

A synopsis of the Scatopsidae of the Palaearctic

Part II. Swammerdamellini†

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Introduction

This very distinctive tribe consists of only two genera, *Swammerdamella* and *Rhexoza*. Both genera are present in the Palaearctic, Nearctic, Australian, Ethiopian, and Neotropical regions. It is likely that they are present in the Oriental regions also but our knowledge of them here is inadequate.

This tribe can be very clearly placed in the *Scatopsinae*, since vein M_{3+4} is represented merely as a concave fold between M_{1+2} and Cu_{1a} and the vesica or sperm pump of the male is attached to the genital complex only by the sperm duct. The members of the tribe can be distinguished from other tribes in the subfamily by the following diagnostic characters: Proboscis and labella very large (fig. 1), proboscis nearly half as long as head height; maxillary palpi large, ovate, and convex (fig. 1); antennae 9-10 segmented, never 12 (figs. 1 and 14). Thorax narrow, longer than wide when viewed from above; wings covered with rather small microtrichia, setae confined to costa, R_1 , R_2 , and posterior wing margin; R_3 terminates close to R_1 in *Swammerdamella* and in both *Rhexoza* and *Swammerdamella* both veins terminate in costa at or before middle of wing; pedicel of halteres with setae. Female abdomen with 8 segments and 2 simple cerci; male abdomen with 7 segments plus genitalia; genitalia with 1 or 2 pairs of appendages (figs. 4, 7, 9, 12).

The presence of setae on the pedicel of the haltere and the lack of setae on veins M and Cu separate this tribe from the *Rhegmoclamatini*. The large maxillary palpi and proboscis and the short costal-radial vein complex which ends at or before the middle of the wing separates it from the *Scatopsini*.

Key to genera

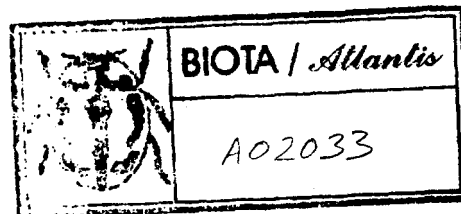
- 1 Length of costa between R_1 and R_2 less than or no longer than length of R_1 ; ♂ with abdominal segment 7 concealed in segment 6; fork of M no longer than or shorter than stem *Swammerdamella*
- Length of costa between R_1 and R_2 greater than length of R_1 ; ♂ abdominal segment 7 visible; M fork longer than stem *Rhexoza*

SWAMMERDAMELLA Enderlein

Swammerdamella Enderlein 1912. *Zool. Anz.*, 40 : 277-278; Cook, 1956. *Ann. ent. Soc. Am.*, 49 : 15-29; Cook, 1963. *Bull. Conn. st. geol. nat. Hist. Surv.*, 93 : 1-33; Cook, 1971. *Aust. J. Zool. Suppl.* 8 : 1-90. Type Species: *Scatopse brevicornis* Mg.

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This genus was very poorly characterized by Enderlein and, as a consequence was not recognized by Edwards (1925) or Duda (1928). However, Cook (1956) redescribed the genus, demonstrated that there are at least 20 species in the group, and that it has a world wide distribution. Since that time three additional species have been described from Africa (Cook 1962, 1965) and 6 new species and a previously described species from Australia (Cook 1971). No information on their biology has been recorded.

Species previously recorded from the Palaearctic are: *S. brevicornis* (Mg.); *S. acuta* (Cook); *S. pediculata* (Duda); and possibly *S. hungarica* (Duda). The types of *S. hungarica* were destroyed in 1952 apparently and the description is inadequate for recognition of the taxon.

