

Potter wasps of the genus *Eumenes* Latreille, 1802 (Hymenoptera: Vespidae: Eumeninae) from Vietnam, with description of a new species and key to species

LIEN THI PHUONG NGUYEN

Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology, 18 Hoang Quoc Viet Road, Nghia Do, Cau Giay, Hanoi, Vietnam. E-mail: phuonglientit@gmail.com

Abstract

Seven species of the genus *Eumenes* Latreille, 1802 are recorded from Vietnam. A new species, *E. gibbosus* Nguyen, sp. nov. is described and figured. *Eumenes atrophicus* (Fabricius, 1798), *E. inconspicuus* Smith, 1858, *E. labiatus sinicus* Giordani Soika, 1941, and *E. rubronotatus* Pérez, 1905 are newly recorded from Vietnam. A key to species is given.

Key words: Vespidae, Eumeninae, *Eumenes*, new species, key, Vietnam

Introduction

The genus *Eumenes* Latreille, 1802 is distributed worldwide, and consists of more than 100 species and subspecies. Of them, 44 species are known to occur in Oriental region (J. M. Carpenter, pers. comm.). Kim and Yamane (2001) provided a revision of *Eumenes* from Far East Asia with description of one new species and one new subspecies, Zhou *et al.* (2012) described two new species of *Eumenes* and produced a key to ten species in this genus from Southwestern China. The most update work on the genus *Eumenes* is Yoon and Kim (2014), solving the taxonomy of *Eumenes punctatus*-complex from Korea with DNA bacoarding and key to Far Eastern species of the genus. The eumenine fauna in Vietnam is poorly known simply because no intensive research on it has ever been carried out. Two species of the genus were recorded in Vietnam before, namely *E. multipictus* and *E. quadratus quadratus* (Nguyen *et al.*, 2014; Bequaert, 1928). In this paper, based on specimens deposited in the Institute of Ecology and Biological Resources, a new species is described and five species are newly recorded for the Vietnamese fauna; distributions and a key to seven species is also provided.

Material and methods

All material including the holotype of new species is deposited in Institute of Ecology and Biological Resources, Hanoi, Vietnam [IEBR] except two paratypes which are deposited in Vietnam National Museum of Nature [VNMN].. The adult morphological and color characters were observed using pinned and dried specimens under a stereoscopic microscope. Measurements of body parts were made with an ocular micrometer attached to the microscope. “Body length” indicates the length of head, mesosoma and the first two metasomal segments combined. Terminology follows Yamane (1990). Photographic images were made with the Leica EZ4HD 3.0 MegaPixel Digital Stereo Microscope, using LAS exclusive microscopy software (LAS EZ 2.0.0); the plates were edited with Photoshop CS6. The abbreviations F, S and T refer to numbered flagellomeres, metasomal sterna and metasomal terga, respectively.