

## A CONTRIBUTION TO THE KNOWLEDGE ABOUT THE DISTRIBUTION OF *Anthaxia* *nigrojubata incognita* (COLEOPTERA: BUPRESTIDAE) IN CROATIA

Toni Koren<sup>1</sup>, Eva Praprotnik<sup>2</sup> and Marko Zdešar<sup>3</sup>

<sup>1</sup>University of Primorska, Science and Research Centre Koper,  
Institute for Biodiversity Studies, Giordana Brunna 6, SI-6000 Koper, Slovenia,  
koren.toni1@gmail.com

<sup>2</sup>Biodiva - Conservation Biologist Society, Kettejeva 1, SI-6000 Koper, Slovenia

<sup>3</sup>Brežje pri Dobrovi 32, SI-1356 Dobrova, Slovenia

Two records of *Anthaxia nigrojubata incognita* in Croatia are reported. Both records originate from the Dinarides mountain chain, one from Velebit and the other from the Gorski kotar region. Since this species is present in all the neighbouring countries, the confirmation of the occurrence of this species in Croatia was expected, but nevertheless it represents valuable records for the beetle fauna of the country.

Jewel beetles, Dinarides, distribution, new record

T. KOREN, E. PRAPROTNIK I M. ZDEŠAR: Prilog poznavanju rasprostranjenosti vrste *Anthaxia nigrojubata incognita* (Coleoptera: Buprestidae) u Hrvatskoj. Entomol. Croat. Vol. 18. Num. 1–2: 13–16?

Rad prikazuje dva nova nalaza krasnika *Anthaxia nigrojubata incognitana* na području Hrvatske. Oba nalaza potječu iz planinskoga lanca Dinarida, jedan s Velebita, a drugi iz Gorskog Kotara. Budući da je ova vrsta prisutna u svim susjednim zemljama, potvrda ove vrste u Hrvatskoj bila je očekivana, no nalazi u svakom slučaju predstavljaju vrijedan nalaz za faunu kornjaša Hrvatske.

Krasnici, Dinaridi, distribucija, novi nalaz

The jewel beetle fauna of Croatia has never been systematically surveyed, but relevant data can be found in several papers, originating from the end of the 19<sup>th</sup> century to the present day (e.g. Langhoffer, 1900; Koča, 1906; Novak, 1952; Marczuzzi, 1986; Durbešić et al., 1995; Vujičić – Karlo et al., 1995; Sakalian, 2007). No checklist has ever been published for Croatia, but the most comprehensive data can be found in the Catalogue of Palearctic Coleoptera (Löbl & Smetana, 2006) which covers most of the known literature records for the country.

Here we present new records of *Anthaxia nigrojubata incognita* Bílý, 1974 in Croatia (Figure 1). In Europe, two subspecies of *A. nigrojubata* have been described:



**Figure 1.** *Anthaxia nigrojubata incognita* from Voda Begovača, Velebit

*A. n. incognita*, distributed in most of Europe (Austria, the Czech Republic, the Balkans, France, Germany, Italy, Poland, Slovakia, Spain, Switzerland, the Ukraine) and the western parts of Turkey (Bílý, 1997) and *Anthaxia nigrojubata inexpectata* Novak, 1986 known from Crete (Novak, 1986). *A. n. incognita* is a medium sized beetle, of 4.9 to 8.2 mm in length. The basic colour of the elytra is bronze; the scutellum is quite rough, as long as wide and metallic green or bronze at least on the edges. The underside has a green-golden colour (Bílý, 1989). It is a saproxylic mountain species (Gutowski & Milkowski, 2008). Larval development lasts two years (Bílý, 1989) inside the weaker branches of *Abies* sp., *Pinus* sp., *Picea* sp. and *Juniperus* sp. (Tezcan & Bílý, 1998). The adults are thermophilous and photophilous (Gutowski & Milkowski, 2008), frequently visiting white and yellow flowers (Bílý, 1989). It is active in June and July (Bílý, 1989).



