# THE TYPE-SPECIMENS AND IDENTITY OF THE BRITISH SPECIES OF *TRISSOLCUS* ASHMEAD (HYM., PROCTOTRUPOIDEA, SCELIONIDAE)

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Trissolcus is a cosmopolitan genus of more than 150 described species. As far as is known all the species are parasitic in the eggs of Heteroptera, especially Pentatomidae, and many of them are in consequence of considerable economic importance.

Most of the British species presently attributed to *Trissolcus* (Fergusson in Fitton et al. 1978: 119–120; Fergusson, 1983) were placed there as a result of generic synonymy and without examination of the relevant types. The type-material of all but two of these species has now been located and, in this paper, three lectotypes are designated and the generic placements of the species are established.

With one exception, the type-series of the Walker species currently assigned to *Trissolcus* are missing from the British Museum (Nat. Hist.). Walker regularly exchanged material with Haliday and Curtis (Graham, 1979: 7); a search for possible Walker syntypes was therefore made in the Haliday collection (NMI, Dublin) and the Curtis collection (NM, Victoria). No syntypes were found in the Curtis collection but the Haliday collection contained type-material of two Walker species. Many Walker specimens lack locality data and the recognition of syntypes was based on labels (when present), position in the collection and conformation to the original description. These Walker specimens were distinguished from unlabelled Haliday specimens by the different styles of mounting (see O'Connor & Nash, 1982: 171).

The following abbreviations have been used for depositories containing material that has been examined:

BMNH	British Museum (Natural History), London, England.
NM1, Dublin	National Museum of Ireland, Dublin, Ireland.
ZI, Lund	Zoologiska Institution, Lund, Sweden.
MNHN, Paris	Muséum National d'Histoire Naturelle, Paris, France.
NR, Stockholm	Naturhistoriska Riksmuseet, Stockholm, Sweden.
NM, Victoria	National Museum of Victoria, Melbourne, Australia.

# Trissolcus Ashmead

Trissolcus Ashmead. 1893: 138. Type-species Trissolcus brochymenae Ashmead, by original designation.

Asolcus Nakagawa, 1900: 17. Type-species Asolcus nigripedius Nakagawa, by monotypy [Synonymized with Trissolcus by Masner, 1965: 124].

Aphanurus Kieffer, 1912: 10. Type-species Teleas semistriatus Nees, by original designation. [Homonym of Aphanurus Looss, 1907].

Immsia Cameron, 1913: 104. Type-species Immsia carinifrons Cameron by monotypy. [Synonymized with Trissolcus by Masner, 1965: 124].

Microphanurus Kieffer, 1926: 91. Type-species Teleas semistriatus Nees, by original designation. [Replacement name for Aphanurus Kieffer] [Synonymized with Trissolcus by Masner, 1965: 124].

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# Trissolcus arminon (Walker)

Telenomus arminon Walker, 1838: 457. Lectotype ♀ England, Dorsetshire (NMI, Dublin) by designation of Fergusson 1983: 208 [examined].

This species is correctly placed in *Trissolcus*.

# Trissolcus belenus (Walker)

Telenomus belenus Walker, 1836: 352. LECTOTYPE of [no locality data] (NMI, Dublin) here designated [examined].

The only locality information given by Walker is: 'Found by the Comte de Castelneau, under leaves of oak trees at Paris. September; Devonshire. Found by Mr Davis.' The French specimen cannot be found and is not in the MNHN, Paris (S. Kelner-Pillault in litt.). The Curtis collection (NM, Victoria) contains a specimen assigned to belenus but it is not a syntype as it does not correspond with the original description and the data label does not agree with the published data.

This species is correctly placed in *Trissolcus*.

# Trissolcus davatchii (Javahery)

Asolcus davatchii Javahery, 1968: 422. Holotype ♀ England, Berkshire, Silwood Park (BMNH) [examined].

In addition to the female holotype there are also  $10 \circlearrowleft$  and  $10 \circlearrowleft$  paratypes, from the same locality, in the BMNH. This species is correctly placed in *Trissolcus*.

