

Achagua Campos, 2001, a new synonym of *Eudaniela* Pretzmann, 1971, and the description of *Rodriguezus* gen. nov. (Decapoda: Brachyura: Pseudothelphusidae)

Campos¹, M. R. and Magalhães^{2,3}, C.

¹ Universidad Nacional de Colombia, Instituto de Ciencias Naturales, Apartado Aéreo 103698, Bogotá, Colombia.

² Instituto Nacional de Pesquisas da Amazônia (INPA), Caixa Postal 478, 69.011-970 Manaus, Brazil, e-mail: celiomag@inpa.gov.br

³ Research Fellow of the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

Key words: *Achagua*, *Eudaniela*, Pseudothelphusidae, new genus, Venezuela

The genus *Eudaniela*, of the Neotropical freshwater crab family Pseudothelphusidae, was introduced by Pretzmann (1971), with five subgenera; he designed *Guinotia* (*Guinotia*) *pestai* Pretzmann, 1965 as the type species. Later, Pretzmann (1972) included five taxa in the nominal subgenus: *Eudaniela* (*Eudaniela*) *garmani garmani* (Rathbun, 1898), *E. (E.) garmani trujillensis* (Rodríguez, 1967), *E. (E.) iturbei iturbei* (Rathbun, 1919), *E. (E.) iturbei ranchograndensis* (Rodríguez, 1966), and *E. (E.) pestai* (Pretzmann, 1965). These species are distributed along the Andean and Venezuelan coastal Cordillera, Trinidad, Tobago and Isla Margarita.

In Rodríguez' (1982) system, the subgenera of *Eudaniela* are either synonymized or raised to generic status, and the nominal genus comprises all the above-mentioned taxa, but all at a specific level. Sternberg *et al.* (1999) performed a cladistic analysis of the *Eudaniela* species complex and considered it to be a paraphyletic taxon. According to their analysis, *E. pestai* was positioned as the most basal group among the kingsleyinine taxa studied and did not group with the other four species, which form a monophyletic group based on gonopodal characters. Their results corroborated Rodríguez and Pereira's (1992) and Rodríguez and Campos' (1998) conclusion that *E. pestai* approaches the ancestral pseudothelphusid condition. Notwithstanding the differences, Sternberg *et al.* (1999) proposed no taxonomic changes to accommodate these two groups.

Recently, Campos (2001) introduced the genus *Achagua* to include *A. casanarensis*, a new species from the upper Colombian Orinoco basin with a gonopod morphology also showing primitive features. Due to the similarities of the third maxilliped, the orifice of branchial efferent channel and the first male gonopod, Campos (2001) moved *Eudaniela pestai* to the newly-erected genus *Achagua*, thus grouping the species that seem to constitute the basal group for the tribe Kingsleyini. However, *E. pestai* being the type species of the genus *Eudaniela*, its transference to *Achagua* implies that *Eudaniela* Pretzmann, 1971 and *Achagua* Campos, 2001 become synonymous, with the former taking priority over the latter.

We hereby propose that *Achagua* be considered a junior synonym of *Eudaniela*. We also describe a new genus to accommodate the four species whose gonopod morphology, according to Rodríguez and Pereira (1992), Rodríguez and Campos (1998), Sternberg *et al.* (1999), and Campos (2001), departs from the primitive traits in *E. pestai* / *E. casanarensis* gonopods. We suggest the following taxonomic rearrangement for this complex of species:

Family Pseudothelphusidae Rathbun, 1893

Tribe Kingsleyini Bott, 1970

Genus *Eudaniela* Pretzmann, 1971

Eudaniela Pretzmann, 1971: 16; Pretzmann, 1972: 11; Rodríguez, 1980: 329; Rodríguez, 1982: 149.

Achagua Campos, 2001: 938.

Diagnosis.- Exopod of third maxilliped approximately 0.5 times the length of endopodal ischium. Orifice of branchial efferent channel partially closed by spine of jugal angle, and by production of lateral lobe of epistome. First male pleopod with subapical mesial process spine-like, short; latero-apical and cephalo-apical cavities absent; mesial plate flattened, quadrate or slightly rounded, vertically straight; mesial plate with an exposed base.

Type species.- *Guinotia* (*Guinotia*) *pestai* Pretzmann, 1965

Species included.- *E. pestai* (Pretzmann, 1965) and *E. casanarensis* (Campos, 2001).

