

NEW NAMES AND OTHER TAXONOMIC CHANGES IN THE ORIENTAL MEMBRACIDAE (HOMOPTERA: MEMBRACOIDEA)

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Abstract.—Nine new replacement names are proposed for species in the genera *Tricentrus*, *Oxyrhachis* and *Gargara*. *T. elongatus* Kato, *T. minullus* Jacobi, and *Centrotypus perakensis* Distant are reinstated as valid names. *T. mckameyei* Ahmad is emended as *T. mckameyi*, *T. strümpeli* Ahmad and Yasmeen as *T. struempeli*, and *Gargara dönitze* Matsumura as *G. doenitzi*. *Kotogargara alini yunnanensis* Yuan and Chou is revised as *Gargara (Kotogargara) parvula yunnanensis* (Yuan and Chou), new combination. Fifteen new or reinstated species combinations in *Tricentrus* and *Gargara* are established to follow previous generic changes.

During the preparation of an updated taxonomic catalogue of world Membracoidea (by SHM) and a checklist of the Auchenorrhyncha found in China and adjacent regions (by APL), it became evident that a number of nomenclatorial changes in the family Membracidae were necessary. In this paper, we offer new replacement names for 9 homonyms, reinstate 3 valid specific names, emend 3 incorrect original specific spellings, revise the status of 1 subspecies, and propose 15 new or reinstated species combinations.

REPLACEMENT NAMES

Tricentrus dubitatus Liang and McKamey, **New Name**

Tricentrus dubius Ananthasubramanian, 1980a:25, pl. 24, figs. 1–6 (preoccupied by *Tricentrus dubius* Kato, 1960:348, fig. 1a–i).

Ananthasubramanian (1980a) described *Tricentrus dubius* from two males and three females collected in West Bengal, India. Because the name *T. dubius* is preoccupied, the replacement name *dubitatus* is here proposed.

Tricentrus taiwanensis Liang and McKamey, **New Name**

Arisangargara nitida Kato, 1928:48, pl. 1, fig. 8 (preoccupied by *Tricentrus nitidus* Funkhouser, 1927a:2, figs. 1–3).

Kato (1928) described *Arisangargara nitida* from an unspecified number of female specimens from Taiwan. Funkhouser (1943) transferred *nitida* from *Arisangargara* to *Centrotoscelus*, which he treated as synonyms. When Ahmad and Yasmeen (1974) synonymized both *Arisangargara* and *Centrotoscelus* with *Tricentrus*, *Arisangargara nitida* Kato 1928 implicitly became a junior secondary homonym of *Tricentrus*

nitidus Funkhouser 1927. We accept the placement of *nitidus* Kato in *Tricentrus* and propose the replacement name *T. taiwanensis* for it.

Tricentrus kodaikanalensis Liang and McKamey, **New Name**

Tricentrus purpureus Ananthasubramanian and Ananthakrishnan, 1975:230, fig. 26-1-9 (preoccupied by *Tricentrus purpureus* Funkhouser, 1942:62, pl. 7, fig. 2).

Ananthasubramanian and Ananthakrishnan (1975) described *Tricentrus purpureus* from nine males, sixteen females, and eight nymphs collected in Kodaikanal, Madras, India. Because the name *T. purpureus* is preoccupied, the replacement name *kodaikanalensis*, derived from the type locality of Ananthasubramanian and Ananthakrishnan's species, is here proposed.

Tricentrus nigritus Liang and McKamey, **New Name**

Tricentrus nigra [sic] Ahmad and Yasmeen, 1979b:265, figs. 19-21 (preoccupied by *Arisangargara nigra* Kato, 1928:48).

Ahmad and Yasmeen (1979b) described *Tricentrus niger* (as *T. nigra*) from a single female collected at Rangamati of Bengal. Upon synonymizing both *Arisangargara* and *Centrotoscelus* with *Tricentrus* (Ahmad and Yasmeen, 1974:183), *Tricentrus niger* Ahmad and Yasmeen implicitly became a junior secondary homonym of *Arisangargara nigra* Kato 1928. We accept the placement of *T. niger* (Kato), new combination, and propose the replacement name *nigritus* for *T. niger* Ahmad and Yasmeen.

Tricentrus yasmeeni Liang and McKamey, **New Name**

Tricentrus matsumurai Yasmeen and Ahmad, 1976:108, figs. 24-26 (preoccupied by *Arisangargara matsumurai* Kato, 1928:50. Replacement name for *Centrotus* (*Gargara*) *variegatus* Matsumura, 1912:21 nec *Centrotus variegatus* Signoret in Fairmaire and Signoret, 1858:336).

Yasmeen and Ahmad (1976) described *Tricentrus matsumurai* from two females collected at Radjendra Gang of East Bengal. When Ahmad and Yasmeen (1974) synonymized *Arisangargara* and *Centrotoscelus* with *Tricentrus*, they implicitly transferred *A. matsumurai* Kato 1928 into the latter genus. We accept the placement of *T. matsumurai* (Kato), new combination, and propose the replacement name *T. yasmeeni* for *T. matsumurai* Yasmeen and Ahmad 1976.

