

Nomenclatural Changes in the Oriental Cercopidae (Homoptera)¹

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Recent study of the type material of the Oriental cercopid spittlebug species in several museums has revealed a number of taxonomic discrepancies which require attention and are accordingly dealt with here. In the present note three new generic synonymies, 38 new specific synonymies, and eight new and two resurrected species combinations are proposed and two previously recognized specific synonymies are confirmed.

The type repositories are abbreviated as follows: BMNH (Natural History Museum, London); HUS (Hokkaido University, Sapporo, Japan); IZPAN (Instytut Zoologii, Polska Akademia Nauk, Warszawa); MCSN (Museo Civico di Storia Naturale, Genova, Italy); MMB (Moravské Museum, Brno, Czechoslovakia); MNHN (Muséum National d'Histoire Naturelle, Paris); MNHU (Museum für Naturkunde der Humboldt-Universität, Berlin); NRS (Naturhistoriska Riksmuseum, Stockholm); USNM (National Museum of Natural History, Washington, DC); and ZMUC (Zoologisk Museum, University of Copenhagen, Denmark).

Complete references can be found in Metcalf's (1960) "A bibliography of the Cercopoidea (Homoptera: Auchenorrhyncha)," published by Waverly Press, Baltimore, MD, and in Lallemand and Synave's (1961) "Revision des Cercopinae (Hemiptera Homoptera). Deuxième partie" in Mém. Inst. R. Sci. Nat. Belg. (2)66.

Anoplomasthus jucundus (Jacobi)

Cosmoscarta jucunda Jacobi, 1905a: 15, pl. 1, fig. 2. SUMATRA. [type repository: MNHU]

Anoplomasthus jacobii Schmidt, 1909e: 274, fig. 1. NEW SYNONYMY. [type repository: IZPAN]

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Leptataspis lemoulti Lallemand & Synave, 1961: 127. NEW SYNONYMY. [type repository: BMNH]

***Aufidus monostigma* (Walker), NEW COMBINATION**

Ptyelus monostigma Walker, 1870b: 293. NEW GUINEA (MORTY IS.). [type repository: BMNH]

Remarks: Distant (1909j) transferred this species to *Eoscarta*. It is here moved to *Aufidus* based on its sulcate foretibia.

***Colsa costaestriga* Walker**

Colsa costaestriga Walker, 1857a: 96, pl. 4, figs. 1, 1a, 1b. MALAYA, BORNEO. [type repository: BMNH]

Sialoscarta orientalis Lallemand, 1939e: 108, 109. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta* Stål**

Cosmoscarta Stål, 1869a: 11. Type species: *Cercopis heros* Fabricius, 1803a, by subsequent designation.

Okiscarta Matsumura, 1940a: 65. Type species: *Cosmoscarta uchidae* Matsumura, 1906b, by original designation. NEW SYNONYMY.

Kanoscarta Matsumura, 1940a: 66. Type species: *K. kanoniella* Matsumura, 1940a, by original designation. NEW SYNONYMY.

Remarks: *Okiscarta*, *Kanoscarta*, and *Cosmoscarta* can be separated only on small differences in the shape of the scutellum; these minor differences do not warrant the recognition of 3 separate genera.

***Cosmoscarta decisa* (Walker)**

Cercopis decisa Walker, 1858b: 175. NE INDIA, BURMA, N. VIETNAM, SW CHINA. [type repository: BMNH]

Cosmoscarta trifasciata Schmidt, 1910: 78. NEW SYNONYMY. [type repository: MCSN]

Leptataspis trifasciata Lallemand, 1927: 110. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta dimidiata* (Dallas)**

Cercopis dimidiata Dallas, 1850a: 11. NE INDIA, SW CHINA, S. ASIA. [type repository: BMNH]

Cosmoscarta samudra Distant, 1908g: 141. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta pronotalis Distant, 1908g: 151. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta assamensis Distant, 1914i: 328. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta nympa Distant 1914i: 329. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta balteata Distant, 1914i: 329. NEW SYNONYMY. [type repository: BMNH]

Remarks: Widespread from NE India to southern Asia, this species is highly variable in color and size.