**Figure 2.** Distribution of *Anthaxia nigrojubata incognita* in Croatia.

The first specimen was stored in the collection of the first author, while the second specimen, collected by Egon Pretner was given to the third author, and stored in his private collection. They were identified using the identification key for the fauna of Italy (Curletti et al., 2003). Nomenclature follows Fauna Europaea (Kuban & Bílý, 2004). Specimens belonging to the *A. n. incognita* subspecies were collected at the following localities:

1. Sunger, Gorski Kotar, 10.6.2009, 45.321298, 14.822797, 799 m a.s.l., collected with a catcher at the forest edge, leg. & det. Toni Koren,
2. Voda Begovača, Velebit, 8.6.1955, 44.735473, 15.115119, 820 m a.s.l., leg. Egon Pretner, det. Marko Zdešar.

Both records of this species originate from the Dinaric mountain chain (Fig. 2), indicating that this species inhabits montane habitats in Croatia. This species is probably more widespread in the country, but its distribution is still unknown, and with only two records, no more detailed distribution or the threatened status of this species can be evaluated.

According to the literature known to the authors, and the Catalogue of Palearctic Coleoptera (Löbl & Smetana, 2006) no records of this species in Croatia have ever been published. It is possible, and most probable, that in foreign entomological collections, other specimens of this species exist, like the specimen collected by Egon Pratner, and donated to the third author. However, the aim of this paper is to contribute to the knowledge of the presence and distribution of this species in Croatia, and as such, these two new records are important, as they represent first concrete records for the country, accompanied by all the necessary data (e.g. locality, date, collector).

In the database Fauna Europea this species it is marked as present in Croatia (Kuban & Bílý, 2004), but we are not familiar on the basis of which record(s). Such »presence« records are given also for two other species, not represented in the literature known to the authors, or the Catalogue of Palearctic Coleoptera (Löbl & Smetana, 2006): *Anthaxia plicata* Kiesenwetter, 1859 and *Anthaxia morio* Fabricius, 1792. On the other hand, two additional species mentioned by Novak (1952), which were not mentioned by Löbl & Smetana (2006), are indeed present in Fauna Europaea (Kuban & Bílý, 2004): *A. deaurata* and *A. fulgurans*. Since *A. nigrojubata incognita* is present in all the neighbouring countries (Bílý, 1997), the record of this species in Croatia was expected, but nevertheless it is still a valuable record for the beetle fauna of the country.

According to the Catalogue of Palearctic Coleoptera (Löbl & Smetana, 2006), 28 species of the genus *Anthaxia* Eschscholtz, 1829 have been recorded for Croatia. If additional literature is reviewed (Novak, 1952), which Lobl & Smetana (2006) do not list, another 8 species are known from the country: *Anthaxia kiesenwetteri* Marseul, 1865, *Anthaxia praeclera* Mannerheim, 1837, *Anthaxia deaurata* Gmelin, 1788, *Anthaxia funerula* (Illiger, 1803), *Anthaxia fulgurans* Schrank, 1789, *Anthaxia corinthia* Reiche & Saulcy, 1856, *Anthaxia sturanyi* Obenberger, 1914 and *Anthaxia nigritula*

Ratzeburg, 1837. Of those species, only the record of *A. fulgurans* fits the known distribution range of this species in Europe, and thus it probably occurs in Croatia. All the other records will need to be confirmed, as they represent southern Balkan or western Mediterranean species (Löbl & Smetana, 2006). Additionally, Sakalian (2007) published records of two additional species for the fauna of Croatia, *Anthaxia (Haplanthaxia) kiesenwetteri* Marseul, 1865, and *Anthaxia (Anthaxia) bicolor bicolor* Faldermann, 1835. With that in mind, the total number of species occurring in Croatia would be 38, but the number may rise with further surveys and/or publication of material from foreign entomological collections.

