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Archicera Szilády, 1934: rediscovered and redescribed (Diptera: Rhagionidae)

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Abstract – *Ptiolina* (*Archicera*) *avarorum* Szilády, 1934 is reported from Transylvania, Romania and redescribed. The taxonomic status of the genus *Archicera* is not discussed, but the neotype female of *Archicera avarorum* Szilády, 1934 is designated. With 6 figures.

Key words – morphology, neotype designation, *Ptiolina*, *Spania*

INTRODUCTION

Szilády (1934: 264) described "*Archicera* n. subg." in a key of the "Untergattungen" of *Ptiolina* Zetterstedt, 1842. The other keyed "subgenera" were *Cekendia* n. subg. (a subjective junior synonym of *Bolbomyia* Loew, 1850), *Ptiolina* s. str. and *Spania* Meigen, 1830 (generally treated nowadays as a genus). The differentiating characters were that its antenna is lancet-shaped, and "3. Glied mit Anlagen einer Gliederung" [in English roughly: third segment with incipient segmentation]. The type species of *Archicera* was described on p. 268 in 4.5 lines as "**Archicera avarorum** n. sp.". The description translated here as follows (no figure was published).

"Shiny blackish brown with very fine and short blackish bristles but hardly dusted, wholly evenly coloured with glassy light wings; veins light brown. Pterostigma [Randmal] hardly discernible. Eyes bluish black, bare. Frons occupying about half of head width, below slightly narrowing. 2–2.8 mm."

The species was formally described in the genus *Ptiolina*, but Szilády treated the species simply as *Archicera*. Below we do not put the name of author and year in parentheses, although strictly speaking, it would have been obligatory doing so.

Archicera avarorum Szilády, 1934 was based on two syntypes: "1 ♀ aus Jasenak und 1 ♀ aus Spital, Styrien, im Museum zu Budapest." He did not give further data, e.g. none on the time of their collection, but we may suppose that

the specimens were collected by Kálmán Kertész, János Thalhammer or Gabriel Strobl; in any case, before the First World War (1914). Unfortunately, those types were annihilated in the fire of November, 1956 in the HNHM (at that time: Természettudományi Múzeum, Budapest).

No wonder, the meagre description does not make possible to have a clear picture on the species. Majer (1977) did not even mention it in his *Fauna Hungariae* part. In the Catalogue of Palaearctic Diptera Majer (1988) listed *Archicera* under *Spania* Meigen, 1830 as a junior synonym, as well as *A. avarorum* as a junior subjective synonym of *Spania nigra* Meigen, 1830. Later Majer (2001) accepted *Archicera* Szilády, 1934 as a distinct genus and *A. avarorum* as a species expected to occur also in Hungary. As he wrote, "This species must be valid one as the description of type does not fit any other rhagionids."

No specimen of *Archicera* were collected until 2017. In the course of our recent collecting trip to Transylvania, Romania, one female of this species was collected by my colleague, Dr Zoltán Soltész. Of course, the species is new for the fauna of Romania.

Female (HNHM; head, as well as thorax + abdomen with genitalia prepared and preserved in a plastic microvial, wings each are prepared between two pieces of cover glass and pinned to the same collection pin): "Ro. Újfalu, Görgényi-havasok, Hargita h., Szenéte-patak, bánya fölött, 873 m, Malaise trap – 46.601510° N, 25.575399° E, 2017. 06. 08., leg. Soltész Z." – [red-bordered Neotypus label of the HNHM with L. Papp's handwriting] "Archicera avarorum Szilády, 1934 ♀".

A male of *Spania nigra* Meigen, 1830 preserved in the HNHM was used for comparison (its left wing was prepared between two small pieces of cover glass and kept under the specimen on the same pin, see Fig. 3): "ROMANIA, No: 6, Văleni, Mori Stream, 620 m, 24. 05. 2006., leg. M. Földvári".

