



Zootaxa 3748 (1): 001–109
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.3748.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:87872540-7C39-4A34-AA51-C8F64A07D94E>

ZOOTAXA

3748

A taxonomic review of the genus *Megalostomis* Chevrolat (Coleoptera, Cryptocephalinae, Chrysomelidae)

FEDERICO A. AGRAIN

*Laboratorio de Entomología, Instituto Argentino de Investigaciones de las Zonas Áridas (IADIZA, CCT-CONICET Mendoza), C.C.
507, 5500 Mendoza, Argentina.*

Email: fagrain@mendoza-conicet.gov.ar



Magnolia Press
Auckland, New Zealand

Accepted by L. Chamorro: 4 Nov. 2013; published: 16 Dec. 2013

FEDERICO A. AGRAIN

A taxonomic review of the genus *Megalostomis* Chevrolat (Coleoptera, Cryptocephalinae, Chrysomelidae)
(*Zootaxa* 3748)

109 pp.; 30 cm.

16 Dec. 2013

ISBN 978-1-77557-312-8 (paperback)

ISBN 978-1-77557-313-5 (Online edition)

FIRST PUBLISHED IN 2013 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: 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	5
Historical account on the taxonomy of Megalostomina	5
Intra-specific variation and Sexual dimorphism	6
Materials and Methods	7
Specimens studied	7
On the type species of <i>Megalostomis</i>	9
Species Concept	10
Habitat	10
Dissections of adults	11
Character nomenclature	11
Illustrations and Photography	11
Results	11
Subtribe Megalostomina	11
Key to the genera of the subtribe Megalostomina	12
<i>Megalostomis</i> Chevrolat 1836	12
Notes	13
Diagnosis	13
Key to the species of <i>Megalostomis</i>	14
Redescriptions	16
1. <i>Megalostomis robustipes</i> Monrós 1953a	16
2. <i>Megalostomis analis</i> (Forsberg 1821)	17
3. <i>Megalostomis lacordairei</i> Lacordaire 1848	19
4. <i>Megalostomis querula</i> Lacordaire 1848	22
5. <i>Megalostomis univittata</i> Lacordaire 1848	23
6. <i>Megalostomis pardalis</i> Guérin 1949	25
7. <i>Megalostomis flavocincta</i> Lacordaire 1848	27
8. <i>Megalostomis viridana</i> Lacordaire 1848	29
9. <i>Megalostomis basilaris</i> Jacoby 1876	31
10. <i>Megalostomis coerulea</i> Baly 1877a	32
11. <i>Megalostomis luctuosa</i> Lacordaire 1848	33
12. <i>Megalostomis obesa</i> Lacordaire 1848	35
13. <i>Megalostomis platyceros</i> Monrós 1951a	37
14. <i>Megalostomis eiderae</i> sp. nov.	39
15. <i>Megalostomis interruptofasciata</i> Baly 1877a	41
16. <i>Megalostomis grossa</i> (Forsberg 1821)	43
17. <i>Megalostomis sergius</i> sp. nov.	44
18. <i>Megalostomis anachoreta</i> Lacordaire 1848	46
19. <i>Megalostomis flavipennis</i> Jacoby 1880	50
20. <i>Megalostomis chalybeosoma</i> Lacordaire 1848	51
21. <i>Megalostomis grandis</i> (Forsberg 1821)	53
22. <i>Megalostomis uncinata</i> Lefèvre 1884	55
23. <i>Megalostomis placida</i> Baly 1877b	56
24. <i>Megalostomis gigas</i> Lacordaire, 1848	57
25. <i>Megalostomis dinamica</i> Monrós 1952	59
26. <i>Megalostomis gazella</i> Lacordaire 1848	60
27. <i>Megalostomis cornuta</i> Lacordaire 1848	64
28. <i>Megalostomis kollari</i> Lacordaire 1848	66
29. <i>Megalostomis religiosa</i> Lacordaire 1848	67
30. <i>Megalostomis tricincta</i> (Germar 1824)	69
31. <i>Megalostomis consimilis</i> Achard 1926	71
32. <i>Megalostomis pyropiga</i> Lacordaire 1848	74
33. <i>Megalostomis microcephala</i> Lacordaire 1848	78
34. <i>Megalostomis splendida</i> Lacordaire 1848	81
35. <i>Megalostomis vianai</i> Monrós 1947	83
36. <i>Megalostomis subfasciata</i> (LeConte 1868)	84
37. <i>Megalostomis dimidiata</i> Lacordaire 1848	88
38. <i>Megalostomis femorata</i> Jacoby 1888	83
39. <i>Megalostomis fulvipes</i> Jacoby 1888	85
40. <i>Megalostomis notabilis</i> Lacordaire 1848	98

