

Case 2945***Melissodes desponsa* Smith, 1854 and *M. agilis* Cresson, 1878
(Insecta, Hymenoptera): proposed conservation of the specific names**

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Abstract. The purpose of this application is to conserve the specific names of *Melissodes desponsa* Smith, 1854 and *M. agilis* Cresson, 1878 which are in universal usage for two of the most common North American species of long-tongued, solitary bees (family APIDAE). The names are threatened by the virtually unused senior subjective synonyms *Macrocera americana*, *M. pennsylvanica* and *M. philadelphica*, all of Lepeletier (1841).

Keywords. Nomenclature; taxonomy; Hymenoptera; solitary bees; *Melissodes*; North America.

1. Lepeletier (1841) described many species of solitary bees, some of which were collected by other workers. Most of these taxa have been recognized and commented on in the literature by subsequent authors, but three nominal species described in the genus *Macrocera* have remained unrecognized because type material was unknown and because of the lack of subsequent and more detailed descriptions.

2. *Macrocera americana* Lepeletier, 1841 (p. 92) was described from Carolina, U.S.A. with a type in the 'Musée de France'; *M. pennsylvanica* and *M. philadelphica*, both of Lepeletier (1841, pp. 97 and 110), were described from Pennsylvania with types in the 'Musée de M le général Dejean'. All the types were given as male.

3. Lepeletier's names have rarely appeared in the literature. All three species were mentioned by Smith (1854) in his *Catalogue of hymenopterous insects in the collections of the British Museum*. *Macrocera americana* was noted in conjunction with the description (p. 310) of his new species *Melissodes desponsa*, based on a female specimen from Ohio in the collections of the Natural History Museum in London. Smith (p. 312) identified a specimen collected by himself in Carolina as *M. americana* and stated that *desponsa* was probably the female of *americana*. *Macrocera philadelphica* and *M. pennsylvanica* were mentioned (p. 312) only with a reference to Lepeletier's original publication. All three Lepeletier names were listed as valid in Dalla Torre's (1896) catalogue, while that by Muesebeck, Krombein & Townes (1951) included only *americana* and *pennsylvanica*. The later edition of the latter (Krombein, Hurd, Smith & Burks, 1979, p. 2156), however, listed all three names under 'Unrecognized species of the genus *Melissodes* Latreille' in which the 'Types are either lost or destroyed'. Hendrickson (1930, p. 164) used the name '*Melissodes pennsylvanica* Lep.'; however, I (LaBerge, 1961) noted that this use resulted from a misidentification (Hendrickson was a Ph.D. student and the specimens were probably named by Grace Sandhouse of the Smithsonian Museum, who is mentioned in the

acknowledgements of the paper). Cresson (1872, p. 280) identified four specimens from Texas as *Melissodes pennsylvanica* [sic] without comment. These appear to be the only occasions on which Lepeletier's names have been used since their publication.

4. In my revision of the bees of the genus *Melissodes* I (LaBerge, 1961, p. 654) listed the (1841) Lepeletier names as nomina dubia because type material was unknown and the taxa to which the names applied could not be identified from the original descriptions which were too brief and without sufficient detail or figures.

5. What appear to be part of the type series (two males each) of *Macrocera americana* and *M. philadelphica*, and a single male which is probably the holotype of *M. pensylvanica*, were discovered by Mr D.B. Baker in the Dejean-Lepeletier-Latreille collection in the Hope Entomological Collection of Oxford University. The male specimen of *M. pensylvanica* was labeled by Mr Baker as the holotype and all the specimens were sent to me for study. All Lepeletier's material was in rather poor condition and I selected lectotypes for *philadelphica* and *americana* from the least damaged and most recognizable specimens. I concluded (LaBerge, 1994) that the lectotype of *M. americana* was a specimen of the species now called *Melissodes desponsa* Smith, 1845. The specific name *americana* is thus a senior subjective synonym of *desponsa*, as suggested previously by Smith himself (para. 3 above). I also concluded that both *philadelphica* and *pennsylvanica* were senior subjective synonyms of *Melissodes agilis* Cresson, 1878 (p. 204), which was founded on six specimens from Texas in the Belfrage collection in the collections of the American Entomological Society, Academy of Natural Sciences, Philadelphia.

6. The species *Melissodes desponsa* has been known under that name since Smith's (1854) original publication. I (LaBerge, 1956, p. 562) listed more than 20 primary references to it under that name or junior synonyms. This is a very common North American species for which a great deal of literature exists concerning distribution, nesting and pollination biology. *M. agilis* is the most common North American species of the genus *Melissodes*. I (LaBerge, 1961, p. 382) listed over 50 primary references to the species, which has been known under the name since Cresson's (1878) original publication. Some of the more important works, in which one or both of the names *desponsa* and *agilis* have appeared, are Cockerell (1906, pp. 76, 80, 83), LaBerge (1956, p. 562), LaBerge (1961, p. 654), Mitchell (1962, pp. 274, 282), Krombein, Hurd, Smith & Burks (1979, pp. 2143, 2144), Hurd, LaBerge & Linsley (1980, p. 105), Parker, Tepedino & Bohart (1981, pp. 43–52) and Roig-Alsina & Michener (1993, p. 127). Adoption of Lepeletier's (1841) names in place of the junior synonyms, which have been used consistently, would disturb stability and lead to unnecessary confusion in the literature.

7. This application has been read and is supported by Drs Loren Nevling, Lawrence M. Page and David Voegtlin (*Illinois Natural History Survey*) and by Prof Charles D. Michener (*University of Kansas*).

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

- (a) *americana* Lepeletier, 1841, as published in the binomen *Macrocera americana*;

- (b) *pensylvanica* Lepeletier, 1841, as published in the binomen *Macrocera pensylvanica*;
- (c) *philadelphica* Lepeletier, 1841, as published in the binomen *Macrocera philadelphica*;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *desponsa* Smith, 1854, as published in the binomen *Melissodes desponsa*;
 - (b) *agilis* Cresson, 1878, as published in the binomen *Melissodes agilis*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *americana* Lepeletier, 1841, as published in the binomen *Macrocera americana* and as suppressed in (1)(a) above;
 - (b) *pensylvanica* Lepeletier, 1841, as published in the binomen *Macrocera pensylvanica* and as suppressed in (1)(b) above;
 - (c) *philadelphica* Lepeletier, 1841, as published in the binomen *Macrocera philadelphica* and as suppressed in (1)(c) above.

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