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Short communication

New records of two little-known species of the true bugs (Insecta, Hemiptera, Heteroptera) in Uzbekistan

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Abstract

The data on the first records of two little-known species of true bugs (Insecta, Hemiptera, Heteroptera) in Uzbekistan are given in the article. *Sarju pavlovskii* (Kiritshenko, 1952) (Pentatomidae), previously known from a few records from Afghanistan and Tajikistan, was found in the Khorazm Region. *Xanthochilus melanopus* Kiritshenko & Scudder, 1973, previously known only from type series from northern Tajikistan and southern Kyrgyzstan, was found in Jizzak Region. Both species are reported for the territory of the Republic of Uzbekistan for the first time. *S. pavlovskii* was first time found outside the mountain areas (in the Amudarya River valley), which may show a wide distribution of the species or a trend to its dispersal. For *X. melanopus*, information on habitats is given for the first time.

Keywords: true bugs, Heteroptera, Hemiptera, new records, fauna, Uzbekistan

Introduction

The fauna of the true bugs (Insecta, Hemiptera, Heteroptera) of all Central Asia and the Republic of Uzbekistan remains relatively little known. Detailed reviews of suborders or some regional families are few and considerably outdated (Kirichenko, 1964; Putshkov, 1965). Most of the information is published in taxonomic revisions of some genera or in the descriptions of some species. At the same time, the study of insect biodiversity (including Heteroptera) of Uzbekistan

and its changes is of particular interest since the country's territory includes most of the ecological and geographical complexes of the region (Kryzhanovsky, 1965). During the research carried out by the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan, 2 species of true bugs were recorded from the country for the first time. Information on these findings is given below. The specimens mentioned in the paper are kept in the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan (Tashkent) collection.

Results and Discussion

Family Pentatomidae

Sarju pavlovskii (Kiritshenko, 1952) (= Dalpada pavlovskii Kiritshenko, 1952). Material examined: 1 male (Fig. 1) – Uzbekistan, Khorazm Region, Gurlan District, Amudarya State Biosphere Reserve, 41.9798 N, 60.4042 E, 94 m, 06.19.2021, D. Musaev leg., near Amudarya river (fig. 2) on *Populus pruinosa* Schrenk, 1845.

The species is known from a few records from western and southern Tajikistan (Hissar and Rushan range) and northeastern Afghanistan (Kabul) (Kiritshenko, 1952, 1963, 1964; Putshkov, 1965; Hoberlandt, 1984). The only species of the South Asian genus known north of Iran and Afghanistan (Memon & Ahmad, 2009). Some trees (*Platanus orientalis* L., *Populus* sp.) are mentioned as host plants (Putshkov, 1965). It is recorded here for the first time in the fauna of Uzbekistan. It is also the first finding of the species at a significant distance from mountain areas. This may show both a wide distribution of the species in the river valleys of the desert regions of Central Asia or a dispersal trend. Further study of the distribution and biology of the species is necessary to solve this question. Identification of the species is based on the original description by Kiritshenko and the revision of the genus by Memon and Ahmad.

Family Lygaeidae

Xanthochilus melanopus Kiritshenko & Scudder, 1973.

Material examined: 1 female (Fig. 3) – Jizzakh Region, Zomin District, Zomin National Park, 39.6217 N, 68.3845 E, 2005 m, 17.06.2024, D. Musaev leg., mountain steppe (*Stipa* sp., *Artemisia* sp. and other plants) (Fig. 4).

