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427.

PSYLLA ŠULCI N. SP. (HEMIPTERA-HOMOPTERA, PSYLLIDAE)

Karel Vondráček

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V období let 1895 až 1914, kdy se prof. Dr Karel Šulc zabýval studiem mer *(Psyllina),* nashromáždil početnou sbírku tohoto hmyzu jednak na základě svých vlastních sběrů, jednak z materiálu od jiných sběratelů, kteří mu jej věnovali ke zpracování. Z této doby pocházejí jeho skvělé, avšak nedokončené monografie palearktických druhů rodu *Psylla* Geoffr. a *Trioza* Förster. Ale bohatý sbírkový materiál nebyl zužitkován. Vypukla první světová válka a prof. Šulc musil hned od jejího počátku nastoupit vojenskou službu jako lékař v poli. Po válce za změněných poměrů, které i u něho vedly ke změně původního povolání, brala se jeho vědecky výzkumná činnost již jiným směrem, a tak se prof. Šulc ke studiu mer nevrátil. Zatím jeho sbírky mer, nebyvše po tak dlouhou dobu zajištěny, podlehly z převážné části zkáze. Přehlížeje nyní zbylý materiál, jejž mi jednak prof. Šulc přímo dal ke zpracování, jednak z jeho odkazu Moravskému museu v Brně, nalezl jsem řadu exemplářů, jež si zaslouží pozornosti. Z těch vybírám nejprve několik jedinců, sbíraných prof. J. Sahlbergem v Palestině, kteří představují nový, dosud nepopsaný druh, po několikeré stránce svérázný. Prof. Šulc byl si pravděpodobně vědom, že se tu jedná o novou formu, neboť si označil předběžně ve sbírce dva jedince jako *Psyllopsis judaica,* resp. *Psylla judaea,* jak činíval obvykle v podobných případech, měl-li o taxonomii některých sběrů pochyby. Podávám tudíž v dalším popis tohoto nového druhu rodu *Psylla* Geoffroy a označuji jej na památku svého učitele jako *Psylla šulci* n. sp.,, jehož holotyp a paratypy jsou uloženy v Moravském museu v Brně, pokud jde o mikroskopické preparáty, ve sbírce autorově. Přednostovi entomol. oddělení Moravského musea v Brně p. Dr J. Stehlíkovi upřímně děkuji, že mi umožnil zpracovati musejní materiál.

Psylla šulci Vondráček, n. sp.,

Colour. Head: Ground-colour light yellow. Foveal impressions and middle-line of vertex brown. Antennae yellowish, apical half brown. Compound eyes with dark brown centres. Ocelli orange.

Thorax: Prothorax light yellow or greenish yellow, dorsolateral impressions brown. Ground-colour of the rest of thorax light ochraceous with dark yellow or reddish brown patterns being fully developed and more or less limited. Membrane of the fore-wings clear and transparent white, its apical half uniformly yellowish. Veins are as light as the wing-membrane, so that they are not easily distinguishable from it, only in its distal half they are darker (i. e. yellow). Legs ochraceous, thighs sometimes partly brown. Tarsi ochraceous, meracanthi yellow.

Abdomen: Tergites dark brown to black, their hind margins and connecting membranes greenish or light ochraceous.

Genitalia: Hypandrium, proctiger and forceps of the male yellow or brown, free terminations of forceps black. Proctigal segment and 7th sternite (ventral valve) of the female ochraceous, only proximal thirds and apices of them black.

Structure: Head with the compound eyes as broad as the widest point of the thorax (width 0.83—0.86 mm.), behind softly concave, and 0.25 mm long in the middle-line of the vertex. It is somewhat deflexed. Vertex is flat, with shallow foveae, one on either side, and slightly raised next the eyes. Hind corners of vertex rounded, frontal corners flat and broadly rounded, width of vertex 0.48—0.5 mm. Frons and clypeus developed as ordinary in *Psylla*. Genae produced into short cones (only 0.15 mm long), broadly based, apically pointed, and depressed below with inner sides divergent; outer sides of them obliquely straight or rather concave; pubescent with stout apical setae. Antennae 1.2 mm. long and slender; antennal ratio (sensu Heslop-Harrison) 1.4. Antennal insertions broad, oval or elongate oval. Compound eyes spherical and laterally projecting out. Cuticle of the head softly squamously shagreened on vertex and genae.

Thorax typical as in *Psylla*. Dorsal surface shagreened.