***Cosmoscarta dimidiata subapicalis* Walker**

Cercopis subapicalis Walker, 1870b: 287. [type repository: BMNH]

Cosmoscarta rubromaculata Metcalf & Horton, 1934a: 388, pl. 40, figs. 63, 68. NEW SYNONYMY. [type repository: USNM]

***Cosmoscarta fumosa* Distant**

Cosmoscarta fumosa Distant, 1914i: 329. NE INDIA. [type repository: BMNH]

Cosmoscarta fumosa var. *obscura* Lallemand, 1931b: 165. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta heros* (F.)**

Cercopis heros F., 1803a: 89. S. CHINA, INDOCHINA, NE INDIA. [type repository: ZMUC]

Cosmoscarta chrysomelaena Butler, 1874b: 255. S. CHINA. [Incorrectly listed as 'N. China' in the original description]. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta pellucida Butler, 1874b: 262. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta kanoniella* (Matsumura), NEW COMBINATION**

Kanoscarta kanoniella Matsumura, 1940a: 66, pl. 3, fig. 2. TAIWAN. [type repository: HUS]

***Cosmoscarta mandarina* Distant, RESURRECTED COMBINATION**

Cosmoscarta mandarina Distant, 1900a: 673, pl. ix, fig. 7. S. CHINA, NE INDIA. [type repository: BMNH]

Cosmoscarta margheritae Distant, 1908g: 134. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta lestachei Lallemand, 1922c: 176. NEW SYNONYMY. [type repository: BMNH]

Leptataspis mandarina (Distant); Lallemand & Synave, 1961: 122, 141.

Remarks: This species was correctly placed in *Cosmoscarta* by Distant (1900a) and is here returned to that genus.

***Cosmoscarta nagasana* Distant**

Cosmoscarta nagasana Distant, 1900a: 678. NE INDIA, SW CHINA, BURMA, INDOCHINA. [type repository: BMNH]

Cosmoscarta metallica Distant, 1900a: 679. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta contigua Lallemand, 1927b: 109. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta pallida* (Walker)**

Cercopis pallida Walker, 1851b: 657. NE INDIA, S. CHINA, S. ASIA. [type repository: BMNH]

Cercopis egens Walker, 1858b: 171. NEW SYNONYMY. [type repository: BMNH]

Cosmoscarta luangana Lallemand, 1927b: 108. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta pulchella* Butler**

Cosmoscarta pulchella Butler, 1874b: 254. LAOS. [type repository: BMNH]

Leptataspis bansaina Lallemand, 1927b: 110. NEW SYNONYMY. [type repository: BMNH]

***Cosmoscarta specialis* (Lallemand), NEW COMBINATION**

Leptataspis specialis Lallemand, 1927b: 110. NE INDIA. [type repository: BMNH]

***Cosmoscarta striata* (Lallemand), NEW COMBINATION**

Leptataspis striata Lallemand, 1922d: 242. INDIA. [type repository: BMNH]

***Cosmoscarta trigona* Walker**

Cercopis trigona Walker, 1851b: 660. NE INDIA, SW CHINA. [type repository: BMNH]

Cercopis pictilis Stål, 1854b: 249. NEW SYNONYMY. [type repository: NRS]

***Cosmoscarta uchidae* Matsumura, REINSTATED COMBINATION**

Cosmoscarta uchidae Matsumura, 1906b: 30, pl. i, fig. 4. TAIWAN. [type repository: HUS]

Cosmoscarta kotoensis Kato, 1928e: 226. NEW SYNONYMY. [type repository: unknown]

Okiscarta uchidae (Matsumura); Matsumura, 1940a: 66.

Remarks: As the types of *kotoensis* (an unspecified number of specimens from Taiwan) were not available for study, the above synonymy is proposed on the basis of the original description.

***Eoscarta* Breddin**

Eoscarta Breddin, 1902d: 58. Type species: *E. eos* Breddin, 1902d, by subsequent designation of Distant, 1908g: 115.

Neocercopis Lallemant, 1932b: 172. Type species: *N. kenokokana* Lallemant, 1932b, by original designation. NEW SYNONYMY.

Remarks: *Neocercopis* is represented by the single species, *N. kenokokana* Lallemant. *N. kenokokana* agrees well with *Eoscarta*, particularly in hindwing venation, i.e., Rs and M reduced and jointly united with R near midlength, with only two closed apical cells, a unique synapomorphy of *Eoscarta* (Liang and Webb, 2001, J. Nat. Hist., 35).

***Eoscarta borealis* (Distant)**

Cosmoscarta borealis Distant, 1878c: 321. INDIA, S. CHINA, S. ASIA. [type repository: BMNH]

Eoscarta (*Euthiaeoscarta*) *perakana* Lallemant, 1949a: 46, 47. NEW SYNONYMY. [type repository: BMNH]

***Eoscarta kenokokana* (Lallemant), NEW COMBINATION**

Neocercopis kenokokana Lallemant, 1932b: 172. BORNEO. [type repository: BMNH]

***Gynopygoplax sumatrensis* (Butler), NEW COMBINATION**

Cosmoscarta sumatrensis Butler, 1877b: 312. SUMATRA. [type repository: BMNH]