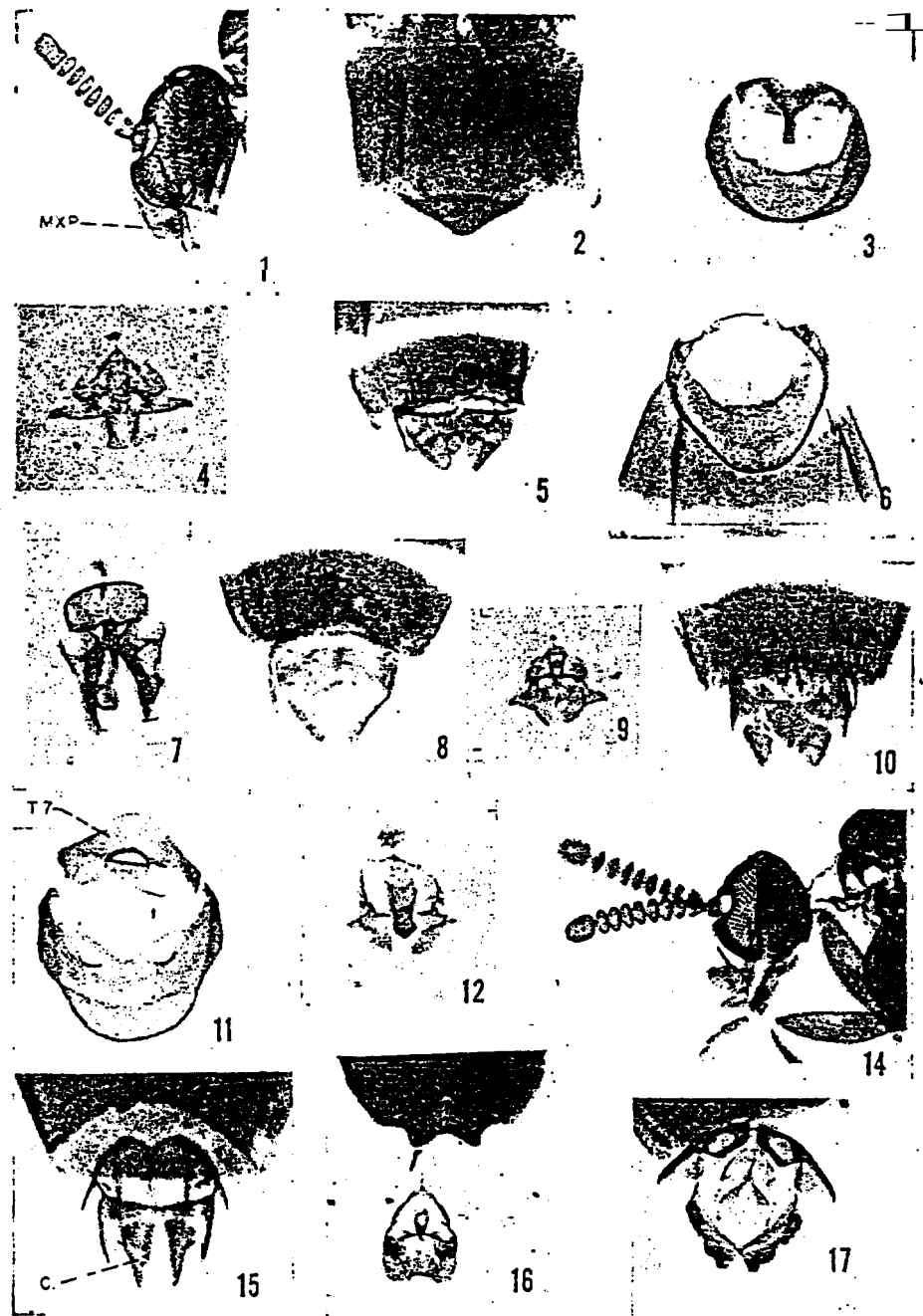
Since the genus has been extensively described (Cook, 1956, 1971), I will merely cite the diagnostic characters here. It is especially well characterized in the males. Rostrum long (0.4 x eye height), with large, anteriorly convex clypeus; labella smaller than maxillary palpi; maxillary palpi large (0.08 to 0.13 mm long), rather acutely ovate, convex ventrally; cardo-stipites a horizontal, band-like sclerite on base of rostrum between maxillary palpi; antennae 9-10 segmented, flagellomeres shorter than wide (fig. 1).

Anterior spiracular sclerite a narrow triangle; supraalar and sub-spiracular setae present; a few setae on pedicel of haltere. Wings with second section of costa short, posterior branch of R terminating before middle of wing; branches of M usually much shorter, or at least no longer, than stem; setae only on costa, base of R, R₂ and posterior wing margin; membrane covered with small microtrichia.

♂ abdomen with only 6 externally visible segments; segment 7 concealed in 6; tergum 7 reduced, often bearing a median process or processes; sternum 7 larger and bearing spiracles (figs. 3, 6, 11, 19). ♀ abdomen with 8 obvious segments bearing paired spiracles; ♀ with reduced segment 9 and 2 cerci (figs. 5, 22); a single spermatheca present. ♂ genitalia with 1 or 2 pairs of appendages, a median penis, and a sclerotized aedeagal plate beneath (figs. 4, 7, 9, 12); genital vesica always shorter than tergum 6.

