

## ADDITIONAL RECORDS OF SIPHONAPTERA IN SOUTHERN NEW ENGLAND<sup>1 2</sup>

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**ABSTRACT:** A total of 2703 fleas representing 23 species and subspecies were collected between 1969 and 1979 in southern New England. Several new distributional records, including five species not previously reported from Connecticut, are presented. Eighteen new host records for New England are listed.

Since an earlier report on fleas in New England (Main, 1970), we have had the opportunity to examine an additional 2703 specimens collected in Connecticut and Massachusetts. Represented in these collections were 22 species (plus two subspecies), including five not previously reported from Connecticut (Main, 1970; Miller and Benton, 1973).

This paper is a compilation of these new records. As in the earlier publication, distribution is presented by state and county; however, extensions of previously reported ranges are marked with an asterisk (\*). New parasite-host associations for New England are noted with a double asterisk (\*\*). The percentage of fleas collected from each vertebrate species in the present survey is given in parenthesis in the list of hosts.

### PULICIDAE

#### *Cediopsylla simplex* (Baker)

Distribution: CONN: Middlesex, New London,\* New Haven,\* MASS: Nantucket,\* Plymouth.

Host Associations: This rabbit flea was taken from *Sylvilagus floridanus* (70%), *Urocyon cinereoargenteus* (18%), *Vulpes vulpes* (6%), *Canis familiaris*\*\* (4%), and *Oryctolagus cuniculus*\*\* (2%)

New Records: Fifty-four specimens (19 ♂♂, 35 ♀♀) were collected from 17 mammals of five species.

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*Ctenocephalides felis felis* (Bouche)

Distribution: CONN: Middlesex,\* New Haven, New London;\* MASS: Plymouth

Host Associations: The cat flea was collected from the following species of mammals: *C. familiaris* (33%), *Felis domestica* (18%), *Homo sapiens* (18%), *Procyon lotor* (7%), *Mephitis mephitis* (7%), *Didelphis virginiana* (4%), *O. cuniculus* (4%), *Tamiasciurus hudsonicus*\*\* (4%), and *U. cinereoargenteus*\*\* (4%).

New Records: Twenty-seven specimens (5 ♂♂, 22 ♀♀) were collected from 15 mammals representing nine species.

## VERMIPSYLLIDAE

*Chaetopsylla lotoris* (Stewart)

Distribution: CONN:\* New Haven;\* MASS: Hampshire, Plymouth.

Host Associations: This raccoon flea was taken from *P. lotor*, *U. cinereoargenteus*, and *M. mephitis*.\*\*

New Records: Belchertown (Hampshire Co.) Mass., 16 III.69, 1 ♀ ex *P. lotor*; Milford (New Haven Co.) Conn., 1. III.71, 1 ♀ ex *M. mephitis*; Plymouth (Plymouth Co.) Mass., 12. XI.72, 1 ♀ ex *U. cinereoargenteus*.

## HYSTRICHOPSYLLIDAE

*Atyphloceras bishopi* Jordan

Distribution: CONN: Middlesex;\* MASS: Bristol.

Host Associations: This vole flea was taken from *Clethrionomys gapperi* (75%) and *Microtus pinetorum* (25%).

New Records: Easton (Bristol Co.) Mass., 19.XI.69, 3 ♀♀ ex *C. gapperi*; Moodus (Middlesex Co.) Conn., 22.X.78, 1 ♂ ex *M. pinetorum*.

*Epitedia faceta* (Rothschild)

Distribution: CONN:\* Middlesex.\*

Host Associations: This flying squirrel flea was taken from *Glaucomys volans*.

New Records: Killingworth (Middlesex Co.) Conn., 25.XI.78, 1 ♀ ex *G. volans*.

*Epitedia wenmanni wenmanni* (Rothschild)

Distribution: MASS: Bristol, Hampshire, Plymouth.

Host Associations: This species parasitizes a wide variety of mammals including *C. gapperi* (77%) and *Peromyscus leucopus* (and nest) (23%).



