*, *Holbrookia maculata*, *H. texana*, *Kinosternon subrubrum*, *Lampropeltis calligaster*, *L. getulus*, *L. triangulum*, *Masticophis flagellum*, *M. taeniatus*, *Natrix erythrogaster*, *N. rhombifer*, *N. sipedon*, *Opheodrys aestivus*, *Ophisaurus attenuatus*, *Phrynosoma cornuta*, *P. modestum*, *Pituophis catenifer*, *P. melanoleucus*, *Rana palustris*, *R. pipiens*, *Salvadora hexalepis*, *Sceloporus magister*, *S. merriami*, *S. olivaceus*, *S. poinsettia*, *S. undulatus*, *Sonora episcopa*, *Terrapene carolina*, *T. ornata*, *Thamnophis cyrtopsis*, *T. marcianus*, *T. radix*, *T. sauritus*, *T. sirtalis*, *Tropidoclonion lineatum*, *Urosaurus ornatus*, *Uta stansburiana*

B: *Agelaius phoeniceus*, *Amphispiza bilineata*, *Antrostomus carolinensis*, *Baeolophus bicolor*, *Bartramia longicauda*, *Buteo jamaicensis*, *Calamospiza melanocorys*, *Cardinalis cardinalis*, *Chondestes grammacus*, *Coccyzus americanus*, *Colaptes auratus*, *Colinus virginianus*, *Coragyps virginianus*, *Corvus brachyrhynchos*, *Cyanocitta cristata*, *Dryobates villosus*, *Dumatella carolinensis*, *Eremophila alpestris*, *Geococcyx californianus*, *Geothlypis*

trichas, Icteria virens, Icterus galbula, Ixobrychus exilis, Megaceryle alcyon,
Melanerpes erythrocephalus, Meleagris gallopavo, Mimus polyglottos,
Molothrus ater, Myiarchus crinitus, Parus bicolor, Passer domesticus,
Penthestes carolinensis, Phasianus colchicus, Pipilo erythrorthalmus,
Piranga rubra, Poecile carolinensis, Polioptala caerulea, Protonotaria citrea,
Quiscalus quiscula, Rallus elegans, Setophaga ruticilla, Sialia sialis, Spiza
americana, Spizella passerine, S. pusilla, Sturnella magna, S. neglecta, Sturnus
vulgaris, Thryomanes bewicki, Thryothorus ludovicianus, Toxostoma rufum,
Troglodytes aedon, Turdus migratorius, Tympanuchus cupido, Vireo olivaceus,
Zenaidura macroura

M: *Canis latrans, Cryptotis parva, Cynomys ludovicianus, Dasypus*
novemcinctus, Didelphis virginiana, Dipodomys merriami, D. ordii, Eptesicus
fuscus, Lasiurus borealis, Lepus californicus, Liomys irroratus, Marmota
monax, Mephitis elongate, Microtus ochrogaster, M. pennsylvanicus, M.
pinetorum, Mormoops megalophylla, Mus musculus, Mustela frenata, Myotis
septentrionalis, Neotoma albigena, N. cinerea, N. floridana, N. mexicana, N.
micropus, Odocoileus hemionus, Onychomys leucogaster, Oryzomys palustris,
Perognathus flavescens, P. hispidus, Peromyscus difficilis, P. leucopus, P.
maniculatus, Procyon lotor, Rattus norvegicus, R. rattus, Reithrodontomys
fulvescens, R. megalotis, Sciurus carolinensis, S. niger, Sigmodon hispidus,
Spermophilus tridecemlineatus, S. variegatus, Sylvilagus auduboni, S.
floridanus, Synaptomys cooperi, Tadarida brasiliensis, Tamias minimus, T.
striatus, Urocyon cinereoargenteus, Zapus hudsonius

E. batatas (Linneaus, 1913) – AL, AZ, CA, FL, GA, KS

H: *Holbrookia maculata*, *Sceloporus graciosus*, *S. magister*, *S. undulatus*

B: *Colinus virginianus*, *Mimus polyglottos*, *Pipilo erythrrophthalmus*, *Sturnella magna*, *S. neglecta*, *Toxostoma rufum*

M: *Didelphis virginiana*, *Dipodomys merriami*, *D. ordii*, *Lasiurus borealis*, *Lepus californicus*, *Neotoma albigula*, *N. floridana*, *N. lepida*, *Odocoileus virginianus*, *Ondatra zibethicus*, *Oryzomys palustris*, *Perognathus baileyi*, *P. formosus*, *P. hispidus*, *P. penicillatus*, *Rattus rattus*, *Sigmodon hispidus*, *Sylvilagus auduboni*, *S. floridanus*

E. chiricahuae Bennett and Loomis, 1981 – AZ

H: *Sceloporus scalaris*, *S. virgatus*

E. cinnabarinus (Ewing, 1920) – FL, GA, VA

H: *Anolis carolinensis*, *Cnemidophorus sexlineatus*, *Masticophis flagellum*,
Sceloporus undulatus

B: *Cardinalis cardinalis*, *Geothlypis trichas*, *Strix varia*, *Thryothorus ludovicianus*, *Troglodytes aedon*, *Zonotrichia albicollis*

M: *Neotoma floridana*, *Peromyscus gossypinus*, *Rattus rattus*, *Sigmodon hispidus*

E. goeldii (Oudemans, 1910) – OR

B: *Larus philadelphia*

E. lipovskyana Wolfenbarger 1952 – AR, AZ, KS, LA, OK, TN

H: *Acris gryllus*, *Ancistrodon contortrix*, *Anolis carolinensis*, *Bufo woodhousii*,
Coluber constrictor, *Crotalus horridus*, *Crotaphytus collaris*, *Elaphe obsoleta*,

Eumeces obsoletus, Lampropeltis getulus, Sceloporus jarrovii, Terrapene carolina, T. ornata, Thamnophis sirtalis,

B: *Agelaius phoeniceus, Bartramia longicauda, Cardinalis cardinalis, Chondestes grammacus, Colinus virginianus, Empidonax sp., Molothrus ater, Parus carolinensis, Passer domesticus, Quiscalus quiscula, Rallus elegans, Sialia sialis, Spiza americana, Sturnella magna, S. neglecta, Sturnus vulgaris, Toxostoma rufum, Troglodytes aedon, Turdus migratorius, Tympanuchus cupido, Tyrannus tyrannus, Zenaidura macroura*

M: *Cryptotis parva, Microtus ochrogaster, Mus musculus, Neotoma floridana, Peromyscus maniculatus, Scalopus aquaticus, Sciurus niger, Sigmodon hispidus, Sylvilagus floridanus*

E. masoni (Ewing, 1943) - GA, FL, MA, MD, SC, TX

H: *Amyda ferox, Anolis carolinensis, Chrysomys picta, Cnemidophorus sexlineatus, Coluber constrictor, Drymarchon corais, Elaphe obsoleta, Eumeces fasciatus, E. laticeps, Gopherus polyphemus, Heterodon contortrix, H. simus, Hyla squirella, Lampropeltis getulus, Micruroides euryceus, Opheodrys aestivus, Sceloporus undulatus, S. woodi, Terrapene carolina, Thamnophis sirtalis*

B: *Colaptes auratus, Colinus virginianus, Polioptala caerulea, Thryothorus ludovicianus, Toxostoma rufum*

M: *Didelphis virginiana, Microtus pennsylvanicus, Neofiber alleni, Neotoma floridanus, Odocoileus virginianus, Oryzomys palustris, Procyon lotor, Rattus norvegicus, Sigmodon hispidus, S. littoralis, Sylvilagus floridanus*

E. multisetosa (Ewing, 1943) – FL

B: *Sturnella magna*

M: *Procyon lotor*, *Sigmodon hispidus*, *S. littoralis*

E. splendens (Ewing, 1913) – FL, GA, IN, LA, MA, MD, MI, NC, SC, TN, VA

H: *Agristostodon piscivorous*, *Coluber constrictor*, *Drymarchon corais*, *Elaphe quadriplagiata*, *Lampropeltis getulus*, *Masticophis flagellum*, *Ophisaurus sp.*,

Sceloporus undulatus, *Sistrurus miliarius*, *Terrepene carolina*, *Thamnophis sauritus*, *T. sirtalis*, *Thryothorus ludovicianus*

B: *Pipilo erythrourhynchus*, *Strix varia*

M: *Cervus nippon*, *C. unicolor*, *Didelphis virginiana*, *Neofiber alleni*, *Neotoma floridana*, *Odocoileus virginianus*, *Oryzomys palustris*, *Sciurus carolinensis*,

Sigmodon hispidus, *Sorex longirostris*, *Sylvilagus floridanus*, *Tamias striatus*,

Ursus americanus, *Zapus hudsonius*

E. tropica (Ewing, 1925) – DE

M: *Microtus pennsylvanicus*

Fonsecia kansensis (Loomis 1955) – KS, TX

H: *Coleonyx reticulatus*, *Coluber constrictor*, *Crotalus horridus*, *Pituophis catenifer*, *Sigmodon ochrognathus*, *Thamnophis sirtalis*

M: *Neotoma albigula*, *N. micropus*, *Peromyscus leucopus*, *P. maniculatus*

F. palmella Brennan and Loomis, 1959 – LA, OH, SC, TN

H: *Eumeces fasciatus*, *E. inexpectatus*, *E. laticeps*, *E. obsoleta*

Hemitrombicula simplex Ewing, 1938 – MI

H: *Elaphe obsoleta*

Hexidionis allredi (Brennan and Beck, 1955) – NV, TX, UT

M: *Dipodomys merriami*, *D. ordii*, *Liomys irroratus*, *Neotoma albigula*, *N. lepida*,
N. micropus, *Perognathus merriami*, *P. nelsoni*, *P. penicillatus*, *Peromyscus eremicus*,
Reithrodontomys sp., *Sigmodon hispidus*, *Sylvilagus auduboni*

H. breviseta (Loomis and Crossley, 1963) – TX

M: *Dipodomys ordii*, *Perognathus merriami*, *Peromyscus eremicus*

H. deserti Loomis and Lucas, 1970 – AZ, CA, NV

M: *Dipodomys merriami*, *Perognathus fallax*, *P. formosus*, *P. longimembris*

H. doremi (Brennan and Beck, 1955) – CA, ID, UT

M: *Dipodomys merriami*, *D. ordii*, *Onychomys leucogaster*, *Perognathus parvus*,
P. longimembris

H. harveyi Loomis and Lucas, 1969 – NM, TX

M: *Dipodomys merriami*, *D. ordii*, *D. spectabilis*, *Perognathus merriami*, *P. penicillatus*,
Peromyscus maniculatus, *Reithrodontomys megalotis*

H. jessiema (Gould, 1956) – CA, NV, TX

M: *Dipodomys merriami*, *D. microps*, *Liomys irroratus*, *Neotoma lepida*,
Notiosorex crawfordi, *Mus musculus*, *Perognathus parvus*, *Peromyscus leucopus*,
Sigmodon hispidus, *Rattus rattus*

H. lacerticola Loomis, 1964 – CA, NV

H: *Callisaurus draconoides*, *Cnemidophorus tigris*, *Crotaphytus collaris*, *C. wislizeni*, *Phrynosoma platyrhinos*, *Sceloporus magister*, *S. occidentalis*, *Uta stansburiana*

Hyponeocula arenicola (Loomis, 1954) – AB, AZ, CA, CO, ID, KS, NM, NV, TX, UT

H: *Cnemidophorus tigris*, *Coleonyx brevis*, *C. variegatus*, *Coluber taeniatus*,
Heterodon nasicus, *Lampropeltis getulus*, *Masticophis flagellum*,
Phyllorhynchus decurtatus, *Pituophis catenifer*, *P. melanoleucus*

B: *Eremophila alpestris*, *Muscivora forficata*

M: *Cynomys parvidens*, *Dipodomys heermanni*, *D. merriami*, *D. microps*, *D. ordii*, *D. panamintinus*, *D. spectabilis*, *Lagurus curtatus*, *Mus musculus*,
Neotoma albicula, *N. lepida*, *Onychomys torridus*, *Pappogeomys castanops*,
Perognathus fasciatus, *P. flavus*, *P. formosus*, *P. hispidus*, *P. longimembris*,
P. merriami, *P. parvus*, *P. penicillatus*, *Peromyscus maniculatus*, *P. truei*,
Reithrodontomys megalotis, *Sorex tenellus*, *Spermophilus richardsoni*, *S. spilosoma*, *S. tereticaudus*

H. fovea Tanigoshi and Loomis, 1974 – CA, NV

H: *Chionactis occipitalis*, *Cnemidophorus tigris*, *Coleonyx variegates*,
Masticophis flagellum, *Phyllorhynchus decurtatus*, *Salvadora hexaleips*, *Uta stansburiana*

M: *Dipodomys merriami*, *D. microps*, *D. ordii*, *D. panamintinus*, *Perognathus fallax*, *P. formosus*, *P. longimembris*, *Peromyscus eremicus*

H. imitator Tanigoshi and Loomis, 1974 – AZ, CA

H: *Arizona elegans*, *Chionactis occipitalis*, *Coleonyx variegates*, *Lampropeltis getulus*,

M: *Dipodomys merriami*, *D. panamintinus*, *Perognathus formosus*, *P. longimembris*, *P. penicillatus*, *Spermophilus beecheyi*, *S. tereticaudus*,
Thomomys bottae

H. luciae Tanigoshi and Loomis, 1974 – CA

H: *Cnemidophorus tigris*, *Masticophis flagellum*

M: *Dipodomys deserti*, *Perognathus formosus*, *P. penicillatus*, *P. spinatus*

H. montanensis (Brennan 1946) – AB, CA, CO, KS, MT, NE, OK, SD, TX, UT

H: *Crotalus atrox*, *C. scutulatus*, *C. viridis*, *Elaphe subocularis*, *Heterodon nasicus*, *H. platyrhinos*, *Masticophis flagellum*, *Pituophis catenifer*, *P. melanoleucus*, *Terrapene ornata*

B: *Cyanocitta cristata*, *Speotyto cunicularia*

M: *Chaetodipus hispidus*, *Cynomys leucurus*, *C. ludovicianus*, *Dipodomys heermanni*, *D. ordii*, *Mus musculus*, *Neotoma albigula*, *N. lepida*, *N. micropus*, *Onychomys leucogaster*, *Perognathus flavescens*, *P. flavus*, *P. hispidus*, *Peromyscus maniculatus*, *P. truei*, *Spermophilus beldingi*, *S. lateralis*, *S. mexicanus*, *S. richardsoni*, *S. spilosoma*, *S. tridecemlineatus*, *Sylvilagus floridanus*, *S. nuttallii*

H. sauricola Tanigoshi and Loomis, 1974 – AZ

H: *Sceloporus jarrovii*

Kayella bigenuala (Farrell, 1956) – TX

M: *Liomys irroratus*, *Peromyscus eremicus*, *Sigmodon* sp.

K. lacerta (Brennan, 1948) – CA, CO, KS, NV, TX, UT

H: *Eumeces skiltonianus*, *Gerrhonotus multicarinatus*, *Masticophis flagellum*, *Sceloporus occidentalis*,

M: *Cynomys ludovicianus*, *Dipodomys microps*, *Liomys irroratus*, *Neotoma albigula*, *N. cinerea*, *N. fuscipes*, *N. lepida*, *N. mexicana*, *N. micropus*,

Pappogeomys castanops, *Perognathus californicus*, *P. merriami*, *P. nelsoni*,
P. penicillatus, *Peromyscus boylii*, *P. difficilis*, *P. eremicus*, *P. maniculatus*,
P. pectoralis, *Reithrodontomys megalotis*, *Sigmodon ochrognathus*,
Spermophilus beecheyi, *S. lateralis*, *Sylvilagus auduboni*, *S. floridanus*
Leptotrombidium myotis (Ewing, 1929) – AB, AR, AZ, CA, CO, IA, IN, KS, ME, MI,
MT, NJ, NM, NS, ON, OR, PA, PE, SD, TN, UT, VA, WI, WV

H: *Elaphe obsoleta*

M: *Antrozous pallidus*, *Corynorhinus townsendii*, *Eptesicus fuscus*, *Lasionycteris noctivagans*, *Microtus pinetorum*, *Myotis californicus*, *M. ciliolabrum*, *M. evotis*, *M. griseescens*, *M. leibii*, *M. lucifugus*, *M. occultus*, *M. septentrionalis*, *M. subulatus*, *M. thysanodes*, *M. velifer*, *M. volans*, *M. yumanensis*, *Neotoma micropus*, *Ondatra zibethicus*, *Parastrellus hesperus*, *Peromyscus leucopus*, *P. maniculatus*

L. panamensis (Ewing or Brennan, 1925) – AZ, CO, NV, TX, UT

M: *Ammospermophilus interpres*, *Dipodomys merriami*, *Liomys irroratus*, *Microtus longicaudus*, *Neotoma albigenula*, *N. cinerea*, *N. lepida*, *N. mexicana*, *N. micropus*, *Parastrellus hesperus* (nr.), *Perognathus merriami*, *P. nelsoni*, *P. parvus*, *P. penicillatus*, *Peromyscus eremicus*, *P. maniculatus*, *P. pectoralis*, *Spermophilus spilosoma*

L. peromysci Vercammen-Grandjean and Langston, 1975 – FL, GA, IN, MI, NC, PA, SD, TN, VA, VT

M: *Didelphis virginiana*, *Glaucomys sabrinus*, *G. volans*, *Microtus chrotorrhinus*, *M. pennsylvanicus*, *Neotoma floridana*, *Peromyscus gossypinus*, *P. leucopus*,

P. maniculatus, *P. polionotus*, *Reithrodontomys humulis*, *Sciurus carolinensis*,
S. niger, *Sigmodon hispidus*, *Sorex cinereus*, *Tamias striatus*, *Tamiasciurus*
hudsonicus, *Zapus hudsonius*

Loomisia sprocssi (Brennan, 1965) – AZ, CA

M: *Antrozous pallidus*, *Eptesicus fuscus*, *Macrotus californicus*, *Parastrellus*
hesperus

L. univari (Brennan, 1965) – AZ, OR

M: *Parastrellus hesperus*

Mackiena migratoria Nadchatram and Wilson, 1969 – IN

B: *Riparia riparia*

Microtrombicula aequalis Webb and Loomis, 1971 – AZ

M: *Peromyscus boylii*

M. crossleyi (Loomis, 1954) – FL, KS, OK, TX

B: *Melanerpes erythrocephalus*

M: *Peromyscus floridanus*, *P. gossypinus*, *P. leucopus*, *P. maniculatus*, *P.*
polionotus

M. merrihewi (Loomis and Lipovsky 1954) – AZ, CA, NM, OK, TX, UT

M: *Tadarida brasiliensis*

M. nasalis Loomis, 1956 – CA

M: *Neotoma lepida*, *Peromyscus crinitus*, *P. eremicus*, *P. truei*

M. trisetica (Loomis and Crossley, 1953) – AR, CA, IN, KS, SC

H: *Agristostrodon contortrix*, *Elaphe obsoleta*, *Eumeces laticeps*

M: *Neotoma floridana*, *Peromyscus truei*, *Sciurus carolinensis*

M. welbourni Loomis and Webb, 1971 – TX

M: *Peromyscus pectoralis*

M. wrenni Loomis, 1956 – CA

M: *Peromyscus crinitus*; *P. eremicus*

Miyatrombicula cynos (Ewing, 1937) – CA, GA, IN, KS, NJ, NY, OR, QC, SC, SD, WI

M: *Glaucomys volans*, *Myodes gapperi* (nr.), *Myotis velifer*, *Neotoma cinerea*, *N. floridana*, *Peromyscus leucopus*, *Procyon lotor*, *Rattus norvegicus*, *Sciurus carolinensis*, *S. niger*, *Tamiasciurus douglasii*, *T. hudsonicus*

M. esoensis (Sasa & Ogata, 1953) – MA, MI, NB, PA, QC, SD, UT

M: *Blarina brevicauda*, *Glaucomys sabrinus*, *Microtus chrotorrhinus*, *M. pennsylvanicus*, *Myodes gapperi*, *Napaeozapus insignis*, *Peromyscus leucopus*, *P. maniculatus*, *Rattus norvegicus*, *Sorex cinereus*, *S. fumeus*, *S. gaspensis*, *S. hoyi*, *S. palustris*, *Synaptomys borealis*, *S. cooperi*, *Tamias minimus*, *T. striatus*, *Tamiasciurus hudsonicus*

M. jonesae (Brennan, 1952) – IL, IN, GA, KS, MD, NC

M: *Lasionycteris noctivagans*, *Neotoma floridana*, *Peromyscus leucopus*, *Sciurus niger*, *Vulpes vulpes*

M. scottae (Brennan, 1952) – CA

M: *Neotoma fuscipes*, *Perognathus californicus*, *Peromyscus californicus*, *P. maniculatus*, *P. truei*, *Spermophilus beecheyi*

Neoschoengastia americana (Hirst, 1921) – AK, AL, AR, CA, FL, GA, KS, LA, MO, MS, OK, SC, TX, UT, VA

B: *Aimophila ruficeps*, *Amphispiza belli*, *A. bilineata*, *Aphelocoma californica*,
Campylorhynchus brunneicapillus, *Cardinalis cardinalis*, *Catharus guttatus*,
Catherpes mexicanus, *Charadrius vociferous*, *Chondestes grammacus*,
Chordeiles acutipennis, *Coccyzus americanus*, *Colinus virginianus*, *Corvus*
brachyrhynchos, *Dendrocopos scalaris*, *Dendroica coronata*, *Dumatella*
carolinensis, *Euphagus cyanocephalus*, *Geococcyx californianus*, *Heleodytes*
brunneicapillus, *Junco hyemalis*, *J. oreganus*, *Lanius ludovicianus*, *Lophortyx*
californicus, *Megaceryle alcyon*, *Meleagris gallopavo*, *Melospiza lincolnii*, *M.*
melodia, *Mimus polyglottos*, *Molothrus ater*, *Oreotyx picta*, *Otis asio*, *Otocoris*
alpestris, *Parabuteo unicinctus*, *Passerculus sandwichensis*, *Passerina ciris*,
Passer domesticus, *Phalaenoptilus nuttallii*, *Pipilo crissalis*, *P. fuscus*, *P.*
maculatus, *Quiscalus quiscula*, *Rallus elegans*, *Salpinctes obsoletus*,
Scardafella inca, *Sialia sialis*, *Speotyto cunicularia*, *Spiza americana*,
Sturnella magna, *Thryomanes bewickii*, *Toxostoma curvirostre*, *T. redivivum*,
T. rufum, *Troglodytes aedon*, *Turdus migratorius*, *Tympanuchus cupido*,
Zonotrichia albicollis, *Z. atricapilla*, *Z. leucophrys*

M: *Cynomys ludovicianus*, *Dipodomys heermanni*, *Lepus californicus*, *Sorex*

trowbridgii, *Sylvilagus floridanus*

N. brennani Crossley and Loomis, 1955 – CO, KS, TX

B: *Calamospiza melanocorys*, *Cardinalis cardinalis*, *Chondestes grammacus*,
Crotophaga sulcirostris, *Geococcyx californicus*, *Melanerpes erythrocephalus*,
Muscivora forficata, *Pyrrhuloxia sinuate*, *Toxostoma curvirostre*, *T. rufum*,
Tyrannus tyrannus, *Vireo griseus*

H: *Sceloporus undulatus*

M: *Lepus californicus, Sylvilagus floridanus*

N. fullbergae Brennan, 1948 – CA, MT

M: *Lepus californicus, Odocoileus hemionus*

N. paenitens Brennan, 1952 – MT

B: *Petrochelidon pyrrhonota*

N. rebeccanae Brennan, 1965 – TX

B: *Eremophila alpestris*

Neotrombicula bisignata (Ewing, 1929) – ME, MI, NEW ENGLAND, NS, PA

B: *Ammodramus henslowi*

M: *Condylura cristata, Lepus americanus, Microtus pennsylvanicus, Ondatra zibethicus, Peromyscus maniculatus, Tamias striatus, Tamiasciurus hudsonicus*

N. brennani Gould, 1956 – CA, OR, WA

M: *Myodes gapperi, M. occidentalis, Neurotrichus gibbsii, Scapanus townsendii, Sorex trowbridgii*

N. californica (Ewing, 1942) – CA, ID, MT, UT, WY

H: *Sceloporus graciosus, S. occidentalis, Uta stansburiana*

B: *Zonotrichia coronata*

M: *Dipodomys venustus, Microtus californicus, M. longicaudus, M. montanus, Mus musculus, Myodes gapperi, Neotoma fuscipes, N. lepida, Perognathus californicus, Peromyscus californicus, P. maniculatus, Reithrodontomys megalotis, Sorex trowbridgii, Spermophilus armatus, S. beecheyi, S. beldingi,*

