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An updated and annotated checklist of recent nonmarine ostracods from China

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Abstract

The updated and annotated checklist includes all published names of Chinese recent nonmarine ostracods and their provincial records up to 2007. A total of 160 specific names are included. Of these, 154 are taxonomically accepted names. At present, the richest province with more than 53 species of ostracods is Qinghai, followed by Yunnan with 42 species and Tibet with 30 species. There are still fourteen provinces in China without records, and two provinces with only one ostracod reported. These provinces are in need of immediate investigation.

Key words: China, recent nonmarine ostracods, checklist

Introduction

China has more than a century of history of ostracod studies involving many foreign and Chinese ostracodologists. The first account of freshwater Ostracoda in China was presented by Sars (1903). Since the fast development of paleontology in the late 1980s, there has been a flourish of ostracod activity by Chinese ostracodologists as well as cooperative field expeditions. As a result, the number of ostracods reported for China has increased significantly. Today the ostracod fauna is still relatively poorly known in many areas of China. According to Yin & Martens (1997), only 47 species have been described as extant material.

The study of ostracod fauna is important, nevertheless, not only in palaeolimnology and palaeoclimatology but also in animal evolution. The analysis of ostracods has increased significantly over the past few years and has been successfully applied to identifying changes in lacustrine palaeohydrology and reconstructing palaeoclimatology (Griffiths & Holmes, 2000). In addition, ostracods are potentially very good model organisms for evolutionary studies (Martens & Horne, 2000), because ostracods combine an excellent fossil record with a wide geographic distribution and allow studies on both patterns and processes leading to extant diversity.

Ostracodologists in China still face the daunting obstacle of gaining access to foreign publications. This is evident in the misuse of scientific names or the use of outdated and unpublished names in many Chinese publications. Likewise, workers outside China studying Chinese ostracods are confronted with the similar problem of having limited access to Chinese literature. It is generally considered that Kempf's indexes (1980, 1991, 1997) are complete and accurate, while a number of species originally described from China are not included. There is a dire need to put together all published names of Chinese ostracods if only to standardize their usage with that accepted in the rest of the world.

This checklist attempts to bring together all names of ostracods that have been reported for China in the literature from the time of the first publication of Chinese ostracods by Sars in 1903. Among these ostracods, many species were named by Chinese ostracodologists in Chinese. The effort is an outgrowth of the earlier

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