

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER  
CARIBBEAN ISLANDS, No. 95.

NEW RECORDS OF CHIGGERS FROM THE WEST INDIES

by

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This study is based principally on chiggers collected by Dr. P. WAGENAAR HUMMELINCK (Zoölogisch Laboratorium, Utrecht) and associates. Supplemental material from Dr. THOMAS H. G. AITKEN (Trinidad Regional Virus Laboratory, Port-of-Spain) has provided several new records, and Mr. A. VENTURA (University College of the West Indies, Kingston), has supplied additional records of *Eutrombicula batatas* in Jamaica. — The bat hosts collected by HUMMELINCK have been identified by Dr. A. M. HUSSON (Rijksmuseum van Natuurlijke Historie, Leiden).

In all, our knowledge of trombiculid mites in the Caribbean has been substantially increased. Forty-five species are now known from the West Indies and chiggers are recorded for the first time from Saint-Barthélemy, Dominica, Patos Island (Venezuela), Margarita, Curaçao and Aruba.

The material covered in this paper comprises:

Chigger	Host	Locality (Sta.)	Page
<i>Wagenaaria similis</i> gen. & sp. n.	<i>Mormoops megalophylla</i>	Curaçao (340)	148
<i>Euschoengastia antillarum</i> sp. n.	<i>Sylvilagus floridanus</i>	Curaçao	150
<i>Trombicula thresca</i> sp. n.	<i>Tadarida brasiliensis</i>	Saint-Barthélemy	152
<i>Odontacarus tubercularis</i> (Brennan)	<i>Rattus</i> sp.	Patos (Venezuela)	153

<i>Whartonia guerrerensis</i> Hoffmann	<i>Erophylla sezekorni</i> <i>Peropteryx macrotis</i> <i>Mormoops megalophylla</i>	New Providence (494) Margarita (142) Curaçao (340), Aruba (251) Trinidad (570)	153
<i>Whartonia nudosetosa</i> (Wharton)	<i>Carollia perspicillata</i>	Trinidad	153
<i>Euschoengastia colombiae</i> (Boshell & Kerr)	<i>Diaemus youngi</i>	Trinidad	154
<i>Euschoengastia desmodus</i> Brennan & Dalmat	<i>Erophylla sezekorni</i>	New Providence (494)	154
<i>Speleocola secunda</i> Brennan & Jones	<i>Peropteryx macrotis</i>	Margarita (142)	154
<i>Blankaartia amersoni</i> Brennan	<i>Anous stolidus</i>	Soldado Rock (Trin.)	154
<i>Eutrombicula batatas</i> (Linnaeus)	<i>Sylvilagus floridanus</i> <i>Columbigalla passerina</i> domestic chicken	Curaçao Jamaica Jamaica	154
<i>Eutrombicula goeldii</i> (Oudemans)	<i>Anolis bimaculatus</i>	Dominica	154
<i>Fonsecia ewingi</i> (Fonseca)	<i>Tripanurgus compressus</i>	Trinidad	154
<i>Trombicula anophthalma</i> Hoffmann	<i>Erophylla sezekorni</i>	New Providence (494)	155
<i>Trombicula longicalcar</i> Brennan & Jones	<i>Myotis nigricans</i>	Trinidad	155
<i>Trombicula thompsoni</i> Brennan	<i>Anous stolidus</i>	Soldado Rock (Trin.)	155
<i>Trombicula tibbettsi</i> Brennan & White	<i>Erophylla sezekorni</i> <i>Glossophaga elongata</i>	New Providence Curaçao (219?)	155
<i>Trombicula usitata</i> Brennan	<i>Mormoops megalophylla</i>	Curaçao (340)	155
<i>Trombicula vesperuginis</i> Brennan & Jones	<i>Carollia perspicillata</i>	Trinidad (570)	155

### Wagenaaria gen. n.

Leeuwenhoeikiine larvae lacking anteromedian scutal projection, spiracles and tracheae, and eyes. Cheliceral blades with tricuspid cap only. Palpal tibial claw bifurcate and with tenent hairs; palpal tarsus with 7 branched setae and a tarsala. Sensilla flagelliform. Tarsal claws with tenent hairs and empodia simple.