S. lateralis, *Sylvilagus bachmani*, *S. nuttallii*, *Tamias amoenus*, *Tamiasciurus hudsonicus*, *Thomomys bottae*, *T. monticola*, *T. neglectus*, *Zapus princeps*

N. cavicola (Ewing 1931) – BC, CA, IN, KY, MO, MS, NC, OR, TN, WA

B: *Troglodytes aedon*

M: *Blarina brevicauda*, *Didelphis virginiana*, *Microtus californicus*, *M. montanus*, *M. ochrogaster*, *M. oregoni*, *Myodes occidentalis*, *Neotoma cinerea*, *N. floridana*, *N. fuscipes*, *Peromyscus leucopus*, *P. maniculatus*, *Reithrodontomys megalotis*, *Sorex cinereus*, *S. dispar*, *S. fumeus*, *S. pacificus*, *S. palustris*, *S. vagrans*, *S. trowbridgii*, *Sylvilagus floridanus*, *Tamias townsendi*, *Zapus trinotatus*

N. dinehartae (Brennan and Wharton, 1950) – CA, OR

H: *Gerrhonotus multicarinatus*, *Thamnophis ordinoides*, *T. sirtalis*

M: *Didelphis virginianus*, *Microtus californicus*, *Perognathus californicus*, *Peromyscus boylii*, *P. californicus*, *P. maniculatus*, *Sylvilagus auduboni*, *Tamias merriami*, *Thomomys bottae*

N. fitchi (Loomis, 1954) – IL, IN, KS, NE, NJ, SC, WV

H: *Elaphe obsoleta*

M: *Blarina brevicauda*, *Glaucomys volans*, *Myotis velifer*, *Neotoma micropus*, *Sciurus carolinensis*, *S. niger*, *Tamias striatus*, *Tamiasciurus hudsonicus*

N. harperi (Ewing, 1928) – BC, CA, CO, ID, MA, ME, MI, MN, MT, NB, NY, OH, OR, PA, QC, SD, UT, WY

H: *Gambelia sp.*, *Sceloporus occidentalis*, *Uta stansburiana*

B: *Junco hyemalis*, *Melospiza melodia*, *Passer domesticus*, *Sturnus vulgaris*,
Turdus migratorius

M: *Blarina brevicauda*, *Erethizon dorsatum*, *Glaucomys sabrinus*, *Lepus americanus*, *Marmota flaviventris*, *Microtus chrotorrhinus*, *M. longicaudus*, *M. modestus*, *M. montanus*, *M. oregoni*, *M. pennsylvanicus*, *Myodes gapperi*, *M. occidentalis*, *Napaeozapus insignis*, *Neotoma cinerea*, *N. mexicana*, *Ochotona princeps*, *Ondatra zibethicus*, *Onychomys leucogaster*, *Perognathus parvus*, *Peromyscus leucopus*, *P. maniculatus*, *Phenacomys intermedius*, *Sorex arcticus*, *S. cinereus*, *S. fumeus*, *S. vagrans*, *Spermophilus armatus*, *S. columbianus*, *S. lateralis*, *Synaptomys cooperi*, *Tamias amoenus*, *T. minimus*, *T. striatus*, *T. townsendi*, *Tamiasciurus hudsonicus*, *Zapus hudsonius*, *Z. princeps*, *Z. trinotatus*

N. jewetti (Brennan and Wharton, 1950) – CA, OR, UT

M: *Aplodontia rufa*, *Microtus californicus*, *M. longicaudus*, *M. montanus*, *M. townsendi*, *Mus musculus*, *Myodes californicus*, *M. occidentalis*, *Neotoma fuscipes*, *Perognathus californicus*, *Peromyscus boylii*, *P. californicus*, *P. maniculatus*, *P. truei*, *Reithrodontomys megalotis*, *Scapanus latimanus*, *Sorex trowbridgi*, *Spermophilus beecheyi*, *Tamias* sp., *Tamiasciurus douglasii*, *Thomomys bottae*, *Zapus pacificus*

N. lipovskyi (Brennan and Wharton, 1950) – AR, IL, IN, KS, MO, NE, OK

H: *Heterodon platyrhinos*

B: *Asio otus*, *Cardinalis cardinalis*, *Centurus carolinus*, *Melospiza melodia*, *Parus atricapillus*, *Sturnella neglecta*

M: *Blarina brevicauda*, *Canis latrans*, *Didelphis virginiana*, *Lepus californicus*,
Microtus ochrogaster, *M. pennsylvanicus*, *M. pinetorum*, *Mus musculus*,
Neotoma floridana, *N. micropus*, *Peromyscus leucopus*, *P. maniculatus*, *Rattus*
norvegicus, *Reithrodontomys fulvescens*, *R. megalotis*, *Sciurus carolinensis*, *S.*
niger, *Sigmodon hispidus*, *Sylvilagus floridanus*, *Urocyon cinereoargenteus*,
Zapus hudsonius

N. microti (Ewing, 1928) – AB, BC, CA, CO, IN, ME, MI, MN, MT, ND, NL, NM, NS,
NY, ON, OR, PA, PE, QC, UT, VT, WA, WV, WY

B: *Melospiza melodia*, *M. lincolni*, *Seiurus aurocapillus*

M: *Blarina brevicauda*, *Eptesicus fuscus*, *Glaucomys sabrinus*, *Marmota*
flaviventris, *Microtus chrotorrhinus*, *M. longicaudus*, *M. mexicanus*, *M.*
modestus, *M. montanus*, *M. pennsylvanicus*, *M. richardsoni*, *Myodes gapperi*,
M. occidentalis, *Napaeozapus insignis*, *Neotoma cinerea*, *N. lepida*, *Ochotona*
princeps, *O. schisticeps*, *Ondatra zibethicus*, *Parascalops breweri*,
Peromyscus leucopus, *P. maniculatus*, *Phenacomys intermedius*, *Procyon*
lotor, *Scapanus townsendi*, *Sorex fumeus*, *S. palustris*, *Sylvilagus nuttali*,
Tamias alpinus, *T. amoenus*, *Tamiasciurus hudsonicus*, *Zapus hudsonius*, *Z.*
princeps, *Z. trinotatus*

N. richmondi (Brennan and Wharton, 1950) – AR, GA, PA

M: *Microtus pennsylvanicus*, *Myodes gapperi*, *Napaeozapus insignis*, *Odocoileus*
virginianus, *Ondatra zibethicus*, *Peromyscus leucopus*

N. scelopori Ewing, 1931 – TX

H: *Sceloporus spinosus*

N. subsignata (Brennan and Wharton, 1950) – CA, CO, MO, MT, ND, NY, PA, UT, WY

B: *Capella gallinago, Seiurus motacilla*

M: *Marmota flaviventris, Microtus pennsylvanicus, Reithrodontomys megalotis, Spermophilus beldingi, S. lateralis, S. tridecemlineatus, Sylvilagus floridanus, Zapus hudsonius, Z. princeps*

N. superciliaris Loomis and Meagans, 1975 – CA

H: *Uta stansburiana*

N. sylvilagi (Brennan and Wharton, 1950) – IL, IN, KS

H: *Agkistrodon contortrix, Coluber constrictor*

B: *Cardinalis cardinalis, Colinus virginianus, Junco hyemalis, Turdus migratorius*

M: *Cryptotis parva, Microtus ochrogaster, Mus musculus, Neotoma floridana, Peromyscus leucopus, P. maniculatus, Sciurus carolinensis, S. niger, Sylvilagus floridanus, Synaptomys sp., Zapus hudsonius*

N. waynensis (Brennan and Wharton, 1950) – IN, MI, PA, SC

B: *Melospiza georgiana*

M: *Neotoma floridana, Ondatra zibethicus*

N. whartoni (Ewing, 1929) – AR, CT, DE, FL, GA, IL, IN, KS, MA, MD, MO, MS, NC, NE, NJ, OK, PA, SC, TX

B: *Cardinalis cardinalis, Catharus guttatus, Colinus virginianus, Cyanocitta cristata, Hylocichla guttata, Junco hyemalis, Mimus polyglottos, Parus bicolor, Pipilo erythrorththalmus, Thryothorus ludovicianus, Toxostoma rufum, Troglodytes aedon, Zonotrichia albicollis, Z. querula*

M: *Castor canadensis*, *Didelphis virginiana*, *Glaucomys volans*, *Lepus californicus*, *Mephitis mephitis*, *Microtus ochrogaster*, *M. pennsylvanicus*, *M. pinetorum*, *Mus musculus*, *Mustela vison*, *Neotoma floridana*, *Odocoileus virginianus*, *Ondatra zibethicus*, *Peromyscus leucopus*, *P. maniculatus*, *Procyon lotor*, *Rattus norvegicus*, *Reithrodontomys fulvescens*, *Sciurus carolinensis*, *S. niger*, *Sigmodon hispidus*, *Sylvilagus floridanus*, *S. palustris*, *Tamias striatus*, *Tamiasciurus hudsonicus*, *Urocyon cinereoargenteus*, *Vulpes vulpes*, *Zapus hudsonius*

Otorhinophila baccusi Loomis and Wrenn, 1973 – TX

M: *Dipodomys merriami*, *D. ordii*, *Pappogeomys castanops*, *Perognathus merriami*, *P. nelsoni*, *P. penicillatus*, *Peromyscus eremicus*

O. desertorum Loomis and Wrenn, 1973 – AZ, CA

M: *Ammospermophilus leucurus*, *Dipodomys merriami*, *Neotoma albigenula*, *N. lepida*, *Perognathus fallax*, *P. formosus*, *P. longimembris*, *P. penicillatus*, *Peromyscus crinitus*, *P. eremicus*

O. parvisola Wrenn and Loomis, 1967 – AZ, CA

M: *Dipodomys merriami*, *D. ordii*, *Neotoma albigenula*, *N. lepida*, *N. stephensi*, *Onychomys torridus*, *Perognathus baileyi*, *P. formosus*, *P. intermedius*, *P. penicillatus*

O. sola (Gould, 1956) – CA, NV

M: *Neotoma lepida*

O. xerophila Loomis and Wrenn, 1973 – CA

M: *Ammospermophilus leucurus*, *Dipodomys merriami*, *D. panimintinus*, *Neotoma lepida*, *Perognathus fallax*, *P. longimembris*, *P. penicillatus*

Parasecia gurneyi (Ewing, 1937) – AL, AR, CO, GA, FL, KS, LA, MI, MD, NE, OK, ON, TX, VA

H: *Arizona elegans*, *Coleonyx brevis*, *Crotalis horridus*, *C. viridis*, *Elaphe obsoleta*, *Eumeces fasciatus*, *E. inexpectatus*, *E. laticeps*, *E. obsoletus*, *Heterodon nasicus*, *H. platyrhinos*, *Lampropeltis getulus*, *L. triangulum*, *Masticophis flagellum*, *Natrix sipedon*, *Sceloporus undulatus*, *Thamnophis sirtalis*, *Uta ornata*

B: *Melanerpes erythrocephalus*, *Speotyto cunicularia*, *Strix varia*, *Toxostoma rufum*

M: *Ammospermophilus interpres*, *Blarina brevicauda*, *Cynomys ludovicianus*, *Dipodomys merriami*, *D. ordii*, *Eptesicus fuscus*, *Neotoma floridana*, *N. micropus*, *Nycticeius humeralis*, *Onychomys leucogaster*, *Perognathus hispidus*, *P. merriami*, *Peromyscus eremicus*, *P. leucopus*, *P. maniculatus*, *Scalopus aquaticus*, *Sciurus carolinensis*, *S. niger*, *Sigmodon hispidus*, *Spermophilus spilosoma*, *S. tridecemlineatus*, *Sylvilagus floridanus*

Perates monops (Brennan and Jones, 1960) – TX

M: *Mormoops megalophylla*

Perissopalla flagellisetula Brennan and White, 1960 – AL

M: *Perimyotis subflavus*

Pseudoschongastia aeci Brennan, 1965 – NV

M: *Neotoma lepida*

P. apista Brennan and Yunker 1966 – TX

M: *Bassariscus astutus*

P. audyi Brennan and Jones, 1959 – TX

M: *Liomys irroratus*, *Peromyscus leucopus*

P. farneri Lipovsky 1951 – CO, KS, SD, TX

M: *Cryptotis parva*, *Dipodomys ordii*, *Liomys irroratus*, *Neotoma albicula*, *N. floridana*, *N. micropus*, *Perognathus hispidus*, *P. merriami*, *Peromyscus boylii*, *P. difficilis*, *P. eremicus*, *P. leucopus*, *P. maniculatus*, *P. pectoralis*, *Sigmodon hispidus*, *S. ochrognathus*

P. hungerfordi Lipovsky, 1951 – KS, MO, TX

M: *Dipodomys ordii*, *Lepus californicus*, *Microtus ochrogaster*, *Mus musculus*, *Neotoma albicula*, *N. floridana*, *N. micropus*, *Onychomys leucogaster*, *Perognathus flavus*, *P. hispidus*, *P. nelsoni*, *Peromyscus eremicus*, *P. leucopus*, *P. maniculatus*, *Reithrodontomys fulvescens*, *R. megalotis*, *Sigmodon hispidus*, *S. ochrognathus*, *Sylvilagus auduboni*, *S. floridanus*

P. occidentalis Brennan, 1952 – CA

M: *Peromyscus boylii*, *P. californicus*, *P. maniculatus*

Speleocola tadaridae Lipovsky, 1952 – KS, OK, TX

M: *Tadarida brasiliensis*, *T. femorosacca*

Tecomatlana sandovali Hoffmann, 1947 – AZ

M: *Macrotus californicus*

T. texana (Loomis and Crossley, 1963) – TX

M: *Mormoops megalophylla*, *Tadarida macrotis*

T. watkinsi Vercammen-Grandjean, 1967 – CA

M: *Macrotus californicus*

Trombicula akamushi (Brumpt, 1910) – NC

M: *Peromyscus leucopus* (nr.)

T. alaskensis Brennan and Wharton, 1950 – AK

B: *Hylocichla ustulata*

T. autumnalis Shaw, 1790 – CO, GA, NC, NE

B: *Toxostoma rufum*

M: *Microtus ochrogaster*, *M. pennsylvanicus*, *Neotoma cinerea*, *Reithrodontomys megalotis*, *Sylvilagus floridanus*

T. bakeri Ewing, 1946 – ID, UT

M: *Dipodomys ordii*, *Peromyscus maniculatus*, *Spermophilus armatus*

T. belkini Gould, 1950 – CA, ID, NV, UT

H: *Cnemidophorus hyperythrus*, *C. tesselatus*, *C. tigris*, *Crotaphytus collaris*,
Eumeces skiltonianus, *Gambelia wislizeni*, *Gerrhonotus multicarinatus*,
Phrynosoma coronatum *P. douglassi*, *P. platyrhinos*, *Pituophis catenifer*,
Sceloporus graciosus, *S. magister*, *S. occidentalis*, *S. orcutti*, *Trimorphodon vandenburgi*, *Uta mearnsi*, *U. stansburiana*

B: *Meleagris gallopavo*

M: *Dipodomys ordii*, *Marmota flaviventris*, *Mus musculus*, *Myodes gapperi*,
Neotoma lepida, *Perognathus californicus*, *P. longimembris*, *Peromyscus truei*, *Reithrodontomys megalotis*, *Spermophilus beecheyi*, *S. lateralis*, *S. leucurus*

T. browni Brennan and Wharton, 1950 – WY

M: *Microtus longicaudus*, *Peromyscus maniculatus*, *Tamiasciurus hudsonicus*,
Zapus hudsonius

T. discors Brennan and Jones, 1960 – TX

M: *Mormoops megalophylla*

T. eptesici Brennan, 1947 – MT

M: *Eptesicus fuscus*

T. eusignata Brennan and Wharton, 1950 – MT

M: *Spermophilus lateralis*, *Tamias amoenus*

T. farrelli Brennan and Wharton, 1950 – NC

M: *Peromyscus leucopus*

T. finleyi Kardos, 1954 – CO

M: *Neotoma cinerea*

T. goodpasteri Brennan and Wharton, 1950 – OH

M: *Microtus pennsylvanicus*, *M. pinetorum*

T. hylae Ewing, 1925 – CA

H: *Hyla arenicolor*

T. irritans Riley, 1873 – MD, NC, OK, VA

H: *Bufo fowleri*, *Terrapene carolina*

B: *Geothlypis trichas*, *Pipilo erythrrophthalmus*, *Polioptila caerulea*, *Protonotaria citrea*, *Setophaga ruticilla*, *Spizella pusilla*, *Thryothorus ludovicianus*

M: *Lepus aquaticus*, *L. californicus*, *Sylvilagus floridanus*

T. kardosi Loomis, 1954 – KS, UT

H: *Elaphe obsoleta*

M: *Sciurus niger, Tamias umbrinus*

T. loomisi Kardos, 1954 – CO, NE, NV

M: *Mus musculus, Perognathus parvus, Peromyscus maniculatus,*

Reithrodontomys megalotis

T. ornata Loomis and Lipovsky, 1954 – CO, KS

M: *Neotoma micropus, Peromyscus leucopus, P. maniculatus*

T. parkeri Radford, 1942 – CO

M: *Ochotona princeps*

T. pseudoautumnalis Gould, 1956 – CA

M: *Thomomys bottae*

T. rohweri Ewing, 1942 – MS

B: *Troglodytes aedon*

T. sargentii Brennan, 1952 – UT, WI

M: *Neotoma sp., Peromyscus leucopus*

T. tibbettsi Brennan and White, 1960 – AL, TX

M: *Mormoops megalophylla, Myotis grisescens*

T. tlalzahuatl (Murray, 1877) – MD, OH, TX

H: “King Snake,” *Coluber constrictor, Diadophis punctatus, Heterodon*

contortrix, H. platyrhinos, Thamnophis sirtalis

M: “Jack Rabbit,” *Sylvilagus floridanus*

T. twentei Loomis, 1954 – KS

M: *Antrozous bunkerii*

T. univari Brennan, 1965 – AZ, TX, UT

M: *Antrozous pallidus*, *Corynorhinus townsendii*, *Parastrellus hesperus*

T. usitata Brennan, 1965 – TX

M: *Mormoops megalophylla*

T. varians Brennan and Wharton, 1950 – MT

M: *Spermophilus columbianus*

T. veanda Brennan, 1965 – NV

M: *Neotoma lepida*

Walchia americana Ewing, 1942 – CA, FL, GA, IN, KS, MD, UT, WI, WV

M: *Didelphis virginiana*, *Glaucomys volans*, *Neotoma micropus*, *Peromyscus floridanus*, *P. gossypinus*, *P. leucopus*, *Sciurus carolinensis*, *S. griseus*, *S. niger*, *Sigmodon littoris*, *Sylvilagus floridanus*, *Tamias striatus*, *T. umbrinus*, *Tamiasciurus hudsonicus*

Walchioides whartoni (Brennan, 1960) – TX

M: *Neotoma albigena*, *N. micropus*, *Peromyscus boylii*, *P. eremicus*, *P. pectoralis*, *Reithrodontomys megalotis*

Whartonacarus floridensis Mertins, Hanson and Corn, 2009 – FL

B: *Bubulcus ibis*

Womersia strandtmani Wharton, 1947 – MD, TX

B: *Anas platyrhynchos*, *Pelecanus occidentalis*, *Sterna antillarum*

HOST DISTRIBUTION

The various North American wild vertebrates from which chiggers have been reported are listed alphabetically below, with the chigger species listed for each. Numbers refer to references in this work.

HERPS (REPTILES/AMPHIBIANS)

“King Snake”

Trombiculidae: *Trombicula tlalzahuatl* [90]

Acris crepitans

Leeuwenhoekiidae: *Hannemania eltoni* [23]; *H. hegneri* [59]

Acris gryllus

Leeuwenhoekiidae: *Hannemania dunni* [183]; *H. eltoni* [55, 183]; *H.*

multifemoralis [183]

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *E. lipovskyana* [183]

Agkistrodon contortrix

Trombiculidae: *Eutrombicula alfreddugesi* [55, 145, 183, 200, 323]; *E.*

lipovskyana [183]; *Microtrombicula trisetica* [183, 280]; *Neotrombicula*

sylvilagi [183]

Agkistrodon mokasen

Trombicula: *Eutrombicula alfreddugesi* [109]

Agkistrodon piscivorus

Trombiculidae: *Eutrombicula splendens* [55]

Ambystoma maculatum

Leeuwenhoekiidae: *Hannemania dunni* [239]

Ambystoma opacum

Leeuwenhoekiidae: *Hannemania dunni* [239]

Ambystoma tigrinum

Leeuwenhoekiidae: *Hannemania eltoni* [183]

Amyda ferox

Trombiculidae: *Eutrombicula masoni* [108, 154]

Anolis carolinensis

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. cinnabaris* [320]; *E. lipovskyana* [55]; *E. masoni* [154]

Arizona elegans

Trombiculidae: *Hyponeocula imitator* [260]; *Parasecia gurneyi* [182-183]

Bufo cognatus

Leeuwenhoekiidae: *Hannemania* sp. [83]

Bufo debilis

Leeuwenhoekiidae: *Hannemania* sp. [83]

Bufo fowleri

Leeuwenhoekiidae: *Hannemania penetrans* [27]

Trombiculidae: *Trombicula irritans* [97]

Bufo microscaphus

Leeuwenhoekiidae: *Hannemania* sp. [83]

Bufo punctatus

Leeuwenhoekiidae: *Hannemania bufonis* [188, 199-200, 283]; *Hannemania* sp. [83, 138, 163]

Bufo speciosus

Leeuwenhoekiidae: *Hannemania* sp [83]

Bufo terrestris

Leeuwenhoekiidae: *Hannemania multifemoralis* [183]

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Bufo woodhousei

Leeuwenhoekiidae: *Hannemania eltoni* [183]; *H. multifemoralis* [183]

Trombiculidae: *Eutrombicula alfreddugesi* [323]; *E. lipovskyana* [183]

Callisaurus draconoides

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8-9, 103, 197, 233]

Trombiculidae: *Hexidionis lacerticola* [186, 197]

Chionactis occipitalis

Leeuwenhoekiidae: *Acomatacarus arizonensis* [233]

Trombiculidae: *Hyponeocula fovea* [260]; *H. imitator* [260]

Chrysomys picta

Trombiculidae: *Eutrombicula masoni* [154]

Cnemidophorus gularis

Trombiculidae: *Eutrombicula alfreddugesi* [28]

Cnemidophorus hyperythrus

Trombiculidae: *Trombicula belkini* [24]

Cnemidophorus inornatus

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Cnemidophorus sacki

Trombiculidae: *Eutrombicula alfreddugesi* [191]

Cnemidophorus sexlineatus

Trombiculidae: *Eutrombicula alfreddugesi* [55, 115, 120, 154, 183, 191, 242,

323]; *E. cinnabarinis* [320]; *E. masoni* [108, 154]

Cnemidophorus tesselatus

Trombiculidae: *Eutrombicula alfreddugesi* [120]; *Trombicula belkini* [135, 273]

Cnemidophorus tigris

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8, 197]; *Odontacarus pinnatus*

[128]

Trombiculidae: *Eutrombicula alfreddugesi* [120, 188, 200]; *Hexidionis*

lacerticola [186, 197]; *Hyponeocula arenicola* [260]; *H. fovea* [260]; *H.*

luciae [260]; *Trombicula belkini* [8, 39, 41, 197, 233]

Coleonyx brevis

Trombiculidae: *Hyponeocula arenicola* [188, 200]; *Parasecia gurneyi* [188]

Coleonyx reticulatus

Trombiculidae: *Fonsecia kansasensis* [200]

Coleonyx variegates

Leeuwenhoekiidae: *Acomatacarus arizonensis* [9]; *Odontacarus shawi* [37, 233]

Trombiculidae: *Hyponeocula arenicola* [9, 260]; *H. fovea* [260]; *H. imitator* [260]

Coluber constrictor

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183, 247, 323]; *E. lipovskyana*

[183]; *E. masoni* [104, 154]; *E. splendens* [146]; *Fonsecia kansasensis*

[182-183]; *Neotrombicula sylvilagi* [183]; *Trombicula tlalzahuatl* [214-215]

Coluber flaviventris

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Coluber taeniatus

Leeuwenhoekiidae: *Odontacarus linsdalei* [5, 324]

Trombiculidae: *Hyponeocula arenicola* [5, 39, 324]

Cophosaurus texanus

Leeuwenhoekiidae: *Odontacarus pinnatus* [128]; *Odontacarus* n. sp. [200]