# Trissolcus nigripes (Thomson)

Telenomus nigripes Thomson, 1860: 170. LECTOTYPE ♀ Sweden, Vestergöthland (Boheman) (NR, Stockholm) here designated [examined].

Apart from the lectotype, there is a second specimen in the Thomson collection (ZI, Lund) bearing the name *nigripes* and a locality label 'Ö' [Öland]; however, as the original description gives Vestergöthland as the locality this specimen is not a syntype.

The head of the lectotype is missing and the gaster has been remounted, but the dimensions of the second tergite and the presence of the mesopleural carina show the specimen to be a *Trissolcus*.

# Trissolcus nixomartini (Javahery)

Asolcus nixomartini Javahery, 1968: 429-430. Holotype ♀ England, Berkshire, Silwood Park (BMNH) [examined].

In addition to the female holotype there are also  $10 \circlearrowleft$  and  $10 \circlearrowleft$  paratypes, from the same locality, in the BMNH.

This species is correctly placed in *Trissolcus*.

### Trissolcus silwoodensis (Javahery)

Asolcus silwoodensis Javahery, 1968: 425-429. Holotype ♀ England, Berkshire, Silwood Park (BMNH) [examined].

In addition to the female holotype there are also  $10 \text{ } \circlearrowleft$  and  $10 \text{ } \circlearrowleft$  paratypes, from the same locality, in the BMNH.

This species is correctly placed in *Trissolcus*.

## Trissolcus theste (Walker)

Telenomus theste Walker, 1838: 457. Type lost [7, England, London].

The Haliday collection contains a specimen labelled *theste* but otherwise lacking in data. The proportions of the gastral tergites of this specimen do not correspond with those given in the original description (first short; second largest; third and following short), and it therefore cannot be a syntype. No further, possibly syntypic, material can be found.

This species has been placed in *Microphanurus* (= *Trissolcus*) by Kieffer (1926: 102), but in the absence of type-material and an unambiguous description *theste* must remain a *nomen dubium*.

# Trissolcus waloffae (Javahery)

Asolcus waloffae Javahery, 1968: 419-422. Holotype ♀ England, Berkshire, Silwood Park (BMNH) [examined].

In addition to the female holotype there are also  $10 \text{ } \circlearrowleft$  and  $10 \text{ } \circlearrowleft$  paratypes from the same locality, in the BMNH.

This species is correctly placed in *Trissolcus*.

## SPECIES EXCLUDED FROM TRISSOLCUS

Telenomus alcon Walker comb. rev.

Telenomus alcon Walker, 1836: 352. Type lost [♂ France, Paris (Comte de Castelneau), under elm bark].

No specimens labelled as this species could be found in the Walker or Curtis collections, nor are there any in the MNHN, Paris (S. Kelner-Pillault in litt.). Two specimens stand under the name *alcon* in the Haliday collection but they are mounted, on the same card, in Haliday's characteristic style and therefore are probably not syntypes.

As Walker had a very close working relationship with Haliday it is most probable that Walker saw and named the two Haliday specimens of alcon. I have ringed around one of these specimens with red ink, it is the same sex (male) as described by Walker, it conforms to the description of alcon and I have based my interpretation of alcon on this specimen. The second specimen is female and not conspecific with the first. The specimen ringed in red belongs to the genus Telenomus but in his description of Telenomus alcon, Walker records that 'the Comte de Castelneau . . . has also reared it from the eggs of a Pentatoma', a breeding record that would indicate a species of Trissolcus. However, the determination of this further material was almost certainly made solely by this French coleopterist who would not have been well acquainted with these difficult genera.

# Telenomus turesis Walker comb. rev.

Telenomus turesis Walker, 1836: 353. LECTOTYPE ♀ England [no locality data] (BMNH) here designated [examined].

In addition to the female lectotype the type-series includes the following paralectotypes: 1  $\bigcirc$  England [no locality data] (BMNH) [examined]; 1  $\bigcirc$ , 1  $\bigcirc$  [no locality data] (NMI, Dublin) [examined].

The only locality information given by Walker is 'September: near London; Cumberland' but he had seen at least one specimen of each sex. The specimen which stands under this name in the Curtis collection is not part of the type-series and is not conspecific with the lectotype.

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