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Freshwater prawns of the genus *Macrobrachium* Bate, 1868 (Crustacea: Decapoda: Palaemonidae) of Colombia

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Abstract

A review of the species of freshwater prawns belonging to the genus *Macrobrachium* in Colombia is presented. According to the study, the genus *Macrobrachium* comprises 20 species for Colombia. The species *Macrobrachium cortezi* Rodríguez, 1982, *M. ferreirai* Kensley & Walker, 1982 and *M. reyesi* Pereira, 1986 are recorded for the first time in the country. Geographical species distributions are updated with basis on new material. Diagnoses, illustrations and a key for Colombian *Macrobrachium* species are included.

Key words*:* Freshwater prawns, *Macrobrachium*, taxonomy, distribution, Colombia.

Introduction

The family Palaemonidae Rafinesque, 1815 represents one of the few decapod groups that has successfully colonized oceans, estuaries and rivers in the subtropics and tropics. The family is made up of two subfamilies: Pontoniinae, containing only marine prawns and Palaemoninae, including marine, estuarine and freshwater species in the Americas. The subfamily Palaemoninae is made up of 17 genera, 10 of which occur in the Americas: *Brachycarpus* Bate, 1888, *Creaseria* Holthuis, 1950, *Cryphiops* Dana, 1852, *Leander* Desmarest, 1849, *Macrobrachium* Bate, 1868, *Nematopalaemon* Holthuis, 1950, *Palaemon* Weber, 1795, *Palaemonetes* Heller, 1869, *Pseudopalaemon* Sollaud, 1911 and *Troglocubanus* Holthuis, 1949 (Holthuis, 1993, Martin & Davis, 2001).

The genus *Macrobrachium* includes approximately 200 species of prawns and has the largest number of species of all Palaemonid genera. Its distribution is Pantropical, covering the lowlands of Africa, Asia, Oceania, North, Central and South America. Most of the species are freshwater species, although some are found near the coast in brackish water. According to Magalhães & Walker (1988), several authors have observed that extended metamorphosis is typical for species of brackish water, which is rich in primary production, whereas abbreviated metamorphosis with direct development is associated with species in inland waters, as consequence of the selection pressure of plankton-poor waters.

An important review of the family Palaemonidae by Holthuis (1951, 1952) included 13 species of *Macrobrachium* for Colombia: *M. acanthurus* (Wiegmann, 1836), *M. americanum* Bate, 1868, *M. brasiliense* (Heller, 1862), *M. carcinus* (Linnée, 1758), *M. digueti* (Bouvier, 1895), *M. hancocki* Holthuis, 1950, *M. olfersii* (Wiegmann, 1836), *M. panamense* Rathbun, 1912, *M. praecox* (Roux, 1928), *M. rathbunae* Holthuis, 1950, *M. surinamicum* Holthuis, 1948, *M. tenellum* (Smith, 1871) and *M. transandicum* Holthuis, 1950. Since then, new taxonomic studies have recorded additional species for Colombia: Martínez (1973) listed 2 species: *M. crenulatum* Holthuis, 1950, and *M. faustinum* (De Saussure, 1857); Medina & Sobrino (1975) recorded the species *M. amazonicum* (Heller, 1862) and presented larval development under laboratory conditions; Escobar (1979) recorded the species *M. heterochirus* (Wiegmann, 1836) and Campos (1997) recorded the species *M. nattereri* (Heller, 1862).

Species of the genus *Macrobrachium* are an important element of the food chain of aquatic ecosystems because they make up part of the diet of numerous fish, alligators, turtles, mammals and aquatic birds (Magalhães, 2001). Kensley & Walker (1982) established that most of the prawn species of the Amazon basin feed on the aquatic larvae of arthropods, especially Diptera, Plecoptera, Ephemeroptera and Trichoptera. In addition, stomach analysis of prawns reveals that they consume cladocera, ostracoda, oligochaetae, fungi, vegetable material and sponges.

Species of the genus *Macrobrachium* are also of economic importance, for example, *M. rosenbergii* (De Man, 1879) native to the Indo - Pacific region, has been introduced in many countries of the world, including North, Central and South America as a result of aquaculture. In some regions of Colombia, the species of this genus are caught for food, representing an important part of the diet of many families (Prahl *et al.*, 1984; Cam-