***Leptataspis fulviceps* (Dallas)**

Cercopis fulviceps Dallas, 1850a: 10. NE INDIA, BURMA, S. CHINA, INDOCHINA. [type repository: BMNH]

Cosmoscarta megamera Butler, 1874b: 246, pl. viii, fig. 3. SYNONYMY CONFIRMED. [type repository: BMNH]

Cosmoscarta leonina Distant, 1908g: 153. NEW SYNONYMY. [type repository: BMNH]

Remarks: The synonyms of *fulviceps* with *megamera* and *fuscipennis* with *lurida* (see below) were proposed by Distant (1900a: 681, 682). However, Lallemant & Synave (1961: 113, 114) treated *megamera* and *lurida* as good species. My examination of the type specimens supports Distant's (1900a) proposals.

***Leptataspis fuscipennis* (LePeletier & Serville)**

Cercopis fuscipennis LePeletier & Serville, 1825a: 605. JAVA, MALAYA. [type repository: MNHN]

Cosmoscarta lurida Atkinson, 1889a: 335. SYNONYMY CONFIRMED. [type repository: BMNH]

***Leptataspis lydia* Stål**

Cercopis lydia Stål, 1865b: 149. S. INDIA. [type repository: NRS]

Leptataspis pirollei Lallemand, 1912a: 151, pl. 7, figs. 4, 4a. NEW SYNONYMY. [type repository: BMNH]

Remarks: This species is endemic to India; previous records from China and Burma are based on misidentifications.

***Leptataspis ophir* (Distant)**

Cosmoscarta ophir Distant, 1900a: 675, pl. ix, fig. 8. MALAYA, SUMATRA. [type repository: BMNH]

Leptataspis perakensis Lallemand, 1923b: 270. NEW SYNONYMY. [type repository: BMNH]

***Phymatostetha costalis* (Walker)**

Cercopis costalis Walker, 1851b: 664. NE INDIA, SW CHINA, BORNEO, SUMATRA, THAILAND, MALAYA. [type repository: BMNH]

Cercopis hiliaris Walker, 1851b: 665. NEW SYNONYMY. [type repository: BMNH]

Phymatostetha inops Jacobi, 1905a: 20, pl. 1, fig. 15. NEW SYNONYMY. [type repository: MNHU]

Phymatostetha borealis Schmidt, 1910e: 99. NEW SYNONYMY. [type repository: MMB]

Phymatostetha limbata Lallemand, 1922b: 67. [Synonymized with *P. hiliaris* (Walker) by Lallemand & Synave, 1961: 11.] NEW SYNONYMY. [type repository: BMNH]

Phymatostetha selangorina var. *rubescens* Lallemand, 1932b: 173. NEW SYNONYMY. [type repository: BMNH]

Phymatostetha costalis borneensis f. *minor* Lallemand & Synave, 1961: 11. NEW SYNONYMY. [type repository: BMNH]

Remarks: Widely distributed in the Indo-Malayan subregion, this species is highly variable in coloration and size. Because the male genitalia of the synonymized species do not show consistent differences. I cannot recognize any of them as separate species.

***Phymatostetha fruhstorferi* Schmidt**

Phymatostetha fruhstorferi Schmidt, 1910: 98. JAVA. [type repository: IZPAN]

Phymatostetha [sic] *albitarsis* Melichar, 1915: 16. NEW SYNONYMY. [type repository: MMB]

***Phymatostetha lais* Jacobi**

Phymatostetha lais Jacobi, 1905a: 21. BORNEO. [type repository: MNHU]

Phymatostetha lais fasciata Lallemand & Synave, 1961: 16. NEW SYNONYMY. [type repository: BMNH]

Phymatostetha lineata Lallemand, 1939e: 110. NEW SYNONYMY. [type repository: BMNH]

***Phymatostetha rengma* Distant**

Phymatostetha rengma Distant, 1900a: 685, pl. 9, fig. 11, INDIA, SW CHINA, INDOCHINA, MALAYA. [type repository: BMNH]

Phymatostetha bukitana Lallemand, 1932d: 178. NEW SYNONYMY. [type repository: BMNH]

***Phymatostetha signifera* (Walker)**

Cercopis signifera Walker, 1851b: 655. INDIA, SW CHINA, INDOCHINA. [type repository: BMNH]

Phymatostetha chapana Distant, 1914i: 326. NEW SYNONYMY. [type repository: BMNH]

***Platynoscarta humilis* (Lallemand), NEW COMBINATION**

Homalostethus humilis Lallemand, 1930b: 103. MALAYA, THAILAND. [type repository: BMNH]

***Trichoscarta ignifera* (Distant), NEW COMBINATION**

Cosmoscarta ignifera Distant, 1900a: 677. BORNEO. [type repository: BMNH]

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