

First Report of *Thanasimus femoralis* (Zetterstedt) (Coleoptera, Cleridae) for the Bulgarian Fauna

Danail D. Doychev*, Dinko V. Ovcharov

University of Forestry, 10, Kliment Ohridski Blvd., Sofia 1756, Bulgaria; E-mails: doychev@abv.bg, dwo@abv.bg

Abstract: *Thanasimus femoralis* (Coleoptera: Cleridae) is recorded for the first time in the fauna of Bulgaria and the Balkan Peninsula. During 2005-2006 adults of *Th. femoralis*, *Tilloidea unifasciata* (Cleridae) and *Phloeosinus henschi* (Coleoptera: Curculionidae: Scolytinae) were reared from dry branches of *Cupressus sempervirens* collected in the Pirin Mts. The clerid beetles can be treated as predators on *Ph. henschi*.

Key words: Cleridae, Curculionidae, *Cupressus sempervirens*, new records, Bulgaria, Balkan Peninsula

The studies on the family Cleridae (Hexapoda: Coleoptera) in Bulgaria started at the end of the 19th century (STRAUS 1892, REITTER 1894). A total of 26 species were reported for Bulgaria until now (YOAKIMOV 1904, KOVACHEV 1905, KANTARDJEVA 1930, KANTARDJEVA-MINKOVA 1931, ROUBAL 1932, GNADT 1963, MAZUR 1972, GERSTMEIER 1998). *Thanasimus femoralis* (ZETTERSTEDT, 1828) is added to them with this note.

The locality of *Thanasimus femoralis* is situated on the western side of the Pirin Mts., 7 km north-east of Ilindentsi village, at 1100 m a. s. l. with coordinates as follows: 41° 40' 54, 8'' N and 23° 17' 53, 9'' E. (Fig. 1). On 28 April 2005 parts of dry branches (with diameter of 2.5 cm) of Mediterranean Cypress, *Cupressus sempervirens* L. were collected in the region of Mura chalet. Under the bark of branches pupae and larvae of bark beetles (Coleoptera: Curculionidae: Scolytinae) were found.

The samples were placed in a plastic container and were transported to the University of Forestry in Sofia (UF). The samples were kept in laboratory conditions at room temperature (18-22 °C). During 2005-2006 the adults of beetles were reared as follows:

• 02-24.06.2005 – *Phloeosinus henschi* REITTER, 1901 (Curculionidae: Scolytinae) – 1 ♂, 13 ♀♀;

• 17.02.2006 – *Thanasimus femoralis* (Cleridae) – 1 ♂;

• 17.02.2006 – *Tilloidea unifasciata* (FABRICIUS, 1787) (Cleridae) – 1 ♀.

The dimensions of the reared adult of *Th. femoralis* are: body length – 5.5 mm and elytrae base width – 1.1 mm. The specimen is kept in the insect collection of the UF.

Thanasimus femoralis is mostly distributed in North and Central Europe – the Scandinavian Peninsula, Germany, Austria, Hungary, Slovakia, Czech Republic (GERSTMEIER 1998, 2004). The species was found also in Russia – near Moscow and South-Eastern Siberia

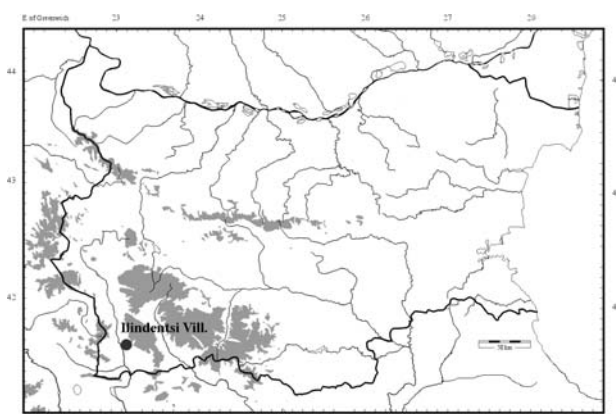


Fig. 1. The locality of *Thanasimus femoralis* in Bulgaria.

*Corresponding author

(BERLOV, BERLOV 2006) and in Spain (RUIZ, BARRANCO 2000, BAHILLO de la PUEBLA and LÓPEZ-COLÓN 2006).

The find of *Th. femoralis* is the first not only in Bulgaria, but also on the Balkan Peninsula.

This clerid beetle inhabits the coniferous forests and its larvae live under the bark of trees, mostly on *Picea abies* (L.) H. KARST. and *Pinus sylvestris* L. (NIKITSKIY 1980; TERREN, RAMISA 1983). Both larvae and adults are predators on bark beetles, especially *Ips typographus* (L.) (HULCR *et al.* 2006, SCHROEDER 2003). According to RICHTER (1961) *Th. femoralis* attacks

also *Phaenops cyanea* (FABRICIUS, 1775) (Coleoptera: Buprestidae) and *Magdalis* spp. (Curculionidae).

The rearing of *Th. femoralis* and *T. unifasciata* from branches, infested by *Phloeosinus henschi* is most probably an indicator for trophy link between clerids and the bark beetle.