Key to Palaearctic *Swammerdamella* species

1	Antennae with 10 segments	2
	Antennae with 9 segments (fig. 1)	5
2	With 6 abdominal segments (♂♂)	3
	With 7 or 8 obvious abdominal segments (♀♀)	4
3	Tergum 6 produced posteriorly in a triangular point; tergum 7 with a cup-like median process (fig. 11); aedeagal plate heavily sclerotized, dark; penis valves small (fig. 12)	<i>Pediculata</i>
	Tergum 6 not produced posteriorly; tergum 7 with no median process; aedeagal plate inapparent; penis valves very large, mesally toothed. (figs. 7, 21)	<i>Genypodis</i>
4	Tergum 8 with obvious spiracles, only slightly emarginate posteriorly (fig. 5); cerci flat dorsally	<i>Pediculata</i>
	Tergum 8 without obvious spiracles, deeply emarginate (figs. 10, 22); cerci with dorsal swelling	<i>Genypodis</i>
5	With 6 abdominal segments (♂♂)	6
	With 7 or 8 abdominal segments (♀♀)	8
6	Sternum 7 with <i>n</i> row of setae on each side near upper margin (fig. 19); genitalia with short gonocoxites or none	7
	Sternum 7 without marginal seta rows (fig. 3); genitalia with long gonocoxites (fig. 4)	<i>Brevicornis</i>



FIGS. 1-17. (1) *Swammerdamella brevicornis*, head; (2) *Swammerdamella brevicornis*, tergum 6; (3) *Swammerdamella brevicornis*, segment 7, ♂; (4) *Swammerdamella brevicornis*, genitalia ♂; (5) *Swammerdamella brevicornis*, genitalia ♀; (6) *Swammerdamella genypodis*, segment 7 ♂; (7) *Swammerdamella genypodis*, genitalia ♂; (8) *Swammerdamella pediculata*, genitalia ♀; (9) *Swammerdamella acuta*, genitalia ♂; (10) *Swammerdamella genypodis*, genitalia ♀; (11) *Swammerdamella pediculata*, segment 7, ♂; (12) *Swammerdamella pediculata*, genitalia ♂; (13) *Swammerdamella pediculata*, genitalia ♀; (14) *Rhexoza subnitens*, head; (15) *Rhexoza subnitens*, genitalia ♀; (16) *Rhexoza subnitens*, genitalia ♂; (17) *Rhexoza freyi*, genitalia ♀.

7	Genitalia with small but obvious lateral gonocoxites (fig. 9); 3 pairs of campaniform sensilla on occiput behind eyes	<i>Acuta</i>
	Genitalia with no lateral gonocoxites (fig. 18); only 1 or 2 pairs of campaniform sensilla on occiput behind eyes	<i>Adercotris</i>
8	Tergum 8 with several rows of setae	<i>Brevicornis</i>
	Tergum 8 with but a single sparse row of setae	<i>Acuta</i>

Swammerdamella brevicornis Meigen

Scatopse brevicornis Meigen, 1830, *Syst. Besch.*, VI: 314; Enderlein, 1912, *Zool. Anz.*, 40: 277-278 (*Swammerdamella*); Edwards, 1925, *Ann. appl. Biol.*, 12: 271 (*Scatopse*); Duda in Lindner, *Fliegen palaearkt. Reg.*, 2: (*Scatopse*); Cook, 1956, *Ann. ent. Soc. Am.*, 49: 17-20 (*Swammerdamella*).

DIAGNOSIS: With 9 segmented antennae in both sexes; ♂ with segment 7 lacking mesal seta row; ♀ with several rows of setae on tergum 8.

DESCRIPTION: *Male:* Total length 1.00-1.50 mm; all very dark blackish brown, sub shining; head jet black, shining; halteres dark brown; axillary area and empodia yellowish. Antennae 9-segmented, each flagellomere with about 11 curved setae arranged in an irregular whorl; head with 3 or 4 campaniform sensilla on each side of occiput in addition to numerous setae; cardostipites a single, somewhat triangular plate fused on midline; maxillary palpi 0.116-0.136 mm long, slipper-shaped (fig. 1). Supra-alar setae 10-16; sub-spiraculars 1-6; pedicellars 1-2, near base. Wings 1.03-1.40 mm long, 0.52-0.65 mm wide, WL/WW = 1.93-2.15; fork of M much shorter than stem. Segment 6 (fig. 2) with tergum a truncate triangle posteriorly, bilobed anteriorly; sternum 6 broadly and smoothly emarginate posteriorly; segment 7 with tergum narrow, bearing a median recurved spine (fig. 3); genital vesica and apodemes 0.22-0.25 mm long. Genitalia in fig. 4.

