



Zootaxa 3644 (1): 001–178  
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.3644.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:DF42B735-9A47-48D5-B382-F6A980563914>

# ZOOTAXA

3644

## **Review of *Gonatocerus* (Hymenoptera: Mymaridae) in the Palaearctic region, with notes on extralimital distributions**

SERGUEI V. TRIAPITSYN

*Entomology Research Museum, Department of Entomology, University of California, Riverside, CA, 92521, USA.*

*E-mail: [serguei.triapitsyn@ucr.edu](mailto:serguei.triapitsyn@ucr.edu)*



Magnolia Press  
Auckland, New Zealand

*Accepted by G. Gibson: 18 Feb. 2013; published: 30 Apr. 2013*

SERGUEI V. TRIAPITSYN

**Review of *Gonatocerus* (Hymenoptera: Mymaridae) in the Palaearctic region, with notes on extralimital distributions**

(*Zootaxa* 3644)

178 pp.; 30 cm.

30 Apr 2013

ISBN 978-1-77557-148-3 (paperback)

ISBN 978-1-77557-149-0 (Online edition)

FIRST PUBLISHED IN 2013 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/>

© 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	4
Introduction	4
Material and methods	5
Taxonomy	7
Genus <i>Gonatocerus</i> Nees ab Esenbeck, 1834	7
Key to subgenera of <i>Gonatocerus</i> in the Palaearctic region (both sexes)	8
Subgenus <i>Gonatocerus</i> ( <i>Gonatocerus</i> Nees ab Esenbeck, 1834)	8
Key to females of Palaearctic species of <i>Gonatocerus</i> ( <i>Gonatocerus</i> )	9
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>aegyptiacus</i> Soyka, 1950	9
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>bukashka</i> Triapitsyn, <b>sp. n.</b>	15
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>cincticipitis</i> Sahad, 1982	15
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>fuscicornis</i> (Walker, 1846)	17
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>koziavka</i> Triapitsyn, <b>sp. n.</b>	26
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>longicornis</i> Nees ab Esenbeck, 1834	28
<i>Gonatocerus</i> ( <i>Gonatocerus</i> ) <i>pictus</i> (Haliday, 1833)	34
Subgenus <i>Gonatocerus</i> ( <i>Lymaenon</i> Walker, 1846)	39
Key to females of Palaearctic species of <i>Gonatocerus</i> ( <i>Lymaenon</i> )	39
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>acuminatus</i> (Walker, 1846)	42
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>africanus</i> Soyka, 1950	44
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>aureus</i> Girault, 1911	47
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>berezovski</i> Triapitsyn, <b>sp. n.</b>	56
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>beshbarmak</i> Triapitsyn, <b>sp. n.</b>	58
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>bicoloriventris</i> Zeya, 1995	60
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>cunctator</i> (Mathot, 1969), <b>stat. rev.</b>	62
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>kalika</i> Triapitsyn, <b>sp. n.</b>	64
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>karakum</i> Triapitsyn, <b>sp. n.</b>	65
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>karlik</i> Triapitsyn, <b>sp. n.</b>	67
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>katraps</i> Triapitsyn, <b>sp. n.</b>	69
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>kazak</i> Triapitsyn, <b>sp. n.</b>	71
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>komarik</i> Triapitsyn, <b>sp. n.</b>	75
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>krasavchik</i> Triapitsyn, <b>sp. n.</b>	76
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>kulik</i> Triapitsyn, <b>sp. n.</b>	77
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>kum</i> Triapitsyn, <b>sp. n.</b>	79
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>kusaka</i> Triapitsyn, <b>sp. n.</b>	81
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>litoralis</i> (Haliday, 1833)	82
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>longior</i> Soyka, 1946	99
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>novickyi</i> Soyka, 1946	104
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>saulfrommeri</i> Triapitsyn, <b>sp. n.</b>	107
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>svat</i> Triapitsyn, <b>sp. n.</b>	107
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>thyrides</i> (Debauche, 1948)	109
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>ucri</i> Triapitsyn, <b>sp. n.</b>	113
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) <i>vidanoi</i> (Viggiani & Jesu, 1986)	115
<i>Gonatocerus</i> ( <i>Lymaenon</i> ) sp. 1	117
Subgenus <i>Gonatocerus</i> ( <i>Cosmocomoidea</i> Howard, 1908)	117
Key to females of Palaearctic species of <i>Gonatocerus</i> ( <i>Cosmocomoidea</i> )	118
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>ater</i> Foerster, 1841 s. l.	119
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>crassicornis</i> (Viggiani, 1969)	137
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>kikimora</i> Triapitsyn, <b>sp. n.</b>	141
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>?kodaianus</i> (Mani & Saraswat, 1973)	143
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>latipennis</i> Girault, 1911	145
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>oxypygus</i> Foerster, 1856	150
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>rogersi</i> Matthews, 1986	161
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>tremulae</i> (Bakkendorf, 1934)	163
<i>Gonatocerus</i> ( <i>Cosmocomoidea</i> ) <i>woohoo</i> Triapitsyn, <b>sp. n.</b>	168
Nomina dubia	169
<i>Gonatocerus</i> <i>dakhlae</i> Soyka, 1950	169
<i>Gonatocerus</i> <i>minimus</i> Foerster, 1841	170
Nomina nuda	171
<i>Gonatocerus</i> <i>flavocinctus</i> (Walker, 1846), <b>nom. nud.</b>	171
<i>Gonatocerus</i> <i>mirivorus</i> Kurdjumov, 1912, <b>nom. nud.</b>	171
Acknowledgments	171
References	172

