



THE PARASITES OF BRITISH BIRDS AND MAMMALS. IV.—
RECORDS OF MAMMAL PARASITES.

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As a result of my appeal for ectoparasites of our British birds and mammals I have already received some very interesting material. This note contains some records of the various mammal parasites together with their hosts. I am extremely grateful to the numerous collectors, whose names will be found bracketed with the locality of each host, for their kindness in sending me specimens.

For the determination of the mites I have to thank my friend Mr. H. Britten and for much kind help with the determination of the ticks I wish to thank Mr. C. Warburton. To Dr. S. Finnegan my thanks are due for her kindness in helping with the Acarina.

SIPHUNCULATA.

Haematopinidae.

Enderleinellus longiceps Kellogg & Ferris, 1915.

Males and females from *Sciurus carolinensis* Gmelin (Grey Squirrel), adult ♂, Surrey, Wormley Hill, 4.vi.1934, (*N. H. Bennett*).

Neophaematopinus sciurinus (Mjöberg), 1910.

Males and females from *S. carolinensis* Gmelin, Kent, Hildenborough, 4.iv.1931, (*G. B. Thompson*).

Males and females from *S. carolinensis* Gmelin, adult ♂, Surrey, Wormley Hill, 4.vi.1934, (*N. H. Bennett*).

Males and females from *S. carolinensis* Gmelin, adult ♀, Gloucester, nr. Cheltenham, Puckham Woods, 7.ix.1934, (*J. N. Taylor*).

In 1934 I recorded this species for the first time from a British example of the Grey Squirrel. It appears from the above records to occur commonly on this host.

Hoplopleura sciuricola Ferris, 1921.

Contrib. toward a Mon. Sucking Lice, iii, pp. 110-111, figs. 69-70.

Males and females from *S. carolinensis* Gmelin, adult ♂, Surrey, Wormley Hill, 4.vi.1934, (*N. H. Bennett*).

This constitutes a new British record, the species having only been recorded previously from a N. American example of the Grey Squirrel. Moreover, this record, together with the two previous ones, are of particular interest as all three species were collected from a single specimen of the host,

MALLOPHAGA.

Trichodectidae.

Trichodectes melis (Fabricius), 1805.

Males and females from *Meles meles meles* Linn. (Badger), adult ♀, Oxford, University grounds, 18.ix.1933, (rec'd from R. Taylor).

Males and females from *M. m. meles* Linn.,* Ireland, Co. Derry, Ballykelly Wood, iii.1934, (S. A. Hunter).

Trichodectes mustelae (Schrank), 1803.

Males and females from *Mustela nivalis nivalis* Linn. (Weasel), Kent, Woolwich, 11.v.1933, (T. E. Potter).

SIPHONAPTERA.

Pulicidae.

Archaeopsylla erinacei (Bouché), 1835.

Males and females from *Erinaceus europaeus* Linn. (Hedgehog), from the following localities:—

Devon, Uffcolme, vii.1934, (F. F. Laidlaw); adult ♂, Ireland, Co. Dublin, St. Annes Clontarf, 7.iii.1925, (E. O'Mahony); Glamorgan, Penylan, 10.v.1934, (H. M. Hallett); Kent, Sidcup, vii.1934, (G. B. Thompson); Kent, Eltham, 30.vi.1932, (G. B. Thompson); Oxon, N. Oxford Golf Course, 27.viii.1934, (D. H. S. Davis).

This flea is specific to the Hedgehog, on which it usually occurs in very large numbers.

Ceratophyllidae.

Nosopsyllus fasciatus (Bosc.), 1800.

One female from *M. n. nivalis* Linn., Glamorgan, nr. Cefu Mabley, 11.v.1934, (H. M. Hallett).

Three females from *M. n. nivalis* Linn., Kent, Woolwich, 11.vi.1933, (T. E. Potter).

Monopsyllus sciurorum (Schrank), 1803.

Four females and three males from *S. carolinensis* Gmelin, adult ♂, Surrey, Wormley Hill, 4.vi.1934, (N. H. Bennett).

One female from *S. carolinensis* Gmelin, adult ♀, Gloucester, nr. Cheltenham, Cleeve Hill, 18.ix.1934, (J. N. Taylor).

Two males and one female from *Sciurus vulgaris leucorus* Kerr (Red Squirrel), adult ♂, Radnor, Boughrood, 16.ix.1934, (J. G. Williams).

Orchopeas wichami (Baker), 1895.

One female from *S. carolinensis* Gmelin, Surrey, Wormley Hill, 4.vi.1934, (N. H. Bennett).

* These specimens have already been recorded by J. A. Sidney Stendall. Irish Nat., 1934, v. p.72.

