

Newly Recognized Synonyms, Combinations and Status Change in the Tribe Clivinematini (Heteroptera: Miridae: Deraeocorinae)

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Novas Sinonímias, Combinações e Mudança de Estatus na Tribo Clivinematini (Heteroptera: Miridae: Deraeocorinae)

RESUMO - *Hemicerocoris grandis* Carvalho & Gomes, 1970, é transferida para o gênero *Foreschnerana* Schaffner & Ferreira, 1989 e considerada sinônimo senior de *F. mexicana* Schaffner & Ferreira, 1989. O gênero *Zoilus* Distant, 1883 é considerado sinônimo junior de *Hemicerocoris* Lethierry, 1881 e o gênero *Carassacoris* Carvalho, 1985 um sinônimo junior de *Guanabarea* Carvalho, 1948. O gênero *Megamirioides* Carvalho, 1985 é transferido para a tribo Deraeocorini. As espécies *Admetus brachycerus* Carvalho & Gomes, 1971 e *A. sulinus* Carvalho & Gomes, 1969 são transferidas para *Largidea* Van Duzee, 1912, e *Bothynotus* Fieber, 1964, respectivamente. *Megamiris californicus* Carvalho, 1985 e *M. saileri* Carvalho, 1953 são sinonimizadas. *Ambracius rubricosus* (Distant 1884) é revalidada.

PALAVRAS-CHAVE: Insecta, Hemiptera, Heteroptera, correções taxonômicas.

ABSTRACT - The species *Hemicerocoris grandis* Carvalho and Gomes, 1970 is transferred to genus *Foreschnerana* Schaffner & Ferreira, 1989 and considered senior synonym of *F. mexicana* Schaffner & Ferreira, 1989. The genus *Zoilus* Distant, 1883 is considered junior synonym of *Hemicerocoris* Lethierry, 1881. The genus *Carassacoris* Carvalho, 1985 was determined to be junior synonym of *Guanabarea* Carvalho, 1948. The genus *Megamirioides* Carvalho, 1985 is transferred to the tribe Deraeocorini. The species *Admetus brachycerus* Carvalho & Gomes, 1971 is transferred to the genus *Largidea* Van Duzee, 1912 and *A. sulinus* Carvalho & Gomes, 1969 to the genus *Bothynotus* Fieber, 1864, *Megamiris californicus* Carvalho, 1985 is here considered to be a junior synonym of *Megamiris saileri* Carvalho, 1953. The species *Ambracius rubricosus* (Distant 1884) is considered a valid species.

KEY WORDS: Insecta, Hemiptera, Heteroptera, taxonomic notes.

Although keys to genera and some keys to the species level existed, attempts to assign specimens to species and often to genus have frequently resulted in confusion. This

confusion is largely the result of inadequate descriptions of taxa, especially those made prior to 1950, and a significant number of undescribed taxa. In addition, no consensus

has existed on the limits of the taxa and nothing was known about phylogenetic relationships within the group. This study represents an attempt to address some of these problems within Clivinematini.

After a review of the variations occurring within species and within genera, this paper proposes several new synonyms, new combinations, a new status and the transference of a genus to another tribe.

Material and Methods

The material used in this study was from several museums and collections located primarily in this hemisphere, as follow:

MNRJ = Museu Nacional do Rio de Janeiro, Brasil. Curator: Dr. M. Monne.

TAMU = Texas A&M University. Department of Entomology, College Station, Texas. Curator: Dr. H.R. Burke.

UNAM = Universidad Nacional Autonoma de Mexico. Instituto de Biologia, Mexico, D.F. Curator: Dr. H. Brailovsky.

NMNH = National Museum of Natural History. Smithsonian Institution, Washington, D.C. Curator: Dr. T.J. Henry.

Results and Discussion

Carvalho (1985) described *Megamirioides* with *M. longipilosus* as the type of the genus. The genus *Megamirioides* lacked the transverse sulcus and genitalic characters of the tribe and is transferred to the tribe Deraeocorini.

Froeschnerana Schaffner & Ferreira, 1989.

