

## ***Stenochrus portoricensis* new to the Czech Republic (Schizomida, Hubbardiidae)**

**Stanislav Korenko, Mark Harvey & Stano Pekár**

**Abstract:** A schizomid, *Stenochrus portoricensis* Chamberlin, 1922 (family Hubbardiidae), was collected in a greenhouse in Brno. This is the first discovery of a schizomid from the Czech Republic.

**Key words:** Faunistics, greenhouse, introduced species

The named world schizomid fauna comprises 38 genera and 218 species, but numerous species from many parts of the world have yet to be described (HARVEY 2003). In nature schizomids are exclusively known from tropical and subtropical regions, but three species have been recorded from greenhouses in Europe: *Schizomus crassicaudatus* (O. P.-Cambridge, 1872) from Sri Lanka was imported to France and *Zomus bagnallii* (Jackson, 1908) from South-east Asia was introduced to Great Britain (BLICK 2006). Recently, we collected *Stenochrus portoricensis* Chamberlin, 1922 within a greenhouse in the Czech Republic. *Stenochrus portoricensis* naturally occurs in Mexico and the Caribbean (ROWLAND & REDDELL 1980, MARTÍN & OROMÍ 1984, REDDELL & COKENDOLPHER 1995, TOURINHO & KURY 1999), but has been accidentally introduced into many countries of North and South America (Brazil, Ecuador and Florida) and even in Europe: Spain (Canary Islands – politically, but not geographically, a part of Europe), Great Britain and Germany (BLICK 2006, COKENDOLPHER et al. 2006). In continental Europe, the species occurs only in heated greenhouses, whereas the Canary Islands populations came from caves and inside houses (MARTÍN & OROMÍ 1992, OROMÍ & MARTÍN 1992).

### ***Stenochrus portoricensis* Chamberlin, 1922**

**Diagnosis and description:** From the other two schizomid genera (*Zomus* and *Schizomus*) found in Europe, *Stenochrus* is distinguished by the combi-

nation of the following characters: female flagellum with three segments (Fig. 1), anterior process of propeltidium with only one pair of setae arranged one behind the other (Fig. 2), metapeltidium entire (Fig. 2), movable cheliceral finger without accessory teeth (Fig. 3), and by a mesal spur on the trochanter of the pedipalp (Fig. 4).

*Stenochrus portoricensis* can be distinguished from other species of the genus by the characters of the internal genitalia of females (see ROWLAND & REDDELL 1980, figs 46–53; SANTOS et al. 2008, fig. 8). Detailed diagnoses and descriptions can be found in ROWLAND & REDDELL (1980), TOURINHO & KURY (1999), ARMAS (2004) and SANTOS et al. (2008).

### **Material**

Greenhouse, Botanical Garden of the Masaryk University, 310 m a.s.l., Brno (49°12'17"N, 16°35'47"E), 22 October 2008, 1♀, 1 juv ♀, leg. S. Korenko; same site, 15 January 2009, 2♀ ♀, 1 juv ♀, leg. S. Korenko, E. Líznarová & L. Sentenská; same site, 28. January 2009, 3♀ ♀, 2 juv ♀ ♀, leg. S. Korenko, E. Líznarová & L. Sentenská; same site, 5♀ ♀, 4 juv ♀ ♀, 5 February 2009 leg. S. Korenko & S. Pekár (specimens lodged in the Masaryk University, Brno and Western Australian Museum, Perth).

