



*Zootaxa* 2177: 1–62 (2009)  
www.mapress.com/zootaxa/

Copyright © 2009 · Magnolia Press

Monograph

ISSN 1175-5326 (print edition)

**ZOOTAXA**

ISSN 1175-5334 (online edition)

# ZOOTAXA

2177

## Gomphidae of Guangdong & Hong Kong, China (Odonata: Anisoptera)

KEITH DUNCAN PETER WILSON<sup>1</sup> & ZAIFU XU<sup>2</sup>

<sup>1</sup>18 Chatsworth Road, Brighton, BN1 5DB, United Kingdom. E-mail: kdpwilson@gmail.com

<sup>2</sup>Department of Entomology, College of Natural Resources and Environment South China Agricultural University, Guangzhou 510642, Guangdong Province, P. R. of China. E-mail: xuzai fu@scau.edu.cn



Magnolia Press  
Auckland, New Zealand

Keith Duncan Peter Wilson & Zaifu Xu  
**Gomphidae of Guangdong & Hong Kong, China (Odonata: Anisoptera)**  
(*Zootaxa* 2177)

62 pp.; 30 cm.

6 Aug. 2009

ISBN 978-1-86977-395-3 (paperback)

ISBN 978-1-86977-396-0 (Online edition)

FIRST PUBLISHED IN 2009 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: [zootaxa@mapress.com](mailto:zootaxa@mapress.com)

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

© 2009 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)

# Gomphidae of Guangdong & Hong Kong, China (Odonata: Anisoptera)

## Table of contents

Abstract .....	4
Introduction .....	4
Biodiversity .....	4
Gomphinae .....	10
<i>Anisogomphus koxingai</i> Chao 1954 .....	10
<i>Asiogomphus pacificus</i> Chao 1953 .....	13
<i>Davidius fruhstorferi</i> Martin 1904 .....	13
<i>Fukienogomphus prometheus</i> (Lieftinck 1939) .....	15
<i>Leptogomphus hongkongensis</i> Asahina 1988 stat. nov. ....	15
<i>Sinogomphus asahinai</i> Chao 1984 .....	19
<i>Sinogomphus telamon</i> (Lieftinck 1939) .....	20
<i>Stylogomphus tantulus</i> Chao 1954 .....	23
<i>Stylurus amicus</i> (Needham 1930) .....	23
<i>Stylurus kreyenbergi</i> (Ris 1928) .....	23
<i>Trigomphus carus</i> Chao 1954 .....	26
Onychogomphinae .....	26
<i>Amphigomphus hansonii</i> Chao 1954 .....	26
<i>Lamelligomphus choui choui</i> Chao & Liu 1989 .....	29
<i>Lamelligomphus formosanus</i> (Matsumura 1926) .....	30
<i>Lamelligomphus tutulus</i> Liu & Chao 1990 .....	34
Key to Chinese <i>Lamelligomphus</i> Fraser 1922 .....	34
<i>Melligomphus ardens</i> (Needham 1930) .....	36
<i>Melligomphus guangdongensis</i> (Chao 1994) comb. nov. ....	39
<i>Nihonogomphus lieftincki</i> Chao 1954 .....	42
<i>Nihonogomphus semanticus</i> Chao 1954 .....	43
Key to <i>Nihonogomphus</i> Oguma 1926 .....	45
<i>Ophiogomphus sinicus</i> (Chao 1954) .....	46
<i>Phaenandrogomphus tonkinicus</i> (Fraser 1926) .....	48
Hageniinae .....	52
<i>Sieboldius (Sieboldius) alexanderi</i> (Chao 1955) .....	52
<i>Sieboldius (Pseudohagenius) deflexus</i> (Chao 1955) .....	52
Lindeniinae .....	56
<i>Gomphidia kelloggi</i> Needham 1930 .....	56
Doubtful records .....	58
Acknowledgements .....	58
References .....	58

