



**Revision of the Mexican subgenus *Carabomimus* Kolbe, 1895
(Coleoptera: Carabidae: *Calosoma* Weber, 1801):
C. depressicolle, *C. flohri* and *C. digueti* species groups**

MARTIN HÄCKEL¹, WALTER HEINZ² & ROSTISLAV SEHNAL^{1,3}

¹Department of Neurosurgery, 1st Medical School, Charles University, Central Military Hospital, U Vojenské Nemocnice 1200, CZ-169 02 Prague 6, Czech Republic. E-mail: hackel@uvn.cz

²Kembachstrasse 46, D-97523 Schwanfeld, Germany. E-mail: heinz-carabus@t-online.de

³Faculty of Forestry and Wood Sciences, Czech University of Life Sciences, Kamýcká 1176, CZ-165 21 Prague 6, Czech Republic. E-mail: rsehnal@aol.com

Abstract

It is revised the central Mexican species of the *C. (Carabomimus) depressicolle* species complex, included in the subgenus *Carabomimus* Kolbe, 1895, genus *Calosoma* Weber, 1801. The complex is divided into two species groups, *depressicolle* and *flohri*. A key to all species groups of the subgenus *Carabomimus* (*depressicolle*, *digueti*, *flohri*, *politum* and *striatum*) inhabiting this area is included, whereas *C. bulleri* (Beheim & Breuning, 1943) was left unassigned. Another key to all five species of the complex (species groups *depressicolle* and *flohri*) is likewise included. It is described *C. flohri zirostense* **ssp. n.** (México: Michoacán), and the previously synonymized *C. lesnei* Breuning, 1931 and *C. gebieni* Breuning, 1931 are reestablished as valid taxa. *C. asper* (Jeannel, 1940) is downgraded as subspecies of *C. depressicolle* Chaudoir, 1869, whereas *C. altipeta* (Jeannel, 1940) and *C. sylvestre* (Lassalle, 2009) are ranked as species. *C. digueti colimaense* (Lassalle 2009) is considered to be a subspecies of *C. flohri*.

Key words: Coleoptera, Carabidae, *Calosoma*, *Carabomimus*, *Calosoma depressicolle* species group, taxonomy, new species, Nearctic, México, identification key

Introduction

Jeannel (1940) regarded all central Mexican *Calosoma* species of the subgenus *Carabomimus* Kolbe, 1895, *C. (Carabomimus) depressicolle* Chaudoir, 1869, *C. (Carabomimus) altipeta* (Jeannel, 1940), *C. (Carabomimus) asper* (Jeannel, 1940), *C. (Carabomimus) flohri* (Bates, 1884) and *C. (Carabomimus) lesnei* Breuning, 1931, as subspecies of *C. (Carabomimus) depressicolle*. Gidaspow (1959) revised New World *Calosoma* and treated these taxa as valid species except for *C. lesnei*, which she combined with *C. flohri*, thus making the name *lesnei* synonymous of *flohri*. In that work Gidaspow also discussed the position of *C. (Carabomimus) altipeta* (Jeannel, 1940) and on the basis of differences in the aedeagus recommended its removal from the these species group. Nevertheless, she left this taxon in the key to *Carabomimus* species. After sampling more Central Mexican populations we have found out that it is necessary to revise in depth the *Calosoma depressicolle* complex, including a more accurate delimitation of these groups, the assessment of taxa that should be included in it and a better knowledge of its geographic distribution.

Material and methods

The understanding of the *C. depressicolle* complex stems from data published in the existing monographs on the genus *Calosoma* (Jeannel, 1940; Gidaspow, 1959), supplemented by the rich material collected during the last 50