

Journal of Melittology

Bee Biology, Ecology, Evolution, & Systematics

The latest buzz in bee biology

No. 70, pp. 1–5

29 June 2017

BRIEF COMMUNICATION

Replacement names for bees in the tribe Megachilini (Hymenoptera: Megachilidae)

Michael S. Engel^{1,2}

Abstract. Eight instances of homonymy are identified in the megachiline genera *Coelioxys* Latreille and *Megachile* Latreille, with replacement names established for the junior homonyms. *Coelioxys* (*Coelioxys*) *lethosyne* Engel, new name, is proposed for *C. simplex latefasciata* Friese (nec Morawitz); *C. (Liothyrapis) wuae* Engel, new name, is proposed for *C. albofasciata* Wu (nec Radoszkowski); *Megachile* (*Eutricharaea*) *hisarica* Engel, new name, is proposed for *M. dentata* Rahman & Chopra (nec Friese); *M. (Megachile) agnosta* Engel, new name, is proposed for *M. japonica* Matsumura (nec Alfken); *M. (Dasymegachile) schwimmeri* Engel, new name, is proposed for *M. mitchelli* Raw (nec Gupta); *M. (Creightonella) taftanica* Engel, new name, is proposed for *M. aurantiaca* Rebmann (nec Friese); *M. (Callomegachile) biseta austrina* Engel, new name, is proposed for *M. biseta australis* Pasteels (nec Lucas); and *M. (C.) ceratops* Engel, new name, is proposed for *M. monoceros* Friese (nec Pallas).

INTRODUCTION

During the course of ongoing taxonomic research on the family Megachilidae, numerous instances of primary and secondary homonymy were identified within the megachiline genera *Coelioxys* Latreille and *Megachile* Latreille s.l. (*sensu* Michener, 2000). Species in two subgenera of *Coelioxys* are impacted (*Coelioxys* Latreille s.str. and *Liothyrapis* Cockerell), while five subgenera of *Megachile* cover the six instances of homonymy within that genus (*Eutricharaea* Thomson, *Megachile* Latreille s.str., *Dasmegachile* Mitchell, *Creightonella* Cockerell, and *Callomegachile* Michener). The nomenclatural details for each case are summarized and replacement names provided.

¹ Division of Entomology, Natural History Museum, and Department of Ecology & Evolutionary Biology, 1501 Crestline Drive – Suite 140, University of Kansas, Lawrence, Kansas 66045-4415, USA (msengel@ku.edu).

² Division of Invertebrate Zoology, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024-5192, USA

doi: <http://dx.doi.org/10.17161/jom.v0i70.6558>

TAXONOMY

Tribe Megachilini Latreille
 Genus *Coelioxys* Latreille
 Subgenus *Coelioxys* Latreille

Coelioxys (Coelioxys) lethosyne Engel, new name
 ZooBank: urn:lsid:zoobank.org:act:B78950B5-D29D-4674-A54E-AB54560C0F00

Coelioxys simplex latefasciata Friese, 1922: 40, *nomen praeoccupatum* (junior primary homonym, *nec Coelioxys latefasciata* Morawitz, 1886 [1887]).

ETYMOLOGY: The specific epithet is taken from the Greek, *lethosyne* ("forgetfulness").

Subgenus *Liothyrapis* Cockerell

Coelioxys (Liothyrapis) wuae Engel, new name
 ZooBank: urn:lsid:zoobank.org:act:33697EEC-19C8-4FF3-B077-A364E2149567

Coelioxys albofasciata Wu, 1988: 548, *nomen praeoccupatum* [junior secondary homonym, *nec Coelioxys albofasciata* (Radoszkowski, 1888) (originally as *Dioxys albofasciata* Radoszkowski but transferred to *Coelioxys* by Warncke, 1992)].

ETYMOLOGY: The specific epithet honors Yan-ru Wu and her many contributions to Chinese melittology.

Genus *Megachile* Latreille
 Subgenus *Eutricharaea* Thomson

Megachile (Eutricharaea) hisarica Engel, new name
 ZooBank: urn:lsid:zoobank.org:act:7CB64A71-5C30-45D3-8F1D-39C751020B3A

Megachile dentata Rahman, 1988 [1989]: 353, *nomen nudum*.

