

New and little known *Strepsiptera* from Poland

by

Dr. A. OGLOBLIN.

Through the kindness of Mr. J. Noskiewicz (Lwów) I have obtained some materials on *Strepsiptera*, though consisting of only two parasitized bees and of one wasp, it is highly interesting as it contains two news species and one species, which is unsufficiently described and very little known.

Genus *Crawfordia* Pierce.

The new species of *Crawfordia*, which is described below, is the first representative of this genus in Europe, the remaining four species having been described by W. D. Pierce from N. America, as parasites of bees of the genus *Panurginus* Nyl. The present species of *Crawfordia* was discovered by my brother D. A. Ogloblin in 1914. at Poltava (Russia), but remained undescribed since that time. It is a common parasite of *Panurginus labiatus* Eversm. The following description and drawings have been made from one female specimen forwarded by Mr. J. Noskiewicz. D. A. Ogloblin kindly sent me a table of measurements of 20 specimens taken by him at Poltava. (see below).

Crawfordia labiata m. n. sp. Pl. II. Fig. 1.

One ♀ specimen taken by Mr. J. Noskiewicz at Bedrykowce (Poland) on 6. VII. 1922 parasitizing in the male of *Panurginus labiatus* Eversm.

Female. Larval cephalothorax yellow with black semicircular band on the base ventrally. The first abdominal segment ventrally

with square, strongly chitinized, black spot. Cephalothorax rather broader than long broadest behind the spiracles, after which suddenly constricted; spiracles large lateral, but not prominent; cephalothorax from the spiracles to apex straight, oblique, broadly rounded angled before the anterior margin, thence oblique to mandibles apex; truncate at apex. Immediately behind the mouth there is a curved chitinized line directed to spiracles; behind the head its ends are divided respectively in two small chitinous pieces, which caudally reach the broadest part of the cephalothorax. The mandibles prominent, transverse, triangular; their anterior margin obtusely angled, with a sharp tooth at the apex internally. The mouth orifice leads in a short funnel-shaped chitinized tube. The abdomen consists of eight segments; there are only three median genital tubes opening in the brood canal. The male is unknown. The triungulinid larvae have been collected by D. A. Ogloblin and shall be described as soon as I shall obtain that material.

The following table have been made by my brother with Reichert binocular microscope oc. IV and objective 30; with eyepiece micrometer; 1 space = 18 μ . The 21st measurement has been made by the author from a glycerin preparate of the female specimen from Bedrykowce.

The measurements are given by number as follows:

- I. — The width of cephalothorax at base.
- II. — The maximum breadth.
- III. — The distance between the spiracles.
- IV. — The distance between the mandibles.
- V. — The length from the front edge of the spiracle to the apex of the cephalothorax.
- VI. — The length from the base to apex of the cephalothorax.
- VII. — The width of the head at base.
- VIII. — The width of the mandible.
- IX. — The length of the mandible.

		I	II	III	IV	V	VI	VII	VIII	IX	
1	Dejkalovka	16,5	20,5	18,5	5,0	12,8	18,5	18,0	2,1	1,5	Canad. balsam. preparates
2	Poltava	18,5	21,0	19,5	5,0	12,5	19,6	18,5	2,5	1,3	
3	"	17,0	20,5	18,0	5,3	12,0	17,9	19,0	2,3	1,4	
4	"	15,0	18,0	16,1	5,2	12,0	16,2	16,5	1,5	1,0	
5	"	13,0	17,0	16,0	4,2	10,8	15,5	16,1	2,0	1,1	
6	"	16,5	19,0	17,5	5,2	12,6	17,0	17,6	1,8	1,4	
7	"	15,6	17,5	16,0	4,6	13,0	17,5	15,6	2,0	1,4	
8	"	14,0	17,5	15,1	5,1	12,0	15,9	14,5	2,1	1,1	
9	"	14,0	17,0	15,1	4,5	13,0	18,8	13,8	2,0	1,2	
10	"	17,8	22,0	20,0	6,0	13,9	18,5	19,5	2,6	1,8	
11	"	18,0	22,0	19,5	5,2	12,0	17,8	18,6	2,0	1,2	
12	"	17,6	21,5	17,9	5,0	13,8	19,3	19,0	2,5	1,2	
13	"	16,1	19,6	18,3	5,5	12,5	19,0	17,5	2,2	1,5	
14	"	17,1	22,0	19,1	5,5	14,0	20,0	19,2	2,4	1,8	
15	"	18,0	21,1	18,6	5,5	13,0	19,0	17,5	2,1	1,2	
16	"	17,5	20,6	18,7	5,0	12,1	16,1	17,0	2,1	1,2	
17	"	17,5	21,0	18,2	4,5	13,0	18,9	17,5	2,2	1,5	
18	"	16,5	19,7	17,4	4,5	12,5	19,0	17,0	2,5	1,4	
19	"	16,9	20,8	18,1	5,0	12,0	17,6	18,0	2,4	1,5	
20	"	16,8	20,4	17,0	5,0	12,5	19,0	17,7	2,6	1,5	
21	Bedrykowiec	0,33 mm	0,468 mm	0,395	0,098	0,275	0,35	0,37	0,049	0,037	Glycerin preparate

