

SOME NOTES ON THE OCCURRENCE OF *AROCATUS* GENUS (HETEROPTERA, LYGAEIDAE) IN SLOVAKIA

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The genus of *Arocatus* Spinola, 1837 (Heteroptera, Lygaeidae) is in Palaearctic region represented by 9 species. 6 of them occur on Eastern-palaearctic countries, especially in China, Mongolia, Far East of Russia as well as in Near East and Northern Africa. In Europe there are only 3 recorded species: *Arocatus roeselii* (Schilling, 1829), *Arocatus longiceps* Stal, 1872 and *Arocatus melanocephalus* (Fabricius, 1798).

Data on occurrence of all the 3 species from European countries appear in many, especially older references and many of them are almost not available. Most of them are presented by PÉRICART (1998) in the first volume of his 3-volumed monograph on Lygaeidae in Euro Mediterranean region. According to these references as well as some later data and own observations we present a brief characteristic on distribution of the 3 European species with an emphasis on their occurrence in Slovakia.

Arocatus roeselii is a Mediterranean species with a centre of its distribution in Southern and Central Europe and in Balkan with accidental occurrence in Ukraine, southern and central area of European Russia, in Caucasus, Syria, Tunisia and Algeria (Fig. 1). There are only 3 data on occurrence of this species in Slovakia. BALTHASAR (1937) recorded it in Bolešov (in the Váh river region, near Dubnica nad Váhom) as a new species for the fauna of Slovakia. The same author published another site, Plavecký Štvrtok in Borská lowland (BALTHASAR 1942) and HÖBERLANDT (1944) mentioned its occurrence in Trenčín. For the past 60 years *Arocatus roeselii* has not been recorded in Slovakia. In Moravia STEHLÍK & VAVŘÍNOVÁ (1998) present the only reference on this species by SPITZNER (1892) in Prostějov, and one collection record from the site of Brno with no information on the date of collection. Moreover they declare that they have not recorded this species in Moravia yet.

The later data from the neighbouring countries on occurrence of this arboricolous species, predominantly living on *Alnus glutinosa*, come from Austria only. HEISS (1973) presents its occurrence in northern Tyrol, where it lives on sycamores, elms, oaks and pines too (in STEHLÍK & VAVŘÍNOVÁ 1995). From the recent years there are some data on occurrence of *A. roeselii*

especially from Germany. For example GÜNTHER (1981) mentions its occurrence on willows and alders in the surroundings of INGELHEIM et al. (1992) present several sites of *A. roeselii* in Baden Württemberg and its presence on sycamores and European alder (*Alnus incana*). There is an interesting record by CARAYON (1989) on the occurrence on sycamores in Paris.

Arocatus longiceps is a rare Pont Mediterranean species originally distributed just in southern parts of Europe and Asia (Fig. 2). In the recent years there is a significant spreading out of this species towards the North, into Central Europe. This fact has been proved by its occurrence in the following countries. ADELBAUER & FRIES (1996) recorded it in Austria and considered it as a new species for the fauna of Central Europe. KONDOROSY (1997) noted its first record from Hungary, RIEGER (1997) from Germany. Several papers from the Czech Republic and Slovakia have confirmed its continual infiltration into Central Europe. STEHLÍK & HRADIL (2000) recorded its first occurrence in the Czech Republic from Prague and in Moravia from Lednice and Břeclav. Other sites have been mentioned by KMENT & BRYJA (2001), who also published the first record of this species from Slovakia, from the centre of Štúrovo.

Our collections realized on 17.12.2002 in the cemetery Slávičie údolie (15 ♀♀ and 66 ♂♂) and on 15.2.2003 (78 ♀♀ and 125 ♂♂) in the park Medická záhrada in Bratislava do confirm, that *Arocatus longiceps* became a permanent element of our heteropterofauna in Southern Slovakia. Previous papers of several authors declare that as an arboricolous phytophagous species it lives just on sycamores that under the conditions of Central Europe occur especially in parks and cemeteries. Therefore all the specimens of *Arocatus longiceps* recorded in Bohemia, Moravia as well as Slovakia come from town parks and were usually collected under a bark of trees during wintertime, in a period of adult hibernation.

Arocatus melanocephalus is a Mediterranean species distributed in Southern and Central Europe. According to PÉRICART (1998) its distribution area reaches the 52nd parallel. In Ukraine it occurs in the forest steppe zone, the most northern presence is in the

surroundings of Kiev. It has been also recorded in Caucasus, Zakaukazia and Turkey (Fig. 3).

