

## ***Pennisetia Bohemica* (LEPIDOPTERA: SESIIDAE) IN SOUTHERN SLOVENIA AND NORTHERN CROATIA**

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The clearwing moth species *Pennisetia bohemica* Králíček & Povolný, 1974 is reported from Gorski kotar (NW Croatia), close to the border with Slovenia. The species was also observed at three new localities in southern Slovenia. All specimens were found by means of pheromone traps. The presence of *P. bohemica* in Croatia has not been recorded before.

**Sesiidae, *Pennisetia bohemica*, faunistics, southern Slovenia, northern Croatia**

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Staklokrilac vrste *Pennisetia bohemica* Králíček & Povolný 1974. pronađen je u Gorskom kotaru (SZ Hrvatska), u blizini granice sa Slovenijom. Vrsta je također opažena na tri nova lokaliteta u južnoj Sloveniji. Svi primjerci ulovljeni su uz pomoć feromonskih klopi. Prisutnost vrste *P. bohemica* u Hrvatskoj spominje se prvi put.

**Sesiidae, *Pennisetia bohemica*, faunistika, južna Slovenija, sjeverna Hrvatska**

### **Introduction**

Until recently *P. bohemica* was only recorded from Bohemia, Czech Republic, and has been long known from the northern Caucasus in Russia (Špatenka et al., 1999). Frequent use of synthetic pheromones and traps in the last few years have resulted in new finds also in Slovenia, Greece and Austria (Predovnik, 2002; Bartsch, 2003; Pühringer, 2004). In Slovenia the species was observed for the first time by the lepidopterologist Mojmir Lasan (Ljubljana) and later by the author as being not rare in the Zaplana region (Predovnik, 2002, 2004). Subsequ-

ently the author observed *P. bohemica* in additional places in eastern and southern Slovenia with the most southern records in the valley of the Kolpa River and on the Croatian side of the border; these observations are reported here. *P. bohemica* was not included in the lists of Kučinić et al. (1997), Laštůvka & Laštůvka (2001) and Laštůvka (2007) and is here reported for the first time from Croatia. Short descriptions of the biology and habitat of the species are given.

### Material and Methods

Pheromone lures for *P. bohemica* with the chemical composition E3Z13-18:Ac+E3Z13-18:OH (1:100) (Priesner et Špatenka, 1990) and pheromone lures intended for *Parantherene tabaniformis* (Rottemburg, 1775) with the chemical composition Z3Z13-18:OH+E3Z13-18:OH (37,5:1500) (Wageningen) were used in the course of the study. All the pheromones were made by PRI DLO, Wageningen, The Netherlands. Each pheromone was singly placed in a transparent plastic delta trap (RAG type, Wageningen), which had an exchangeable bottom coated with sticky material. (Figure 1) Traps were fixed on bushes or tree twigs at heights of 20 cm to 2 m above the ground. One or two traps were placed in each locality. The distance between the traps was at least 10-20 m. Captured specimens



Figure 1. Trap

were identified by external morphology. Representative specimens have been deposited in the collection of the author. The nomenclature used is according to Laštůvka & Laštůvka (2001).

### Results

Twenty-three delta RAG traps baited with pheromones intended for *P. bohemica* and 12 delta RAG traps baited with pheromones intended for *P. tabaniformis* were used at selected localities in southern Slovenia and in the boundary zone with Croatia from 3. - 17.8. 2008. In the field, synthetic sexual pheromone lures for *P. bohemica* were found to be optimal in attracting the species; however, pheromone lures intended for *P. tabaniformis* also proved to be suitable sex attractants for this species (Predovnik, 2002; Bartsch, 2003). In total 11 males of *P. bohemica* were trapped, 7 of which were caught by a single trap baited with pheromone intended for *P. tabaniformis*. Additionally, several specimens of *P. tabaniformis* and a single specimen of *Pennisetia hylaeiformis* (Laspeyres, 1801) were recorded.

