



Zootaxa 3672 (1): 001–117  
www.mapress.com/zootaxa/

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# Monograph

ISSN 1175-5326 (print edition)

**ZOOTAXA**

ISSN 1175-5334 (online edition)

<http://dx.doi.org/10.11646/zootaxa.3672.1.1>

<http://zoobank.org/urn:lsid:zoobank.org/pub:2F022557-512C-4372-AD72-FF83302FBCC2>

# ZOOTAXA

3672

## Revision and reclassification of *Lasioglossum (Evylaeus)*, *L. (Hemihalictus)* and *L. (Sphecodogastra)* in eastern North America (Hymenoptera: Apoidea: Halictidae)

JASON GIBBS<sup>1,2§</sup>, LAURENCE PACKER<sup>3</sup>, SHEILA DUMESH<sup>3</sup> & BRYAN N. DANFORTH<sup>2</sup>

<sup>1</sup> Department of Entomology, Michigan State University, East Lansing, Michigan, USA

<sup>2</sup> Department of Entomology, Cornell University, Ithaca, New York, USA

<sup>3</sup> Department of Biology, York University, Toronto, Ontario, Canada

<sup>§</sup>Corresponding author: [Dialictus@gmail.com](mailto:Dialictus@gmail.com)



Magnolia Press  
Auckland, New Zealand

JASON GIBBS, LAURENCE PACKER, SHEILA DUMESH & BRYAN N. DANFORTH  
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(*Zootaxa* 3672)

117 pp.; 30 cm.

17 Jun. 2013

ISBN 978-1-77557-198-8 (paperback)

ISBN 978-1-77557-199-5 (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/>

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ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

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## ABSTRACT

The black species of weak-veined *Lasioglossum* (or *Hemihalictus* series) in eastern North America are revised to clarify their taxonomy and nomenclature and to facilitate identification. A subgeneric classification based upon available phylogenetic data is applied. *Lasioglossum (Sphecodogastra)* is applied more broadly than any previous usage to include many species typically classified as *L. (Evylaeus)*. The subgenus *L. (Evylaeus)* is retained but applied narrowly in agreement with phylogenetic results. *Lasioglossum (Hemihalictus)* has historically been considered monotypic but is here applied to many species of *L. (Dialictus) sensu lato* (equivalent to the carinaless *L. (Evylaeus)* of some authors). Usage of *L. (Dialictus)* is restricted primarily to species with metallic integument. Additional subgeneric synonymies for extralimital taxa are formalized and discussed. Descriptions are provided for each species with a synonymic list, diagnosis, and notes on taxonomy and biology. The recently revised Onagraceae-specialist species of *L. (Sphecodogastra)* are given abbreviated treatments. Notes on available DNA barcode data are given, with diagnostic characters supplied for closely related species. One new species is described: *L. (Sphecodogastra) seillean* Gibbs and Packer and the males of *L. fedorense* (Crawford) and *L. pectinatum* (Robertson) are described for the first time. The following three new synonymies are proposed: *Lasioglossum (Hemihalictus) sopinci* (Crawford), senior subjective synonym of *Evylaeus bradleyi* Mitchell; *Lasioglossum (Hemihalictus) macoupinense* (Robertson), senior subjective synonym of *Halictus divergens* Lovell; and *Lasioglossum (Hemihalictus) inconditum* (Cockerell), senior subjective synonym of *Halictus tracyi* Cockerell. *Lasioglossum inconditum* is here considered to be distinct from the Palaearctic species *L. rufitarse* (Zetterstedt). A lectotype is designated for *Halictus quebecensis* Crawford. We present the first record of *L. lustrans* (Cockerell) and *L. swenki* (Crawford) in Canada and the first record of *L. lusorium* (Cresson) east of the Mississippi River. Updated keys to species are provided for the fauna of eastern North America.

**Key words:** sweat bees, taxonomy, new species, DNA barcoding, classification, phylogenetic systematics, *Dialictus*, *Halictini*