

New species of Psocoptera fauna in the Czech Republic – *Trichadenotecnum gallicum* Lienhard, 1986

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New species of Psocoptera fauna in the Czech Republic – *Trichadenotecnum gallicum* Lienhard, 1986. – Čas. Slez. Muz. Opava (A), 61: 226-228, 2012.

Abstract: On 23rd June 2011 1 female of *Trichadenotecnum gallicum* was found by fogging of solitaire trees *Malus sylvestris* in the village of Velké Bílovice in southern Moravia. Determination characteristics of species are described and its occurrence in central Europe is discussed.

Key words: Psocoptera, *Trichadenotecnum gallicum*, faunistics, first record, Czech Republic

Introduction

Order Psocoptera has not been in focus of faunistic or ecological studies in the Czech Republic. Complex psocopterological research was initiated recently by author in a territory of the Czech Republic in 1997. During the last years, several new species of Psocoptera were found for the Czech Republic – f.e. *Lachesilla tanaidana*, *Mesopsocus helveticus* etc. (cf. Holuša 2001a, 2009), and also *Liposcelis keleri*, *L. formicaria*, *L. mendax*, *Embidopsocus oleaginus* and *Ectopsocus maindroni* (Kučerová 2010). Overall, it is currently known about 80 species of psocids in the Czech Republic (Holuša 2003b).

Due to the large unexplored territory of the Czech Republic, including the warmest region of the Czech Republic, can still expect the "new species" of Psocoptera fauna in the territory of the Czech Republic. Just an area of southern Moravia, in biogeographical point of view it is part of north-pannonian biogeographical subprovince (cf. Culek 1996), belongs to the most interesting regions, since there will probably be found Mediterranean and Sub-Mediterranean species.

The aim of this paper is to place on first record of *Trichadenotecnum gallicum* in the Czech Republic with description species determination characteristics.

Material and results

On 23rd June 2011 1 female of *Trichadenotecnum gallicum* was found in the village of Velké Bílovice in southern Moravia (48°50'5.020" N, 16°52'18.732"E, 172 m a.s.l.). Document specimen is stored in the collection of O. Holuša. Specimen was found at solitaire of *Malus sylvestris* (with height about 5 m) along the road with No. 422. Material of psocids was collected by fogging.

Species-specific characters are following: the whole surface of the wing is clearly noticeable staining of small bordered light brown spots (in contrast to other species of genus *Trichadenotecnum*) (see Fig. 1 a). On the wing is a distinctive nodal stripe, partly discoidal stripe, upper part at pterostigma respectively. There are extensive spots in the apical part of the wing in the end sections of veins of $r2+3$, $r4+5$, $m1$, $m2$, $m3$, $cu1$ (see Fig. 1 b), also light brown spot at the base of the veins $r2+3$, $r4+5$ (see Fig. 1 c), that is with the light strip around the perimeter. Pterostigma is a two-color (see Fig. 1 d), distal part is considerably dark brown, proximal part with a few bright spots. Nodal stripe has a dark brown the nodus, also at the base of veins rs , ma , cu , and also at connection veins pcu and an (see Fig. 1 e). The hind wing is mostly clear, light brown spots are noticeable in the apical parts of the c and in apical part of veins $r2+3$ (see Fig. 1 f). Light brown tint with hints of staining is apparent under pcu -vein (see Fig. 1 g) and at the basal edge of wing under an -vein.

Brown pigmented spot on subgenital plate (see Fig 2) is in the central part of dark brown, distinct spots in the shape of an inverted "V" is on the tip of plate (see Fig. 2. a). Side lobes of brown spots are connected in the middle part (see Fig. 2. b). Posterior edge of the lateral lobes of brown spot is significantly dark brown (see Fig. 2. c), remaining part of the spot is light brown.