Other species of <i>Megalostomis</i>	99
41. <i>Megalostomis monrosi</i> Medvedev 1998	99
42. <i>Megalostomis subnitida</i> Guérin 1952	100
Acknowledgments	101
References	101
Appendix 1— <i>Megalostomis</i> Chevrolat 1836 Checklist	105
Appendix 2— <i>Megalostomis</i> species after revision	109

Abstract

A taxonomic revision of the genus *Megalostomis* Chevrolat, 1836 (Coleoptera: Chrysomelidae: Cryptocephalinae: Clytrini: Megalostomina) is provided, including new data on geographic ranges. Two new species and 34 new synonymies are proposed within the genus *Megalostomis*, leaving 42 valid species in the genus. A checklist of the species of *Megalostomis* is provided, with information on host plants, ant associations, and natural enemies. The study includes a key to all species, diagnoses, descriptions, habitat, photographs, and distribution maps. This comparative study of the external and internal adult morphology includes the male and female genitalia. Nomenclatural acts proposed in this revision are as follow: **Change of status:** *M. dinamica* **stat. rev.** (= *M. flavipennis dinamica* Monrós, 1952). **New synonymy:** *M. anachoreta* Lacordaire, 1848 (= *M. gratiosa* Lacordaire, 1848, **syn. nov.**, *M. amazona* Jacoby, 1876, **syn. nov.**, *M. generosa* Baly, 1877a, **syn. nov.**, *M. balyi* Monrós, 1951a, **syn. nov.**, *M. mariae* Monrós 1951a, **new status syn.**, *M. hespenheidi* Moldenke, 1981, **syn. nov.**); *M. basilaris* Jacoby, 1880 (= *M. runa* Monrós, 1952, **syn. nov.**); *M. cornuta* Lacordaire, 1848 (= *M. cornuta* var. *divisa* Guérin, 1949, **syn. nov.**); *M. dimidiata dimidiata* (Lacordaire, 1848) (= *M. tomentosa tomentosa* Jacoby, 1880, **syn. nov.**, *M. punctatissima* (Jacoby, 1888), **syn. nov.**, *M. tomentosa orientalis* Moldenke, 1970, **syn. nov.**, *M. tomentosa sinaloensis* Moldenke, 1970, **syn. nov.**, *M. tomentosa guatemalensis* Achard, 1926 (2nd specimen only), **syn. nov.**, *M. dimidiata nayaritensis* Moldenke, 1970, **syn. nov.**, *M. dimidiata sonorensis* Moldenke, 1970, **syn. nov.**); *M. flavocincta* Lacordaire, 1848 (= *M. flavomaculata* Lacordaire, 1848, **syn. nov.**); *M. fulvipes fulvipes* Jacoby, 1888 (= *M. fulvipes yucatanensis* Moldenke, 1970, **syn. nov.**); *M. gazella* Lacordaire 1848 (= *M. bicingulata*, Lacordaire, 1848, **syn. nov.**, *M. meretrix* Lacordaire, 1848, **syn. nov.**); *M. luctuosa* Lacordaire, 1848 (= *M. iracunda* Lacordaire, 1848, **syn. nov.**); *M. microcephala* Lacordaire, 1848 [= *M. tosta* (Monrós, 1950), **syn. nov.**]; *M. notabilis notabilis* Lacordaire, 1848 (= *M. notabilis linearis* Moldenke, 1970, **syn. nov.**); *M. pyropiga pyropiga* Lacordaire, 1848 (= *M. pyropiga chiapensis* Moldenke, 1970, **syn. nov.**); *M. querula* Lacordaire, 1848 (= *M. propinqua* Lacordaire, 1848, **syn. nov.**, *M. univittata pacifica* Monrós, 1953a, **syn. nov.**); *M. religiosa* Lacordaire, 1848 (= *M. distincta* Lacordaire, 1848, **syn. nov.**); *M. splendida splendida* Lacordaire, 1848 (= *M. splendida affinis* Jacoby, 1888, **syn. nov.**; *M. splendida regalis* Achard, 1926, **syn. nov.**); *M. subfasciata subfasciata* (LeConte, 1868) [= *M. subfasciata majorubrofasciata* Moldenke, 1970, **syn. nov.**; *M. subfasciata murina* (Monrós, 1952), **syn. nov.**]; *M. tricincta* (Germar, 1824) (= *M. bubalus bubalus* Lacordaire, 1848 **syn. nov.**, *M. bubalus bubaloides* Monrós, 1953a, **syn. nov.**); *M. univittata* Lacordaire, 1848 (= *M. univittata oblita* Monrós, 1953a, **syn. nov.**); *M. viridana* Lacordaire, 1848 (= *M. metallica* Jacoby, 1888, **syn. nov.**). **Type designations:** lectotypes are designated for the following species: *M. anachoreta* Lacordaire, 1848; *M. chalybeosoma* Lacordaire, 1848; *M. coerulea* Baly, 1877a; *M. cornuta* Lacordaire, 1848; *M. dimidiata* Lacordaire, 1848; *M. flavipennis* Jacoby, 1880; *M. flavocincta* Lacordaire, 1848; *M. gazella* Lacordaire, 1848; *M. gigas* Lacordaire, 1848; *M. interruptofasciata* Baly, 1877a; *M. luctuosa* Lacordaire, 1848; *M. notabilis* Lacordaire, 1848; *M. obesa* Lacordaire, 1848; *M. placida* Baly, 1877b; *M. pyropiga* Lacordaire, 1848; *M. religiosa* Lacordaire, 1848; *M. splendida* Lacordaire, 1848; *M. subfasciata* (LeConte, 1868); *M. tricincta* (Germar, 1824); *M. uncinata* Lefèvre, 1884; *M. univittata* Lacordaire, 1848; *M. viridana* Lacordaire, 1848; *M. microcephala* Lacordaire, 1848.