Megachile dentata Rahman & Chopra, 1994a: 36, *nomen nudum*.

Megachile dentata Rahman & Chopra, 1994b: 372, *nomen praeoccupatum* [junior primary homonym, *nec Megachile (Eurymella) dentata* Friese, 1909].

ETYMOLOGY: The specific epithet is a reference to the Hisar District of Haryana, India, and which includes the type locality.

Subgenus *Megachile* Latreille

Megachile (Megachile) agnosta Engel, new name
 ZooBank: urn:lsid:zoobank.org:act:99E7E453-55BA-43DE-9D76-7165ED615489

Megachile japonica Matsumura, 1910: 304, pl. 27 [fig. 5], *nomen praeoccupatum* [junior primary homonym, *nec Megachile (Xanthosarus) japonica* Alfken, 1903].

ETYMOLOGY: The specific epithet is taken from the Greek, *agnostos* (meaning, “unknown”).

Subgenus *Dasymegachile* Mitchell

Megachile (Dasymegachile) schwimmeri Engel, new name

ZooBank: urn:lsid:zoobank.org:act:1091914E-549C-4B2E-B854-FEC0B7276124

Cressoniella (Chaetochile) golbachi Schwimmer in Mitchell, 1980: 87.

Megachile (Chaetochile) golbachi (Schwimmer); Michener, 2000: 555 [recombination implied by transfer of *Chaetochile* to *Megachile* s.l.], *nomen praecoccupatum* (*nec Megachile golbachi* Schletterer, 1891).

Megachile (Dasymegachile) mitchelli Raw, 2004: 2, *nomen novum pro Megachile golbachi* (Schwimmer in Mitchell, 1980) (*nec Megachile golbachi* Schletterer, 1891), *et nomen praecoccupatum* [*nec Megachile (Creightonella) mitchelli* (Gupta, 1989 [1990]) (originally as *Creightonella mitchelli* Gupta but transferred by implication of placement of *Creightonella* in *Megachile* s.l. by Michener, 2000; note also that *Creightonella narmadaensis* Gupta, 1993, *nomen nudum et vanum*, was intended as an unnecessary replacement name for *C. mitchelli* Gupta [*in litt.*, 2004, *vide infra*], and even appeared again in Gupta, 1999)].

ETYMOLOGY: The specific epithet honors the original describer of the species, Eric Schwimmer.

NOTE: Regarding Gupta's unnecessary replacement name, he stated (*in litt.* to D.B. Baker, 2004) that *Creightonella narmadaensis* was intended as a replacement for *Creightonella mitchelli* Gupta, writing at the time, “since the name was preoccupied as someone informed me”. A routine inspection, however, would have established that there was in fact no homonymy involved.

Subgenus *Creightonella* Cockerell

Megachile (Creightonella) taftanica Engel, new name

ZooBank: urn:lsid:zoobank.org:act:C0455BC8-977A-4CE8-B12E-37D33775A5ED

Megachile (Metamegachile) aurantiaca Rebmann, 1972: 3, *nomen praecoccupatum* [junior primary homonym, *nec Megachile (Hackeriapis) aurantiaca* Friese, 1905].

ETYMOLOGY: The specific epithet is taken from the type locality, Mount Taftan in Sistan and Baluchestan Province, Iran.

Subgenus *Callomegachile* Michener

Megachile (Callomegachile) biseta austrina Engel, new name

ZooBank: urn:lsid:zoobank.org:act:E4B19658-B0EB-40B8-A5F3-33DFD1E69D54

Chalicodoma (Morphella) biseta australis Pasteels, 1965: 542.

Megachile biseta australis (Pasteels); Eardley & Urban, 2006: 169, *nomen praecoccupatum* [junior secondary homonym, *nec Megachile (Eutricharaea) australis* Lucas, 1876].

ETYMOLOGY: The subspecific epithet is taken from the Latin, *austrinus* (“southern”),

and preserves Pasteels' referencing of "southern" in the original name.

Megachile (Callomegachile) ceratops Engel, new name

ZooBank: urn:lsid:zoobank.org:act:9D54A4E1-7139-4BB8-BB8E-39EAFCDA2C47

Megachile monoceros Friese, 1903: 358, *nomen praeoccupatum* (junior primary homonym, *nec Megachile monoceros* Pallas in Eversmann, 1852).

