

# Synonymy of *Kozlotelenomus* Mineo, O'Connor & Ashe

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## Abstract

*Kozlotelenomus* Mineo, O'Connor & Ashe, **syn. n.** is treated as junior synonym of *Trissolcus* Ashmead; *Trissolcus mopsus* (Nixon), **comb. rev.** is transferred from *Kozlotelenomus*.

## Keywords

*Trissolcus mopsus*, *Trissolcus*, *Kozlotelenomus*, synonymy, Platygastroidea, Telenominae

## Introduction

Numerous monotypic genera exist in Platygastroidea that were created for placement of autapomorphic species. A cladistic perspective on classification emphasizes shared characteristics for taxonomic placement, not derived characters found in a single species. However, many of these genera were erected with little regard for natural classification and did not include phylogenetic analyses to determine if these genera represent independent evolutionary lineages or a cladistic perspective. In the interest of generating a classification system based on monophyletic groups, and minimizing polyphyly, we examined the holotype specimen of *T. mopsus* to determine if its characters were unique within Telenominae, as posited by Mineo et al. (2009), and therefore indicative of a lineage separate from *Trissolcus*.

The contributions of the authors are as follows: E.J. Talamas: specimen examination, imaging, manuscript preparation; M. Buffington: manuscript preparation.

## Materials and methods

The locality data reported for primary types are not literal transcriptions of the labels: some abbreviations are expanded; additional data from the collectors are also included. The numbers prefixed with “USNMENT” or “B.M. TYPE HYM. ” are unique identifiers for the individual specimens (note the blank space after some acronyms). Details on the data associated with these specimens may be accessed at the following link, <http://purl.oclc.org/NET/hymenoptera/hol>, and entering the identifier in the form. The taxonomic synopses were generated by the Hymenoptera Online Database (<http://hol.osu.edu>).

Photographs were captured with a Z16 Leica® lens with a JVC KY-F75U digital camera using Cartograph® software, or from a Leica® DMRB compound microscope with a GT-Vision® Lw11057C-SCI digital camera attached. In both systems, lighting was achieved using techniques summarized in Buffington et al. (2005), Kerr et al. (2009) and Buffington and Gates (2009). Single montage images were produced from image stacks with the program CombineZP®. In some cases, multiple montage images were stitched together in Photoshop to produce larger images at high resolution and magnification. Scanning electron micrographs were produced with a Hitachi® TM3000 desktop scanning electron microscope, and gold/palladium coated specimens were imaged at ‘analysis’ voltage, running in ‘compo’ mode. Full resolution images are archived at the image database at The Ohio State University (<http://purl.oclc.org/NET/hymenoptera/specimage>) and MorphBank (<http://www.morphbank.net>).

## Collections

This work is based on specimens deposited in the following repositories with abbreviations used in the text:

**BMNH** Natural History Museum, London, England

**OSUC** C.A. Triplehorn Insect Collection, Columbus, USA

**USNM** Smithsonian National Museum of Natural History, Washington DC, USA

## Results

### *Trissolcus* Ashmead

[http://bioguid.osu.edu/osuc\\_concepts:606](http://bioguid.osu.edu/osuc_concepts:606)

### *Kozlotelenomus* Mineo, O'Connor & Ashe, syn. n.

[http://bioguid.osu.edu/osuc\\_concepts:259495](http://bioguid.osu.edu/osuc_concepts:259495)

*Kozlotelenomus* Mineo, O'Connor & Ashe, 2009: 193 (original description. Type: *Microphanurus mopsus* Nixon, by monotypy and original designation).

### *Trissolcus mopsus* (Nixon), comb. rev.

[http://bioguid.osu.edu/osuc\\_concepts:259496](http://bioguid.osu.edu/osuc_concepts:259496)

