

Short communication

## New record of *Actinonotus pulcher* (Herrich-Schaeffer, 1835) (Hemiptera: Heteroptera: Miridae) in Poland

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**Abstract.** A new record of *Actinonotus pulcher* (Herrich-Schaeffer, 1835) from Poland is reported. Male genitalia drawings of *Actinonotus pulcher* are also provided.

**Key words:** Hemiptera, Heteroptera, Miridae, Mirinae, *Actinonotus pulcher*, faunistics, new record, Eastern Beskid Mts, Poland.

*Actinonotus pulcher* (Herrich-Schaeffer, 1835) is a monotypic miride genus, rarely occurring in Europe, including Poland. It is distributed in Western Palearctic (Gorczyca & Wolski 2011). Detailed information on its distribution was presented in the recent paper by Bury & Mazepa (2014).

Until recently, in Poland *A. pulcher* was known from two localities: Szeroka Góra near Strzegom on the Sudecki Foreland [UTM: WS94] (Scholtz 1847; Assmann 1854; Scholtz 1931) and Dolina Wielkiej Roztoki near Rytro in Sądecki Beskid Mts (part of Western Beskid Mts) [DV78]] (Stobiecki 1915). In 2013, after nearly a century, it was found in the Dolina Potoku Zakulawka in the Polica Massif of Orawsko-Podhalański Beskid (part of Western Beskids) [DV09] (Bury & Mazepa 2014).

Due to the rarity and restricted geographical distribution of *A. pulcher*, its biology is poorly known. Until recently, larvae were believed to feed on such deciduous trees as oaks and maples (Wagner 1952, 1971), but recent studies conducted in Germany indicate strong connection of larvae with various species of fir (Goßner 2005; Goßner et al. 2007; Müller et al. 2007). In general, distribution of *A. pulcher* in large extent overlaps with distribution of European silver fir *Abies alba* Mill. and Greek fir *Abies cephalonica* Loudon (Goßner et al. 2007). A detailed description of its biology is given in the paper by Bury & Mazepa (2014).

In this paper, *Actinonotus pulcher* is reported from Eastern Beskids, which represents the easternmost record of this species in Poland. We also provide illustrations of the male genitalia, including first descrip-

tion of the aedeagus of *A. pulcher* in order to facilitate its identification.

Dissections of male genitalia were performed using the technique described by Kerzhner & Konstantinov (1999). External structures were examined using an Olympus SZX12 stereomicroscope. Male genitalia were observed using an Olympus BX50 optical microscope. The terminology of the male genitalic structures follows Konstantinov (2003) and Cassis (2008).

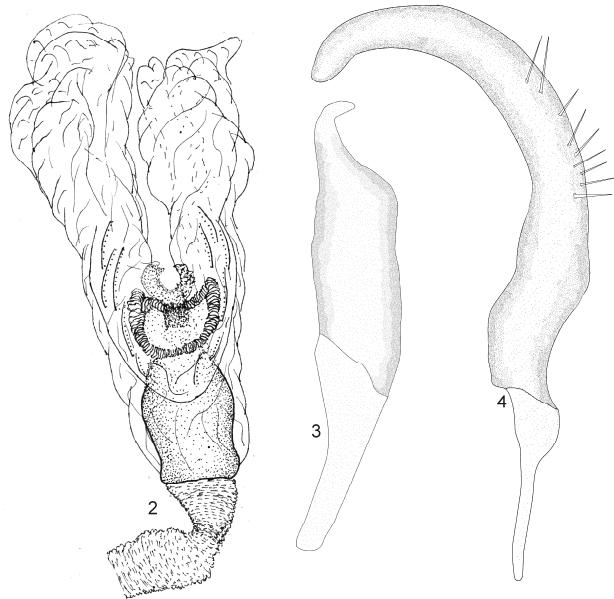
### *Actinonotus pulcher* (Herrich-Schaeffer, 1835)

**New record.** Eastern Beskid Mts: Suchy Obycz Massif, Fredropol commune, Bircza Forest Inspectorate, 161h forest section (Fig. 1) [FV19], 447 m a. s. l. (49°37'16".7 N, 22°38'08".3 E). Collected with use of flight intercept trap type „IBL-2”, hung between limbs of fallen beech *Fagus sylvatica* L. in *Dentario glandulosae-Fagetum* Klika 1927 em. Mat. 1964, with admixture of maples and silver fir. 16.07.2015 – 1 specimen, leg. A. Melke, det. & coll. G. Hebda.

**Male genitalia** (Figs. 2–4). *Aedeagus* (Fig. 2). Endosoma composed of strongly inflated, bifurcate membrane, medial part of endosoma with semicircular, serrate dextrolaterally sclerite; sclerotized part of ductus seminis inside endosoma broadened, sinuate laterally; secondary gonopore strongly developed. *Right paramere* (Fig. 3). Apical process thin, short, hook-like; paramere body weakly sinuate laterally, almost straight. *Left paramere* (Fig. 4). Apical process weakly tapering toward apex, curved, obtuse; paramere body curved, relatively thin, covered with sparse setae dorsally; sensory lobe weakly convex.



**Fig 1.** Locality with the trap situated between limbs of fallen beech (photo A. Melke).



**Figs. 2–4.** Male genitalia of *Actinonotus pulcher*: 2. endosoma (dorsal view); 3. right paramere (dextrolateral view); 4. left paramere (sinistrolateral view).

**Remarks.** In this paper we present new, fourth record of *Actinonotus pulcher* in Poland, being the easternmost in Poland. This locality extends its geographical range in Europe ca. 150 km towards northeast. Habitat where this species was collected is similar to those described in literature: stand composed of silver fir, beech and maples (see: Bury & Mazepa 2014).

A single specimen of *A. pulcher* was collected in the Suchy Obycz Massif which is part of the planned Turnicki National Park. Faunal studies recently carried out in this area revealed an occurrence of many species that had not been previously recorded in Poland or are rare in the country. It includes for example several rarely collected species of Aradidae (Hebda et al. 2016) or wolf spiders (Lycosidae) and beetles new

to the Polish fauna (in preparation). Collecting *A. pulcher* in this area confirms its high nature value, with special reference to the insect fauna.

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