Genus *Halictoxenos* Pierce.*H. (Halictostylops) nitidiusculus* m. n. sp.

Described from two female specimens taken by Mr. J. Noskiewicz at Złoczów (Łysa Góra) 13. VI. 1924 as parasites of *Halictus nitidiusculus* K. Both ♀♀ were found in one female specimen of the bee. This species had been already mentioned as a parasite of *H. nitidiusculus* K. but remained as yet undescribed.

It was found in England (? Smith 1859), Czechoslovakia (Slány 15. VI. 1923 two females taken by Mr. S. Hrabě) and Russia (Poltava D. A. Ogloblin briefly communication). The only known European species of *Halictoxenos* is *H. Nassonovi* Pierce described by N. V. Nassonov in 1893 as parasite of *H. minutus* K. from Germany and the present new species may be compared with the description and drawings of that author.

Female. Pl. II. Fig. 2 A. Larval cephalothorax L. 0,43 and 0,39 mm. Maximum breadth at spiracles 0,46—0,43 mm. Breadth of head 0,25—0,27 mm; the distance from the spiracles to the apex of the cephalothorax 0,35—0,32 mm; the breadth of cephalothorax of the base 0,37—0,32 mm. Breadth between the mandibles 0,064—0,057 mm. L. of mandibula 0,0275 mm. Br. of mandibula 0,026 mm. Larval cephalothorax light yellowish with brownish spiracles and margins around of them; the base of cephalothorax narrow, a rectangular strongly chitinized band on the first abdominal segment ventrally black, this band is emarginated on posterior angles. Cephalothorax constricted at the base, widest at spiracles thence oblique, slightly convex to mandibles, rounded at sides with rounded truncate apex. Spiracles lateral, but not prominent. Mandibles not reaching the lateral margin; bluntly bilobed at the apex with broad base. Fig. 2. B.

The mouth orifice leads in a short chitinized tube slightly narrowed to internal end. The genital orifice like a curved slit with thickened margin laterally not reaching the edge of the cephalothorax (I think this may be a good generic character, as was already pointed out by N. Nassonov 1893 p. 96). „This slit is situated on the border between the cephalic and thoracic parts of cephalothorax and is bow shaped as in the forms previously investigated (*Xenos*, *Stylops*) pl. fig. 12, but to the contrary of what is observed in those it does not reach the lateral

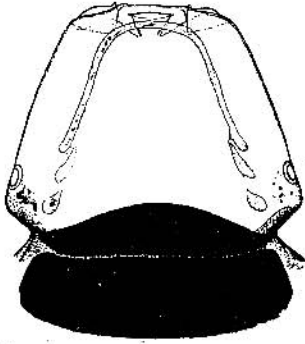


Fig. 1.

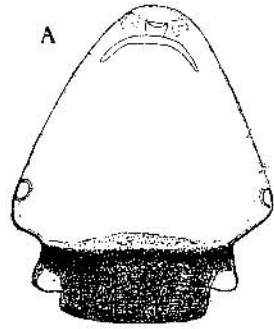


Fig. 2.

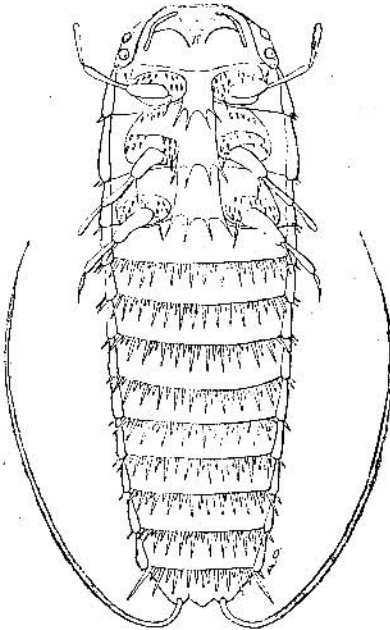


Fig. 3.