New Records: Thirteen specimens (7 ♂♂, 6 ♀♀) were collected from nine mammals of two species.

*Epitedia wenmanni testor* (Rothschild)

Distribution: CONN: Middlesex,\* New London.\*

Host Associations: Like *E. w. wenmanni*, *E. w. testor* is found on a variety of small mammals including *P. leucopus* (80%), *M. pennsylvanicus* (15%), and *D. virginiana*.

New Records: Twenty specimens (9 ♂♂, 11 ♀♀) were collected from 16 mammals of three species.

*Tamiophila grandis* (Rothschild)

Distribution: CONN: Middlesex,\* New London.\*

Host Associations: This chipmunk flea was collected from *Tamias striatus* (67%) and *P. leucopus* (33%).

New Records: East Haddam (Middlesex Co.) Conn., 21.X.78, 1 ♀ and 5.XI.78, 1 ♀ both ex *T. striatus*; Old Lyme (New London Co.) Conn., 28.X.78, 1 ♀ ex *P. leucopus*.

*Ctenophthalmus pseudagyrtes pseudagyrtes* Baker

Distribution: CONN: Middlesex,\* New London;\* MASS: Franklin, Nantucket.\*

Host Associations: This species is found on a wide variety of mammals including *P. leucopus* (17%), *M. pennsylvanicus* (17%), *T. striatus* (13%), *M. pinetorum* (11%), *Scalopus aquaticus* (11%), *Parascalopus breweri* (11%), *C. gapperi* (11%), *D. virginiana* (4%), *Mustela frenata* (2%), *Blarina brevicauda* (1%), *S. floridanus* (1%), and *M. mephitis*\*\* (1%).

New Records: During this study, 151 specimens (67 ♂♂, 84 ♀♀) were taken from 76 mammals of 12 species.

*Doratopsylla blarinae* Fox

Distribution: CONN: Middlesex,\* New London,\* New Haven.

Host Associations: This shrew flea was taken from *B. brevicauda* (76%), *P. leucopus* (23%), and *C. gapperi* (1%).

New Records: Eighty-two specimens (33 ♂♂, 49 ♀♀) were taken from 29 mammals of three species.

*Stenoponia americana* (Baker)

Distribution: CONN: Middlesex,\* New London;\* MASS: Bristol, Nantucket,\* Plymouth.

Host Associations: This white-footed mouse flea was found on *P. leucopus* (and nest) (85%), *M. pinetorum*\*\* (9%), *T. striatus* (4%), *M. pennsylvanicus* (2%).

New Records: A total of 46 specimens (21 ♂♂, 25 ♀♀) was found on 31 mammals of five species.

### CERATOPHYLLIDAE

#### *Ceratophyllus diffinis* Jordan

Distribution: MASS: Plymouth.\*

Host Associations: Specimens were taken from *Geothlypis trichas*\*\* (50%), *Troglodytes aedon* (25%), and *Seiurus aurocapillus* (25%).

New Records: Four specimens (1 ♂, 3 ♀♀) were taken from four birds of three species.

#### *Ceratophyllus gallinae* (Schrank)

Distribution: MASS: Plymouth.\*

Host Associations: This poultry flea was taken from *H. sapiens*.

New Records: Manomet (Plymouth Co.), Mass., 19.IV.70, 1 ♀ ex *H. sapiens*.

#### *Megabothris asio asio* (Baker)

Distribution: CONN: Middlesex,\* New Haven,\* New London,\* MASS: Bristol, Nantucket.

Host Associations: This meadow vole flea was taken from *M. pennsylvanicus* (88%), *P. leucopus* (6%), and *Zapus hudsonius*\*\* (6%).

New Records: Seventeen specimens (9 ♂♂, 8 ♀♀) were taken from nine rodents of three species.

#### *Nosopsyllus fasciatus* (Bosc)

Distribution: CONN:\* New Haven\*.

