



Zootaxa 3687 (1): 001–095
www.mapress.com/zootaxa/

Copyright © 2013 Magnolia Press

Monograph

ISSN 1175-5326 (print edition)

ZOOTAXA

ISSN 1175-5334 (online edition)

<http://dx.doi.org/10.11646/zootaxa.3687.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:193BA226-D0D0-42C9-9815-639E8E48EF7A>

ZOOTAXA

3687

Ten new *Gammarus* species (Crustacea: Amphipoda: Gammaridae) from Yunnan-Guizhou Plateau, China

ZHONGE HOU¹, JUNBO LI² & SHUQIANG LI^{1,3}

¹Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, China

²School of Life Science, Shanxi Normal University, Linfen 041000, China

³Corresponding author. E-mail: lisq@ioz.ac.cn



Magnolia Press
Auckland, New Zealand

Accepted by G. Karaman: 17 Jun. 2013; published: 17 Jul. 2013

ZHONGE HOU, JUNBO LI & SHUQIANG LI

Ten new *Gammarus* species (Crustacea: Amphipoda: Gammaridae) from Yunnan-Guizhou Plateau, China

(*Zootaxa* 3687)

95 pp.; 30 cm.

17 Jul. 2013

ISBN 978-1-77557-224-4 (paperback)

ISBN 978-1-77557-225-1 (Online edition)

FIRST PUBLISHED IN 2013 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

© 2013 Magnolia Press

All rights reserved.

No part of this publication may be reproduced, stored, transmitted or disseminated, in any form, or by any means, without prior written permission from the publisher, to whom all requests to reproduce copyright material should be directed in writing.

This authorization does not extend to any other kind of copying, by any means, in any form, and for any purpose other than private research use.

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

Table of contents

Abstract	3
Introduction	3
Key to species of the genus <i>Gammarus</i> in Yunnan-Guizhou Plateau, China	5
Material and methods	6
Taxonomy	6
Family Gammaridae Leach, 1814	6
Genus <i>Gammarus</i> Fabricius, 1775	6
<i>Gammarus amabilis</i> sp. nov.	6
<i>Gammarus citatus</i> sp. nov.	18
<i>Gammarus echinatus</i> sp. nov.	26
<i>Gammarus egregius</i> sp. nov.	35
<i>Gammarus eliquatus</i> sp. nov.	43
<i>Gammarus hirtellus</i> sp. nov.	51
<i>Gammarus margcomosus</i> sp. nov.	60
<i>Gammarus rivalis</i> sp. nov.	68
<i>Gammarus silendus</i> sp. nov.	76
<i>Gammarus tranquillus</i> sp. nov.	85
Discussion	93
Acknowledgments	94
References	94

Abstract

Ten new species of the genus *Gammarus* are described from Yunnan-Guizhou Plateau, Southwest China, including *Gammarus amabilis* sp. nov., *G. citatus* sp. nov., *G. echinatus* sp. nov., *G. egregius* sp. nov., *G. eliquatus* sp. nov., *G. hirtellus* sp. nov., *G. margcomosus* sp. nov., *G. rivalis* sp. nov., *G. silendus* sp. nov. and *G. tranquillus* sp. nov. Four of them are stygobite and with no eyes. Detailed illustrations and comparisons with related species are presented. A key to all species from Yunnan-Guizhou Plateau are given.

Key words: taxonomy, freshwater, cave, subterranean.

Introduction

The Yunnan-Guizhou Plateau is located in the Southwest China, with an area of 400,000 km² ranging from 100° to 110° in east longitude and 23° to 27° in north latitude. There are two types of macro-topography in this region. One is high plateau averaging about 2,000 meters above sea level in northern Yunnan Province; the other topography is karst areas with rolling hills, deep river-carved gorges and geologic faults in western Guizhou Province. Owing to its high elevation and low latitude, the climate of this region is subject to high temperature and plentiful rainfall, promoting karst development. In the same time, high mountain peaks on Yunnan-Guizhou Plateau are the source of many great rivers, merging into Yangtze River and steepening the valleys. Many caves, underground rivers, stone shoots and stalagmites are found in this plateau, which makes Yunnan-Guizhou Plateau being one of the most developed karst regions in the world. The vegetation types in Yunnan-Guizhou Plateau belong to subtropical broadleaf forest. However, in karst areas, the soils are shallow and thin, with poor capacity of storing water. As a result, the regional forest is influenced and unevenly distributed. Moreover, in last century the forests were seriously destroyed and decreased sharply with increase of population, cultivation and unreasonable use of land, showing a serious rock desertification (Lei *et al.* 2000). Rock desertification intensifies loss of water and soil in karst mountain areas, especially leading to collapse problems. These processes will destroy the habitats of animals and disturb the biodiversity. Surprisingly, with the awareness of environmental protection the development of forests in karst region has been carried out to rehabilitate the rock desertification in recent years. To explore the diversity in Yunnan-Guizhou Plateau, several expeditions have been done during 2006 to 2011. A series of papers have been published to describe the new organisms, including fish (Zhao & Zhang 2009), spider (Lin & Li 2010), and crustacean (Lu *et al.* 2010). Amphipoda crustaceans are the predominant macroscopic invertebrate in aquatic