## Abstract

Guangdong is located in south China, which is recognized as a global centre of biodiversity for Gomphidae. Taxonomic and faunistic information is provided for 24 poorly known species of Gomphidae from Guangdong and Hong Kong. A total of 50 gomphid species belonging to 25 genera are enumerated, including 12 newly recorded from Guangdong and one newly recorded from Hong Kong. Four species are synonymised, one subspecies is promoted to species status and new generic combinations are provided for two species. The synonyms comprise: *Lamelligomphus jiuquensis* Liu 1993 = *Lamelligomphus formosanus* (Oguma 1926), *Lamelligomphus parvulus* Zhou and Li 2000 = *Lamelligomphus laetus* Yang and Davies 1993, *Melligomphus moluami* Wilson 1995 = *Ophiogomphus guandongensis* Chao 1994 and *Phaeandrogomphus chaoi* Zhu & Liang 1994 = *Phaeandrogomphus tonkinicus* (Fraser 1926). The subspecies *Leptogomphus elegans hongkongensis* Asahina 1988 is elevated to species status, viz *Leptogomphus hongkongensis*. *Ophiogomphus guandongensis* is transferred to *Melligomphus* Chao 1990 and *Nihonogomphus indicus* Lahiri 1987 is transferred to *Orientogomphus* Chao 1990. Keys are provided for the identification of Chinese *Lamelligomphus* Fraser and all known species of *Nihonogomphus* Oguma.

**Key words:** Dragonflies, biodiversity, checklist, keys, new status, new combinations, new synonyms

## Introduction

This paper is the third in a series which provides taxonomic and faunistic information on the odonate fauna of Guangdong and Hong Kong. The first paper (Wilson and Xu 2007) recorded 84 species of Zygoptera from Guangdong and Hong Kong. The second (Wilson and Xu 2008) provided details of 25 aeshnids including three new species, and three new provincial records from Guangdong. This paper provides information on the Gomphidae of Guangdong and Hong Kong. The majority of gomphids examined were obtained from two sets of surveys completed using aerial nets between 1998 and 2005. The first was undertaken by teams assembled by the Hong Kong based Kadoorie Farm and Botanic Garden Corporation (KFBG) between 1998 and 2002. The main collectors were Keith DP Wilson (KW), Graham T Reels (GR), Billy Hau Chi-hang (BH) and Michael Lau (ML). The second set of surveys was undertaken by teams of undergraduate and postgraduate students led by Xu Zaifu (XZ), Professor of Entomology, South China Agricultural University (SCAU), during 2002-2005. KW accompanied XZ during some of these surveys and identified all specimens collected at the South China Agricultural University campus in Guangzhou. The data from these two sets of surveys is also supplemented with additional survey work conducted independently by KW, Samson So (SS) and Matjaz Bedjanič (MB), during 1992 to 2007, and other published data. The details of locations surveyed in Guangdong are provided in Table 1.

A checklist of Gomphidae recorded from Guangdong, Hong Kong and Macau is provided in Table 2. Synonymic notes are provided for species newly recorded from Guangdong or Hong Kong and for species where taxonomic information and comments are made. Summary details of additional specimens not previously reported from Guangdong are provided in Table 3. Nine Gomphidae taxa have been described from Guangdong and Hong Kong, which are listed in Table 4. One of these taxa has been previously suppressed as a junior synonym and a further two taxa are synonymised here. The new status of these taxa is discussed in the main text below and summarised in Table 4.

## Biodiversity

Southern Guangdong is considered to be part of a redefined Indo-Burmese Hotspot for biodiversity, which is sometimes referred to as the Indo-Chinese Subregion (van Dijk *et al.* 2005). It does not include the Himalaya Hotspot or the Mountains of Southwest China Hotspot, both of which are separate but contingent hotspot regions. The latter region is located at the eastern edge of the Tibetan Plateau, extending eastwards to the central Chinese plains. The Indo-Burmese Hotspot, as presently defined (van Dijk *et al.* 2005), ranges from