Froeschnerana Schaffner & Ferreira, 1989: 100 (n.gen.).

Type species: *Hemicerocoris grandis* Carvalho & Gomes, 1970 = *Froeschnerana mexicana* Schaffner & Ferreira, 1989.

Froeschnerana grandis (Carvalho & Gomes, 1970) (New combination).

Hemicerocoris grandis Carvalho and Gomes, 1970:411-418(n. sp.). *Froeschnerana mexicana* Schaffner and Ferreira, 1989:100-104 (n.sp.). (New synonymy).

H. grandis is considered a senior synonym with *F. mexicana*. As a result, the type species of *Froeschnerana* Schaffner & Ferreira, 1989, which is maintained as a good genus, is now *F. grandis*. The unique species in the genus, was described by Carvalho & Gomes (1970) in the genus *Hemicerocoris* Lethierry, 1881. Characters influencing this placement were the long second antennal segment relative to the length of the first and the rugosely puctured body. However, these characters vary within genera. The pronotum of *Froeschnerana* is convex and weakly punctate whereas it is somewhat flattened and distinctly punctate in the case of *Hemicerocoris*. The scutellum is convex, the embolio-corial suture is not punctate, the cuneus is twice as long as wide and the membrane of the hemelytron has scattered hairs in the case of *Froeschnerana*. *Hemicerocoris* has the scutellum flattened, the embolio-corial suture is punctate, the cuneus is about as wide as long and the membrane lacks scattered setae.

Material Examined: Holotype female: "Guadalajara, Mc Connell, Holotipo, *Hemicerocoris grandis* n. sp., 1970 JCM Carvalho det." Deposited at NMNH; Holotype male of *F. mexicana*: "Mexico, Puebla, 4 mi W. Acatepec, 26 July 1973, Mastro & Schaffner". Deposited at NMNH; Mexico: *Aguascalientes*: male, 8 mi E Calvillo, 11 July 1983, Kovarik, Harrison, Schaffner (TAMU); female, 6 mi E Calvillo, 11 July 1983, Kovarik, Harrison, Schaffner (TAMU); *Chiapas*: female, 8.7 mi from gate in Parq. Nac. Sumidero, July 27, 1988, Robert W. Jones (TAMU); *Guerrero*: female, 4 mi W of Chilpancingo, 15 July 1984, Carroll, Schaffner, Friedlander (TAMU); *Jalisco*: 3 males, female, 16 km N Autlan, 12-14 July 1983, Kovarik, Harrison, Schaffner (TAMU); *Oaxaca*: female, 4.2 mi N Tonaltepec, 21 July 1987, Kovarik, Schaffner (TAMU); *Puebla*: male, female, Mexico, 4.4 mi SW Acatepec, 9 July 1977, J.C. Schaffner (TAMU); 2 females, same locality, 26 July 1974, Clark, Murray, Ashe, Schaffner (TAMU); male, same locality, 9 July 1981, Bogar, Schaffner, Friedlander (TAMU); female, same locality, 21 July 1984, Carroll, Schaffner, Friedlander

(TAMU); male, female, 6.3 mi N Tehuacan, elev. 5900 ft, 22 July 1987, Kovarik, Schaffner (TAMU); *Zacatecas*: 2 females, 24.7 mi s Juchipila, August 6, 1988, Ferreira, Schaffner (TAMU).

The genus *Zoilus* Distant, has been separated from other genera of the tribe almost solely on the basis of a median carina on the pronotum extending from the anterior margin beyond the calli. This character is highly variable and may be almost completely reduced. The other characters are identical with those of *Hemicerocoris* and *Zoilus* is herein considered a junior synonym of *Hemicerocoris*.

Hemicerocoris Lethierry, 1881.

Hemicerocoris Lethierry, 1881:11 (n.gen.).

Type species: *Hemicerocoris nigratarsis* Lethierry.