Key words: Clytrini, Megalostomina, Lectotypes, New species, New synonymy

Introduction

Chamorro 2013, cited 5300 species of Cryptocephalinae comprised in 127 genera, also according to this author, of the three tribes constituting the subfamily, Clytrini is the second most diverse (with over 1300 species). Cryptocephalinae are distributed worldwide but many tribes have distinctive distributions (Erber 1988). The tribe Clytrini occurs in the Nearctic, Palearctic, Neotropical, Ethiopian, Oriental, and Australian regions. The highest species diversity of Clytrini is in South America, Africa, and Asia. They are rare in the Caribbean Islands and Australia, and absent in New Zealand. Clytrini is composed of six subtribes; of the three larger subtribes (Clytrina, Megalostomina and Babiina) the later two are well represented in the Neotropical region with nearly 350 species

Acknowledgments

I would like to thank Adriana Marvaldi, Analia Lanteri, Federico Ocampo, Gustavo Flores, Nora Cabrera, Sergio Roig, and two anonymous reviewers for useful comments on a previous version of the manuscript. I want to thank Nelly Horak for useful advice on the English. I am extremely grateful to Terry Erwin for his generous support to this project and for his hospitality during my visit to the Smithsonian Museum of Natural History (Washington DC). Caroline Chaboo also deserves special mention in this regard for my visit to the American Museum of Natural History (New York, USA). Others who generously assisted me were: Alexander Konstantinov, Chris Reid, Frantisek Kantner, Jorge Santiago-Blay, Laurent Lesage, Lourdes Chamorro, Renato Regalin, and Shawn Clark. I thank Silvana Giberti who helped me compile field data for the new taxa described here. I am indebted to Sergio Roig who trusted me from the beginning the study of this wonderful group of beetles. I also thank the following curators for the loan of specimens to study: Lee Herman (AMNH, New York, USA), David G. Furth (USMNH, Washington DC, USA); Norma Díaz (MLPA, La Plata, Argentina); Arturo Roig-Alsina (MACN, Buenos Aires, Argentina); Carlos Campaner and M. Casari (MZSP, São Paulo, Brazil); Virginia Colomo (IMLA, Tucumán, Argentina); Sharon Shute, Beulah Garner, and Maxwell Barclay (BMNH, London, UK), Luca Picciau (MIZT, Turin, Italy), Pol Limbourg and Jerome Constant (KBIN, Brussels, Belgium), Angel Solis (INBC, Santo Domingo de Heredia, Costa Rica), Eva Sprecher (MNBA, Basel, Switzerland), Otto Merkl (HNHM, Budapest, Hungary), Cheryl Barr (EMEC, Berkeley, California, USA), Weiping Xie (LACM, Los Angeles, USA), Michael Thomas and Paul Skelley (FSCA, Florida, USA), Vic Smith (California Academy of Sciences) for digital images of *M. hespenheidi* type and Joachim Willers (ZMHB, Berlin, Germany). My wife Laura and my parents Mario and Marisa deserve special praise for their generous guidance. Funding for this project came from CONICET (National Council of Science and Technology, Argentina) through a doctoral fellowship to FAA. Additional funding came from grants to AEM (PICT #2011-2573, ANPCyT) and SAR (PIP #112-200801-01869, CONICET).