## Abstract

The Palaearctic species of the common and speciose fairyfly genus *Gonatocerus* Nees ab Esenbeck (Hymenoptera: Mymaridae) are reviewed. Illustrated identification keys are provided to separate the three subgenera of *Gonatocerus* that occur in the region and to females of the species in each subgenus. Distribution ranges, including new records of extralimital specimens examined, and known host associations of the species are given. Forty-two valid taxa are recognized including 19 newly described ones: two in *G. (Gonatocerus)*—*G. bukashka* **sp. n.** (Denmark, Russia) and *G. koziavka* **sp. n.** (Kyrgyzstan), 15 in *G. (Lymaenon* Walker)—*G. berezovskiyi* **sp. n.** (Turkmenistan), *G. beshbarmak* **sp. n.** (Kyrgyzstan), *G. kalika* **sp. n.** (Denmark), *G. karakum* **sp. n.** (Italy, Turkmenistan), *G. karlik* **sp. n.** (China, Republic of Korea, Russia), *G. katraps* **sp. n.** (Republic of Korea, Russia), *G. kazak* **sp. n.** (Russia, Spain), *G. komarik* **sp. n.** (France), *G. krasavchik* **sp. n.** (Russia), *G. kulik* **sp. n.** (Russia), *G. kum* **sp. n.** (Russia), *G. kusaka* **sp. n.** (Russia), *G. saulfrommeri* **sp. n.** (Russia), *G. svat* **sp. n.** (China), *G. ucri* **sp. n.** (Russia), and two in *G. (Cosmocomoidea* Howard)—*G. kikimora* **sp. n.** (Russia) and *G. woohoo* **sp. n.** (Russia). New synonymies are proposed for the following names: *G. (Gonatocerus) fuscicornis* (Walker) [= *G. sulphuripes* (Foerster) **syn. n.**, *G. pictosimilis* Soyka **syn. n.**, *Lymaenon synaptus* Debauche **syn. n.**, *L. alecto* Debauche **syn. n.**, and *L. crassipes* Debauche **syn. n.**]; *G. (Gonatocerus) aegyptiacus* Soyka [= *G. saipanensis* (Doutt) **syn. n.**, *G. alami* Shamim & Shafee **syn. n.**, *G. tarae* Narayanan & Subba Rao **syn. n.**, *G. miurai* Sahad **syn. n.**, and *G. minor* Matthews **syn. n.**]; *G. (Gonatocerus) pictus* (Haliday) [= *G. orthopenitus* Guo, Lin & Hu **syn. n.**]; *G. (Lymaenon) aureus* Girault [= *G. tenuipennis* Girault **syn. n.**, *G. chrysis* (Debauche) **syn. n.**, *G. vopros* **nom. n. pro G. flavus Soyka, 1950 (*nec G. flavus* Foerster, 1841) **syn. n.**, *G. pahlgamensis* (Narayanan) **syn. n.**, *G. kanheriensis* Mani & Saraswat **syn. n.**, *G. gracilentus* Hellén **syn. n.**, *G. aligarhensis* Shamim & Shafee **syn. n.**, and *G. fukuokensis* Sahad **syn. n.**]; *G. (Lymaenon) littoralis* (Haliday) [= *Alaptus fuscus* Förster **syn. n.**, *G. exiguus* Förster **syn. n.**, *G. americanus* Brues **syn. n.**, *G. anthonomi* Girault **syn. n.**, *G. brunneus* Girault **syn. n.**, *G. illinoiensis* Girault **syn. n.**, *G. maevius* Girault **syn. n.**, *G. texanus* Girault **syn. n.**, and *G. priesneri* Soyka **syn. n.**]; *G. (Lymaenon) longior* Soyka [= *G. conicus* (Mathot) **syn. n.**]; *G. (Cosmocomoidea) oxyppygus* Foerster [= *G. ovicenatus* Leonard & Crosby **syn. n.** and *G. megalura* (Mathot) **syn. n.**]. *Lymaenon cunctator* Mathot is reinstated as a valid species, *G. (Lymaenon) cunctator* (Mathot) **stat. rev.**, based on study of its holotype. Lectotypes are designated for *Alaptus fuscus*, *Gonatocerus anthonomi*, *G. ater* Foerster, *G. brunneus*, *G. exiguus*, *G. texanus*, *Lymaenon fuscicornis* Walker, *L. tremulae* Bakkendorf, and *Rachistus sulphuripes* Foerster. Neotypes are designated for *G. aureus* and *G. oxyppygus*.**

