THE FEMALE OF THE FIRST CRETACEOUS VELVET WATER BUG *ARCHAEOHEBRUS ALIUS* ZHANG, REN & YAO 2024 (HETEROPTERA: HEBRIDAE)

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INTRODUCTION

Recently, the first cretaceous velvet water bug (Heteroptera: Hebridae), *Archaeohebrus alius* Zhang, Ren & Yao 2024 was described from Myanmar amber; based on a one male specimen. The purpose of the present contribution is to report the finding of the first female of this species, based one specimen from an amber piece collected in the same area.

MATERIALS AND METHODS

The amber piece containing the studied fossil originated from Noije Bum, near Tanai Village Hukawng Valley, Kachin State, northern Myanmar (26-21°33.41'N, 96-43°11.88'E), date lowermost Cenomanian, mid-Cretaceous (98.79 ± 0.62 Ma). The amber piece is oval, translucid; measuring 17 x 13 mm and weighting 0,49gr. The piece is deposited in the collection of the NINFA Reserch Center in Punta Arenas, Chile. In morphology and classification we follow Schuh & Slater (1995) and Zettel (2004).

RESULTS AND DISCUSSION

Fig. 1. Female of A. *alius*, dorsal view

Fig. 2. Female of A. *alius*, ventral view

Fig. 3. Female terminalia of A. *alius*

The female is diagnosed as follows: Body elongated, 2.28 times longer than wide (1,71 mm of length; 0,75 pronotum width). Head, subtriangular. Pronotum hexagonal, with lateral margins strongly concave, humeral angles projecting laterally, obtuse. Hemelytra full developed, bearing 3 closed cells and almost reaching the end of the abdomen. Female external genitalia: 7th abdominal segment strongly concave towards the middle, 8th abdominal segment elongate slightly convex, narrowing towards the middle, 9th abdominal segment elongated, subtriangulate in lateral view, valvifer 1 well developed, isosceles triangle shaped in lateral view, valvula 3 visible, well developed, subrectangular in lateral view, ovipositor resting inside the valves, well esclerotized. In general the female looks similar to the male, but a little bit slender, with the head and pronotum more stylized. This dimorphism has been observed in other modern Hebridae (Schuh & Slater, 1995; Zettel, 2004, Zettel et al. 2022). In addition to the diagnostic characters shared with the male (e.g. bucculae elevated posteriorly, mesoscutellum reduced to a narrow and transverse plate, metanotum with a median elevation and the first three abdominal mediotergites with three pairs of longitudinal ridges); the genitalia details observed in the female supports the placement of this species within Hebridae.

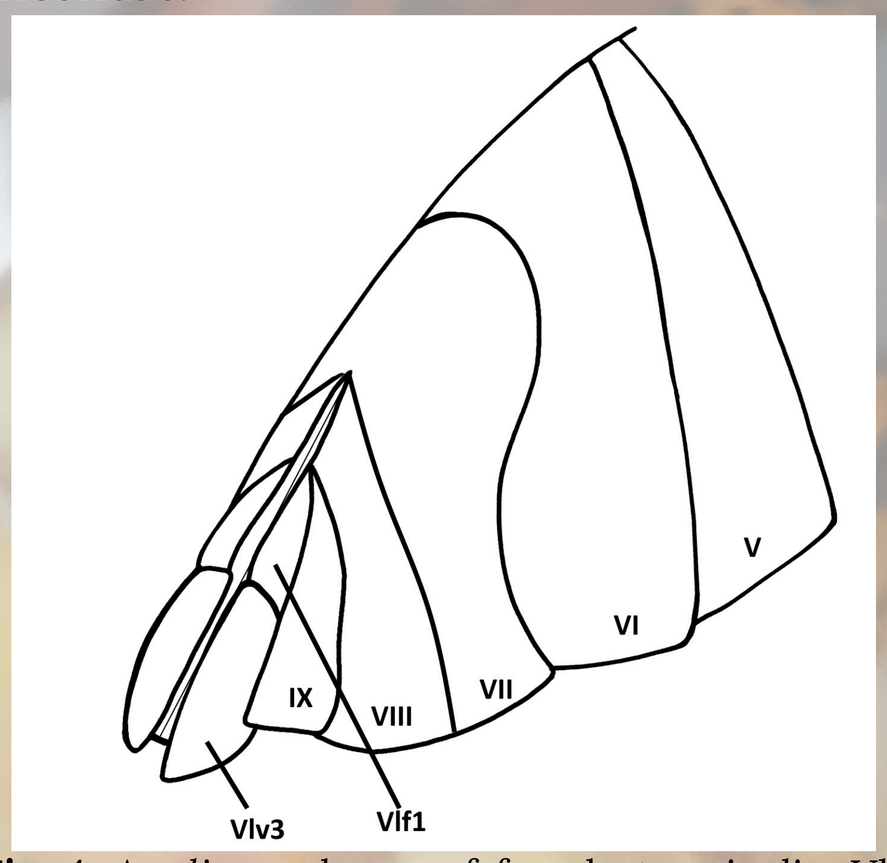

Fig. 4, A. *alius*, scheme of female terminalia. Vlf1 =Valvifer 1, Vlv3 = Valvula 3.

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