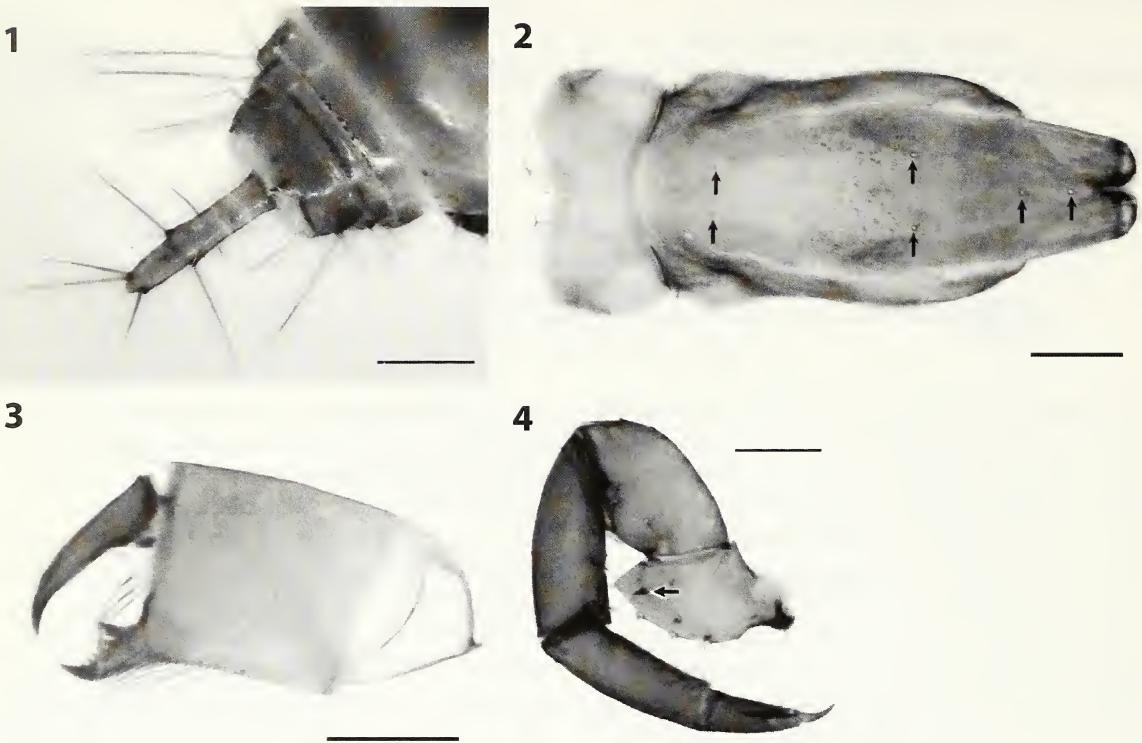
### **Natural History**

We found specimens under pieces of bark lying on wet soil. In America, *S. portoricensis* has been collected in abandoned arboreal termite nests in a cocoa plantation (SANTOS et al. 2008), termite and ant nests (REDDELL & COKENDOLPHER 1995), disturbed habitats (TOURINHO & KURY 1999), caves (ROWLAND & REDDELL 1980), and under rocks of an urbanised beach and in litter in metropolitan Rio de Janeiro (SANTOS et al. 2008).

In the laboratory specimens readily fed exclusively on collembolans. In the greenhouse we found also thysanurans, ants and spiders in the litter so these might be preyed upon too. SANTOS et al. (2008) found this

Stanislav KORENKO & Stano PEKÁR, Department of Botany and Zoology, Faculty of Sciences, Masaryk University, Kotlářská 2, 611 37 Brno, Czech Republic, E-Mail: pekar@sci.muni.cz

Mark HARVEY, Department of Terrestrial Zoology, Western Australian Museum, Locked Bag 49, Welshpool DC, Western Australia 6986, Australia



**Figs. 1-4:** Female of *Stenochrus portoricensis*. **1.** Flagellum (dorsal view). **2.** Propeltidium with one pair of setae arranged one behind the other (dorsal view). Arrows point to the position of setae. **3.** Chelicerae (lateral view). **4.** Right pedipalp (prolateral view). Arrow points to the mesal spur of patella. Scales = 0.1 (1) and 0.2 (2-4) mm.

species within ant and termite nests, where it possibly feeds on woodlice, collembolans, beetles, termites or ants.