**Key words:** taxonomy, Chalcidoidea, key, new species, egg parasitoid, Membracoidea, Miridae

## Introduction

This is the first attempt to revise species of the common and speciose fairyfly genus *Gonatocerus* Nees ab Esenbeck (Hymenoptera: Mymaridae) for the entire Palaearctic region and to compare them with Nearctic species in order to identify taxa with Holarctic distributions. Earlier, Matthews (1986) reviewed most of the described European species of this genus although he formally treated primarily the British species. His review was based on examination of type material and on many well-mounted non-type specimens from Great Britain. It provided a good foundation for this study. Since then some additional types were located and numerous specimens from the Palaearctic region were collected, particularly from many European countries as well as from the Russian Far East and adjacent countries. Regional, extralimital revisions of *Gonatocerus* species are by Huber (1988) for North America north of Mexico, Zeya & Hayat (1995) for India, and Triapitsyn *et al.* (2010) for the Neotropical region. Triapitsyn *et al.* (2010) redefined *Gonatocerus*, defined and keyed its subgenera, and described species groups within *G. (Cosmocomoidea* Howard).

Provided here are keys to species (females only), species diagnoses, descriptions of new species, redescriptions, information on the type material where needed and when available, and information on distribution and hosts of the Palaearctic species of *Gonatocerus*. The genus was lucky to escape the fate of other European genera of Mymaridae (*Alaptus* Westwood, *Anagrus* Haliday, *Anaphes* Haliday, *Camptoptera* Foerster, *Ooctonus* Haliday, and *Polynema* Haliday) studied by Walter Soyka. He was born 5.ii.1900 in Aachen, Germany, not the Austro-Hungarian empire as stated in Triapitsyn (2010), and died in Austria 20.xii.1967 (Fischer 1970; Rob C.H.M. Oudejans, personal communication). Soyka described several hundred nominal species from Europe during 1930s–1950s mostly based on intraspecific rather than interspecific variation (Triapitsyn 2010). Many Soyka specimens of *Gonatocerus* in Naturhistorisches Museum Wien (the Natural History Museum Vienna, Austria, NHMW) bear his red type labels with numerous unpublished manuscript names. Evidently, he was