Oxyrhachis ampliata Liang and McKamey, **New Name**

Oxyrhachis grandis Ananthasubramanian, 1980a:7, pl. 7 (preoccupied by *Oxyrhachis grandis* Capener, 1962:97, pl. 22, fig. 50).

The new replacement name is Latin for enlarged or widened, to resemble the meaning connoted by the former name.

Oxyrhachis bulla Liang and McKamey, **New Name**

Oxyrhachis tuberculata Ananthasubramanian, 1980b:113, figs. 1-3 (preoccupied by *Oxyrhachis tuberculata* Walker, 1858:109).

Ananthasubramanian's name is a primary homonym of Walker's, which was returned to the genus *Oxyrhachis*, from *Xiphistes*, by Capener (1962:33). The new name, similar in meaning to the former, is Latin for a knob, to describe the distinct tubercle on the pronotum.

Oxyrhachis monochroma Liang and McKamey, **New Name**

Oxyrhachis unicolor Ananthasubramanian, 1980a:8, pl. 8 (preoccupied by *Oxyrhachis unicolor* Walker, 1851:509).

Ananthasubramanian's name is a primary homonym of Walker's, which was, like the previous species, formerly in the genus *Xiphistes*, but returned to *Oxyrhachis* by Capener (1962:161) when he synonymized these genera. The new name for the junior homonym is Greek but was chosen to preserve the meaning of the Latin name it replaces.

Gargara aliquantula Liang and McKamey, **New Name**

Gargara minuscula Ananthasubramanian, 1978:291 [preoccupied by *G. minuscula* (Walker, 1870:191)].

Ananthasubramanian's name is a primary homonym of Walker's, which was formerly placed in the genus *Centrotus*, but transferred to *Gargara* by Distant (1915:492). The new name for the junior homonym is Latin for little, to resemble the meaning connoted by the former name.

OTHER TAXONOMIC CHANGES

Tricentrus elongatus Kato, **Reinstated Name**

Tricentrus elongatus Kato, 1929:540, pl. 16, fig. 3a, b.

Tricentrus gracilis Kato, 1930:287; unjustified emendation of *T. elongatus* Kato, 1929.

Although Kato's (1930) correction of his original spelling for the species was accepted by Metcalf and Wade (1965), the correction contravenes ICZN Art. 32b. Because the change was demonstrably intentional, the subsequent spelling is an emendation with its own availability (Art. 33b, International Commission on Zoological Nomenclature 1985 [ICZN]). Nevertheless, the original spelling cannot be taken as incorrect (Art. 32c) and the emendation is therefore unjustified. The emendation implicitly became a secondary junior homonym of *Arisangargara gracilis* Kato, 1928, when Ahmad and Yasmeen (1974) synonymized *Arisangargara* with *Tricentrus*, but the homonym is not replaced because it is rejected as a junior synonym (Art. 60a).

Tricentrus minullus Jacobi, **Reinstated Name**

Tricentrus minullus Jacobi, 1944:33 [new name for *Tricentrus minor* Lindberg in Lindberg and Zachwatkin, 1936:4, figs. 1c, 2c (preoccupied by *Otaris minor* Schmidt, 1911:243)].

Jacobi (1944) proposed *Tricentrus minullus* to replace *T. minor* Lindberg 1936,

which was a secondary junior homonym of *Otaris minor* Schmidt 1911. However, Metcalf and Wade (1965:401) reinstated *T. minor* Lindberg as a valid name and listed *T. minullus* Jacobi as an unnecessary replacement name for (and objective synonym of) *T. minor* Lindberg. Because the secondary junior homonym *T. minor* Lindberg is permanently invalid (ICZN, Art. 59b), *T. minullus* Jacobi is here reinstated as a valid name. *T. minor* Lindberg is now again a junior homonym, but is not replaced because it is rejected as a junior synonym.

Centrotypus perakensis Distant, **Reinstated Name**

Centrotypus perakensis Distant, 1916:318 [new name for *C. alatus* Buckton, 1903: 237, pl. 54, figs. 2, 2a (preoccupied by *Hemiptycha alata* Fairmaire, 1846:317, pl. 6, fig. 24)].

Distant (1916) proposed *Centrotypus perakensis* to replace *C. alatus* Buckton 1903, which was a secondary junior homonym of *Hemiptycha alata* Fairmaire 1846. This was accepted by Funkhouser (1927b:377, 1951:255). However, Goding (1930, 1950) treated *C. alatus* as a valid species and listed *C. perakensis* Distant first (1930: 40) as a synonym and later (1950:127) as a *nomen nudum* under *alatus* Buckton. Metcalf and Wade (1965:195) followed Goding (1950), reinstated *C. alatus* Buckton as a valid name and listed *C. perakensis* Distant as an unnecessary replacement name for (and objective synonym of) *C. alatus* Buckton. Because the secondary junior homonym *C. alatus* Buckton is permanently invalid (ICZN, Art. 59b), *C. perakensis* Distant is here reinstated as the valid name for the species.

Tricentrus mckameyi Ahmad, **Emendation**

Tricentrus mckameyi Ahmad, 1992:209 [new name for *Tricentrus planicornis* Yasmeen and Ahmad, 1976:112, figs. 37–39 (preoccupied by *Tricentrus planicornis* Jacobi, 1944:33)].

