



## *Eurytoma caninae* sp. n. (Hymenoptera, Eurytomidae), a common species previously overlooked with *E. rosae*

HOSSEINALI LOTFALIZADEH<sup>1</sup>, GÉRARD DELVARE<sup>2,4</sup> & JEAN-YVES RASPLUS<sup>3</sup>

<sup>1</sup>Department of Insect Taxonomy, Iranian Research Institute of Plant Protection, Tehran, P. O. B. 19395-1454, Iran.

UMR INRA CIRAD IRD AGROM. Centre de Biologie et de Gestion des Populations (CBGP), Campus International de Baillarguet, 34398 Montpellier Cedex 5, France. E-mail: <sup>1</sup>hlofalizadeh2001@yahoo.com, <sup>2</sup>gerard.delvare@cirad.fr; <sup>3</sup>rasplus@ensam.inra.fr

<sup>4</sup>Corresponding author

### Abstract

We describe a new species, *Eurytoma caninae* (Hymenoptera, Eurytomidae) from specimens collected in Morocco, France and Iran. The species emerges from galls of *Diplolepis* spp. (Cynipidae) on *Rosa* spp. (Rosaceae). It is common and widespread in the West Palearctic Region. It is closely related but morphologically differentiated from *Eurytoma rosae* Nees. To substantiate our morphological observations, two genes [cytochrome oxidase subunit I (COI) and the internal transcribed spacer region 2 (ITS2)] of several individuals per population were sequenced. Both analyses clearly led to the conclusion that *E. caninae* and *E. rosae* are two well-differentiated and previously overlooked species. Morphological diagnostic characters are given to identify both species.

**Key words:** *Eurytoma caninae*, *Eurytoma rosae* species group, Eurytomidae, Hymenoptera, *Diplolepis*, *Rosa*, new species, COI, ITS2, species delimitation

### Introduction

The genus *Eurytoma* (Eurytomidae), with over 700 described species, is one of the most speciose within the Chalcidoidea. Noyes (2002) documented 188 species for Europe. The genus was more or less formally divided into various species groups (Mayr 1878; Bugbee 1967; Bouček 1988; Zerova 1995). Its generic limits are currently being reassessed in the context of a phylogenetic study of the subfamily Eurytominae, and synapomorphies are mentioned for the previously recognized species groups (Lotfalizadeh *et al.* 2007). Hence, the *rosae* group is characterized by the habitus of the mesopleuron: the mesepisternum is flat on its anterior surface, and the adscrobal carina—bordering anteriorly the femoral depression—is raised ventrally and forms a tooth in front of the mid-coxal cavities in lateral view.

We know of 40 species of the *Eurytoma* species *rosae* group in Western Europe; the same biodiversity was recorded by Zerova (1995) if one considers the author's *rosae* and *tibialis* species groups, which exhibit the synapomorphies quoted above. Members of the group are associated with gall makers: cynipid wasps on Fagaceae (*Quercus* spp.), Rosaceae (*Potentilla*, *Rosa*, *Rubus* and *Xestophanes* spp.) or Asteraceae (*Centaurea*, *Hypochaeris*, *Lactuca*, *Lampsana*, *Potentilla* and *Sonchus* spp.), tephritid flies or weevils on thistle (Asteraceae: *Cirsium* spp.) and olive (Oleaceae: *Olea europaea* Linnaeus) (Mayr 1878; Claridge and Askew 1960; Askew 1961; Claridge 1961; Zerova 1995; Askew *et al.* 2006). The *rosae* group is otherwise well known to include cryptic species, some of which were incorporated in the *E. rosae* aggregate (Claridge and Askew 1960). These authors showed that, although morphologically indistinct, *E. rosae* Nees and *E. brunniventris* Ratzeburg have different biological features. The first is a parasitoid (possibly a predator) of larvae of the