

ARADUS OROSZI SP. N. FROM TAIWAN (HEMIPTERA, HETEROPTERA, ARADIDAE)

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Aradus oroszi sp. n. (Heteroptera, Aradidae, Aradinae) is described and illustrated from Taiwan.

Key words: Aradinae, *Aradus*, new species.

INTRODUCTION

Due to collecting activity of Hungarian lepidopterists in Taiwan (RONKAY *et al.* 2013) a small but valuable aradid material has accumulated in the Hungarian Natural History Museum, Budapest, from which one new species is described in the present paper. HEISS (2009) pointed out that a revision of *Miraradus* Vásárhelyi, 1980 would be necessary. This paper is not intended to clarify the relationship between the genera *Aradus* Fabricius, 1803 and *Miraradus*, obviously needing further investigation, but the new species is placed into the East Palaearctic *orientalis-compar* species group of the genus *Aradus* following HEISS (2003).

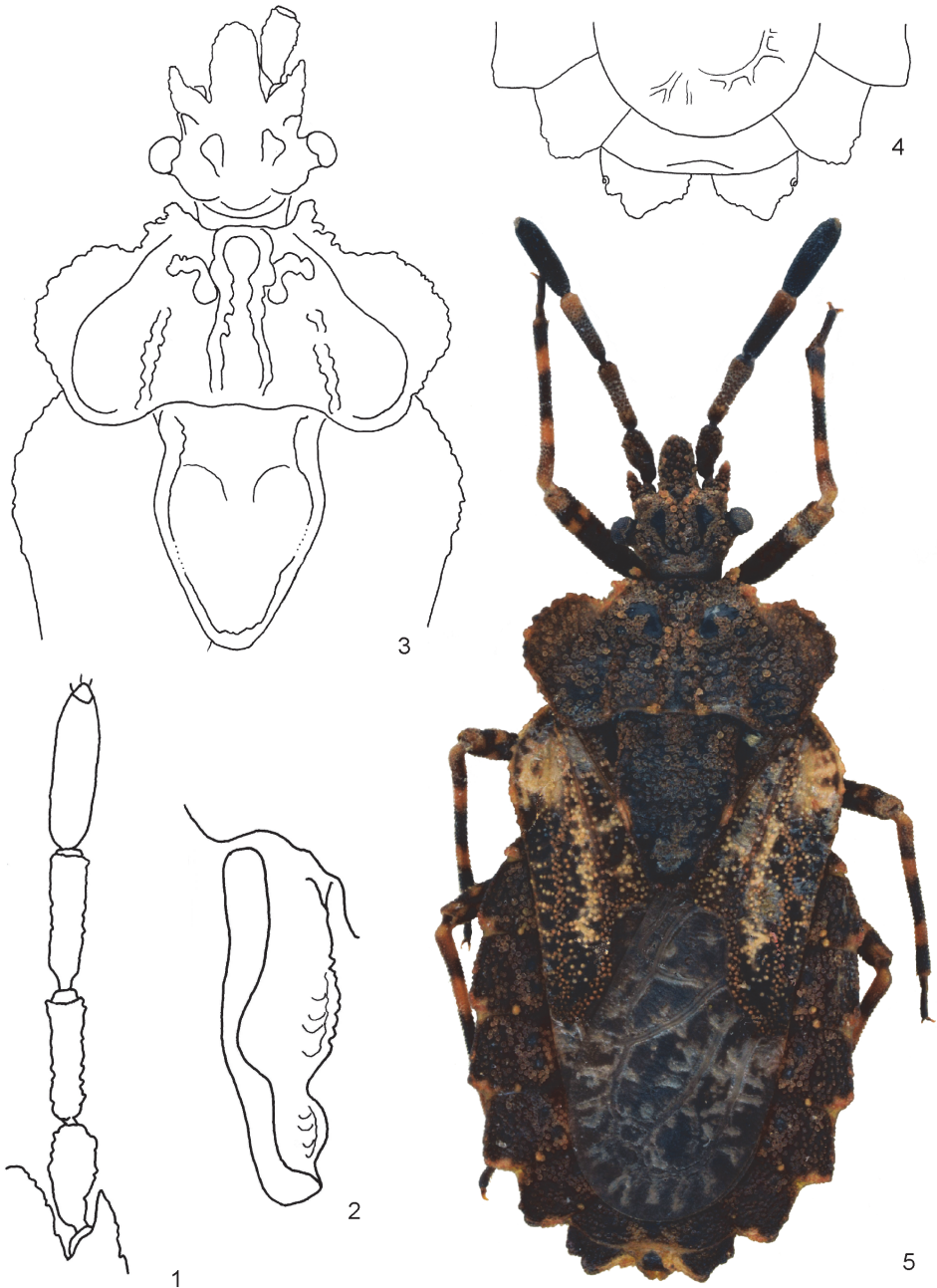
MATERIAL AND METHODS

The single studied specimen was mounted on card (unfortunately too strongly to be removed without risk of damage therefore ventral side could only partially be studied). Drawings were made with an Opton 47 50 52 – 9901 microscope supported with drawing apparatus.