Crotalus atrox

Trombiculidae: *Eutrombicula alfreddugesi* [28, 188, 200]; *Hyponeocula montanensis* [188]

Crotalus horridus

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];
Fonsecia kansasensis [182-183]; *Parasecia gurneyi* [182-183]

Crotalus molossus

Trombiculidae: *Eutrombicula alfreddugesi* [200]

Crotalus scutulatus

Trombiculidae: *Hyponeocula arenicola* [188]; *H. montanensis* [188]

Crotalus viridis

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Hyponeocula montanensis* [183, 260]; *Parasecia gurneyi* [182-183]

Crotaphytus collaris

Leeuwenhoekiidae: *Acomatacarus arizonensis* [9, 39, 114, 183, 188, 197];

Odontacarus pinnatus [128]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]; *Eutrombicula alfreddugesi* [28, 55, 105, 114, 120, 154, 183, 209, 323]; *E. lipovskyana* [114, 183, 323]; *Hexidionis lacerticola* [186, 197]; *Trombicula belkini* [39]

Crotaphytus reticulates

Leeuwenhoekiidae: *Acomatacarus arizonensis* [217]; *Odontacarus pinnatus* [128]

Trombiculidae: *Eutrombicula alfreddugesi* [217]

Crotaphytus wislizeni

Leeuwenhoekiidae: *Acomatacarus arizonensis* [197, 233]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]; *Hexidionis lacerticola* [186, 197]

Desmognathus fuscus

Leuwenhoekiidae: *Hannemania dunni* [249, 284]

Diadophis punctatus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183]; *Trombicula tlalzahuatl* [214-215]

Dipsosaurus dorsalis

Leeuwenhoekiidae: *Acomatacarus arizonensis* [9, 135, 197, 233]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]

Drymarchon corais

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. masoni* [154]; *E. splendens* [247]

Elaphe guttata

Trombiculidae: *Eutrombicula alfreddugesi* [183, 247]

Elaphe obsoleta

Trombiculidae: *Eutrombicula alfreddugesi* [28, 55, 105, 154, 183, 323]; *E. lipovskyana* [183, 230]; *E. masoni* [154]; *Fonsecia palmella* [156]; *Hemitrombicula simplex* [102]; *Leptotrombidium myotis* [183]; *Microtrombicula trisetica* [55, 183, 223, 280]; *Neotrombicula fitchi* [181, 183]; *Parasecia gurneyi* [182-183]; *Trombicula kardosi* [181, 183]

Elaphe quadrivittata

Trombiculidae: *Eutrombicula splendens* [247]

Elaphe subocularis

Trombiculidae: *Eutrombicula alfreddugesi* [188]; *Fonsecia* (P.) n. sp. [200]; *Hyponeocula montanensis* [200]

Elaphe vulpine

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Eleutherodactylus guttilatus

Leeuwenhoekiidae: *Hannemania hylae* [163]

Eleutherodactylus marnockii

Leeuwenhoekiidae: *Hannemania monticola* [206]

Eumeces brevilineatus

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Eumeces fasciatus

Trombiculidae: *Eutrombicula alfreddugesi* [112, 154, 183, 241, 323]; *E. masoni* [154]; *Fonsecia palmella* [43]; *Parasecia gurneyi* [55, 101, 104, 112, 154, 182-183]

Eumeces inexpectatus

Trombiculidae: *Fonsecia palmella* [43]; *Parasecia gurneyi* [182, 320]

Eumeces laticeps

Trombiculidae: *Eutrombicula alfreddugesi* [154, 242]; *E. masoni* [154]; *Fonsecia palmella* [241-242]; *Microtrombicula trisetica* [41, 183, 190, 280]; *Parasecia gurneyi* [55, 182-183, 242]

Eumeces obsoletus

Trombiculidae: *Eutrombicula alfreddugesi* [112-113, 183, 200, 212, 323]; *E. lipovskyana* [113, 183, 323]; *Parasecia gurneyi* [182-183]

Eumeces skiltonianus

Trombiculidae: *Kayella lacerta* [20]; *Trombicula belkini* [20]

Eurycea cirrigera

Leeuwenhoekiidae: *Hannemania dunni* [251, 284]

Eurycea gutto-lineata

Leeuwenhoekiidae: *Hannemania dunni* [239]

Gambelia wislizenii

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8-9, 39]

Trombiculidae: *Trombicula belkini* [8-9, 39]

Gastrophryne olivacea

Leeuwenhoekiidae: *Hannemania multifemoralis* [183]

Gerrhonotus liocephalus

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Gerrhonotus multicarinatus

Trombiculidae: *Kayella lacerta* [233]; *Neotrombicula dinehartae* [135];

Trombicula belkini [135, 233, 273]

Gopherus berlandieri

Trombiculidae: *Eutrombicula alfreddugesi* [125]

Gopherus polyphemus

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. masoni* [154]

Heterodon contortrix

Trombiculidae: *Eutrombicula alfreddugesi* [28, 105, 154]; *E. masoni* [154];

Trombicula tlalzahuatl [214]

Heterodon nasicus

Trombiculidae: *Eutrombicula alfreddugesi* [55, 120, 183, 323]; *Hyponeocula*

arenicola [200]; *H. montanensis* [55, 183]; *Parasecia gurneyi* [55, 182]

Heterodon platyrhinos

Trombiculidae: *Eutrombicula alfreddugesi* [55, 183]; *Hyponeocula montanensis*

[55]; *Neotrombicula lipovskyi* [55]; *Parasecia gurneyi* [182]; *Trombicula*

tlalzahuatl [215]

Heterodon simus

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. masoni* [154]

Holbrookia maculata

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *E. batatas* [21]

Holbrookia texana

Leeuwenhoekiidae: *Acomatacarus arizonensis* [188]

Trombiculidae: *Eutrombicula alfreddugesi* [188, 191]

Hyla arenicolor

Leeuwenhoekiidae: *Hannemania hylae* [92, 135, 163, 188, 199]

Hyla cadaverina

Leeuwenhoekiidae: *Hannemania hylae* [199, 283]

Hyla squirrela

Trombiculidae: *Eutrombicula masoni* [108, 154]

Hypsiglena torquata

Trombiculidae: *Fonsecia* n. sp. [188, 200]

Kinosternon subrubrum

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Lampropeltis calligaster

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]

Lampropeltis getulus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183, 200, 323]; *E. lipovskyana*

[183]; *E. masoni* [154]; *E. splendens* [247]; *Fonsecia* n. sp. [200];

Hyponeocula arenicola [9, 200, 260]; *H. imitator* [260]; *Parasecia*

gurneyi [182]

Lampropeltis triangulum

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Parasecia gurneyi* [182-183]

Masticophis flagellum

Leeuwenhoekiidae: *Odontacarus shawi* [233]

Trombiculidae: *Eutrombicula alfreddugesi* [28, 183, 200, 212]; *E. cinnabaris*

[320]; *E. splendens* [320]; *Hyponeocula arenicola* [9, 200, 233]; *H. fovea*

[260]; *H. luciae* [260]; *H. montanensis* [55, 183, 200]; *Kayella lacerta*

[233]; *Parasecia gurneyi* [182-183]

Masticophis taeniatus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 200]

Microhyla olivacea

Leeuwenhoekiidae: *Hannemania multifemorala* [55]

Micrurus fulvius

Trombiculidae: *Eutrombicula masoni* [154]

Natrix erythrogaster

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]

Natrix rhombifera

Trombiculidae: *Eutrombicula alfreddugesi* [183]

Natrix sipedon

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Parasecia gurneyi* [155]

Opheodrys aestivus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 154]; *E. masoni* [154]

Ophisaurus attenuatus

Trombiculidae: *Eutrombicula alfreddugesi* [183]

Phrynosoma cornuta

Trombiculidae: *Eutrombicula alfreddugesi* [28]

Phrynosoma coronatum

Leeuwenhoekiidae: *Acomatacarus arizonensis* [17, 135, 197, 233]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]; *Eutrombicula alfreddugesi* [55]; *Trombicula belkini* [41, 134-135, 233, 273]

Phrynosoma douglassi

Trombiculidae: *Trombicula belkini* [6]

Phrynosoma modestum

Leeuwenhoekiidae: *Odontacarus pinnatus* [128]

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Phrynosoma platyrhinos

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8, 197]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]; *Hexidionis lacerticola* [186, 197]; *Trombicula belkini* [8-9]

Phyllorhynchus decurtatus

Leeuwenhoekiidae: *Odontacarus shawi* [233]

Trombiculidae: *Hyponeocula arenicola* [9, 233]; *H. fovea* [260]

Pituophis catenifer

Leeuwenhoekiidae: *Odontacarus linsdalei* [5, 324]

Trombiculidae: *Eutrombicula alfreddugesi* [55, 183, 323]; *Fonsecia kansasensis* [182-183]; *Hyponeocula arenicola* [5, 9, 39, 324]; *H. montanensis* [183]; *Trombicula belkini* [135]

Pituophis melanoleucus

Trombiculidae: *Euschoengastia alfreddugesi* [88]; *Hyponeocula arenicola* [260];

H. montanensis [88]

Plethodon caddoensis

Leeuwenhoekiidae: *Hannemania dunni* [16, 55]

Plethodon cylindraceus

Leeuwenhoekiidae: *Hannemania dunni* [284]

Plethodon glutinosus

Leeuwenhoekiidae: *Hannemania dunni* [239]

Plethodon ouachitae

Leeuwenhoekiidae: *Hannemania dunni* [16]

Pseudotriton montanus

Leeuwenhoekiidae: *Hannemania dunni* [239]

Rana berlandieri

Leeuwenhoekiidae: *Hannemania* sp. [163]

Rana catesbeiana

Leeuwenhoekiidae: *Hannemania penetrans* [27]

Rana palustris

Leeuwenhoekiidae: *Hannemania dunni* [221]

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Rana pipiens

Leeuwenhoekiidae: *Hannemania eltoni* [55, 183], *H. hegneri* [59, 147]; *H.*

mexicana [188, 200]; *H. multifemoralis* [55, 183]; *H. penetrans* [99]

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183]

Rana sphenocephala

Leeuwenhoekiidae: *Hannemania eltoni* [249]; *H. penetrans* [27]

Rhinocheilus lecontei

Trombiculidae: *Fonsecia* (P.) n. sp. [200]

Salvadora hexalepis

Trombiculidae: *Eutrombicula alfreddugesi* [200]; *Hyponeocula fovea* [260]

Scaphiopus bombifrons

Leeuwenhoekiidae: *Hannemania* sp [83]

Sceloporus graciosus

Trombiculidae: *Eutrombicula alfreddugesi* [72]; *Neotrombicula californica* [131, 196]; *Trombicula belkini* [6, 39, 135, 273]

Sceloporus jarrovii

Leeuwenhoekiidae: *Acomatacarus arizonensis* [55]

Trombiculidae: *Eutrombicula lipovskyana* [133]; *Hyponeocula sauricola* [260]

Sceloporus magister

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8, 33, 135, 188, 197]

Trombiculidae: *Euschoengastoides longitarsala* [197, 233]; *Eutrombicula alfreddugesi* [188]; *E. batatas* [21]; *Hexidionis lacerticola* [186, 197]; *Trombicula belkini* [8, 197]

Sceloporus merriami

Leeuwenhoekiidae: *Acomatacarus arizonensis* [188, 200]

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Sceloporus occidentalis

Leeuwenhoekiidae: *Acomatacarus arizonensis* [197]; *Odontacarus micheneri* [8]

Trombiculidae: *Euschoengastoides longitarsala* [233]; *Hexidionis lacerticola* [186, 197]; *Kayella lacerta* [32, 109]; *Neotrombicula californica* [196]; *N. harperi* [197]; *Trombicula belkini* [8, 41, 55, 135, 152, 197, 273, 282]

Sceloporus olivaceus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 120, 191]

Sceloporus orcutti

Leeuwenhoekiidae: *Acomatacarus arizonensis* [233]

Trombiculidae: *Trombicula belkini* [233]

Sceloporus poinsettia

Trombiculidae: *Eutrombicula alfreddugesi* [188, 200]

Sceloporus scalaris

Trombiculidae: *Eutrombicula chiricahuae* [22]

Sceloporus spinosus

Trombicuidae: *Neoschongastia scelopori* [99]

Sceloporus undulatus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 55, 72, 109, 120, 154, 183, 188, 200, 241-242, 247, 323]; *E. cinnabaris* [320, 338]; *E. masoni* [154]; *E. splendens* [247]; *Neoschongastia americana* [58]; *Parasecia gurneyi* [182]

Sceloporus virgatus

Trombiculidae: *Eutrombicula chiricahuae* [22]

Sceloporus woodi

Trombiculidae: *Eutrombicula masoni* [154]

Sistrurus miliarius

Trombiculidae: *Eutrombicula splendens* [247]

Sonora episcopa

Trombiculidae: *Eutrombicula alfreddugesi* [323]

Syrrhopus guttulatus

Leeuwenhoekiidae: *Hannemania hylae* [188]

Syrrhopus marnockii

Leeuwenhoekiidae: *Hannemania* sp. [204]

Terrapene carolina

Trombiculidae: *Eutrombicula alfreddugesi* [109, 154]; *E. lipovskyana* [230]; *E. masoni* [154]; *E. splendens* [247]; *Trombicula irritans* [93, 100]

Terrapene ornata

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];
Hyponeocula montanensis [183]

Thamnophis cyrtopsis

Trombiculidae: *Eutrombicula alfreddugesi* [188]

Thamnophis marcianus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 120, 188, 200]

Thamnophis ordinoides

Trombiculidae: *Neotrombicula dinehartae* [52]

Thamnophis radix

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]

Thamnophis sauritus

Trombiculidae: *Eutrombicula alfreddugesi* [28, 183, 323]; *E. splendens* [328]

Thamnophis sirtalis

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183, 323]; *E. lipovskyana* [183, 323]; *E. masoni* [154]; *E. splendens* [323, 328]; *Fonsecia kansasensis* [182-183]; *Neotrombicula dinehartae* [52]; *Parasecia gurneyi* [155, 328]; *Trombicula tlalzahuatl* [214-215]

Trimorphodon vandenburgi

Trombiculidae: *Trombicula belkini* [233]

Tropidoclonion lineatum

Trombiculidae: *Eutrombicula alfreddugesi* [183]

Urosaurus graciosus

Leeuwenhoekiidae: *Acomatacarus arizonensis* [197]

Urosaurus ornatus

Trombiculidae: *Eutrombicula alfreddugesi* [200, 323]

Uta mearnsi

Leeuwenhoekiidae: *Acomatacarus arizonensis* [233]

Trombiculidae: *Euschoengastoides longitarsala* [233]; *Trombicula belkini* [233]

Uta ornata

Trombiculidae: *Parasecia gurneyi* [182]

Uta stansburiana

Leeuwenhoekiidae: *Acomatacarus arizonensis* [5, 8-9, 20, 39, 197, 233, 257];

Odontacarus linsdalei [5]; *O. pinnatus* [128]

Trombiculidae: *Euschoengastoides longitarsala* [233, 257]; *Eutrombicula alfreddugesi* [120, 188]; *Hexidionis lacerticola* [186, 197]; *Hyponeocula fovea* [260]; *Neotrombicula californica* [131-132]; *N. harperi* [197]; *N. superciliaris* [196]; *Trombicula belkini* [8, 20, 39, 41, 120, 198, 233, 257, 273]

AVES

Agelatus phoeniceus

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323]

Aimophila ruficeps

Trombiculidae: *Neoschongastia americana* [210]

Ammodramus henslowi

Trombiculidae: *Neotrombicula bisignata* [44]

Amphispiza belli

Trombiculidae: *Euschoengastia radfordi* [6]; *Neoschongastia americana* [39, 210]

Amphispiza bilineata

Trombiculidae: *Eutrombicula alfreddugesi* [191]; *Neoschongastia americana* [191]

Anas platyrhynchos

Leeuwenhoekiidae: *Whomersia strandtmani* [51]

Antrostomus carolinensis

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Aphelocoma californica

Trombiculidae: *Neoschongastia americana* [210]

Aphelocoma coerulescens

Trombiculidae: *Euschoengastia numerosa* [334]

Asio otus

Trombiculidae: *Neotrombicula lipovskyi* [164, 183]

Baeolophus bicolor

Trombiculidae: *Eutrombicula alfreddugesi* [154, 242]

Bartramia longicauda

Trombiculidae: *Eutrombicula alfreddugesi* [323]; *E. lipovskyana* [183, 323]

Bubo virginianus

Trombiculidae: *Euschoengastia decipiens* [39]; *E. numerosa* [334]

Bulbulcus ibis

Trombiculidae: *Whartonacarus floridensis* [213]

Buteo jamaicensis

Trombiculidae: *Eutrombicula alfreddugesi* [183]

Calamospiza melanocorys

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *Neoschongastia brennani*

[58]

Campylorhynchus brunneicapillus

Trombiculidae: *Neoschongastia americana* [210]

Capella gallinago

Trombiculidae: *Neotrombicula subsignata* [164]

Cardinalis cardinalis

Trombiculidae: *Euschoengastia diversa* [183]; *Eutrombicula alfreddugesi* [109, 183, 323]; *E. cinnabaris* [320]; *E. lipovskyana* [183, 323]; *Neoschongastia americana* [58, 89, 183]; *Neotrombicula lipovskyi* [164, 183]; *N. sylvilagi* [164, 183]; *N. whartoni* [164, 183]

Carpodacus purpureus

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [41]

Catharus guttus

Trombiculidae: *Neoschongastia americana* [210]; *N. whartoni* [320]

Catherpes mexicanus

Trombiculidae: *Neoschongastia americana* [210]

Centrocercus urophasianus

Trombiculidae: *Euschoengastia radfordi* [6]

Centurus carolinus

Trombiculidae: *Neotrombicula lipovskyi* [164, 183]

Charadrius vociferous

Trombiculidae: *Neoschongastia americana* [89]

Chondestes grammacus

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183]; *Neoschongastia americana* [58, 183, 210]; *N. brennani* [58, 183]

Chordeiles acutipennis

Trombiculidae: *Neoschongastia americana* [191]

Chordeiles minor

Trombiculidae: *Euschoengastia radfordi* [6]

Coccyzus americanus

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Neoschongastia americana* [89]

Colaptes auratus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183]; *E. masoni* [154]

Colinus virginianus

Trombiculidae: *Eutrombicula alfreddugesi* [55, 71, 154, 183, 323]; *E. batatas*

[154]; *E. lipovskyana* [183, 323]; *E. masoni* [154]; *Neoschongastia americana* [55, 71, 89, 183, 287]; *Neotrombicula sylvilagi* [164, 183]; *N. whartoni* [71, 318]

Coragyps virginianus

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Corvus brachyrhynchos

Trombiculidae: *Euschoengastia peromysci* [183]; *Eutrombicula alfreddugesi* [183, 323]; *Neoschongastia americana* [89]

Crotophaga sulcirostris

Trombiculidae: *Neoschongastia americana* [58]

Cyanocitta cristata

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *Hyponeocula montanensis* [183]; *Neotrombicula whartoni* [44]

Dendrocopos scalaris

Trombiculidae: *Neoschongastia americana* [89]

Dendroica coronata

Trombiculidae: *Neoschongastia americana* [210]

Dryobates villosus

Trombiculidae: *Eutrombicula alfreddugesi* [109]

Dumetella carolinensis

Trombiculidae: *Blankaartia sinnamayri* [38]; *Eutrombicula alfreddugesi* [183];

Neoschongastia americana [183]

Eremophila alpestris

Trombiculidae: *Euschoengastia radfordi* [6]; *Eutrombicula alfreddugesi* [183, 323]; *Hyponeocula arenicola* [6]; *Neoschoengastia rebeccanae* [38]

Euphagus cyanocephalus

Trombiculidae: *Neoschongastia americana* [210]

Geococcyx californicus

Trombiculidae: *Eutrombicula alfreddugesi* [105, 154, 212]; *Neoschongastia americana* [58, 84, 191, 200]

Geothlypis trichas

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. cinnabaris* [320];
Trombicula irritans [95]

Grus canadensis

Trombiculidae: *Blankaartia sinnamayri* [255]

Heleodytes brunneicapillus

Trombiculidae: *Neoschongastia americana* [191]

Hylocichla guttata

Trombiculidae: *Neotrombicula whartoni* [242]

Hylocichla mustelina

Trombiculidae: *Blankaartia sinnamayri* [38]

Hylocichla ustulata

Trombiculidae: *Trombicula alaskensis* [44]

Icteria virens

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Icterus galbula

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]

Ixobrychus exilis

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Junco caniceps

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [39, 41]

Junco hyemalis

Trombiculidae: *Neoschongastia americana* [210]; *Neotrombicula harperi* [44, 164]; *N. sylvilagi* [164, 183]; *N. whartoni* [44, 164, 183]

Junco oreganus

Trombiculidae: *Euschoengastia radfordi* [6, 41]; *Neoschongastia americana* [39]

Lanius ludovicianus

Trombiculidae: *Euschoengastia radfordi* [6]; *Neoschongastia americana* [89]

Larus philadelphia

Trombiculidae: *Eutrombicula goeldii* [52]

Leucosticte tephrocotis

Trombiculidae: *Euschoengastia radfordi* [6]

Lophortyx californica

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [15, 41];

Neoschongastia americana [135]

Megacyrle alcyon

Trombiculidae: *Eutrombicula alfreddugesi* [25]; *Neoschongastia americana* [89]

Melanerpes erythrocephalus

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Microtrombicula crossleyi* [55, 181, 183, 280]; *Neoschongastia brennani* [55, 58, 183]; *Parasecia gurneyi* [182-183]

Meleagris gallopavo

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *Neoschongastia americana* [167, 287]; *Trombicula belkini* [135]

Melospiza georgiana

Trombiculidae: *Neotrombicula waynensis* [44]

Melospiza lincolni

Trombiculidae: *Neoschongastia americana* [210]; *Neotrombicula microti* [39]

Melospiza melodia

Trombiculidae: *Euschoengastia radfordi* [41]; *Neoschongastia americana* [210]; *Neotrombicula harperi* [44, 328]; *N. lipovskyi* [164, 183]; *N. microti* [328]

Mimus polyglottos

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. batatas* [154];

Neoschongastia americana [89, 210]; *Neotrombicula whartoni* [242]

Molothrus ater

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];
Neoschongastia americana [89, 183]

Muscivora forficata

Trombiculidae: *Hyponeocula arenicola* [181, 183, 260]; *Neoschongastia brennani* [58, 183]

Myiarchus crinitus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 242]

Oreortyx picta

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [41];
Neoschongastia americana [41]

Otis asio

Trombiculidae: *Neoschongastia americana* [89]

Otocoris alpestris

Trombiculidae: *Neoschongastia americana* [39]

Parabuteo unicinctus

Trombiculidae: *Neoschongastia americana* [191]

Parus atricapillus

Trombiculidae: *Euschoengastia diversa* [183]; *Neotrombicula lipovskyi* [164,
183]

Parus bicolor

Trombiculidae: *Eutrombicula alfreddugesi* [323]; *Neotrombicula whartoni* [164,
183]

Parus carolinensis

Trombiculidae: *Eutrombicula lipovskyana* [323]

Parus inornatus

Trombiculidae: *Euschoengastia radfordi* [41]

Passer domesticus

Trombiculidae: *Euschoengastia diversa* [183]; *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323]; *Neoschongastia americana* [89, 183]; *Neotrombicula harperi* [53]

Passerculus sandwichensis

Trombiculidae: *Neoschongastia americana* [210]

Passerina ciris

Trombiculidae: *Neoschongastia americana* [89]

Pelecanus occidentalis

Trombiculidae: *Womersia strandtmani* [286]

Penthestes carolinensis

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Petrochelidon pyrrhonota

Trombiculidae: *Neoschongastia paenitens* [34]

Phalaenoptilus nuttallii

Trombiculidae: *Neoschongastia americana* [287]

Phasianus colchicus

Trombiculidae: *Eutrombicula alfreddugesi* [105, 154]

Pipilo coronata

Trombiculidae: *Neoschongastia americana* [210]

Pipilo erythrophthalmus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 323]; *E. batatas* [154]; *E. splendens* [323]; *Neotrombicula whartoni* [44, 242]; *Trombicula irritans* [95]

Pipilo fuscus

Trombiculidae: *Euschoengastia radfordi* [41, 135]; *Neoschongastia americana* [135]

Pipilo maculatus

Trombiculidae: *Euschoengastia radfordi* [15]; *Neoschongastia americana* [210]

Piranga rubra

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183, 242, 323]

Poecile carolinensis

Trombiculidae: *Eutrombicula alfreddugesi* [242]

Polioptila caerulea

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *E. masoni* [154]; *Trombicula irritans* [95]