Despite a relatively large distribution area of this species the data on its occurrence in Central Europe are rather of older date. For example in Hungary it was recorded by HORVÁTH (1897) from Budapest, Szegedin, Pecs and later from the surroundings of the Fertő lake in the western part of the country (HORVÁTH 1923). MELBER et al. (1991) mentioned this paper and recorded the occurrence of *Arocatus melanocephalus* as well as of *A. roeselii* in the boundary zone of Hungary near Neusiedler See Lake at the site of Pinnye. From the Czech Republic there is the paper by HOBERLANDT (1943/44) presenting an occurrence of this species from Terezín. It seems important to mention that this record comes from August 1917. This paper was later mentioned by ROUBAL (1957), who present an occurrence of this species on *Quercus* sp., in wood and tunnels of big larvae. In Moravia it has not been recorded yet. From Slovakia there is only one record from the site of Dolný Peter (near Hurbanovo). An occurrence of one specimen was recorded more than 44 years ago (July 1st, 1959) in an oak forest. A short faunistic note on its occurrence in Slovakia is in press (ŠTEPANOVIČOVÁ in press).

Arocatus melanocephalus, as well as the two previous species, is an arboricolous phytophagous species predominantly feeding on trees of *Ulmus* genus. PÉRICART (1998) mentions that its rare occurrence in European countries in recent years may refer to a massive dying out of elms caused by graphiosis. Data on more numerous occurrence of this species were published by CATAGAY (1995), who in her taxonomic-faunistic paper studied a material of 42 specimens from 9 sites in Turkey from the years 1973-1986.

SUMMARY

According to the data on occurrence and distribution of the 3 species of *Arocatus* genus in Slovakia 2 of them, *Arocatus roeselii* and *Arocatus melanocephalus* have not been recorded in this area for the last 60, respectively 50 years. Despite this fact we can't consider this stage as permanent and caused by reduction of their distribution area in Central Europe. Their way of life, often in unreachable crowns of alders (*A. roeselii*) and elms (*A. melanocephalus*), or even other trees, can be a reason of an apparent total absence of these 2 species in our country. According to the IUCN directives these species may be classified as "data deficient (DD)", what encourages us to obtain new information on their occurrence.

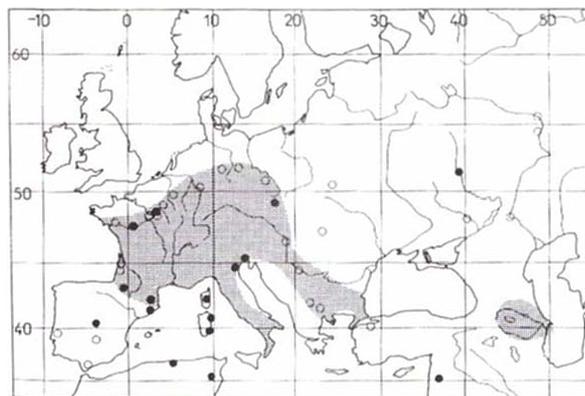


Fig. 1. Distribution of *Arocatus roeselii* (Péricart, 1998)

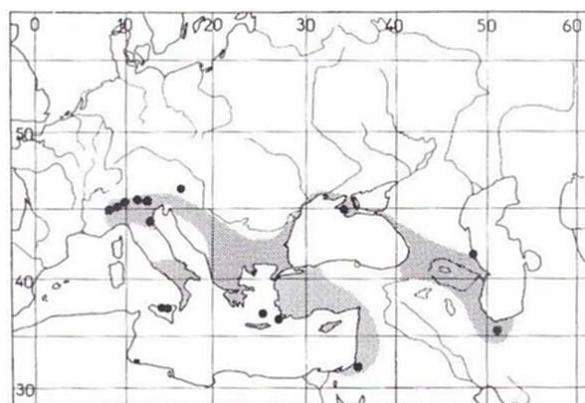


Fig. 2. Distribution of *Arocatus longiceps* (Péricart, 1998)

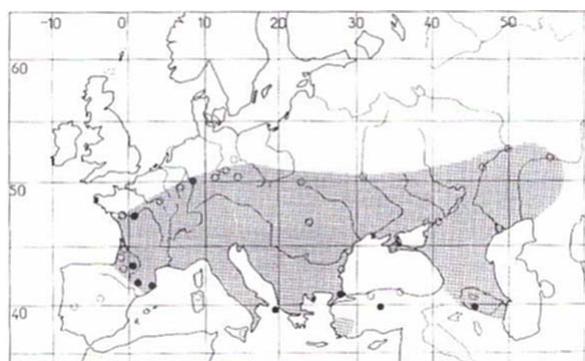


Fig. 3. Distribution of *Arocatus melanocephalus* (Péricart, 1998)

Arocatus longiceps has spread out into Central Europe for the previous 7 years. At present it has been recorded in Austria, Hungary, Germany, Czechia, and Moravia and since 2001 even in southern parts of Slovakia. Our goal is to study its occurrence at other sites of the country and confirm the data on its spreading out.

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