

Recognition of the genus *Thripomorpha* Enderlein, 1905, with new synonymies (Diptera, Scatopsidae)

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Objektyp: **Article**

Zeitschrift: **Mitteilungen der Schweizerischen Entomologischen Gesellschaft = Bulletin de la Société Entomologique Suisse = Journal of the Swiss Entomological Society**

Band (Jahr): **68 (1995)**

Heft 3-4

PDF erstellt am: **22.07.2024**

Persistenter Link: <https://doi.org/10.5169/seals-402602>

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Recognition of the genus *Thripomorpha* ENDERLEIN, 1905, with new synonymies (Diptera, Scatopsidae)

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Examination of the type specimen of *Thripomorpha paludicola* ENDERLEIN, 1905, allowed to clarify the identity and taxonomic status of this very poorly known Scatopsid. The following taxonomic changes are introduced: *T. paludicola* END. is a valid senior synonym of the species known up to now as *Rhegmoclema edwardsi* (COLLIN, 1954); *Thripomorpha* ENDERLEIN, 1905, with type-species *paludicola* END., is a valid senior synonym of *Rhegmoclema* ENDERLEIN, 1912, and *Aldrovandiella* ENDERLEIN, 1912.

Keywords: Diptera, Scatopsidae, *Thripomorpha*, taxonomy new synonymies

INTRODUCTION

Thripomorpha paludicola was described on the basis of an unique specimen collected by ENDERLEIN in the vicinity of Berlin, on the dried out ground of a marsh, among grass tussocks (ENDERLEIN, 1905). In his paper, this author puts great emphasis on the apterous condition of this specimen, but he also gives an unusually extensive and thorough description and figures of this otherwise typical Scatopsid. The species has never been recorded again, but due to the quality of the original description, subsequent authors have generally accepted, though sometimes with some reservation, the genus created by ENDERLEIN (DUDA, 1928, COOK, 1969). However, *Thripomorpha* was omitted in the new classification of the family presented by AMORIM (1994).

In connection with the preparation of the chapter "Scatopsidae" for the *Manual of Palaearctic Diptera* and the *Checklist der Dipteren Deutschlands*, it became necessary to clarify the taxonomic status of *Thripomorpha paludicola*, and this is the subject of the present note.

RESULTS

Thripomorpha ENDERLEIN, 1905

Thripomorpha ENDERLEIN, 1905: Zool. Jahrb., Syst. Geogr. Biol. 21: 448

Type-species: *paludicola* ENDERLEIN, 1905: *ibid.*, by original designation

DUDA, 1928: Fliegen pal. Reg. II (1) 5: 9

COOK, 1969: J. nat. Hist. 3: 394

Rhegmoclema ENDERLEIN, 1912: Zool. Anz. 40: 276. **Syn. nov.**

Type-species: *rufithorax* ENDERLEIN, 1912, *ibid.* : 277

COOK, 1955: Ann. ent. Soc. Am. 48: 241.

FREEMAN, 1985: Hdbk Ident. Br. Insects 9 (7): 32

Aldrovandiella ENDERLEIN, 1912: Zool. Anz. 40: 278. **Syn. nov.**

Type-species: *Scatopse halterata* MEIGEN, 1838: Syst. Besch. VII: 55

paludicola ENDERLEIN, 1905

paludicola ENDERLEIN, 1905: Zool. Jahrb., Syst. Geogr. Biol. 21: 448, ♂, Taf. 22, Figs 1-3, Textfig. A. (*Thripomorpha*)

DUDA, 1928: Fliegen pal. Reg. II (1) 5: 9

edwardsi COLLIN, 1954: J. Soc. Br. Ent. 5(2): 74 (*Aldrovandiella*) **Syn. nov.**

COOK, 1969: J. nat. Hist. 3: 400, ♂ ♀, Figs 6, 9 (*Rhegmoclema*)

FREEMAN, 1985: Hdbk Ident. Br. Insects 9 (7): 34, Figs 86, 93, 98 (*Rhegmoclema*)

winthemi DUDA, 1928: Fliegen pal. Reg. 2 (I), 5: 44, female only, Fig. 43 (*Aldrovandiella*)

reticulatum COOK, 1955: Ann. ent. soc. Am. 48: 251, Pl. 2 G, 3 H, 5 B (*Rhegmoclema*)

The genus has been fairly well described and figured by ENDERLEIN (1905) and, under the junior synonym name *Rhegmoclema*, thoroughly and adequately redescribed by COOK (1955). COOK (1969) redescribed the species under the synonym name *Rhegmoclema edwardsi* (COLLIN, 1954). The unique specimen of *Thripomorpha paludicola* ENDERLEIN is preserved in the collections of the Zoologisches Museum der Humboldt-Universität zu Berlin. The holotype is labelled: "Berlin Tegel Dr G. Enderlein SG [printed] Sumpf 16.6.1904 Tripomorpha paludicola Enderl. ♂ nov. gen. nov. sp. Type [in Enderlein's handwriting]", "1382". Although relatively complete (it lacks only the left antennal flagellum, the fore legs except for the coxa, and the mid and hind left legs), it is in a very poor state of conservation. It has been preserved in alcohol since it was collected in 1904, and this resulted in a nearly complete fading of the specimen which was originally described by ENDERLEIN as dark-brown with a brownish-black head. All the teguments have become almost entirely translucent, making the examination very difficult. The type-specimen has been coloured and slide-mounted in balsam to stop further fading. Fortunately, the most important diagnostic features are still visible. In particular, the reticulate pattern of the first abdominal tergite, already described and figured by ENDERLEIN (1905), is well recognizable. This character is a unique apomorphy of the genus *Rhegmoclema* ENDERLEIN. This fact was already pointed out

