NATURAE TUTELA	19/2	155 – 158	LIPTOVSKÝ MIKULÁŠ 2015

NUMEROUS RECORD OF A RARE AND LITTLE-KNOWN SPECIES *ABDERA TRIGUTTATA* (GYLLENHAL, 1810) (COLEOPTERA: MELANDRYIDAE) IN THE ŠTIAVNICKÉ VRCHY MTS

VALERIÁN FRANC

V. Franc: Početný nález vzácneho a málo známeho druhu *Abdera triguttata* (Gyllenhal, 1810) (Coleoptera: Melandryidae) v Štiavnických vrchoch

Abstrakt: Autor tu opisuje okolnosti prekvapujúceho početného nálezu vzácneho málo známeho chrobáka *Abdera triguttata* v Štiavnických vrchoch. Tento teplomilný druh je známy z veľmi sporadických jednotlivých nálezov na južnom, ale i strednom Slovensku. Má evidentný vzťah k stromovým hubám rodu *Trichaptum*, ktoré rastú na odumretých alebo odumierajúcich konároch a kmeňoch, zvlášť borovice. Príspevok obsahuje aj rekapituláciu dostupných nálezov *Abdera triguttata* na Slovensku, ako i poznámky o rozšírení, ekológii a miere ohrozenia tohto druhu.

Kľúčové slová: *Abdera triguttata*, Melandryidae, Štiavnické vrchy

INTRODUCTION AND METHODS

Melandryidae is a little-known family of beetles, who are often considered to be indicators of high-biodiversity sites. Significant majority of Melandryidae (especially their larvae) are living in decaying wood of both conifer and broadleaved trees; and then saproxylic species is a frequent expression. Because they are usually living in a wood infected by various fungi (and sometimes directly in the fungal flesh), the term «sapromycetoxylic species» would be better. They are sparsely frequent, the majority of melandryid-beetles rank among scarce or up to very rare species.

Abdera triguttata (Gyllenhal, 1810) had been formerly considered to be extremely rare species. Roubal (1936) mentions only one old undated record from „Piechov", Brancsik lgt. – recently it is a part of the Bolešov village (48° 59‘ 14“ N 18° 09‘ 14“ E, 7074b; but this record had been carried out somewhere in the surrounding of the village, of course), and after that latter information on its occurrence in Slovakia is missing for several decades. Information gap is even more conspicuous because further information on the ecology and distribution of this species are not added.

In summer 2014 I have ocassionally dealt with research of beetles in the surrounings of the villages Voznica and Rudno nad Hronom (the Štiavnické vrchy Mts). Current sampling methods were used, including individual collecting and shaking the beetles from tree branches. The material is deposed in the author's collection.

THE RESULTS AND DISCUSSION

Abdera triguttata is a scattered and rare species of open (often xerothermic) forests and edges, especially on rocky or sandy substrata; formerly had been considered to be extremely rare. Little number of both published and unpublished records reflects its hidden way of life; the ecology and phenology of this species will be discussed later.

Accessible recent records from Slovakia in chronologic order (if the source of information allows it) are listed below:

Plavecký Štvrtok township – Nature Reserve Bezodné (48° 22‘ 50“ N 17° 00‘ 55“ E, DFS code 7668a), 170 m a. s. l., 1982 – 1994; see the note in the next paragraph (Majzlan, Rychlík,1995) [DFS – Databank of the Fauna of Slovakia].

Nature Reserve Červený rybník near the Tomky hamlet (48° 35‘ 32“ N 17° 04‘ 44“ E, DFS code 7468b), 186 m a. s. l., 1982 – 1994; detailed circumstances of these utmost remarkable records are unaccessible, despite they are probably the first properly documented records from the territory of Slovakia (Majzlan, Rychlík, 1995).

Malá Fatra Mts – Boboty (49° 14‘ 19.5“ N 19° 03‘ 35“ E, DFS code 6780a), 780 m a. s. l., Malaise trap, 1996 (Majzlan, 2002).

Malá Fatra Mts – Nature Reserve Rozsutec, a slope above the Kreminná valley (49° 13‘ 56.5“ N 19° 04‘ 54“ E, DFS code 6780d), 900 m a. s. l., Malaise trap, July 1997 (Majzlan, 1999). Another highly remarkable record from mountain altitudes!

Dolné Vestenice township – Záviničie (48° 42' 11" N 18° 23' 14" E, DFS code 7276c), 230 m a. s. l., Malaise trap, 2001 (Majzlan, 2009).