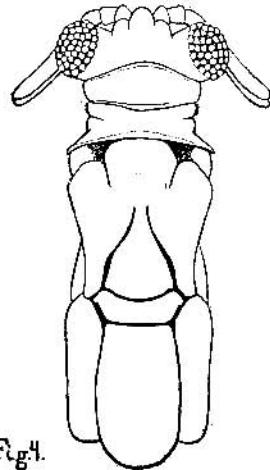


Fig. 4.

A. Ogloblin: New Strepsiptera from Poland.

edges of the cephalothorax". This sentence seems to be in contradiction with the following lines: p. 95. "The part of cephalothorax situated before the constriction corresponds probably to the head Pl. I, fig. 11 a. and the part behind this constriction to the thorax. Pl. I, fig. 11 b." The passage quoted probably determined Mr. W. D. Pierce to measure the breadth of head at this constriction i. e. in front of the genital slit, and not at the ends of the curved line bordering this orifice, as he did in the other species of the genus *Halictoxenos*. This was the reason why the relation of the breadth of the head to the distance between the spiracles he obtained $\frac{1}{3}$; while usually this ratio is about $\frac{1}{2}$. This result suggests some doubts as to the value of the subgenus *Halictostylops* Pierce (formerly genus) and renders necessary to find for it new systematic characters.

Triungulinid larva. Pl. II, fig. 3. Light brownish. L. 0,15 to 0,16 mm.; the maximum breadth 0,05 mm.; length of stylet 0,09 mm. Head transverse with brown eyepatches on sides. The mouth parts are indistinct. Fig. 3. Two ocelli; this seems to be a generic character as *H. Nasonovi* Pierce has also two ocelli (errata to W. D. Pierce 09 p. 113 "Eye patches showing three small lenses" — Two only in Nasonov's description and illustrations; see N. Nasonov 1893). It is curious to mention that Mr. A. Handlirsch (in Handbuch der Entomologie, Bd. III. Lief. 11/12 p. 720) gives an illustration of a larva of *Halictostylops Spencii* Nass. Fig. 591 after Nasonov (= *Halictoxenos Nasonovi* Pierce); but being a diagrammatic reproduction of Nasonov's fig. 9, pl. I. it is in reality a side view of a larva of *Stylops melittae* Nass. (not Kirby). Legs four jointed; coxae covered with hairs; femora short, thickened at the base, distally armed with a long spine; four fore tarsi flattened, slightly expanded to the rounded end. The hind tarsi acute. The episternal sclerites with a few minute spines. Sternal sclerites ending with four long spines. Thoracal segments only dorsally, abdominal ones dorsally and ventrally with terminal fringe of spines. The long spines irregularly alternate with one or two small ones. The ninth segment ventrally with two rounded tubercles bearing stylets.

The two European species of *Halictoxenos* known at present can be easily distinguished by means of the following key: Females and triungulinid larvae.

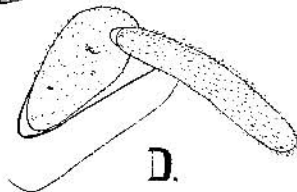
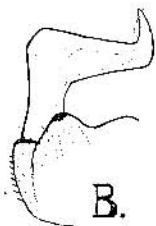
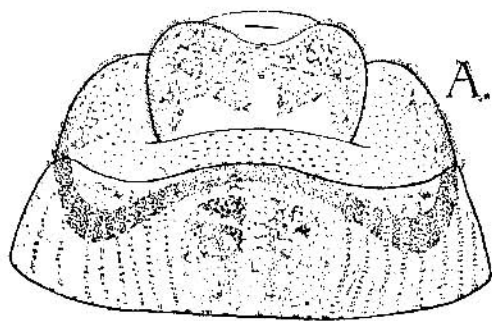


Fig. 5.

