Macrobrachium agwi—a new species of freshwater prawn (Decapoda: Palaemonidae) from East Bengal, India

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Abstract

Freshwater prawns do not only have economic importance in hydroponics and fisheries for food purposes, but also recently receive increasing attention in aquarium trade (Karge & Klotz 2007). An examination of some prawns imported as ‘ornamental shrimps’ from Cooch Behar, East Bengal, India to Europe revealed that they belong to a hitherto undescribed species of the genus Macrobrachium and are described here in detail. The new species belong to the group of specimen with large eggs, indicating abbreviated or direct larval development in freshwater, occurring in inland river systems (Tiwari 1955b). Morphological M. agwi nov.sp. is most similar to M. kempi (Tiwari, 1947) first described from Chittagong, Bangladesh, M. altifrons altifrons (Henderson, 1893) from Northern India and Nepal and M. hendersoni (De Man, 1906) known from hill streams in East India and Myanmar. Though the proposed new species can be distinguished from M. kempi by lacking a dense fur of setae on the lower margin of the propodus of male large cheliped, from M. altifrons by the shape and armature of second chelae and from M. hendersoni by lacking longitudinal groves covered with fine hairs on fingers of second chelipeds.

Key words: freshwater shrimp, new species, Macrobrachium agwi, taxonomy

Introduction

The importance of freshwater shrimps, besides small ornamental fish, has grown in aquarium trade over the past couple of years. Colourful atyids like members of the Caridina serrata species group or of the genus Neocaridina are reared in small fish tanks. Also some smaller species of the palaemonid genus Macrobrachium are sold as pet shrimps. Species with abbreviated larval development are more popular because they can easily breed in freshwater aquaria.

Several species of Macrobrachium are described or reported from Eastern Bengal, India (Holthuis 1950, Tiwari 1955, Jalihal 2001). In 1837 H. Milne Edwards reported two species form this area: Macrobrachium lamarrei from Calcutta (as Palaemon lamarrei) and Palemon carcinus, nowadays known as Macrobrachium dacqueti (Sunier, 1925) (Wowor & Ng 2007) from the river Ganges. When Bate (1868) established the new genus Macrobrachium, M. gangeticum, a species collected at "Patna, 250 miles from Calcutta" was included by him as one of five species of this genus. His description was based on drawings given to him by Colonel Hamilton Smith. The identity of this species has been discussed for a long time but it is now accepted as a valid species (Tiwari & Holthuis 1996). In 1886 Macrobrachium lar (Fabricius, 1798), a species with a wide distribution in the Indopacific Region was mentioned under the name Palaemon ornatus Olivier, 1811 from the Ganges river by Filhol. The first species with hill stream distribution was described by Henderson 1893 from a large number of localities in Northern India as Palaemon Dayanus, today known as Macrobrachium dayanum. Ten years later (1903) Macrobrachium rude (Heller, 1862) (as Palaemon rudis) was reported from the river Ganges by Nobili. In 1906 the second hill stream species Macrobrachium hendersoni (as Palaemon