I have remarked previously (1934) on the apparent scarcity of this specific flea of the Grey Squirrel. According to Shaftesbury (1934), *O. wickhami* (Baker) is very common on the Grey Squirrel in North Carolina, U.S.A., and females predominate.

Paraceras melis (Walker), 1856.

One female from *M. m. meles* Linn., † Ireland, Co. Derry, Ballykelly Wood, iii. 1934, (S. A. Hunter).

Two females from the same host species, adult ♀, Oxford, University Grounds, 18.ix.1933, (rec'd from E. Taylor).

Ctenophthalmus agyrtes celticus Jordan & Rothschild, 1922.

A male and a female from *Apodemus sylvaticus sylvaticus* (Linn.) (Long-tailed Field Mouse), Ireland, Co. Dublin, Kilbarrack, 11.xi.1925, (E. O'Mahony).

Six males and four females from the same host species, Ireland, Co. Dublin, Sutton, 1.xii.1925, (E. O'Mahony).

Two females and a male from *Clethrionomys glareolus britannicus* (Miller) (Bank Vole), Gloucester, nr. Cheltenham, Prestbury, 26.viii.1934, (J. N. Taylor).

According to Jordan and Rothschild (1922) the true *Ctenophthalmus agyrtes* Heller does not occur in the British Isles but is represented by the subspecies *celticus*, which differs 'in the ♂ in the lower process of the clasper having the ventral apical angle square, and in the ventral arm of the ninth sternite being much less widened in its distal half than in Central European examples. In the ♀ the seventh abdominal sternite bears below the large lateral lobe a narrow, more or less acuminate and prominent lobe, which is always longer than it is broad in the centre.'

Ctenophthalmus bisocdentatus Kolenati, 1863.

Three males and two females from *Talpa europaea* Linn. (Mole), adult ♂, Gloucester, nr. Cheltenham, Noverton, 3.viii.1934, (J. N. Taylor).

Leptopsyllidae.

Leptopsylla musculi (Dugès), 1832.

Five females and one male from *Mus musculus* Linn. (House Mouse), Ireland, National Museum, Dublin, 21.x.1932, (E. O'Mahony).

Hystrihopsyllidae.

Typhloceras poppei Wagner, 1903.

One female from *A. s. sylvaticus* (Linn.), Ireland, Co. Dublin, Kilbarrack, 11.xi.1925, (E. O'Mahony).

† See previous footnote on the parasites from this host and locality.

This flea was first recorded from England by Rothschild (1903). It does not, however, occur commonly in the British Isles. According to Rothschild (1915) it has been found in Ireland.

Hystrichopsylla talpae (Curtis), 1826.

One female from *M. musculus* Linn., Ireland, Co. Dublin, Sutton, 29.xii.1924, (*E. O'Mahony*).

One female from *A. s. sylvaticus* (Linn.), Ireland, Co. Dublin, St. Anne's, Clontarf, 25.x.1924, (*E. O'Mahony*).

Ixodidae.

IXODOIDEA.

Ixodes hexagonus Leach, 1815.

One female and one nymph from *Mustela hibernica* Thomas & Barrett-Hamilton (Irish Stoat), Co. Dublin, Kilbarrack, iv.1926, (*E. O'Mahony*).

One female from *Lutra lutra* (Linn.) (Otter), Monmouthshire, Marshfield, 20.vii.1934, (rec'd from *H. M. Hallett*).

Females, larvae and nymphs from *Mustela putorius putorius* Linn. (Polecat), Carmarthenshire, Llangadoc, 10.xi.1932, (rec'd from *H. M. Hallett*).

Forty-three females from *E. europaeus* Linn., Oxon, N. Oxford Golf Course, 27.viii.1934, (*D. H. S. Davis*).

Nine females from *E. europaeus* Linn., Oxon, Witney, 28.viii.1934, (*H. V. Corley*).

One female from *E. europaeus* Linn., Oxon, N. Oxford, 30.viii.1934, (*D. H. S. Davis*).

This last specimen of *I. hexagonus* Leach was taken from a hedgehog kept in captivity after all the ticks had been removed from it at the time of capture. It is of interest to note the extent to which hedgehogs serve as hosts for this species of tick.

Ixodes tenuirostris Neumann, 1901.

One nymph and three larvae from *C. g. britannicus* (Miller), three adult ♂♂, Gloucester, nr. Cheltenham, Prestbury, 26.viii.1934, (*J. N. Taylor*).

Two males and three females from *A. s. sylvaticus* (Linn.), Oxon, Bagley Wood, 17.v.1934, (*D. H. S. Davis*).