Protonotaria citrea

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *Trombicula irritans* [95]

Pyrrhuloxia sinuate

Trombiculidae: *Neoschongastia americana* [58]

Quiscalus quiscula

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];

Neoschongastia americana [89]

Rallus elegans

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *E. lipovskyana* [183];

Neoschongastia americana [183]

Rallus longirostris

Trombiculidae: *Blankaartia pauli* [56, 247]

Riparia riparia

Trombiculidae: *Mackienia migratoria* [222]

Salpinctes obsoletus

Trombiculidae: *Neoschongastia americana* [39, 188, 191]

Scardafella inca

Trombiculidae: *Neoschongastia americana* [89]

Seiurus aurocapillus

Trombiculidae: *Neotrombicula microti* [328]

Seiurus motacilla

Trombiculidae: *Trombicula subignata* [44]

Setophaga ruticilla

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *Trombicula irritans* [95]

Sialia sialis

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];

Neoschongastia americana [183]

Speotyto cunicularia

Trombiculidae: *Hyponeocula montanensis* [183]; *Neoschongastia americana* [183]; *Parasecia gurneyi* [182-183]

Spiza americana

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];
Neoschongastia americana [183]

Spizella passerina

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]

Spizella pusilla

Trombiculidae: *Eutrombicula alfreddugesi* [154, 323]; *Trombicula irritans* [95]

Sterna antillarum

Trombiculidae: *Womersia strandtmani* [191]

Strix varia

Trombiculidae: *Eutrombicula cinnabaris* [320]; *E. splendens* [320]; *Parasecia gurneyi* [320]

Sturnella magna

Trombiculidae: *Acariscus hominis* [104]; *Eutrombicula alfreddugesi* [154, 183, 323]; *E. batatas* [154]; *E. lipovskyana* [183, 323]; *E. multisetosa* [104, 247]; *Neoschongastia americana* [89]

Sturnella neglecta

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. batatas* [183, 323]; *E. lipovskyana* [183, 323]; *Neotrombicula lipovskyi* [164, 183]

Sturnus vulgaris

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183, 323];

Neotrombicula harperi [53]

Thryomanes bewicki

Trombiculidae: *Eutrombicula alfreddugesi* [154]; *Neoschongastia americana*

[191, 210]

Thryothorus ludovicianus

Trombiculidae: *Eutrombicula alfreddugesi* [109, 154, 323]; *E. cinnabaris* [320];

E. masoni [154]; *E. splendens* [109]; *Neotrombicula whartoni* [44];

Trombicula irritans [95]

Toxostoma curvirostre

Trombiculidae: *Neoschoengastia americana* [191]; *N. brennani* [38]

Toxostoma redivivum

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [41, 135];

Neoschongastia americana [210]

Toxostoma rufum

Trombiculidae: *Acariscus hominis* [104]; *Eutrombicula alfreddugesi* [154, 183,

323]; *E. batatas* [154]; *E. lipovskyana* [323]; *E. masoni* [154];

Neoschongastia americana [58-59, 183, 242]; *Neotrombicula whartoni*

[242]; *Parasecia gurneyi* [59]; *Trombicula autumnalis* [59]

Troglodytes aedon

Trombiculidae: *Eutrombicula alfreddugesi* [183, 323]; *E. cinnabaris* [320]; *E.*

lipovskyana [183, 323]; *Neoschongastia americana* [89, 210];

Neotrombicula cavicola [44]; *N. whartoni* [164, 242]; *Trombicula rohweri* [103]

Turdus migratorius

Trombiculidae: *Eutrombicula alfreddugesi* [109, 183, 323]; *E. lipovskyana* [183, 323]; *Neoschongastia americana* [183]; *Neotrombicula harperi* [53]; *N. sylvilagi* [164, 183]

Tympanuchus cupido

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183]; *E. lipovskyana* [183]; *Neoschongastia americana* [183]

Tyrannus tyrannus

Trombiculidae: *Eutrombicula lipovskyana* [183, 323]; *Neoschongastia brennani* [58, 183]

Vireo griseus

Trombiculidae: *Neoschongastia americana* [58]

Vireo olivaceus

Trombiculidae: *Eutrombicula alfreddugesi* [154, 242]

Zenaidura macroura

Trombiculidae: *Eutrombicula alfreddugesi* [55, 154, 183, 323]; *E. lipovskyana* [183, 323]

Zonotrichia albicollis

Trombiculidae: *Eutrombicula cinnabarinis* [320]; *Neoschongastia americana* [210]; *Neotrombicula whartoni* [44, 59]

Zonotrichia atricapilla

Trombiculidae: *Neoschongastia americana* [210]

Zonotrichia coronata

Trombiculidae: *Euschoengastia latchmani* [15, 46, 334]; *E. numerosa* [334]; *E. radfordi* [15, 41, 135]; *Neotrombicula californica* [135]

Zonotrichia leucophrys

Trombiculidae: *Euschoengastia decipiens* [6]; *E. radfordi* [41]; *Neoschongastia americana* [41, 210]

Zonotrichia querula

Trombiculidae: *Neotrombicula whartoni* [164, 183]

MAMMALIA

“Gopher”

Leeuwenhoekiidae: *Leeuwenhoekia americana* [135]

“Ground Squirrel”

Trombiculidae: *Euschoengastia ambocalis* [91]

“Jack Rabbit”

Trombiculidae: *Trombicula tlalzahuatl* [90]

“Mole”

Trombiculidae: *Euschoengastia oregonensis* [98, 109]

Ammospermophilus interpres

Trombiculidae: *Parasecia gurneyi* [188]

Ammospermophilus leucurus

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastia ambocalis* [333];
Euschoengastoides imperfectus [187]; *E. neotomae* [187]; *Otorhinophila desertorum* [201]; *O. xerophila* [201]

Antrozous bunkeri

Trombiculidae: *Euschoengastoides hoplai* [183]; *T. twentei* [181, 183]

Antrozous pacificus

Leeuwenhoekiidae: *Whartonia perplexa* [135]

Antrozous pallidus

Leeuwenhoekiidae: *Albeckia albecki* [275]; *A. senase* [245]; *Whartonia carpenteri* [70]; *W. perplexa* [12, 26, 39, 171, 200, 295, 317]

Trombiculidae: *Euschoengastoides neotomae* [187]; *Leptotrombidium myotis* [274, 317]; *Loomisia sprocssi* [38]; *T. univari* [38]

Aplodontia rufa

Leeuwenhoekiidae: *Odontacarus hirsutus* [135, 153]

Trombiculidae: *Aplodontophila aplodontiae* [30, 135, 335]; *A. pacifica* [335];
Euschoengastia maseri [329]; *Neotrombicula jewetti* [153]

Bassariscus astutus

Leeuwenhoekiidae: *Odontacarus hirsutus* [12]

Trombiculidae: *Euschoengastia eadsi* [63]; *Pseudoschongastia apista* [63]

Blarina brevicauda

Leeuwenhoekiidae: *Leeuwenhoekia americana* [151]

Trombiculidae: *Euschoengastia blarinae* [99, 109, 151, 207, 223, 242, 304, 328];
E. diversa [183]; *E. jamesoni* [32, 162, 242, 272, 304]; *E. jonesi* [302]; *E.*

peromysci [109, 241, 266, 304]; *E. trigenulala* [59, 183]; *Miyatrombicula esoensis* [296]; *Neotrombicula cavigola* [302]; *N. harperi* [44]; *N. lipovskyi* [164, 183]; *N. microti* [44, 162, 337]; *Parasecia gurneyi* [59, 182-183]

Blarina carolinensis

Leeuwenhoekiidae: *Leeuwenhoekia americana* [225, 300]

Blarina hylophaga

Trombiculidae: *Euschoengastia diversa* [246]; *Neotrombicula fitchi* [246]

Canis latrans

Trombiculidae: *Euschoengastia diversa* [183]; *Eutrombicula alfreddugesi* [293, 299, 303]; *Neotrombicula lipovskyi* [44, 164, 183]

Castor canadensis

Trombiculidae: *Neotrombicula whartoni* [223, 242]

Cervus nippon

Trombiculidae: *Eutrombicula splendens* [65]

Cervus unicolor

Trombiculidae: *Eutrombicula splendens* [64]

Chaetodipus hispidus

Leeuwenhoekiidae: *Odontacarus dentatus* [263]

Trombiculidae: *Cheladonta micheneri* [263]; *Euschoengastia decipiens* [263]; *Hyponeocula montanensis* [263]

Condylura cristata

Trombiculidae: *Neotrombicula bisignata* [44]

Corynorhinus townsendii

Leeuwenhoekiidae: *Albeckia senase* [244]; *Shunsennia ochotona* [6]

Trombiculidae: *Leptotrombidium myotis* [267]; *Trombicula univari* [38]

Cryptotis parva

Trombiculidae: *Cheladonta ouachitensis* [55, 178]; *Euschoengastia jonesi* [179, 183]; *E. setosa* [55]; *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183]; *Neotrombicula sylvilagi* [164, 183]; *Pseudoschongastia farneri* [177, 183]

Cynomys leucurus

Trombiculidae: *Euschoengastia obesa* [39]; *Hyponeocula montanensis* [39, 260]

Cynomys ludovicianus

Leuwenhoekiidae: *Odontacarus dentatus* [191]

Trombiculidae: *Cheladonta micheneri* [55, 178, 183]; *Euschoengastia criceticola* [183]; *E. cynomyicola* [55, 57, 183]; *Euschoengastoides hoplai* [55, 181, 183, 187]; *E. loomisi* [55, 183]; *Eutrombicula alfreddugesi* [183]; *Hyponeocula montanensis* [30, 55, 84, 183, 260]; *Kayella lacerta* [183]; *Neoschongastia americana* [191]; *Parasecia gurneyi* [182-183]

Cynomys parvidens

Trombiculidae: *Hyponeocula arenicola* [39, 260]

Dasypus novemcinctus

Trombiculidae: *Eutrombicula alfreddugesi* [212]

Didelphis virginiana

Trombiculidae: *Eutrombicula alfreddugesi* [109, 154, 220, 234, 293, 301, 303, 323]; *E. batatas* [154]; *E. masoni* [104, 154]; *E. splendens* [81, 220, 247]; *Leptotrombidium peromysci* [81, 234]; *Neotrombicula cavigola* [81]; *N. dinehartae* [135]; *N. lipovskyi* [164, 183]; *N. whartoni* [207, 234, 293, 301, 303]; *Walchia americana* [247]

Dipodomys agilis

Leuwenhoekiidae: *Odontacarus linsdalei* [189]

Trombiculidae: *Dermadelema furmani* [189, 232]; *Euschoengastia ambocalis* [333]; *E. heteromyicola* [334]

Dipodomys elator

Trombiculidae: *Euschoengastia decipiens* [263]

Dipodomys elephantinus

Trombiculidae: *Euschoengastia decipiens* [261]

Dipodomys deserti

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastoides arizonae* [187]; *Hyponeocula luciae* [260]

Dipodomys heermanni

Trombiculidae: *Dermadelema mojavense* [232]; *Hyponeocula arenicola* [260]; *H. montanensis* [135]; *Neoschongastia americana* [135]

Dipodomys merriami

Leeuwenhoekiidae: *Sasacarus whartoni* [122]

Trombiculidae: *Dermadelema lynnae* [232]; *D. furmani* [232]; *D. mojavense* [232]; *D.睡鼠* [232]; *Euschoengastia ambocalis* [333]; *E. decipiens*

[39, 122, 334]; *E. hardyorum* [336]; *E. heteromyicola* [334]; *E. marginalis* [336]; *E. numerosa* [334]; *E. obscura* [334]; *E. radfordi* [122]; *E. simulans* [334]; *Euschoengastoides arizonae* [187-188]; *E. hoplai* [188]; *E. imperfectus* [187]; *E. loomisi* [188, 200]; *E. neotomae* [187]; *E. radfordi* [188]; *E. similis* [188]; *E. sleeperi* [188]; *Eutrombicula alfreddugesi* [188]; *E. batatas* [21]; *Hexidionis allredi* [188, 200]; *H. deserti* [195]; *H. doremi* [39, 195]; *H. harveyi* [188]; *H. jessiema* [122, 188]; *Hyponeocula arenicola* [10, 122, 260]; *H. fovea* [260]; *H. imitator* [260]; *Leptotrombidium panamensis* [191]; *Otorhinophila baccusi* [188, 201]; *O. desertorum* [201]; *O. parvisola* [201]; *O. xerophila* [201]; *Parasecia gurneyi* [188]

Dipodomys microps

Leeuwenhoekiidae: *Odontacarus linsdalei* [39]; *Sasacarus whartoni* [122]
Trombiculidae: *Dermadelema furmani* [232]; *D. sleeperi* [232]; *Euschoengastia decipiens* [10, 122, 334]; *E. hardyorum* [336]; *E. heteromyicola* [334]; *E. radfordi* [10, 122]; *Hexidionis jessiema* [122]; *Hyponeocula arenicola* [39, 122, 181, 260]; *H. fovea* [260]; *Kayella lacerta* [122]

Dipodomys nitratoides

Trombiculidae: *Dermadelema mojavense* [232]

Dipodomys ordii

Leeuwenhoekiidae: *Leeuwenhoekia americana* [6]; *Odontacarus linsdalei* [6, 10, 39, 41]; *O. micheneri* [6]; *Xenodontacarus plumosus* [183]

Trombiculidae: *Euschoengastia cordiremus* [6]; *E. criceticola* [39]; *E. decipiens* [6, 10, 39]; *E. radfordi* [6, 10]; *Euschoengastoides arizonae* [187, 200]; *E. loomisi* [57, 183, 200]; *Eutrombicula alfreddugesi* [55, 183, 323]; *E. batatas* [183, 323]; *Hexidionis allredi* [200]; *H. breviseta* [200]; *H. doremi* [6]; *H. harveyi* [188, 200]; *Hyponeocula arenicola* [6, 10, 39, 181, 183, 200, 260]; *H. fovea* [260]; *H. montanensis* [183, 260]; *Otorhinophila baccusi* [200]; *O. parvisola* [201]; *Parasacia gurneyi* [55, 182-183]; *Pseudoschongastia farneri* [183]; *P. hungerfordi* [177, 183]; *Trombicula bakeri* [6, 10]; *T. belkini* [6, 10]

Dipodomys panamintinus

Trombiculidae: *Dermadelema furmani* [232]; *D. mojavense* [232]; *D.睡鼠* [232]; *Euschoengastia decipiens* [334]; *E. heteromyicola* [334]; *E. marginalis* [336]; *E. simulans* [334]; *Hyponeocula arenicola* [260]; *H. fovea* [260]; *H. imitator* [260]; *Otorhinophila parvisola* [201]

Dipodomys spectabilis

Trombiculidae: *Euschoengastoides arizonae* [187]; *E. imperfectus* [187]; *E. neotomae* [187]; *Hexidionis harveyi* [194]; *Hyponeocula arenicola* [260]

Dipodomys stephensi

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastia heteromyicola* [334]; *E. obscura* [334]

Dipodomys venustus

Leeuwenhoekiidae: *Odontocarus hirsutus* [41]

Trombiculidae: *Euschoengastia criceticola* [41]; *E. radfordi* [41, 334]; *E. romola* [41]; *Neotrombicula californica* [41]

Eptesicus fuscus

Leeuwenhoekiidae: *Albeckia senase* [45]; *Whartonias perplexa* [31, 149, 245, 295]

Trombiculidae: *Euschoengastia hamiltoni* [31, 45, 109, 290, 293, 303, 340]; *E.*

pipistrelli [290, 293, 303, 308]; *E. staffordi* [45]; *Eutrombicula*

alfreddugesi [45]; *Leptotrombidium myotis* [14, 158, 160, 229, 267-268,

274, 290, 293, 303, 317, 340]; *Loomisia sprocssi* [38]; *Neotrombicula*

microti [290, 293, 303]; *Parasacia gurneyi* [69]; *Trombicula eptesici* [31]

Erethizon dorsatum

Trombiculidae: *Euschoengastia decipiens* [10, 334]; *E. radfordi* [39];

Neotrombicula harperi [174]

Geomys bursarius

Trombiculidae: *Euschoengastia diversa* [183]; *E. trigenuala* [183, 256]

Glaucomys sabrinus

Trombiculidae: *Euschoengastia oregonensis* [305]; *E. peromysci* [241, 305]; *E.*

sciuricola [305]; *Leptotrombidium peromysci* [328]; *Miyatrombicula*

esoensis [328]; *Neotrombicula harperi* [328]; *N. microti* [44, 305]; *N.*

whartoni [241]

Glaucomys volans

Trombiculidae: *Leptotrombidium peromysci* [235]; *Miyatrombicula cynos* [141,

223, 242]; *Neotrombicula fitchi* [141, 181, 242, 293, 303]; *Trombicula* sp.

[109]; *Walchia americana* [59]

Lagurus curtatus

Trombiculidae: *Hypnoneocula arenicola* [260]

Lasionycteris noctivagans

Trombiculidae: *Leptotrombidium myotis* [160, 267-268, 317]; *Miyatrombicula jonesae* [302]

Lasiurus borealis

Trombiculidae: *Eutrombicula alfreddugesi* [45]; *E. batatas* [45]

Lepus americanus

Trombiculidae: *Neotrombicula bisignata* [337]; *N. harperi* [328]

Lepus aquaticus

Trombiculidae: *Trombicula irritans* [277]

Lepus californicus

Leeuwenhoekiidae: *Odontacarus dentatus* [129, 191]

Trombiculidae: *Euschoengastia decipiens* [6, 10, 39, 334]; *E. eadsi* [191]; *E. latchmani* [46, 334]; *E. luteodema* [6]; *E. numerosa* [334]; *E. radfordi* [6, 10, 15, 41, 135]; *E. sciuricola* [135]; *Euschoengastia latchmani* [15]; *Eutrombicula alfreddugesi* [154, 183]; *E. batatas* [21]; *Neoschongastia americana* [58, 191]; *N. fullbergae* [135]; *Neotrombicula lipovskyi* [164, 183]; *N. whartoni* [191]; *Pseudoschongastia hungerfordi* [183]; *Trombicula irritans* [277]

Lepus townsendi

Trombiculidae: *Euschoengastia numerosa* [334]

Liomys irroratus

Leeuwenhoekiidae: *Odontacarus cayolargoensis* [85, 191]; *Xenodontacarus plumosus* [85, 191]

Trombiculidae: *Euschoengastoides loomisi* [85]; *Eutrombicula alfreddugesi* [85]; *Hexidionis allredi* [85]; *H. jessiema* [38]; *Kayella bigenuala* [85, 191]; *K. lacerta* [85]; *Leptotrombidium panamensis* [85]; *Pseudoschoengastia audyi* [85]; *P. farneri* [85, 191]

Macrotus californicus

Leeuwenhoekiidae: *Whartonia glenni* [276]

Trombiculidae: *Loomisia sprocssi* [38]; *Tecomatlana sandovali* [26, 271]; *T. watkinsi* [271]

Marmota flaviventris

Leeuwenhoekiidae: *Chatia setosa* [29]

Trombiculidae: *Euschoengastia luteodema* [2, 32, 135]; *E. radfordi* [41, 135]; *E. sciuricola* [6, 10, 135]; *Neotrombicula harperi* [39]; *N. microti* [2]; *Trombicula belkini* [135, 273]; *T. subignata* [44, 135]

Marmota monax

Trombiculidae: *Euschoengastia marmotae* [109, 207, 293, 303, 310]; *E.*

peromysci [293, 303]; *Eutrombicula alfreddugesi* [293, 303, 310]

Mephitis elongata

Trombiculidae: *Eutrombicula alfreddugesi* [154]

Mephitis mephitis

Trombiculidae: *Neotrombicula whartoni* [293, 299, 303]

Microtus californicus

Leeuwenhoekiidae: *Leeuwenhoekia americana* [41]; *Odontacarus hirsutus* [41]

Trombiculidae: *Euschoengastia ambocalis* [333]; *E. criceticola* [41, 135]; *E.*

oregonensis [135]; *E. peromysci* [135]; *E. pomerantzi* [41]; *E. radfordi*

[41, 216]; *Neotrombicula californica* [41, 135]; *N. cavicola* [135]; *N.*

dinehartae [41, 216]; *N. jewetti* [41, 44, 216]

Microtus chrotorrhinus

Trombiculidae: *Euschoengastia blarinae* [296]; *E. ohioensis* [297]; *E. peromysci*

[109, 170, 241, 297]; *E. setosa* [296-297]; *Leptotrombidium peromysci*

[241]; *Miyatrombicula esoensis* [296]; *Neotrombicula harperi* [208, 265,

296-297]; *N. microti* [265, 297]

Microtus longicaudus

Leeuwenhoekiidae: *Shunsennia ochotona* [135]

Trombiculidae: *Euschoengastia brennani* [334]; *E. oregonensis* [10]; *E.*

peromysci [153]; *E. radfordi* [153]; *Leptotrombidium panamensis* [39];

Neotrombicula californica [39]; *N. harperi* [10, 39, 44, 164]; *N. jewetti*

[44, 153]; *N. microti* [39, 164]; *Trombicula browni* [44, 164]

Microtus mexicanus

Trombiculidae: *Neotrombicula microti* [44]

Microtus modestus

Trombiculidae: *Neotrombicula harperi* [44]; *N. microti* [94]

Microtus montanus

Leeuwenhoekiidae: *Leeuwenhoekia americana* [86]

Trombiculidae: *Euschoengastia oregonensis* [153]; *Neotrombicula californica* [135]; *N. cavigcola* [86]; *N. harperi* [10, 86, 164]; *N. jewetti* [153]; *N. microti* [164, 168]

Microtus ochrogaster

Trombiculidae: *Euschoengastia diversa* [109, 183]; *E. peromysci* [18, 49, 150, 183]; *E. setosa* [172, 267, 293, 303]; *E. trigenulala* [55, 183]; *Eutrombicula alfreddugesi* [183, 267, 293, 303, 323]; *E. lipovskyana* [183, 323]; *Neotrombicula cavigcola* [49]; *N. lipovskyi* [55, 164, 183]; *N. sylvilagi* [164, 183]; *N. whartoni* [18, 164, 183, 293, 303]; *Pseudoschongastia hungerfordi* [183]; *Trombicula autumnalis* [164]

Microtus oregoni

Trombiculidae: *Euschoengastia oregonensis* [86]; *Neotrombicula cavigcola* [86]; *N. harperi* [86]

Microtus pennsylvanicus

Trombiculidae: *Euschoengastia criceticola* [88]; *E. diversa* [109]; *E. michiganensis* [328]; *E. peromysci* [109, 205, 207, 293, 303]; *E. setosa* [88, 267]; *Eutrombicula alfreddugesi* [105, 154, 293, 303]; *E. masoni* [104, 154]; *E. tropica* [205]; *Leptotrombidium peromysci* [328]; *Miyatrombicula esoensis* [296, 328]; *Neotrombicula bisignata* [44, 96, 337]; *N. harperi* [44, 174, 296, 328]; *N. lipovskyi* [293, 303]; *N. microti* [44, 174, 328, 337]; *N. richmondi* [44]; *N. subsignata* [44, 119, 164]; *N. whartoni* [44, 77, 109, 164, 205, 207, 293, 303]; *Trombicula autumnalis* [164]; *T. goodpasteri* [44]

Microtus pinetorum

Trombiculidae: *Euschoengastia carolinensis* [109]; *E. diversa* [183, 227]; *E. ohioensis* [109, 227, 293, 303-304]; *E. peromysci* [59, 109, 207, 227, 242, 293, 303]; *Eutrombicula alfreddugesi* [227, 323]; *Leptotrombidium myotis* [207]; *Neotrombicula lipovskyi* [164, 183, 227, 293, 303]; *N. whartoni* [205, 207, 227]; *Trombicula goodpasteri* [44]

Microtus richardsoni

Trombiculidae: *Neotrombicula microti* [44, 94]

Mormoops megalophylla

Leeuwenhoekiidae: *Wagenaaria similis* [200, 295]

Trombiculidae: *Beamerella acutascuta* [38]; *Eutrombicula alfreddugesi* [200]; *Perates monops* [200]; *Tecomatlana texana* [149, 191, 271]; *Trombicula discors* [200]; *T. tibbettsi* [45, 191]; *T. usitata* [38]

Mus musculus

Leeuwenhoekiidae: *Leeuwenhoekia dolosa* [135]; *Odontacarus hirsutus* [10]