In general, the fauna of Buprestidae is still poorly researched and known in almost all countries of the ex-Yugoslavia, as well as other countries on the Balkan peninsula, with few rare exceptions (e.g. Bulgaria, Sakalian, 2003) and additional surveys are needed to gain a more complete insight in the jewel beetle fauna of the area.

## References

- BÍLÝ, S., 1989. Krascovití, Buprestidae. [Jewel beetles, Buprestidae], Academia, nakladatelství Československé akademie věd, Praha.
- BÍLÝ, S., 1997. World Catalogue of the genus *Anthaxia* Eschscholtz, 1829 (Coleoptera: Buprestidae). Folia Heyrovskyana, Suppl. 2: pp. 190.
- CURLETTI, G., RASTELLI, M., RASTELLI, S. & TASSI, F., 2003. Coleotteri Buprestidi d'Italia. CD-ROM. Museo Civ. di St. Nat. di Carmagnola (Torino), Progetto Biodiversità (Roma).
- DURBEŠIĆ, P., VUJČIĆ – KARLO, S., GJURAŠIN, B., KRČMAR, S., 1995. Istraženost faune kornjaša (Coleoptera) otoka Mljeta. Ekološka monografija 6, 355–377.
- GUTOWSKI, J.M. & MILKOWSKI, M., 2008. Buprestidae (Coleoptera) of the Kozienicka Forest. Parki Narodowe i Rezerwaty Przyrody 27(2), 49–85.
- KOČA, GJ., 1906. Popis tvrdokrilaca (kornjaša) Vinkovačke okoline (Enumeratio coleoptorum circa Vinkovce inventorum). Glasnik hrvatskoga naravoslovnoga društva 17, 119–212.
- KUBAN, V. & BÍLÝ, S., 2004. Fauna Europaea: Buprestidae. Fauna Europaea version 1.0. <http://www.faunaeu.org>. Accessed 15.3.2014.
- LANGHOFFER, A., 1900. Prilozi entomološkoj fauni Hrvatske. Kornjaši hrvatske. (Coleoptera Croatiae.). 32 pp.
- LÖBL, I. & SMETANA, A. (eds) 2006. Catalogue of Palearctic Coleoptera, Vol. 3, Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea, Apollo Books, Stenstrup. pp. 690.
- MARCUZZI, G., 1986: Contributions to the knowledge of coleopterous fauna of Dalmatia. Rad Jugoslavenske akademije znanosti i umjetnosti 424, 191–237.
- NOVAK, P., 1952. Kornjaši Jadranskog primorja (Coleoptera). JAZU, Zagreb, 521 pp.
- NOVAK, G., 1986. *Anthaxia (Melanthaxia) nigrojubata inexpectata*, eine neue Subspecies aus Kreta Coleoptera, Buprestidae. Zeitschrift der Arbeitsgemeinschaft Oesterreichischer Entomologen. 37(3–4), 111–113.
- SAKALIAN, V., 2003. A Catalogue of the Jewel beetles of Bulgaria (Coleoptera: Buprestidae). Pensoft Publishers, Sofia. pp. 246.
- SAKALIAN, V., 2007. Contribution to the Knowledge of the Jewel Beetles (Coleoptera: Buprestidae) of the Balkan Peninsula. II. Acta zool. bulg., 59 (1), 11–16.
- TEZCAN, S. & BÍLÝ, S., 1998. Contribution to the study of genus *Anthaxia* Eschscholtz, 1829 (subgenera *Cratomerus* Solier, 1833 and *Melanthaxia* Richter, 1944) (Coleoptera: Buprestidae) of Turkey. Türk. entomol. derg. 22(3), 171–186.
- VUJČIĆ – KARLO, S., DURBEŠIĆ, P., GJURAŠIN, B., KRČMAR, S., 1995. Istraženost kornjaša (Coleoptera) Kornatskog otočja i Murtera. Ekološka monografija 7, 219–227.