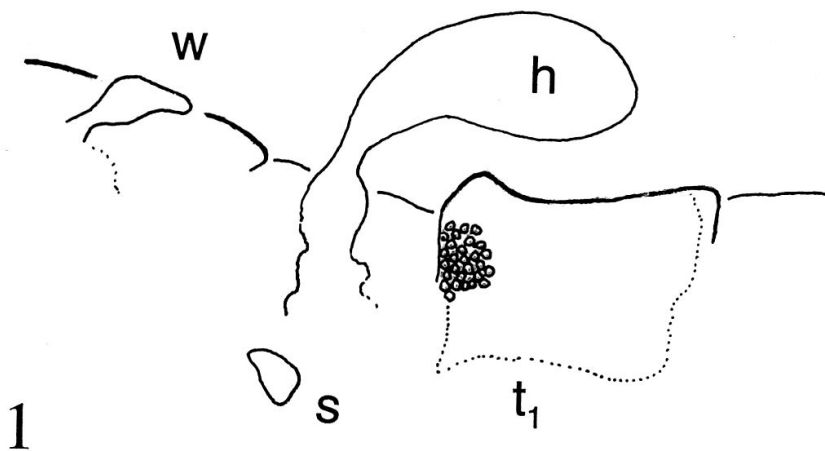


Fig. 1. *Thripomorpha paludicola* END., holotype ♂. Outline of wing base region (lateral view). h: halter; s: posterior thoracic spiracle; t₁: 1st abdominal tergite with typical reticulate pattern; w: reduced wing.

by COOK (1969, 1971). Because of that, this author regarded *Thripomorpha* as being very close to *Rhegmoclema* but decided that the wingless condition of the former was sufficient to maintain both genera.

Other characters shared with *Rhegmoclema* are the 10-segmented antennal flagellum, the pedicel of halter devoid of setae (the latter common to all *Rhegmoclematini*), and the structure of male genitalia. Although some precise features of the genitalia of *T. paludicola* are not well visible due to the extreme fading of the specimen, their general shape makes it clear that this species is congeneric with the species included in genus *Rhegmoclema*. Furthermore, the shape of the posterior margin of tergite and sternite 7 and the shape of the genital capsule make the species well recognizable. It is clearly conspecific with the species presently known as *Rhegmoclema edwardsi* (COLLIN, 1954). Consequently the latter name is a junior synonym of *Thripomorpha paludicola* ENDERLEIN, 1905, while *Thripomorpha* ENDERLEIN, 1905, has priority and must replace *Rhegmoclema* ENDERLEIN, 1912, and *Aldrovandiella* ENDERLEIN, 1912.

DISCUSSION

Unfortunately, the type-specimen of *T. paludicola* is in a state of preservation that does not allow the precise study of the minute basal lobes (0.04 mm long) which apparently are the only remnants of the wings (Fig. 1). It is not possible to decide what represents the nearly complete reduction of wing of this specimen in the absence of additional material. *Rh. edwardsi* is a normally fully winged species, not rare in marshy areas and widespread in Central Europe. The species has a wide, Holarctic distribution. Among the numerous specimens of this species from several localities in Europe that I have studied, not even one presented any reduction of the wings. No apterous or wing-reduced forms are known in other species of genus *Rhegmoclema*.

Among other Scatopsidae, a rather similar case is known for *Coboldia fuscipes* MEIGEN, a common cosmopolitan species, of which a form with reduced wings was described under the name *C. formicarum* (MELANDER, 1916). Finally, only one true apterous Scatopsid is known, *Hawomersleya aptera* WOMERSLEY, a very peculiar Australian species, type of a monospecific genus. In this species, the male only is totally wingless and has reduced halteres, while the female has reduced wings and normally developed halteres, but other morphological modifications have occurred. Both sexes show a strong reduction of the size of the eyes, the loss of median ocellus and a reduction of lateral ocelli (COOK, 1971).

ACKNOWLEDGEMENTS

I am very grateful to Dr. H. SCHUMANN, Zoologisches Museum der Humboldt-Universität zu Berlin, who kindly made available the type material for study.

RÉSUMÉ

L'examen de l'holotype de *Thripomorpha paludicola* ENDERLEIN, 1905 a permis de préciser l'identité et de clarifier le statut taxonomique de ce Scatopsidae très mal connu. Les changements taxonomiques suivants sont introduits: *T. paludicola* END. est un synonyme valide de l'espèce connue jusqu'à maintenant sous le nom de *Rhegmoclema edwardsi* (COLLIN, 1954); le nom de genre *Thripomorpha* ENDERLEIN, 1905 (espèce-type *paludicola* END.) est un synonyme valide de *Rhegmoclema* ENDERLEIN, 1912 et de *Aldrovandiella* ENDERLEIN, 1912, qu'il remplace.

ZUSAMMENFASSUNG

Der Holotypus von *Thripomorpha paludicola* ENDERLEIN, 1905 wurde untersucht, um die Identität und den taxonomischen Status dieser wenig bekannten Scatopsiden-Art zu klären. Die folgenden taxonomischen Änderungen werden eingeführt: als gültiges älteres Synonym muss *T. paludicola* END. *Rhegmoclema edwardsi* (COLLIN, 1954) ersetzen; als gültiges älteres Synonym muss *Thripomorpha* ENDERLEIN, 1905 (mit Typus-Art *paludicola* END.), *Rhegmoclema* ENDERLEIN, 1912, und *Aldrovandiella* ENDERLEIN, 1912, ersetzen.

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(received June 16, 1995; accepted July 24, 1995)