ETYMOLOGY: The specific epithet is a combination of the Greek, *keratos* ("horn") and *ops* ("face" or "eye"), and refers to the facial horn alluded to in the original epithet.

ACKNOWLEDGEMENTS

I am grateful to two anonymous reviewers for their comments on this brief paper, and to the late Donald B. Baker for long ago assisting in the compilation of material for a catalog of Old World Megachilini and discussing many nomenclatural matters, including some of those presented here. This is a contribution of the Division of Entomology, University of Kansas Natural History Museum.

REFERENCES

- Alfken, J.D. 1903. Zwei neue Bienen aus Japan (Hym.). *Zeitschrift für Hymenopterologie und Dipteronologie* 3(4): 209–211.
- Eardley, C.D., & R.P. Urban. 2006. Taxonomic name changes in Afrotropical bees (Hymenoptera: Apoidea). *African Entomology* 14(1): 161–174.
- Eversmann, E. 1852. Fauna Hymenopterologica Volgo-Uralensis (continuatio). *Bulletin de la Société Impériale des Naturalistes de Moscou* 25(3): 1–137.
- Friese, H. 1903. Neue *Megachile*-Arten des Sunda-Archipel (Hym.). *Zeitschrift für Hymenopterologie und Dipteronologie* 3(6): 349–359.
- Friese, H. 1905. Neue Bienenarten aus Chile (Hym.). *Zeitschrift für Hymenopterologie und Dipteronologie* 5(3): 137–141.
- Friese, H. 1909. Apidae. In: Sjöstedt, Y. (Ed.), *Wissenschaftliche Ergebnisse der schwedischen zoologischen Expedition nach dem Kilimandjaro, dem Meru und den umgebenden Massaisstufen Deutsch-Ostafrikas 1905–1906, unter Leitung von Prof. Dr. Yngve Sjöstedt* [Band 2] [Abteilung 8: Hymenoptera]: 119–168. Palmquists Aktiebolag; Stockholm, Sweden; [ii]+316+56+206+12+166+26+62 pp., +19 pls.
- Friese, H. 1922. III. Nachtrag zu "Bienen Afrikas". *Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere* 46: 1–42.
- Gupta, R.K. 1989 [1990]. A new species of genus *Creightonella* Cockerell, (Hymenoptera: Apoidea: Megachilidae), from central India. *Journal of the Bombay Natural History Society* 86(3): 416–419.
- Gupta, R.K. 1993. *Taxonomic Studies on the Megachilidae of North-Western India (Insecta, Hymenoptera, Apoidea)*. Indian Council of Agricultural Research; New Delhi, India; [iii]+288 pp.
- Gupta, R.K. 1999. *Taxonomic Studies on the Megachilidae of North-Western India (Insecta, Hymenoptera, Apoidea)*. Scientific Publishers; Jodhpur, India; [iv]+294 pp. [Nota bene: This book is a reprinting of Gupta (1993).]
- Lucas, H. 1876. Études pour servir à l'histoire de l'*Eumenes germanini*, du *Megachile australis* et observations sur les nids dans lesquelles ont été rencontrés ces Hyménoptères. *Annales de la Société Entomologique de France, Cinquième Série* 6: 291–308, +1 pl. [pl. 4].
- Matsumura, S. 1910. *Dainippon Gaichu Zensho* [Conspectus of Japanese Injurious Insects: Volume 1]. Rokumeikan; Tokyo, Japan; 2+308+97 pp., +28 pls. [In Japanese]