Zoilus Distant, 1884: 297 [replacement name for *Zopyrus* Distant, 1883 (preoccupied)]; Reuter, 1910:166 (cat.); Carvalho, 1952b:51 (cat.); Carvalho, 1955:23 (key); Carvalho, 1957:43 (cat.) (New synonym).

Hemicerocoris ater (Distant) (New combination).

Zoilus ater Distant, 1893:423 (n. sp.); Carvalho, 1957:43 (cat.); Carvalho, 1981:8 (note). (Mexico).

Hemicerocoris fuliginus (Distant) [New combination].

Zoilus fuliginus Distant, 1893:423 (n. sp.); Carvalho, 1957:43 (cat.); Carvalho, 1981:8 (note). (Mexico).

Hemicerocoris guerreroensis (Distant) [New combination].

Zoilus guerreroensis Distant, 1893:422 (n. sp.); Carvalho, 1957:43 (cat.); Carvalho, 1981:8 (note). (Mexico).

Hemicerocoris marginatus (Distant) [New combination].

Zoilus marginatus Distant, 1893:422 (n. sp.); Carvalho, 1952a:10 (note, list); Carvalho, 1957:44 (cat.). (Panama).

Hemicerocoris rubromaculatus (Distant) [New combination].

Zopyrus rubromaculatus Distant, 1883:250 (n. sp.); Atkinson, 1890:52 (cat.); Kirkaldy, 1906a:146 (note).

Zoilus rubromaculatus, Distant, 1893:422 (list); Carvalho, 1952b:51 (list); Carvalho, 1957:45 (cat.); Carvalho, 1981:8 (note). (Guatemala, Mexico).

Material Examined : Mexico: *Oaxaca*: female, Llano de las Flores, VII-17 & 19-1987, 8900 ft, R. Wharton (TAMU).

Guanabarea Carvalho, 1948.

Guanabarea Carvalho, 1948:532 (n.gen).

Type species: *Ambracius phaleratus* Stal, 1860.

Carassacoris Carvalho, 1985:323 (1984), (monobasic), type species: *Carassacoris caracensis* Carvalho, 1985:323 (1984). [New synonym].

Carvalho (1985) described the genus *Carassacoris* from Brazil. The type species of the genus was *C. caracensis* Carvalho. The genus *Carassacoris* Carvalho, 1985, has been separated from other genera of the tribe based almost entirely on the shape and size of eyes. These characters are not significantly different when compared with the species of *Guanabarea*. The other characters are identical with those of that genus.

Guanabarea caracensis (Carvalho) [New combination].

Carassacoris caracensis Carvalho, 1985:323 (1984) (n. sp.). (Brazil).

Material Examined: Holotype female (?): "Brasil, Minas, Serra do Caraça, F. M. Oliveira, III-71, N° 376". Deposited in the Museu Nacional do Rio de Janeiro, Brazil.

Ambracius rubricosus (Distant). [Status change]

Fundanius rubricosus Distant, 1884:291 (n. sp.) (syn. by Carvalho 1952a:14); Atkinson, 1890:45 (cat.). (Mexico, Dominican Republic).

The species *Fundanius rubricosus*, synonymy by Carvalho (1952a) with *Ambracius dufouri* is here considered a valid species based on morphological and genitalic characteristics.

Material Examined: Mexico: *Chiapas*: female, 3-5 km n. Ocozocoautla, July 25, 1988, Robert W. Jones (TAMU); female, 21