Malacky – Široké (48° 25' N 17° 04' E, DFS code 7568c), 160 m a. s. l., July 2003, Malaise trap (Majzlan, 2004).

Strážovské vrchy Mts – Behúľova near the Uhrovec castle (48° 46‘ 08“ N 18° 24‘ 37“ E, DFS code 7276a/b), 520 m a. s. l., Malaise trap, 2009 (Majzlan, 2009).

Strážovské vrchy Mts: ‘Dielce’ near the Dolné Vestenice township (48° 43‘ 10“ N 18° 24‘ 40“ E, DFS code 7276c/d), 465 m a. s. l., swept from the undergrowth vegetation of a xerothermic oak-and-pine forest on the limestone rocky slope June 12, 2010, V. Franc lgt. (hither-to unpublished).

Bučany (48° 25‘ 6.05“ N 17° 43‘ 10.45“ E, DFS code 7572c), 140 m a. s. l., a field grove 1.5 km east of the village, Malaise trap, 2011 (Majzlan, 2012).

Bratislava – Rača (48° 13‘ 49.8“ N 17° 10‘ 30.5“ E, DFS code 7768d), 230 m a. s. l., xerothermic oak forest, Malaise trap, July 2013, 2 individuals (Majzlan, 2014).

Štiavnické vrchy Mts – Voznická dolina (48° 27‘ 14.3“ N 18° 43‘ 41.6“ E, DFS code 7578a/c), 420 m a. s. l., open or up to xerothermic oak-and-pine forest on south-eastern rocky slope, on the branches of a fallen pine, infected by the fungus *Trichaptum fuscoviolaceum*, June 6, 2014, more than 20 individuals, 8 of them in coll. mea. Under the bark of a decaying stem of this pine there were also observed and/or collected the following remarkable beetle species: § *Rhysodes sulcatus* (Fabricius, 1787), *Uloma rufa* (Piller & Mitterpacher, 1783) and § *Menephilus cylindricus* (Herbst, 1784) [§ – protected species].

Distribution: Austria, Belarus, Belgium, Czech Republic, Danmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Italy, Latvia, The Netherlands, Norway, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Ukraine (Audisio, 2014). Despite this East Palaearctic species has a relatively wide range, it is found or cited only sporadically. It apparently reflects its hidden way of life.

Ecology and phenology

Abdera triguttata occurs very locally and rarely in open forests and ecotone habitats from lowlands to mountain areas, preferring rocky and sandy substrata. It is usually found on decaying branches or smaller stems of pines, infected by bracket fungus *Trichaptum fuscoviolaceum* (Koch, 1989), however in higher altitudes and/or in North Europe areas it may live in closely related species *Trichaptum abietinum* growing on firs especially. Adults appear during a short summer period (June and the first half of July), having a crepuscular (twilight) activity. Obviously it is the main explanation of the rareness and mysteriousness of *Abdera triguttata*; and then it is clear that this species of hidden way of life is nearly always found accidentally – it may be swept from the undergrowth vegetation or (more often) Malaise trapped. (Flight towards light is not mentioned in accessible papers, nevertheless may be expectable.) Referred record from the Štiavnické vrchy Mts is apparently the first known numerous record at least in Slovakia.

Ecosozological status

Abdera triguttata is mentioned in several Red Lists of European countries (counties), including the Red List of Slovakia (Holecová, Franc, 2001), Czech Republic (Jelínek, 2005), Bavaria (Collective, 2005), Austria (Jäch, 1994) and Great Britain (Hyman, Parsons, 1992); see tab. 1. Its ecosozological status may be sometimes debatable. Despite it occurs in almost one half of European countries, in Red Lists is mentioned only five times; obviously because of it is a tiny, inconspicuous, little-known and 'unpopular' species.

Nevertheless, its direct endangerment is probably not so clear than in the case of larger relative species, including *Dircaea australis* Fairmaire, 1856, *Xylita livida* (Sahlberg, 1833), *Melandrya dubia* (Schaller, 1783), *Phryganophilus ruficollis* (Fabricius, 1798), etc. This species is perhaps not so rare than it is usually mentioned. One way or another, *Abdera triguttata* deserves more attention of entomologists and conservationists. The distribution, ecology and human impacts to its habitats ought to be studied more particularly.