The aim of this paper was not to umpire about the taxonomic status of *Archicera avarorum* Szilády, 1934, but only to make it attainable for future studies. In addition, to fix its identity, the neotype of this species is designated.

DESCRIPTION OF THE NEOTYPE
(Figs 1–2, 4–6)

Neotype female. Body length 3.62 mm, wing length 3.17 mm, wing width 1.25 mm.

Head. Posterior part of frons and vertex saddle-shaped. Head width 0.92 mm. Ocellar triangle prominent, ocelli more on sides of triangle rather than on its surface; 3 ocelli forming triangle, slightly longer than isoscele. Palp seemingly with 3 palpomeres: basal one minute, medial one subcylindrical with several hairs of

0.06–0.07 mm. Apical palpomere 0.19 mm long, 0.10 mm wide subapically, covered with short hairs. Eight pairs of pseudotracheae present in form of legs of *Scolopendra*. Scape almost bare, 0.04 mm long, 0.06 mm broad, pedicel 0.065 mm long, 0.09 mm wide with short apical-subapical setae. Flagellomere (Fig. 1) 0.51 mm long, basal ¼ broader (0.09 mm), medial 0.34 mm long section subcylindrical, c. 0.05 mm wide, 0.05 mm long apical section thinning. Cilia of flagellomere 0.025 mm.

Thorax and legs. Scutellum 0.16 mm long. No characteristic seta on thorax and on legs. No dorsal preapical setae on tibiae, fore tibia without ventral apical or preapical seta. Mid tibia with ventroapical seta only 0.05 mm long. Claws only 0.08 mm long. Pulvilli and empodium faint, curved, very short, shorter than claws.