Female: Total length 1.35-1.80 mm; wing length 1.28-1.45 mm, wing width 0.55 mm; WL/WW = 2.32-2.40. Maxillary palpi 0.098-0.130 mm; supra-alar setae 9-14; sub-spiraculars 4-7; pedicellar 1. Otherwise like male in colour and chaetotaxy. Spermatheca obvious, 0.076-0.081 mm in diameter. Genitalia with 2 spiracles dorsally on segment 8 and 2 small adjacent cerci surrounded by laterally produced 9th tergum (fig. 5); several rows of setae on tergum 8.

DISTRIBUTION OF SPECIMENS EXAMINED: AUSTRIA: Igls. Tirol, 900 m. 5. ix. 1953. EGYPT: 20. iv. 1922. ENGLAND: Chelsea, London, 21. iv. 1920; Ditchling Common, Sussex, 3. viii. 1951; Brentwood, Essex, 29. vii. 1947; Dawlish Warren, Devon, 25. vii. 1960. FINLAND: Saltvik; Helsinki; Jomala; Tvarminne; Lojo; Karislojo; Kanteleks; Messuby; Terijoki. FRANCE: Rennes, 29. ix. 1898. HUNGARY: Baranya, Beremend, 24. iv. 63. 9. v. 1963. U.S.S.R.: Samara, Philipoffka, 28. viii. 1927. SWEDEN: Palsjo, Lund, 11. vi. 1961; Flackarp, 26. vi. 1960; Boh. Ljung, Lyckorna, 26/6-vi. (*sic*); Lomma, 28. ix. 1959; Dalby, 3. vi. 1961; Lund, 11. vi. 1961. CANARY ISLANDS: Las Lagunclas, 1. iv. 1949.

Despite Edwards' (1925) and Duda's (1928) comments this species is not found in the new world. I have seen no specimens from Asia minor.

Swammerdamella acuta Cook

Swammerdamella acuta Cook, 1956, *Ann. ent. Soc. Am.*, 49: 20.

Since originally describing this species, I have discovered in the type

series two male specimens which have very distinctive genitalia, longer maxillary palpi, and fewer campaniform sensilla on the occiput. These are described as a new species on the following pages. This casts some doubt on the identity of the female originally described as *S. acuta*. I have seen only one additional male *S. acuta* and a female since the original description and can add but little to that description.

DESCRIPTION: *Male:* 1.00-1.30 mm long; colour dark grey-brown, very like *S. brevicornis*; halteres dark brown. Maxillary palpi 0.08 mm long; 3 campaniform sensilla on each side of occiput; supra-alar setae 15-16; sub-spiraculars 1-3; wing length 1.00-1.25 mm, width 0.60 mm. Tergum 6 produced posteriorly in an acute median process (sometimes slightly truncate apically); tergum 7 with a stout median process; sternum 7 with a stout median process; sternum 7 with a paired row of small setae on inner, posterior margins; genital vesica and apodemes 0.26 mm long. Genitalia as in fig. 9.

DISTRIBUTION OF SPECIMENS EXAMINED: FINLAND: Kivkoski, Sainakanaal, 2. viii. 1904. SCOTLAND: Bonhill, Dumbartonshire, vii. 1912; Braedownie, Angus, 816 ft., 24. vii. 1937. SWEDEN: Pajala, 27. vii. 1951.

Swammerdamella adercotris sp. nov.

DIAGNOSIS: Very like *S. acuta* except maxillary palpi 0.11 mm long and male genitalia without laterally projecting gonocoxites.

DESCRIPTION: *Male:* 1.00-1.13 mm long; coloured as *S. brevicornis*, all darkish brown, feebly shining; head jet black; halteres dark; tarsi slightly paler than remainder of legs; empodia pale. Antennae 9-segmented, penultimate flagellomere with 9 setae arranged in a whorl, others similarly provided; only 1 or 2 campaniform sensilla on each side of occiput in addition to setae; cardo-stipites a single somewhat triangular plate, fused on the midline; maxillary palpi 0.11 mm long, slipper-shaped. Supra alar setae 12-15; sub-spiraculars 1-2; pedicellars 2, near capitulum; wing 1.13-1.19 mm long, 0.62 mm wide, WL/WW-2.16-2.26. Tergum 6 a short, truncate triangle posteriorly, anteriorly bilobed; sternum 6 very shallowly emarginate posteriorly; tergum 7 with a stout, median process and a cluster of 6-9 setae on each side; sternum 7 with a straight row of 7-9 setae on each side, otherwise with scattered setae and numerous microtrichia (fig. 19); genital vesica and apodemes 0.20-0.25 mm long. Genitalia as in fig. 18.

Female: Unknown.