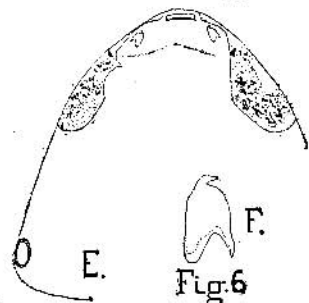


Fig. 6

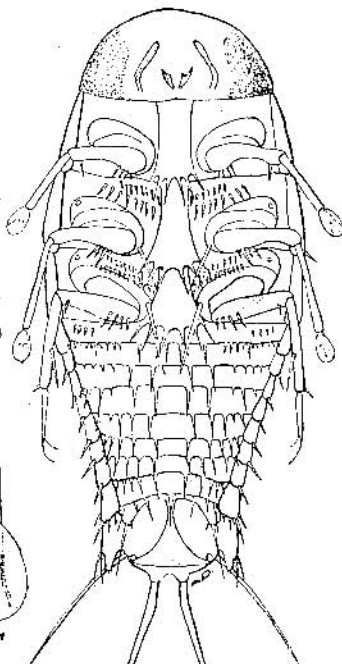
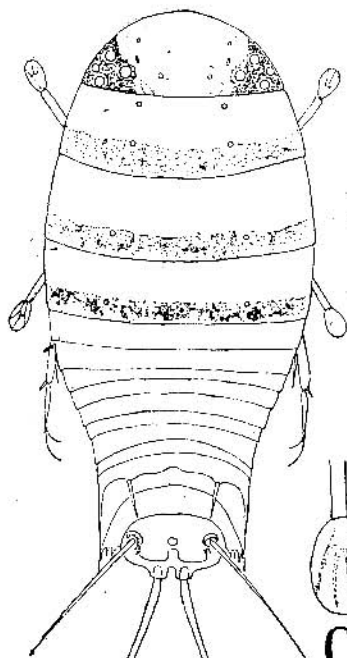


Fig. 7.

1. Head of larval cephalothorax with a constriction in front of the transverse genital slit. Mandibles marginal with one apical tooth. Spiracles ventral not visible on the lateral edge. The dark band on the first ventral abdominal segment is half circle shaped. All tarsi of the triungulinid larva acute.

.... *H. Nassonovi* Pierce
(Germany).

- 1^o. Head without constriction in front of the transverse genital slit. Mandibles bilobate. Spiracles lateral. The black band on the first abdominal segment ventrally is square with two emarginations at posterior angles. The four fore tarsi of the triungulinids larva flattened and slightly expanded to the rounded end.

.... *H. nitidiusculus* m. n. sp.
(England, Czechoslovakia, Poland, S. W. Russia).

Genus *Pseudoxenos* Saunders.

Pseudoxenos shaumii Saunders.

This species known as yet from one male specimen described by Saunders from Corcyra is a parasite of *Odynerus* (*Ancistrocerus*) *parietum* L. I received one male of *Ancistrocerus parietum* L. taken by Mr. J. Noskiewicz at Mielnica 20. VIII. 1922, which contains four male puparia, one female adult larva (strongly damaged) and one damaged skin of triungulinid larva.

Male. L. 2,1 mm. The third and fourth antennal joints densely covered with cylinder-shaped sensillae and among these with triangular scales, which are apically produced in a long spine. Pl. III. Fig. 6. A. B. C. D. Length of antennal joints respectively: 0,07 mm.; 0,04; 0,54; 0,54. Br. of antennal joints respectively: 0,09 mm.; 0,08; 0,1; 0,09. The second antennal joint, which is the shortest, is twice as broad as long. Third joint equal to fourth. Mandibles slightly curved, ensiform, flattened, brownish black at the base yellow and translucide at the apex. L. 0,23 mm. Br. at the base 0,058 mm. at the middle 0,029 mm. Fig. 5 C.

Maxilla $\frac{3}{4}$ as long as the palpus; brownish, densely covered with minute hairs. L. 0,131 mm. Br. 0,058 mm. Palpus slender subcylindrical. L. 0,182 mm. Br. 0,043 mm. Pl. III. Fig. 5 D. Head transverse produced in front, this production is divided in three

