



Zootaxa 2381: 1–74 (2010)  
www.mapress.com/zootaxa/

Copyright © 2010 · Magnolia Press

Monograph

ISSN 1175-5326 (print edition)

**ZOOTAXA**

ISSN 1175-5334 (online edition)

# ZOOTAXA

2381

**Revision of the Palaearctic species and review of the Oriental species of *Ooctonus* (Hymenoptera: Mymaridae), with notes on extralimital taxa**

SERGUEI V. TRIAPITSYN

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

*E-mail: serguei.triapitsyn@ucr.edu*



Magnolia Press  
Auckland, New Zealand

*Accepted by G. Gibson: 4 Nov. 2009; published: 26 Feb. 2010*

SERGUEI V. TRIAPITSYN

**Revision of the Palaearctic species and review of the Oriental species of *Ooctonus* (Hymenoptera: Mymaridae), with notes on extralimital taxa**

(*Zootaxa* 2381)

74 pp.; 30 cm.

26 February 2010

ISBN 978-1-86977-473-8 (paperback)

ISBN 978-1-86977-474-5 (Online edition)

FIRST PUBLISHED IN 2010 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/>

© 2010 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 .....	4
Historical account of the Walter Soyka collection of microhymenoptera, with references to the Arnold Foerster collection of Mymaridae .....	5
Material and methods .....	10
Taxonomy .....	11
<i>Ooctonus</i> Haliday, 1833 .....	11
Key to species of <i>Ooctonus</i> in the Palaearctic region (females) .....	14
Key to the European species of <i>Ooctonus</i> (both sexes) .....	14
Alphabetical synopsis of the Palaearctic species of <i>Ooctonus</i> .....	15
<i>Ooctonus hemipterus</i> Haliday, 1833 .....	15
<i>Ooctonus insignis</i> Haliday, 1833 .....	21
<i>Ooctonus lokomotiv</i> Triapitsyn, sp. n. ....	26
<i>Ooctonus notatus</i> Walker, 1846 .....	28
<i>Ooctonus novickyi</i> Soyka, 1950 .....	33
<i>Ooctonus orientalis</i> Doult, 1961 .....	36
<i>Ooctonus saturn</i> Triapitsyn, sp. n. ....	40
<i>Ooctonus spartak</i> Triapitsyn, sp. n. ....	43
<i>Ooctonus sublaevis</i> Foerster, 1847 .....	45
<i>Ooctonus tretiakovi</i> Triapitsyn, sp. n. ....	50
<i>Ooctonus us</i> Triapitsyn, sp. n. ....	51
<i>Ooctonus vulgatus</i> Haliday, 1833 .....	54
Review of the Oriental species of <i>Ooctonus</i> .....	60
Key to the known Oriental species of <i>Ooctonus</i> (females) .....	60
Alphabetical synopsis of the Oriental species of <i>Ooctonus</i> .....	61
<i>Ooctonus flavipodus</i> Subba Rao, 1989 .....	61
<i>Ooctonus himalayus</i> Subba Rao, 1989 .....	62
<i>Ooctonus lapen</i> Triapitsyn, sp. n. ....	65
<i>Ooctonus nigrotestaceus</i> Subba Rao, 1989 .....	67
<i>Ooctonus sinensis</i> Subba Rao, 1989 .....	69
Acknowledgments .....	71
References .....	72

## Abstract

The fairyfly genus *Ooctonus* Haliday (Hymenoptera: Mymaridae) from the Palaearctic region is revised. Twelve species are recognized, including the newly described *O. lokomotiv* Triapitsyn **sp. n.** (Far East of Russia), *O. saturn* Triapitsyn **sp. n.** (Far East of Russia, and Japan), *O. spartak* Triapitsyn **sp. n.** (Kyrgyzstan), *O. tretiakovi* Triapitsyn **sp. n.** (Far East of Russia), and *O. us* Triapitsyn **sp. n.** (Japan, and Republic of Korea). All the species are redescribed, illustrated, and diagnosed, as is the Oriental species *O. himalayus* Subba Rao, based mainly on non-type specimens from Nepal (its male is newly described). Taxonomic notes are provided on the other three previously described Oriental species of *Ooctonus* and one new Oriental species, *O. lapen* Triapitsyn **sp. n.**, is described from Nepal. Extralimital records are included for the species with Holarctic distribution. Twenty-five new synonymies are proposed: *O. major* Foerster **syn. n.**, *O. elegantissimus* Soyka **syn. n.**, *O. austriacus* Soyka **syn. n.**, *O. silvestris* Soyka **syn. n.**, and *O. isotomus* Mathot **syn. n.** under *O. insignis* Haliday; *O. acutiventris* Soyka **syn. n.**, *O. askhamensis* Hincks **syn. n.**, *O. collinus* Soyka **syn. n.**, *O. stammeri* Soyka **syn. n.**, *O. viennensis* Soyka **syn. n.**, *O. niger* Soyka **syn. n.**, and *O. americanus* Girault **syn. n.** under *O. vulgatus* Haliday; *O. amoenus* (Foerster) **syn. n.**, *O. hemipterus igneus* Debauche **syn. n.**, *O. foersteri* Soyka **syn. n.**, *O. wagneri* Soyka **syn. n.**, and *O. pechlaneri* Soyka **syn. n.** under *O. hemipterus* Haliday; *O. atroflavus* Soyka **syn. n.**, *O. diversicornis* Soyka **syn. n.**, and *O. auripes* Whittaker **syn. n.** under *O. notatus* Walker; *O. polonicus* Soyka **syn. n.**, *O. montanus* Soyka **syn. n.**, *O. remonti* Mathot **syn. n.**, and *O. dovrensis* Solem & Sveum **syn. n.** under *O. sublaevis* Foerster; and *O. flaviventris* Donev **syn. n.** under *O. novickyi* Soyka. *Ooctonus sevae* Risbec (from Madagascar) is transferred to *Gonatocerus* Nees ab Esenbeck as *Gonatocerus (Lymaenon) sevae* (Risbec), **comb. n.** Lectotypes are designated for *O. austriacus* Soyka, *O. elegantissimus* Soyka, *O. foersteri* Soyka, *O. heterotomus* Foerster, *O. major* Foerster, and *O. sub-*