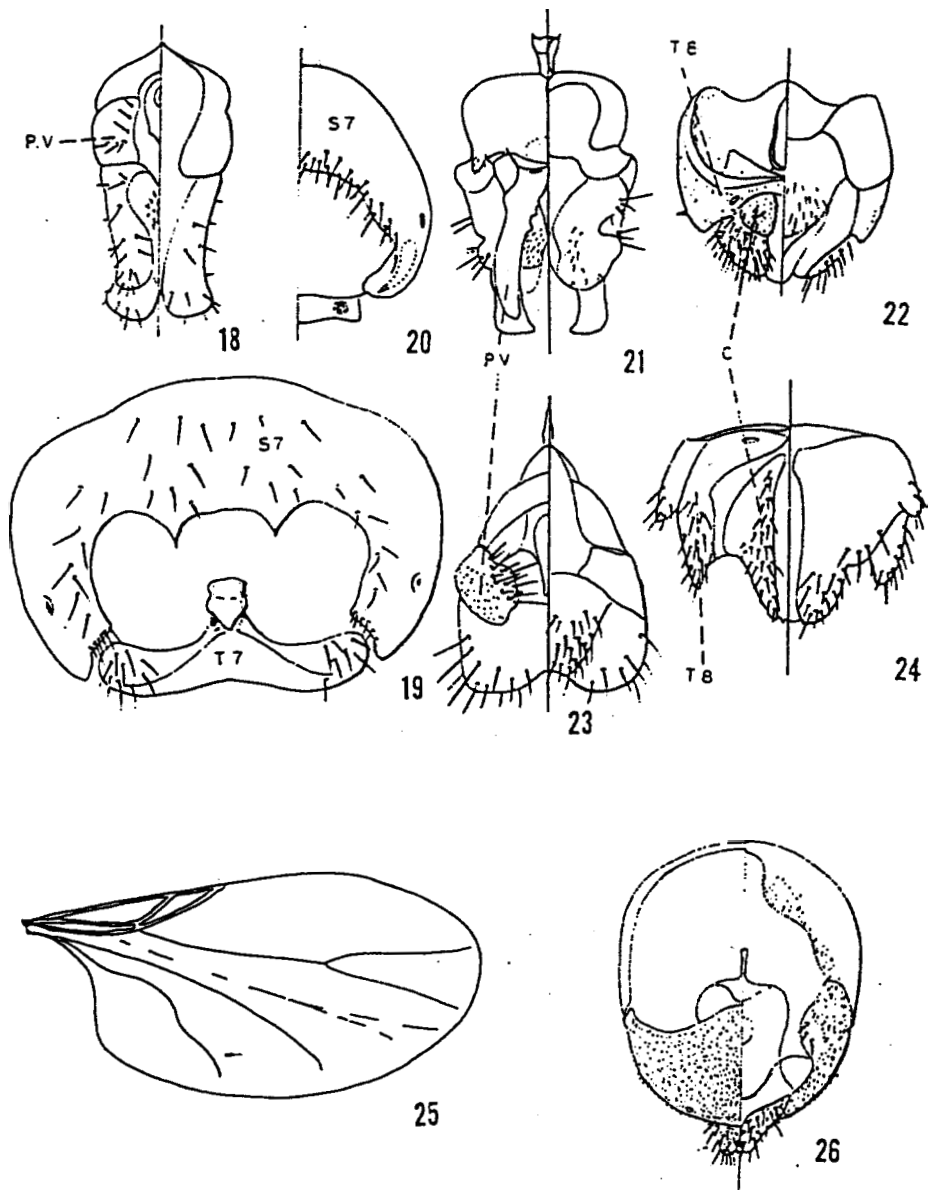
DISTRIBUTION OF SPECIMENS EXAMINED: Holotype: ♂, PAJALA, Nb. SWEDEN. 27. vii. 1951, J. R. Vockeroth. Holotype in the Canadian National Collections.

Paratype, ♂, data as above. In the University of Minnesota Collections.

Swammerdamella pediculata Duda

Scatopse pediculata Duda, 1928, in Lindner, *Fliegen palaearkt. Rep.*, 2: 33-34.

DIAGNOSIS: Antennae with 10 segments in both sexes: ♂ with tergum 7 bearing a median cup-shaped process (fig. 11), acedeagal plate darkly pigmented, heavily sclerotized; ♀ with tergum 8 bearing obvious microtrichia but no setae.



