

ON SOME PSOCOPTERA FROM ISRAEL AND  
DESCRIPTION OF A NEW SPECIES

BELLA GALIL

*Department of Zoology, The George S. Wise Faculty of Life Sciences,  
Tel Aviv University, Tel Aviv 69978, Israel*

**ABSTRACT**

Ten species of Psocoptera are recorded from Israel. *Ptycta nadleri* n.sp. is described from Israel.

**INTRODUCTION**

The Psocoptera are one of the least known orders of insects owing to their obscure habits, small size and limited importance to mankind. Many of them are arboreal ("barklice") or found on grasses and low vegetation where they feed on microflora and organic debris. Some frequent human habitations ("booklice") and may damage stored products.

This paper presents the first records of Psocoptera from Israel. Specimens, on which this report is based, were acquired by Mr. Aaron Nadler in 1961 during a trip that covered but a small area of the country in a hurried manner: future collecting will undoubtedly disclose many additional species. The entire collection, apart from two pairs of paratypes, is kept in the American Museum of Natural History, New York.

The classification used in this account is following that of Smithers' (1967) in "Catalogue of the Psocoptera of the World."

**TROGIIDAE**

**TROGIINAE**

*Cerobasis* Kolbe,  
1882:25

*Cerobasis guestfalica* (Kolbe)

*Hyperetes guestfalicus* Kolbe, 1880:132

Distribution: Cosmopolitan. Widespread, domestic species.

MATERIAL EXAMINED: Jerusalem, 12.IX.1961, 24 ♀♀, 2 nymphs,  
15.IX.1961, 37 ♀♀, 19 nymphs; Zefat, 23.IX.1961, 8 ♀♀; Haifa, 26.IX.1961, 6  
♀♀, 24 nymphs; Tel Aviv, 30.IX.1961, 16 ♀♀, 7 nymphs.

*Trogium* Illiger, 1798:500

*Trogium pulsatorium* (L.)

*Termes pulsatorium* L., 1758:610

Distribution: Almost cosmopolitan. Domestic.

MATERIAL EXAMINED: Tiberias, 19.IX.1961, 28 ♀♀.

LIPOSCOLIDAE

LIPOSCELINAE

*Liposcelis* Motschulsky, 1852:19

*Liposcelis* sp.

MATERIAL EXAMINED: Jerusalem, 12.IX.1961, 14 ♀♀; 15.IX.1961, 1 ♀;  
Zefat, 23.IX.1961, 12 ♀♀.

CAECILIIDAE

CAECILINAE

*Caecilius* Curtis, 1837:648

*Caecilius rhenanus* Tetens

*Caecilius rhenanus* Tetens, 1891:372,381

Distribution: Europe, On low vegetation.

MATERIAL EXAMINED: Jerusalem, 12.IX.1961, 1 ♀.

LACHESILLIDAE

LACHESILLINAE

*Lachesilla* Westwood, 1840:47

*Lachesilla bernardi* Badonnel

*Lachesilla bernardi* Badonnel, 1938:19

Distribution: Europe.

MATERIAL EXAMINED: Jerusalem, 15.IX.1961, 1 ♀.

*Lachesilla pedicularia* (L.)

*Hemerobius pedicularius* L., 1758:551

Distribution: Cosmopolitan. On low vegetation. Sometimes found indoors.  
Common.

MATERIAL EXAMINED: Jerusalem, 12.IX.1961, 1 ♂, 2 ♀♀; 15.IX.1961, 5 ♀♀.

*Lachesilla quercus* (Kolbe)

*Caecilius (Pterodela) quercus* Kolbe, 1880:120

Distribution: Europe, Morocco.

MATERIAL EXAMINED: Jerusalem, 12.IX.1961, 1 ♂, 3 ♀♀; Zefat, 23.IX.1961, 1 ♂, 15 ♀♀.

PERIPSOCIDAE

ECTOPSOCINAE

*Ectopsocus* McLachlan, 1899:277

*Ectopsocus meridionalis* Ribaga

*Ectopsocus briggsi* var. *meridionalis* Ribaga, 1904:296

Distribution: Cosmopolitan.

MATERIAL EXAMINED: Zefat, 23.IX.1961, 1 ♀.

TRICHOPSOCIDAE

TRICHOPSOCINAE

*Trichopsocus* Kolbe, 1882:25

*Trichopsocus dali* (McLachlan)

*Caecilius dali* MacLachlan, 1867:272

Distribution: Europe, Algeria, Morocco, Canary Islands.

MATERIAL EXAMINED: Tel Aviv, 30.IX.1961, 1 ♀.