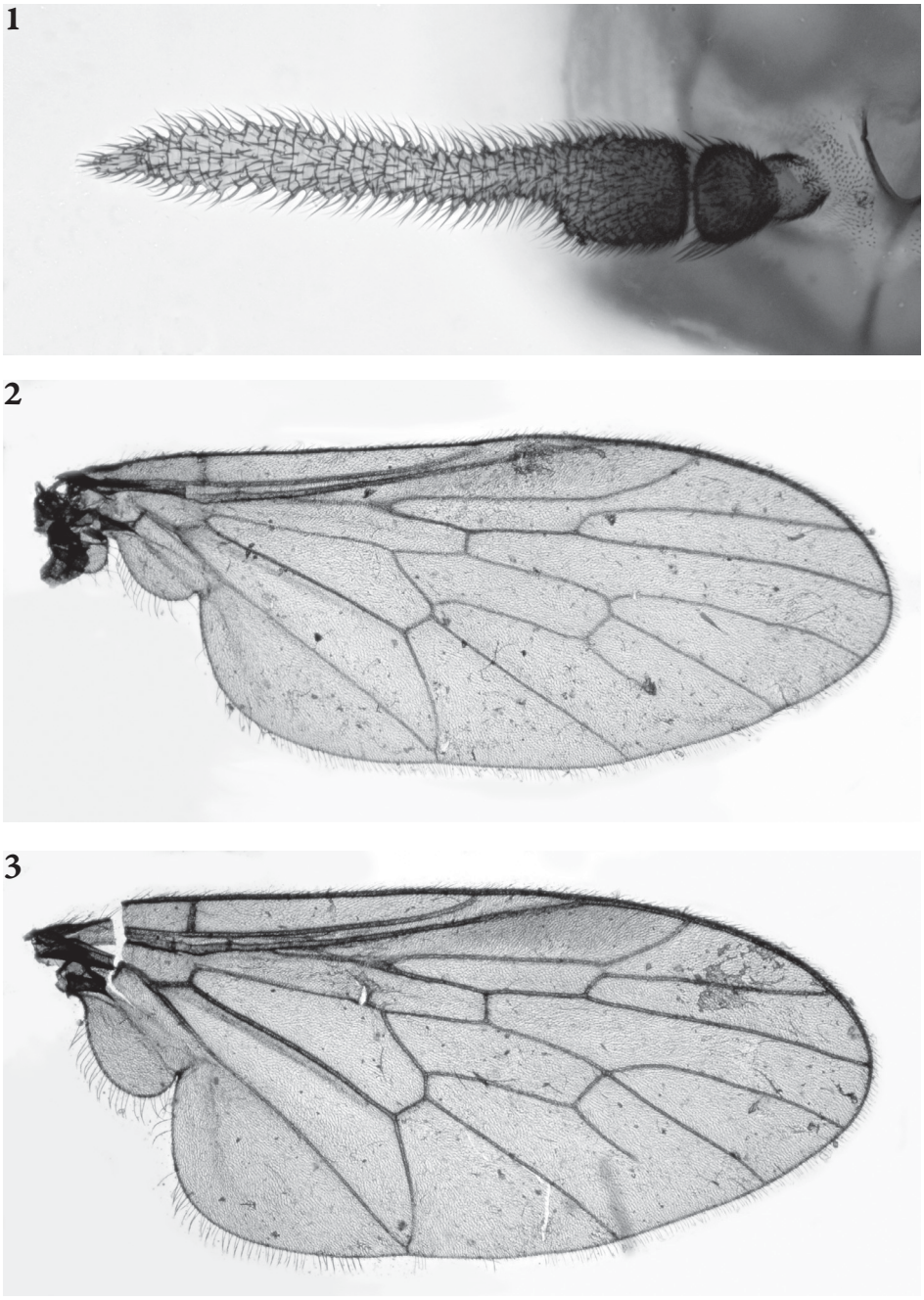
Wing (Fig. 2). Membrane light grey, veins greyish brown. Pterostigma c. 0.75 mm long, distinct, though borders are obscure. Costa complete, i.e. thinner posteriorly to M2 but running all along wing margin. Both veins R5 and M1 slightly downcurved in their apical section. Length of costal sections (in mm): base to H 0.47, H to Sc 1.01, Sc to R1 0.71, R1to R2+3 0.27, R2+3 to R4 0.64, R4 to R5 0.27. Stalk of R4-R5 fork 0.40 mm, length of R5 1.21 mm. Lower edge of cell *d* 0.56 mm from wing margin, vein M3 distinct on a section of 0.29 mm. Cu2 present as a faint pseudo-vein, parallel to Cu1, closed into a cell by Cu1 and A1. Common apical section of Cu1 and A1 only 0.04 mm. A2 short and obscure, in length of 0.56 mm, i.e. not reaching wing margin. Marginal fringe 0.03–0.04 mm, at R1 0.04–0.05 mm long. Alula broadly rounded, c. 3 times longer than broad, its fringe of 0.088 long curved bristles. Halter 0.7 mm long.

In *Spania* M1 and M2 originate from a point (Fig. 3); ratio of length of R5 and stalk of R4-R5 in *Spania* is 81/27 = 3.0, quite same as in *Archicera* (97/32).

Abdomen. Preabdomen (segments 1–6) normal, without any characteristics, stigmae in membrane.

Female genitalia. Segments 7 and 8 flattened, 0.25 and 0.23 mm long, tergites both 0.19 mm long, postabdomen not telescopic but only cerci with epiproct and hypoproct retractible. Two cercomeres (Figs 4–5): basal one subtriangular in lateral view, 0.04 × 0.04 mm, apical cercomere rounded apically, 0.10 mm long, 0.04–0.045 mm wide. Three spermathecae, globular (Fig. 6), collapsed in glycerol, i.e. their sclerotisation is not strong.