References

- Achard, J. (1926) Notes sur les Megalostomini (Col Chrysomelidae). *Fragments entomologiques Fragments Entomologiques* (Prague: Smichov), 65, 145–156.
- Agrain, F.A., Roig-Juñent, S.A. & Dominguez, M.C. (2007) Taxonomic revision and preliminary phylogenetic analysis of the subgenus *Megalostomis* (*Scaphigenia*) Lacordaire (Coleoptera: Chrysomelidae). *Insect Systematics and Evolution*, 38, 335–359.
<http://dx.doi.org/10.1163/187631207788754402>
- Agrain, F.A. & Marvaldi, A.E. (2009) Morphology of the first instar larva in the tribe Clytrini, with two new descriptions in the subtribe Megalostomina (Coleoptera: Chrysomelidae: Cryptocephalinae). *Zootaxa*, 2147, 59–68.
- Agrain, F.A. (2010) *Systematic revision of the genus Megalostomis and Phylogenetic analysis of the subtribe Megalostomina* (Coleoptera: Chrysomelidae). Doctoral Thesis, Universidad Nacional de Cuyo (PROBIOL), Mendoza, 418 + XIV pp.
- Agrain, F.A. & Roig-Juñent, S.A. (2011) Systematics and cladistics of *Megalostomis* Chevrolat, and the Biogeography of Clytrini (Coleoptera: Cryptocephalinae). *Systematic Entomology*, 36 (4), 672–704.
<http://dx.doi.org/10.1111/j.1365-3113.2011.00584.x>
- Aravena, R.O. (1974) *Insectos de La Pampa* (Coleópteros) Prov. de La Pampa, Consejo Provincial de difusión, Biblioteca Pampeana, La Pampa, Argentina, 76 pp.
- Baly, J.S. (1877a) Descriptions of new species of Phytophagous Coleoptera. *Cistula entomologica*, 2, 179–185.
- Baly, J.S. (1877b) New species of Phytophagous Coleoptera. *Journal of the Linnean Society of London, Zoology*, 14 (76), 341–342.
<http://dx.doi.org/10.1111/j.1096-3642.1878.tb01539.x>
- Blackwelder, R.E. (1944) Checklist of the coleopterous insects of Mexico, Central America, The West Indies, and South America. Part 1. *United States National Museum, Bulletin*, 185, 1–188.
<http://dx.doi.org/10.1086/395132>
- Blanchard, E. (1851) Fauna, tomo 5. In: Gay, C. (Ed.), *Historia Física y Política de Chile*. Imprenta de Maulde et Renou, Paris, pp. 285–563.
- Bond, A.B. (2007) The evolution of color polymorphism: crypticity, searching images, and apostatic selection. *Annual Review of Ecology, Evolution and Systematics*, 38, 489–514.
<http://dx.doi.org/10.1146/annurev.ecolsys.38.091206.095728>
- Bouchard, P., Bousquet, Y., Davies, A.E., Alonso-Zarazaga, M.A., Lawrence, J.F., Lyal, C.H.C., Newton, A.F., Reid, C.A.M., Schmitt, M., Šlipiński, S.A. & Smith, A.B.T. (2011) Family-group names in Coleoptera (Insecta). *ZooKeys*, 88, 1–972.
<http://dx.doi.org/10.3897/zookeys.88.807>

