

Short Paper

## New record of the genus and species *Callitula ferrierei* (Bouček) (Hymenoptera: Pteromalidae) from Iran

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**Abstract:** Among the recently collected chalcidoid wasps in a rice field of eastern Guilan province (coast of Caspian Sea), in July 2012, there was a specimen of Pteromalidae belonging to the genus *Callitula*. It was identified as *Callitula ferrierei* (Bouček, 1964). Both genus and species are new record for Iranian fauna. Morphological characters and geographical distribution of the newly recorded species are given.

**Keywords:** *Callitula*, new record, Iran, fauna, distribution

### Introduction

The family Pteromalidae (Hymenoptera: Chalcidoidea) with more than 3,500 described species and 390 genera is one of the largest families among parasitic Hymenoptera. It includes important natural enemies of many plant pests, widely distributed in major insect orders such as Coleoptera, Diptera, Lepidoptera, Hymenoptera and Hemiptera (Dzhanokmenk, 1989, 1990).

Based on recently published data about 100 pteromalids species have been reported in Iran so far (Lotfalizadeh and Gharali, 2008; Alipanah *et al.*, 2013; Mitroiu *et al.*, 2011; Hasani *et al.*, 2011; Hasani and Madjdzadeh, 2012).

### Materials and Methods

Among the recently collected chalcidoid wasps from Langroud (37°08'050"N and 50°16'750"E),

in eastern Guilan province (coast of Caspian sea), we found a female specimen of *Callitula* (Hym.: Pteromalidae) in a Malaise trap set up in a rice field on July, 2012. Identification was made using Bouček (1964) and Xiao *et al.*, (2005). The morphological terminology follows Bouček and Rasplus (1991).

### Results and Discussion

The genus *Callitula* has been reported here for the first time from Iran. This genus includes 38 species in the world, with a cosmopolitan distribution (Noyes, 2013). Bouček (1964), Bouček and Rasplus (1991) and Xiao *et al.* (2005) listed following characters for this genus: Metallic body dark green; head without occipital carina; antennal formula 1, 1, 3, 5, 3, calva bearing distinct spicula, antennae inserted in the middle of face; pronotum distinctly narrower than mesonotum and with frontal carina dorsal, notauli incomplete, popodeum with distinct reticulate and subglobose nucha; first metasomal tergite evidently enlarged.

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This genus is nearly allied to three genera in the West-Palaearctic region: *Norbanus* Walker, *Homoporus* Thomson and *Merisus* Walker with sharing characteristic spicula on antennal calva (Fig. 1D), but the genus *Homoporus* can be separated by having 3-segmented anelli.

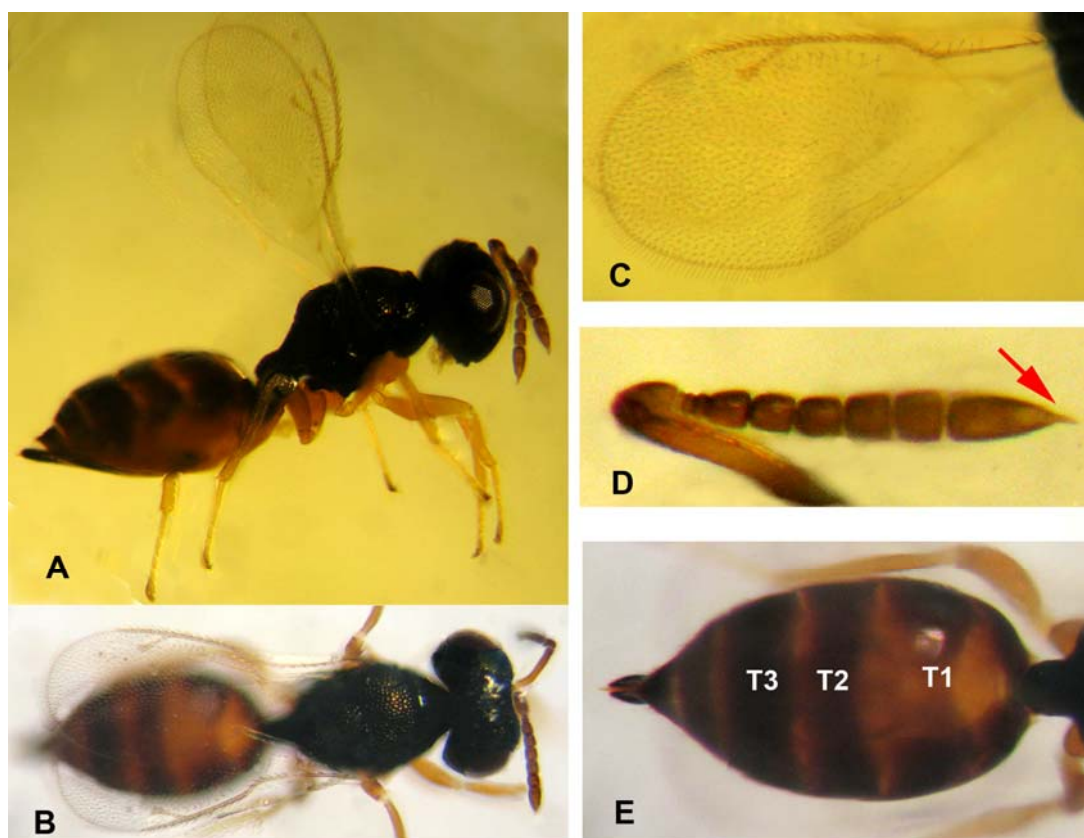
***Callitula ferrierei* (Bouček, 1964) (Fig. 1)**