Summary of determination of characters:

- extensive spots in the apical part of the wing in the end sections of veins of $r2+3$, $r4+5$, $m1$, $m2$, $m3$, $cu1$;
- Two-color pterostigma with clearly bounded dark brown distal part;
- The shape of brown spot on the subgenital plate

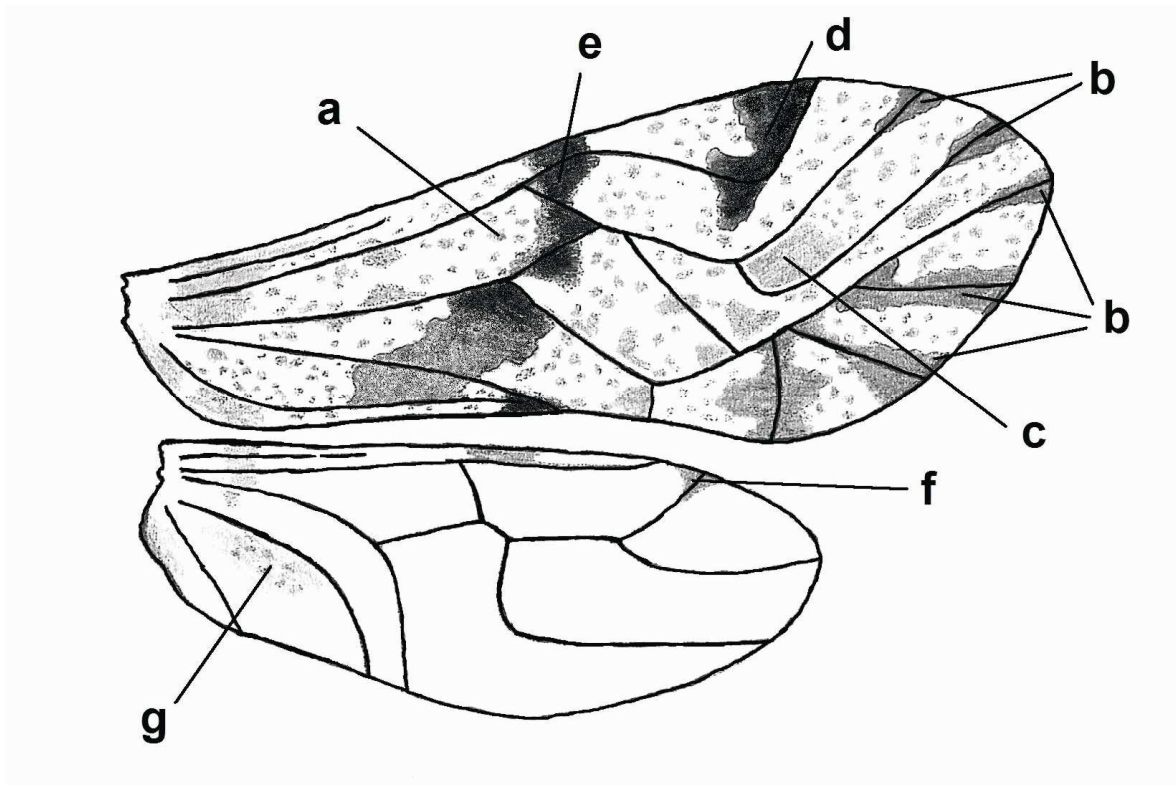


Fig 1: Right wings of *Trichadenotecnum gallicum*, length of front wing 3.1 mm, explanation of the letters in the text (orig. O. Holuša)

