



A review of the family Eucharitidae (Hymenoptera: Chalcidoidea) of Egypt

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Abstract

The species of Eucharitidae (Hymenoptera: Chalcidoidea) of Egypt are reviewed. Three species of *Eucharis* Westwood are reported, *Eucharis (Eucharisca) bytinskisalzi* Bouček, *E. (Psilogastrellus) cuprea* (Blanchard) and *E. (Psilogastrellus) punctata* Förster. Primary type material of *E. bytinskisalzi* and *E. cuprea* is illustrated through macrophotography and a key to separate the three species is provided. *Eucharis bytinskisalzi* is listed as a new record for the Egyptian fauna.

Key words: *Eucharis (Eucharisca) bytinskisalzi*, new record, faunistic list

Introduction

Eucharitidae (Hymenoptera: Chalcidoidea) is the largest and most diverse family of insects known to parasitize the immatures of eusocial insects (Heraty 2002). Species are widespread in almost every zoogeographical region of the world, being most abundant in tropical regions (Heraty 2002; Noyes 2011). In contrast, the Palaearctic region is relatively depauperate, represented by 45 species *Eucharis* Westwood and a few species of *Stilbula* Spinola and *Gollumiella* Hedqvist (all Eucharitinae) (Noyes 2011).

Only *Eucharis* have so far been recorded from Egypt (Heraty 2002; Noyes 2011). Individuals are characterized by the following: body usually dark green to blue, but sometimes yellow with dark patches and metasoma sometimes rufous; mouthparts reduced; palpi absent; antennae stout and cylindrical, serrate or ramose; mesosoma globose, and lacking any distinct projections from scutellum (at most with an emarginated flange); fused prepectus reaching tegula; fore wing usually bare, with clear, poorly defined venation; calcar acute apically; petiole mostly smooth and often dorsoventrally flattened; metasomal terga bare, tergal scar lacking; and ovipositor acicular (Heraty 2002). *Eucharis* have been reared from *Formica* L. and *Cataglyphis* Förster (Formicinae), and *Messor* Forel (Myrmicinae) (Formicidae) (Heraty 2002; Lachaud & Pérez-Lachaud 2012).

The World genera of Eucharitidae were revised by Heraty (2002). Revisions of the Palearctic fauna include studies by Nikol'skaya (1952) and Gussakovskiy (1940) [Palearctic], Kumar (2004) [India]; and Lotfalizadeh (2008) [Iran]. Eucharitids are poorly known in Africa (Bouček & Watsham 1982), although the genera were summarized in Heraty (2002).

The Eucharitidae of the Middle East were revised by Bouček (1956), in which he recorded seven species of *Eucharis* and one species of *Stilbula* from Israel and Turkey. In Egypt, three species of *Eucharis* are now known: *Eucharis (Psilogastrellus) cuprea* (Blanchard), *E. (Psilogastrellus) punctata* Förster and *E. (Eucharisca) bytinskisalzi* Bouček. The last species is a new record to the Egyptian fauna.

Material and methods

Our study is based on new collections and examination of one specimen of *Eucharis* in the Efflatoun Bey collection, Entomology Department, Faculty of Science, Cairo University, Giza, Egypt (CUE), and additional material in the Muséum National d'Histoire Naturelle in Paris, France (MNHN), Tel Aviv University, Israel (TAU), the Naturhistorisches Museum Wien, Austria (NHMW).