

**Data to the distribution of the *Tetrodontophora bielanensis*
(Waga, 1842) (Collembola: Onychiuridae)**

J. KONTSCHÁN¹, D. MURÁNYI² and GY. TRASER³

¹*Systematic Zoology Research Group, Hungarian Academy of Sciences
H-1117 Budapest, Pázmány P. sétány 1/c;*

*and Department of Zoology, Hungarian Natural History Museum
H-1088 Budapest, Baross u. 13, Hungary. E-mail: kotscha@zoo.zoo.nhmus.hu*

²*Bükk National Park, H-3300 Eger, Sánc u. 6, Hungary. E-mail: dmuranyi@jakuza.hu*

³*Institute of Forest and Wood Protection of the University of West Hungary
H-9401 Sopron, P.O. Box 132, Hungary. E-mail: traser@emk.nyme.hu*

Abstract – *Tetrodontophora bielanensis* (WAGA, 1842) was collected in Albania, Hungary, Romania and Ukraine. A short description, list of the new localities and the distribution are given. With 4 figures.

Key words – *Tetrodontophora bielanensis*, distribution, Albania, Hungary, Romania, Ukraine.

INTRODUCTION

Tetrodontophora bielanensis (WAGA, 1842), the only species of the genus *Tetrodontophora* REUTER, 1882, is one of the largest European springtails. The genus is a member of the family Onychiuridae. It is characterized by presence of furca and well-developed pigmentation, while the other genera of the family are without furca and pigmentation.

Distribution of the *T. bielanensis* (WAGA) is relatively well-known. RUSEK (1997) mentioned it from Slovenia, Croatia, Bosnia, Serbia, Romania, Ukraine, Slovakia, Poland, Czech Republic, Italy, Austria and Germany. TRASER (1999) found this species in the Aggtelek National Park of Hungary, and also mentioned its first Hungarian record (Prof. Dr. ENDRE DUDICH found the species in Aggtelek for the first time in Hungary in 1924).

MATERIAL AND METHODS

Soil, litter and moss were collected on several localities of Albania, Hungary, Romania and Ukraine. The material was collected by various researchers: the Albanian material by Z. P. ERŐSS, Z. FEHÉR, J. KONTSCHÁN and D. MURÁNYI, the Hungarian material by D. MURÁNYI, the Romanian material by GY. TRASER and the Ukrainian material by D. MURÁNYI & GY. TRASER. Specimens of *T. bielanensis* (WAGA) are deposited in alcohol in the Pedozoological Collection of the Department of Zoology of the Hungarian Natural History Museum (Budapest) and in the Institute of Forest and Wood Protection of the University of West Hungary (Sopron).

Tetrodontophora bielanensis (WAGA, 1842)

Achorutes bielanensis WAGA, 1842: 264.

Tetrodontophora gigas REUTER, 1883: 184.

Achorutes alpinus TÖMÖSVÁRY, 1884: 126.

Tetrodontophora gigas REUTER: BERTKAU 1884: 235. (syn.)

Achorutes alpinus TÖMÖSVÁRY: ABSOLON 1901: 3. (syn.)

Tetrodontophora gigas REUTER: ABSOLON 1901: 3. (syn.)

Tetrodontophora bielanensis (WAGA): DUNGER 1961: 79.