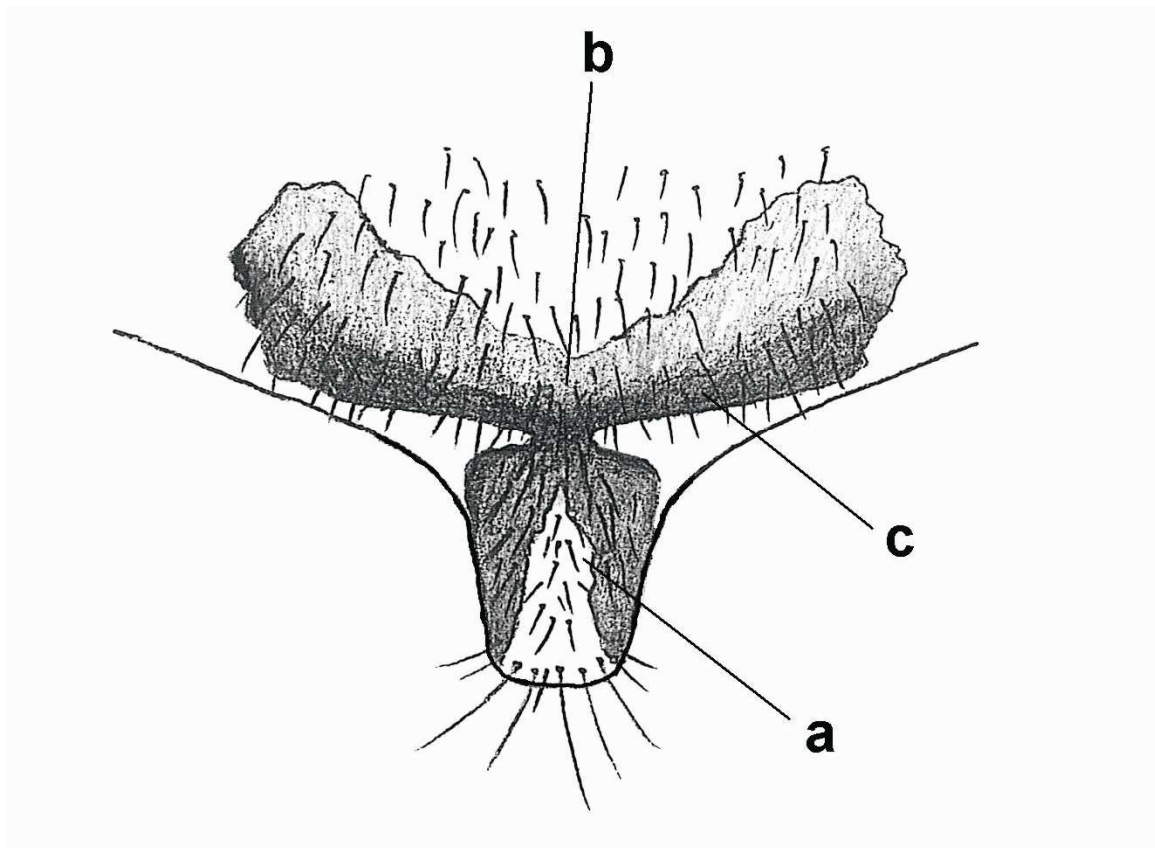


Fig 2: Subgenital plate of female *Trichadenotecnum gallicum*, explanation of the letters in the text (orig. O. Holuša)

Discussion

Trichadenotecnum gallicum is a rare species of western Palaearctic Region, so far been found in three places in the western Mediterranean - France (Var region) (Lienhard 1986), Spain (region of Jaén and region of Teruel) (Baz 1989), therefore Lienhard (1998) refers to this species as a west-mediterranean species. It was found at following species of trees - *Quercus ilex*, *Acer monspessulanum* and *Juniperus thurifera*.

On the base of the finding in central Europe can be expected, that the species would be widespread in the whole area of the Mediterranean and throughout the warmest areas, i.e. mainly Pannonian lowlands, its area would be extend to Central Europe. Species has likely holomediterranean area.

According the hitherto findings the species is significantly thermophilous, and that area north-pannonian subprovinces in the Czech Republic will fully responsible its ecological requirements. Although this area is significantly deforested and converted to farmland, it is possible to expect its occurrence mainly in forest complexes with dominancy of *Quercus peatraea*, *Q. dalechampii*, *Q. pubescens*, *Q. virgiliana* etc. in the vegetation tier of *Querceta* s.lat. and *Fagi-querceta* s.lat., f.e. in the region of Pavlovské vrchy Hills.

The genus of *Trichadenotecnum* is represented in the Czech Republic five species. Most abundant species is *Trichadenotecnum majus* that occurs from lowlands to mountainous areas, with the center of occurrence at higher elevations of the mountains and hills. Other species of the genus, *Trichadenotecnum sexpunctatum*, *T. incognitum* and *T. germanicum*, belong among the rarer representative Psocoptera fauna, hitherto known only the different findings of these species in hills and mountains, none of these species is not the focus of thermophilous in the lowest altitudes (cf. Holuša 2001b, 2003a, 2003b).

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