

## First record of *Encyrtus infelix* (EMBLETON, 1902) (Hymenoptera: Chalcidoidea: Encyrtidae) from Belarus

Pierwsze stwierdzenie *Encyrtus infelix* (EMBLETON, 1902) (Hymenoptera: Chalcidoidea: Encyrtidae)  
w Białorusi

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The encyrtids of the genus *Encyrtus* LATREILLE, 1809 (Hymenoptera: Chalcidoidea: Encyrtidae) belong to the tribe Encyrtini WALKER, 1837 of the subfamily Encyrtinae WALKER, 1837. The distribution of the genus is cosmopolitan (except for the Arctic and Antarctic zones), with 89 distinct species (NOYES 2019). Species of *Encyrtus* with their known biology are primary endoparasitoids of Coccidae (Homoptera). Some of them, for example *E. aurantii* (GEOFFROY, 1785) (= *E. lecaniorum* (MAYR, 1876)) and *E. saliens* PRINSLOO et ANNECKE, 1978, have been used for classical biological control and integrated pest management (TRJAPITZIN 2014).

The occurrence of *Encyrtus infelix* (EMBLETON, 1902) was recorded in Belarus for the first time:

- UD61 Belarus, Gomel city, Bogdan Khmel'nitsky str. (52.4311°N, 30.9753°E), 29 VI 2022, 1 ♀ (Fig.), inside the trolleybus, A.M. OSTROVSKY leg. et det. The examined specimen is housed in the author's collection.

The following is a brief description; distribution and biology of this species are given.

**Colouration** Head mostly orange-brown, marked with dark brown between posterior ocelli and occipital margin and around the mouth margin. Scape yellowish, paler apically. Pedicel and proximal funicle segments orange, distal funicle segments and club dark brown. Thorax orange-brown; posterior margin of pronotum, mesoscutum medially, scutellum at the extreme base and apical tuft of setae, and posterior part of mesopleurum dark brown; scutellum at the base with numerous silvery-white setae. Fore and hind coxae white, middle coxa dark

brown. Fore and middle femora basally white, apically pale orange; middle femur subapically brown. Fore and middle femora basally white, apically pale orange; middle femur subapically marked with dark brown. Fore and middle tibiae orange, the latter marked with a basal dark-brown longitudinal streak. Fore and middle tarsi orange. Hind femur amber, marked dorsally with a dark-brown longitudinal streak. Hind tibia dark brown. Hind tarsus whitish, but base of proximal segment and pretarsus dark brown. Forewing with a distinct infusate pattern. Propodeum orange-brown. Abdomen dark purple-brown.



Fig. *Encyrtus infelix* (EMBL.), female,  
29 June 2022, Gomel city, Belarus.

Ryc. Samica *Encyrtus infelix* (EMBL.),  
29 VI 2022 r., Gomel, Białoruś.

**Morphology:** Small encyrtid (c. 1.5 – 2.5 mm), belonging to the I group of *E. lecaniorum* (see SUGONJAEV & GORDH 1981): frontofacial ridge has the shape of a bow that almost attains eye orbits, gena with a keel. Setae on genae not conspicuous, about as long as those on frontovertex. Antenna with 9 flagellar segments, distance between antennal toruli not more than half greater than that separating them from the mouth margin. Face without membranous lines. Mandible edentate. Mesoscutum with shallow, raised, reticulate to squamiform-reticulate sculpture in centre, laterally with striate-reticulate sculpture. Forewing not shortened, marginal vein at most about half as long as stigmal vein. Scutellum with apical setae arranged in a tuft. Abdomen slightly shorter than the thorax. Hypopygium reaching slightly more than four-fifths along the abdomen. Tarsi 5-segmented.

**Biology** *E. infelix* is a cosmopolitan species and an important factor in the control of the hemispherical scale *Saissetia coffeae* (WALKER, 1852) and the black scale *S. oleae* (OLIVIER, 1791) in greenhouses (TRJAPITZIN 1989). Its biology as a parasite of *S. coffeae* was described in some detail by EMBLETON (1904). *E. infelix* pupates within the living host, killing it only when the adult parasite emerges. The pupa is exarate—that is, it has the appendages free and visible externally. It is also reared along with *E. aurantii* from the European fruit lecanium scale *Parthenolecanium corni* (BOUCHÉ, 1844) (NOYES 1988). *S. coffeae* and *P. corni* are registered in Belarus, where they are pests of ornamental plants and cultures producing fruit and berries (ZHORAU & BUGA 2019).

The subfamily, genus, and species of encyrtids are formally new to Belarusian fauna: Encyrtinae WALKER, 1837, *Encyrtus* LATREILLE, 1809 and *Encyrtus infelix* (EMBLETON, 1902). The listed species is now known to be widely distributed around the world and probably has followed its main host, *S. coffeae*, in most regions where the latter has penetrated. It would be now impossible to point out the original home of either the parasite or its host with exactitude, yet TIMBERLAKE (1919) believed that this must have been somewhere in the tropics of the Old World and probably in the Asiatic region. The importance of *E. infelix* in the role of entomophagous scale insects, ornamental plant pests, and fruit and berry producing cultures is obvious.

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