Wings: The fore-wings 2.2—2.56 mm. long and 0.9—1 mm. wide, elongate oval, only a little broader in their apical half than in the inner. Free end of them is rounded, with apex in the middle of the margin of the 2nd radial cell. Pterostigma present, very narrow in its apical half and relatively long (ending over the initial outer third of R_2), coriaceous. Venation psylline, veins with double row of very fine setae along their dorsal surfaces, costal margin with similar ones projecting out, but longer. $C+Sc$ proximally arched, in the extent of pterostigma nearly straight. *Rs* almost quite straight. *R:* $M+Cu_1=4:3$. *M* a little arched, nearly straight and parallelous to *Rs*. M_1+_2 as long as M_3+_4. Cu_1 symmetrically arched. Cell cu_1 longer and narrower than cell m_1. Index of cubital cell cu_1 (sensu Schäfer) 2.0. *Cu*, twice as long as $M+Cu_1$. Dorsal spines of celles absent, those ventral only sporadically between the marginal spines, which are present in the cell r_2, m_1, m_2 and cu_1, their groups being much narrower than the cells and reaching to the half-width of m_1. Hind-wing is ordinary in shape and venation.

Legs moderately long, meracanthi well developed.

Genitalia. — Male proctiger 0.35 mm. long, 0.15 mm. wide, straight, tubular, diffusely pubescent, apex curving rather posteriorly.

Hypandrium 0.4 mm. long and 0.3 mm. deep, equally pubescent. Forceps 0.25 mm. high (in lateral view), ledge-shaped, uniformly broad along the whole length (0.05 mm.), only towards the apex slightly dilated, laterally convex, and at their apices terminating into a hook-like, heavily sclerotized tooth, curved anteriorly (0.07 mm. long, 0.05 mm. wide). The outer outline of the forceps—seen from back—is an 0 somewhat enlarging upwards and horizontally straight above. The inner outline resembles a spear-shaped (lanceolate) leaf.

Female genitalia varying in length from two thirds to as long as the rest of the abdomen. Proctigal segment—seen from above—broad-based and shortly wedge-shaped, 0.65 mm. long, width 0.25 mm. at base. In lateral view, upper outline slowly declivous, and with a considerable hunch. Beak (apex) very short, bluntly pointer and slightly upturned; in specimens boiled in Potassium hydroxydate the apex is cut off obliquely with upper edge rounded, the nether sharp. The lower outline of the beak is almost straight; ordinary excision at the base of the beak very shallow and nearly indistinct. Spines appear in distance of 0.1 mm. from the free end of the beak, are arranged 2—3—4 in 8—9 cross-rows. They are almost cylindric, somewhat pointing towards their apex, which is rounded; 0.015—0.02 mm. long. The basal portion of the proctigal segment is sparsely pubescent, that of the hunch very densely, and with long setae. Anus 0.16 mm long, surrounded by a ring of wax-producing glands and perianal hairs. Ventral valve in lateral view having shape of an inverse trapezium, with upper margin sinuate and 0.5 mm. long, that anterior 0.4, lower 0.3, and posterior 0.15 mm; it is a little shorter than the proctigal segment. Apex upwardly directed and acutely pointed, slightly bituberculous. (In specimens boiled in potash, it is rather deformed.) Spines in form like those of the proctigal segment, sparse, and only on the beak. Setae numerous, the anterior third of the ventral valve totally without any pubescence. Palps rounded, densely stroked longitudinally, and do not gape. External valves long, their base spiny, terminating portions heavily sclerotized and upturned; apices and posterior margins cut off and serrate. Inner valves high and rounded at base, then awl-like protracted caudad.