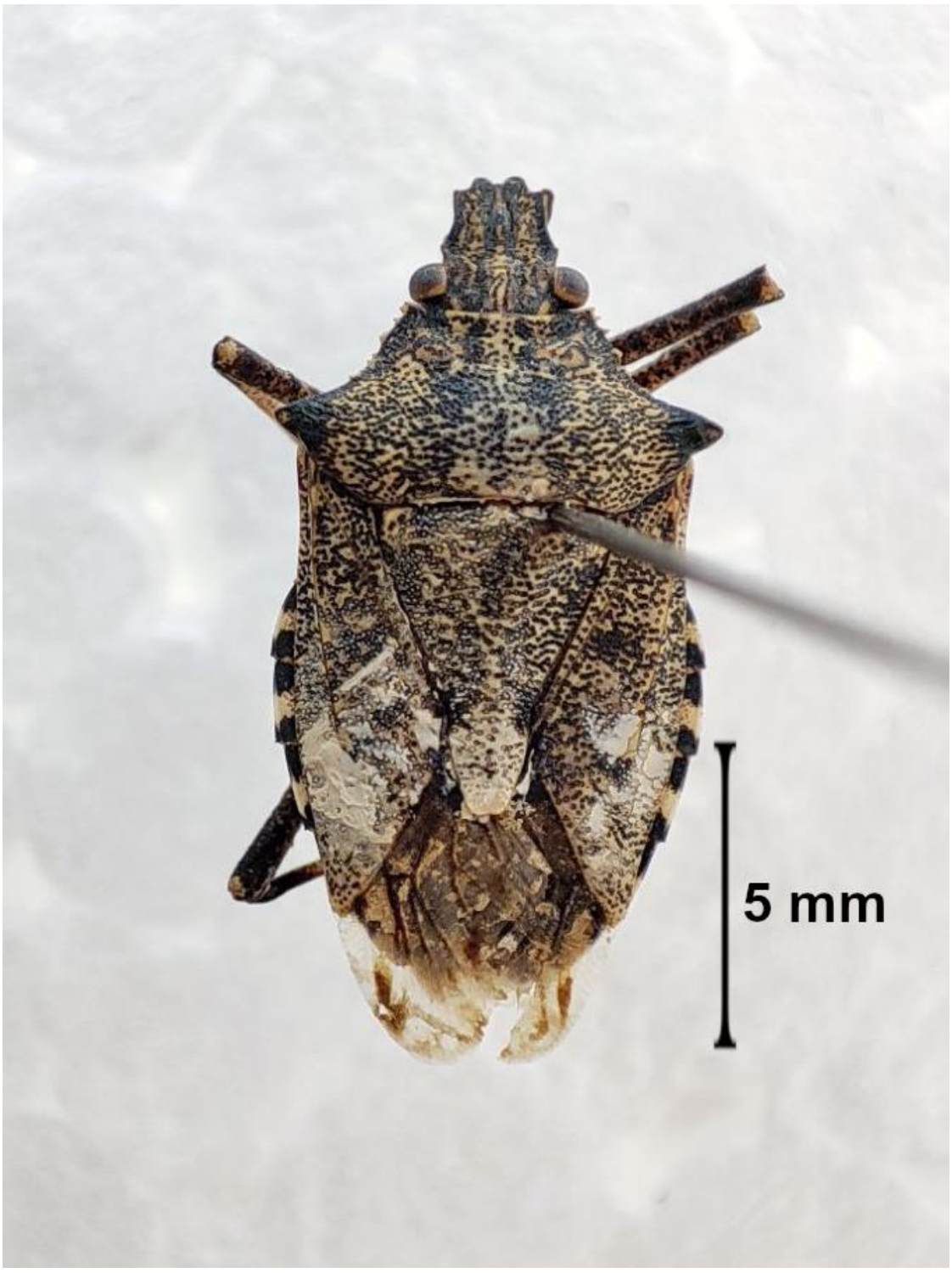

Fig. 1. *Sarju pavlovskii* (Kiritshenko, 1952), dorsal view (total length: 14.3 mm).

Figure 2. Habitat of *Sarju pavlovskii* (Kiritshenko, 1952) in Gurlan District.

The species was mentioned as new (as *Rhyparochromus* (*Xanthochilus*) *melanopus* sp. n.) in the review of the actual bug fauna of Tajikistan by Kirichenko (1964). However, this book (pp. 172-173) does not provide any description, comparative diagnosis, or distinguishing species characters. The text only lists the places and dates of specimen collection. A description of the species was published in the paper by Kirichenko and Scudder 9 years later (1973). The type series includes 16 specimens (including the holotype) collected in 1947 by A.N. Kirichenko in northwest Tajikistan (Hissar Range: Lake Iskanderkul and Anzob Pass), and one presumably from southern Kyrgyzstan (or northern Tajikistan) (Alai Range, early 20th century collections). Neither of the two papers provides any information on the species' habitat, ecological, or biological features. Information on other records of the species has not been available to date. Thus, for the first time, data on both the species' presence in Uzbekistan's fauna and its

ecological features are given. Identification of the species is based on the original description and drawings by Kiritshenko and Scudder.

