

## Discovery of the genus *Leptophion* Cameron, 1901, from Japan and the Palaearctic region, with description of two new species (Hymenoptera: Ichneumonidae: Ophioninae)

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### Abstract

The genus *Leptophion* Cameron, 1901, which belongs to the subfamily Ophioninae Shuckard, 1840, is recorded from Japan and the Palaearctic region for the first time based on two new species, *L. parvus* sp. nov. from Amamioshima Island and *L. septentrionalis* sp. nov. from Yakushima and Amamioshima Island. A key to the Japanese and Taiwanese species is also provided.

**Key words:** biogeography, endoparasitoid, koinobiont, nocturnal wasp, Ryukyus

### Introduction

The subfamily Ophioninae Shuckard, 1840 is one of the major subfamilies of the family Ichneumonidae, comprising 32 genera and over 1100 described species (Yu *et al.*, 2012; Lima *et al.*, 2013; Alvarado, 2014; Rousse & Noort, 2014; Schwarzfeld & Sperling, 2014). This subfamily is known as the solitary koinobiont endoparasitoids of middle- to large-sized lepidopterous larvae (e.g., families Hesperiidae, Noctuidae and Sphingidae), except for some genera (e.g., *Enicospilus* Stephens, 1835 and *Ophion* Fabricius, 1798) that parasitise the family Tenthredinidae (Hymenoptera) or the family Scarabaeidae (Coleoptera) (Uchida, 1928, 1954; Thompson, 1957; Townes, 1971; Gauld & Mitchell, 1981; Quicke, 2015).

Nearly all genera of Ophioninae are nocturnal and, like many other nocturnal ichneumonoid wasps, have the orange-brown body with large eyes and long antennae, often called “ophionoid facies” (Townes, 1971; Gauld, 1977; Gauld & Mitchell, 1981; Gauld & Janzen, 2004; Short *et al.*, 2006; Quicke, 2015). Gauld (1987) suggested that their nocturnal habitus enable them to thrive in tropical region where they are exposed to high predation pressure in the daytime.

The ophionine genus *Leptophion* Cameron, 1901 is one of highly diverse groups in tropics, comprising 30 species distributed in the Australasian, Oceanic and Oriental regions (Gauld & Mitchell, 1981). Their biology remains mostly unknown, but like many other genera of Ophioninae, they are often collected in light traps (Townes, 1971; Gauld & Mitchell, 1981).

*Leptophion* has not been recorded in Japan until now. Recently, we found three specimens of this genus in the collection of the National Institute for Agro-Environmental Sciences (NIAES), Tsukuba, Japan, including a single specimen collected from the Palaearctic region (Yakushima Island).

In this paper, we present the first records of *Leptophion* from Japan and the Palaearctic region. The distribution pattern of this genus in this region is discussed and a key to Japanese and Taiwanese species is also provided.