Trombiculidae: *Cheladonta micheneri* [178]; *Euschoengastia criceticola* [41, 135]; *E. diversa* [183]; *E. peromysci* [41, 135]; *E. pomerantzi* [41]; *E. radfordi* [41]; *Eutrombicula alfreddugesi* [203, 323]; *E. lipovskyana* [323]; *Hyponeocula arenicola* [181, 260]; *H. montanensis* [48]; *Neotrombicula californica* [135]; *N. jewetti* [41, 135]; *N. lipovskyi* [164, 183]; *N. sylvilagi* [164, 183]; *N. whartoni* [164, 183]; *Pseudoschongastia hungerfordi* [183]; *Trombicula belkini* [135, 273, 323]; *T. loomisi* [164]

Mustela frenata

Trombiculidae: *Aplodontophila aplodontiae* [30, 335]; *Euschoengastia peromysci* [293, 299, 303]; *Eutrombicula alfreddugesi* [293, 299, 303]; *Hexidionis jessiemae* [38]

Mustela nivalis

Trombiculidae: *Euschoengastia peromysci* [293, 299, 303]

Mustela vison

Trombiculidae: *Neotrombicula whartoni* [293, 299, 303]

Myodes californicus

Leeuwenhoekiidae: *Shunsennia ochotona* [135]

Trombiculidae: *Euschoengastia peromysci* [135]; *E. radfordi* [41]; *Neotrombicula jewetti* [44]

Myodes gapperi

Trombiculidae: *Euschoengastia blarinae* [296]; *E. crateris* [109]; *E. diversa* [109]; *E. magna* [109]; *E. ohioensis* [109]; *E. peromysci* [109, 207, 241, 302, 304]; *E. setosa* [88, 109, 304]; *Miyatrombicula cynos* [139](nr.); *M. esoensis* [296, 304]; *Neotrombicula brennani* [135]; *N. californica* [39]; *N. harperi* [10, 39, 44, 86, 164, 174, 208, 296, 328]; *N. microti* [44, 48, 164, 296, 337]; *N. richmondi* [44, 164]; *Trombicula belkini* [10]

Myodes occidentalis

Leeuwenhoekiidae: *Leeuwenhoekia americana* [86]; *Shunsennia ochotona* [153]

Trombiculidae: *Euschoengastia oregonensis* [86]; *E. peromysci* [153]; *E. radfordi* [153]; *Neotrombicula brennani* [153]; *N. cavicola* [86]; *N. harperi* [86]; *N. jewetti* [153]; *N. microti* [153]

Myotis austroriparius

Trombiculidae: *Euschoengastia pipistrelli* [242, 290, 293, 303, 308]

Myotis californicus

Leeuwenhoekiidae: *Whartonia perplexa* [39]

Trombiculidae: *Leptotrombidium myotis* [39, 274]

Myotis ciliolabrum

Leeuwenhoekiidae: *Albeckia albecki* [88]

Trombiculidae: *Leptotrombidium myotis* [88, 160, 267-268, 317]

Myotis evotis

Trombiculidae: *Leptotrombidium myotis* [14]

Myotis griseescens

Trombiculidae: *Euschoengastia pipistrelli* [45]; *Leptotrombidium myotis* [250];

Trombicula tibbettsi [45]

Myotis leibii

Trombiculidae: *Leptotrombidium myotis* [121, 158, 224]

Myotis lucifugus

Trombiculidae: *Euschoengastia hamiltoni* [109, 340]; *E. miricoxa* [32]; *E.*

pipistrelli [88, 109, 161, 183, 290, 293, 303, 308, 315, 340];

Leptotrombidium myotis [14, 96, 104, 158-159, 231, 267-268, 274, 285,

317, 328, 340]

Myotis occultus

Trombiculidae: *Leptotrombidium myotis* [270]

Myotis septentrionalis

Trombiculidae: *Euschoengastia pipistrelli* [45, 109, 121, 161, 183, 241, 250, 290, 293, 303, 315]; *Eutrombicula alfreddugesi* [45]; *Leptotrombidium myotis* [158-159, 231, 267]

Myotis sodalis

Trombiculidae: *Euschoengastia pipistrelli* [109]

Myotis subulatus

Trombiculidae: *Eushoengastia hamiltoni* [109]; *E. subulatus* [31];

Leptotrombidium myotis [26]

Myotis thysanodes

Trombiculidae: *Leptotrombidium myotis* [26, 267-268]

Myotis velifer

Leeuwenhoekiidae: *Albeckia senase* [55, 137, 183, 244]; *Whartonia perplexa* [245]

Trombiculidae: *Chiroptella mexicana* [26]; *Euschoengastia jonesi* [179, 183];
Leptotrombidium myotis [26]; *Miyatrombicula cynos* [183];
Neotrombicula fitchi [55, 181, 183]

Myotis volans

Trombiculidae: *Leptotrombidium myotis* [14, 159, 267-268, 317]

Myotis yumanensis

Trombiculidae: *Leptotrombidium myotis* [274]; *Trombicula* sp. [245]

Napaeozapus insignis

Trombiculidae: *Euschoengastia diversa* [109]; *E. peromysci* [242, 302]; *E. rubra* [302]; *E. setosa* [109, 328]; *Miyatrombicula esoensis* [157, 296, 328];

Neotrombicula harperi [44, 94, 157, 296, 328]; *N. microti* [157, 337]; *N. richmondi* [44]

Neofiber allenii

Trombiculidae: *Eutrombicula masoni* [104, 154]; *E. splendens* [254]

Neotoma albigena

Leeuwenhoekiidae: *Odontacarus morlani* [188]; *Sasacarus whartoni* [188]

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastia criceticola* [111, 188]; *E. numerosa* [334]; *Euschoengastoides arizonae* [187]; *E. hoplai* [188]; *E. loomisi* [188]; *E. neotomae* [187]; *E. similis* [188]; *E. tanigoshii* [187]; *Eutrombicula alfreddugesi* [111, 323]; *E. batatas* [21]; *Fonsecia kansasensis* [188]; *Hexidionis allredi* [188]; *H. montanensis* [188]; *Hyponeocula arenicola* [111, 181, 260]; *Kayella lacerta* [111, 188]; *Leptotrombidium panamensis* [111, 188]; *Otorhinophila desertorum* [201]; *O. parvisola* [201, 332]; *Pseudoschongastia farneri* [188]; *P. hungerfordi* [188]; *Walchioides whartoni* [188]

Neotoma cinerea

Leeuwenhoekiidae: *Chatia setosa* [29, 60]; *Comatacarus pusillus* [127]; *Leeuwenhoekia americana* [111]; *Odontacarus hirsutus* [10, 153]; *O. micheneri* [39, 111, 137]; *Shunsennia ochotona* [6, 39]

Trombiculidae: *Euschoengastia criceticola* [111]; *E. decipiens* [6]; *E. finleyi* [54, 111]; *E. guntheri* [111]; *E. numerosa* [334]; *E. oregonensis* [60]; *E. peromysci* [60]; *E. pomerantzi* [60]; *E. radfordi* [41]; *E. setosa* [267]; *E. velata* [47]; *Eutrombicula alfreddugesi* [111]; *Kayella lacerta* [111];

Leptotrombidium panamensis [111]; *Miyatrombicula cynos* [60];
Neotrombicula cavigcola [60, 86]; *N. harperi* [44, 86, 111, 164]; *N. microti*
[44, 60, 111, 164]; *Trombicula autumnalis* [111, 164]; *T. finleyi* [111, 164]

Neotoma floridana

Trombiculidae: *Cheladonta micheneri* [178, 183]; *C. ouachitensis* [80, 293, 303];
Euschoengastia criceticola [111]; *E. diversa* [55, 183, 238]; *E. peromysci*
[55, 61, 78, 80, 183, 238, 242, 293, 303]; *E. setosa* [55, 61, 183, 238, 293,
303]; *Eutrombicula alfreddugesi* [61, 78, 154, 183, 203, 238, 242, 323]; *E.*
batatas [78]; *E. cinnabarinis* [80]; *E. lipovskyana* [183, 238, 323]; *E.*
masoni [154]; *E. splendens* [78, 242]; *Leptotrombidium peromysci* [80];
Microtrombicula trisetica [183, 238, 280]; *Miyatrombicula cynos* [183,
238]; *M. jonesae* [78]; *Neotrombicula cavigcola* [61]; *N. lipovskyi* [44, 55,
164, 183, 238, 293, 303, 309]; *N. sylvilagi* [164, 183, 238]; *N. waynensis*
[61, 242]; *N. whartoni* [80, 164]; *Parasecia gurneyi* [182];
Pseudoschongastia farneri [183, 238]; *P. hungerfordi* [55, 177, 183, 238]

Neotoma fuscipes

Leeuwenhoekiidae: *Chatia setosa* [60]; *Leeuwenhoekia americana* [60];
Odontacarus hirsutus [41]

Trombiculidae: *Euschoengastia ambocalis* [189, 333]; *E. brennani* [334]; *E.*
criceticola [189]; *E. heteromyicola* [334]; *E. marginalis* [336]; *E. obscura*
[334]; *E. peromysci* [41, 60, 135]; *E. pomerantzi* [41, 60]; *E. radfordi* [41,
189]; *E. simulans* [60, 334]; *Kayella lacerta* [41]; *Miyatrombicula scottae*

[41]; *Neotrombicula californica* [41, 135, 189]; *N. cavicola* [60, 86, 135];
N. jewetti [41]

Neotoma lepida

Leeuwenhoekiidae: *Acomatacarus arizonensis* [13]; *Comatacarus stewarti* [135];
Leeuwenhoekia americana [13]; *Odontacarus chiapanensis* [13]; *O. desertorum* [201]; *O. hirsutus* [10]; *O. kromani* [126]; *O. linsdalei* [13, 39]; *O. micheneri* [7, 10, 39]; *Sasacarus whartoni* [13]

Trombiculidae: *Dermadelema furmani* [38, 135, 232]; *D. mojavense* [232];
Euschoengastia ambocalis [189, 333]; *E. criceticola* [10, 13, 39, 111, 189]; *E. decipiens* [10, 39]; *E. fasolla* [13, 39]; *E. finleyi* [54, 111]; *E. frondifera* [189]; *E. lanceolata* [39]; *E. marginalis* [336]; *E. obesa* [13]; *E. obscura* [334]; *E. radfordi* [10, 13, 39, 189]; *E. simulans* [334]; *E. utahensis* [13, 39]; *Euschoengastoides arizonae* [187]; *E. hoplai* [181]; *E. neotomae* [187]; *Eutrombicula batatas* [21]; *Hexidionis allredi* [13, 39, 202]; *H. jessiema* [13]; *Hyponeocula arenicola* [39]; *H. montanensis* [260]; *Kayella lacerta* [39]; *Leptotrombidium panamensis* [10, 13, 39, 111]; *Microtrombicula nasalis* [185]; *Neotrombicula californica* [189]; *N. microti* [39]; *Otorhinophila parvisola* [201, 332]; *O. sola* [13, 135, 201, 332]; *O. xerophila* [201]; *Pseudoschongastia aeci* [38]; *Trombicula belkini* [13, 282]; *T. veanda* [38];

Neotoma magister

Trombiculidae: *Euschoengastia diversa* [109]; *E. magna* [109]; *E. peromysci* [109]

Neotoma mexicana

Leeuwenhoekiidae: *Leeuwenhoekia americana* [111]

Trombiculidae: *Euschoengastia criceticola* [111, 188]; *E. decipiens* [334]; *E.*

finleyi [54, 111]; *E. hoffmannae* [111]; *Euschoengastoides hoplai* [111,

181]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [111]; *Kayella*

lacerta [111, 188]; *Leptotrombidium panamensis* [111]; *Neotrombicula*

harperi [111, 164]

Neotoma micropus

Leeuwenhoekiidae: *Albeckia senase* [137, 183]; *Odontacarus morlani* [37];

Sasacarus whartoni [191]; *Xenodontacarus plumosus* [55, 183, 192]

Trombiculidae: *Euschoengastia criceticola* [55, 111, 183, 188]; *E. jonesi* [179,

183]; *E. setosa* [55, 183]; *Euschoengastoides hoplai* [55, 181, 183, 187];

E. loomisi [55, 57, 183, 188, 200]; *E. neotomae* [187]; *E. similis* [188];

Eutrombicula alfreddugesi [55, 154, 183, 188, 200, 323]; *Fonsecia*

kansasensis [55, 182-183]; *Hexidionis allredi* [188, 200]; *Hyponeocula*

montanensis [55, 183, 260]; *Kayella lacerta* [183]; *Leptotrombidium*

myotis [183]; *L. panamensis* [188, 200]; *Neotrombicula fitchi* [181, 183];

N. lipovskyi [55, 164, 183]; *Parasecia gurneyi* [182-183];

Pseudoschongastia farneri [55, 177, 183]; *P. hungerfordi* [55, 177, 183];

Trombicula ornata [55, 183, 193]; *Walchia americana* [183]; *Walchioides*

whartoni [188]

Neotoma stephensi

Trombiculidae: *Otorhinophila parvisola* [201]

Neurotrichus gibbsii

Trombiculidae: *Euschoengastia oregonensis* [153]; *E. radfordi* [41, 153];

Neotrombicula brennani [135]

Notiosorex crawfordi

Trombiculidae: *Hexidionis jessiema* [38]

Nycticeius humeralis

Trombiculidae: *Parasecia gurneyi* [45]

Ochotona princeps

Leeuwenhoekiidae: *Chatia setosa* [10, 29]; *Shunsennia ochotona* [236-237]

Trombiculidae: *Euchoengastia brennani* [334]; *E. criceticola* [10]; *E. guntheri* [236-237]; *E. lanei* [10]; *E. numerosa* [334]; *E. oregonensis* [10, 39]; *E. radfordi* [41, 135]; *E. rotunda* [39]; *E. samboni* [109, 236-237]; *E. sciuricola* [10]; *E. soricinus* [10]; *Neotrombicula harperi* [10, 39, 44, 135, 164]; *N. microti* [39, 44, 164, 168]; *Trombicula hoffmannae* [10]; *T. parkeri* [236-237]

Ochotona schisticeps

Leeuwenhoekiidae: *Shunsennia ochotona* [135]

Trombiculidae: *Neotrombicula microti* [44]

Ochrotomys nuttallii

Trombiculidae: *Euschoengastia peromysci* [80]

Odocoileus hemionus

Trombiculidae: *Euschoengastia latchmani* [334]; *E. numerosa* [87, 334]; *E. radfordi* [10, 41, 135]; *Eutrombicula alfreddugesi* [67]; *Neoschongastia fullbergae* [32, 135]

Odocoileus virginianus

Leeuwenhoekiidae: *Odontacarus dentatus* [37, 91, 129]

Trombiculidae: *Eutrombicula batatas* [320]; *E. masoni* [104, 154]; *E. splendens* [64-65, 117]; *Neotrombicula richmondi* [180]; *N. whartoni* [166]

Ondatra zibethicus

Trombiculidae: *Euschoengastia peromysci* [19, 109, 293, 303]; *Eutrombicula batatas* [21]; *Leptotrombidium myotis* [174]; *Neotrombicula bisignata* [44]; *N. harperi* [169, 174]; *N. microti* [328, 337]; *N. richmondi* [44]; *N. waynensis* [174]; *N. whartoni* [109]

Onychomys leucogaster

Trombiculidae: *Euschoengastia trigenuala* [183]; *Euschoengastoides neotomae* [187]; *Eutrombicula alfreddugesi* [183, 323]; *Hexidionis doremi* [6]; *Hyponeocula montanensis* [183]; *Neotrombicula harperi* [10]; *Parasecia gurneyi* [182-183]; *Pseudoschongastia hungerfordi* [183]

Onychomys torridus

Leeuwenhoekiidae: *Odontacarus linsdalei* [3]; *O. micheneri* [10]

Trombiculidae: *Dermadelema furmani* [232]; *D. mojavense* [232];

Euschoengastia ambocalis [333]; *E. criceticola* [3, 135];

Euschoengastoides arizonae [187]; *Hyponeocula arenicola* [3, 260];

Otorhinophila parvisola [201]

Oryzomys palustris

Trombiculidae: *Euschoengastia peromysci* [320]; *E. setosa* [320]; *Eutrombicula alfreddugesi* [154]; *E. batatas* [326-327]; *E. masoni* [107, 154]; *E. multisetosa* [327]; *E. splendens* [220, 326-327]

Pappogeomys castanops

Trombiculidae: *Euschoengastoides arizonae* [188]; *Hyponeocula arenicola* [188]; *Kayella lacerta* [188]; *Otorhinophila baccusi* [188, 201]

Parascalops breweri

Trombiculidae: *Neotrombicula microti* [298]

Parastrellus hesperus

Leeuwenhoekiidae: *Albeckia senase* [245, 317]; *Whartonias carpenteri* [70]; *W. perplexa* [26, 135, 143, 200]

Trombiculidae: *Euschoengastoides neotomae* [200]; *Leptotrombidium myotis* [26, 317]; *L. panamensis* [143](nr.); *Loomisia sprocssi* [38, 143]; *L. univari* [143, 317]; *Trombicula univari* [10, 38]

Perimyotis subflavus

Trombiculidae: *Euschoengastia pipistrelli* [31, 45, 55, 109, 161, 183, 241, 250, 290, 293, 303, 308, 340]; *E. staffordi* [45]; *Perissopalla flagellisetula* [45]

Perognathus amplus

Trombiculidae: *Euschoengastoides arizonae* [187]

Perognathus apache

Trombiculidae: *Euschoengastoides hoplai* [39]; *E. neotomae* [187]

Perognathus baileyi

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastoides arizonae* [187];
E. imperfectus [187]; *Eutrombicula batatas* [21]; *Otorhinophila parvisola*
[201, 332]

Perognathus californicus

Leeuwenhoekiidae: *Acomatacarus brevicalcar* [41]; *Comatacarus stewarti* [135];
Odontacarus hirsutus [41, 99]; *O. linsdalei* [41]; *Xenodontacarus*
brevicalcar [192]

Trombiculidae: *Dermadelema furmani* [41, 135, 232]; *Euschoengastia ambocalis*
[333]; *E. criceticola* [41]; *E. enemi* [41]; *E. heteromyicola* [334]; *E. nihi*
[41]; *E. pomerantzi* [41]; *E. radfordi* [41, 334]; *E. ramola* [41];
Euschoengastoides imperfectus [41]; *E. neotomae* [187]; *Kayella lacerta*
[41, 135]; *Miyatrombicula scottae* [41]; *Neotrombicula californica* [41];
N. dinehartae [41, 135]; *N. jewetti* [41]; *Trombicula belkini* [41, 134-135,
273, 282, 323]

Perognathus fallax

Trombiculidae: *Dermadelema furmani* [232]; *D. mojavense* [232];
Euschoengastia ambocalis [333]; *E. marginalis* [336]; *E. obscurus* [334];
E. simulans [334]; *Euschoengastoides neotomae* [187]; *Hexidionis deserti*
[195]; *Hyponeocula fovea* [260]; *Otorhinophila desertorum* [201]; *O.*
xerophila [201]

Perognathus fasciatus

Trombiculidae: *Hyponeocula arenicola* [260]

Perognathus flavescens

Trombiculidae: *Eutrombicula alfreddugesi* [183]; *Hyponeocula montanensis* [183]

Perognathus flavus

Trombiculidae: *Euschoengastia decipiens* [263]; *Euschoengastoides arizonae* [187]; *E. imperfectus* [41, 187]; *E. loomisi* [57, 183]; *Hyponeocula arenicola* [181, 260]; *H. montanensis* [183]; *Pseudoschongastia hungerfordi* [183]

Perognathus formosus

Leeuwenhoekiidae: *Acomatacarus arizonensis* [197]; *Odontacarus linsdalei* [4, 39, 41]

Trombiculidae: *Dermadelema furmani* [232]; *D. mojavense* [232]; *D. sleeperi* [232]; *Euschoengastia criceticola* [4]; *E. decipiens* [4, 39]; *E. hardyorum* [336]; *E. heteromyicola* [334]; *E. obesa* [39]; *E. obscura* [334]; *E. radfordi* [10]; *E. utahensis* [10]; *Euschoengastoides arizonae* [187]; *E. imperfectus* [187]; *E. neotomae* [187]; *Eutrombicula batatas* [21]; *Hexidionis jessiema* [4]; *H. deserti* [195]; *Hyponeocula arenicola* [4, 39, 260]; *H. fovea* [260]; *H. imitator* [260]; *H. luciae* [260]; *Otorhinophila desertorum* [201], *O. parvisola* [332]

Perognathus hispidus

Trombiculidae: *Cheladonta micheneri* [178, 183]; *Euschoengastia cynomyicola* [57, 183]; *E. trigenuala* [183-184]; *Euschoengastoides hoplai* [187]; *E. loomisi* [57, 191]; *Eutrombicula alfreddugesi* [55, 183, 323]; *E. batatas* [183]; *Hyponeocula arenicola* [181, 183, 260]; *H. montanensis* [55, 183,

260]; *Parasecia gurneyi* [182-183]; *Pseudoschongastia farneri* [55, 183];
P. hungerfordi [183, 191]

Perognathus intermedius

Trombiculidae: *Euschoengastoides arizonae* [187]; *Otorhinophila parvisola* [201]

Perognathus longimembris

Leeuwenhoekiidae: *Odontacarus linsdalei* [4]

Trombiculidae: *Dermadelema lynnae* [232]; *D. furmani* [232]; *D. mojavense* [232]; *D. sleeperi* [232]; *Euschoengastia decipiens* [4, 39]; *E. heteromyicola* [334]; *E. obscura* [334]; *Euschoengastoides imperfectus* [187]; *Hexidionis deserti* [195]; *H. doremi* [39]; *Hyponeocula arenicola* [4, 10, 39, 260]; *H. fovea* [260]; *H. imitator* [260]; *Otorhinophila desertorum* [201]; *O. xerophila* [201]; *Trombicula belkini* [4]

Perognathus merriami

Trombiculidae: *Euschoengastoides arizonae* [188]; *E. hoplai* [187-188, 191]; *E. loomisi* [200]; *E. similis* [188]; *Hexidionis allredi* [188, 200]; *H. breviseta* [200]; *H. harveyi* [188, 200]; *Hyponeocula arenicola* [200]; *Hyponeocula n. sp.* [188]; *Kayella lacerta* [188]; *Leptotrombidium panamensis* [188]; *Otorhinophila baccusi* [188]; *Parasecia gurneyi* [188]; *Pseudoschongastia farneri* [188]

Perognathus nelsoni

Trombiculidae: *Euschoengastoides arizonae* [188]; *E. hoplai* [188]; *E. loomisi* [188]; *E. neotomae* [188]; *E. similis* [188]; *Hexidionis allredi* [188]; *Hyponeocula n. sp.* [188]; *Kayella lacerta* [188]; *Leptotrombidium*

panamensis [188]; *Otorhinophila baccusi* [188, 201]; *Pseudoschongastia hungerfordi* [188]

Perognathus parvus

Leeuwenhoekiidae: *Odontacarus linsdalei* [4, 39, 41]; *O. micheneri* [39]

Trombiculidae: *Euschoengastia cordiremus* [10]; *E. criceticola* [4]; *E. decipiens* [6, 10, 39, 135, 334]; *E. fassola* [4]; *E. oregonensis* [10]; *E. radfordi* [6, 41]; *Euschoengastoides hoplai* [10]; *Hexidionis doremi* [6, 195]; *Hypoenoecula arenicola* [5, 39, 181, 260]; *Leptotrombidium panamensis* [39]; *Neotrombicula harperi* [10]; *Trombicula loomisi* [4]

Perognathus penicillatus

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastoides arizonae* [187-188]; *E. hoplai* [188]; *E. imperfectus* [187-188]; *E. loomisi* [200]; *E. neotomae* [187-188]; *E. similis* [188]; *E. tanigoshii* [187]; *E. webbi* [187]; *Eutrombicula batatas* [21]; *Hexidionis allredi* [188, 200]; *H. harveyi* [188]; *Hyponeocula arenicola* [188, 200]; *H. imitator* [260]; *H. luciae* [260]; *Kayella lacerta* [191]; *Leptotrombidium panamensis* [200]; *Otorhinophila baccusi* [188, 201]; *O. desertorum* [201]; *O. parvisola* [201, 332]; *O. xerophila* [201]

Perognathus spinatus

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastoides arizonae* [187]; *E. imperfectus* [187] *Hyponeocula luciae* [260]

Peromyscus boylii

Leeuwenhoekiidae: *Odontacarus hirsutus* [153]; *O. villosus* [126]; *Shunsennia ochotona* [135, 153]