***Aradus oroszi* sp. n.** (Figs 1–6)

Diagnosis – In the key to the East Palaearctic *A. orientalis-compar* species group (HEISS 2003) it runs to *A. yunnanus* Heiss, 2003, but abdomen is much narrower, and the ratio of antennal joints is different, unique in this species group.

Description – Female, macropterous, brown with characteristic yellow coloration (Figs 1–5). Head about as long as wide across eyes. Antenniferous tubercles pointed, di-



Figs 1–5. *Aradus oroszi* sp. n., holotype, female: 1 = antenna, 2 = scutellum, dorsolateral view, 3 = head, pronotum and scutellum, 4 = tip of abdomen, 5 = habitus.

rected anteriad, with large dorsal tooth. Eyes protruding, semipedunculate. Postocular tubercle flat, with granulation. Antennae long, 2 times as long as width of head; joint I surpassing clypeus; II and III slightly thickened apically, dorsal side of the latter yellow in its apical 2/5; joint IV longest. Relative lengths of antennal joints I to IV as 27 : 33 : 34 : 40.

Pronotum 2.4 times wider than long, with dorsolaterally extended lateral margins (paranota), their margin irregularly dentate especially at anterolateral section. Disc with 4 low carinae, lateral ones converging anteriorly, mesal ones elevating in anterior third. Anterolateral notch of pronotum similar to that of *A. yunnanus*, anterior margin yellow. Hemelytra with pale yellow patch near basis, yellowish coloration running along cubitus, granules partly pale brown or yellowish.

Scutellum with concave anterolateral borders, almost 1.5 times as long as wide. Lateral margin elevated except near apex (Fig. 2).

Legs slender, with yellow rings at the apical part of femora and the basal and apical parts of tibiae. Femorotibial articulations pale yellowish. Trochanter and femur fused on legs I and II, separated by distinct suture on III.

Abdomen with laterally extended dorsal external laterotergites (Deltg) on segments II–VIII, margin of VII–VIII acute-angled, each with a protruding tooth, margins of posterolateral angles yellow. Spiracles ventral, lateral on Deltg VIII, before pointed tooth.

Measurements – Total length (female) 7.69 mm, length of head 1.34 mm, width of head 1.29 mm, length of pronotum 1.16 mm, width of pronotum 2.72 mm, length of scutellum 1.59 mm, width of scutellum 1.09 mm, width of abdomen across segment V 3.41 mm.

Discussion – The availability of a single female usually makes authors cautious in preparing a description. The characteristic antennal joint IV being the longest is, however, unique within the species group and justifies the proposal of a new species. Allometric growth of antennal joints showed, that longest joint IV is characteristic of young larvae in Aradidae usually until instar IV or V (VÁSÁRHELYI 1985). There seems to be a trend in the species of the Oriental and East Palearctic *A. orientalis*–*compar* species group, in the subgenus *Lobataradus* Heiss, 2008 proposed for species showing phylogenetical relationship to this species group (HEISS 2008), and also in the related genus *Miraradus* (originally described as subgenus of *Aradus*) towards stronger lateral development of lateral body portions, and an expressed diversification of antennal joint development (resulting also in length of joints, joint IV being remarkably short in *Lobataradus*). *A. oroszi* having longest joint IV (obviously a secondary and not neotaenic feature) is therefore an important species in understanding evolutionary patterns in these taxa.

Type material – Holotype, female: TAIWAN, Taichung CO., 2200 m, Pilushi, TFRI site, 26–28. 12. 2001, leg L. Ronkay & A. Kun. Deposited in the Hungarian Natural History Museum, Budapest.

Habitat – The specimen was found at the meteorological station of Taiwan Forestry Research Institute, which is located on the bottom of a deep and narrow valley, surrounded by deciduous forests. The collector, L. Ronkay informed me that the specimen was collected on a fallen trunk of *Abies kawakamii* (Hayata) T. Itô (Pinaceae) (Fig. 6).



Fig. 6. The collecting site of *Aradus oroszi* sp. n.

Etymology – The species is dedicated to Mr. András Orosz, originally an electronic engineer, a friend and staff member of the Hemiptera Collection of the Hungarian Natural History Museum since the early 1990s, now an excellent scholar of Auchenorrhyncha, to commemorate his 80th birthday.

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