

**NOTES ON DISTRIBUTION AND ECOLOGY
OF *ICOSIUM TOMENTOSUM ATTICUM* GANGLBAUER
(COLEOPTERA: CERAMBYCIDAE) IN BULGARIA**

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Abstract: During the period 2005-2006 two new localities of the considered as very rare longhorn beetle *Icosium tomentosum atticum* Ganglbauer (Coleoptera: Cerambycidae) were established in Bulgaria – “Tisata” reserve near town of Kresna, and town of Petrich. In Kresna locality 2 adults were reared from broken dry branch of *Juniperus excelsa* M. Bieb., and in Petrich one – 2 adults from stem of dying *Cupressus sempervirens* L. *J. excelsa* and *C. sempervirens* are found for first time as host plants of the cerambycid in Bulgaria. In Petrich locality an adult of checkered beetle, *Trichodes punctatus* Fischer von Waldheim (Cleridae: Coleoptera) was found in cerambycid larval galleries. All known localities of *I. tomentosum atticum* in Bulgaria are discussed in the work.

Key words: *Icosium tomentosum atticum*, Cerambycidae, new localities, host plants, *Juniperus excelsa*, *Cupressus sempervirens*, *Trichodes punctatus*

Until now, 266 species of longhorn beetles (Coleoptera: Cerambycidae) have been reported in Bulgaria (Migliaccio et al., 2007). With exception of some probably wrongly identified and single old not-confirmed records, it could be accepted that at least 255 species were certainly established in the country. From them, 67 species (25.2%) are rare – with scarce populations or known from single localities only. It must be noted that this high percentage is probably due to the fact that most of cerambycids are not especially studied or for their study not the most appropriate methods were used.

This note announces new data about distribution and ecology of *Icosium tomentosum atticum* Ganglbauer, 1881, which is considered as one of the rarest cerambycids in Bulgaria.

Holomediterranean *Icosium tomentosum* Lucas, 1854 is known by two geographic subspecies – *I. tomentosum tomentosum* in South-West Europe and North Africa, and *I. tomentosum atticum* in Turkey, Balkan Peninsula (Greece, Bulgaria, Serbia, Croatia, Bosnia and Herzegovina), Italy, and South France (Danilevsky, 2003; Hoskovec, Rejzek, 2006). Both subspecies develop on various Cupressaceae (*Juniperus*, *Cupressus*, *Thuja*,

Callitrix, *Tetraclinis*, etc.) (Hoskovec, Rejzek, 2006). According to the same authors, life cycle is 2 years; larvae first feed under bark and later enter the wood of recently dead or dying hosts.

In Bulgaria *I. tomentosum atticum* was reported only once by a single specimen collected near Plovdiv (Angelov, 1988). It was considered doubtful for Bulgaria (Sama, personal communication), and was not included among certainly established species in the country (Georgiev, Hubenov, 2006). However, recently a specimen was collected on street lamp in Novo Konopladi vill. in Struma valley at 100 m a.s.l. (Migliaccio et al., 2007).

In this study *I. tomentosum atticum* was established at two new localities in Bulgaria – Kresna and Petrich.

First habitat of *I. tomentosum atticum* is situated in “Tisata” reserve in Kresna gorge of Struma valley in which large natural formations of *Juniperus excelsa* M. Bieb. occur. Cuttings of broken dry branch of *J. excelsa* about 1.5 cm in diameter were collected on 14 August 2005 in Maleshevska planina Mt. at 350 m a.s.l., about 2 km north of Kresna. They 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). Two adult specimens (a male and a female) of *I. tomentosum atticum* were reared in 2006 (found dead on 16 November).

Second habitat is situated about 1 km west of Petrich at 160 m a.s.l. On 3 November 2005 six cerambycid larvae were found in larval galleries in wood under bark of dying stem of *Cupressus sempervirens* L. about 25 cm in diameter. Besides them, an alive male adult of checkered beetle, *Trichodes punctatus* Fischer von Waldheim, 1829 (Cleridae, Coleoptera) was also found in an empty cerambycid larval gallery. After collection larvae were placed in polystyrol tubes. They were transported to the UF and were kept at room temperature. Two adults of *I. tomentosum atticum* (a male and a female) were reared between 26 and 31 July 2006. Three of the remaining larvae died, and one turned into a pupa but died in a short time.