Figures 1–5

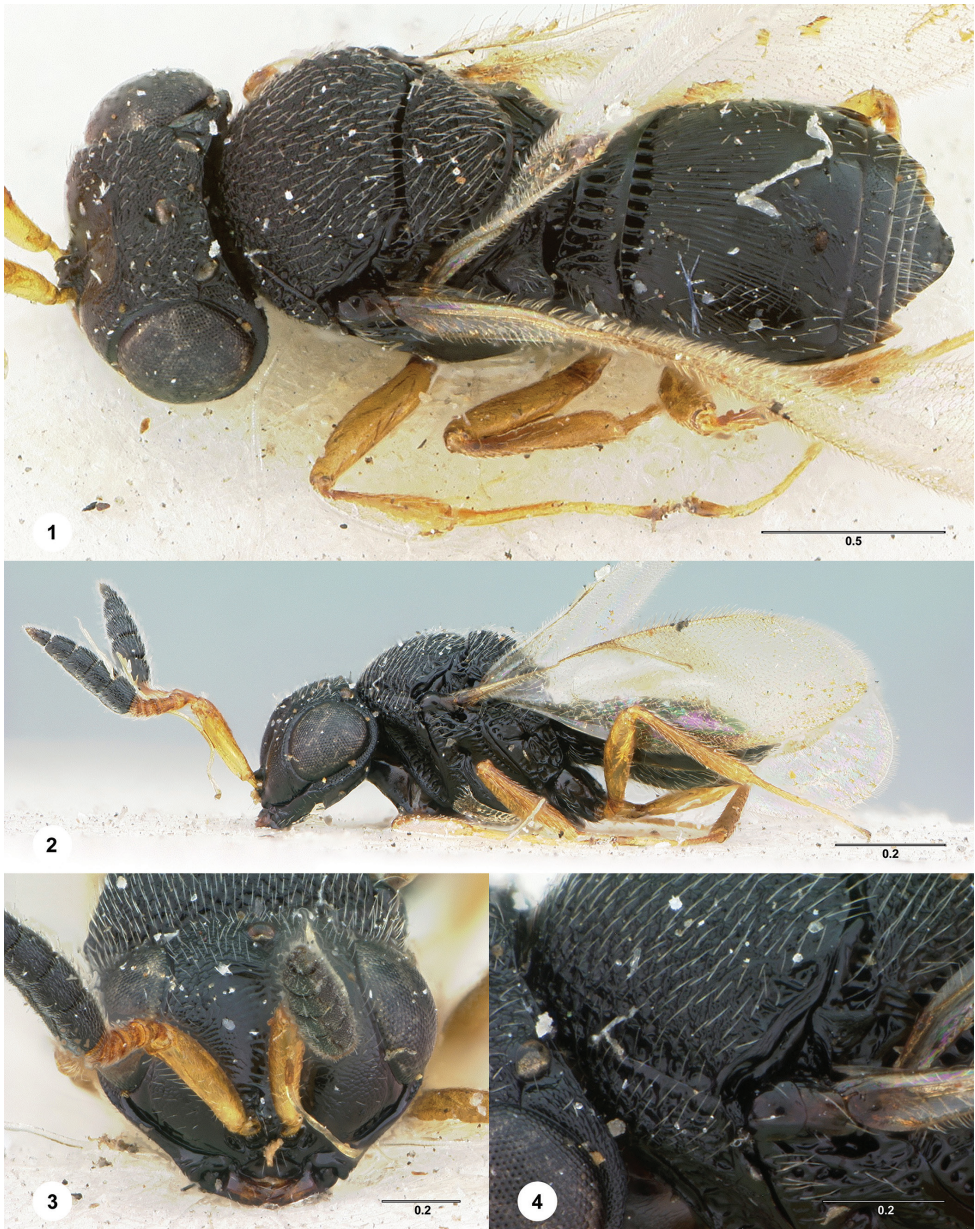
*Microphanurus mopsus* Nixon, 1935: 96, 97 (original description, keyed); Nixon 1943: 137, 139 (diagnosis, keyed); Risbec 1950: 569, 636 (description, keyed); Risbec 1955: 196 (variation).

*Trissolcus mopsus* (Nixon): Masner 1965: 127 (type information, generic transfer).

*Kozlotelenomus mopsus* (Nixon): Mineo, O'Connor and Ashe 2009: 193 (description, generic transfer, distribution, host association).