- Brown, R.W. (1956) *Composition of scientific words: a manual of methods and a lexicon of materials for the practice of logotechnics*. Published by the author, 882 pp.
- Bruch, C. (1914) *Catálogo sistemático de los coleópteros de la república Argentina. Pars. IX. Familias: Chrysomelidae, Cassidae, Hispidae, Languridae, Erotylidae, Coccinellidae y Endomychidae*. *Revista del Museo de La Plata*, 19 (2), 346–400.
- Burmeister, H. (1877) Phytophaga Argentina. *Stettiner Entomologische Zeitung*, 38, 52–57.
- Cabrera, A.L. & Willink, A. (1973) *Biogeografía de América Latina*. Colección de Monografías Científicas O.E.A., Biología 13, Washington D.C., 122 pp.
- Cambefort, Y. (2007) *Des coléoptères, des collections et des hommes*. Publications Scientifiques du Muséum National d'Histoire Naturelle, Paris, 375 pp.
- Chaboo, C.S. (2007) Biology and phylogeny of the Cassidinae (tortoise and leaf-mining beetles) (Coleoptera: Chrysomelidae). *Bulletin of the American Museum of Natural History*, 305, 1–250.
[http://dx.doi.org/10.1206/0003-0090\(2007\)305\[1:bapotc\]2.0.co;2](http://dx.doi.org/10.1206/0003-0090(2007)305[1:bapotc]2.0.co;2)
- Chamorro, M.L. (2013) 2.7.5 Chrysomelidae: Cryptocephalinae Gyllenhal 1813. In: Leschen, R.A.B., Beutel, R.G. & Lawrence, J.F. (Eds.), *Handbook of Zoology. Arthropoda: Insecta. Coleoptera, Beetles. Vol. 3. Morphology and Systematics (Phytophaga)*. Walter De Gruyter, Berlin, pp. 81–87.
- Chapuis, F. (1874) *Histoire Naturelle des Insectes genera des Coléoptères, vol. 10, Famille des Phytophages*, Paris, 455 pp.
- Chevrolat, L.A.A. (1836) Catalogue des coléoptères de la collection de M. le comte Dejean. Deuxième Édition [Livraison 5]. In: Dejean, P.F.M.A. (Ed.), *Troisième édition, revue, corrigée et augmentée. 1–4*. Méquignon-Marvis, Paris, 468 pp. [end of 1836 (Madge 1988: 318)]
- Clark, S.M., LeDoux, D.G., Seeno, T.N., Riley, E.G., Gilbert, A.J. & Sullivan, J.M. (2004) *Host plants of leaf beetle species occurring in the United States and Canada (Coleoptera: Megalopodidae, Orsodacnidae, Chrysomelidae exclusive of Bruchinae)*. Coleopterists Society, Special Publication no. 2, 476 pp.
- Clavareau, H. (1913) Pars 53. Chrysomelidae: 5. Megascelinae, 6. Megalopodinae, 7. Clytrinae, 8. Cryptocephalinae, 9. Chlamydinae, 10. Lamprosominae. In: Schenkling, S. (Ed.), *Coleopterorum Catalogus*. Junk, W., Berlin, 278 pp.
- Cordo, H.A. & DeLoach, C.J. (1995) Natural Enemies of the Rangeland Weed Whitebrush {*Aloysia gratissima*: Verbenaceae} in South America: Potential for Biological Control in the United States. *Biological control*, 5, 218–230.
<http://dx.doi.org/10.1006/bcon.1995.1027>
- Crotch, G.R. & Cantab, M.A. (1873) Materials for the study of the Phytophaga of the United States. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 25, 19–83.