*laevis* Foerster. Separate keys are provided to females of *Ooctonus* from the Palaearctic region, to both sexes of the European species, and also to females of the known Oriental species of *Ooctonus*. A brief diagnosis of the genus is given based on its world fauna, and information on the distribution and known host associations of *Ooctonus* species is provided. A historical account of the Walter Soyka collection of microhymenoptera is presented, with references to the Arnold Foerster collection of Mymaridae.

**Key words:** taxonomy, Chalcidoidea, fairyfly, egg parasitoid

## Introduction

*Ooctonus* is one of the seven original fairyfly (Hymenoptera: Mymaridae) genera described by Haliday (1833). Despite being a distinctive genus with relatively easily recognizable species, particularly in Europe, it is in almost complete disarray at the specific level (Triapitsyn 2002), due to the following factors. First, the original descriptions of the “classical” species (i.e., those described during the 19<sup>th</sup> century) were too brief and general, and also lacked any illustrations. Second, the type specimens of two of the three Haliday’s species of *Ooctonus*, *O. vulgatus* Haliday and *O. hemipterus* Haliday, and those of *O. notatus* Walker, were not known and/or accessible to taxonomists outside of Great Britain and Ireland, and the type material of the type species of the genus, *O. insignis* Haliday, was missing. Third, types of the mainland European species of *Ooctonus* described by Foerster (1841, 1847) were not available to taxonomists outside Germany and, later, Austria, and, following the death of Walter Soyka in 1967, were completely inaccessible to the taxonomic community as were most of the types of Soyka’s species of *Ooctonus*. Fourth, all the known North American species of the genus were described without comparison with the named European congeneric taxa, although some of the latter also occur in the Nearctic region and thus have a Holarctic distribution. Fifth, 16 species of *Ooctonus* were described by Soyka (1941, 1949, 1950) from Europe mostly based on intraspecific rather than interspecific variation, thus creating an unnecessary obstacle that has prevented correct identification of the European species of this genus. Sixth, no comprehensive revisions of either the European or North American species of *Ooctonus* have been available.

The following positive developments have recently helped address most of the above-mentioned problems, making this revision possible. First, the type problem with the Alexander Henry Haliday and Francis Walker species of *Ooctonus* has been properly addressed first by Hincks (1952), who designated a neotype for *O. insignis* and lectotypes for *O. vulgatus* and *O. hemipterus*, and reviewed the “British” species, and then by Graham (1982), who designated a lectotype for *O. notatus* and proposed two important synonymies. Recently, one antenna and one pair of wings were carefully removed from each of the primary types of the Haliday and Walker species of *Ooctonus* (stored in the insect collection of the National Museum of Ireland, Dublin, Ireland) and slide-mounted; all the body parts and specimen labels were then photographed (C. Thuróczy, personal communication). Second, a large number of well-preserved, recently collected specimens of *Ooctonus* from the entire Holarctic region have accumulated in the Canadian National Collection of Insects in Ottawa, Ontario, Canada (CNCI) and the Entomology Research Museum, University of California at Riverside, California, USA (UCRC), including the diverse material that was recently collected in the Russian Far East (Triapitsyn & Berezovskiy 2001) (deposited mainly in UCRC) and Japan (deposited in CNCI). Third, the second (larger) part of the Walter Soyka collection of microhymenoptera was donated in 2005 to Naturhistorisches Museum Wien [the Natural History Museum Vienna, Austria (NHMW)]. The collection contained many of Soyka’s mymarid types and also the numerous types and other specimens from the Arnold Foerster [note that in citations and references spelling of his last name follows the way it was spelled in his respective original publications] collection of Mymaridae (including most of the material of *Ooctonus* from both collections). Apparently without any documentation the Foerster material had been borrowed by W. Soyka from NHMW (see the historical account below). Thus, these invaluable specimens of *Ooctonus* became available for study, and I was fortunate to have the opportunity to examine them in 2007.