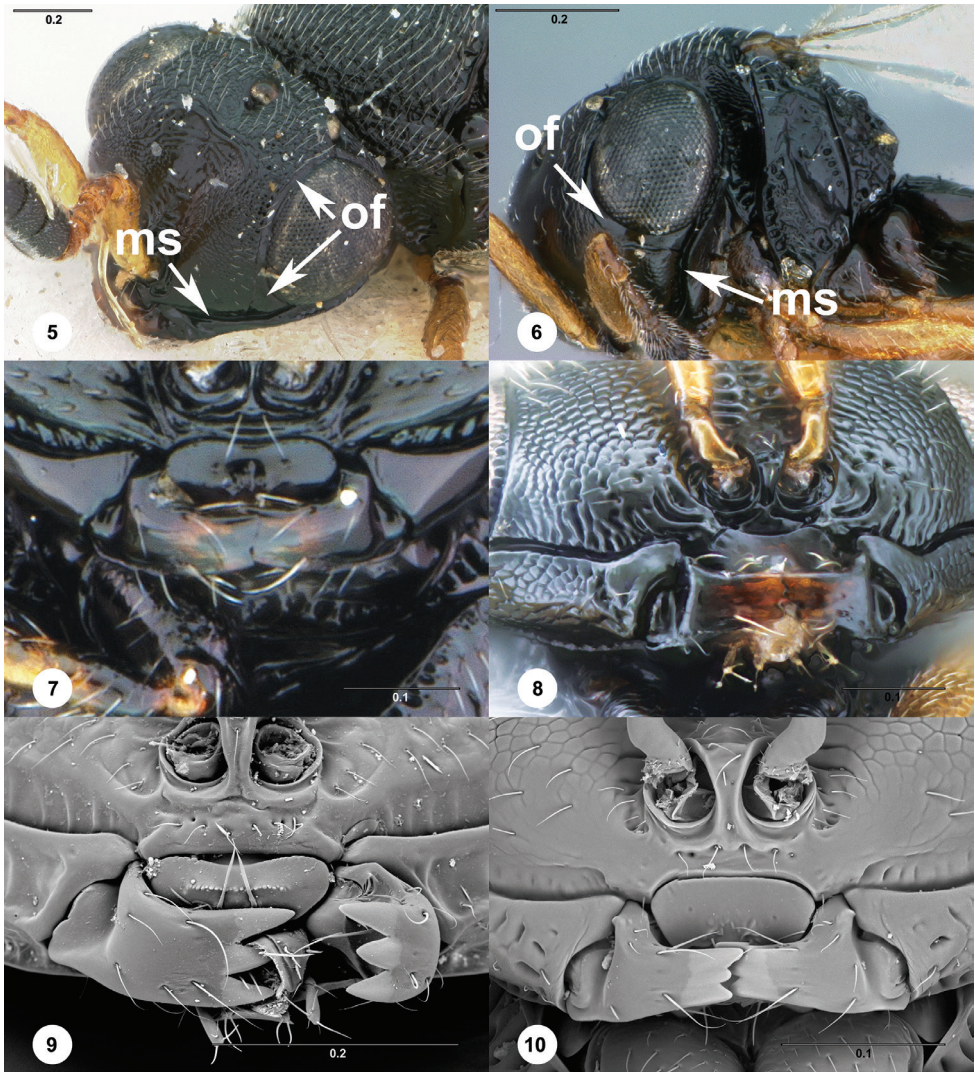
**Material examined.** Holotype, female, *M. mopsus*: **SOUTH AFRICA**: Eastern Cape Prov., Pondoland, Port Saint John's, 1.VII–9.VII.1923, R. E. Turner, B.M. TYPE HYM. 9.309 (deposited in BMNH)

**Results.** Mineo, O'Connor and Ashe (2009) created the genus *Kozlotelenomus* on the basis of three characters in *Trissolcus mopsus* (Nixon) that in their estimation were not found elsewhere in Telenominae: an orbital furrow expanded at its intersection with the malar sulcus (Fig. 5, tear-drop collector sensu Mineo et al 2009), a “drill-shape mandible”, and a 3-2 palpal formula. We contend that these characters do not warrant placement in a separate genus for the following reasons: The ventrally expanded orbital furrow is known to occur in *Trissolcus*, particularly in the *flavipes* species group, and is present in the type species of *Trissolcus*, *T. brochymenae* (Fig. 6). The “drill-shape mandible” illustrated in Mineo et al (2009) has multiple teeth. The shape of mandibular teeth varies between species of *Trissolcus* (Figs 7–10) and we do not consider this variation to indicate a separate lineage at the generic level. Lastly, the drawing of the maxillo-labial complex in Mineo et al (2009) illustrates a 2-1 palpal formula with incorrect designation of the base of the palpi as segments. Consequently, all of the characters used to separate *Kozlotelenomus* from *Trissolcus* are found in *Trissolcus*.



**Figures 1–4.** *Trissolcus mopsus*, female holotype (B.M. TYPE HYM. 9.309) **1** head, mesosoma, metasoma, dorsal view **2** lateral habitus **3** head, anterior view **4** mesosoma, dorsolateral view. Scale bars in millimeters.





**Figures 5–10.** **5** *Trissolcus mopsus*, female holotype (B.M. TYPE HYM. 9.309), head, dorsolateral view **6** *T. brochymenae*, female neotype (USNMENT00954611), head and mesosoma, lateral view **7** *T. strabus*, female (BMSB 1203), mouthparts, ventral view **8** *T. gonopsidis*, female (OSUC 542413), mouthparts, ventral view **9** *Trissolcus* sp. female (USNMENT00872666), mouthparts, ventral view **10** *T. japonicus* female (USNMENT00896000), mouthparts, ventral view. Scale bars in millimeters. Abbreviations: of, orbital furrow; ms, malar sulcus.

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## Endnotes

- 1 <http://www.morphbank.net/?id=850532>
- 2 <http://www.morphbank.net/?id=850535>
- 3 [urn:lsid:biosci.ohio-state.edu:osuc\\_pubs:342](urn:lsid:biosci.ohio-state.edu:osuc_pubs:342)
- 4 [urn:lsid:biosci.ohio-state.edu:osuc\\_pubs:22919](urn:lsid:biosci.ohio-state.edu:osuc_pubs:22919)
- 5 [urn:lsid:biosci.ohio-state.edu:osuc\\_pubs:544](urn:lsid:biosci.ohio-state.edu:osuc_pubs:544)
- 6 [urn:lsid:biosci.ohio-state.edu:osuc\\_pubs:582](urn:lsid:biosci.ohio-state.edu:osuc_pubs:582)
- 7 [urn:lsid:biosci.ohio-state.edu:osuc\\_pubs:412](urn:lsid:biosci.ohio-state.edu:osuc_pubs:412)
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