Type species: *Wagenaaria similis* sp. n.

This genus is the second eyeless member of a group including

*Chatia* Brennan, *Parashunsennia* Kumada, *Sasacarus* Brennan & Jones and *Shunsennia* Jameson & Toshioka. Collecting data suggest that the single species assigned to *Wagenaaria* is parasitic on Chiroptera exclusively. No species of the other genera have been recorded from bats.

*Wagenaaria* shares various characteristics with the four genera mentioned above, but appears to be most closely related to *Parashunsennia* from which it is distinguished by presence of tenent hairs on tarsal claws of the legs and tibial claws of the palps; coxal setae 2-1-1 (2-2-2 in *Parashunsennia*).

Named for the collector, P. WAGENAAR HUMMELINCK.

### ***Wagenaaria similis* sp. n.**

(Fig. 42)

Type data: Holotype and 2 paratypes, RML 45403, off *Mormoops megalophylla*, Cueba di Ratón, Hato, CURAÇAO, 26 September 1948 (Station 340); 19 paratypes, same host and locality, 20 October (Sta. 340a) and 1 December 1948 (Sta. 340b), Hummelinck.

Holotype and some paratypes in the Rocky Mountain Laboratory, other paratypes in the U. S. National Museum, British Museum (Natural History), Field Museum of Natural History, Australian National Insect Collection, Canberra, and Institute of Acarology, Columbus, Ohio.

Diagnosis: In the group of genera mentioned above, *W. similis* is the only species with 3 genualae I and the only one parasitic on bats.

Body: Oval. Length and width of holotype, engorged, 504 by 298  $\mu$ . Eyes, spiracles and tracheae absent. Anus at approximate fifth row of ventral setae.

Gnathosoma: Punctate. Blades broad and strong, with tricuspid cap only. Galeal setae branched. Palpal setae B/B/BBB, tarsus with 7 branched setae and a tarsala; tibial claw bifurcate, the prongs short, a row of long tenent hairs on inner ventral surface.

Scutum: As figured. Wider than long, punctate, with sinuous anterior and posterior margins. No posterolateral angles, anterolateral angles sharply produced beyond insertion of AL's. Sensillary bases posterior to PL's, sensilla nude. Measurements of holotype: AW 57, PW 69, SB 31, ASB 36, PSB 11, AM 50, AL 37, PL 40, S 83.