It is important to note that *I. tomentosum atticum* was established for first time to develop on *J. excelsa* and *C. sempervirens* in Bulgaria. All known localities of the cerambycid in the country are marked on Fig. 1.

The present finding of *T. punctatus* is also of great interest. The species is distributed in Balkan Peninsula, Middle East, and South Russia. Aberration *viridifasciatus* Chevrolat, 1843, established in this study occurs in former Yugoslavia, Bulgaria, Greece, Turkey, and Iran (Gerstmeier, 1998).

Damaged stem of *C. sempervirens* might be used by *T. punctatus* as suitable over-wintering place. However, the presence of adult clerid beetle in larval galleries of *I. tomentosum atticum* may be indication of predator-prey relationship. No data about larval feeding of *T. punctatus* have been found

in entomological literature, but *Trichodes* adults often could be observed on flowers of various herbaceous plants feeding on pollen or hunting other flower-visiting insects. According to Gerstmeier (1998) the larvae of some *Trichodes* (*T. alvearius* F., *T. apiarius* L.) are predators of pre-adult stages of solitary bees (*Anthophora*, *Megachile*, *Osmia*). Larvae of *Trichodes ammios* (F.) and *T. flavocinctus* Spinola are also known to feed on grasshopper eggs (del Canizo, 1956).



Fig. 1. Known localities of *Icosium tomentosum atticum* in Bulgaria

In conclusion, it is obvious that *I. tomentosum atticum* is not very rare in Bulgaria and other findings are liable to occur in southern parts of the country especially where large Cupressaceae plantations exist – Eastern Rhodopes and Black sea coast.

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**ВЪРХУ РАЗПРОСТРАНЕНИЕТО И ЕКОЛОГИЯТА НА *ICOSIUM*
TOMENTOSUM ATTICUM GANGLBAUER (COLEOPTERA:
CERAMBYCIDAE) В БЪЛГАРИЯ**

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(Резюме)

През периода 2005-2006 г. са установени две нови находища на смятаня за много рядък в България сечко *Icosium tomentosum atticum* Ganglbauer (Coleoptera: Cerambycidae). Първото находище е в резервата „Тисата“ до Кресна, а второто – в района на Петрич.

В резервата „Тисата“ *I. tomentosum atticum* е намерен в сухи клони на дървовидна хвойна (*Juniperus excelsa* M. Vieb.) в района на Малешевска планина, около 2 km северно от Кресна, на 350 m надм. в. Биологичният материал – ларви с части от клоните на хранителното растение, е събран на 14.08.2005 г. и пренесен в лабораторни условия, където през 2006 г. излетяха 1 мъжки и 1 женски екземпляр на церамбицида.

Второто находище се намира около 1 km западно от Петрич на 160 m надм. в. В него *I. tomentosum atticum* е установен в стъблото на загиващ кипарис (*Cupressus sempervirens* L.). На 03.11.2005 г. са събрани 6 ларви, от които в лабораторни условия имагинираха 1 мъжки и 1 женски екземпляр през периода 26-31.07.2006 г. При събирането на биологичния материал в ларвните галерии на *I. tomentosum atticum* е намерено мъжко имаго на *Trichodes punctatus* Fischer von Waldheim (Cleridae, Coleoptera), което би могло да бъде хищник за церамбицида.

Дървовидната хвойна и обикновеният кипарис са нови хранителни растения на *I. tomentosum atticum* в България. Разгледани са всички находки и находища на вида у нас. Изказано е предположение, че церамбицидът не е рядък и при целенасочени проучвания може да бъде намерен и в други южни части на страната, където има насаждения от кипарисовови видове – Източните Родопи и Черноморското крайбрежие.

Ключови думи: *Icosium tomentosum atticum*, Cerambycidae, нови находища, растения-гостоприемници, *Juniperus excelsa*, *Cupressus sempervirens*, *Trichodes punctatus*