FIGS. 18-26. (18) *Swammerdamella adereotris*, genitalia ♂; (19) *Swammerdamella adereotris*, segment 7, ♂; (20) *Swammerdamella genypodis* segment 7 ♂; (21) *Swammerdamella genypodis*, genitalia ♂; (22) *Swammerdamella genypodis*, genitalia ♀; (23) *Rhexoza subnitens*, genitalia ♂; (24) *Rhexoza subnitens*, genitalia ♀; (25) *Swammerdamella genypodis*, wing; (26) *Rhexoza radiella*, genitalia ♀.

DESCRIPTION: *Male:* About 1.5 mm long; coloured as *S. brevicornis*, all dark blackish brown, feebly shining; head jet black; halteres dark; empodia pale. Antennae 10 segmented, penultimate flagellomere with 12 curved setae arranged in a whorl, others similarly provided; 3 to 4 campaniform sensilla on occiput in addition to setae; cardo-stipites a rectangular plate fused on the midline; maxillary palpi 0.130 mm long, slipper-shaped. Supraalar setae 10; subspiraculars 1; pedicellars 2, near base of capitulum; wing

1.44 mm long, 0.65 mm wide, $WL/WW = 2.23$. Segment 6 a short, truncate triangle posteriorly, somewhat bilobed anteriorly; sternum 6 smoothly and shallowly emarginate posteriorly; tergum 7 with a median cup-shaped process and a cluster of setae on each side; sternum 7 produced somewhat anteriorly, with a pair of clear fenestrations near posterior margin (fig. 11); vesica and apodemes 0.20 mm; genitalia as in fig. 12.

Female: Slightly larger than male; wing length 1.50 mm, 0.70 mm wide, $WL/WW = 2.12$; maxillary palpi 0.125 mm long; supra-alar setae 12; subspiraculars 0; pedicellars 1; otherwise like the male in colour and chaetotaxy. Spermatheca obvious, 0.098 mm in diameter; genitalia with a pair of spiracles dorsally on segment 8; a pair of obvious cerci, and tergum 9 produced posteriorly on each side of cerci (fig. 8).

DISTRIBUTION OF SPECIMENS EXAMINED: GERMANY: 1 ♂, 1 ♀, Recklinghausen, Westphalia, 29, v. 1918, 16. 6 1918. (This seems to be part of the type series.)

COMMENTS: This species is most nearly related to *S. pygmaea* (Loew) and *S. confusa* (Cook), both of which are Nearctic species. The antennal structure and the structure of the genitalia and segment 7 all indicate this quite clearly. This species has not been recorded since the original description.

Swammerdamella genypodis, sp. nov.

DIAGNOSIS: Antennae 10 segmented in both sexes; fork of M slightly longer than stin, M_1 and M_2 diverging to wing margin.

DESCRIPTION: *Male*: 1.35 to 1.50 mm long; very largely blackish brown, membranes cream coloured, setae brown; head darker brown; eyes black; palpi and labella pale brown; halteres sordid white; legs concolorous with body, tarsi somewhat paler; all dull. Antennae 10 segmented, flagellomeres with about 10 long, curved setae arranged in a whorl; 2 campaniform sensilla on each side of occiput iii in addition to numerous setae; maxillary palpi very large, 0.133 mm long, slipper-shaped; labella smaller than palps; cardo-stipites a band-like sclerite fused medially, about 6-10 setae on each side. Supraalar setae 10; subspiraculars 3; pedicellars 2; wing length 1.25 mm, width 0.75 mm, $WL/WW = 1.67$; R_3 terminates farther from R_1 than is usual in this genus (fig. 25); M fork as long as or slightly longer than steni; M_1 and M_2 diverge to wing margin; numerous microtrichia on whole membrane. Abdominal terga with few setae, only on posterior 1/3, sterna with more abundant setae on whole surface; sternum 6 smoothly emarginate posteriorly (fig. 6); tergum 6 with a straight posterior margin beset with long setae; segment 7 retracted into segment 6; tergum 7 small, without setae; sternum 7 enlarged, bearing an irregular row of long setae on the posterior margin, a pair of reduced spiracles, and a pair of spine-like processes at the ventro-lateral margins (fig. 6). Genital vesica and apodemes very small, 0.20 mm long. Genitalia with very large, basally toothed penis valves (figs. 7 and 21).

Female: Total length 1.35-1.90 mm; colour identical with that of male; wing length 1.35-1.50 mm, width 0.70-0.75 mm, $WL/WW = 1.93-2.00$. Antennae like those of the male but with 11-12 setae on each flagellomere; maxillary palpi 0.123-0.138 mm long; cardo-stipites with a single row of about

6 setae on each side. Supra alar setae 8-9; sub-spiraculars 2-3, pedicellars 2. Abdominal terga and sterna with chaetotaxy like the male; segment 7 not modified nor concealed in segment 6. Genitalia as in figs. 10 and 22.