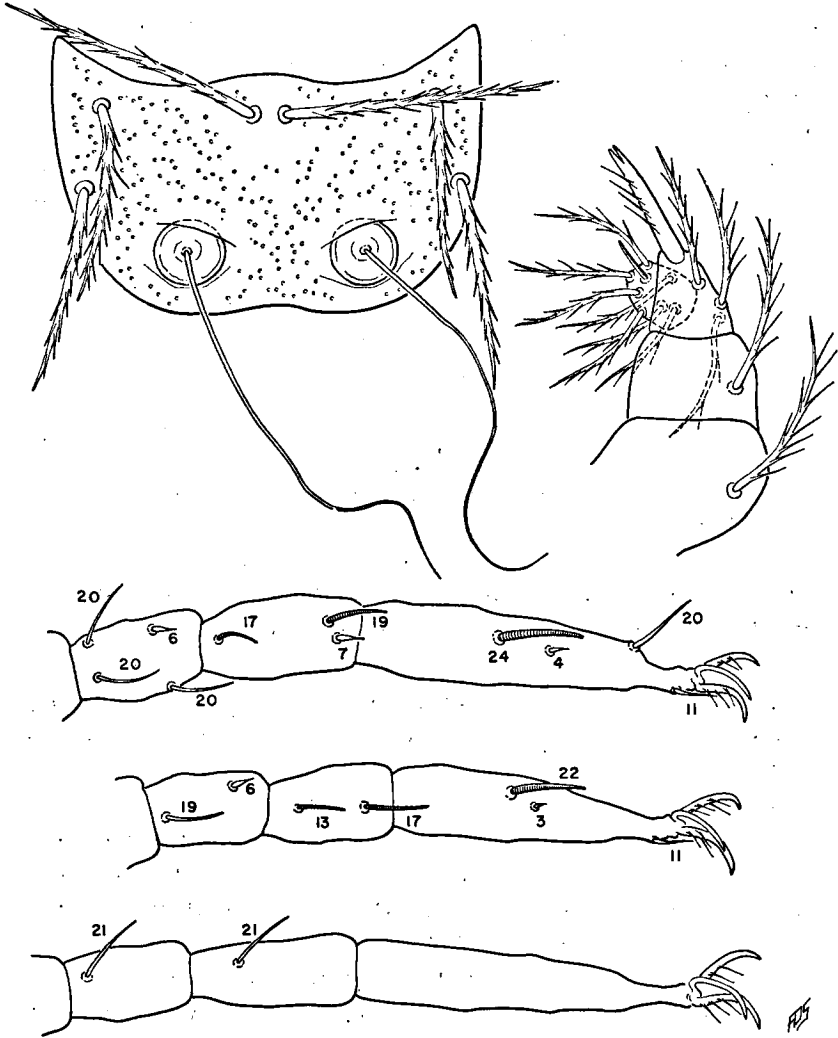


Fig. 42. *Wagenaaria similis* sp. n., from CURAÇAO on *Mormoops*. - Scutum, palp, and specialized setae of legs I, II and III with measurements in microns.

Legs: Coxae densely, other segments moderately, punctate. Specialized setae as figured, 3 genualae I, a genuala II and III, tarsalae long, no parasubterminala. Tarsal claws with tenent hairs, empodia bare. Non-specialized setae lightly to heavily branched, seta on coxa III at inner, anterior margin.

Body setae: Four or more humerals, 44 to 48  $\mu$  long; dorsal setae more than 150, 33 to 44  $\mu$ ; ventral setae 2-2 sternals plus more than 100.

### **Euschoengastia antillarum sp. n.**

(Fig. 43)

Type data: Holotype and 7 paratypes, RML 45473, off *Sylvilagus floridanus* (syn. *S. nigronuchalis*), CURAÇAO, 8 March 1949 (Brother Godefried), Hummelinck. Holotype and some paratypes in the Rocky Mountain Laboratory, other paratypes in the U. S. National Museum, British Museum (Natural History), Field Museum of Natural History and Australian National Insect Collection.

Diagnosis: Separated from its 3 Argentinian relatives, *E. azulae*, *E. pazca* and *E. trapezoides*, by having 4 humeral setae instead of 2, nude palpal laterotibial seta, shape of scutum and different dorsal setal formula.

Body: Obovate. Length and width of holotype, engorged, 406 by 260  $\mu$ . Eyes small, 2/2, in a plate, the anterior larger. Anus at fourth row of ventral setae.

Gnathosoma: Sparsely to moderately punctate. Cheliceral bases about two-thirds longer than wide, mildly angulate laterally; blades short and stout, with tricuspid cap. Galeal seta nude, unusually long. Palpal setae B/B/BNB, tarsus with 4 branched setae and a small tarsala, tibial claw trifurcate.

Scutum: As figured. Sparsely punctate, with sinuous margins and prominent angles. Sensilla capitate, the heads with few small setules, stems bare. Measurements of holotype: AW 38, PW 54, SB 11, ASB 22, PSB 7, AP 25, AM 17, AL 28, PL 27, S 24.

Legs: Lightly punctate. Specialized setae as figured, 2 genualae I, a genuala II and III. Non-specialized setae lightly to moderately branched. Seta on coxa III near anterior margin.

Body setae: Dorsal setae arranged 4-8-8-8-8-4-2, 21 to 30  $\mu$ ,

the shorter ones posterior. Ventral setae 2-2 sternals plus 36, postanals like dorsals.

Addendum: Since this paper went to press Dr. HUMMELINCK sent 7 more specimens of *Euschoengastia antillarum*, collected by him from the host species in Curaçao, 1963.

