

An interesting psocid species (Psocoptera: Psyllipsocidae) newly recorded from Romania

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Abstract. *Dorypteryx domestica* (Smithers, 1958), a synanthropic psocid species, is recorded for the first time in Romania. This species was found in two private buildings from Iasi. Regarding other domestic pest species, some notes are also given.

Key Words: *Dorypteryx domestica* (Smithers, 1958), invasive species, first record, Romania.

Introduction. Psocids are common insects. Some psocids are domestic, inhabiting buildings, warehouses and houses, but most species live in woods and they feed on organic matter. Psocids belonging to Psyllipsocidae are found primarily in ground habitats, such as litter, in caves, in houses and cellars. Individuals with long or short wings occur within populations of most Psyllipsocidae species (Lienhard 1998). My interest on the Psocoptera started with the study of the Mymaridae, some psocid species are hosts for *Alaptus* spp. (Pricop 2009). In Romania, a comprehensive species list was published in 2007 (Moldovan et al 2007). In March 2011 and February 2014 a psocid species, from two private buildings, was collected and identified. The specimens, all females, were classified as belonging to *Dorypteryx domestica* (Smithers, 1958). Smithers (1958) described *D. domestica* from Zimbabwe. *D. domestica* is an invasive species, alien to Europe (Gonseth 2005; Schneider 2010).

Material and Method. We collected this species from two bathrooms, in rather old cement buildings from Iasi city area. Five specimens are mounted on slides in Canada balm, a few are stored in alcohol. Photographs were taken using a Canon digital camera attached to an IOR optical microscope. All examined specimens are in the collection of the Department of Biology (UAIC) - PRCO (Pricop Collection). All characters are defined on the basis of our material and also on the basis of the scientific literature. Species morphology is illustrated in Figure 1. Abbreviations: UAIC - "Alexandru Ioan Cuza" University of Iasi, Romania.

Results and Discussion

Dorypteryx Aaron, 1883

Diagnosis. This genus – *Dorypteryx*, is easily identified: adults are almost brachypterous (Figure 1a), fore wings are long and slender (Figure 1b), but usually the fore wings are reduced to slender straps with simple venation, radial and median veins can be branched. Fore wing with margins and veins hairy (Figure 1d). Hind wing are reduced. Fourth segment of maxillary palps is elongated (Figure 1i), second segment of maxillary palps is without conical sensillum. Epiproct is simple, paraproctal spine is present and unmodified. External valve distally is with three heavy setae. Dorsal and ventral valvae are smooth and little developed. Hypandrium with apically curved margin and phallosoma with two simple parameres, more or less curved (Smithers 1990; Lienhard 1998; New 2005; Li & Liu 2009). Important references for genus and species identification: Smithers (1958,

1990), Mockford (1993), Lienhard (1998), New (2005), Li & Liu (2009). This genus (*Dorypteryx*) is newly recorded from Romania.

***Dorypteryx domestica* (Smithers, 1958)**

Material. 2♀ 5.III.2011 (Leg. E. Pricop); 4♀ 14.II.2014 and 1♂ 14.II.2014 (Leg. E. Pricop) collected from two private buildings constructed in the communist era in Iasi, Romania. This psocid species was collected mainly from warm bathroom walls in early morning and in the night.

Diagnosis. Habitus as in Figure 1a. Head (Figure 1c) and torax are whitish-yellow with few patches brownish-red. Lacinia is with 4 short apical tines (Figure 1j). Pedicel is longer than broad (Figure 1h), first funicular segment is long and slender (Figure 1h). Fore wings are hyaline, venations is pale brown to gray (Figure 1b, d). Forewing venation is well developed (Figure 1b), the main five veins (not three) are reaching forewing margin (sometimes not all veins are reaching forewing margin), a close basal cell is always present (Figure 1b). Mean of forewing length/forewing wide ratio = 5. Tarsi are 3-segmented (Figure 1f), each tarsal claw is with a small subapical tooth (Figure 1g). Dorsal part of the abdomen is with two transverse strips - brown to reddish in color (Lienhard 1998; New 2005). Gonapophyse as in Figure 1e. Body length is at most - 2 mm.

Notes: two specimens have only four veins reaching forewing margin (Figure 1b). From our data, specimens of *D. domestica* prefer warm habitats with a high level of humidity. This species is present mostly in old buildings. *D. domestica* is probably a cosmopolitan species and is known from household habitats and stored-food facilities. In our case, due to this species, allergic reactions of the human inhabitants were not recorded.

