

## REMARKABLE FINDINGS OF ANTHRIBID BEETLES (COLEOPTERA) IN SLOVAKIA AND THEIR ECOSOLOGICAL VALUE

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**Abstract:** The author gives recent findings of eight rare species of the family Anthribidae in  
Slovakia. This family is one of the little known and not popular among entomologists. Despite this  
fact, several species of Anthribidae rank among rare and stenocious species with a high level of  
endangerment. The author also deals with ecological problems of Anthribidae *Rhaphitropis*  
*oxyacanthae*, *Choragus horni* and *Pseudochoragus piceus* are the second documented records for  
Slovakia.

**Key words:** Coleoptera, Anthribidae, distribution in Slovakia, insect conservation

### INTRODUCTION AND METHODS

Anthribidae rank among less known families of beetles. Data concerning their  
ecology and faunistics are accessible mainly in the third volume of older "Catalogue of  
Beetles" (ROUBAL 1937-1941). Newer records are available only sporadically. But  
several species of this family are listed among rare and faunistically remarkable species  
of a high level of endangerment. They are often indicators of well preserved ecosystems.  
Therefore they deserve more attention of entomologists and conservationists.

The material was collected by current methods, mainly by shaking down the beetles from dying  
tree branches and by individual collecting. Beetles were determined according to the key by  
STREJČEK (1990).

### ECOLOGICAL PROBLEMS OF ANTHRIBIDAE

I studied red lists (or red books) of almost all European countries. Anthribidae are  
missing in the majority of them. Several species are mentioned only in the red list of  
Germany (GEISER et al. 1984), Denmark (ASBIRK, SOGAARD 1991) and of Sweden  
(EHNSTROEM, GÄRDENFORS, LINDELOEW 1993). Serious attention to this family is paid  
only in the red list of Great Britain (HYMAN, PARSONS, 1992), Slovakia (JEDLIČKA et al.  
1995) and in the red list of xylophilous beetles of Austria (GEISER, 1983). In this paper I  
discuss the ecological status of separate species. In the conclusion I try to give an  
outline of the ways in which the improvement of their conservation could be achieved.

### RESULTS AND DISCUSSION

The following abbreviations (except the current ones) are used in this paper: CD -  
careful/demanding, Ex - extinct, G - "gefährdet" (= endangered, but according to IUCN  
criteria it is equal "R"), M - missing, R - rare, SG - "stark gefährdet" (= strongly  
endangered, but according to IUCN criteria it is equal "V"), V - vulnerable, VF - V.  
FRANC lgt., det. et coll. The grid mapping code of every locality is given only for the  
first time.

*Tropideres albirostris* (HERBST, 1783) - Krupinská planina Mts.: Plášťovce (7879), on  
an old oak, 30 May 1988, VF; Pliešovská kotlina Basin: Dobrá Niva (7580), dying oak  
branches, 22 May 1992, VF; Cerová vrchovina Mts.: Gemerské Dechtáre (7786a), on oak  
logs, 6 May 1995, VF; Tribeč Mts.: Ukropov (7475c), July 1986 (MAJZLAN, KOŽIŠEK  
1986). It occurs relatively rarely in warm deciduous forests. Although a lot of old records  
are available (ROUBAL, 1937-1941), recently it is found sporadically and usually  
singularly. Ecological status: Germany - G, Austria - SG, Slovakia - R, Sweden - Ex.

*Ulorhinus bilineatus* (GERMAR, 1818) - Zvolenská kotlina Basin: Urpin (7280d),  
Fagetum, 26 June 1985, 2 specimens, VF; Javorie Mts.: Sekier - Zálužná (7481c),  
Querceto-Fagetum, 20 June 1992, VF; Poľana: Pod Bútľavkou (7382a), primeval Abieto-  
Fagetum, 17 July 1993, VF; Cerová vrchovina Mts.: Gemerské Dechtáre, xerothermic  
oak forest with solitary beeches, 10 June 1995, more than 20 specimens, 3 of them in my  
collection; Cerová vrchovina Mts.: Pohanský hrad (7785d), Querceto-Fagetum, 11 June  
1995, VF; Štiavnické vrchy Mts.: Podhorie (7579a), 22 June 1992, D. Farbiak lgt. et coll.  
It occurs rarely in well preserved deciduous and warmer mixed forests. It clearly prefers  
dying damaged beeches occupied by wood fungi. A lot of older records are available  
(ROUBAL 1937-1941), but recently it is found only rarely. Localities of *Ulorhinus*  
*bilineatus* deserve attention because it lives together with other rare and threatened  
species from families Eucnemidae, Elateridae, Melandryidae, etc. Ecological status:  
Austria - SG, Slovakia - V.

*Rhaphitropis oxyacanthae* (BRISOUT DE BARNEVILLE, 1863) - Krupinská planina  
Mts.: Čabrad' (7780d), on dying oak branches in a xerothermic slope, 22 June 1987, VF.  
It lives very sporadically and rarely in warm deciduous forests of Central, Eastern and  
mainly of Southern Europe. Known only from a single finding in Kováčovské kopce Mts.  
(8178d) (STREJČEK 1990). Referred finding from Čabrad' is the second record for  
Slovakia! Ecological status: Slovakia - R (although it may be higher: V).