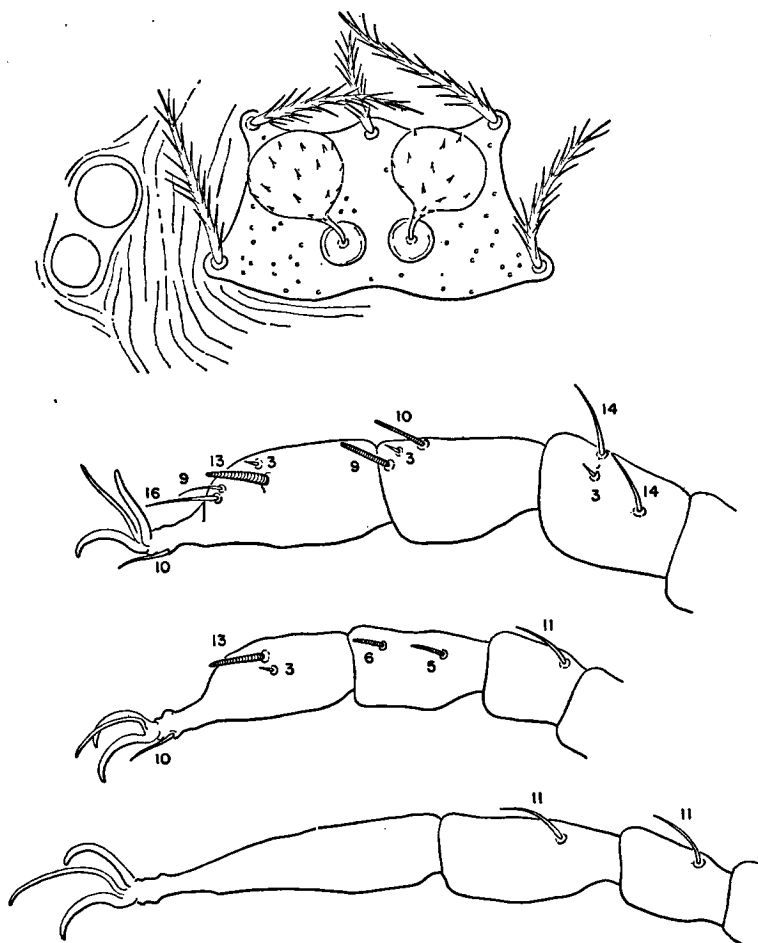


Fig. 43. *Euschoengastia antillarum* sp. n., from CURAÇAO, on *Sylvilagus*. - Eyes, scutum, and specialized setae of legs.

***Trombicula thresca* sp. n.**

(Fig. 44)

Type data: Holotype and a paratype, RML 45392, off *Tadarida brasiliensis*, in a church, Lorient, SAINT-BARTHÉLEMY, 3 June 1949, Hummelinck.

In the collection of the Rocky Mountain Laboratory.

Diagnosis: The absence of mastitarsala III distinguishes this bat chigger, *T. thresca*, from other Caribbean species having a bifurcate palpal tibial claw (*T. dicrura*, off rodents, Panama; *T. insularis*, off lizard, Dominican Republic; *T. thompsoni*, off sea birds, Jamaica and Trinidad).