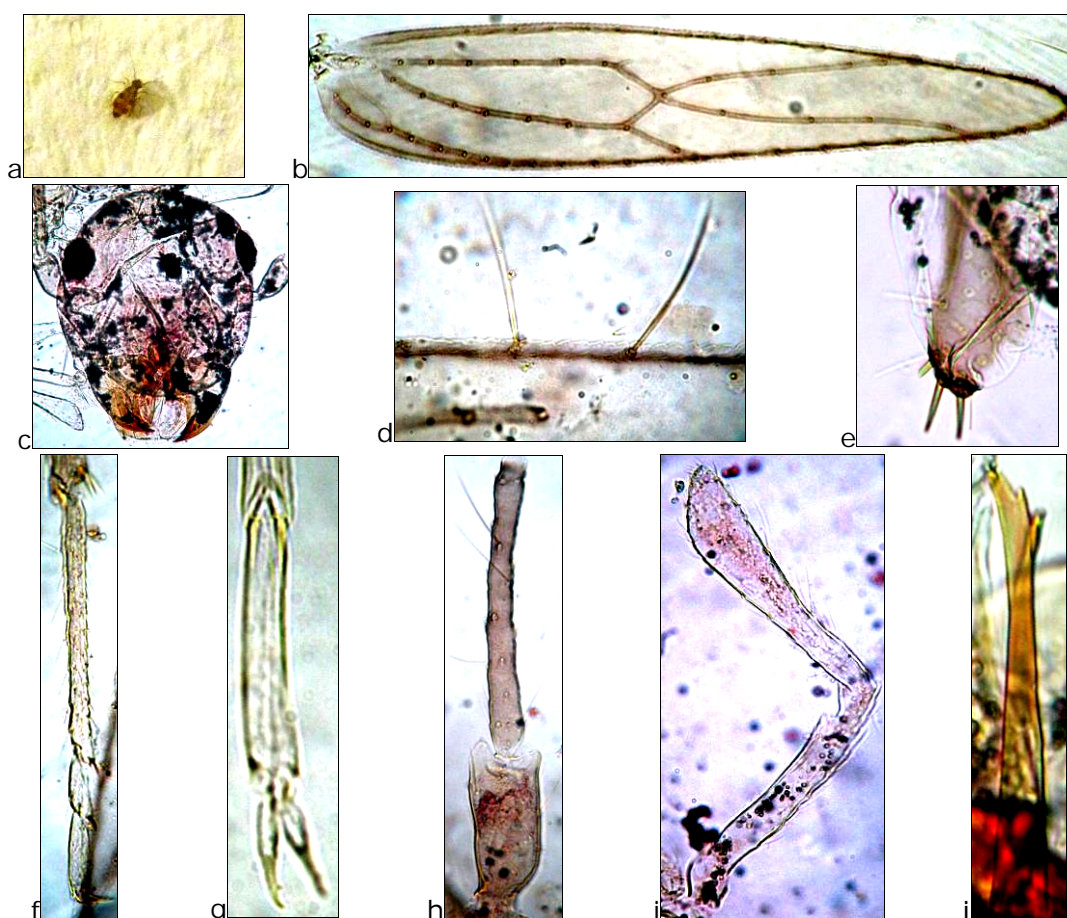


Figure 1. *Dorypteryx domestica* (Smithers): a – habitus; b – fore wing; c – head; d – fore wing veins with hairs; e – gonapophyse; f – 3-segmented fore tarsus; g – last tarsal segment and the claws; h - pedicel and the first funicular segment; i – maxillary palp; j – lacinia (original).

Distribution. *D. domestica* is a widely distributed synanthropic psocid; in Europe this species was recorded from: Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Iceland, Italy, Luxembourg, Norway, Poland, Slovakia, Spain, Sweden, Switzerland and former Yugoslavia (Kalinovic et al 1980; Martini 1984; Gunther & Honomichl 1986; Locatelli & Ottoboni 1987; Baz 1988; Mockford 1993; Sziraki 1993; Lienhard & Schneider 1994; Kucerova 1992, 1997; Lienhard 1998, 2012; Lienhard & Smithers 2002; Gonseth 2005; New 2005; Golub & Nokkala 2009; Li & Liu 2009; Kanervo & Soderman 2010; Schneider 2010; Svensson & Hall 2010; Gunther & Lienhard 2011; Schneider et al 2012). *D. domestica* is newly recorded from Romania.

Also from different buildings and houses of Iasi, we collected and identified other insect species (regarded as pest species): the psocid - *Liposcelis* sp. (Psocoptera), the common cockroaches - *Blattella germanica* and *Blatta orientalis* (Blattaria), the silverfish - *Lepisma saccharina* (Thysanura), some beetles - *Anthrenus* sp., *Dermestes lardarius*, *Ptinus fur*, *Tribolium* sp. and *Tenebrio mollitor* (Coleoptera), the clothes moth - *Tineola bisselliella* and the moth *Ephestia kuehniella* (Lepidoptera), some diptera - the drain fly *Psychoda* sp., and also *Drosophila* sp., *Musca domestica* and *Culex* sp. (Diptera), the flea - *Ctenocephalides felis* (Siphonaptera), an unidentified ant species belonging to Myrmicinae (Hymenoptera: Formicidae) and some unidentified collembolan species belonging to Entomobryoidea (Collembola).

Acknowledgements. I thank to PhD Prof. Ioan Moglan (UAIC) for advices, laboratory conditions and scientific support.

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Received: 23 March 2014. Accepted: 11 April 2014. Published online: 12 April 2014.

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How to cite this article:

Pricop E., 2014 An interesting psocid species (Psocoptera: Psyllipsocidae) newly recorded from Romania. ABAH Bioflux 6(1): 71-74.