Host Associations: This rat flea was taken from *D. virginiana*\*\*.

New Records: Hamden (New Haven Co.) Conn., 13.X.73, 3 ♂♂, 1 ♀ Madison (New Haven Co.) Conn., 31.I.74, 3 ♂♂, 2 ♀.

#### *Opisodasys pseudarctomys* (Baker)

Distribution: CONN:\* Middlesex;\* MASS: Bristol.\*

Host Associations: This flying squirrel flea was taken from *G. volans*.



New Records: Easton (Bristol Co.) Mass., 22.III.70, 1 ♀ and Killingworth (Middlesex Co.) Conn., 25.XI.78, 1 ♂ both from *G. volans*.

*Orchopeas howardii howardii* (Baker)

Distribution: CONN: Fairfield,\* Middlesex,\* New London,\* New Haven; MASS: Plymouth.

Host Associations: This squirrel flea was taken from a wide variety of mammals: *S. carolinensis* (69%), *M. mephitis*\*\* (15%), *T. hudsonicus* (8%), *P. lotor* (4%), *D. virginiana*\*\* (2%), *G. volans* (1%), *T. striatus* (1%), *C. familiaris*\*\* (1/2%), and *M. pennsylvanicus* (1/2%).

New Records: A total of 285 specimens (102 ♂♂, 183 ♀♀) was collected from 88 mammals of nine species.

*Orchopeas leucopus* (Baker)

Distribution: CONN: Middlesex,\* New London,\* New Haven,\* MASS: Bristol, Nantucket,\* Plymouth.

Host Associations: This *Peromyscus* flea was found on *P. leucopus* (and nest) (98%), *M. pennsylvanicus* (1%), *T. striatus* (1/2%), *C. gapperi*, *M. pinetorum*\*\*, and *H. sapiens*\*\*.

New Records: During the present survey, 673 specimens (217 ♂♂, 456 ♀♀) were taken from 269 mammals representing six species.

*Oropsylla arctomys arctomys* (Baker)

Distribution: CONN: Middlesex, New Haven,\* New London; MASS: Plymouth.

Host Associations: This woodchuck flea was taken from *Marmota monax* (87%), *P. lotor*\*\* (7%), and *U. cinereoargenteus* (7%).

New Records: Twenty-five specimens (12 ♂♂, 13 ♀♀) were taken from five mammals of three species.

LEPTOPSYLLIDAE

*Odontopsyllus multispinosus* (Baker)

Distribution: CONN:\* New Haven,\* New London;\* MASS: Plymouth.

Host Associations: This rabbit flea was taken from *S. floridanus*.

New Records: Mt. Carmel (New Haven Co.) Conn., 12.V.44, 1 ♂, Manomet (Plymouth Co.) Mass., 8.IV.77, 1 ♀, Old Lyme (New London Co.) Conn., 25.VII.78, 1 ♂, 1 ♀ all from *S. floridanus*.

*Peromyscopsylla hamifer hamifer* (Rothschild)

Distribution: CONN: Middlesex.\*

Host Associations: This vole flea was collected from *M. pennsylvanicus* and *pinetorum*.\*\*

New Records: Moodus (Middlesex Co.) Conn., 28.X.78, 1 ♂ ex *M. pennsylvanicus* and 29.X.78, 1 ♂ ex *M. pinetorum*.

*Peromyscopsylla hesperomys hesperomys* (Baker)

Distribution: CONN: Middlesex,\* New London.\*

Host Associations: This *Peromyscus* flea was found on *P. leucopus*.

New Records: Five specimens (2 ♂♂, 3 ♀♀) were taken from five white-footed mice.

## ISCHNOPSYLLIDAE

*Myodopsylla insignis* (Rothschild)

Distribution: CONN: Litchfield. MASS: Hampden.

Host Associations: This bat flea was taken from *Myotis lucifugus*.

New Records: A total of 1272 specimens (469 ♂♂, 803 ♀♀) was collected from 192 little brown bats.

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