ON THE RESURRECTION OF THE CLADOCERAN SPECIES CHYDORUS RETICULATUS DADAY, 1898 (CHYDORIDAE, CLADOCERA) AND ITS RELATIONSHIP TO CHYDORUS VENTRICOSUS DADAY, 1898

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Abstract

The chydorid species *Chydorus reticulatus* Daday, 1898 and *Chydorus ventricosus* Daday, 1898 are redescribed and literature records reevaluated on the basis of new material from India.

Introduction

Recently, while reporting on the daphniid and chydorid cladoceran fauna of Australia, Petkovski (1973) discussed in detail ‘the unsolved problems of the systematic relationships’ among the ‘ventricosus group’ of species under the Genus *Chydorus*. He concluded that this group includes three superspecies, namely *C. ventricosus* Daday, 1898, *C. kallipygos* Brehm, 1933 and *C. pubescens* Sars, 1901 for which he gave a provisional key. Further, study of published literature and material from Ahmedabad, India, led him to synonymise *C. reticulatus* with *C. ventricosus*. He concluded that *C. reticulatus* represents only a young stage of *C. ventricosus*, although Smirnov (1971b) had already placed *C. reticulatus* as a subspecies of *C. eurynotus* Sars, 1901.

During the current study of the Indian collections of Dr. D. G. Frey (accession No. DGF 1512-1530) at the Department of Biology, Indiana University by one of us (RGM), adequate growth stages of both species occurred together in a single sample (DGF No. 1524), enabling a detailed analysis. This was further supplemented by the availability of topotypic material of these two species in a sample from Sri Lanka (Ceylon) (DGF No. 1501). Based on these observations, it is concluded that these two taxa are morphologically distinct and that, therefore, separate specific status is justified.

*Chydorus ventricosus* Daday, 1898

(Fig. 1)

*C. ventricosus* Daday, 1898 p. 28-29; Fig. 10a-d (Sri Lanka)

Daday, 1910 p. 121; Pl. 6, Fig. 1-4 (Dutch East Africa)

[*?] Grochmalicki, 1915 p. 225 (Java)

[*?] Delachaux, 1917 p. 91; Fig. 21 (Africa)

Bär, 1924 p. 118 (Sri Lanka)

Du et Lai, 1963 p. 406 (species list) (China)

[*?] Biswas, 1971 p. 134; Fig. 12K, 14G, H (India)

Smirnov, 1971b p. 298; Fig. 323

[*?] Petkovski, 1973 p. 150-151; Fig. 31, 32, 36, 38 (India)

[*?] Fernando, 1974 p. 51; Fig. 144-147, 171Q (Sri Lanka)

*C. ventricosus* Daday?: Brehm, 1933 p. 758 (Sunda Expedition)

*C. ventricosus* Daday?: Fryer, 1957 p. 238 (Africa)

*C. brehmi* Biswas, 1966 p. 113-114; Fig. 1a-c (India)

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Fig. 1. *Chydorus ventricosus* Daday, 1898 (DGF sample 1524). a. headshield. b. whole specimen. c. postabdomen. d. shell; inset-details of reticulation (note scale). e. labrum. f. gnathobase of trunk limb II. g. trunk limb I. h. trunk limb II. i. trunk limb III. All scale measurements are in microns.