DISTRIBUTION OF SPECIMENS EXAMINED: Holotype: ♂, Vikijärvi, FINLAND 17-19. vi. 1960, Tuomikoski. Paratypes: 3 ♀♀'s, same data as holotype; 1 ♂, 4 ♀♀'s, 23-25. vi. 1960; 1 ♀, 26-28. vi. 1960; 2 ♀♀'s, Kangsala, Finland, R. Frey (no other data). Types deposited in the University Collections, Helsinki.

Rhexoza Enderlein

Rhexoza Enderlein, 1936. *Tierwelt Mitteleur.*, 6, Lief. 2, Insekten, 3 : 53; Cook, 1956, *Ann. ent. Soc. Am.*, 49 : 1-12; Cook, 1971, *Aust. J. Zool.*, Suppl. 8 : 1-90. Type species: *Rhexoza zacheri* Enderlein (original designation). This is most certainly *Rhexoza subnitens* (Verrall).

As originally erected by Enderlein this genus contained only the type species. No other species were referred to it until I did in 1956. However, my definition at that time was much too broad and two included groups of species (termed in 1956, the Quatei and the Dampfi groups), are not congeneric and must be recognized as distinct genera. These will be treated elsewhere. As now conceived, this genus includes just those species considered by me to belong to the Zacheri group. This is represented by at least 4 North American species, 2 South or Central American species, two Australian species, and one European species.

Larvae of one of the known North American species are found in the damp inner bark of dead or dying deciduous trees. Larvae of *R. subnitens* have been described by Tonnoir (1926).

DIAGNOSIS: Antennae with 10 segments; maxillary palpi large, 0.10 mm long or longer, slipper-shaped; cardo-stipites a band-like sclerite, fused on midline, beset with several seta rows. Supraalar setae a very dense row of 10 or more. Wing venation very like that of *Scatopsa fuscipes* Mg., costal length beyond R_1 only slightly shorter than length from R_1 to base; M fork complete; setae present on costa and radius and on posterior wing margin only; membrane covered with microtrichia. Abdomen with 7 obvious pregenital segments; segment 7 of male posteriorly modified on either tergum, sternum, or both. Male genitalia with only 1 pair of appendages; tergum 9 without processes; penis short, well sclerotized; genitalia rotated through 180°. Female genitalia with very large cerci; tergum 8 sometimes medially emarginate, bearing the 8th pair of spiracles; sternum 8 with a deep median notch or entirely divided; spermatheca elliptical.

The species *R. subnitens* is widely distributed, *R. freyi* is apparently confined to the Canary Islands, and *R. radiella* is known only from Tunisia.

Rhexoza subnitens Verrall

Scatopsa subnitens Verrall, 1886. *Entomologist's mon. Mag.* 22 : 180-181; Duda, 1928, in Lindner, *Fliegen Palaearkt. Reg.*, 2 (1) : 38.

Scatops nigra, sensu Edwards (not Meigen, *fdc*, Duda, *ibid.*, and Seguy 1940) 1925, *Ann. appl. Biol.* 12 : 274.

Rhexoza zacheri Enderlein 1936, *Tierwelt Mitteleur.*, 6, Lief. 2, Insekten 3 : 53; Cook, 1956, *Ann. ent. Soc. Am.*, 49 : 4, NEW SYNONOMY.

Prior to this, I had seen only the apparent female type of *R. zacheri*. I have before me now one male and two additional females. The male and one

female are from Denmark Hill, London and are part of the series that Verrall had when he described the species.

DESCRIPTION: Male: About 2.00 mm long; colour dark blackish brown, head darkest; head and thorax shining, abdomen only feebly shining; legs all concolorous with body; halteres very dark brown. Antennae and maxillary palpi missing on the only available male; 2 campaniform sensilla on occiput, the lower one very close to eye margin; cardo-stipites large, medially fused, with about 12 setae in a double row on each side. Supra alar setae 19; sub-spiraculars 12; pedicellars 5; wing 1.94 mm long, 0.95 mm wide, WL/WW = 2.06; setae on costa and radius, but not on the base of M; membrane covered with microtrichia; veins M_1 and M_2 diverge to the wing margin. Abdominal terga and sterna with numerous stout setae on posterior $\frac{2}{3}$ of each sclerite; tergite 7 produced into two diverging posterior processes (fig. 16); sternum 7 with a V-shaped posterior emargination the apices of which are produced into spine-like processes; genital vesica and apodemes 0.358 mm long. Genitalia as in fig. 16 and 23; penis valves small, rounded.

