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Discovery of *Habritys brevicornis* (Ratzeburg, 1844) (Hymenoptera: Pteromalidae) in the Middle-East

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ABSTRACT. Within collection of the family Pteromalidae from Northwest of Iran, some female specimens of the genus *Habritys* Thomson were found. The specimens were collected by a Malaise trap and identified as *Habritys brevicornis* (Ratzeburg, 1844). This is first record of the genus *Habritys* and species *H. brevicornis* from Iran and Middle-East. Diagnostic morphological characters, host associations and geographical distribution of the newly recorded species are briefly discussed.

Key words: Parasitoid, *Habritys*, new record, Iran

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Introduction

The genus *Habritys* Thomson, 1878 with three nominal species is one of the smallest genera of the family Pteromalidae (Hymenoptera: Chalcidoidea). *Habritys brevicornis* (Ratzeburg, 1844) from the Holarctic region and *Habritys subcrispus* Xiao, 2002 known from China and *Habritys latrus* Wallace, 1954 from the Nearctic region (Noyes 2015). This genus characterized by unusual large clypeus that sub-emarginated in lower margin, antennae short with 3 anelli and 5 transverse funicular segments and hind tibiae with two spurs (Bouček and Rasplus 1991). Based on Universal Chalcidoidea Database this Holarctic genus has not been reported from the Middle East (Noyes

2015) and Iran (Lotfalizadeh and Gharali 2008; Mahdavi and Madjdzadeh 2013).

Materials and Methods

Among the recently collected chalcidoid wasps from East and West-Azərbayjan province, we found four female specimens of *Habritys* (Hym.: Pteromalidae) by a Malaise trap in summer 2011 and September, 2014. Generic and specific identifications were performed based on Bouček and Rasplus (1991), Bouček and Heydon (1997) and Xiao (2002) keys. Illustrations were taken using an Olympus™ SZH, equipped with a Canon™ A720 digital camera.

Terminology of the morphological characters followed: Graham (1969) and Bouček and Rasplus (1991).

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All the specimens were deposited in the insect collection of the Department of Plant Protection, East-Azarbaijan Research Center for Agriculture and Natural Resources, Tabriz, Iran.

Results

The genus *Habritys* has been reported here for the first time from Iran. Bouček and Rasplus (1991) and Graham (1969) listed following characters for this genus: Head transverse and broad (Fig. 2); antenna stout with transverse funicular segments, much shorter than head width, antennal formula 1,1,3,5,3 (scape, pedicel, anelli, funicle, clava), inserted at the lower margin of ocular line; clypeus unusually wide, at least as wide as eye height, lower margin truncate (Fig. 2); pronotal collar not margined, notauli incomplete, scutellum with frenal line, propodeum without median carina and plica; forewing without marginal fringe; hind tibiae with two spurs.

Habritys brevicornis (Ratzeburg, 1844) (Figs 1–3)

Syn.: *Dibrachys muscarum* Harting, 1838; *Dimachus brevicornis* (Ratzeburg, 1844); *Habritys brevicornis* (Ratzeburg, 1844); *Pteromalus brevicornis* Ratzeburg, 1844; *Pteromalus pannewitzii* Ratzeburg, 1852; *Schizonotus pannewitzii* (Ratzeburg, 1852).

Material examined: IRAN: West Azarbaijan, Urmia, Ghara-Hassanlu (45°3.490' E 37° 35.561'N, 1337m), Malaise tarp, 30 August 2014, 2♀♀, leg. M. Pashai; Urmia, Yorghun-Abad-Olia (45° 8.495' E 37° 40.690' N, 1303m), Malaise tarp, 09 September, 2014, 1♀, leg. M. Pashai; East-Azarbaijan, Maragheh (46°12'35.14"E 37°19'37.28"N, 1385m), Malaise trap, Summer, 2011, 1 ♀, leg. H. Lotfalizadeh.

All of the morphological features of the collected specimens match well with those reported by Xiao (2002). The typical morphological features of *H. brevicornis* are as follow: Head in front view with lower face flat distinctly, lower margin of clypeus

truncate (Fig. 2); forewing with large speculum, basal cell bare, postmarginal vein as long as stigmal vein (Fig. 3), basal vein bare.

