

First Report of *Choreutis nemorana* (Lepidoptera: Choreutidae) in Tunisia

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ABSTRACT

Choreutis nemorana was encountered for the first time in 2009 on a fig tree (*Ficus carica*) in the Djerid oasis (Tozeur, Degache and Nafta). Then, in 2010, it was recorded in Nefzawa in the Rjim-Maatoug oasis. Some morphological and biological aspects of this insect are described in this paper.

Keywords: *Ficus carica*, fig crops, fig leaf roller, oasis

Choreutis nemorana also known as fig-tree skeletonizer moth or fig leaf roller, it belongs to the order of Lepidoptera and the family of Choreutidae.

The length of the adult body is between 16 and 20 mm, its forewing are mainly reddish brown to ochreous brown, suffused with black and marked extensively with white to grey scales. Hind wings are brownish, each with a pair of pale spots towards the margin (Fig. 1A). Eggs are spherical (0.5 mm across) with creamish white color. Larvae are up to 20 mm long, they are light green, shiny and semitransparent, with white latero-dorsal lines, pale median dorsal line and numerous large verrucae on a green background. The head is almost black with four points in the above. The prothoracic shield has the same body color, with a profusion of dots and gray-green anal shield with a small black outline (Fig. 1B). Pupae are short (7-8 mm) and thick characterized by a very dark brown color with paler under parts.

Little information is available on the biology of *C. nemorana*. Adults seem to appear in the early spring, and eventually deposit eggs in groups on the leaves of the fig tree. Larvae are fully grown a few weeks later. They then pupate, each in a dense white boat-shaped cocoon spun on the leaves and pass winter at this stage of metamorphosis (Alford 2007). The number of annual generations of *C. nemorana* seems to differ according to latitude, temperature and habitat, three to four generations were recorded in Central Asia and Russia with 35-50 days per generation (Aizpúrua 1997).

Larvae can cause noticeable distortion of leaves and also extensive discoloration (Alford 2007). Larvae feed on the leaves of the fig tree, they start eating the top part of the leaf making holes of various sizes. As they grow, they consume the entire leaf. (Fig. 1C) (Aizpúrua 1997).

C. nemorana is widely distributed in the Mediterranean area, including southern Europe and North Africa; also present in parts of Asia, and in the Canary Islands and Madeira (Alford 2007). In Tunisia, *C. nemorana* was observed for the first time on fig trees (*Ficus carica*) in the oasis of Tozeur during spring (April, 2009). This pest was later encountered in other locations of the Djerid such as Degache and Nafta. In August, 2010 *C. nemorana* was observed in a heavily infested fig orchard in Rjim-Maatoug (Nefzawa). Large population of adults may be observed, late in the afternoon, mostly in the shaded parts of the fig tree. Collected adult specimens were mostly females.

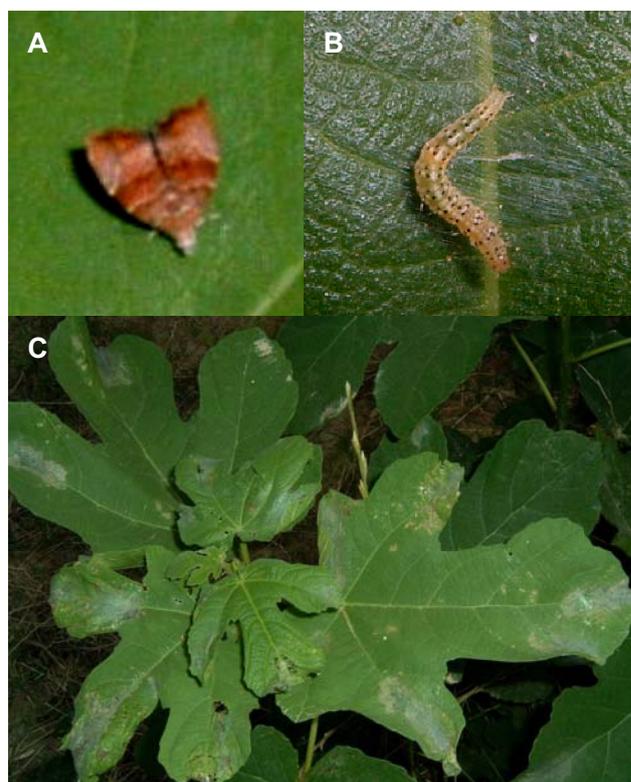


Fig. 1 *Choreutis nemorana*. (A) Adult, (B) larva, (C) damage caused by *C. nemorana* on fig leaves.

Attacks and damages caused by *C. nemorana* larvae were mainly associated with young leaves of fig. All varieties of fig cultivated in the oasis are attacked. The severity of the attack seems not to be related to the quality of the maintenance of the orchard as reported by (Alford 2007) who noted that *C. nemorana*, attacks just abandoned, spontaneous, isolated and neglected fig trees, in the Tunisian oasis heavy infestations were observed in good maintained fig trees grown as intercalary crops between date palms trees.

REFERENCES

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