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New occurrence data of *Phytoecia argus* (G. F. Frölich, 1793) (Cerambycidae: Lamiinae) in Bulgaria

DENIS GRADINAROV[1*], YANA PETROVA[2]

[1]*Faculty of Biology, Sofia University "St. Kliment Ohridski", 8 Dragan Tzankov Blvd., 1164 Sofia, Bulgaria*
[2]*National Genetic Laboratory, 2 Zdrave Street, 1431 Sofia, Bulgaria*
**Corresponding author: e-mail: dgradinarov@abv.bg*

Abstract. The longhorn beetle species *Phytoecia argus* (G. F. Frölich, 1793) is reported from steppe habitats in the vicinity of Ponor Village, Tri Ushi Mountain Ridge (Western Bulgaria). The species association with mountain petrophytic steppes and with the host plant *Trinia glauca* (L.) Dumort in Bulgaria is confirmed.

Key words: *Phytoecia argus*, petrophytic steppes, Bulgaria

Introduction

The distribution range of the longhorn beetle species *Phytoecia* (*Musaria*) *argus* (G. F. Frölich, 1793) (Cerambycidae: Lamiinae) covers Central, Southeastern and Eastern Europe (Danilevsky 2020, Stojanović, 2021). Within its range, the distribution of the species is restricted to the remnants of the natural steppe habitats (Gradinarov & Gjonov 2020).

Only two localities of *Ph. argus* are known from Bulgaria – Skakavitsa Railway Station in Zemen Gorge (Ganev 1984) and Chepan Mountains, Western Balkan Range (Gradinarov & Gjonov 2020). According to the last authors, the populations of the species in Bulgaria are confined to the mountain petrophytic steppes in the western part of the country. In the present work, we report a new locality of the species from the mountain steppes in Western Bulgaria.

Materials and Methods

The beetles were observed and collected by hand by the authors in steppe habitats in the vicinity of Ponor Village, Tri Ushi Mountain Ridge (Western Balkan Range), in the period from 2021 to 2025. The pictures in Fig. 1 were taken with a digital camera, Canon EOS 250D. The collected specimens are preserved in the Zoological Collection of Sofia University, Faculty of Biology (BFUS), and the label data are digitised for the collection database.

Results and Discussion

***Phytoecia argus* (G. F. Frölich, 1793)**

Material examined:

BULGARIA: W Stara Planina Mts, SE of Ponor Vill., 42°54.793′N 23°09.682′E, 888 m a.s.l., steppe vegetation, 15.v.2021, 1 ♂, D. Gradinarov & Y. Petrova leg. (BFUS-CER000789); the same data, 42°54.796′N 23°09.651′E, 893 m a.s.l., 25.v.2021, 1 ♂, 3 ♀♀, D. Gradinarov leg. (BFUS-CER000790 – BFUS-CER000793); the same data, 42°54.820′N 23°09.658′E, 885 m a.s.l., 1 ♂, 2 ♀♀, Y. Petrova leg. (BFUS-CER000794 – BFUS-CER000796); the same data, 42°54.750′N 23°09.623′E, 902 m a.s.l., 1 ♂, 1 ♀, D. Gradinarov leg. (BFUS-CER000797, BFUS-CER000798); the same data, 42°54.718′N 23°09.605′E, 913 m a.s.l., 29.v.2022, 1 ♀, D. Gradinarov & Y. Petrova leg. (BFUS-CER000799); the same data,

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42°54.799′N 23°09.650′E, 887 m a.s.l., dry grasslands, 24.v.2024, 1 ♂, on *Trinia glauca*, D. Gradinarov & Y. Petrova leg. (BFUS-CER000800); the same data, 42°54.820′N 23°09.669′E, 883 m a.s.l., 11.v.2025, 1 ♂, on *Trinia glauca*, D. Gradinarov & Y. Petrova leg. (BFUS-CER000801).

Fig. 1. Habitat (A), the host plant *Trinia glauca* (B) and a specimen of *Phytoecia argus* on the host plant (C, D) in the vicinity of Ponor Village, Tri Ushi Mountain Ridge, 24.v.2024.

All collected specimens were found in closely spaced sites with steppe vegetation (Fig. 1A) on the stems of *Trinia glauca* (L.) Dumort. (Fig. 1B – D) or on the ground at the roots of the same host plant. After the first finding of the species in 2021, it was collected regularly in the same area in the following years, always in May. Copulating pairs were observed on 25 May 2021 and 11 May 2025 on *T. glauca*.

The known host plants of *Ph. argus* are species of the genus *Seseli* L. and also the species *T. glauca* (*Apiaceae*) (Rejzek *et al.* 2001, Zettel 2006, Merkl & Szél 2012). In Bulgaria, so far, the species has only been found at the roots of *T. glauca* (Gradinarov & Gjonov 2020). The present report confirms the association of *Ph. argus* with this host plant species in the country.

Mountain petrophytic steppes are characteristic habitats for Tri Ushi Mountain Ridge and Chepan Mountains (Tzonev *et al.* 2011) – the two areas of the Western Balkan Range with known occurrences of *Ph. argus* in Bulgaria. According to Teofilova & Kodzhabashev (2025) and Teofilova *et al.* (2025), these karst steppes represent the Southernmost refugium of the Eurasian steppe biome. Further studies of the fauna of these relict and high conservation value habitats in Western Bulgaria are desirable.

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