km N. Ocozacoatlán, 2 Aug. 1982, Clark & Cave (TAMU); male, female, 5 mi. north Nuevo Tenochtitlan, 3000', August 7, 1990, J. C. Schaffner (TAMU); *Oaxaca*: female, 4 mi. n. C. Loxicha, July 15, 1973, Mastro & Schaffner (TAMU); 2 females, 5 miles south Candelaria Loxicha, July 18-19, 1974, Clark, Murray, Ashe, Schaffner (TAMU); female, 4.4 mi. S. San Gabriel, Mixtepec, (Hwy. 131), elev. 2500 ft., July 10-11, 1987, Kovarik, Schaffner (TAMU); *Tamaulipas*: female, 4 mi. w. Cd. Victoria (Canon del Novillo), November 14, 1985, P. Kovarik, R. Jones and K. Haack (TAMU); male, 82 km east Ciudad Victoria, Hwy. 70, July 3, 1986, Jones, Kovarik, Schaffner (TAMU); *Veracruz*: male, Catemaco, 6 Sept, 1974, G. Bohart, W. Hanson (TAMU); female, 20 mi. S. Misantla, 22 Sept., 1976, W. E. Clark, host plant 76-6 (TAMU); female, Tecolapa, 9-IX-77, E. Barrera (UNAM); 2 females, Est. Biología Los Tuxtlas, 4-III-85, A. Ibarra (UNAM); female, 8 km S. Sontecomapan, 7 Sep. 1982, Clark & Cave (TAMU); female, 2 mi. ne. Catemaco, July 23, 1966, Jack Meyer (TAMU); female, 1 mi. S. Misantla, 27 Sept., 1976, E. W. Clark (TAMU); Dominican Republic: *Distrito Nacional*: female, St. Domingo 20-9 WI, Aug., Busck (USNM). *Samana*: female (compared with type by Carvalho), La Majagua, August 16, 1967, J. C. Schaffner (TAMU);

Bothynotus sulinus (Carvalho & Gomes) [New combination].

Admetus sulinus Carvalho & Gomes, 1969:225-230 (n. sp.). (Brazil).

The hemelytral membrane is clearly and uniformly adorned with hairs 1/2 or more as long as cuneal setae. It is also the only genus in the tribe having hairs on the hind wing which are as long as those on hemelytral membrane. This has not been reported for any other genus in the family Miridae. Other characters are as those of *Bothynotus* Fieber, 1864.

Material Examined: Holotype male: "Catamayo, II-65, L. F. Pe-a col." Deposited at NMNH.

Largidea brachycera (Carvalho & Gomes) [New combination].

Admetus brachycerus Carvalho & Gomes, 1971:493 (n. sp.). (Mexico). *A. brachycerus* is transferred to *Largidea* based on morphological characters identical with those of *Largidea*.

Material Examined: Holotype female: "Real de Arriba, Temascaltepec, Mex., VI-II-33, H. E. Hinton, R. L. Usinger collectors, ASB de. 2.4.71. *Admetus brachycerus* det. 1956, JCM Carvalho". Deposited at NMNH.

Megamiris saileri Carvalho, 1953.

Megamiris saileri Carvalho, 1953:267 (n. sp.); Carvalho, 1957:42 (cat.); Carvalho & Afonso, 1977:7 (list). (Mexico).

Megamiris californicus Carvalho, 1985:314 (1984) (n. sp.) [New synonym].

The holotype of *M. californicus* was compared with the holotype of *M. saileri* and no significant differences were noted.

Material Examined: Holotype female: "Nogales, Sonora, Mexico, # 72105 Car., III-5-52-2903, type no. 61963". Deposited at NMNH; Holotype male of *M. californicus*: "Santiago, L. Cal., VII-9-38, Michelbacher & Ross Collectors". Deposited at NMNH; Mexico: *Baja California*: male (compared with type), La Burrera Sierra de la Victoria, X-18-1968, E.L. Sleeper & F.J. Moure (TAMU); *Distrito Federal*: male, Ajusco, 2,500 mt., 28-V--81, C. Beutelspacher (UNAM); *Jalisco*: male, near San Miguel de la Sierra, elev. 5,200 ft, on pine log, IV-I-65, W. R. Anderson (TAMU); *Morelos*: female, Xochimanca, 14-III-81, L. Mariño (UNAM); male, same locality, 8-I-81 (UNAM); male, same locality, V-II-81 (UNAM); *Puebla*: female, 5.1 mi. sw. Tehuacan, July 27, 1974, Clark, Murray, Ashe, Schaffner (TAMU); male, Guamuchil, 5 mi. w., V-20-1962, F.D. Parker, L.A. Stange (TAMU); male, Chietla, 22. VII. 62, H.E. Milliron (UNAM).

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