- Dejean, P.F.M.A. (1836) Catalogue des coléoptères de la collection de M. le comte Dejean. Deuxième Édition [Livraison 5]. In: Dejean, P.F.M.A. (Ed.), *Troisième édition, revue, corrigée et augmentée. 1–4*. Méquignon-Marvis, Paris, 468 pp. [end of 1836 (Madge 1988: 318)]
- Dugès, E. (1876) Description des métamorphoses de *Minturnia dimidiata* Lac., Coléoptère du groupe des megalostomides. *Annales de la Société Entomologique de Belgique*, 19, 178–183.
- Ebeling, W. (1959) *Subtropical fruit pests*. University of California Press, California, 525 pp.
- Eberhard, W.G. (1985) *Sexual Selection and Animal Genitalia*. Harvard University Press, Cambridge, 243 pp.
- Erber, D. (1988) Biology of Camptosoma Clytrinae-Cryptocephalinae-Chlamisinae-Lamprosomatinae. In: Jolivet, P., Petitpierre, E. & Hsiao, T.H. (Eds.), *Biology of Chrysomelidae*. Kluwer Academic Publishers, London, pp. 513–552.
http://dx.doi.org/10.1007/978-94-009-3105-3_30
- Erber, D. & Medvedev, L.N. (2003) Studies concerning the taxonomy of *Diapericera* Lacordaire, 1848 with a description of two new species (Coleoptera, Chrysomelidae). *Entomologica Basiliensia*, 25, 261–273.
- Fall, H.C. (1927) Expedition of the California Academy of Sciences to the Gulf of California in 1921. The Chrysomelidae (Coleoptera). *Proceedings of the California Academy of Sciences*, 4 (16), 381–395.
- Fiebrig, K. (1910) Cassiden und Cryptocephaliden Paraguays. Ihre Entwicklungsstadien und Schutzvorrichtungen. *Zoologisches Jahrbuch*, Supplement 12 (2), 161–264.
- Flowers, R.W. & Eberhard, W.G. (2006) Fitting together: copulatory linking in some Neotropical Chrysomeloidea. *Revista de biología tropical*, 54 (3), 829–842.
- Forsberg, C.P. (1821) Monographia Clythrae. *Nova Acta Regiae Societatis Scientiarum Upsaliensis*, Upsala, 8, 258–292.
- Furth, D.G., Askevold, I.S. & Duckett, C.N. (1994) Discovery and designation of the type specimens of Chrysomelidae (Coleoptera) from Argentina described by E.von Harold in 1875. *Psyche*, 101, 19–32.
<http://dx.doi.org/10.1155/1994/69032>
- Gemminger, M. & von Harold, E. (1876) Catalogus coleopterum hucusque descriptorum synonymicus et systematicus. Monachii. In: Gummi, E.H. (Eds.), *Chrysomelidae (II), Languriidae, Erotylidae, Endomychidae, Coccinellidae, Corylophidae, Platypyllide, Acredit Index Generum universalis*, 12, Paris and London, pp. 3479–3822.
- Germar, E.F. (1824) *Insectorum species novae aut minus cognitae, descriptionibus illustratae. Vol. 1*. Coleoptera. J.C. Hendelii et filii., Halae, xxiv + 624pp. + 2 pl.
- Giovanetti, M. (2005) Nesting ecology of a neotropical solitary wasp (Hymenoptera: Sphecidae) in Panamá. *Neotropical Entomology*, 34 (5), 713–719.
<http://dx.doi.org/10.1590/s1519-566x2005000500002>
- Guérin, J. (1942) Novos Clytridae (Col.) do Brasil. *Arquivos do Museu Paranaense*, 2, 23–28.