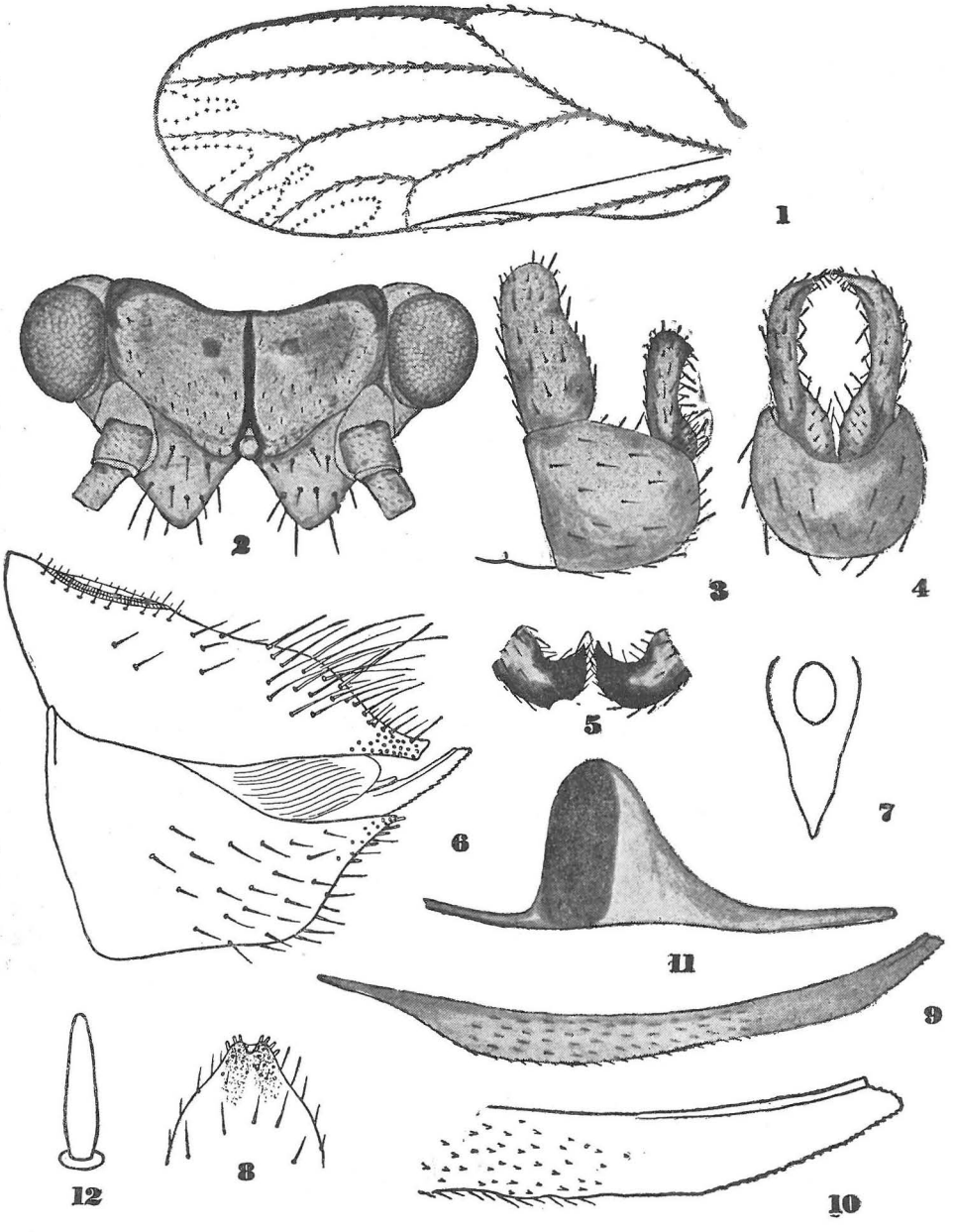
Total length (from vertex to tip of folded wings): 2.8—3.2 mm.

Food-plant and life history are not known.

Abundance: only 6 specimens are known hitherto.

Geograph. distribution: Judea (Palestine). Collected by J. Sahlberg Helsingfors. Holotype and paratypes in Moravian Museum (Brno), and as microsc. prep. in the author's collection.

Prof. Dr K. Šulc received these specimens from Prof. Dr J. Sahlberg, but did not describe them as a new species, although he supposed that they might be a new one, and designated them preliminarily as *Psylla judaea,* or *Psyllopsis judaica* for his own purpose. It was in the period before the first World-War broke out. Having returned home from the field after the end of the war, he did not more study *Psyllids,* and his collections, being not attended for so a long time, fell mostly in decay. From the preserved material I examined I describe the present form, which I have named in honour of my late teacher.



Psylla šulci sp. n. 1 Fore-wing. — 2 Head. — 3 Male genitalia in lateral view. — 4 Male genitalia in posterior view. — 5 Apical teeth of the male forceps. — 6 Female genitalia in lateral view. — 7 Proctigal segment of female seen from above. — 8 Apex of ventral valve in posterior view. — 9 External valve of ovipositor. — 10 Apex of the same. — 11 Inner valves of ovipositor. — 12 Spines of beak of the proctigal segment and that of the central valve in female.