Table 1. Ecosozological status of *Abdera triguttata*

Country	Ecosozological status	
	Published	Real assessment
Slovakia	VU	VU → NT?
Germany: Bavaria	EN	EN
Czech Republic	EN	EN
Austria	EN	EN → VU
Great Britain	N	VU?

NT near threatened, VU vulnerable, EN endangered, N notable

REFERENCES

Audisio, P. 2014. Fauna Europaea version 2.6. Web Service available online at http://www.faunaeur.org

Collective 2005. Rote Liste der gefährdeten Tiere und Gefäßpflanzen Bayerns: Kurzfassung. Bayerisches Staatsministerium für Umwelt, Gesundheit und Verbraucherschutz, München, 194 pp.

Holecová, M., Franc, V. 2001. Červený (ekosozologický) zoznam chrobákov (Coleoptera) Slovenska, p. 111–128. In Baláž, D., Marhold, K., Urban, P. (Eds.), Červený zoznam rastlín a živočíchov Slovenska. Ochrana prírody (ŠOP SR Banská Bystrica) Suppl. 20: 1–159.

Hyman, P. S., Parsons, M. S. 1992. A review of the scarce and threatened Coleoptera of Great Britain, Part 1. The UK Nature Conservation Committee, Peterborough, 484 pp. In Gepp, J. (Ed.): Rote Listen gefährdeter Tiere Österreichs. Grüne Reihe des Bundesministeriums für Umwelt, Jugend und Familie, Graz, 355 pp.

Jäch, M. A. 1994. Rote Liste der gefährdeten Käfer Österreichs (Coleoptera), p. 107–200. In Gepp, J. (Ed.): Rote Listen gefährdeter Tiere Österreichs. Grüne Reihe des Bundesministeriums für Umwelt, Jugend und Familie, Graz, 355 pp.

Jelínek, J. 2005. Melandryidae (lencovití), p. 508–509. In Farkač, J., Král, D., Škorpík, M. (Eds.), Červený seznam ohrožených druhů České republiky – Bezobratlí. Agentura ochrany přírody a krajiny ČR, Praha, 760 pp.

Koch, K. 1989. Die Käfer Mitteleuropas, Ökologie 2. Goecke & Evers Verlag, Krefeld, 382 pp.

Majzlan, O. 1999. Letová aktivita chrobákov (Coleoptera) študovaná Malaiseho pascou na ploche Rozsutec v NP Malá Fatra v roku 1997. Ochrana prírody (ŠOP SR Banská Bystrica) 17: 169–174.

Majzlan, O. 2002. Letová aktivita chrobákov (Coleoptera) študovaná pomocou Malaiseho pascí na Slovensku. Ochrana prírody (ŠOP SR Banská Bystrica) 21: 91–127.

Majzlan, O. 2004. Vybrané skupiny hmyzu (Coleoptera, Blattodea, Ensifera, Caelifera et Lepidoptera) pieskov v okolí Malaciek a Lakšárskej Novej Vsi. Ochrana prírody (ŠOP SR Banská Bystrica) 23: 221–241.

Majzlan, O. 2009. Chrobáky (Coleoptera) masívu Rokoša a okolia (Strážovské vrchy). Rosalia (Nitra) 20: 71–100.

Majzlan, O. 2012. Fauna chrobákov (Coleoptera) voľnej prírody v okolí obce Bučany. Naturae Tutela (SMOPaJ, Liptovský Mikuláš) 16/1: 37–50.

Majzlan, O. 2014. Biodiverzita chrobákov (Coleoptera) ako ekostabilizačný faktor lesných ekosystémov. Naturae Tutela (SMOPaJ, Liptovský Mikuláš) 18/2: 113–134.

Majzlan, O., Rychlík, I. 1995. Spoločenstvá chrobákov (koleopterocenózy) rezervácií Bezedné a Červený rybník na Záhorí (juhozápadné Slovensko). Ochrana prírody (ŠOP SR Banská Bystrica) 13: 149–171.

Roubal, J. 1936. Katalog Coleopter (brouků) Slovenska a Podkarpatské Rusi II. Učená spol. Šafárikova v Bratislave, Státní tiskárna Praha, 434 pp.

Adresa autora:

Doc. PaedDr. Valerián Franc, CSc. Department of Biology and Ecology, Faculty of Natural Sciences, Matthias Belius University, Tajovského 40, 97401 Banská Bystrica, Slovakia, e-mail: valerian.franc@umb.sk