- Guérin, J. (1943a) Novos Clytridae (Col.) do Brasil. *Revista de entomologia. Rio de Janeiro*, 14 (1–2), 306–310.
- Guérin, J. (1943b) Clitrideos do Brasil. *Arquivos do Museu Paranaense*, 3, 3–94.
- Guérin, J. (1944) Notas sobre Clytridae Neotropicais. *Revista Brasileira de Biologia*, 4 (4), 513–516.
- Guérin, J. (1949) Descrição de Novas espécies Neotropicais des famílias Clytridae, Megalopodidae e Erotylidae (Col.). *Revista de entomologia, Rio de Janeiro*, 20 (1–3), 229–236.
- Guérin, J. (1952) Contribucao para o conhecimento dos Clytridae Neotropicais (Coleoptera). *Dusenya*, 3 (3), 203–211.
- Harold, E. von (1875) Ueber Chrysomelidae aus Cordova. *Coleopterologische Hefte*, XIV, 95–101.
- Heyne, A. & Taschenberg, O. (1908) *Die exotischen Käfer in Wort und Bild*. Schreiber, J.F., Esslingen & München, 310 pp.
- Horn, H.M.D. (1892) Studies in Chrysomelidae. *Transactions of the American Entomological Society*, 19, 8–17.
- Horn, W., Kahle, I., Friese, G. & Gaedike, R. (1990) *Collectiones Entomologicae. Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik*, Berlin, 2 parts, 573 pp.
- Houston, K.J. (1979) Mosaic dominance in the inheritance of the colour patterns of *Coelophora inaequalis* (F.) (Coleoptera: Coccinelidae). *Journal of the Australian Entomological Society*, 18, 45–51.
<http://dx.doi.org/10.1111/j.1440-6055.1979.tb00810.x>
- ICZN (International Commission on Zoological Nomenclature) (1999) *International Code of Zoological Nomenclature*. Fourth Edition, adopted by the International Union of Biological Sciences, London, International Trust for Zoological Nomenclature, xxix + 306 pp.
- Jacoby, M. (1876) Descriptions of new Genera and Species of Phytophagous Coleoptera. *Proceedings of the Zoological Society of London*, 44 (1), 807–817.
<http://dx.doi.org/10.1111/j.1096-3642.1876.tb02617.x>
- Jacoby, M. (1880) Phytophaga (part). *Biologia Centrali Americana*, 4 (1), 29–32.
- Jacoby, M. (1888) Insecta, Coleoptera, Supplement to Phytophaga. *Biologia Centrali-Americana*, 6, 1–80.
- Jacoby, M. & Clavereau, H. (1906) Coleoptera Phytophaga Fam. Chrysomelidae Subfam. Clytrinae. In: Wytzman, P. (Ed.), *Genera Insectorum*, 49, 1–87.
- Kingsley, K.J. (1998) Invertebrates of Organ Pipe Cactus National Monument, Arizona. *The University of Arizona. National Park Service, Technical Report*, 60, 193 pp.
- Kliejunas, J.T., Tkacz, B.M., Burdsall, H.H. Jr., DeNitto, G.A., Eglitis, A., Haugen, D.A. & Wallner, W.E. (2001) *Pest risk assessment of the importation into the United States of unprocessed Eucalyptus logs and chips from South America*. Gen. Tech. Rep. FPL-GTR-124. U.S. Department of Agriculture, Forest Service, Forest Products Laboratory, Madison, W.I., 134 pp.
- Klug, J.C.F. (1836) Catalogue des coléoptères de la collection de M. le comte Dejean. Deuxième Édition [Livraison 5]. In: Dejean, P.F.M.A. (Ed.), *Troisième édition, revue, corrigée et augmentée. 1–4*. Méquignon-Marvis, Paris, 468 pp. [end of 1836 (Madge 1988: 318)]
- Lacordaire, M.Th. (1848) Monographie des Coléopterès subpentamères de la famille des phytophages, Vol 2. *Memoires de la Societe royale belge d'Entomologie, Liège*, 5, 890 pp.
- Lawrence, J.F., Hastings, A.M., Dallwitz, M.J., Paine, T.A. & Zurcher, E.J. (1999) Beetles of the world: A key and Information System for families and subfamilies. CD-Rom, Version 1.0 for Windows. CSIRO Publishing Melbourne, Australia.
- LeConte, J.L. (1868) New Coleoptera collected on the survey for the extension of the Union Pacific railway, E.D. from Kansas to Fort Craig, New Mexico. *Transactions of the American Entomological Society*, 2, 49–64.
<http://dx.doi.org/10.2307/25076194>
- Lefèvre, E. (1884) *Megalostomis uncinata, Corynodes rutilans, Balya jacobyi*. *Bulletin de la Société Entomologique de France*, 6 (4), CXLIX–CL.
- Leng, C.W. (1920) *Catalogue of the Coleoptera of America North of Mexico*. New York, X + 470 pp.
- Machado, V. & Araújo, A.M. (2003) Elytra colour polymorphism and randomness of matings in *Chauliognathus fallax* Germar 1824 from southern Brazil (Coleoptera, Cantharidae). *Revista Brasileira de Entomologia*, 47 (3), 409–413.
<http://dx.doi.org/10.1590/s0085-56262003000300008>
- Madge R.B. (1988) The publication dates of Dejean's catalogues. *Archives of Natural History*, 15, 317–321.
<http://dx.doi.org/10.3366/anh.1988.15.3.317>
- Majerus, E.N. (1998) *Melanism: Evolution in Action*. Oxford University Press, Oxford, 338 pp.
- Medvedev, L.N. (1992) Type specimens of the subfamily Clytrinae (Coleoptera: Chrysomelidae) from the Maurice Pic collection of the Muséum National d'Histoire Naturelle, Paris. *Annales de la Société entomologique de France*, (n.s.) 28 (1), 15–25.
- Medvedev, L.N. (1998) To the knowledge of the North American larvae of Clytrinae. *Latvijas Entomologs*, 36, 36–43.
- Meurgues, G. & Ledoux, G. (1966) Intérêt de l'étude du sac interne dévaginé et en extension. *Annales de la Société entomologique de France*, (n.s.), 2 (3), 661–669.
- Moldenke, A.R. (1970) *A revision of Clytrinae of North America, North of the Isthmus of Panama* (Coleoptera: Chrysomelidae). Stanford University, 310 pp.
- Moldenke, A.R. (1971) Host-plant relations of phytophagous beetles in Mexico. *The Pan-Pacific Entomologist*, 47, 105–116.
- Moldenke, A.R. (1981) A Generic reclassification of the New World Clytrinae (Coleoptera: Chrysomelidae). *Entomologische Arbeiten aus dem Museum G. Frey*, 29, 75–116.
- Monrós, F. (1944a) Algunos coleópteros de interés forestal observados en la Isla Victoria. *Revista de la Facultad de Agronomía Veterinaria. Universidad Nacional de Buenos Aires*, 10 (3), 1–10.

