An annotated checklist of the Cladocera (Crustacea: Branchiopoda) from India

TAPAS CHATTERJEE¹, ALEXEY A. KOTOV²*, KAY VAN DAMME³, S. V. A. CHANDRASEKHHAR⁴ & SAMEER PADHYE⁵

¹Department of Biology, Indian School of Learning, I. S. M. Annexe, P. O. – I. S. M., Dhanbad-826004, Jharkhand, India. E-mail: drtchatterjee@yahoo.co.in
²A. N. Severtsov Institute of Ecology and Evolution, Leninsky Prospect 33, Moscow 119071, Russia. E-mail: alexey-a-kotov@yandex.ru
³Environmental Genomics Group, School of Biosciences, University of Birmingham, Edgbaston, Birmingham, B15 2TT, United Kingdom. E-mail: k.p.vandamme@bham.ac.uk
⁴Zoological Survey of India, Plot 366/1, Attapur, Hyderabad 500 048, Andhra Pradesh, India. E-mail: svacsekhar@yahoo.co.in
⁵Laboratory for Zooplankton Studies, Dept. of Zoology, University of Pune, Pune-411007, India. E-mail: sameer.m.padhye@gmail.com

*Corresponding author

Magnolia Press
Auckland, New Zealand

Accepted by M. Alonso: 3 Apr. 2013; published: 5 Jun. 2013
Table of contents

Abstract ................................................................. 3
Introduction ............................................................. 3
Methods ................................................................. 5
Results ................................................................. 6
Order Ctenopoda Sars, 1865 ........................................... 6
Family Sididae Baird, 1850 ............................................ 6
Family Holopediidae Sars, 1865 ...................................... 11
Order Anomopoda Sars, 1865 ......................................... 12
Family Daphniidae Straus, 1820 ..................................... 12
Family Mooiniidae Goulden, 1968 .................................. 24
Family Bosminidae Baird, 1845 sensu Sars, 1865 ............ 27
Family Ilyocryptidae Smirnov, 1976 sensu Smirnov, 1992 . 29
Family Macrothricidae Norman et Brady, 1867 ................ 30
Family Euryceridae Kurz, 1875 sensu Dumont et Silva-Briano, 1998 ......................................................... 34
Family Chyadoridae Dybowski et Grochowski, 1894 ....... 34
Subfamily Aloninae Dybowski et Grochowski, 1894 ........ 34
Subfamily Chydoniinae Dybowski et Grochowski, 1894 .... 52
Order Onychopoda Sars, 1865 ....................................... 61
Family Polyphemidae Baird, 1845 .................................. 61
Family Podonidae Mordukhai-Boltovskoi, 1968 ............... 61
Order Haploida Sars, 1865 ........................................... 62
Family Leptodoridae Liljeborg, 1861 ............................. 62
Additional lapsi ...................................................... 62
Discussion ............................................................. 63
Keeping track of taxonomical updates ............................ 64
Cosmopolitan species groups, not cosmopolitan species .... 65
The next step ........................................................... 67
Acknowledgements .................................................... 67
References ............................................................. 67

Abstract

Based on a revision of available literature on the Indian Cladocera (Crustacea: Branchiopoda), we present an updated checklist, with taxonomical updates and comments for all taxa recorded since the start of research of this group in the country since 1860. We have listed a total of 137 valid taxa, of which most records belong to species groups that need revision worldwide. The situation in Indian Cladocera taxonomy is, at present, insufficient for realistic conclusions on biodiversity, ecology and biogeography. We list suggestions for an improvement of the current situation.

Key words: Cladocera, checklist, systematics, taxonomy, India, Oriental zone

Introduction

W. Baird (1860) was the first researcher who wrote a paper on the Cladocera (Crustacea: Branchiopoda) from India, describing *Daphnia newporti* Baird, 1860 (Anomopoda: Daphniidae). In the few decades that followed, the Indian Cladocera fauna remained largely a mystery to most of the “classical” zooplankton researchers that were active during the time (from the end of the 19th century to the beginning of the 20th century), such as G.O. Sars. As one of the few, Gurney (1906, 1907) published two papers on Indian Cladocera, with the description of two taxa among which *Daphnia fusca* Gurney, 1906, a peculiar high-altitude species of which the type locality now lies in Pakistan (Michael & Sharma B.K. 1988). The little attention that India received in this period, is in sheer contrast to several other tropical territories (Daday 1908) in the Neotropics, like Brazil (Sars 1901) or in the Oriental Region, where even the adjacent island Sri Lanka, at that time known as Ceylon, was studied more intensively (Daday 1898).