## Materials and methods

### Sources of materials

This study is mainly based on the materials deposited in the SKY collection at Kagoshima University (Japan), Ant Museum of Kasetsart University (Thailand) and The Natural History Museum of the National Science Museum (Thailand). Holotypes, paratypes and syntypes of named species were loaned from the following museums, institutions, and private collections listed below. For their abbreviations we mainly follow Bolton (2007).

**AMK** Ant Museum, Faculty of Forestry, Kasetsart University, Thailand.
**BMNH** The Natural History Museum, London, U.K.
**MCZC** Museum of Comparative Zoology, Cambridge, MA, U.S.A.
**MHNG** Museum d'Histoire Naturelle, Geneva, Switzerland.
**MZB** Museum Zoologicum Bogoriense, Cibinong, Indonesia.
**NHMW** Naturhistorisches Museum, Wien, Austria.
**NIAST** The National Institute of Agro-Environmental Sciences, Tsukuba, Japan.
**SKYC** SKY Collection at Kagoshima University, Japan.
**TARI** Taiwan Agricultural Research Institute, Taiwan.
**THNHM** Natural History Museum of the National Science Museum, Thailand.
**UMS** 'BORNEENSIS', Universiti Malaysia Sabah, Sabah, Malaysia.
**VNMN** Vietnam National Museum of Nature, Hanoi, Vietnam.
**WJT** Weeyawat Jaitrong

### Observation

Most morphological observations were made with a Nikon SMZ1000 stereoscope. Multi-focused montage images were produced using Helicon Focus 4.75 Pro from a series of source images taken by a Canon EOS Kiss×4 digital camera attached to a Nikon ECLIPSE E600 microscope. When fine hairs and other parts which were not recognized automatically were found, the focused parts from the source images were copied to the montage image using the retouching function of Helicon Focus. Artifacts (ghost images) and unnecessary parts (unfocused appendages, etc.) surrounding or covering target objects were erased and cleaned up using the retouching function of Helicon Focus. Finally, the background was cleaned up, and the color balance, contrast and sharpness were adjusted using Adobe Photoshop Elements 7.

### Measurements and indices

Workers of each species were measured for the following parts using a micrometer, reported here to the second decimal place.