



A revision of the subgenus *Leucandrena* of the genus *Andrena* of eastern Asia (Hymenoptera: Apoidea: Andrenidae)

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Abstract

The subgenus *Leucandrena* of the genus *Andrena* of eastern Asia is revised, and seven species are recognized. Two new species, *Andrena (Leucandrena) paramelanospila* and *Andrena (Leucandrena) banchan* are described from Beijing and Xizang (China) respectively, and the male of *Andrena (Leucandrena) melanospila* Cockerell is described for the first time. *A. (Euandrena) taisetsusana* Tadauchi et Hirashima, and *A. (Andrena) dolharubang* Tadauchi and Xu are recognized as new synonyms of the Holarctic *A. barbilabris* (Kirby). A key to East Asian *Leucandrena* is given.

Key words: Andrenidae, *Leucandrena*, *Andrena*, new species, East Asia

Introduction

The small Holarctic subgenus *Leucandrena* Hedicke is represented by four species in Europe (Warncke, 1968), seven species in North America (LaBerge, 1987), and one Holarctic species, *Andrena (Leucandrena) barbilabris* (Kirby). The world checklist of *Andrena* by Gusenleitner and Schwarz (2002) included seven Palaearctic and Palaeotropical species in subgenus *Leucandrena*, and provided detailed bibliographies and taxonomic comments for each species. In the eastern Asia, five species of *Leucandrena* are currently recognized, following transfer of *A. richardsi* Hirashima to subgenus *Leucandrena* (Tadauchi, 1988). Osytsnjuk (1995) recorded two species, *A. (Leucandrena) barbilabris* (Kirby) and *A. (Leucandrena) argentata* Smith, from the Russian Far East; Xu and Tadauchi (1997) relegated two species, *A. melanospila* Cockerell and *A. delicatula* Cockerell, into this subgenus. In this paper, we describe two new *Leucandrena* species and the male of *A. melanospila*. *A. (Euandrena) taisetsusana* Tadauchi and Hirashima, and *A. (Andrena) dolharubang* Tadauchi and Xu are new synonyms of *A. barbilabris* (Kirby). Updated species information is presented here, except for *A. argentata*, which was not examined. A key to East Asian species of this subgenus is given. Holotypes are deposited in the Institute of Zoology, Academic Sinica, Beijing.

Material and methods

Holotype female of *Andrena sericea malaisei* Alfken was loaned from the Naturhistoriska Riksmuseet, Sweden. Other specimens examined were borrowed from the Institute of Zoology, Academia Sinica (Beijing, China) and the Entomological Laboratory, Kyushu University. Specimens were examined and measured under a Nikon SMZ-U light stereomicroscope with an ocular micrometer. Terminology follows Tadauchi and Xu (1995). Abbreviations used in the text are: BL—body length, CPL—clypeal length, HL—head length,