Discussion

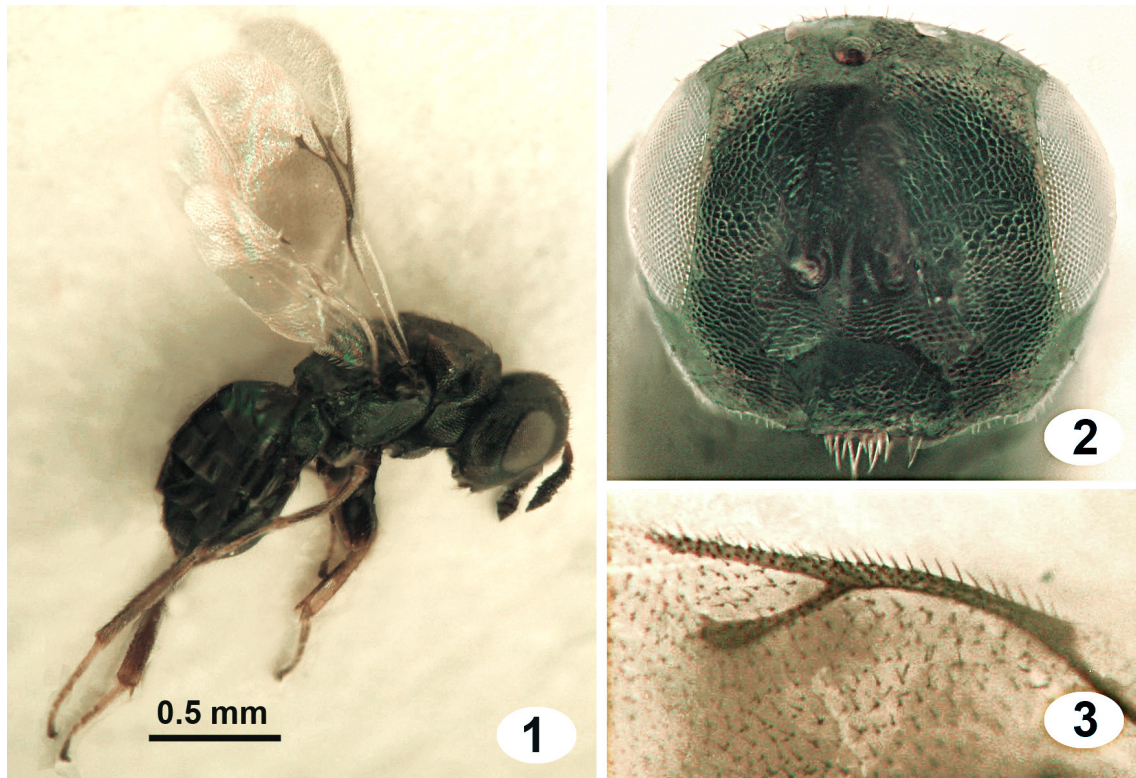
We collected these specimens via a Malaise tarp, beside a multiplanted field with some dried trees near to trap. Collection area is a mountainous region in the northwest of Iran. Therefore, the biology of the collected specimens are unknown. But most of listed host families present in our collections and it seems that this parasitoid may be distributed in Iran and neighboring countries of Iran.

Habritys brevicornis has been reported as a parasitoid of insects from different orders including Coleoptera (Lymexylidae and Scolytidae), Diptera (Stratiomyidae), Hymenoptera (Crabronidae, Sphecidae) and Lepidoptera (Tortricidae) (Askew 1962; Noyes 2015), but some of these associations have been placed in doubtful hosts until they are confirmed by further investigations. Bouček and Rasplus (1991) believe that *H. brevicornis* is a parasitoid of decaying wood associated insects.

Based on recent studies (Lotfalizadeh and Gharali 2008; Mahdavi and Madjzadeh 2013), *H. brevicornis* is a new record for the fauna of Iran, has hitherto been known from the Nearctic (Canada, USA) and the Palaearctic regions (Belgium, Croatia, Czech Republic, England, Finland, France, Germany, Hungary, Kazakhstan, Netherland, Romania, Serbia, Slovakia, Spain, Sweden) (Noyes 2015).

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Figures 1-3. *Habritys brevicornis* (Ratzeburg, 1844). 1. Female in lateral view, 2. Head in frontal view, 3. Fore wing venation.

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گزارش زنبور پارازیتویید (*Habritys brevicornis* (Ratzeburg, 1844) Hymenoptera: Pteromalidae) از خاورمیانه

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چکیده: در میان زنبورهای متعلق به خانواده Pteromalidae جمع‌آوری شده از شمال غرب ایران، تعدادی زنبور ماده متعلق به جنس *Habritys* Thomson مشاهده شد. این نمونه‌ها که به وسیله تله مالیز جمع‌آوری شده بودند تحت عنوان *Habritys brevicornis* (Ratzeburg, 1844) شناسایی شدند. این نخستین گزارش جنس *Habritys* و گونه *H. brevicornis* از ایران و خاورمیانه است. در این بررسی مشخصات مورفولوژیک، روابط میزبانی و پراکنش جغرافیایی این گونه بحث شد.

واژگان کلیدی: پارازیتویید، *Habritys*، گزارش جدید، ایران