Remarks. In the practice of the taxonomists, the designation of a neotype, as a form of the primary types, is an exceptional action to replace the annihilated/destroyed holotype or syntype series. It is obvious that the two syntypes of *A. avarorum* were annihilated in the fire of the Természettudományi Múzeum in November, 1956. It is a well-based and advantageous usage in the taxonomical practice that the neotype is to be designated from the specimens collected on the site of the original type. However, in the case of an extremely rare species not collected for more than 100 years, one must live up the opportunity to designate a

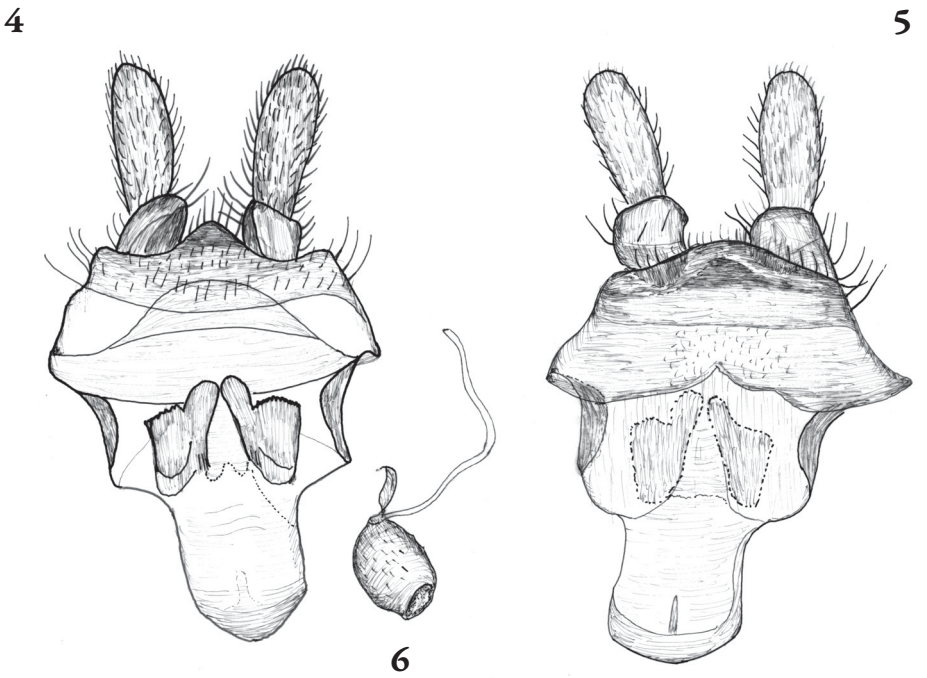


Figs 1–3. 1–2 = *Archicera avarorum* Sziládi, 1934, neotype female: 1 = antenna, 2 = wing. 3 = *Spania nigra* Meigen, 1830, male, wing (photos by Z. Soltész)

neotype from a newly collected specimen. In our case, this occasion is not a revision of a larger group of species, but it is undoubtedly exceptional.

No wonder that either NAGATOMI (1982) or any other authors had not the opportunity to give a more determined opinion on *Archicera*. NAGATOMI (1982) repeated Szilády's text and data. However, his conclusion is correct in all probability: "In antennal segment 3 of *Spania*, the width of apical prolongation varies with sex and species (Nagatomi and Saigusa in prep.), and the boundary between apical prolongation and basal broad part is not so sharp or entirely absent in some species which may include *Archicera avarorum* Szilády. It is probable that *Archicera* is a synonym of *Spania*." Indeed, our Fig. 1 of antenna fits NAGATOMI's (1982) Figs 8–10 for *Spania* species.

Etymology. The generic name reflects Szilády's view that the antennal form of his subgenus is an ancient form (*Archi* [ancient] + *cera* [Greek *keras*, horn, antenna]). The specific epithet refers to the ancient people, the Avars, inhabitants of the Carpathian Basin prior to its invasion by the Hungarian tribes at the end of the 9th century.



Figs 4–6. *Archicera avarorum* Szilády, 1934 neotype: 4 = postabdominal (genital) structures, dorsal view, 5 = same, ventral view, 6 = spermatheca

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