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Annotated Checklist of Chinese Cladocera (Crustacea: Branchiopoda). Part II. Order Anomopoda (families Macrotrichidae, Eurycercidae and Chydoridae)

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Abstract

About 114 “species” of Macrotrichidae, Eurycercidae, and Chydoridae (Cladocera, Anomopoda), belonging to 39 genera, have been reported from China, with 14 species in 6 genera in Macrotrichidae, 2 species in one genus in Eurycercidae, and 98 species in 31 genera in Chydoridae. In total, 203 species in 62 genera, 13 families and 4 orders have so far been reported from the country. Of these, 187 are tentatively considered as valid, while 16 are *incertae sedis*. In reality, many records hide taxonomic problems that remain to be settled. Up to 10 percent of this fauna might be endemic at the species level, but we expect this number to increase pending new, comprehensive studies. No endemic genera fall to be recorded. Most of the several hundreds of taxonomic or biogeographic papers from which this information was extracted suffer from poor or outdated taxonomy, such that up to half of all species are up for re-evaluation. Detailed morphological examination, but also provoked male production, especially in chydorids, are ways to improve identifications and should be stimulated. On the other hand, the inventory is certainly still incomplete with several tropical-subtropical taxa still to be expected in China. The extreme south and islands are among promising sites that remain to be explored, as well as extreme habitats all over the country. Molecular studies in China started around the beginning or the present decade, and should be multiplied.

Key words: Cladocera, checklist, China, taxonomy

Introduction

Dumont & Silva-Briano (1998) proposed the suborder Radopoda for a group of anomopod families with, among other things, limb II modified to a plate carrying a number (initially 8) of scraping setae at its margin. The vast majority of the radopods are littoral or benthic organisms, and the family Chydoridae rivals the Daphniidae as the most speciose group of the anomopods. Kotov (2013) alternatively suggested the Radopoda form a paraphyletic group. To become monophyletic, the suborder should be extended to include two other families, Bosminidae and Ilyocryptidae, to it. Both views remain to be tested by molecular methods. In this second communication we will try to summarize the information on Chinese records from the two largest radopod families, Chydoridae Dybowski et Grochowski, 1894 and Macrotrichidae Norman & Brady, 1867, plus the small, recently re-established family Eurycercidae Kurz, 1875 (Dumont & Silva-Briano 1998).

The first mention of a cladoceran in China was by Poppe & Richard (1890), from a collection made near Shanghai. Most identifications were preliminary and to genus level only. In later years and decades numerous additional taxa were listed from China (see Xiang *et al.* 2015). In toto, 114 species of the families Macrotrichidae, Eurycercidae and Chydoridae have now become known from the country.