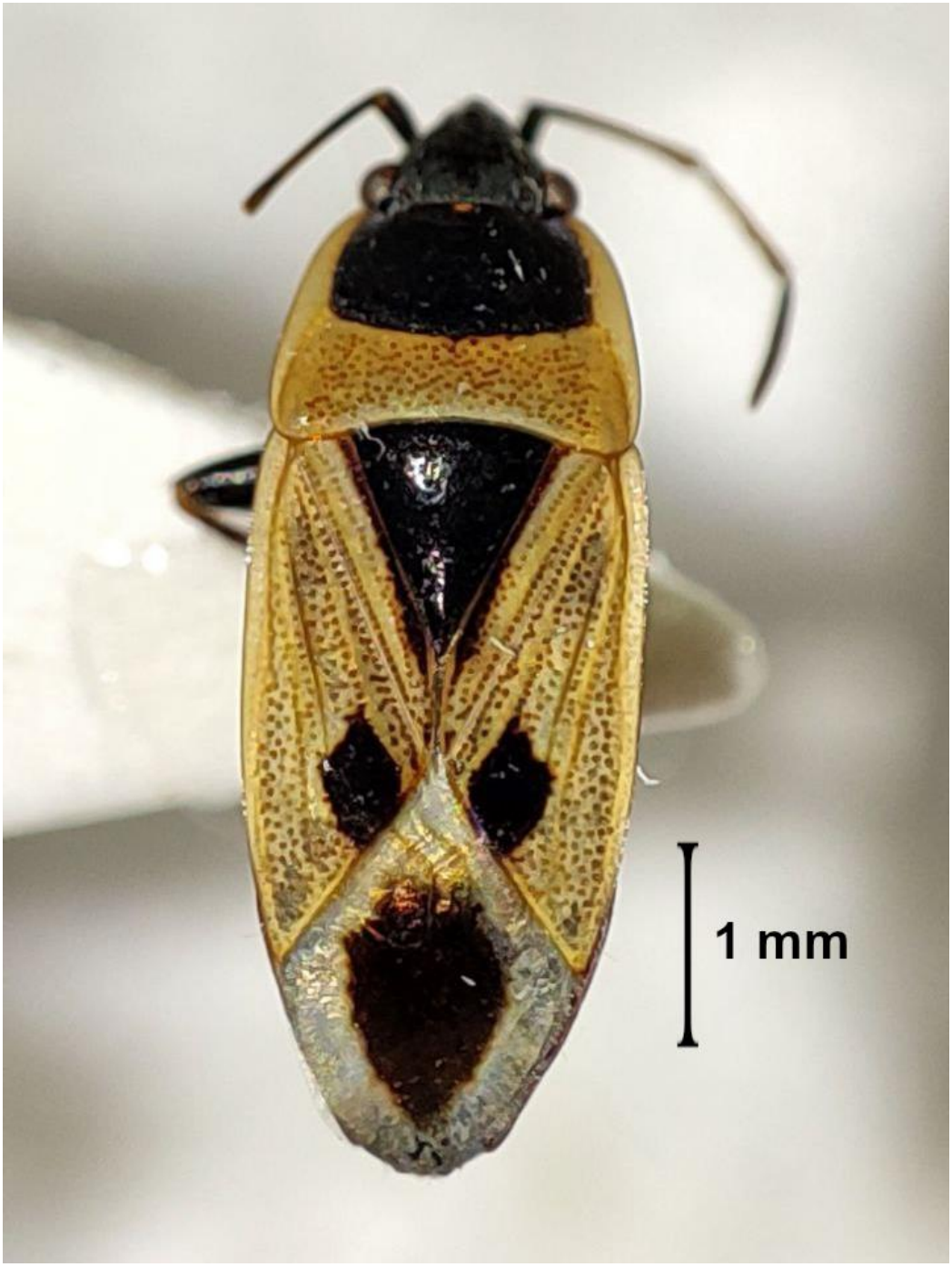

Figure 3. *Xanthochilus melanopus* Kiritshenko & Scudder, 1973, dorsal view (total length: 5.3 mm).

Figure 4. Habitat of *Xanthochilus melanopus* (Kiritshenko, 1952) in Zomin District.

Conclusion

The first records of two little-known species of Heteroptera in Uzbekistan significantly contribute to studying Uzbekistan's suborder biodiversity. The data shown in this article significantly supplement the information on their distribution and ecological features.

References

Hoberlandt, L. (1984). Heteroptera of Afghanistan. Acanthosomatidae, Cydnidae, Scutelleridae and Pentatomidae. Acta Faunistica Entomologica Musei Nationalis Pragae, 17 (196), 69-127.

Memon, N. & Ahmad, I. (2009). A revision of halyine stink bug genus *Sarju* Ghauri (Hemiptera: Pentatomidae: Halyini) and its cladistic analysis. Pakistan Journal of Zoology, 41 (5), 399–411.

Kiritshenko, A.N. (1952). New and little-known bugs (Hemiptera-Heteroptera) of Tadzhikistan. Trudy Zoologicheskogo Instituta Akademiya Nauk SSSR, 10, 140-198.

Kiritshenko, A.N. (1963). Beiträge zur Hemipteren-Fauna (Hemiptera-Heteroptera) Afghanistans. Entomologicheskoe Obozrenie, 42, 373-378.

Kiritshenko, A.N. (1964). Bugs (Hemiptera-Heteroptera) of Tadzhikistan. Dushanbe: Institute of Zoology

and Parasitology. 275 p.

Kiritshenko, A.N., & Scudder, G.G.E. (1973). Some new genera and species of Rhyparochrominae (Hemiptera, Lygaeidae) from the Soviet Union, with a key to the genera of Gonianotini. Journal of Natural History, 7 (2), 133–151. http://dx.doi.org/10.1080/00222937300770121

Kryzhanovsky, O.L. (1965). The composition and the origin of terrestrial fauna of Middle Asia. Leningrad: Nauka. 418 p.

Putshkov, V.G. (1965). Shield-bugs of Middle Asia (Hemiptera, Pentatomoidea). Frunze: Ilim. 331 p.