**Material examined:** Iran, Guilan, Langroud, 37°08'050"N & 50°16'750"E, Malaise trap, July 2012, Z. Bayegan leg., 1♀ (deposited in Insect collection of Department of Plant Protection, Azarbaijan-e-Sharghi Research Center for Agriculture and Natural Resources, Tabriz).

All the features of the specimen we collected in Iran match well with those reported by Bouček (1964). The typical morphological features of *C. ferrierei* are as follow: Body length in female about 2 mm,

body metallic dark green with brownish-yellow scape and legs, metasoma brown with dorsal dark bands (Fig. 1B); scape not reaching frons level, first funicular segment quadrate (Fig. 1D); mesosoma slightly arched in profile (Fig. 1A); marginal vein longer than stigmal and postmarginal veins (Fig. 1C); metasoma acuminate (Fig. 1E), not longer than the thorax (Fig. 1A), sunken dorsally (in dried specimens), first tergite about 0.25 length of metasoma, second tergite shorter than first tergite but not much longer than the third (Fig. 1E).

*Callitula ferrierei* had previously been reported from China (Xiao *et al.*, 2005), Bulgaria, Czech Republic, Germany, Moldova, Netherlands, Romania, Slovakia, Sweden, United Kingdom, England and former Yugoslavia (Noyes, 2013).



**Figure 1** *Callitula ferrierei*: (A): female in lateral view, (B): female in dorsal view, (C): forewing, (D): female antenna with calva bearing a distinct spicula, (E): gaster in dorsal view (T1-3 = first to third tergite).

*Callitula* species generally attack insects living in leaves or stems of their host plants; although hosts range from some Diptera (Chloropidae, Agromyzidae, Cecidomyiidae) (Bouček, 1964), to Hymenoptera (Tenthredinidae). *Callitula ferrierei* is mainly primary parasitoid, rarely as hyperparasites of the above dipteran hosts through Procrupoidea (Xiao et al., 2005) and in the studied area it may be parasitoid of dipterous pests of rice fields.

### Acknowledgments

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گزارش جدید جنس و گونه *Callitula ferrierei* (Bouček) (Hymenoptera: Pteromalidae) از ایرانزینب‌السادات بایگان<sup>۱\*</sup>، حسینعلی لطفعلی‌زاده<sup>۲</sup>، محمدرضا زرگران<sup>۳</sup> و رعنا پورایوبی<sup>۴</sup>

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**چکیده:** در میان زنبورهای جمع‌آوری شده از بالاخانواده‌ی Chalcidoidea در یک مزرعه برنج در شرق استان گیلان (شهرستان لنگرود) طی تابستان ۱۳۹۱ نمونه‌ای از خانواده‌ی Pteromalidae متعلق به جنس *Callitula* مشاهده شد. این نمونه تحت عنوان *Callitula ferrierei* (Bouček, 1964) شناسایی شد. جنس و گونه‌ی آن برای فون ایران جدید هستند. ویژگی‌های مرفولوژیک افتراقی جنس و گونه و پراکنش جغرافیایی این گونه ارائه گردید.

**واژگان کلیدی:** *Callitula*، گزارش جدید، ایران، فون، پراکنش