All collected specimens ( $N = 19$ ) were juveniles or females, suggesting that the population may be parthenogenetic. Males of this species are not commonly collected (ROWLAND & REDDELL 1980, REDDELL & COKENDOLPHER 1995, ARMAS 2004), and in many parts of its range the species is presumably facultatively parthenogenetic (REDDELL & COKENDOLPHER 1995). *Stenochrus portoricensis* might be widely distributed in greenhouses throughout Europe; therefore, faunistic surveys would be welcome.

### Acknowledgements

We would like to thank M. Tupá and M. Chytrá for their kind assistance in the Botanical Garden, and Eva Líznarová and Lenka Sentenská for their help with collecting schizomids. This study was supported by grant no. MSM0021622416 provided by the Ministry of Education, Youth and Sports of the Czech Republic. SK was further supported by grant no. 526/09/H025 from the Czech Science Foundation.

### References

- ARMAS L.F. de (2004): Arácnidos de República Dominicana. Palpigradi, Schizomida, Solifugae y Thelyphonida (Chelicerata: Arachnida). – Revista Ibérica de Aracnología, vol. esp. 2: 1-63
- BLICK T. (2006): Zwergeisselskorpione in Europa und auf den Kanarischen Inseln. – Internet: <http://www.theoblick.homepage.t-online.de/Schizomida.pdf>
- COKENDOLPHER J.C., T. BLICK, H. BELLMANN & K. SCHRAMAYER (2006): Schizomida, short-tailed whipscorpions (Arachnida) introduced into Europe – request for specimens, references & information. – Newsletter of the British Arachnological Society 107: 14
- HARVEY M.S. (2003): Catalogue of the smaller arachnid orders of the world: Amblypygi, Uropygi, Schizomida, Palpigradi, Ricinulei and Solifugae. CSIRO Publishing, Collingwood, Australia. 385 pp.
- MARTÍN J.L. & P. OROMÍ (1984): Consideraciones sobre la presencia de *Sebizomus portoricensis* Chamberlin, 1922 (Arach. Schizomida) en cuevas de Tenerife (Islas Canarias). – Boletín de la Sociedad Entomológica de España 8: 265-270

*Stenochrus portoricensis* in the Czech Republic

3

- OROMÍ P. & J.L. MARTÍN (1992): The Canary Islands subterranean fauna: characterization and composition. In: CAMACHO A.I. (ed.): The natural history of biospeleology. Museo Nacional de Ciencias Naturales, Madrid. Pp. 527-567
- REDDELL J.R. & J.C. COKENDOLPHER (1995): Catalogue, bibliography and generic revision of the order Schizomida (Arachnida). – Texas Memorial Museum, Speleological Monographs 4: 1-170
- ROWLAND J.M. & J.R. REDDELL (1980): The order Schizomida (Arachnida) in the New World. III. *Mexicanus* and *pecki* groups (Schizomidae: *Schizomus*). – Journal of Arachnology 8: 1-34
- SANTOS A.J., S.C. DIAS, A.D. BRESCOVIT & P.A. SANTOS (2008): The arachnid order Schizomida in the Brazilian Atlantic Forest: a new species of *Rowlandius* and new records of *Stenochrus portoricensis* (Schizomida: Hubbardiidae). – Zootaxa 850: 53-60
- TOURINHO A.L. & A.B. KURY (1999): The southernmost record of Schizomida in South America, first records of Schizomida for Rio de Janeiro and of *Stenochrus* Chamberlin, 1922 for Brazil (Arachnida, Schizomida, Hubbardiidae). – Boletim do Museu Nacional, N.S. Zoologia 405: 1-6

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Arachnologische Mitteilungen](#)

Jahr/Year: 2009

Band/Volume: [38](#)

Autor(en)/Author(s): Korenko Stanislav, Harvey Mark S., Pekár Stano

Artikel/Article: [Stenochrus portoricensis new to the Czech Republic \(Schizomida, Hubbardiidae\) 1-3](#)