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***Abalakeus* Southcott, 1994 is a junior synonym of “plume-footed” *Eatoniana* Cambridge, 1898 (Trombidiformes, Erythraeidae)—evidence from experimental rearing**

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Abstract

Eatoniana Cambridge, 1898 was previously known exclusively from active postlarval forms. In the course of experimental rearing, larvae showing a strong affinity to members of *Abalakeus jahromiensis* Sedghi, Saboori *et* Hakimitabar, 2010, were obtained from a field-collected female of *Eatoniana plumipes* (L. Koch, 1856). Studies of all members of *Abalakeus* compared with newly obtained larvae of *Eatoniana*, resulted in synonymisation of *Abalakeus* Southcott, 1994 with *Eatoniana* and of *A. jahromiensis* with *E. plumipes*. Complementary data to the previous diagnosis of *Eatoniana* and information on the biology of *E. plumipes* are provided. A female of *E. plumipes* was selected as the neotype. A key to *Eatoniana* spp. known from larvae is provided.

Key words: Parasitengona, Erythraeinae, systematics, biology, new synonym, neotype, Pleistocene history

Introduction

Eatoniana Cambridge, 1898 was erected in order to replace the preoccupied *Eatonia* Cambridge, 1897, which at the time of description accommodated *Eatonia scopulifera* Cambridge, 1897 and *Eatonia plumifera* (Birula, 1893), described from Algeria (*E. scopulifera*), Armenia and Turkmenistan (*E. plumifera*). The former species was selected as type by Southcott (1961). Soon after the description of the genus provided by Cambridge (1898), Banks (1900) regarded *E. scopulifera* as a synonym of *E. plumipes* (Lucas, 1864). Prior to Banks' (1900) decision, *Rhyncholophus plumipes* L. Koch, 1856 and *R. plumipes* Lucas, 1864 were described independently from Spain and from Algeria and Tunisia. An implicit statement on the specific identity of the material studied by Koch (1856) and Lucas (1864), supported also by further records (Frauenfeld 1868; Haller 1885; George 1896; Pavesi 1880), was presented by André (1927) and also by André (1931, 1964), who contradicted the opinion of Banks (1900) on specific distinctness of *E. plumipes*, *E. plumifera* and *E. halleri* (Banks, 1900). André (1927) and Southcott (1961) provided a detailed insight into the taxonomy of *Eatoniana*. Makol & Wohltmann (2012) re-traced briefly the history of the genus and listed five species to be assigned to *Eatoniana*, namely *E. clavigera* (Berlese, 1916), *E. halleri* (Banks, 1900), *E. namaquensis* (Lawrence, 1937), *E. plumifera* (Birula, 1893) and *E. plumipes* (L. Koch, 1856). Since the time of description, *Eatoniana* has remained known exclusively from active postlarval forms.

Abalakeus Southcott, 1994, was described in order to accommodate *Abalakeus chekei* Southcott, 1994, collected from the African rice grasshopper, *Hieroglyphus daganensis* (Southcott 1994). Four other species, i.e. *A. bambusae* Zhang, 2000, *A. gonabadensis* Ahmadi, Hajiqaanbar *et* Saboori, 2012, *A. jahromiensis* Sedghi, Saboori *et* Hakimitabar, 2010 and *A. lorestanicus* Saboori *et* Lachinani, 2003 were subsequently assigned to the genus (Zhang *et al.* 2000; Saboori & Lachinani 2003; Sedghi *et al.* 2010; Ahmadi *et al.* 2012). Of those, only *A. lorestanicus* has been known from larvae and active postlarval forms (Mayoral & Barranco 2006), whereas the remaining species were known exclusively from larvae.

forms and *E. chekei*, *E. bambusae*, *E. gonabadensis*, known exclusively from larvae) are congeneric, combined with the observed distribution pattern, may confirm the long history of this peculiar taxon. The recent distribution of the genus in the Palaearctic, with special reference to single records known from Great Britain (Jersey), southern France, Switzerland and from China, may reflect the long history of *Eatoniana* within the Pleistocene refugial areas (Willis *et al.* 2011) located on the northernmost fringes of the distribution range and in the Mediterranean region.

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