Trombiculidae: *Euschoengastia ambocalis* [333]; *E. brennani* [334]; *E. chisosensis* [188]; *E. criceticola* [1, 39, 41, 153, 188]; *E. peromysci* [41, 153]; *E. pomerantzi* [41]; *E. radfordi* [41, 153, 334]; *Euschoengastoides arizonae* [187-188]; *E. neotomae* [187]; *E. tumidus* [187]; *Kayella lacerta* [41, 135, 153, 188]; *Microtrombicula aequalis* [280]; *Neotrombicula dinehartae* [41]; *N. jewetti* [41, 44, 153]; *Pseudoschongastia farneri* [188]; *P. occidentalis* [35, 153]; *Walchioides whartoni* [188]

Peromyscus californicus

Leeuwenhoekiidae: *Comatacarus stewarti* [135]

Trombiculidae: *Euschoengastia ambocalis* [189, 333]; *E. criceticola* [41, 189]; *E. frondifera* [189]; *E. otophila* [189]; *E. peromysci* [41, 135]; *E. pomerantzi* [41, 135]; *E. radfordi* [41, 135, 334]; *E. simulans* [334]; *Miyatrombicula scottae* [41, 189]; *Neotrombicula californica* [41, 189]; *N. dinehartae* [189]; *N. jewetti* [41]; *Pseudoschongastia occidentalis* [35, 41]

Peromyscus crinitus

Leeuwenhoekiidae: *Xenodontacarus brevicalcar* [192]

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastia ambocalis* [333]; *E. decipiens* [10]; *E. simulans* [334]; *Euschoengastoides neotomae* [187]; *E. webbi* [187]; *Microtrombicula nasalis* [185]; *M. wrenni* [185]; *Otorhinophila desertorum* [201]

Peromyscus difficilis

Trombiculidae: *Euschoengastia criceticola* [188]; *Eutrombicula alfreddugesi* [188]; *Kayella lacerta* [188]; *Pseudoschongastia farneri* [188]

Peromyscus eremicus

Leeuwenhoekiidae: *Sasacarus whartoni* [135, 188]

Trombiculidae: *Dermadelema furmani* [188, 232]; *D. mojavense* [232];
Euschoengastia ambocalis [333]; *E. criceticola* [1, 39, 135]; *E. decipiens* [10]; *E. lanceolata* [39]; *E. marginalis* [336]; *E. obscura* [334]; *E. radfordi* [10]; *E. simulans* [334]; *Euschoengastoides imperfectus* [187]; *E. loomisi* [188, 200]; *E. neotomae* [187-188]; *E. similis* [188]; *E.睡鼠* [188]; *E. webbi* [187]; *Eutrombicula alfreddugesi* [188]; *Hexidionis allredi* [188]; *H. breviseta* [188, 191]; *Hyponeocula fovea* [260]; *Kayella bigenuala* [188]; *K. lacerta* [188]; *Leptotrombidium panamensis* [188]; *Microtrombicula nasalis* [185]; *M. wrenni* [185]; *Otorhinophila baccusi* [188, 201]; *O. desertorum* [201]; *Pseudoschongastia farneri* [188]; *P. hungerfordi* [188]; *Walchioides whartoni* [188]

Peromyscus floridanus

Trombiculidae: *Euschoengastia peromysci* [68, 176]; *Microtrombicula crossleyi* [176, 280]; *Walchia americana* [176]

Peromyscus gossypinus

Trombiculidae: *Euschoengastia peromysci* [80, 320]; *E. setosa* [101, 109];
Eutrombicula cinnabaris [80]; *Leptotrombidium peromysci* [80, 320];
Microtrombicula crossleyi [280]; *Walchia americana* [103]

Peromyscus leucopus

Leeuwenhoekiidae: *Acomatacarus polychaetus* [137]; *Leeuwenhoekia americana* [82]; *Odontacarus cayolargoensis* [191]; *O. morlani* [37];
Xenodontacarus plumosus [55, 191-192]

Trombiculidae: *Cheladonta micheneri* [55, 178, 183]; *Digenualaea carterae* [109]; *Euschoengastia blarinae* [99, 109]; *E. carolinensis* [109]; *E. crateris* [109]; *E. criceticola* [183, 188]; *E. diversa* [183]; *E. jonesi* [55, 179, 183]; *E. peromysci* [18, 49, 55, 74, 82, 96, 99, 109, 148, 150, 162, 183, 205, 207, 241-242, 266, 293, 302-304, 319]; *E. rubra* [109]; *E. setosa* [55, 74, 88, 109, 148, 183, 207, 293, 303, 328]; *Euschoengastoides hoplai* [181, 183]; *E. loomisi* [57, 183]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [109, 183, 203, 323]; *Fonsecia kansasensis* [182-183]; *Hexidionis jessiemaiae* [38]; *Leptotrombidium myotis* [48, 55, 148, 207]; *L. peromysci* [82, 328]; *Microtrombicula crossleyi* [55, 181, 183, 191, 280]; *Miyatrombicula cynos* [148]; *M. esoensis* [328]; *M. jonesae* [74, 293, 303]; *Neotrombicula cavicola* [49]; *N. harperi* [44, 328]; *N. lipovskyi* [164, 183]; *N. microti* [337]; *N. richmondi* [164]; *N. sylvilagi* [164, 183]; *N. whartoni* [164, 205]; *Parasecia gurneyi* [182-183, 191, 328]; *Pseudoschongastia audyi* [191]; *P. farneri* [183, 191]; *P. hungerfordi* [183]; *Trombicula akamshi* (nr.) [109]; *T. farrelli* [109]; *T. ornata* [183, 193]; *T. sargentii* [148]; *Walchia americana* [74, 183]

Peromyscus maniculatus

Leeuwenhoekiidae: *Chatia setosa* [29, 39, 135, 153]; *Comatacarus inconspicuous* [240]; *C. pusillus* [127]; *Odontacarus dentatus* [129, 137]; *Leeuwenhoekia*

americana [55, 73, 86, 135, 183]; *L. dolosa* [135, 153]; *Odontacarus dentatus* [183]; *O. hirsutus* [153]; *O. linsdalei* [12]; *O. villosus* [126]; *Shunsennia ochotona* [1, 39, 135, 153]; *Xenodontacarus plumosus* [136, 183, 192, 267]

Trombiculidae: *Cheladontia crossi* [178]; *C. micheneri* [55, 178, 183]; *Dermadelema furmani* [232]; *Digenualaea carterae* [302]; *Euschoengastia ambocalis* [20, 135, 189, 333]; *E. blarinae* [174]; *E. brennani* [334]; *E. cordiremus* [6, 12, 32, 39, 109, 135]; *E. crateris* [109]; *E. criceticola* [1, 6, 10, 12, 32, 39, 41, 48, 55, 73, 88, 135, 153, 183, 188]; *E. decipiens* [6, 10, 39, 334]; *E. diversa* [183]; *E. frondifera* [135]; *E. heteromyicola* [334]; *E. jamesoni* [302]; *E. jonesi* [55, 179, 183]; *E. lanei* [6, 12, 39, 73]; *E. luteodema* [39]; *E. obesa* [10, 39]; *E. oregonensis* [10, 39, 86]; *E. peromysci* [41, 73, 109, 135, 153, 183, 241, 293, 302-303]; *E. pomerantzi* [10, 41, 135]; *E. radfordi* [6, 41, 135, 153, 334]; *E. sciuricola* [1, 10, 135, 153]; *E. setosa* [55, 88, 174, 183, 241, 267, 296, 302]; *E. simulans* [334]; *E. trigenuala* [183]; *Euschoengastoides arizonae* [187]; *E. imperfectus* [41]; *E. loomisi* [57, 183]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [183, 323]; *E. lipovskyana* [183]; *Fonsecia kansasensis* [41, 182-183]; *Hexidionis harveyi* [188]; *Hyponeocula arenicola* [6, 39, 260], *H. montanensis* [1, 183]; *Kayella lacerta* [135]; *Leptotrombidium myotis* [1, 10, 174]; *L. panamensis* [10]; *L. peromysci* [88, 274]; *Microtrombicula crossleyi* [181]; *Miyatrombicula esoensis* [1, 296]; *M. scottae* [41]; *Neotrombicula californica* [1, 39, 44]; *N. cavicola* [135]; *N.*

dinehartae [41, 44]; *N. harperi* [1, 10, 44, 88, 164, 174, 321]; *N. jewetti* [1, 41, 44, 135, 153]; *N. lipovskyi* [164, 183]; *N. microti* [1, 44, 48, 153, 321]; *N. sylvilagi* [164, 183]; *N. whartoni* [164]; *Parasecia gurneyi* [55, 182-183]; *Pseudoschongastia farneri* [55, 177, 183, 267]; *P. hungerfordi* [177, 183]; *P. occidentalis* [189]; *Trombicula bakeri* [10]; *T. bisignata* [96]; *T. browni* [44, 164]; *T. loomisi* [73, 164]; *T. ornata* [183, 193]

Peromyscus nuttalli

Trombiculidae: *Euschoengastia peromysci* [109]; *E. rubra* [109]

Peromyscus pectoralis

Leeuwenhoekiidae: *Comatacarus stewarti* [188]; *Sasacarus whartoni* [188]

Trombiculidae: *Euschoengastia chisosensis* [188]; *E. criceticola* [188]; *Euschoengastoides loomisi* [188]; *E. neotomae* [188]; *E. similis* [188]; *Kayella lacerta* [188]; *Leptotrombidium panamensis* [188]; *Microtrombicula welbourni* [198]; *Pseudoschongastia farneri* [188]; *Walchioides whartoni* [188]

Peromyscus polionotus

Trombiculidae: *Euschoengastia peromysci* [225]; *Leptotrombidium peromysci* [225]; *Microtrombicula crossleyi* [280]

Peromyscus truei

Trombiculidae: *Dermadelema furmani* [232]; *Euschoengastia ambocalis* [333]; *E. brennani* [334]; *E. criceticola* [41]; *E. decipiens* [10, 73, 334]; *E. heteromyicola* [334]; *E. lanei* [73]; *E. marginalis* [336]; *E. obscura* [334]; *E. peromysci* [41, 135]; *E. pomerantzi* [10, 41]; *E. radfordi* [41, 135, 334];

E. simulans [334]; *Euschoengastoides hoplai* [10, 39]; *E. neotomae* [187];
Hyponeocula arenicola [10]; *H. montanensis* [1]; *Microtrombicula nasalis*
[185]; *M. trisetica* [41, 280]; *Miyatrombicula scottae* [36, 41];
Neotrombicula jewetti [41]; *Trombicula belkini* [1, 39, 41, 135, 273]

Phenacomys intermedius

Trombiculidae: *Euschoengastia sciruicola* [48]; *Neotrombicula harperi* [164]; *N. microti* [164]

Procyon lotor

Trombiculidae: *Eutrombicula alfreddugesi* [154, 183, 203]; *E. masoni* [104, 154];
E. multiseta [104, 247]; *Miyatrombicula cynos* [36, 101];
Neotrombicula microti [293, 299, 303]; *N. whartoni* [223, 293, 299, 303];
Walchia sp. [109]

Rattus norvegicus

Trombiculidae: *Euschoengastia diversa* [183]; *E. micheneri* [135]; *E. peromysci*
[207]; *Eutrombicula alfreddugesi* [183, 220, 291, 293, 303, 323]; *E. masoni* [258]; *Miyatrombicula cynos* [207]; *M. esoensis* [328];
Neotrombicula lipovskyi [164, 183]; *N. whartoni* [207]

Rattus rattus

Trombiculidae: *Euschoengastia brennani* [334]; *E. peromysci* [80]; *Eutrombicula alfreddugesi* [154, 220]; *E. batatas* [325-327]; *E. cinnabaris* [80];
Hexidionis jessiema [38]

Reithrodontomys fulvescens

Trombiculidae: *Eutrombicula alfreddugesi* [323]; *Neotrombicula whartoni* [164];

Pseudoschongastia hungerfordi [177]; *Trombicula lipovsky* [44]

Reithrodontomys humulis

Trombiculidae: *Euschoengastia peromysci* [141, 225]; *Leptotrombidium*

peromysci [225]

Reithrodontomys megalotis

Leeuwenhoekiidae: *Comatacarus pusillus* [127]; *Leeuwenhoekia americana* [183]

Trombiculidae: *Dermadelema furmani* [135, 232]; *Euschoengastia ambocalis* [20,

135, 333]; *E. criceticola* [41, 135]; *E. diversa* [183]; *E. fasolla* [267]; *E.*

lanei [39]; *E. peromysci* [41, 135, 183]; *E. radfordi* [41, 135, 334];

Euschoengastoides neotomae [187]; *E.睡鼠* [188]; *Eutrombicula*
alfreddugesi [183, 323]; *Hexidionis harveyi* [188]; *Hyponeocula arenicola*

[260]; *Kayella lacerta* [135]; *Neotrombicula californica* [41, 135]; *N.*

cavicola [135]; *N. jewetti* [41]; *N. lipovskyi* [164, 183]; *N. subsignata*

[10]; *Pseudoschongastia hungerfordi* [55, 183]; *Trombicula autumnalis*

[164]; *T. belkini* [323]; *T. loomisi* [164]; *Walchioides whartoni* [188]

Scalopus aquaticus

Trombiculidae: *Euschoengastia trigenuala* [183, 293, 303]; *E. lipovskyana* [183];

Parasecia gurneyi [182-183]

Scapanus latimanus

Trombiculidae: *Euschoengastia criceticola* [41]; *E. puerilis* [135]; *Neotrombicula*

jewetti [41, 135]

Scapanus townsendi

Trombiculidae: *Neotrombicula brennani* [339]; *N. microti* [44]

Sciurus carolinensis

Trombiculidae: *Cheladonta micheneri* [178, 183]; *Euschoengastia jonesi* [183];
E. peromysci [109]; *E. setosa* [183]; *Eutrombicula alfreddugesi* [154, 203,
212, 220, 247, 293, 303, 312, 322]; *E. splendens* [79, 109, 220, 322];
Leptotrombidium peromysci [293, 303, 322]; *Microtrombicula trisetica*
[183, 280, 293, 303, 312]; *Miyatrombicula cynos* [79, 183];
Neotrombicula fitchi [165, 181, 183, 252, 293, 303, 312]; *N. lipovskyi*
[164, 183]; *N. sylvilagi* [164, 183]; *N. whartoni* [44, 79, 109, 183, 293,
303, 312, 320]; *Parasecia gurneyi* [182-183, 322]; *Walchia americana*
[183, 293, 303, 312]

Sciurus griseus

Trombiculidae: *Euschoengastia radfordi* [41]; *Walchia americana* [135]

Sciurus niger

Trombiculidae: *Euschoengastia diversa* [183]; *E. setosa* [183]; *E. trigenuala*
[183]; *Eutrombicula alfreddugesi* [154, 183, 219, 293, 303, 312, 323]; *E.*
lipovskyana [183]; *Leptotrombidium peromysci* [293, 303];
Miyatrombicula cynos [88, 183, 293, 303, 312]; *M. jonesae* [183];
Neotrombicula fitchi [55, 181, 183, 293, 303, 312]; *N. lipovskyi* [164,
183]; *N. sylvilagi* [164, 183, 293, 303, 312]; *N. whartoni* [44, 55, 164, 183,
220, 293, 303, 312]; *Parasecia gurneyi* [182-183]; *Trombicula kardosi*
[55, 181, 183]; *Walchia americana* [55, 183, 293, 303, 312]

Sigmodon hispidus

Leeuwenhoekiidae: *Odontacarus cayolargoensis* [37, 191]

Trombiculidae: *Euschoengastia diversa* [183-184]; *E. peromysci* [150, 183]; *E. trigenuala* [183]; *Euschoengastoides arizonae* [200]; *E. loomisi* [200]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [55, 154, 183, 188, 200, 203, 220, 242, 323]; *E. batatas* [154]; *E. cinnabaris* [80]; *E. lipovskyana* [183, 323]; *E. masoni* [104, 154]; *E. multisetosa* [326-327]; *E. splendens* [220, 320, 326-327]; *Hexidionis allredi* [188]; *H. jessiemae* [135]; *Leptotrombidium peromysci* [80]; *Neotrombicula lipovskyi* [55, 164, 183]; *N. whartoni* [44, 109, 140, 164, 191]; *Parasecia gurneyi* [191]; *Pseudoschongastia farneri* [183]; *P. hungerfordi* [183]

Sigmodon littoralis

Trombiculidae: *Eutrombicula masoni* [104, 154]; *E. multisetosa* [104, 247]; *Walchia americana* [247]

Sigmodon ochrognathus

Trombiculidae: *Euschoengastia criceticola* [188]; *E. numerosa* [334]; *E. radfordi* [188]; *Euschoengastoides loomisi* [188, 200]; *Fonsecia kansasensis* [188]; *Kayella lacerta* [188]; *Pseudoschongastia farneri* [188]; *P. hungerfordi* [188]

Sorex arcticus

Trombiculidae: *Neotrombicula harperi* [174]

Sorex cinereus

Trombiculidae: *Cheladonta ouachitensis* [302]; *Euschoengastia blarinae* [109, 151, 174, 218, 328]; *E. jamesoni* [32, 151, 272, 304]; *E. jonesi* [302]; *E.*

ohioensis [293, 303]; *E. peromysci* [241, 297, 304]; *E. setosa* [88];
Leptotrombidium peromysci [118](nr.), [304]; *Miyatrombicula esoensis*
[296]; *Neotrombicula cavigcola* [302]; *N. harperi* [296]

Sorex dispar

Trombiculidae: *Euschoengastia jamesoni* [226, 297]; *Neotrombicula cavigcola*
[226]; *N. microti* [44]

Sorex fumeus

Trombiculidae: *Cheladonta ouachitensis* [302]; *Euschoengastia blarinae* [109,
151, 297, 304]; *E. jamesoni* [32, 151, 241-242, 272, 294, 297, 304]; *E.*
jonesi [302]; *E. peromysci* [109, 297, 304]; *E. whitakeri* [294, 330];
Miyatrombicula esoensis [296]; *Neotrombicula cavigcola* [294, 302]; *N.*
harperi [297]; *N. microti* [297]

Sorex gaspensis

Trombiculidae: *Miyatrombicula esoensis* [296]

Sorex hoyi

Leeuwenhoekiidae: *Leeuwenhoekia americana* [294]

Trombiculidae: *Euschoengastia jamesoni* [294]; *Miyatrombicula esoensis* [296]

Sorex longirostris

Trombiculidae: *Euschoengastia blarinae* [109]; *Eutrombicula splendens* [118]

Sorex obscurus

Trombiculidae: *Euschoengastia oregonensis* [39]

Sorex ornatus

Trombiculidae: *Euschoengastia criceticola* [135]

Sorex pacificus

Leeuwenhoekiidae: *Leeuwenhoekia americana* [86, 135]

Trombiculidae: *Euschoengastia oregonensis* [135]; *Neotrombicula cavigcola* [135]

Sorex palustris

Trombiculidae: *Cheladonta ouachitensis* [302]; *Euschoengastia blarinae* [311];

E. jonesi [302]; *E. oregonensis* [153]; *E. peromysci* [302]; *E. soricinus*

[135, 153]; *Miyatrombicula esoensis* [296]; *Neotrombicula cavigcola* [302];

N. microti [262, 311]

Sorex tenellus

Trombiculidae: *Euschoengastia criceticola* [12]; *Hypnoneocula arenicola* [12]

Sorex trowbridgii

Leeuwenhoekiidae: *Leeuwenhoekia americana* [86, 135, 153]; *Shunsennia*

ochotona [135]

Trombiculidae: *Euschoengastia oregonensis* [86, 135, 153]; *E. peromysci* [153];

E. soricinus [135, 153]; *Neoschongastia americana* [135]; *Neotrombicula*

brennani [135, 153]; *N. californica* [153]; *N. cavigcola* [135]; *N. jewetti*

[44, 153]

Sorex vagrans

Leeuwenhoekiidae: *Leeuwenhoekia americana* [86, 135]

Trombiculidae: *Euschoengastia oregonensis* [86]; *Neotrombicula cavigcola* [86];

N. harperi [86]

Spermophilus armatus

Trombiculidae: *Euschoengastia criceticola* [10]; *E. sciuricola* [10, 39];
Neotrombicula californica [10, 39]; *N. harperi* [39]; *Trombicula bakeri*
[10]

Spermophilus beecheyi

Leeuwenhoekiidae: *Leeuwenhoekia americana* [41]; *Odontacarus hirsutus* [41,
135]; *O. linsdalei* [41]

Trombiculidae: *Dermadelema furmani* [135]; *Euschoengastia criceticola* [41,
135]; *E. micheneri* [135]; *E. neotomae* (nr.) [20]; *E. nihii* [41]; *E.*
pomerantzi [41, 135]; *E. radfordi* [41, 135]; *E. romola* [41]; *E. sciuricola*
[135]; *Hyponeocula imitator* [260]; *Kayella lacerta* [20, 41, 135];
Miyatrombicula scottae [41]; *Neotrombicula californica* [41, 135];
Trombicula belkini [20, 41]

Spermophilus beldingi

Trombiculidae: *Euschoengastia citellicola* [135]; *E. cordiremus* [135]; *E.*
oregonensis [135]; *E. radfordi* [135]; *Hyponeocula montanensis* [135,
260]; *Neotrombicula californica* [135]; *N. subsignata* [135]

Spermophilus columbianus

Trombiculidae: *Euschoengastia luteodema* [32]; *Neotrombicula harperi* [44];
Trombicula varians [44]

Spermophilus lateralis

Leeuwenhoekiidae: *Chatia setosa* [29, 55]; *Odontacarus hirsutus* [135]
Trombiculidae: *Dermadelema furmani* [135]; *Euschoengastia citellicola* [135]; *E.*
cordiremus [10, 32]; *E. criceticola* [10, 32]; *E. decipiens* [10, 39]; *E.*

hoffmannae [10, 39, 135]; *E. luteodema* [10]; *E. oregonensis* [135]; *E. pomerantzi* [135]; *E. radfordi* [41]; *E. sciuricola* [10, 39, 135];
Hyponeocula montanensis [10, 135, 260]; *Kayella lacerta* [10];
Neotrombicula californica [44]; *N. harperi* [10, 44, 164]; *Trombicula belkini* [39]; *T. eusignata* [44]; *T. subignata* [44, 164]

Spermophilus leucurus

Trombiculidae: *Euschoengastoides hoplai* [10]; *Trombicula belkini* [39]

Spermophilus mexicanus

Trombiculidae: *Hyponeocula montanensis* [191, 260]

Spermophilus richardsoni

Trombiculidae: *Euschoengastia campi* [48]; *E. oregonensis* [48]; *Hyponeocula arenicola* [181, 260]; *H. montanensis* [48]

Spermophilus spilosoma

Trombiculidae: *Euschoengastia cynomyicola* [10]; *Euschoengastoides hoplai* [188]; *Hyponeocula arenicola* [10, 188]; *H. montanensis* [188];
Leptotrombidium panamensis [188]; *Parasecia gurneyi* [188]

Spermophilus tereticaudus

Trombiculidae: *Hyponeocula arenicola* [12, 173]; *H. imitator* [260]

Spermophilus tridecemlineatus

Trombiculidae: *Euschoengastia cynomyicola* [57, 183]; *E. michiganensis* [328];
Euschoengastoides hoplai [181, 187]; *Eutrombicula alfreddugesi* [183, 323]; *Hyponeocula montanensis* [55, 183, 260]; *Neotrombicula subsignata* [211]; *Parasecia gurneyi* [55, 182-183]

Spermophilus variegates

Trombiculidae: *Euschoengastia sciuricola* [39]; *Eutrombicula alfreddugesi* [188]

Sylvilagus audubonii

Leeuwenhoekiidae: *Odontacarus dentatus* [129, 191]

Trombiculidae: *Euschoengastia decipiens* [10]; *E. eadsi* [191]; *E. heteromyicola* [334]; *E. radfordi* [41]; *Euschoengastoides eadsi* [188]; *Eutrombicula alfreddugesi* [191]; *E. batatas* [21]; *Hexidionis allredi* [200]; *Kayella lacerta* [41]; *Neotrombicula dinehartae* [41]; *Pseudoschongastia hungerfordi* [55, 191]

Sylvilagus bachmani

Trombiculidae: *Euschoengastia numerosa* [334]; *E. radfordi* [135];
Neotrombicula californica [41, 135]

Sylvilagus floridanus

Leeuwenhoekiidae: *Acomatacarus whartoni* [137]; *Odontacarus dentatus* [183];
Xenodontacarus plumosus [183]