- Monrós, F. (1944b) Descripción de un nuevo clítrido argentino. *Revista de la Facultad de Agronomía y Veterinaria. Universidad Nacional de Buenos Aires*, 11 (1), 1–7.
- Monrós, F. (1945) A propósito de algunos Chrysomeloidea Neotropicales (Coleoptera). *Notas del Museo de La Plata. Instituto del Museo de la Universidad Nacional de La Plata*, 10 (Zoología) 86, 143–155.
- Monrós, F. (1947) Descripciones y comentarios relativos a Chrysomeloidea. *Acta Zoologica Lilloana*, 4, 155–174.
- Monrós, F. (1950) Nuevas especies de *Euryscopa* sudamericanas. *Acta Zoologica Lilloana*, 9, 293–305.
- Monrós, F. (1951a) Description of new Neotropical Megalostomini. *Annals and Magazine of Natural History*, 12 (4), 1146–1158.
- Monrós, F. (1951b) Descripción de diez nuevas especies de Babiini neotropicales. *Revista de la Sociedad Entomológica Argentina*, 15, 149–161.
- Monrós, F. (1952) Descripciones de 'Clytrinae' americanas (Col. Chrysomelidae). *Revista Brasileira de Biologia*, 12 (4), 349–362.
- Monrós, F. (1953a) Revisión sistemática de las especies de Clytrinae de la Argentina, Paraguay, Uruguay y Chile (Col. Chrysomelidae). *Acta Zoologica Lilloana*, 14, 5–274.
- Monrós, F. (1953b) Some corrections in the nomenclature of Clytrinae. *The Coleopterists Bulletin*, 7 (6), 435–450.
- Monrós, F. (1953c) Some new synonyms in Clytrinae (Coleoptera, Chrysomelidae). *Psyche*, 60, 148–150.
<http://dx.doi.org/10.1155/1953/45329>
- Monrós, F. (1954) General remarks on the subfamily clytrinae as suggested by the second edition of the Coleopterorum Catalogus (Chrysomelidae). *The Coleopterists Bulletin*, 8 (3–4), 62–68.
- Monrós, F. (1956) Sur quelques Clytrinae du Muséum de Paris (Col. Chrysomelidae). *Revue Française d'Entomologie*, 23, 161–164.
- Monrós, F. (1958) Descripción de una nueva tribus de Clytrinae (Col., Chrysomelidae). *Acta Zoológica Lilloana*, 15, 35–39.
- Ødegaard, F. (2004) Species richness of phytophagous beetles in the tropical tree *Brosimum utile* (Moraceae): the effects of sampling strategy and the problem of tourists. *Ecological Entomology*, 29, 76–88.
<http://dx.doi.org/10.1111/j.0307-6946.2004.00580.x>
- Olson, D.M., Dinerstein, E., Wikramanayake, E.D., Burgess, N.D., Powell, G.V.N., Underwood, E.C., D'Amico, J.A., Itoua, I., Strand, H.E., Morrison, J.C., Loucks, C.J., Allnutt, T.F., Ricketts, T.H., Kura, Y., Lamoreux, J.F., Wettengel, W.W., Hedao, P. & Kassem, K.R. (2001) Terrestrial ecoregions of the world: A new map of life on earth. *BioScience*, 51 (11), 933–938.
[http://dx.doi.org/10.1641/0006-3568\(2001\)051\[0933:teotwa\]2.0.co;2](http://dx.doi.org/10.1641/0006-3568(2001)051[0933:teotwa]2.0.co;2)
- Pallister, J.C. (1953) The leaf beetles of north central Mexico collected on the David Rockefeller Mexican expedition (Coleoptera, Chrysomelidae). *American Museum Novitates*, 1623, 1–95.
- Peña, L. (1986) *Introducción al estudio de los insectos de Chile*. Editorial Universitaria. Santiago. 253 pp.
- Poulton, E.B. (1890) *The Colours of Animals: Their Meaning and Use, Especially Considered in the Case of Insects*. Appleton, New York, 360 pp.
<http://dx.doi.org/10.1126/science.ns-16.407.286>
- Reid, C.A.M. (2000) Spilopyrinae Chapuis: A new subfamily in the Chrysomelidae and its systematic placement (Coleoptera). *Invertebrate Taxonomy*, 14, 837–862.
- Riley, E.G., Clark, S.M., Flowers, R.W. & Gilbert, A.J. (2002) Chrysomelidae Latreille 1802. In: Arnett, R.H., Thomas, M.C., Skelley, P.E. & Frank, J.H. (Eds.), *American Beetles. Vol. 2*. CRC Press, Boca Raton, pp. 617–691.
- Roig-Juñent, S.A. (2004) Clytrinae part. In: Logarzo, H.A., Braun, K. & Di Iorio, O.R. (Eds.), *Catálogo de insectos fitófagos de la Argentina y sus plantas asociadas*. Sociedad Entomológica Argentina ediciones, Buenos Aires, pp. 104–106.
- Rojas, P. (1989) Entomofauna asociada a los detritos de *Atta mexicana* (F. Smith) (Hymenoptera: Formicidae) en una zona árida del centro de México. *Acta Zoológica Mexicana*, (n.s.) 33: 1–51.
- Seago, A.E., Parrish, B., Vigneron, J.P. & Schultz, T.D. (2008) Gold bugs and beyond: a review of iridescence and structural colour mechanisms in beetles (Coleoptera). *Journal of the Royal Society Interface*, 6, 165–184.
<http://dx.doi.org/10.1098/rsif.2008.0354.focus>
- Seeno, T.N. & Wilcox, J.A. (1982) Leaf Beetle Genera (Coleoptera: Chrysomelidae). *Entomography*, 1, 1–221.
- Verma, K.K. & Kalaichelvan, T. (2004) Polymorphism and microtaxonomy in Chrysomelidae. In: Jolivet, P., Santiago-Blay, J.A. & Schmitt, M. (Eds.), *New developments in the Biology of Chrysomelidae*. SPB Academic Publishing, The Netherlands, pp. 213–224.
- Viana, M.J. & Williner, G.J. (1974) Evaluación de la fauna entomológica y aracnológica de las provincias cuyanas y centrales de la República Argentina (Tercera comunicación). *Acta Científica, Serie Entomología*, 9, 1–35.
- Wheeler, Q.D. & Platnick, N.I. (2000) The phylogenetic species concept (*sensu* Wheeler and Platnick), p. 55–69. In: Wheeler, Q.D. & Meier, R. (Eds.), *Species Concepts and Phylogenetic Theory. A Debate*. Columbia University Press, NY, 230 pp.
- Wickham, H.F. (1898) The beetles of southern Arizona. *Bulletin of the Laboratories of Natural History, State University of Iowa*, 4 (3), 295–312.
- Xambeu, P.J.V. (1899) Moeurs et métamorphoses de insectes. *Annales de la société Linnéenne de Lyon*, 46, 1–73.