



## Review of potter wasps with a petiolate metasoma excluding so-called "Zethinae" (Hymenoptera: Vespidae: Eumeninae) in the Lesser Sunda Islands of the Indonesian Archipelago

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### Abstract

Twenty species and six subspecies of nine genera of eumenine wasps with a petiolate metasoma occurring in the Lesser Sunda Islands are listed. New synonymies are proposed for *Delta campaniforme campaniforme* (Fabricius 1775) (= *D. campaniforme gracilior* Giordani Soika 1986, **syn. nov.**) and *D. nigriculum* Giordani Soika 1986, **stat. nov.** (= *D. campaniforme rendalloide* Giordani Soika 1993, **syn. nov.**). *Eumenes piriformis* de Saussure and *E. inconspicuus* Smith are newly recorded from the Lesser Sunda Islands; *E. pius* Giordani Soika, *D. nigriculum* Giordani Soika, *D. pyriforme* (Fabricius), *D. sciarum* (van der Vecht), *Pareumenes nigerrimus* van der Vecht, and *Labus vandervechti* Giordani Soika, are newly recorded from some islands of the Lesser Sunda. Hitherto unknown male of *P. nigerrimus* is described.

**Key words:** Vespidae, Eumeninae, petiolate metasoma, new status, new record, new synonymy, Lesser Sunda Islands, potter wasps

### Introduction

With extremely high biodiversity characterized by a high level of endemism and a complex geological history, the Malay Archipelago, the islands between the continental Southeast Asia and Australia, has long attracted the attention of biologists from evolutionary and biogeographical points of view. The Lesser Sunda Islands are a group of small islands in the East Malay Archipelago, which consists of several island arcs formed from fragments of Australian-New Guinean origin, which broke off about 50 million years ago (Turner *et al.* 2001). The Lesser Sunda Islands consist of the northern volcanic-origin archipelago (including Bali, Lombok, Sumbawa, Flores and Wetar) and the southern non-volcanic archipelago (including Sumba, Timor and Babar). This view of the Lesser Sunda Islands is from a geological perspective, and in the present paper, as is usually the practice in faunal studies, the Lesser Sunda Islands refer to the islands east of Wallace's line or the Lombok Strait, by which the Ice Age continent of the Sundaland including current Bali was separated from a long island including present-day Lombok, Sumbawa, Komodo, Flores, Solor, Adonara and Lembata.

Up to the present, 41 taxa (31 species) in 18 potter wasp genera have been recorded from the Lesser Sunda Islands (Nugroho *et al.* 2012). Of them 17 species are endemic to the Lesser Sunda Islands and 12 species are distributed widely in Oriental region (14 subspecies are known as the Lesser Sunda's local forms). Thus, the eumenine fauna of the Lesser Sunda Islands is characterized by a high degree of endemism. Therefore the subfamily Eumeninae should be a key group in understanding zoogeography of the Lesser Sunda Islands.

Nevertheless, the eumenine fauna in the islands is yet poorly known simply because no intensive research on it has ever been carried out. As the first part of a series of faunal and taxonomic study on potter wasps in the Lesser Sunda Islands, the present paper deals with the taxonomy of nine genera of potter wasps with a petiolate metasoma excluding *Zethus* of the so-called "Zethinae".