Female: Size and colour as in the male; antennae 10-segmented, each flagellar segment with about 10 long, curved setae arranged in a whorl; maxillary palpi 0.126 mm long; cardo-stipites with 10-15 setae in a double row on each side; lower campaniform sensilla immediately adjacent to eye; labella larger than in *Swammerdamella*, nearly as large as maxillary palpi. Supra alar setae 14-16; sub-spiraculars 8-14; pedicellars 2-3; wings identical with those of male. Abdomen with segments 1-6 like those of male, tergum and sternum 7 like the preceding, unmodified; genitalia as in figs. 15 and 24.

DISTRIBUTION OF SPECIMENS EXAMINED: ENGLAND: 1 ♂, 1 ♀, Denmark Hill, London, 24. v. 1873, Verrall. FINLAND: 1 ♀ Muonio (no other data); 1 female Helsingfors (no other data).

According to Duda (1928) this species is present in the Netherlands and according to Cook (1956) in Germany.

Rhexosa freyi Duda

Scatopse freyi Duda, 1937, *Finska Vetenskap Soc. Commentations Biol.*, 6: 18.

This species was described from the Canary Islands and, as far as I can ascertain, has not been recorded since. I have had available 5 specimens from La Palma, El Paso. One is labelled *Scatopse freyi* in Duda's handwriting and has a type label. One other specimen from this series also has a type label. All the specimens are female. So male has been available to me.

DESCRIPTION: Male: According to Duda Tergite 7 is produced into a median tail-like process posteriorly with a sharp, haired point on each side at the base.

Female: 1.55-1.84 mm long; dark blackish brown in colour, scarcely shining; head slightly darker than thorax; antennae dull black with silvery pubescence; abdomen dull; legs concolorous with body, tarsi slightly paler; wing bases and halteres brown. Antennae 10-segmented, penultimate segment with about 16 curved setae arranged in a whorl, other flagellomeres similarly armed; 2 campaniform sensilla on occiput below level of antennae; cardo-stipites large, medially fused, with about 13 setae in an irregular double row

on each side: maxillary palpi large, somewhat reniform, 0.13 mm long. Supra-alar setae 18; sub-spiraculars 3 large and 7 small; pedicellars 3; wing length 1.30-1.64 mm, width 0.70-0.75 mm, $WL/WW = 1.86-2.20$; setae on costa and radius but not on base of M; membrane covered with microtrichia; M_1 and M_2 diverge to the wing margin; costa ends at about middle of wing. Abdominal terga and sterna with posterior $2/3$ to $3/4$ covered with setae, slightly longer and more numerous on posterior segments, segments 1-6 similar, little modified; segment 7 very slightly emarginate posteriorly. Genitalia as in fig. 17; spermatheca elliptical, 0.22 mm long, no conspicuous neck.

DISTRIBUTION OF SPECIMENS EXAMINED: CANARY ISLANDS: La Palma, El Paso, 6. VIII. R. Storba, no other data.

Rhexoza radiella Enderlein

Reichertella radiella Enderlein, 1926. *Zool. Anz.*, 63: 139, Duda, 1928, *ibid.*, p. 36 (*Scatopsae*).

This species is based on a unique specimen and no other specimens have been recorded since the original description. This type has been made available to me by the Humboldt University of Berlin.

DESCRIPTION: *Male*: unknown. *Female*: Total length 2.00 mm; colour dark blackish brown, dull; head black; pleuron shining; legs concolorous except tarsi yellowish brown; halteres grey brown; wings colourless. Antennae 10-segmented; flagellomeres much wider than long, each with about 15 curved setae in a single whorl; maxillary palpi very stout, 0.15 mm long; rostrum relatively short, 0.33 times total head height; labella smaller than maxillary palpi; 2 campaniform sensilla on occiput behind eyes; cardo-stipites medially fused, with about 12 setae in a double row on each side. Supra-alar setae 14; sub-spiraculars 12; pedicellars 2; wing length 1.45 mm, 0.70 mm wide, $WL/WW = 2.07$; setae on costa, dorsal surface of R , R_1 and R_2 but none on M; membrane covered with microtrichia; veins M_1 and M_2 diverge to wing margin. Abdominal terga and sterna much reduced in size, setae on sclerites small; tergum 7 with deep, rounded posterior emargination; sternum 7 with a short, broad posterior projection; tergum 8 a broad plate with small spiracles and bearing 2 small cerci; sternum 8 medially divided bearing a pair of very short setaceous lobes (fig. 26).

SPECIMEN EXAMINED: Holotype female: Bordj Cedria, Tunisia, 15. iv. 1913.

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