PSOCIDAE

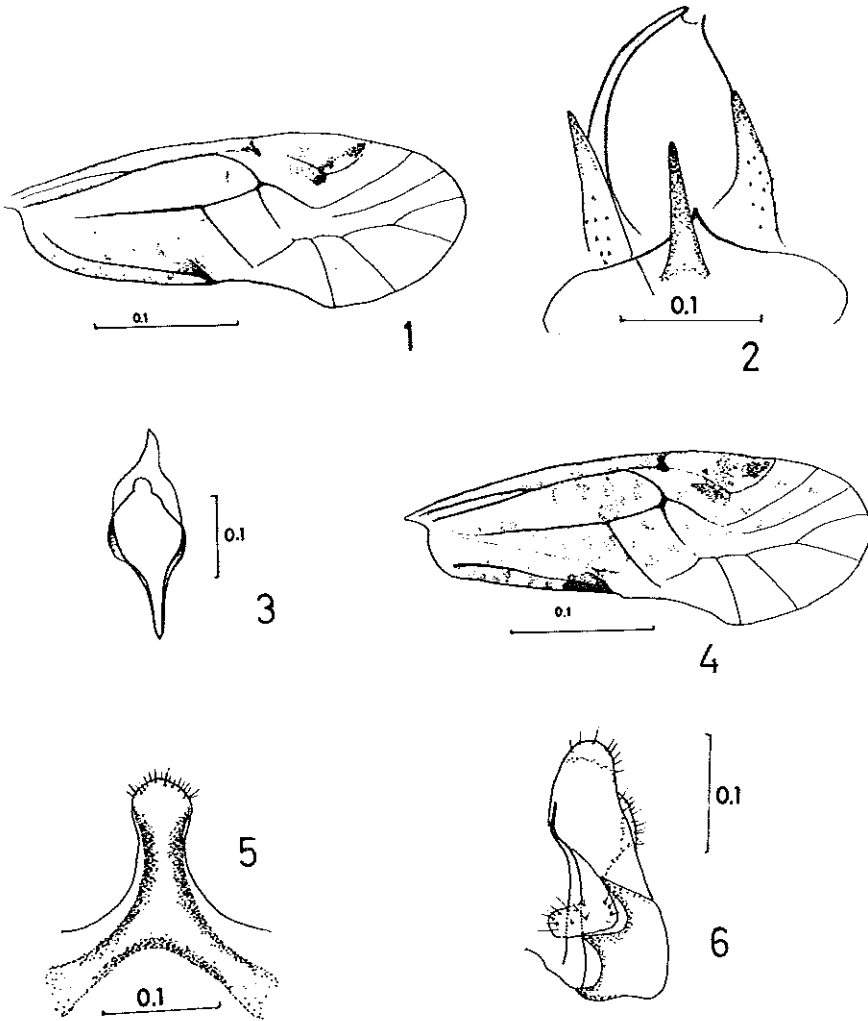
PSOCINAE

*Ptycta* Enderlein, 1925:102

*Ptycta nadleri* n.sp.

*Male* (in alcohol). Colouration: Head pale buff. Eyes black. Postclypeal striae dark, distinct. Vertex dorsal to eyes, geneae and epicranial suture with brown markings. Ocelli pale, bordered with black. Apical segment of maxillary palpus dark brown. Base of antenna brown: scape and pedicel pale; flagellum brown. Antedorsal lobe of mesothorax with white longitudinal band, metathorax dark brown dorsally, paler laterally. legs pale brown, tibiae and tarsi darkened. Forewing (fig. 1) hyaline with dark markings. Hind wing hyaline. Abdomen pale with brown markings; genital segments brown.

Morphology: Forewing (Fig. 1): Rs and M are fused at point or in a short cross vein. Pterostigma with short spur vein. Hypandrium (Fig. 2) slightly asymmetrical with short stout rod with two lateral lobes, each with chitinous prong anteriorly. Phallosome (Fig. 3): closed elongated frame with median apical projection. Paraproct with two



*Figs. 1-6. Ptycta nadleri* n. sp. 1. Male right forewing. 2. Male hypandrium. 3. Male phallosome. 4. Female right forewing. 5. Female subgenital plate. 6. Female gonapophyses.

teeth at postero-external angle. Epiproct with wide lobe curved anterodorsally extending over ninth tergite.

Measurements (mm). Body length 2.7, forewing length 3.2, hind wing length 2.4;  $f_1 = 0.65$ ,  $f_2 = 0.45$  ( $f_1$ ,  $f_2$  = length of first and second flagellomeres); F (length of posterior femur) = 0.65, T (length of posterior tibia) = 1.3; IO/D (least distance between compound eyes in dorsal view divided by greatest antero-posterior diameter of eye in dorsal view) = 1.14.