- Michener, C.D. 2000. *The Bees of the World*. Johns Hopkins University Press; Baltimore, MD; xiv+[i]+913 pp., +16 pls.
- Mitchell, T.B. 1980. *A Generic Revision of the Megachilinae Bees of the Western Hemisphere (Hymenoptera: Megachilidae)*. North Carolina State University; Raleigh, NC; [ii]+95 pp.
- Morawitz, F. 1886 [1887]. Insecta in itinere Cl. N. Przewalskii in Asia centrali novissime lecta. I. Apidae. *Horae Societatis Entomologicae Rossicae* 20(3–4): 195–229.
- Pasteels, J.J. 1965. Revision des Megachilidae (Hymenoptera Apoidea) de l'Afrique Noire. I. Les genres *Creightoniella* [sic], *Chalicodoma* et *Megachile* (s. str.). *Koninklijk Museum voor Midden-Afrika, Tervuren, België, Annalen, Reeks In-8°, Zoologische Wetenschappen* 137: ix+1–579.
- Radoszkowski, O. 1888. Faune Hyménoptérologique Transcaspienne (Suite). *Horae Societatis Entomologicae Rossicae* 22: 338–349.
- Rahman, A. 1988 [1989]. Taxonomic studies on megachilid bees of Haryana. *Thesis Abstracts, Haryana Agricultural University* 14(4): 353–354.
- Rahman, A., & N.P. Chopra. 1994a. New record of megachilid bees, their period of activity and foraging plants from northern India. *Journal of the Agricultural Science Society of Northeast India* 7(1): 35–40.
- Rahman, A., & N.P. Chopra. 1994b. Three new species of bee pollinators of the genus *Megachile* Lat. (Hymenoptera: Apoidea: Megachilidae) together with their foraging plants and period of activity. *Journal of Entomological Research* 18(4): 369–376.
- Raw, A. 2004. Nomenclatural changes in leafcutter bees of the Americas: *Megachile* Latreille 1802 (Hymenoptera; Megachilidae). *Zootaxa* 766: 1–4.
- Rebmann, O. 1972. 6. Beitrag zur Kenntnis der Gattung *Megachile* Latr. (Hym. Apidae). Neue Arten der Untergattungen *Pseudomegachile* Friese und *Metamegachile* Tkalcu [sic]. *Stuttgarter Beiträge zur Naturkunde* 248: 1–4.
- Schletterer, A. 1891. Hymenoptera in expeditione sub auspicio Regii Imperii Belgici perfecta in regione Africae ad Congo flumen inferius collecta determinata sive descripta. *Annales de la Société Entomologique de Belgique* 35: 1–36, +2 pls. [pls. I–II].
- Warncke, K. 1992. Die westpaläarktischen Arten der Bienengattung *Coelioxys* Latr. (Hymenoptera, Apidae, Megachilinae). *Bericht der Naturforschenden Gesellschaft Augsburg* 53: 31–77.
- Wu, Y.-R. 1988. Hymenoptera: Apoidea. In: Huang, F.-S., P.-Y. Wang, W.-Y. Yin, P.-Y. Yu, T.-S. Lee, C.-K. Yang, & X.-J. Wang (Eds.), *Insects of Mt. Namdagbarwa Region of Xizang*: 545–552. Science Press; Beijing, China; xii+621 pp. [In Chinese, with English summary]

ZooBank: urn:lsid:zoobank.org:pub:32E97988-F78E-4D88-A216-498078126A33



A Journal of Bee Biology, Ecology, Evolution, & Systematics

The *Journal of Melittology* is an international, open access journal that seeks to rapidly disseminate the results of research conducted on bees (Apoidea: Anthophila) in their broadest sense. Our mission is to promote the understanding and conservation of wild and managed bees and to facilitate communication and collaboration among researchers and the public worldwide. The *Journal* covers all aspects of bee research including but not limited to: anatomy, behavioral ecology, biodiversity, biogeography, chemical ecology, comparative morphology, conservation, cultural aspects, cytogenetics, ecology, ethnobiology, history, identification (keys), invasion ecology, management, melittopalynology, molecular ecology, neurobiology, occurrence data, paleontology, parasitism, phenology, phylogeny, physiology, pollination biology, sociobiology, systematics, and taxonomy.

The *Journal of Melittology* was established at the University of Kansas through the efforts of Michael S. Engel, Victor H. Gonzalez, Ismael A. Hinojosa-Díaz, and Charles D. Michener in 2013 and each article is published as its own number, with issues appearing online as soon as they are ready. Papers are composed using Microsoft Word® and Adobe InDesign® in Lawrence, Kansas, USA.

Editor-in-Chief

Michael S. Engel
University of Kansas

Assistant Editors

Victor H. Gonzalez
University of Kansas

Ismael A. Hinojosa-Díaz
Universidad Nacional Autónoma de México

Journal of Melittology is registered in ZooBank (www.zoobank.org), and archived at the University of Kansas and in Portico (www.portico.org).