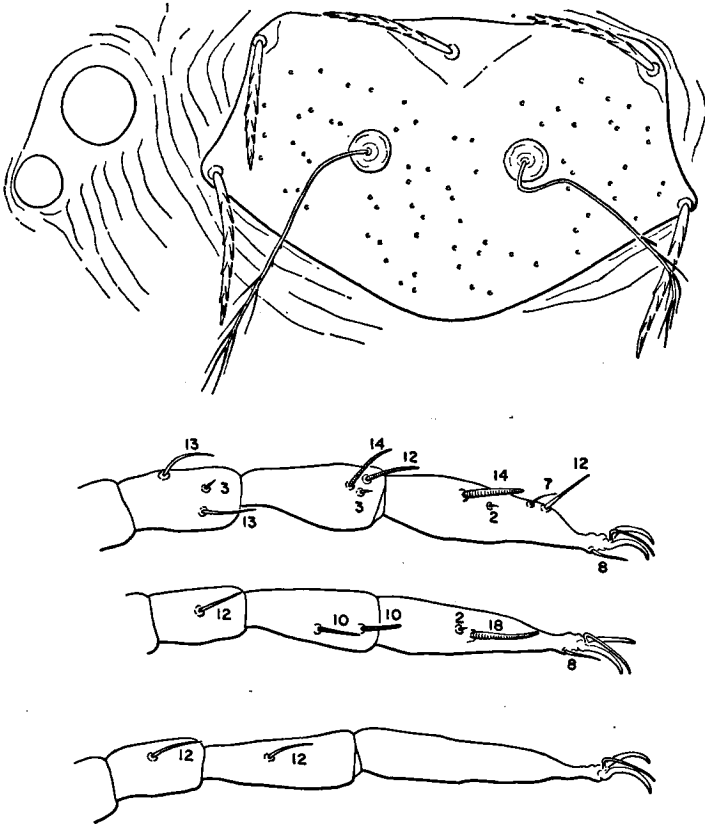


Fig. 44. *Trombicula thresca* sp. n., from ST.-BARTHÉLEMY, on *Tadarida*. - Eyes, scutum, and specialized setae of legs.

Body: Ellipsoidal. Length and width of holotype, engorged, 515 by 340  $\mu$ . Eyes prominent, 2/2, in a plate. Anus at fourth row of ventral setae.

Gnathosoma: Moderately punctate, cheliceral bases densely punctate basally. Blades with tricuspid cap. Galeal seta nude. Palpal setae B/N/NNB, ventrotibial may be forked; tarsus with 5 branched setae, a subterminala and a tarsala; tibial claw bifurcate, the axial prong inner and ventral.

Scutum: In the holotype, as figured, in the paratype posterior margin not quite so angulate; sparsely punctate. Sensilla branched on apical half. PL > AM = AL. Measurements of holotype: AW 67, PW 77, SB 27, ASB 24, PSB 25, AP 22, AM 23, AL 23, PL 27.

Legs: Sparsely punctate. Specialized setae as figured, 2 genualae I, a genuala II and III. Non-specialized setae lightly branched. Seta on coxa III near anterior edge.

Body setae: Dorsal setae similar to scutals, 23 to 25  $\mu$ , arranged 2-6-6-4-4. Ventral setae 2-2(sternals)-2-4-2-2-2, postanals similar to dorsals.

#### **Odontacarus tubercularis (Brennan)**

*Acomatacarus tubercularis* BRENNAN, 1952: 146.

Twenty specimens off *Rattus* sp., PATOS Island, Venezuela, 5 August 1962, Aitken.

#### **Whartonia guerrerensis Hoffmann**

*Whartonia guerrerensis* HOFFMANN, 1960a: 5 (reprint).

*Whartonia trinidadensis* BRENNAN & JONES, 1960: 496. New synonymy.

Nine larvae off *Erophylla sezekorni*, Hunt's Cave, NEW PROVIDENCE, Bahamas, 22 August 1949 (Sta. 494); 1 off *Peropteryx macrotis*, Cueva del Piache, El Valle, Margarita, Venezuela, 10 July 1936 (Sta. 142); 9 off *Mormoops megalophylla*, Cueva di Ratón, Hato, CURAÇAO, 26 September (Sta. 340) and 20 October 1948 (Sta. 340a) and 23 May 1955 (Sta. 340c), Cueva di Quadirikiri, ARUBA, 23 December 1936 (Sta. 251) and 18 May 1949 (Sta. 251c), Hummelinck.

#### **Whartonia nudosetosa (Wharton)**

*Hannemania nudosetosa* WHARTON, 1938: 142.

Two specimens off *Carollia perspicillata*, Tamana Bat Cave, TRINIDAD, 9 January 1955 (Sta. 570), Hummelinck.



**Euschoengastia colombiae** (Boshell & Kerr)

*Neoschoengastia colombiae* BOSHELL & KERR, 1942: 16 (reprint).

Three specimens off vampire bats, *Diaemus youngi*, Majuba Road, Petit Valley, Diego Martin, TRINIDAD, 8 January 1963, Aitken.