In Slovenia and Croatia the species occurs on warm (Figure 2) forest steppe slopes and plains, the edges of forests and in woodland clearings. The larvae feed



Figure 2. Typical habitat of the species in Gorski kotar



Figure 3. *Pennisetia bohemica*

over two years in the roots of rose species (*Rosa canina* L., *Rosa arvensis* Huds., *Rosa* spp.) (Rosaceae), preferring roots just below or above ground, where it makes short tunnels and causes characteristic swellings. Pupation takes place in a gallery without formation of a cocoon. Collecting and rearing of caterpillars is described by Predovnik (2004). The adults swarm from the end of July until September, mainly in the middle of August (Špatenka et al., 1999; De Freina 1997). (Figure 3)

List of records (Figure 4)

SLO: (1) Babno polje, Jermendol, 756 m a.s.l., 3-17.8 2008, 1♂ *P. bohemica* in pher. trap RAG, pheromone bohemica; 7♂ *P. bohemica* and 3♂ *P. tabaniformis* in the same pher. trap RAG, pheromone tabaniformis.

SLO: (3) Dolina Kolpe, Ribjek (Rigel), 376 m a.s.l., 3-17.8 2008, 1♂ *P. bohemica*, pher. trap RAG, pheromone bohemica.

SLO: (4) Kočevje, Štalcerji (Štalcerski hrib), 586 m a.s.l., 3-17.8 2008, 2♂ *P. bohemica* and 1♂ *P. hylaeiformis* in the same pher. trap RAG, pheromone bohemica.

CRO: (2) Gorski kotar, Čabar, Gorači (Kajšli), 885 m a.s.l., 3-17.8 2008, 1♂ *P. bohemica* and 2♂ *P. tabaniformis* in the same pher. trap RAG, pheromone bohemica.

Relief Slovenije ©Geografski inštitut Antona Melika ZRC SAZU

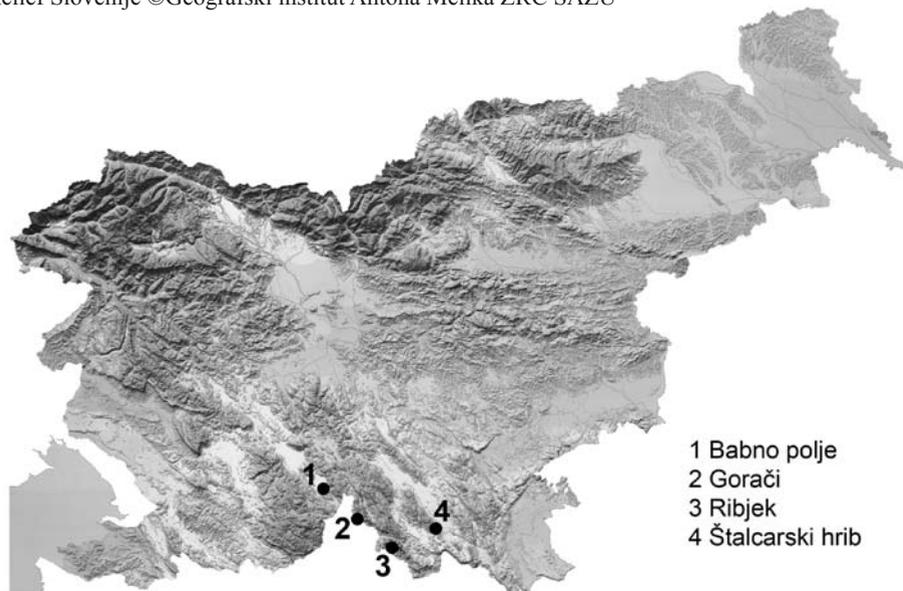


Figure 4. Map of finds

### Conclusion

Detailed studies of the Sesiidae fauna of southern Slovenia and Gorski kotar, Croatia, have not been published. Fragmentary data are available in a checklist of macrolepidoptera in Gorski kotar, in which five clearwing species were mentioned (Kučinić et al., 1994). Although the host plants of the species are relatively widespread, *P. bohemica* shows a much more local distribution; however, it can be abundant at some localities. Further investigation is required to determine whether the new finds represent only a part of larger *P. bohemica* populations, which might be distributed throughout warm karstic habitats in the Balkan peninsula over the Dinaride mountains and further towards the south, to the known area of distribution of this species in Greece.

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