

A New Species of the Bee Genus *Melitta* from Afghanistan (Hymenoptera: Melittidae)

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Abstract: A new species of the bee genus *Melitta* is described and figured from Afghanistan. *Melitta piersbakeri* **n. sp.** is distinguished from its close relatives *M. harrietae* (Bingham), *M. borealis* Wu, and *M. quinghaiensis* Wu.

Zusammenfassung: Eine neue Art der Gattung *Melitta* aus Afghanistan, *Melitta piersbakeri* **n. sp.**, wird beschrieben und von verwandten Arten abgegrenzt.

Keywords: Hymenoptera, Anthophila, Apoidea, Melittidae, Melittinae, Central Asia, Afghanistan, new species, *Melitta*, taxonomy

Introduction

The bee genus *Melitta* is one of four genera presently recognized in the subfamily Melittinae (MICHENER 2000). The genus is widely distributed with its greatest diversity in the Palaearctic, but species also occur in South Africa, Kenya, and is disjunct in North America (occurring in the eastern United States and in Baja California and the Sonoran Desert of Arizona and California in the West).

Herein I provide the description of a new species from Afghanistan. The new species is described herein in order to make its name available for the forthcoming taxonomic catalogue of *Melitta* species (BAKER & ENGEL in review). Morphological terminology for the description follows that of ENGEL (2001).

Taxonomy

Melitta piersbakeri n. sp. (Plate I & II, Figs. 1–8)

Type material: Holotype ♂ labeled “AFGHANISTAN: Bamian, Band-e Amir (village), 10 viii 1975 (P.H.B. Baker)”. The type is in the Donald & Madge Baker Collection, Division of Entomology, Natural History Museum and Biodiversity Research Center, University of Kansas, Lawrence, Kansas, United States.

Diagnosis: The new species is similar to *M. harrietae* (Bingham), *M. borealis* Wu, and *M. quinghaiensis* Wu. From the first *M. piersbakeri* n. sp. differs by the pale gray pubescence of the notum tinged with pale yellow while in *M. harrietae* the setae are fulvous and contrast the pale gray setae of the pleura. These species also differ considerably in genitalic structure. The genitalic capsule is somewhat similar to *M. quinghaiensis* but lacks the dense setae of the gonostyli and differs in overall shape. There are also significant differences in the shapes of the sterna between the new species and *M. quinghaiensis* and this species has distinct black setae discally on the mesoscutum (uniformly gray in *M. piersbakeri* n. sp.). The new species is perhaps most similar to *M. borealis* but the latter has the fimbria white, F1 nearly twice the length of F2, and the apicolateral corners of S6 produced (such that they produce concave areas between the corners and the medioapical extension of the sternum), as well as differences in the shape of S8 and the genitalia.

Description: ♂. Total body length 13.1 mm, forewing length 8.5 mm. Integument black except mandibular apex, tarsi, tegula, apical margins of metasomal terga, and apical thirds of metasomal sterna dark brown and spurs off-white. Head slightly wider than long (width 3.4 mm, length 3.1 mm). Inner margins of compound eyes approximately parallel. Malar space slightly shorter than basal mandibular width. F1 slightly longer than F2. Basal vein confluent with cu-a, longer than first free abscissa of Rs; prestigma slightly longer than border of pterostigma inside first submarginal cell; first submarginal cell longer than combined lengths of second and third submarginal cells; second submarginal cell parallel-sided, receiving 1m-cu just basad midpoint; anterior border of second submarginal cell subequal to anterior border of third submarginal cell; anterior border of third submarginal cell less than one-half its posterior border, receiving 2m-cu near two-thirds length of posterior border; marginal cell apex separated from anterior wing margin by vein width, apex micro-appendiculate; wing veins dark brown, although Sc+R and

M+Cu lighter brown basad; wing membrane hyaline. Male terminalia as depicted in figures 3–8. Integument: Clypeus impunctate, smooth, and shining on apical third, basal two-thirds with coarse punctures separated by less than a puncture width except for along longitudinal midline impunctate. Malar space impunctate, smooth, and shining. Face strongly punctured, punctures smaller than those of clypeus and nearly contiguous except for small, impunctate patches (1/2 OD in diameter) along anterior border of median ocellus and outer borders of lateral ocelli. Vertex and gena punctured as described for face except punctures slightly more shallow. Mesoscutum with punctures nearly contiguous except discally punctures more sparse, separated by 2–4x a puncture width, integument between punctures smooth. Scutellum with basal half sparsely punctured, punctures separated by 2–3x a puncture width except along extreme basal margin impunctate and smooth; distal half with punctures nearly contiguous. Metanotum with coarse, irregular, contiguous punctures. Pleura with contiguous punctures. Basal area of propodeum rugose; lateral surfaces as described for metanotum except punctures more shallow such that surface appears somewhat rugulose. Anterior-facing surface of T1 impunctate, smooth, and shining; dorsal-facing surface with punctures separated by a puncture width or less, integument between punctures smooth; succeeding terga as described for dorsal-facing surface of T1; sterna weakly coriaceous, with sparse (separated by 2–3x a puncture width), shallow punctures on disc. *Vestiture*. Pubescence pale gray except as indicated. Face and scape with dense, elongate, minutely-branched setae, such setae absent from distal half of clypeus except laterally; apical margin of clypeus with fringe of short setae although fringe interrupted medially. Facial setae becoming intermixed with elongate, fuscous setae laterally and dorsally such that fuscous setae predominate along paraocular areas, on upper fifth of face, and on vertex. Gena with dense, moderate-length setae becoming progressively longer ventrally until those of postgena elongate. Such elongate setae present but sparse along ventral margin of mandible. Mesosoma with dense, elongate, minutely-branched setae, those of notum tinged with pale yellow. Setae of legs elongate and minutely-branched except those of scopa with branches longer than setae elsewhere on legs or body; dense, elongate setae on coxae, trochanters, femora, and tibiae; setae of tarsi shorter, more stout, and lightly fuscous. Terga with elongate setae on apical margins forming noticeable fasciae, such setae most elongate on T1, progressively shorter on succeeding terga

and becoming increasingly intermixed with shorter, fuscous setae; fimbrial setae fuscous; sternal setae elongate, sparse, and generally concentrated to apical thirds.

♀. Unknown.

Etymology: The specific epithet is a patronymic honoring Dr. Piers H. B. BAKER, who collected the holotype and many other excellent bees while in Afghanistan.

Acknowledgments

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