Yasmeen and Ahmad (1976) described *Tricentrus planicornis* from a single female collected at Rangamati of East Bengal. Because the name *T. planicornis* is preoccupied, Ahmad (1992) proposed the replacement name *mckameyi*, said to be derived from the name of the junior author of this paper. Because Ahmad's (1992) original spelling *mckameyi* must therefore be taken as incorrect [ICZN, Art. 32c(ii)], it is here emended as *mckameyi*.

Tricentrus struempeli Ahmad and Yasmeen, **Emendation**

Tricentrus struempeli Ahmad and Yasmeen, 1979a:547, figs. 66–72, 550, 555 [also spelled *strumpeli*].

Ahmad and Yasmeen (1979a) described *T. struempeli* from five males taken at Punjab, Pakistan. We apply the principle of first revisor to fix the original spelling as *struempeli*, which we emend to *struempeli* in accordance with IZCN Arts. 32c(iv, vi) and 32d(i) (2).

Gargara doenitzi Matsumura, **Emendation**

Centrotus (Gargara) dönitzae Matsumura, 1912:23.

Matsumura (1912) described *Centrotus (Gargara) dönitzae* from one male and one female from Honshu, Japan. The species was named after Herrn Dönitz. Since Matsumura's (1912) *dönitzae* can not be taken as a correct original spelling [ICZN, Art. 32c(ii, vi)], it is here emended as *doenitzi* [Art. 32d(i) (2)].

Gargara (Kotogargara) parvula yunnanensis (Yuan and Chou),
New Placement, New Combination

Kotogargara alini yunnanensis Yuan and Chou in Yuan *et al.*, 1992:210 (Chinese), 219 (English), fig. 19.

Yuan and Chou (see Yuan *et al.*, 1992) described *yunnanensis* as a new subspecies of *Kotogargara alini* (Funkhouser) from a single female collected at Lushui of Yunnan, southwestern China. *Kotogargara* Matsumura was reduced to a subgenus of *Gargara* Amyot and Serville and *K. alini* (Funkhouser) as a junior synonym of *Gargara (Kotogargara) parvula* Jacobi by Anufriev (1981:167). Here the subspecies *yunnanensis* Yuan and Chou is revised as a subspecies of *Gargara (Kotogargara) parvula*.

OTHER NEW OR REINSTATED COMBINATIONS

Ahmad and Yasmeen (1974) synonymized both *Arisangargara* and *Centrotoscelus* with *Tricentrus* and reinstated the synonymy of *Otaris* with *Tricentrus*. Anufriev (1981) reduced *Kotogargara* Matsumura to a subgenus of *Gargara* Amyot and Serville. However, the implied resultant combinations for many species in those junior synonymic genera have never been published. We accept the generic changes proposed by Ahmad and Yasmeen (1974) and Anufriev (1981). To improve nomenclatural and taxonomic stability, we here propose the following new or reinstated combinations inferred from those generic changes.

Tricentrus flavus (Kato), **New Combination**

Arisangargara flava Kato, 1928:50.

Tricentrus gracilis (Kato), **New Combination**

Arisangargara gracilis Kato, 1928:47, pl. 1, fig. 7.

Tricentrus handschini (Funkhouser), **New Combination**

Centrotoscelus handschini Funkhouser, 1936:196, fig. 6.

Tricentrus intermedius (Schmidt), **Reinstated Combination**

Otaris intermedius Schmidt, 1911:242.

Tricentrus luteus (Funkhouser), **New Combination**

Centrotoscelus luteus Funkhouser, 1918a:30.

Tricentrus maculipennis (Funkhouser), **New Combination**

Centrotoscelus maculipennis Funkhouser, 1933:579, fig. 1.

Tricentrus marginatus (Kato), **New Combination***Arisangargara marginata* Kato, 1928:49.*Tricentrus matsumurai* (Kato), **New Combination***Arisangargara matsumurai* Kato, 1928:50.*Tricentrus minor* (Schmidt), **Reinstated Combination***Otaris minor* Schmidt, 1911:243.*Tricentrus niger* (Kato), **New Combination***Arisangargara nigra* Kato, 1928:48.*Tricentrus nigrifrons* (Kato), **New Combination***Arisangargara nigrifrons* Kato, 1928:49.*Tricentrus porrectus* Funkhouser, **Reinstated Combination***Tricentrus porrectus* Funkhouser, 1929:118, pl. 1, fig. 10.*Otaris porrecta* (Funkhouser); Metcalf and Wade, 1965:423.*Tricentrus shinchikunus* (Kato), **New Combination***Gargara shinchikuna* Kato, 1928:44.*Tricentrus truncaticornis* Funkhouser, **Reinstated Combination***Tricentrus truncaticornis* Funkhouser, 1918b:8.*Otaris truncaticornis* (Funkhouser); Metcalf and Wade, 1965:423.*Gargara* (*Kotogargara*) *botelensis* (Matsumura), **New Combination***Kotogargara botelensis* Matsumura, 1938:153.

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