Trombiculidae: *Cheladonta micheneri* [55, 178, 183]; *Euschoengastia diversa* [55, 183]; *E. jonesi* [179, 183]; *E. peromysci* [55, 162, 183]; *E. rubra* [109]; *E. setosa* [55, 109, 183, 279, 293, 303]; *Euschoengastoides hoplai* [183]; *E. loomisi* [57, 183]; *Eutrombicula alfreddugesi* [55, 105, 109, 154, 183, 203, 220, 267, 279, 293, 323]; *E. batatas* [154]; *E. lipovskyana* [55, 183, 230, 323]; *E. masoni* [154]; *E. splendens* [220]; *Hyponeocula montanensis* [183]; *Kayella lacerta* [183]; *Neoschongastia americana* [55, 58, 183]; *Neotrombicula cavicola* [44]; *N. lipovskyi* [44, 55, 164, 183, 279,

293, 303]; *N. sylvilagi* [44, 183]; *N. whartoni* [44, 55, 109, 141, 164, 183, 223, 279, 293, 303]; *Parasecia gurneyi* [182-183]; *Pseudoschongastia hungerfordi* [55, 177, 183]; *Trombicula autumnalis* [142]; *T. irritans* [277]; *T. subignata* [44]; *T. tlalzahuatl* [90]; *Walchia americana* [183];

Sylvilagus idahoensis

Trombiculidae: *Euschoengastia decipiens* [6, 10]; *E. radfordi* [10]

Sylvilagus nuttallii

Leeuwenhoekiidae: *Odontacarus hirsutus* [153]

Trombiculidae: *Euschoengastia decipiens* [6, 10]; *E. radfordi* [6]; *Hyponeocula montanensis* [30, 260]; *Neotrombicula californica* [44]; *N. microti* [44]

Sylvilagus palustris

Trombiculidae: *Neotrombicula whartoni* [109]

Synaptomys borealis

Trombiculidae: *Miyatrombicula esoensis* [296]

Synaptomys cooperi

Trombiculidae: *Euschoengastia diversa* [109]; *E. ohioensis* [109, 278, 293, 303]; *E. peromysci* [109, 241, 278, 293, 303]; *E. setosa* [278, 293, 303]; *Eutrombicula alfreddugesi* [278, 293, 303]; *Miyatrombicula esoensis* [296]; *Neotrombicula harperi* [296]

Tadarida brasiliensis

Trombiculidae: *Chiroptella mexicana* [66, 149]; *Eutrombicula alfreddugesi* [323]; *Microtrombicula merrihewi* [55, 66, 193, 200]; *Speleocola tadaridae* [55, 66, 183, 191]; *Trombicula* sp. [245]

Tadarida femorosacca

Trombiculidae: *Speleocola tadaridae* [200]

Tadarida macrotis

Trombiculidae: *Tecomatlana texana* [295]

Tamias alpinus

Trombiculidae: *Neotrombicula microti* [44]

Tamias amoenus

Trombiculidae: *Euschoengastia sciuricola* [48]; *Neotrombicula californica* [135];

N. harperi [44]; *N. microti* [44, 48]; *Trombicula eusignata* [44]

Tamias dorsalis

Trombiculidae: *Euschoengastia fasolla* [12]

Tamias merriami

Trombiculidae: *Neotrombicula dinehartae* [41]

Tamias minimus

Trombiculidae: *Euschoengastia criceticola* [88]; *E. decipiens* [6]; *E. fasolla* [6];

E. pomerantzi [6]; *E. sciuricola* [6, 10]; *Eutrombicula alfreddugesi* [88];

Miyatrombicula esoensis [88]; *Neotrombicula harperi* [10, 88, 174, 328]

Tamias quadrivittatus

Trombiculidae: *Euschoengastia oregonensis* [10]

Tamias speciosus

Trombiculidae: *Euschoengastia ambocalis* [333]

Tamias striatus

Leeuwenhoekiidae: *Leeuwenhoekia americana* [123]

Trombiculidae: *Euschoengastia jamesoni* [304]; *E. michiganensis* [304, 328]; *E. peromysci* [59, 109, 123, 141, 228, 293, 303, 309]; *E. setosa* [139, 228, 304]; *E. trigenulala* [59]; *Eutrombicula alfreddugesi* [75-76, 183, 293, 303, 309]; *E. splendens* [228]; *Leptotrombidium peromysci* [88]; *Miyatrombicula esoensis* [228, 296, 328]; *Neotrombicula bisignata* [228]; *N. fitchi* [293, 309]; *N. harperi* [94, 174, 228, 296]; *N. whartoni* [228, 293, 303, 309]; *Walchia americana* [293, 303, 309]

Tamias townsendi

Leeuwenhoekiae: *Chatia setosa* [135]

Trombiculidae: *Euschoengastia oregonensis* [86, 135]; *E. peromysci* [135]; *E. radfordi* [41]; *E. sciuricola* [135]; *Neotrombicula californica* [135]; *N. cavicola* [86]; *N. harperi* [86]

Tamias umbrinus

Trombiculidae: *Euschoengastia pomerantzi* [39]; *E. sciuricola* [39]; *Hyponeocula montanensis* [39]; *Trombicula kardosi* [181]; *Walchia americana* [39]

Tamiasciurus douglasii

Leeuwenhoekiidae: *Chatia cunninghamae* [124]

Trombiculidae: *Euschoengastia numerosa* [334]; *E. oregonensis* [135]; *E. pomerantzi* [135]; *E. radfordi* [41]; *E. simulans* [334]; *Miyatrombicula cynos* [36, 135]; *Neotrombicula jewetti* [135]

Tamiasciurus hudsonicus

Leeuwenhoekiidae: *Chatia setosa* [29, 55, 124]; *Leeuwenhoekia dolosa* [135]

Trombiculidae: *Euschoengastia luteodema* [32]; *E. michiganensis* [328]; *E. peromysci* [109, 165, 241, 252, 328]; *E. sciurucola* [39, 91, 109]; *E. setosa* [165, 175, 241, 252, 293, 309]; *Leptotrombidium peromysci* [293, 303, 309]; *Miyatrombicula cynos* [293, 303, 309], [139](nr.); *M. esoensis* [267, 328]; *Neotrombicula bisignata* [44]; *N. californica* [44]; *N. fitchi* [165, 252, 293, 303, 309]; *N. harperi* [44, 94, 164, 174, 328]; *N. microti* [44, 164, 328, 337]; *N. whartoni* [293, 309]; *Trombicula browni* [44, 164]; *Walchia americana* [106, 165, 252, 293, 309]

Thomomys bottae

Leeuwenhoekiidae: *Leeuwenhoekia americana* [41]; *L. dolosa* [248]; *Odontacarus hirsutus* [41]

Trombiculidae: *Dermadelema furmani* [41, 135]; *D.睡鼠* [232]; *Euschoengastia criceticola* [41]; *E. radfordi* [41]; *Euschoengastoides arizonae* [188]; *Hypnoneocula imitator* [260]; *Neotrombicula californica* [41, 196]; *N. dinehartae* [41]; *N. jewetti* [41]; *Trombicula pseudoautumnalis* [135]

Thomomys monticola

Trombiculidae: *Neotrombicula californica* [44]

Thomomys neglectus

Trombiculidae: *Neotrombicula californica* [44, 103]

Thomomys talpoides

Trombiculidae: *Euschoengastia decipiens* [6]

Thomomys umbrinus

Trombiculidae: *Euschoengastia hardyorum* [336]

Urocyon cinereoargenteus

Trombiculidae: *Euschoengastia numerosa* [87, 334]; *Eutrombicula alfreddugesi*

[220]; *Neotrombicula lipovskyi* [293, 299, 303]; *N. whartoni* [293, 299, 303]

Ursus americanus

Trombiculidae: *Eutrombicula splendens* [62]

Vulpes vulpes

Trombiculidae: *Miyatrombicula jonesae* [293, 299, 303]; *Neotrombicula whartoni*

[293, 299, 303]

Zapus hudsonius

Trombiculidae: *Euschoengastia diversa* [109]; *E. peromysci* [293, 303, 307];

Eutrombicula alfreddugesi [288, 293, 303, 307]; *E. splendens* [74];

Leptotrombidium peromysci [293, 303]; *Neoschongastia* sp. [288];

Neotrombicula harperi [88, 157, 164, 174, 292]; *N. lipovskyi* [157]; *N.*

microti [441, 174, 292, 328, 337]; *N. sylvilagi* [164, 183]; *N. whartoni*

[293, 303, 307]; *Trombicula browni* [164]; *T. subignata* [44, 288]

Zapus pacificus

Trombiculidae: *Euschoengastia peromysci* [153]; *Neotrombicula jewetti* [153]

Zapus princeps

Trombiculidae: *Euschoengastia radfordi* [292]; *Neotrombicula californica* [10,

292]; *N. harperi* [10, 39, 164]; *N. microti* [39, 164, 292]; *N. subsignata*

[164]

Zapus trinotatus

Trombiculidae: *Neotrombicula cavicola* [135, 292]; *N. harperi* [292]; *N. microti* [292]

GEOGRAPHIC DISTRIBUTION OF CHIGGERS OF NORTH AMERICAN
VERTEBRATES

The states of the United States and the provinces of Canada are listed alphabetically below, together with the chiggers of vertebrates reported from each. Numbers refer to references.

ALABAMA (AL)

Leeuwenhoekiidae: *Albeckia senase* [45]

Trombiculidae: *Acariscus hominis* [104]; *Blankaartia pauli* [56]; *Euschoengastia hamiltoni* [45]; *E. pipistrelli* [45]; *E. staffordi* [45]; *Eutrombicula alfreddugesi* [45]; *E. batatas* [45]; *Neoschongastia americana* [167]; *Parasecia gurneyi* [45]; *Perissopalla flagellisetula* [45]; *Trombicula tibettsi* [45]

ALASKA (AK)

Leeuwenhoekiidae: *Hannemania multifemorala* [183]

Trombiculidae: *Neoschongastia americana* [58]; *Trombicula alaskensis* [44]

ALBERTA (AB)

Trombiculidae: *Euschoengastia campi* [48]; *E. criceticola* [48]; *E. oregonensis* [48]; *E. sciuricola* [48]; *Hypnoneocula arenicola* [181, 260]; *H.*

montanensis [48]; *Leptotrombidium myotis* [48]; *Neotrombicula microti* [44, 48, 292]

ARIZONA (AZ)

Leeuwenhoekiidae: *Acomatacarus arizonensis* [55, 103]; *Hannemania bufonis* [199]; *H. hylae* [199]; *Whartonias perplexa* [26, 143]

Trombiculidae: *Chiroptella mexicana* [26]; *Dermadelema furmani* [232];
Euschoengastoides arizonae [187]; *E. imperfectus* [187]; *E. neotomae* [187]; *E. tumidus* [187]; *E. webbi* [187]; *Eutrombicula batatas* [21]; *E. chiricahuae* [22], *E. lipovskyana* [133]; *Hexidionis deserti* [195];
Hyponeocula arenicola [173, 260]; *H. imitator* [260]; *H. sauricola* [260];
Leptotrombidium myotis [26]; *L. panamensis* [143](nr.); *Loomisia sprocessi* [38, 143]; *L. univari* [143]; *Microtrombicula trisetica* [280]; *M. merrihewi* [66]; *Otorhinophila desertorum* [201]; *O. parvisola* [201, 332];
Tecomatlana sandovali [26, 271]; *Trombicula univari* [38]

ARKANSAS (AR)

Leeuwenhoekiidae: *Acomatacarus polychaetus* [137]; *A. whartoni* [137];
Hannemani dunnii [16, 55]; *H. multifemorala* [183]

Trombiculidae: *Cheladonta ouachitensis* [55, 178]; *Euschoengastia pipistrelli* [161, 250]; *E. setosa* [55]; *Eutrombicula alfreddugesi* [71, 209, 323]; *E. lipovskyana* [323]; *Leptotrombidium myotis* [250]; *Microtrombicula trisetica* [280]; *Neoschongastia americana* [71]; *Neotrombicula lipovskyi* [164]; *N. richmondi* [164]; *N. whartoni* [164]; *Parasecia gurneyi* [55, 182]

BRITISH COLUMBIA (BC)

Trombiculidae: *Euschoengastia sciuricola* [109]; *Neotrombicula cavigcola* [292];
N. harperi [169, 292]; *N. microti* [292]

CALIFORNIA (CA)

Leeuwenhoekiidae: *Acomatacarus arizonensis* [20, 33, 135, 197, 233, 257];
Albeckia albecki [275]; *Chatia setosa* [135, 153]; *Comatacarus stewarti*
[135]; *Hannemania bufonis* [199, 283]; *H. hylae* [92, 135, 199, 283];
Leeuwenhoekia americana [41, 135, 153]; *L. dolosa* [135, 153, 248];
Odontacarus hirsutus [41, 99, 103, 135, 153]; *O. kromani* [126]; *O.*
linsdalei [41, 189]; *O. shawi* [37, 233]; *O. villosus* [126]; *Sasacarus*
whartoni [135]; *Shunsennia ochotona* [135, 153]; *Whartonia glenni* [276];
W. perplexa [135, 171]; *Xenodontacarus brevicalcar* [192]

Trombiculidae: *Aplodontophila aplodontiae* [135, 335]; *Dermadelema furmani*
[41, 135, 189, 232]; *D. lynnae* [232]; *D. mojavense* [232]; *D. sleeperi*
[232]; *Euschoengastia ambocalis* [20, 91, 109, 135, 189, 333]; *E.*
americana [102]; *E. brennani* [334]; *E. citellicola* [135]; *E. cordiremus*
[135]; *E. criceticola* [41, 135, 153, 189]; *E. decipiens* [135, 261, 334]; *E.*
enemi [41]; *E. frondifera* [135, 189]; *E. hardyorum* [336]; *E.*
heteromyicola [334]; *E. hoffmannae* [135]; *E. latchmani* [15, 46, 334]; *E.*
luteodema [135]; *E. marginalis* [336]; *E. micheneri* [135]; *E. nihi* [41]; *E.*
numerosa [334]; *E. obscura* [334]; *E. oregonensis* [135, 153]; *E. otophila*
[189]; *E. peromysci* [41, 135, 153]; *E. pomerantzi* [41, 135]; *E. puerilis*
[135]; *E. radfordi* [15, 41, 135, 153, 189, 216, 334]; *E. romola* [41]; *E.*
sciuricola [135, 153]; *E. simulans* [334]; *E. soricinus* [135, 153];

Euschoengastoides arizonae [187]; *E. imperfectus* [41, 187]; *E. longitarsala* [197, 233, 257]; *E. neotomae* [187], [20] (nr.); *E. webbi* [187]; *Eutrombicula alfreddugesi* [67, 105]; *E. batatas* [21]; *Hexidionis deserti* [195]; *H. doremi* [195]; *H. jessiema* [135]; *H. lacerticola* [186, 197]; *Hyponeocula arenicola* [233, 260]; *H. fovea* [260]; *H. imitator* [260]; *H. luciae* [260]; *H. montanensis* [135, 260]; *Kayella lacerta* [20, 32, 41, 109, 135, 153, 233]; *Leptotrombidium myotis* [274]; *Loomisia sprocssi* [38]; *Microtrombicula merrihewi* [66]; *M. nasalis* [185]; *M. trisetica* [41, 280]; *M. wrenni* [185]; *Miyatrombicula cynos* [36, 135]; *M. scottae* [36, 41, 189]; *Neoschongastia americana* [41, 135, 210]; *N. fullbergae* [135]; *Neotrombicula brennani* [135, 153]; *N. californica* [41, 44, 103, 131-132, 135, 153, 196]; *N. cavicola* [135]; *N. dinehartae* [41, 44, 135, 189, 216]; *N. harperi* [135, 197, 292]; *N. jewetti* [41, 44, 135, 153, 216]; *N. microti* [44, 153, 292]; *N. subsignata* [135]; *N. superciliaris* [196]; *Otorhinophila desertorum* [201]; *O. parvisola* [201, 332]; *O. sola* [135, 201, 332]; *O. xerophila* [201]; *Pseudoschongastia occidentalis* [35, 41, 153, 189]; *Tecmatlana watkinsi* [271]; *Trombicula belkini* [20, 24, 41, 55, 134-135, 152, 197, 233, 273, 282, 323]; *T. pseudoautumnalis* [135]; *Walchia americana* [135]

COLORADO (CO)

Leeuwenhoekiidae: *Comatacarus pusillus* [127]; *Hannemania* sp. [110];
Leeuwenhoekia americana [73, 111]; *Odontacarus micheneri* [111, 137]

Trombiculidae: *Euschoengastia criceticola* [73, 111]; *E. diciiens* [73, 334]; *E. finleyi* [54, 111]; *E. guntheri* [109, 111, 236-237]; *E. hoffmannae* [111]; *E. lanei* [73]; *E. peromysci* [73]; *Euschoengastoides hoplai* [181]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [72, 111, 323]; *Hyponeocula arenicola* [111, 181]; *H. montanensis* [260]; *Kayella lacerta* [111]; *Leptotrombidium myotis* [229, 270]; *L. panamensis* [111]; *Neoschongastia brennani* [58]; *Neotrombicula harperi* [44, 111, 164]; *N. microti* [44, 94, 111, 164]; *Parasecia gurneyi* [182]; *Pseudoschongastia farneri* [177]; *Trombicula autumnalis* [111, 164]; *T. finleyi* [111, 164]; *T. loomisi* [73, 164]; *T. ornata* [193]; *T. parkeri* [236-237]; *T. subignata* [44, 164]

CONNECTICUT (CT)

Trombiculidae: *Neotrombicula whartoni* [228]

DELAWARE (DE)

Trombiculidae: *Euschoengastia peromysci* [205, 266]; *Eutrombicula alfreddugesi* [105]; *E. tropica* [205]; *Neotrombicula whartoni* [205]

DISTRICT OF COLUMBIA (DC)

Trombiculidae: *Eushoengastia blarinae* [99]

FLORIDA (FL)

Leeuwenhoekiidae: *Hannemania hegeneri* [147]; *Odontacarus cayolargoensis* [37]

Trombiculidae: *Acariscus hominis* [104]; *Blankaartia pauli* [56, 247]; *B. sinnamaryi* [255]; *Cheladonta ouachitensis* [80]; *Euschoengastia blarinae* [109]; *E. peromysci* [68, 80, 176]; *Eutrombicula alfreddugesi* [219, 247,

322]; *E. batatas* [325-327]; *E. cinnabaris* [80]; *E. masoni* [104, 108]; *E. multisetosa* [103, 247, 326-327]; *E. splendens* [62, 64, 117, 247, 254, 322, 326-327]; *Leptotrombidium peromysci* [80, 322]; *Microtrombicula crossleyi* [176, 280]; *Neoschongastia americana* [71]; *Neotrombicula whartoni* [44, 71, 80]; *Parasacia gurneyi* [322]; *Walchia americana* [103, 176, 247]; *Whartonacarus floridensis* [213]

GEORGIA (GA)

Leeuwenhoekiidae: *Hannemania eltoni* [59], *H. hegneri* [59]; *Leeuwenhoekia americana* [225]

Trombiculidae: *Euschoengastia peromysci* [59, 78, 225, 320]; *E. setosa* [101, 109, 320]; *E. trigenulala* [59, 101]; *Eutrombicula alfreddugesi* [78, 203, 220, 234]; *E. batatas* [78, 320]; *E. cinnabaris* [320]; *E. masoni* [104]; *E. splendens* [79, 220, 320]; *Leptotrombidium peromysci* [225, 234-235, 320]; *Miyatrombicula cynos* [79]; *M. jonesae* [78]; *Neoschongastia americana* [59, 71]; *Neotrombicula richmondi* [180]; *N. whartoni* [44, 79, 140, 166, 220, 234, 320]; *Parasacia gurneyi* [59, 320]; *Trombicula autumnalis* [59]; *Walchia americana* [59]

IDAHO (ID)

Leeuwenhoekiidae: *Chatia setosa* [29]; *Leeuwenhoekia americana* [6]; *L dolosa* [135]; *Odontocarus linsdalei* [6]; *O. micheneri* [6]; *Shunsennia ochotona* [6]

Trombiculidae: *Euschoengastia americana* [102]; *E. cordiremus* [6]; *E. criceticola* [6, 32]; *E. decipiens* [6]; *E. fasolla* [6]; *E. lanei* [6]; *E.*

luteodema 6, 28, 103; *E. numerosa* [334]; *E. oregonensis* [6]; *E. pomerantzi* [6]; *E. radfordi* [6]; *E. sciuricola* [6, 109]; *Hexidionis doremi* [6]; *Hyponeocula arenicola* [6]; *Neotrombicula californica* [44]; *N. harperi* [44]; *Trombicula bakeri* [6]; *T. belkini* [6]

ILLINOIS (IL)

Trombiculidae: *Euschoengastia diversa* [227]; *E. ohioensis* [227]; *E. peromysci* [18, 227]; *E. pipistrelli* [109, 315]; *E. trigenuala* [256]; *Eutrombicula alfreddugesi* [105, 227]; *Miyatrombicula jonesae* [36]; *Neotrombicula fitchi* [181]; *N. lipovskyi* [227]; *N. sylvilagi* [44]; *N. whartoni* [18, 44, 227]

INDIANA (IN)

Leeuwenhoekiidae: *Leeuwenhoekia americana* [294]

Trombiculidae: *Cheladonta ouachitensis* [293, 303]; *Euschoengastia hamiltoni* [290, 293, 303]; *E. jamesoni* [294]; *E. marmotae* [293, 303, 310]; *E. ohioensis* [278, 293, 303]; *E. peromysci* [19, 61, 278, 293, 299, 307, 309]; *E. pipistrelli* [290, 293, 303, 308]; *E. setosa* [61, 278-279, 293, 303, 309]; *E. trigenuala* [293, 303]; *E. whitakeri* [294, 330]; *Eutrombicula alfreddugesi* [61, 278-279, 291, 293, 299, 301, 303, 307, 309-310, 312]; *E. splendens* [118]; *Leptotrombidium myotis* [290, 293, 303]; *L. peromysci* [118](nr.), [293, 303, 309]; *Mackienia migratoria* [222]; *Microtrombicula trisetica* [293, 303, 312]; *Miyatrombicula cynos* [293, 303, 309, 312]; *M. jonesae* [293, 299, 303]; *Neotrombicula cavicola* [61, 294]; *N. fitchi* [293, 303, 309, 312]; *N. lipovskyi* [279, 293, 299, 303]; *N. microti* [290, 293, 299, 303]; *N. sylvilagi* [293, 303, 312]; *N. waynensis* [61]; *N. whartoni*

[279, 293, 299, 301, 303, 307, 309, 312]; *Walchia americana* [293, 303, 309, 312]

IOWA (IA)

Trombiculidae: *Euschoengastia diversa* [109]; *Leptotrombidium myotis* [55]

KANSAS (KS)

Leeuwenhoekiidae: *Acomatacarus arizonensis* [114, 183]; *Albeckia senase* [55, 137, 183]; *Comatacarus pusillus* [127]; *Hannemania dunnii* [183]; *H. eltoni* [55, 183]; *H. multifemorala* [183]; *Leeuwenhoekia americana* [55, 183]; *Odontacarus dentatus* [129, 137, 183]; *Xenodontacarus plumosus* [55, 136, 183, 192]

Trombiculidae: *Cheladonta micheneri* [55, 178, 183]; *Euschoengastia criceticola* [55, 183]; *E. cynomyicola* [57, 183]; *E. diversa* [55, 183-184, 238, 246]; *E. jonesi* [55, 179, 183]; *E. peromysci* [55, 150, 183, 238]; *E. pipistrelli* [161, 183]; *E. setosa* [55, 183, 238]; *E. trigenuala* [55, 183-184]; *Euschoengastoides hoplai* [55, 181, 183, 187]; *E. loomisi* [55, 57, 183]; *E. neotomae* [187]; *Eutrombicula alfreddugesi* [55, 105, 112-115, 183, 238, 323]; *E. batatas* [183, 323]; *E. lipovskyana* [55, 113-114, 183, 238, 323]; *Fonsecia kansasensis* [55, 182-183]; *Hyponeocula arenicola* [181, 183, 260]; *H. montanensis* [55, 183, 260]; *Kayella lacerta* [183]; *Leptotrombidium myotis* [183]; *Microtrombicula crossleyi* [55, 181, 183, 280]; *M. trisetica* [55, 183, 190, 238, 280]; *Miyatrombicula cynos* [183, 238]; *M. jonesae* [183]; *Neoschongastia americana* [55, 183]; *N. brennani* [55, 58, 183]; *Neotrombicula fitchi* [55, 181, 183, 246]; *N. lipovskyi* [44,

55, 164, 183, 238]; *N. sylvilagi* [44, 164, 183, 238]; *N. whartoni* [44, 55, 164, 183, 318]; *Parasecia gurneyi* [55, 112, 182-183]; *Pseudoschongastia farneri* [55, 177, 183, 238]; *P. hungerfordi* [55, 177, 183, 238]; *Speleocola tadaridae* [183]; *Trombicula kardosi* [55, 181, 183]; *T. ornata* [55, 183, 193]; *T. twentei* [181, 183]; *Walchia americana* [55, 183]

