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Two new species of the genus *Callicera* Panzer (Diptera: Syrphidae) from the Palaearctic Region

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Abstract

Two new species of the genus *Callicera* Panzer are described from the Palaearctic region: *C. exigua* **sp. nov.** from the Russian Altay and *C. scintilla* **sp. nov.** from Jordan. A key is provided for all *Callicera* species of the Palaearctic Region.

Key words: hover flies, East Palearctic, Middle East, key

Introduction

The genus *Callicera* Panzer is arguably one of the most beautiful genera among hoverflies. Nearly all species are orange-red or golden haired, often brightly shining and metallic, the metallic reflections in most cases more obvious in females than in males. Their elongate, dark antenna, with a contrastingly white terminal style, somewhat resembles a wizard's wand. Add to this the rarity of the species and you have a genus with an almost mythical stature.

Their rarity has contributed to confusion over the identity of some of the species in the past (Speight 1991; Thompson 1980). Due to the lack of material it has been difficult to ascertain correct species delimitations. Several species have been described from one single specimen, quite a few of which still haven't been found since (Coe 1964; Ghorpade 1981; Verrall 1913). Research carried out in the UK revealed that *Callicera* species are more easily found as larvae than as adult flies, leading to a dramatic increase in the known distribution of *C. rufa* Schummel in Scotland (Rotheray & MacGowan 1990). In Germany the majority of the records of this species are of puparia as well (Stuke & Wolf 1998). MacGowan (1994) showed that it is even possible to create artificial breeding sites, with over 75% of these holes producing puparia in just two years. Hence looking for the larvae is the best way to search for *Callicera* species in order to get a better understanding of their distribution and discover new species. As in the case of *C. ziminae* Krivosheina & Kuznetzov, which was described from 4 specimens reared from larvae found in a tree-hole (Krivosheina & Kuznetzov 2001). Unfortunately both species described here have been collected as adults and are merely represented by single specimens, therefore adding to the amount of *Callicera* species described on singletons. Nevertheless, both species are described since they clearly differ from all known species, therefore obviously representing new taxa. Besides, describing them might encourage researchers to go looking for the immature stages, which will hopefully result in additional material.

The female of *Callicera exigua* **sp. nov.** was collected during the expedition to the Russian Altay in July 2013, after the Syrphid symposium in Novosibirsk. While trying to identify this species an awesome looking specimen originating from Jordan was found in the collection of the RMNH. This proved to be another undescribed species. It is not entirely clear how this specimen ended up in this collection, for the label only provides a country name in Italian and a date. It is most likely that this specimen was acquired as part of the collection of the late Jan Lucas. He apparently had an exchange agreement with at least one Italian entomologist, exchanging beetles for flies, thus explaining a specimen with a label written in Italian (pers. comm. B. Brugge).

previously from the Middle East: *C. aenea*, *C. aurata* and *C. macquartii* (Saribiyik 2014; Tóth 2013) and a fourth is known from a photographic record: *C. rufa* (http://diptera.info/forum/viewthread.php?thread_id=5528&pid=24686), all from Turkey. From Jordan's neighbouring country Israel no species have been recorded but several specimens belonging to different species are present in the collection of TAUI (pers. comm. A. Freidberg & E. Morgulis), none of which resembles *C. scintilla* **sp. nov.**

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