*Female* (in alcohol). Colouration: Body pattern same as  $\delta$ . Wing markings more complex (Fig. 4).

Morphology: Subgenital plate with long median lobe (Fig. 5). Gonapophyses (Fig. 6): Ventral valve styliform, dorsal valve lobate, posteriorly culminates with long pointed prong. Lateral valve bearing long setae.

Measurements: (mm): Body length 3.1; forewing length 2.3; hind wing length 2.5  $f_1 = 0.55$ ,  $f_2 = 0.4$ ; F = 0.65; T = 1.3; IO/D = 2.7.

**MATERIAL EXAMINED.** Holotype:  $\delta$ , Israel, Jerusalem, 12.IX.1961, Aaron Nadler. Allotype:  $\text{♀}$ , same collecting data. Paratypes: 2  $\delta\delta$ , 2  $\text{♀♀}$ , same collecting data; 2  $\delta\delta$ , 3  $\text{♀♀}$ , Jerusalem, 15.IX.1961. Aaron Nadler. Holotype, Allotype and 5 paratypes in American Museum of Natural History. One pair of paratypes in Cornell University collection and another in Dr. Mockford's collection, Illinois State University.

**COMMENTS.** The hypandrial asymmetry and the anterodorsally curved epiproct of the new species suggest some affinity with species of *Metylophorus*, but the pterostigmal spurvein indicates its placing in *Ptycta*. It resembles *P. lobata* Badonnel (1967) and *P. paralobata* New (1975) in the elongate form of the simple phallosome and the hypandrial characters, but the colour of body and forewing enables separation. The female gonapophyses resemble those of several Madagascan species (Badonnel 1967, Smithers 1964), but the female differs clearly from all these forms in forewing pigmentation and shape of subgenital plate.

#### REFERENCES

- Badonnel, A. 1938. Psocoptères de France (9e note). Diagnoses préliminaires et nouvelles captures. *Bulletin de la Société Entomologique de France* 43:1-238.
- Badonnel A. 1967. Insectes Psocoptères. *Faune de Madagascar* 23:1-238.
- Curtis, J. 1837. British Entomology. London 1823-1840, 14:648-651.
- Enderlein, G. 1925. Beiträge zur kenntnis der Copeognathan. IX. *Konowia* 4:97-108.
- Illiger, J.C.W. 1798. Kugelann Verzeichniss der Kafer Preussens, ausgearbeitet von Illiger mit einer vorrede von Hellwig und angehängten Versuch einer natürlichen ordnung und Gaffungsfolge der Insecten. Halle. 1-XLI, 510 pp.
- Kolbe, H.J. 1880. Monographie der deutschen Psociden mit besonderer Berücksichtigung der Fauna West-falens. *Jahresbericht Westfälischen Provinzial-Vereins für Wissenschaft und Kunst* 8:73-142. 4 pls.
- Kolbe, H.J. 1882. Neue Psociden der Paläarktischen Region. *Entomologische Nachrichten* 8:207-212.
- Linnaeus, C. 1758. Systema Naturae per regna tria naturae secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis, Ed. decima reformata. Holmiae. 2 vols.

- McLachlan, R. 1867. A monograph of the British Psocidae. *Entomologist's monthly Magazine* 3:177-187, 194-197, 226-231, 241-245, 270-276, pl. 11.
- McLachlan, R. 1899. *Ectopsocus briggsi*, a new genus and species of Psocidae found in England. *Entomologist's monthly Magazine* 35:277-278.
- Motschulsky, V. van. 1852. Etudes entomologiques. Helsingfors. pp. 19, 20.
- New, T.R. 1975. Psocidae (Psocoptera) from Kenya. *Journal of Natural History* 9:535-544.
- Ribaga, C. 1904. Sul genera *Ectopsocus* McLach. a descrizione di una nuova varieta dell'*Ectopsocus briggsi* McLach. *Redia* 1:294-298.
- Smithers, C.N. 1964. On the Psocoptera of Madagascar. *Revue de Zoologie et de Botanique Africaines* 70:209-294.
- Smithers, C.N. 1967. A catalogue of the Psocoptera of the World. *Australian Zoologist* 14:1-145.
- Tetens, H. 1891. Zur kenntnis der Deutschen Psociden. *Entomologische Nachrichten* 17:369-384.
- Westwood, J.O. 1840. Synopsis of the genera of British Insects. London. 158 pp. (Psocidae: pp. 46-47, 158).