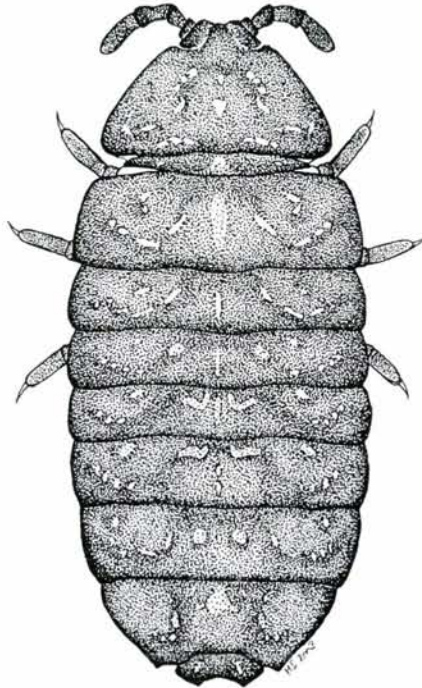


Fig. 1. *Tetrodontophora bielanensis* (WAGA, 1842), habitus

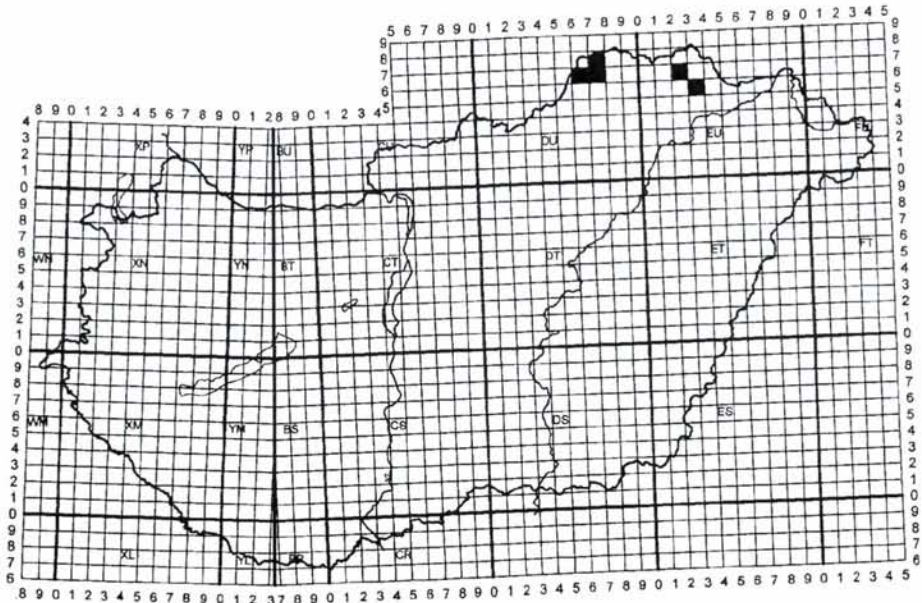


Fig. 2. Localities of *Tetrodontophora bielensis* (WAGA, 1842) in Hungary

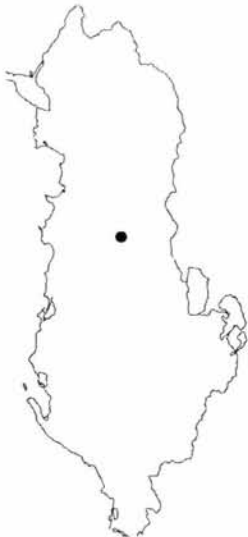


Fig. 3. Locality of *Tetrodontophora bielensis* (WAGA, 1842) in Albania



Fig. 4. Distribution *Tetrodontophora bielensis* (WAGA, 1842) in Europe (after RUSEK 1997, modified) (gray: main distribution zone, black: other localities)

Short description – *T. bielanensis* (WAGA) is a large (3–9 mm), dark species, its color is violet-blue when alive, but in alcohol turns brownish red. Body wide, onisciform, with well-developed furca. Ventral side of the dens with only one apical seta. Head triangular, without eyes. Antenna shorter than head (Fig. 1).

Locality data and distribution – *T. bielanensis* (WAGA) was known from six localities (Aggtelek: Dobó-dél, Ménes-völgy, Szelce-patak; Perkupa: Telekes-völgy, Szögliget; Kecskés-forrás; Jósvalfő) of the Aggtelek National Park in Hungary (TRASER 1999). It was also found at two new localities of the Zemplén Mts (NE Hungary). These localities are in the northern part of the Zemplén Mts, which is part of the Carpathians, and several Carpathian and mountain elements of soil fauna are known from this region (DÁNYI & KORSÓS 2002, KONTSCHÁN 2002, MURÁNYI 2002). These new records are as follows: Hungary, Zemplén Mts, Háromhuta, from litter, 5 April 2002, leg. D. MURÁNYI; Hungary, Zemplén Mts, near Regéc, near Guszti-forrás [spring], from litter, 3 April 2002, leg. D. MURÁNYI (Fig. 2).

T. bielanensis (WAGA) was known from Romania and Ukraine, where it was found in several localities. Ukraine: Transcarpathia, Shikoriy Lug, near the spring Luzhanka, in a beech forest, from moss and litter, 22 May 2002, leg. D. MURÁNYI; lake at Stanovo, near Munkács [= Mukačevo], in a spruce forest, from litter and from stones, 24 May 1990, leg. GY. TRASER. Romania: Csíksomlyó [= Şumuleu in Miercurea Ciuc], from beech litter, 900 m a.s.l., 20 October 2001, leg. GY. TRASER.

The southern border of distribution of this species was Bosnia, but exact distribution of *T. bielanensis* (WAGA) in Bosnia is poorly known. The species was recently found in Albania. A study trip carried out by the Hungarian Natural History Museum made collectings at 45 localities of North and Central Albania, but *T. bielanensis* (WAGA) was found in one locality only (Fig. 3): Albania, mountain pass of Shtyllës, from litter and soil, 41°22.292' N, 20°05.134' E, 1500 m a.s.l., 23 October 2002, leg. Z. ERŐSS, Z. FEHÉR, J. KONTSCHÁN & D. MURÁNYI).

Remarks – *T. bielanensis* (WAGA) has a typical Circumpannonic distribution (the main distribution zone), and several other localities are known outside the main distribution zone (Fig. 4). The main distribution zone is the Carpathians, the other localities are from Fruska Gora Mts, Dolomites, Austrian Alps, Herzynian Sudetic mountains, and lowlands of Poland, Czech Republic, Germany and Slovakia (RUSEK 1997). The Hungarian localities are supposed to belong to the main distribution zone.

The Albanian population is seemingly isolated from the other populations both genetically and geographically, because the nearest known occurrence is in Bosnia. However, it is quite probable that this species occurs in Southern Serbia and Montenegro (Crna Gora), so its distribution may be continuous up to Albania.

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