The specimens from the Long-tailed Field Mouse are of particular interest, as I believe the males of this species of tick are seldom found.

PARASITOIDEA.

Eulaelaps stabularus (C. L. Koch), 1840.

One specimen from *A. s. sylvaticus* (Linn.), Ireland, Co. Dublin, Kilbarrack, 11.xi.1925, (*E. O'Mahony*).

Two specimens from *T. europaea* Linn., adult ♂, Gloucester, nr. Cheltenham, Noverton, 3.viii.1934, (*J. N. Taylor*).

Specimens from *S. carolinensis* Gmelin, Kent, Hildenborough, 4.iv.1931, (*G. B. Thompson*).

Specimens from *C. g. britannicus* (Miller), three adult ♂♂, Gloucester, nr. Cheltenham, Prestbury, 26.viii.1934, (*J. N. Taylor*).

Laelaps festinus (C. L. Koch), 1839.

Two specimens from *A. s. sylvaticus* (Linn.), Ireland, Co. Dublin, Sutton, 1.xii.1925, (*E. O'Mahony*).

Haemogamasus hirsutus Berlese, 1889.

Specimen from *A. s. sylvaticus* (Linn.), Gloucester, nr. Cheltenham, Prestbury, 28.viii.1934, (*J. N. Taylor*).

Specimens from *C. g. britannicus* (Miller), three adult ♂♂, Gloucester, nr. Cheltenham, Prestbury, 26.viii.1934, (*J. N. Taylor*).

SUMMARY OF THE RECORDS.

HOST.	PARASITE.
<i>Sciurus carolinensis</i> Gmelin.	(S) <i>Enderleinellus longiceps</i> Kellogg & Ferris.
" " "	(S) <i>Neohaematopinus sciurinus</i> (Mjöberg).
" " "	(S) <i>Hoplopleura sciuricola</i> Ferris.
" " "	(A) <i>Monopsyllus sciurorum</i> (Schrank).
" " "	(A) <i>Orchopeas wickhami</i> (Baker).
" " "	(P) <i>Eulaelaps stabularis</i> (C. L. Koch).
<i>Sciurus vulgaris leucorus</i> Kerr.	(A) <i>Monopsyllus sciurorum</i> (Schrank).
<i>Meles m. meles</i> Linn.	(M) <i>Trichodectes melis</i> (Fabricius).
" " "	(A) <i>Paraceras melis</i> (Walker).
<i>Mustela n. nivalis</i> Linn.	(M) <i>Trichodectes mustelae</i> (Schrank).
" " "	(A) <i>Nosopsyllus fasciatus</i> (Bosc.).
<i>Mustela hibernica</i> Thomas & Barrett-Hamilton.	(I) <i>Ixodes hexagonus</i> Leach.
<i>Mustela p. putorius</i> L.	(I) <i>Ixodes hexagonus</i> Leach.
<i>Lutra lutra</i> (Linn.).	(I) <i>Ixodes hexagonus</i> Leach.
<i>Erinaceus europaeus</i> Linn.	(A) <i>Archaeopsylla erinacei</i> (Bouché).
" " "	(I) <i>Ixodes hexagonus</i> Leach.
<i>Apodemus s. sylvaticus</i> Linn.	(A) <i>Ctenophthalmus agyrtes celticus</i> J. & R.
" " "	(A) <i>Typhloceras poppei</i> Wagner.
" " "	(I) <i>Ixodes tenuirostris</i> Neumann.
" " "	(P) <i>Eulaelaps stabularis</i> (C. L. Koch).
" " "	(P) <i>Laelaps festinus</i> (C. L. Koch).
" " "	(P) <i>Haemogamasus hirsutus</i> Berlese.
<i>Clethrionomys glareolus britannicus</i> (Miller).	(A) <i>Ctenophthalmus agyrtes celticus</i> J. & R.
" " "	(I) <i>Ixodes tenuirostris</i> Neumann.
" " "	(P) <i>Eulaelaps stabularis</i> (C. L. Koch).
" " "	(P) <i>Haemogamasus hirsutus</i> Berlese.

HOST.	PARASITE.
<i>Talpa europaea</i> Linn.	(A) <i>Ctenophthalmus bisectodentatus</i> Kolenati.
" " "	(P) <i>Eulaclaps stabularus</i> (C. L. Koch).
<i>Mus musculus</i> Linn.	(A) <i>Leptopsylla musculi</i> (Dugès).
" " "	(A) <i>Hystrichopsylla talpae</i> (Curtis).

(S)=Siphunculata. (A)=Siphonaptera. (I)=Ixodoidea. (P)=Parasitoidea.
(M)=Mallophaga.

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