*Dissolucas niveirostris* (FABRICIUS, 1798) - Krupinská planina Mts.: Plášťovce, on a  
damaged oak, 20 May 1989, VF; Krupinská planina Mts.: Čabrad', on dying oak  
branches, 30 April 1990, VF; Cerová vrchovina Mts.: Ragač (7785d), dying hornbeam  
branches with fungi, 7 May 1995, VF; Tribeč Mts.: Veľčice (7575d), pitfall trap from  
May to June 1985 (KOŽIŠEK, MAJZLAN 1985); Nitrianska pahorkatina hills: Sládečkovce  
(7773d), May and June 1987 (CUNEV 1991). Formerly it had been considered to be a  
frequent species, but recently it is found only rarely. Ecological status: Slovakia - R,  
Denmark and Great Britain - V.

*Opanthribus tessellatus* (BOHEMAN, 1829) - Javorie Mts.: Sekierska dolina valley  
(7481c), accidentally (?) on dying alder branches, 17 May 1981, VF; Kremnické vrchy  
Mts.: the Boky Nature Reserve (7480a), on an old beech, 8 June 1985, VF. It occurs very  
rarely in well preserved warmer deciduous forests. It prefers old, damaged beeches.  
ROUBAL (1937-1941) mentions several older records: Bolešov (7074b), Brančík lgt.;  
Medzilaborce (6797a), Kuthy lgt.; Vlára (6974c), Richter lgt.; Zlatovce (7174a), on an  
oak 8 June 1925, Roubal lgt.; Banská Bystrica, on a birch, but without date, Čejka lgt. It

was also found near Remetské Hámre (7199a), June 1950, Sobota lgt. (HAVELKA 1965). Ecosozological status: Austria - G, Slovakia - R.

*Brachytarsus fasciatus* (FORSTER, 1771) - Ipeľská pahorkatina hills: Kozárovce (7677c), swept from the vegetation of a rocky steppe, 3 May 1992, VF. Although a relatively large number of older records is available (ROUBAL 1937-1941), recently it is found only very sporadically and rarely. STREJČEK (1990) also mentions that it is an evidently vanishing species during the last two decades. Ecosozological status: Danmark and Slovakia - V, Great Britain - CD, Austria - G.

*Choragus horni* WOLFRUM, 1930 - Strážovské vrchy Mts.: the Podhradská Lesostep Nature Reserve (7076a), on dying oak branches, 21 June 1993, VF; Cerová vrchovina Mts.: Pohanský hrad, on dying branches of a maple (*Acer campestre*), 11 June 1995, VF. It occurs very sporadically and rarely in warm deciduous forests and forest-steppe biotopes. Only a single old record is available: Oravský Podzámok (6782a), on dry branches of a wild plum tree (*Prunus padus*), 24 July 1930 (ROUBAL 1937-1941), recent published data are not accessible. Referred findings are the second and the third published records for Slovakia. Ecosozological status: Danmark and Slovakia - V, Sweden - CD, Germany - SG, Austria - M or Ex.

*Pseudochoragus piceus* (SCHAUM, 1845) - Cerová vrchovina Mts.: Steblová skala (7785b), on dying oak branches in a xerothermic oak forest, 10 June 1995, 5 specimens; and 24 May 1996, 6 specimens, VF. It occurs utmost sporadically and rarely in warm deciduous forests. Only one old record from Slovakia is available: Trenčín (7174a), Csiki and Petri lgt. (ROUBAL 1937-1941). STREJČEK (1993) supposes that its recent occurrence is documented only from Moravia and the occurrence in Slovakia is signed by "?". Referred finding from Cerová vrchovina is the second record for the Slovak territory. Ecosozological status: Germany - G, Austria - SG, Slovakia - E (although it could be lesser: V).

## CONCLUSIONS

In this paper data concerning the distribution, ecology and conservation problems of several Anthribidae in Slovakia are available. Three species of them are the second documented records for Slovakia: *Rhaphitropis oxyacanthae*, *Choragus horni* and *Pseudochoragus piceus*.

At least one half of Anthribidae have a wide ecosozological applicability mainly as bioindicators of well preserved and valuable biotopes. We can see that the majority of recent findings referred in this paper were made in protected territories or in ones that are suitable and exceptable for territorial protection. But Anthribidae are often highly threatened species mainly in developed European countries. This is caused especially by:

1. Intensive forestry with all the impacts including degradation of natural forests towards monocultures and the selective cutting of old, damaged and hollow trees which are still regarded to be the reservoirs of so-called pests.

2. Gradual vanishing of alluvial forests and bank groves which is caused mainly by agricultural ground expansion and absurd river-bank regulation.

3. Destruction of forest fragments and dispersed vegetation in the agricultural and urbanized landscape. Cutting down or even burning old and hollow trees in cities and suburban areas, and filling the hollows of old trees with concrete or other materials (which is current in urban parks and alleys, cemeteries, etc.) is extremely hurtful for the stenotopic arboricolous synusia of insects and other animals.

Finally I would like to emphasize that effective conservation of Anthribidae (and all stenoecious beetles and other animals) depends especially on the protection of a large scale of valuable biotopes with a high biodiversity. It is necessary to assure it appropriately on the legislative level and also in the practical action of conservational bodies.

## SÚHRN

Pozoruhodné nálezy chrobákov z čeľade Anthribidae (Coleoptera) na Slovensku a ich ekosozologická hodnota

Autor v práci uvádza novšie nálezy ôsmich vzácných druhov z čeľade Anthribidae na Slovensku. Táto čeľaď patrí k málo známym a menej populárnym skupinám medzi entomológmi. Napriek tomu viaceré druhy Anthribidae patria k vzácnym a stenoekným druhom s vysokou mierou ohrozenia. Autor sa zaoberá aj ekosozologickými problémami druhov čeľade Anthribidae. *Rhaphitropis oxyacanthae*, *Choragus horni* a *Pseudochoragus piceus* sú druhými publikovanými nálezmi na území Slovenska.

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