Beside that possible trophy link, the development of the first two on *Cupressus sempervirens* is also of interest.

Acknowledgements: Sincere thanks go to Ms. Bilyana Ovcharova (University of Forestry) for proofreading the paper.

References

- BAHILLO de la PUEBLA P., J. LÓPEZ-COLÓN 2006. The Checkered beetles from Comunidad de Madrid. – *Graellsia*, **62**: 403-418. (In Spanish, English summary).
- BERLOV O., E. BERLOV 2006. Atlas of checkered beetles (Cleridae) of Russia (last updated: 05 March, 2006). http://www.zin.ru/ANIMALIA/Coleoptera/eng/atl_cl.htm.
- GERSTMEIER R. 1998. Checkered Beetles. Illustrated Key to the Cleridae and Thanerocleridae of the Western Palaearctic. Weikersheim, Margraf Verlag. 257 p.
- GERSTMEIER R. 2004. Fauna Europaea: Cleridae. – In: AUDISIO, P. (ed): Fauna Europaea: Coleoptera. Fauna Europaea version 1.3, last update 19 April 2007. <http://www.faunaeur.org>.
- GNADT W. 1963. Ergebnisse der Albanien-Expedition 1961 des Deutschen Entomologischen Institutes. 14. Beitrag. Coleoptera: Cleridae. – *Beiträge zur Entomologie*, Band **13** (7/8): 826-830.
- HULCR J., K. UBIK, J. VRKOC 2006. The role of semiochemicals in tritrophic interactions between the spruce bark beetle *Ips typographus*, its predators and infested spruce. – *Journal of Applied Entomology*, **130** (5): 275-283.
- KANTARDJIEVA S. 1930. Die Arten der Familie Cleridae (Coleopt.) in Bulgarien. – *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **5**: 189-201. (In Bulgarian, German summary).
- KANTARDJIEVA-MINKOVA S. 1931. Beitrag zur Kenntnis der Arten der Familie Cleridae (Coleopt.) in Bulgarien. – *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **6**: 153-156. (In Bulgarian, German summary).
- KOVACHEV V. 1905. A contribution to the studies of entomological fauna of Bulgaria. – *Godishnik na Rusenskata gimnazia "Kn. Boris" za uchebnata 1904/1905 god.*, 3-12. (In Bulgarian).
- MAZUR S. 1972. Contribution to the knowledge of Sphaeritidae, Histeridae and Cleridae (Coleoptera) of Balkans. – *Polskie Pismo Entomologiczne*, **XLII/1**: 145-150.
- NIKITSKIY N. 1980. Insect predators of the bark beetles and their ecology. M., Nauka, 232 p. (In Russian).
- REITTER E. 1894. Bestimmungstabelle der Coleopteren Familie der Cleridien. Brünn. Heft XXVIII: 38-88.
- RICHTER V. 1961. The Clerid-beetles (Coleoptera, Cleridae) of the USSR. – *Horae Societatis Entomologicae Unionis Sovieticae*, **48**: 63-128. (In Russian).
- ROUBAL J. 1932. Fragmente zur Koleopterenfaunistik des balkanischen Festlandes. – *Entomologischen Anzeiger*, **XII** (7): 129-130.
- RUIZ J., P. BARRANCO 2000. New records of checkered beetles from Eastern Andalusian country (Coleoptera, Cleridae). – *Boletín de la Sociedad Entomológica Aragonesa*, **27**: 31-33. (In Spanish, English summary).
- SCHROEDER L. 2003. Differences in responses to α -pinene and ethanol, and flight periods between the bark beetle predators *Thanasimus femoralis* and *T. formicarius* (Col.: Cleridae). – *Forest Ecology and Management*, **177** (1-3): 301-311.
- STRAUS A. 1892. E. fon Frivaldski about the flora and fauna of Balkan Peninsula. – *Sbornik za narodni umotvorenia, nauka i knijnina*, VIII. (In Bulgarian).
- TERREN C., R. RAMISA 1983. Contribution to knowledge of the Cleridae (Col.) in the forests of *P. sylvestris* in the Roncal Valley (Navarre). – *Actas I Congreso Ibérico de Entomología*, León: 50-51. (In Spanish, English summary).
- YOKIMOV D. 1904. A contribution to the Bulgarian insect fauna – Insecta. I. Coleoptera. – *Sbornik za narodni umotvorenia, nauka i knijnina*, **XX**: 1-43. (In Bulgarian).

Първо съобщение на *Thanasimus femoralis* (Zetterstedt) (Coleoptera, Cleridae) за българската фауна

Д. Дойчев, Д. Овчаров

(Резюме)

Thanasimus femoralis (Coleoptera: Cleridae) се съобщава за първи път за фауната на България и Балканския полуостров. През периода 2005–2006 г. от сухи клонове на *Cupressus sempervirens* L., събрани от Пирин са изолирани възрастни на *Th. femoralis*, *Tilloidea unifasciata* (Cleridae) и *Phloeosinus henschi* (Coleoptera: Curculionidae: Scolytinae). Най-вероятно видовете от сем. Cleridae са хищници по корояда *Ph. henschi*.