parts; occiput broadly emarginated. Pl. II. Fig. 4. Head Br. 0,57 mm. Length 0,23 mm. The breadth of the forehead between the eyes 0,25 mm.; the occiput between the eyes 0,46 mm. Pronotum L. 0,16. Br. 0,36 rounded in front and posteriorly. Mesonotum L. 0,13 mm. Br. 0,43 mm. Elytra L. 0,45 mm. Br. 0,1 mm. Metanotum. L. 1,22 mm. maximum Br. 0,51, with praescutum not completely separated from the scutum. Postlumbium L. 0,11 mm. Br. 0,35 mm. Postscutellum slightly constricted at the base rounded at the tip L. 0,6 mm. Br. 0,20 mm. The abdomen L. 1 mm. The last abdominal tergite transverse L. 0,1 mm. Br. 0,17 mm.; slightly carved at the apex, laterally broadly rounded Pl. III. Fig. 5 A. Oedeagus short, stout, curved Pl. III. Fig. 5 B; it differs from that of *P. neomexicanus* Pierce (the only species in which genitalia are known) in being much stouter and shorter; strongly bent, right angled at the inflated base with sharply reflexed apex, the inner angle is acute. The oedeagus of *P. neomexicanus* Pierce is much longer slender not as strongly bent as that of *Shaumii* Saunders its basal angle is obtuse, and the inner apical one is right. Unfortunately in all four male specimens, extracted from the puparia the wings are folded in such a manner that it is practically impossible to study the venation.

Female. Pl. III. Fig. 6 E. Described from an adult female larva, which was compressed among growing male puparia so that it was badly damaged. I was therefore unable to obtain the most important measurements viz. the distance between the spiracles and the breadth of cephalothorax at the base. The larval cephalothorax was yet white with brown spiracles, mandibles and patches on both sides of the head. L. 0,775 mm. L. from the spiracle to the apex of the cephalothorax 0,68 mm. Breadth of the head 0,58 mm. Br. between the mandibles 0,16 mm. Mandibles Br. 0,027 mm. L. 0,046 mm. elongate with a tooth outwardly recurved at the apex. Pl. III. Fig. 6 F. The transverse slit unobscured. The orifice of the mouth situated before the mandibles.

Triungulinid larva. Described only from one larval skin found in the viscera of the wasp host. The larva was decapitated as occurs usually during the metamorphosis, when the second stage larva emerges from the triungulinid by casting off the head skin. Yet the head skin was also found and the drawing below Pl. III. Fig. 7 A—C. represents a reconstruction of the whole larva.

The color is brown. L. 0,196 mm.; maximum br. 0,088 mm. Stylets 0,116 mm. (broken). Head transverse with four pairs dorsally situated ocelli and with six circle-shaped sensillae, the antennae and mouth parts are very indistinct. Thoracal segments large, dorsally with circle-like sensillae (4 on the pro-, 2 on the meso- and metanotum). Coxae large with internal spines. Femora, middle and hind tibiae basally and apically with a few spines. Four fore tarsi are pad-like with a peculiar structure inside Pl. III. Fig. 7 C. Hind tarsi one-jointed, terminated with two slender filaments. Each thoracal sternite ends with six spines; ventral abdominal segments 1—8 with a terminal fringe of spines. These spines are large in the middle and small on the sides of the segment. Ninth tergite dorsally with two bristles, its lateral prolongations with teeth and spines. Ninth segment ventrally broadly emarginate with two long spines and a few small ones on the sides. Tenth segment apically with two contiguous lobes bearing stylets and dorsally with two long stout bristles.

Wykaz chrząszczów okolic Przemyśla

(Verzeichnis der Käfer der Umgebung von Przemyśl)

WŻERKI — TEREDILIA

MIĘKOPOKRYWE — MALACODERMATA

podał

T. TRELLA.

CLERIDAE.

Tillus: elongatus L. (same ♀); *unifasciatus* Fbr. V—VIII. Budy Wk., Pikulice.

Opilo: mollis L. Bakończyce (tylko pokrywy).

Thanasimus: formicarius L.; ‡ f. a. *laetipes*¹⁾ Reitt.

Trichodes: apiarius L.; ‡ ap. a. *suturalis* nov.²⁾

‡ dla fauny Polski nowe lub niewyróżniane. (Neu für Fauna von Polen).

+ podawane z kresów: Sil. Bor. i t. d.

¹⁾ posiadam okaz dochodzący zaledwie 8 mm. — wielkość podawana: 10—16 mm.

²⁾ *Trichodes apiarius* L. a. *suturalis* nov. grzbietowy szew pokryw wzdłuż czarnej, środkowej przepaski — barwy czerwonej lub wzdłuż środkowego, czerwonego, pola pokryw — barwy czarnej. (Normalnie powinien być szew grzbietowy pokryw zabarwiony tak, jak dane pole).