

**Rediscovery of *Parazuphium chevrolatii praepannonicum* in Hungary
(Coleoptera: Carabidae)***

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Abstract – *Parazuphium (Parazuphium) chevrolatii praepannonicum* (Endrödy-Younga, 1958) was found in 2014, 61 years after its discovery (1953) in Hungary. Three specimens were collected in the Pilis Mts under a large boulder embedded in loessy soil above andesite bedrock. *Zuphium hungaricum* J. Frivaldszky, 1877 is deleted from the list of Carabidae of present-day Hungary. With 2 figures.

Key words – Börzsöny, Pilis, *Parazuphium*, *Zuphiini*, *Zuphium*

INTRODUCTION

The genus *Parazuphium* Jeannel, 1942 contains 38 species. It is divided into two subgenera: *Parazuphium* s. str. (including *Neozuphium* Hürka, 1982, synonymized by SERRANO 2003) with 13 Palaearctic and 20 Afrotropical species, and *Austrozuphium* Baehr, 1985 with five Australasian species; the relationship of the latter with the former is dubious (ANDÚJAR *et al.* 2011). *Parazuphium chevrolatii* Laporte, 1833 is the most widely distributed Palaearctic species, occurring in southern Europe from Portugal to Bulgaria, in the Caucasus and in Turkmenistan (ANICHTCHENKO 2014).

Parazuphium chevrolatii praepannonicum was described as *Zuphium praepannonicum* by ENDRÖDY-YOUNGA (1958) from northern Hungary. At that time it was the northernmost known species of the genus *Zuphium* Latreille, 1806. HÛRKA & PULPÁN (1981) placed it in the genus *Parazuphium* as one of the six subspecies of

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P. chevrolatii (Laporte, 1833). In 1991 one female specimen of this subspecies was found in Hronský Beňadik (Garamszentbenedek) in southern Slovakia, in a vineyard near a steppe meadow, about 50 km NW from the type locality in Hungary (HŮRKA 1996).

P. chevrolatii rebli Húrka et Pulpán, 1981, an endemic of the basaltic Oblík Hill in the České středohoří (Bohemian Central Uplands, see also FARKAČ & HÁVA 2003) took over the title as the northernmost member of the genera *Zuphium* and *Parazuphium*.

PARAZUPHIUM CHEVROLATII PRAEPANNONICUM IN HUNGARY

The male specimen that became the holotype was collected by Sebastian Endrődy-Younga on 15 June 1953 near Királyháza, a very small community in the valley of the Kemence stream, in the heart of the Börzsöny Mountains. Contrary to the statement of HŮRKA & PULPÁN (1981) and HŮRKA (1996) the bedrock at the locality is not limestone but andesite. The dominant habitats surrounding the settlement are riverine ash-alder forests (ÁNÉR J5), sessile oak-hornbeam forests (ÁNÉR K2) and beech forests (ÁNÉR K5). Nothing more is known about the details of the collecting. The holotype is deposited in the Hungarian Natural History Museum (HNHM), Budapest.

On 26 October 2014, the subspecies was rediscovered in the Tábla-hegy (Tábla Hill), Pilis Mountains, in Komárom-Esztergom county, within the administrative boundaries of Esztergom (47° 44' 17.3" N, 18° 45' 53.9" E, CT39 unit of the UTM mapping system). One female and two male specimens (Fig. 1) were found by amateur coleopterists Gábor Seres and János Romsauer beneath a fairly large boulder deeply embedded in the soil (Fig. 2, arrow). The habitat is thermophilous forest fringe vegetation (ÁNÉR M6) between *Quercus cerris*-*Quercus petraea* woodland (ÁNÉR L2a) and semi-dry grassland (ÁNÉR H4). The bedrock is andesite, but most of the hill is covered by loess (BAUER 2001). All three specimens were donated to HNHM.

DISCUSSION

Morphological adaptations – Members of *Parazuphium* show a tendency toward endogean way of life, with modifications such as wing reduction (brachyptery to aptery), flattened body, depigmentation, long tactile setae, elongate antennae and eye reduction (microphthalmmy to anophthalmmy). Complete lack of eyes is found in two species: the first is *P. feloi* Machado, 1998 from a lava tube in the Canary Islands, the only true cavernicolous (troglobite) species of the genus, and the second is the soil-inhabiting *P. aguilerai* Andújar, Hernando et Ribera,

2011 from Morocco (ANDÚJAR *et al.* 2011). *P. chevrolatii praepannonicum* has small but relatively well-developed eyes. The known specimens are brachypterous, but macropterous specimens are known in the nominate subspecies.

Related species in Hungary – The only other species of Zuphiini known to occur in present-day Hungary is the fully winged *Polistichus connexus* (Geoffroy, 1758), widely



Fig. 1. *Parazuphium chevrolatii praepannonicum* (Endrődy-Younga, 1958). Body length 5.7 mm (photo J. Romsauer)



Fig. 2. Collecting locality of *Parazuphium chevrolatii praepanonicum* (Endrődy-Younga, 1958) in Tábla-hegy, Esztergom, Hungary (photo N. Rahmé)

distributed albeit uncommon in the open lower regions of the country. *Zuphium hungaricum* J. Frivaldszky, 1877 is mentioned from Hungary by ANICHTCHENKO (2014) and BAEHR (2003), but this species was described from Temesvár (FRIVALDSZKY 1877), now Timișoara in Romania, and is unknown in present-day Hungary.

Conservation status – *Parazuphium chevrolatii praepanonicum* is categorised as endangered in the Red List of plants and animals of Slovakia (HOLECOVÁ & FRANC 2001). The Hungarian Red Data Book (KASZAB 1990) treated it as extinct. Therefore, the rediscovery of this very rare beetle is remarkable.

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