

First report of *Bucculatrix ulmifoliae* (Lepidoptera, Bucculatricidae) from Iran.

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During a survey on the damaged elms in Almahdi, Shaghayegh, Taslihat and Magidiyeh parks in the summer of 2010, the larvae and pupae of a *Bucculatrix* species were collected. After emerging of the adult specimens, they were determined as *Bucculatrix ulmifoliae* M. Hering, 1931. As far as our knowledge, five *Bucculatrix* species are reported from Iran so far: *Bucculatrix ulmella*, 1848 which is reported on elm tree in Tehran region (1), *B. pomifoliella* Clemens, ?that is collected in Khorasan region on apple tree (7), and the three species namely *B. iranica* Deschka, 1981, *B. endospiralis* Deschka, 1981 and *B. pectinella* Deschka, 1981 which are collected from the south of Iran and introduced as new species by Deschka (1981) (2). This is the first report of *Bucculatrix ulmifoliae* from Iran. During recent years this species has caused extreme damages on the elm trees in some parts of Tehran.

The genus *Bucculatrix* is cosmopolitan with more than 220 known species (3) mostly (about 180 species) distributed in the North American and Eurasia (6) *B. ulmifoliae* is widespread in all parts of Europe including The Netherlands, Germany, Austria, Czech Republic, Hungary, Italian mainlands, Macedonia, Poland, Romania, England, south and central parts of Russia, Sardinia, Sicily, Slovakia and Yugoslavia (4, 5).

In the adult specimen, wingspan 6–7mm; head reddish centrally with vertical tuft whitish buff at sides; ground color of the forewing whitish buff, suffused reddish brown toward base, with a reddish brown spot on costa at one-third; another reddish brown spot situated before apex extending toward tornus and inwardly to discal area; at one-half of the dorsum a black and reddish brown spot with some raised black scales on its inner side; cilia pale ochreous buff. Hind wing and cilia ochreous grey.

Larvae yellowish pale; the first instar mines the leaf and feed inside. The mines filled with black frass, in the angle between the midrib and a major vein. The remaining instars feed externally on the underside eating out windows. In winter, the pupa lies in a cocoon with

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approximate length of 5 cm in the crevices of the barks and on falling leaves on the ground. The color of the cocoon is creamy-white which is not in agreement with previous report (5) with gray-black cocoon. The adult moths emerge in the early April in the next year and after mating, ova are laid on the leaf underside, close to the midrib of the Elm tree (*Ulmus minor* from Ulmaceae). In Europe with two generations, those of the second summer brood are paler (5).

The moth is extremely similar to *B. ulmella* superficially. The main differences of these two species are the paler ground color of the forewing in *B. ulmifoliae* and less extension of the black markings of the forewing in this species. However, they could be separated easily from each other based on the male genitalia. In *B. ulmifoliae* uncus is no developed and bilobed with a simple U-shaped space between the lobes and valvae are reduced. Moreover, in *B. ulmella* aedeagus is straight, Indian club-shaped and broader posteriorly, while in *B. ulmifoliae* is bent at 90° below the tip with slightly curved shaft and two nipple-like projections on posterior half of the shaft (5).

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