**Euschoengastia desmodus** Brennan & Dalmat

*Euschoengastia desmodus* BRENNAN & DALMAT, 1960: 188.

Two larvae off *Erophylla sezekorni*, Hunt's Cave, NEW PROVIDENCE, Bahamas, 22 August 1949 (Sta. 494), Hummelinck.

**Speleocola secunda** Brennan & Jones

*Speleocola secunda* BRENNAN & JONES, 1960: 509.

One specimen off *Peropteryx macrotis*, Cueva del Piache, El Valle, MARGARITA, 10 July 1936 (Sta. 142), Hummelinck.

**Blankaartia amersoni** Brennan

*Blankaartia amersoni* BRENNAN, 1965: 888.

Two larvae from 2 *Anous stolidus* (attached just inside external nares of nestlings), Soldado Rock, TRINIDAD, 9 May 1965, Aitken.

*B. amersoni* was but recently described from Johnston Atoll, Pacific Ocean, where all specimens found were occupying an intra-oral habitat in their sea-bird hosts, *Sterna fuscata* and *Phaethon rubicauda*.

**Eutrombicula batatas** (Linnaeus)

*Acarus batatas* LINNAEUS, 1758: 617.

One specimen off *Sylvilagus floridanus*, CURAÇAO, 8 March 1949 (Brother Godfried), Hummelinck; 16 off *Columbigallina passerina*, Caymanas, JAMAICA, 25 January and 17 May 1962, 6 off domestic *chicken*, Jamaica, 28 November 1961, Ventura.

**Eutrombicula goeldii** (Oudemans)

*Microthrombidium goeldii* OUDEMANS, 1910: 84.

Numerous larvae off *Anolis bimaculatus*, South Chiltern, St. Luke Parish, DOMINICA, 6 June 1965, Aitken.

**Fonsecia ewingi** (Fonseca)

*Trombicula ewingi* FONSECA, 1932: 153.

Two larvae off snake, *Typanurgus compressus*, Bush Bush Forest, Nariva Swamp, TRINIDAD, 16 November 1962, Aitken.

First record since described from various localities in Brazil off *Ophis merremii*.

**Trombicula anophthalma** Hoffmann

*Trombicula anophthalma* HOFFMANN, 1960: 102.

One specimen off *Erophylla sezekorni*, Hunt's Cave, New Providence, Bahamas, 22 August 1949 (Sta. 494), Hummelinck.

**Trombicula longicalcar** Brennan & Jones

*Trombicula longicalcar* BRENNAN & JONES, 1960: 517.

Eight specimens off *Myotis nigricans*, Bush Bush Forest, Nariva Swamp, TRINIDAD, 16 October 1963, Aitken.

**Trombicula thompsoni** Brennan

*Trombicula thompsoni* BRENNAN, 1953: 292.

Fifteen larvae off 4 *Anous stolidus*, Soldado Rock, TRINIDAD, 9 May 1965, Aitken.

First record since described from a single specimen off *Arenaria interpres*, Jamaica.

**Trombicula tibbettsi** Brennan & White

*Trombicula tibbettsi* BRENNAN & WHITE, 1960: 348.

One larva off *Erophylla sezekorni*, Hunt's Cave, NEW PROVIDENCE, Bahamas, 22 August 1949 (Sta. 494), Hummelinck; 1 off *Glossophaga elongata*, Cave of Hato, CURAÇAO, 22 December 1950 (A. D. Ringma), Hummelinck.

**Trombicula usitata** Brennan

*Trombicula usitata* BRENNAN, 1965: 81.

Two larvae off *Mormoops megalophylla*, Cueba di Ratón, Hato, Curaçao, 26 September (Sta. 340) and 20 October 1948 (Sta. 340a), Hummelinck.

**Trombicula vesperuginis** Brennan & Jones

*Trombicula vesperuginis* BRENNAN & JONES, 1960: 533.

Three specimens off *Carollia perspicillata*, Tamana Bat Cave, TRINIDAD, 9 January 1955 (Sta. 570), Hummelinck.

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