Distribution.- Eastern Andean Cordillera in north-central Colombia and western Venezuela.

Genus *Rodriguezus* gen. nov.

Diagnosis.- Exopod of third maxilliped approximately 0.2 times the length of endopodal ischium. Orifice of branchial efferent channel open. First male pleopod with subapical mesial process long, subtriangular; latero-apical cavity present, cephalo-cavity rather inconspicuous or deep; mesial plate conical or pyramidal, rounded, vertically with an inclined lateral margin; base of mesial plate located in the cephalo-apical cavity.

Type species.- *Pseudothelphusa garmani* Rathbun, 1898

Species included.- *Rodriguezus garmani* (Rathbun, 1898), *R. trujillensis* (Rodríguez, 1967), *R. iturbei* (Rathbun, 1919), and *R. ranchograndensis* (Rodríguez, 1966).

Distribution.- Venezuelan coastal Cordillera, Trinidad, Tobago and Isla Margarita.

Gender: Masculine.

Etymology.- The genus is dedicated to the memory of the late Dr. Gilberto Rodríguez, distinguished Venezuelan carcinologist, for his outstanding contribution to the systematics of freshwater crabs.

Acknowledgment

We thank G. Nakamura for reviewing the English text and two anonymous reviewers for their valuable comments.

References

- Bott, R. 1970. Betrachtungen über die Entwicklungsgeschichte und Verbreitung der Süßwasser-Krabben nach der Sammlung des Naturhistorischen Museums in Genf/Schweiz. *Revue Suisse de Zoologie*, 77(2) 24: 327-244.
- Campos, M. R. 2001. A new genus and species of freshwater crab from Colombia (Crustacea: Decapoda: Pseudothelphusidae). *Proceedings of the Biological Society of Washington*, 114 (4): 938-943.
- Pretzmann, G. 1965. Vorläufiger Bericht über die Familie Pseudothelphusidae. *Anzeiger der Österreichische Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse*, 102: 1-11.
- Pretzmann, G. 1971. Fortschritte in der Klassifizierung der Pseudothelphusidae. *Sitzungsberichten der Österreichische Akademie der Wissenschaften, Mathematisch-*

- Naturwissenschaftliche Klasse, (1) 179 (1-4): 15-24.
- Pretzmann, G. 1972. Die Pseudothelphusidae (Crustacea Brachyura). Zoologica, 42(120) pt. 1: 1-182.
- Rathbun, M.-J. 1893. Descriptions of new species of American freshwater crabs. Proceedings of the United States national Museum, 16(959): 649-661, pls. 73-77.
- Rathbun, M.-J. 1898. A contribution to the knowledge of the fresh-water crabs of Americas. - The Pseudothelphusinae. Proceedings of the United States national Museum, 21(1158): 507-537, fig. 1-18.
- Rathbun, M.-J. 1919. Three new south american River-Crabs. Proceedings of the Biological Society of Washington, 32: 5-6.
- Rodríguez, G. 1966. The freshwater crabs of the genus *Pseudothelphusa* from Northern Venezuela and Trinidad (Brachyura, Potamonidae). Zoologische Mededelingen, 41(6): 111-135, pls. 1-7.
- Rodríguez, G. 1967. New species of *Pseudothelphusa* from the Venezuelan Andes (Crustacea Brachyura, Potamonautidae). Zoologische Mededelingen, 42(2): 5-10, pls. 1-2.
- Rodríguez, G. 1982. Les crabes d'eau douce d'Amérique. Famille des Pseudothelphusidae. Paris, ORSTOM. 224p. [Faune Tropicale, 22]
- Rodríguez, G. and M. R. Campos 1998. A cladistic revision of the genus *Fredius* (Crustacea: Decapoda: Pseudothelphusidae) and its significance to the biogeography of the Guianan lowlands of South America. Journal of Natural History, 32: 763-775.
- Rodríguez, G. and G. Pereira 1992. New species, cladistic relationships and biogeography of the genus *Fredius* (Crustacea: Decapoda: Pseudothelphusidae) from South America. Journal of Crustacean Biology 12: 298-311.
- Sternberg, R. von; L. A. Galindo and E. M. González 1999. Cladistic analysis of the *Eudaniela* complex (Crustacea: Decapoda: Pseudothelphusidae). Hydrobiologia, 416: 139-147.

Received: 09th Jul 2004

Accepted: 23th Nov 2004