KENTUCKY (KY)

Trombiculidae: *Euschoengastia peromysci* [49, 109]; *E. pipistrelli* [109]; *Neotrombicula cavicola* [49]

LOUISIANA (LA)

Trombiculidae: *Eutrombicula lipovskyana* [55]; *E. splendens* [55, 146]; *F. palmella* [43]; *Neoschongastia americana* [58]; *Parasecia gurneyi* [182]

MAINE (ME)

Trombiculidae: *Leptotrombidium myotis* [96, 104, 274, 285]; *Neotrombicula bisignata* [44, 96]; *N. harperi* [44, 164]; *N. microti* [164]

MARYLAND (MD)

Leeuwenhoekiidae: *Whomersia strandtmani* [51]

Trombiculidae: *Euschoengastia peromysci* [74, 99, 109]; *E. setosa* [74]; *Eutrombicula masoni* [107]; *E. splendens* [74]; *Miyatrombicula jonesae* [74]; *Neotrombicula whartoni* [44, 74, 77]; *Parasecia gurneyi* [101, 104, 182]; *Trombicula irritans* [93]; *T. tlalzahuatl* [90]; *Walchia americana* [74]

MASSACHUSETTS (MA)

Trombiculidae: *Euschoengastia peromysci* [96, 109, 228]; *E. setosa* [228];
Eutrombicula alfreddugesi [25]; *E. masoni* [104]; *E. splendens* [228];
Miyatrombicula esoensis [228]; *Neotrombicula harperi* [228]; *N. whartoni*
[228]

MICHIGAN (MI)

Trombiculidae: *Euschoengastia blarinae* [174, 328]; *E. michiganensis* [328]; *E. peromysci* [328]; *E. setosa* [174, 328]; *Eutrombicula alfreddugesi* [105, 269]; *E. splendens* [328]; *Hemitrombicula simplex* [102];
Leptotrombidium myotis [174, 328]; *Leptotrombidium peromysci* [328];
Miyatrombicula esoensis [328]; *Neotrombicula bisignata* [44]; *N. harperi* [174, 321, 328]; *N. microti* [174, 321, 328]; *N. waynensis* [174], *Parasecia gurneyi* [69, 328]

MINNESOTA (MN)

Trombiculidae: *Euschoengastia blarinae* [311]; *Eutrombicula alfreddugesi* [105];
Neotrombicula harperi [265, 292]; *N. microti* [265, 292, 311]

MISSISSIPPI (MS)

Leeuwenhoekiidae: *Leeuwenhoekia americana* [123]
Trombiculidae: *Euschoengastia peromysci* [123]; *Neoschongastia americana* [167]; *Neotrombicula cavigola* [44]; *N. whartoni* [44, 164]; *Trombicula rohweli* [103]

MISSOURI (MO)

Leeuwenhoekiidae: *Hannemania multifemoralis* [183]

Trombiculidae: *Euschoengastia jonesi* [179]; *E. pipistrelli* [31, 109]; *E. trigenuala* [256]; *Eutrombicula splendens* [323]; *Neoschongastia americana* [58]; *Neotrombicula cavicola* [44]; *N. subsignata* [164]; *N. whartoni* [44, 164]; *Pseudoschongastia hungerfordi* [177]; *Trombicula lipovskyi* [44]

MONTANA (MT)

Leeuwenhoekiidae: *Chatia setosa* [29, 55, 124]; *Shunsennia ochotona* [124, 236-237]; *Whartonia perplexa* [31]

Trombiculidae: *Euschoengastia cordiremus* [32, 109]; *E. criceticola* [32, 109]; *E. luteodema* [32, 109]; *E. numerosa* [334]; *E. samboni* [109, 236-237]; *E. sciuricola* [91, 109]; *E. setosa* [172]; *E. velata* [47]; *Hyponeocula montanensis* [30, 260]; *Leptotrombidium myotis* [160, 274]; *Neoschongastia fullbergae* [32]; *N. paenitens* [34]; *Neotrombicula californica* [44]; *N. harperi* [44]; *N. microti* [44, 164]; *Trombicula eptesici* [31]; *T. eusignata* [44]; *T. subignata* [44]; *T. varians* [44]

NEBRASKA (NE)

Leeuwenhoekiidae: *Hanemania multifemoralis* [55, 183]

Trombiculidae: *Cheladonta micheneri* [178]; *Euschoengastia cynomyicola* [55, 57]; *Eutrombicula alfreddugesi* [55, 323]; *Hyponeocula montanensis* [55]; *Neotrombicula fitchi* [181]; *N. lipovskyi* [164]; *N. whartoni* [164]; *Parasecia gurneyi* [182]; *Trombicula autumnalis* [164]; *T. loomisi* [164]

NEVADA (NV)

Leeuwenhoekiidae: *Acomatacarus arizonensis* [8-9, 11]; *Leeuwenhoekia americana* [13]; *Odontacarus chiiapanensis* [13]; *O. hirsutus* [12]; *O. linsdalei* [3-4, 12-13]; *O. micheneri* [8]; *Sasacarus whartoni* [12-13, 122]; *Whartonias perplexa* [12]

Trombiculidae: *Dermadelema furmani* [38, 232]; *Eushoengastia cordiremus* [12]; *E. criceticola* [3-4, 12-13]; *E. decipiens* [4, 12, 122, 334]; *E. fassola* [4, 12-13]; *E. heteromyicola* [334]; *E. lanei* [12]; *E. obesa* [13]; *E. radfordi* [13, 122]; *E. utahensis* [13]; *Hexidionis allredi* [13]; *H. deserti* [195]; *H. jessiemae* [4, 13, 122]; *H. lacerticola* [186]; *Hyponeocula arenicola* [3-4, 9, 122, 260]; *H. montanensis* [260]; *Kayella lacerta* [122]; *Leptotrombidium panamensis* [13]; *Otorhinophila sola* [13, 332]; *Pseudoschongastia aeci* [38]; *Trombicula belkini* [4, 13]; *T. loomisia* [4]; *T. veanda* [38]

NEW BRUNSWICK

Trombiculidae: *Euschoengastia blarinae* [296]; *E. setosa* [296]; *Miyatrombicula esoensis* [296]; *Neotrombicula harperi* [296]; *N. microti* [296]

NEWFOUNDLAND AND LABRADOR (NL)

Trombiculidae: *Neotrombicula microti* [44]

NEW HAMPSHIRE (NH)

Trombiculidae: *Euschoengastia setosa* [228]

NEW JERSEY (NJ)

Trombiculidae: *Euschoengastia blarinae* [207]; *E. marmotae* [207]; *E. ohioensis* [109]; *E. peromysci* [141, 207]; *E. pipistrelli* [340]; *E. setosa* [207];

Leptotrombidium myotis [207]; *Miyatrombicula cynos* [141, 207];

Neotrombicula fitchi [141] *N. whartoni* [141, 207]

NEW MEXICO (NM)

Leeuwenhoekiidae: *Odontacarus morlani* [37]; *Hannemania* sp. [83, 138]

Trombiculidae: *Chiroptella mexicana* [66]; *Dermadelema lynnæ* [232];

Euschoengastia decipiens [334]; *Euschoengastoides arizonae* [187]; *E. hoplai* [111, 181]; *E. imperfectus* [187]; *E. neotomae* [187]; *E. tanigoshii* [187]; *E. tumidus* [187]; *Hexidionis harveyi* [194]; *Hyponeocula arenicola* [181, 260]; *Leptotrombidium myotis* [270]; *Microtrombicula merrihewi* [66]; *Neotrombicula microti* [44]

NEW YORK (NY)

Trombiculidae: *Euschoengastia blarinae* [151, 297]; *E. hamiltoni* [31, 109]; *E. jamesoni* [32, 151, 272, 297]; *E. miricoxa* [32]; *E. ohioensis* [297]; *E. peromysci* [297]; *E. pipistrelli* [109]; *E. setosa* [175, 297]; *Eutrombicula alfreddugesi* [288]; *Miyatrombicula cynos* [36, 101]; *Neoschongastia* sp. [288]; *Neotrombicula harperi* [44, 94, 208, 297]; *N. microti* [297]; *Trombicula subignata* [44, 164, 288]

NORTH CAROLINA (NC)

Leeuwenhoekiidae: *Hannemania dunni* [221, 239, 284]; *H. penetrans* [27]

Trombiculidae: *Cheladonta ouachitensis* [302]; *Digenualaea carterae* [44, 109, 302]; *Euschoengastia blarinae* [109]; *E. carolinensis* [109]; *E. jamesoni* [241, 302]; *E. jonesi* [302]; *E. peromysci* [109, 170, 241, 302]; *E. rubra* [109, 302]; *E. setosa* [109, 241, 302]; *Eutrombicula alfreddugesi* [109,

145]; *E. splendens* [109]; *Leptotrombidium peromysci* [241];
Miyatrombicula jonesae [302]; *Neotrombicula cavigola* [302]; *N.*
whartoni [44, 109, 241]; *Trombicula akamushi* [109] (nr.); *T. autumnalis*
[142]; *T. farrelli* [44, 109]; *T. irritans* [95]; *Walchia* sp. [109]

NORTH DAKOTA (ND)

Trombiculidae: *Neotrombicula microti* [292]; *N. subsignata* [44, 119, 211]

NOVA SCOTIA

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jonesi, Lipovsky and Loomis 1954; *Euschoengastia kansasensis*, (Loomis 1955); *Fonsecia kansasensis*, Loomis 1955; *Trombicula* = *Fonsecia kansasensis*
kardosi, Loomis 1954; *Trombicula Kayella* Vercammen-Grandjean, 1960
kohlsi, Brennan 1951; *Neoshongastia* = *N. paenitens*
kromani, Goff and Loomis 1973; *Odontacarus lacerta*, Brennan 1948, *Euschoengastia* = *Kayella lacerta*
lacerta, (Brennan 1948); *Kayella lacerticola*, (Loomis 1964); *Hexidionis lacerticola*, Loomis 1964; *Trombicula* = *Hexidionis lacerticola*
lanceolata, Brennan and Beck 1955; *Euschoengastia lanei*, Brennan and Beck 1955; *Euschoengastia latchmani*, Brennan and Yunker 1964; *Euschoengastia Leeuwenhoekia* Oudemans, 1911
Leeuwenhoekiidae Womersley, 1945
Leptotrombidium Nagayo et al., 1916
Leptotrombidium species "a," Wrenn 1974 = *Leptotrombidium peromysci linsdalei*, Brennan and Jones 1954; *Acomatacarus* = *Odontacarus linsdalei*
linsdalei, (Brennan and Jones 1954); *Odontacarus lipovskyana*, (Wolfenbarger 1952); *Eutrombicula lipovskyana*
lipovskyana, Wolfenbarger 1952; *Trombicula* = *Eutrombicula lipovskyana*
lipovskyi, (Brennan and Wharton 1950); *Neotrombicula*

lipovskyi, Brennan and Wharton 1950; *Trombicula* = *Neotrombicula lipovskyi*
longitarsala, Powder & Loomis 1962; *Euschoengastia* = *Euschoengastoides longitarsala*
longitarsala, (Powder and Loomis 1962); *Euschoengastoides*
loomisi, Crossley and Lipovsky 1954; *Euschoengastia* = *Euschoengastoides loomisi*
loomisi, (Crossley and Lipovsky 1954); *Euschoengastoides*
loomisi, Kardos 1954; *Trombicula*
Loomisia Brennan and Reed, 1972
luciae, Tanigoshi and Loomis 1974; *Hyponeocula*
luteodema, Brennan 1948; *Euschoengastia*
lynnae, Pomeroy and Loomis 1984; *Dermadelema*
magna, Farrell 1956; *Euschoengastia*
marginalis, Wrenn and Somerby 1974; *Euschoengastia*
marita Allred and Beck 1966, *Bernia* = *Hyponeocula arenicola*
marmotae, Farrell 1956; *Euschoengatia*
maseri, Wrenn 1983; *Euschoengastia*
masoni, Ewing 1943; *Acariscus* = *Eutrombicula masoni*
masoni, (Ewing 1943); *Eutrombicula*
merrihewi, (Loomis and Lipovsky 1954); *Microtrombicula*
merrihewi, Loomis and Lipovsky 1954; *Trombicula* = *Microtrombicula merrihewi*
mexicana, (Ewing 1937); *Chiroptella*
mexicana, Hoffmann 1965; *Hannemania*
mexicana, Ewing 1937; *Trombicula* = *Chiroptella mexicana*
mexicanum, (Ewing 1937); *Leptotrombidium* = *Chiroptella mexicana*

micheneri, Lipovsky, Crossley, and Loomis 1955; *Cheladonta*

micheneri, Greenberg 1952; *Acomatacarus* = *Odontacarus micheneri*

micheneri, Gould 1956; *Euschoengastia*

micheneri, (Greenberg 1952); *Odontacarus*

michiganensis, Wrenn 1974; *Euschoengastia*

microti, (Ewing 1928); *Neotrombicula*

microti, Ewing 1928; *Trombicula* = *Neotrombicula microti*

Microtrombicula Ewing, 1950

migratoria, Nadchatram and Wilson 1969; *Mackienia*

miricoxa, Brennan 1948; *Euschoengastia*

Miyatrombicula Sasa et al., 1952

mojavense, Pomeroy and Loomis 1984; *Dermadelema*

monops, (Brennan and Jones 1960); *Perates*

monops, Brennan and Jones 1960; *Trombicula* = *Perates monops*

montanensis, (Brennan 1946); *Hyponeocula*

montanensis, Brennan 1946; *Trombicula* = *Hyponeocula montanensis*

monticola, Welbourn and Loomis 1970; *Hannemania*

morlani, Brennan 1959; *Odontacarus*

multifemoralis, Loomis 1956; *Hannemania*

multisetosa, Ewing 1943; *Acariscus* = *Eutrombicula multisetosa*

multisetosa, (Ewing 1943); *Eutrombicula*

myotis, (Ewing 1929); *Acariscus* = *Leptotrombidium myotis*

myotis, (Ewing 1929); *Leptotrombidium*

myotis, Ewing 1929; *Trombicula* = *Leptotrombidium myotis*
nasalis, Loomis 1963; *Microtrombicula*
Neoshoengastia Ewing, 1929
neotomae, Loomis 1971; *Euschoengastoides*
Neotrombicula Hirst, 1925
nishi, Brennan and Jones 1954; *Euschoengastia*
numerosa, Wrenn and Loomis 1974; *Euschoengastia*
obesa, Brennan and Beck 1955; *Euschoengastia*
obscura, Wrenn and Loomis 1974; *Euschoengastia*
occidentalis, Ewing 1942; *Comatacarus* = *Odontacarus hirsutus*
occidentalis, Brennan 1952; *Pseudoschongastia*
ochotona, (Radford 1942); *Chatia* = *Shunsennia ochotona*
ochotona, (Radford 1942); *Shunsennia*
ochotona, Radford 1942; *Hannemania* = *Shunsennia ochotona*
Odontacarus Ewing, 1929
ohioensis, Farrell 1956; *Euschoengastia*
oregonensis, (Ewing 1929); *Euschoengastia*
oregonensis, Ewing 1929; *Trombicula* = *Euschoengastia oregonensis*
ornata, Loomis and Lipovsky 1954; *Trombicula*
otophila, Loomis and Bunnell 1962; *Euschoengastia*
Otorhinophila Wrenn and Loomis, 1967
ouachitensis, Lipovsky, Crossley, and Loomis 1955; *Cheladonta*
pacifica, Wrenn and Maser 1981; *Aplodontophila*

paenitens, Brennan 1952; *Neoschongastia*
palmella, Brennan and Loomis 1959; *Fonsecia*
panamensis, (Ewing 1925); *Leptotrombidium*
panamensis, Ewing 1925; *Trombicula* = *Leptotrombidium panamensis*
Parasecia Loomis, 1966
parkeri, Radford 1942; *Trombicula*
parvisola, Wrenn and Loomis 1967; *Otorhinophila*
pauli, Crossley and Atyeo 1972; *Blankaartia*
penetrans, Ewing 1931; *Hannemania*
Perates Brennan and Dalmat, 1960
Perissopalla Brennan and White, 1960
peromysci, (Ewing 1929); *Euschoengastia*
peromysci, Vercammen-Grandjean and Langston 1975; *Leptotrombidium*
peromysci, Ewing 1929; *Schongastia* = *Euschongastia peromysci*
perplexa, Brennan 1947; *Hannemania* = *Whartonia perplexa*
perplexa, (Brennan 1947); *Whartonia*
pinnatus, Goff and Loomis 1977; *Odontacarus*
pipistrelli, Brennan 1947; *Euschoengastia*
plumosus, Greenberg 1951; *Acomatacarus* = *Xenodontacarus plumosus*
plumosus, (Greenberg 1951); *Odontacarus* = *Xenodontacarus plumosus*
plumosus, (Greenberg 1951); *Xenodontacarus*
polychaetus, Greenberg 1952; *Acomatacarus*
pomerantzi, Brennan and Jones 1954; *Euschoengastia*

potosina, (Hoffman 1950); *Leptotrombidium* = *Leptotrombidium panamensis*
potosina, Hoffman 1950; *Trombicula* = *Leptotrombidium panamensis*
pseudoautumnalis, Gould 1956; *Trombicula*
Pseudoschongastia Lipovsky, 1951
puerilis, Gould 1956; *Euschoengastia*
pusillus, Goff and Loomis 1974; *Comatacarus*
radfordi, Brennan and Jones 1954; *Euschoengastia*
rebeccanae, Brennan 1965; *Neoschoengastia*
reesi, Allred 1957; *Trombicula* = *Miyatrombicula esoensis* Sasa and Ogata 1953
richmondi, (Brennan Wharton 1950); *Neotrombicula*
richmondi, Brennan and Wharton 1950; *Trombicula* = *Neotrombicula richmondi*
rohweri, Ewing 1942; *Trombicula*
romola, Brennan and Jones 1954; *Euschoengastia*
rotunda, Brennan and Beck 1955; *Euschoengastia*
rubra, Farrell 1956; *Euschoengastia*
samboni, (Radford 1942); *Euschoengastia*
samboni, Radford 1942; *Neoschongastia* = *Euschoengastia samboni*
sandovali, Hoffmann 1947; *Tecomatlana*
sargentii, Brennan 1952; *Trombicula*
Sasacarus Brennan and Jones, 1959
Sasacarus sp. “w”, Goates 1963 = *Sasacarus whartoni*
sauricola, Tanigoshi and Loomis 1974; *Hyponeocula*
scelopori, Ewing 1931; *Neoschongastia*

Schongastia Oudemans, 1910

sciuricola, (Ewing 1925); *Euschoengastia*

sciuricola, Ewing 1925; *Schongastia* = *Euschoengastia sciuricola*

scottae, (Brennan 1952); *Miyatrombicula*

scottae, Brennan 1952; *Trombicula* = *Miyatrombicula scottae*

senase, Greenberg 1952; *Acomatacarus* = *Albeckia senase*

senase, (Greenberg 1952); *Albeckia*

senase, (Greenberg 1952); *Whartonias* = *Albeckia senase*

setosa, Brennan 1946; *Chatia*

setosa, (Ewing 1937); *Euschoengastia*

setosa, Ewing 1937; *Trombicula* = *Euschoengastia setosa*

sexacis, Allred and Beck 1953; *Acomatacarus* = *Odontacarus micheneri*

shawi, Brennan 1959; *Odontacarus*

Shunsennia Jameson and Toshioka, 1953

signator, Ewing 1931; *Neoschongastia* = *Euschoengastia peromysci*

similis, Loomis, Baccus, and Wrenn 1972; *Euschoengastoides*

similis, Brennan 1967; *Wagenaaria*

simplex, Ewing 1938; *Hemitrombicula*

simulans, Wrenn and Loomis 1974; *Euschoengastia*

sinnamayri, (Floch and Fauran 1956); *Blankaartia*

sinnamayri, Floch and Fauran 1956; *Tragardhula* = *Blankaartia sinnamayri*

sleeperi, Pomeroy and Loomis 1984; *Dermadelema*

sleeperi, Loomis, Baccus and Wrenn 1972; *Euschoengastoides*

sloomi, Brennan 1965; *Euschoengastoides* = *Dermadelema furmani*
sola, (Gould 1956); *Otorhinophila sola*
sola, Gould 1956; *Trombicula* = *Otorhinophila sola*
soricinus, Gould 1956, *Euschoengastia*
Speleocola Lipovsky, 1942
splendens, (Ewing 1913); *Euschoengastia* = *Eutrombicula splendens*
splendens, (Ewing 1913); *Eutrombicula*
splendens, Ewing 1913; *Trombicula* = *Eutrombicula splendens*
sprocssi, (Brennan 1965); *Loomisia*
sprocssi, Brennan 1965; *Trombicula* = *Loomisia sprocssi*
staffordi, Brennan and White 1960; *Euschoengastia*
stewarti, (Gould 1956); *Comatacarus*
stewarti, Gould 1956; *Leeuwenhoekia* = *Comatacarus stewarti*
strandtmani, Wharton 1947; *Womersia*
subsignata, (Brennan and Wharton 1950); *Neotrombicula*
subsignata, Brennan and Wharton 1950; *Trombicula* = *Neotrombicula subsignata*
superciliaris, Loomis and Megens 1975; *Neotrombicula*
sylvilagi, (Brennan and Wharton 1950); *Neotrombicula*
sylvilagi, Brennan and Wharton 1950; *Trombicula* = *Neotrombicula sylvilagi*
tadaridae, Lipovsky 1952; *Speleocola*
tanigoshii, Loomis 1971; *Euschoengastoides*
Tecomatlana Hoffman, 1947
terrestris, Gould 1956; *Euschoengastia* = *Dermadelema furmani*

texana, (Loomis and Crossley 1963); *Tecomatlana texana*, Loomis and Crossley 1963; *Trombicula* = *Tecomatlana texana*

tibbettsi, Brennan and White 1960; *Trombicula tlalzahuatl*, (Murray 1877); *Trombicula*

Tragardhula Berlese, 1912

trigenuala, Farrell 1956; *Eushoengastia* = *Eushoengastia trigenuala* Loomis 1956

trigenuala, Loomis 1956; *Eushoengastia*

trisetica, (Loomis and Crossley 1953); *Microtrombicula*

trisetica, Loomis and Crossley 1953; *Trombicula* = *Microtrombicula trisetica*

Trombicula Berlese, 1905

Trombiculidae Ewing, 1944

tropica, (Ewing 1925); *Eutrombicula*

tumidus, Loomis 1971; *Euschoengastoides*

twentei, Loomis 1954; *Trombicula*

univari, (Brennan 1965); *Loomisia*

univari, Brennan 1965; *Trombicula* = *Loomisia univari*

usitata, Brennan 1965; *Trombicula*

utahensis, Brennan and Beck 1955, *Eushoengastia*

varians, Brennan and Wharton 1950; *Trombicula*

veanda, Brennan 1965; *Trombicula*

velata, Brennan and Yunker 1966; *Euschoengastia*

villosus, Goff and Loomis 1973; *Odontacarus*

Walchia Ewing, 1931

Walchioides Vercammen-Grandjean, 1960
watkinsi, Vercammen-Grandjean 1967; *Tecomatlana*
waynensis, Brennan and Wharton 1950; *Trombicula* = *Neotrombicula waynensis*
waynensis, (Brennan and Wharton 1950); *Neotrombicula*
webbi, Loomis 1971; *Euschoengastoides*
welbourni, Loomis and Webb 1971; *Microtrombicula*
Whartonacarus Vercammen-Grandjean 1960
Whartonia Ewing, 1944
whartoni, Greenberg 1952; *Acomatacarus*
whartoni, (Ewing 1929); *Neotrombicula*
whartoni, Brennan 1960; *Pseudoschongastia* = *Walchioides whartoni*
whartoni, (Hoffmann 1951); *Sasacarus*
whartoni, Ewing 1929; *Trombicula* = *Neotrombicula whartoni*
whartoni, (Brennan 1960); *Walchioides*
whartoni, Hoffmann 1951; *Whartonia* = *Sasacarus whartoni*
whitakeri, Wrenn 1984; *Euschoengastia*
Womersia Wharton, 1947
wrenni, Loomis 1956; *Microtrombicula*
xerophila, Loomis and Wrenn 1973; *Otorhinophila*
zapi, *Neotrombicula* –Never officially described

ADDENDUM

We would appreciate receiving citations for published or future papers not included in this article that contain pertinent information on the chiggers of North American vertebrates. Such information will be added periodically in this space.

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