ATYIDAE OF CEYLON — I

BY

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INTRODUCTION

No comprehensive study has hitherto been made of the Atyid shrimps of the island of Ceylon. A few species have previously been recorded or described by different workers at different times. The species already recorded are the following: *Caridina singhalensis* Ortmann, 1894; *Caridina pristis* J. Roux, 1931; *Caridina nilotica simoni* Bouvier, 1904; *Caridina nilotica bengalensis* De Man, 1908; *Atya spinipes* Newport, 1847; *Atya moluccensis* De Haan, 1849.

The present authors have begun a detailed study of the island's Atyidae with a view to recording and describing the species present as well as studying their distribution and natural history. This paper is based on material collected by them in Colombo and Negombo, and in the central hilly regions. The area in which the study has been carried out is indicated here on a map of the island (fig. 5). A large part of the island still remains to be studied and it is hoped to deal with the Atyidae of the other areas in a future paper.

In each of the described cases a large number of specimens were collected. Females were always found to be predominant. The descriptions are based on ovigerous females for the most part. Any important points of difference between the sexes have been recorded. A special effort has been made to record for each form the colours of the living animals. In some cases the colours are distinctive and the species readily identifiable by this feature alone.

The following abbreviations are used in this paper: a, pre-orbital length of antennular peduncle; c, post-orbital length of the carapace; 6s, dorsal length of sixth abdominal segment; d3, d5, the dorsal length of the dactylus of respectively the third and fifth pereiopod; p3, p5, the dorsal length of the propodus of respectively the third and fifth pereiopod.

The type specimens are deposited in the collection of the Department of Zoology of the University of Ceylon.

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DESCRIPTION OF THE SPECIES

The specimens collected fall into two genera of the family Atyidae: *Caridina* and *Atya*. The latter genus is represented by only one species, while *Caridina* is represented by four species and two subspecies of another.

Caridina H. Milne Edwards, 1837

The examined Ceylon species of this genus belong to two groups which may be distinguished as follows:

A. Antennular peduncle with a distinct keel. Pre-orbital length of antennular peduncle and dorsal length of sixth abdominal segment equal to, or less than, half the post-orbital length of the carapace: *Caridina fernandoi* sp. nov.; *C. singhalensis* Ortmann, 1894; *C. pristis* J. Roux, 1931.

B. Antennular peduncle without a keel. Pre-orbital length of the antennular peduncle and dorsal length of sixth abdominal segment considerably more than half the post-orbital length of the carapace: *Caridina nilotica zeylanica* ssp. nov.; *C. nilotica simoni* Bouvier, 1904; *C. gracilirostris* De Man, 1892.

Caridina fernandoi sp. nov. (fig. 1)

HABITAT. Numerous specimens of both sexes were collected from shallow streamlets at Warakapola, and Seelagama, and also from shallow sheltered areas of the Maha Oya at Mawanella and the Deduru Oya and the Magura Oya at Kurunegala (fig. 5). The animals are found sheltering among the decaying leaves of the bottom debris or hiding among the weeds and grasses growing at the water's edge. They are much more numerous in the smaller bodies of water than in the larger. They are sluggish and do not move about when disturbed.

DESCRIPTION. The body is of a rather heavy build. The colour shows some variability. In most forms the colour ranges from dark brown to black with a light stripe along the mid-dorsal line. A few brownish cross markings may also be present and the ventral side is lighter than the dorsal. The specimens collected at Seelagama showed a greenish tinge. They were collected from little rock pools in the path of a small hill stream and their colour matches that of their background.

The tip of the rostrum (fig. 1a) reaches the distal end of the second antennular segment or a little beyond. It terminates in a strong sharp point. Its dorsal armature consists of 16 to 20 closely packed spines interspersed with prominent hairs. Five or six of these spines lie behind the level of the orbits. Ventrally there are about six teeth lying in the distal half of the rostrum. Behind the last of these the ventral edge is almost horizontal. The terminal portion of the rostrum is naked both