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The Brown-Tail Moth in the Caspian Forests of Iran

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INTRODUCTION

The Caspian forest belt of northern Iran covers an area of more than 3,400,000 hectares (about 8,398,000 acres). The dominant species in these forests are broadleaf trees similar to those found in European and American deciduous forests. Our research in the Caspian forests revealed severe damage caused by the brown-tail moth, *Euproctis chrysorrhoea* L. (Fig. 1), especially to trees found at low and middle altitudes of the forest belt.

DISTRIBUTION

The brown-tail moth is found in all European and Middle Eastern countries, especially in the Mediterranean region. We found the moth and its natural parasite, the tachinid fly (Fig. 2), throughout the Middle East and Iran.

DAMAGE

The damage caused by *E. chrysorrhoea* is evident in most deciduous forest trees, fruit trees and shrubs.

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The following were found to serve as host species: *Populus* spp., *Salix* spp., *Ulmus campestris*, *Quercus castaneaefolia*, *Carpinus betulus*, *Fagus orientalis*, *Mespilus germanica*, *Crataegus* spp., *Prunus padus*, *Pirus malus*, *Prunus communis*, *Prunus avium*, *Prunus cerasus*, and *Tilia rubra*.

LIFE CYCLE

The brown-tail moth overwinters as a first instar larva (Fig. 3). The adult moth emerges during June or July. The female lays about 500 eggs in clusters of up to 300 eggs and covers the egg mass with scales and "tufts" from the abdomen. The larvae hatch in about 8 to 15 days. The first instar larvae feed together inside twisted leaves. The infested leaf dries up by fall and provides a secure shelter for the overwintering larvae. In spring the larvae begin feeding on new foliage, and pupation takes place in May-June. Thus the 1-generation cycle is completed in 1 year.

CONTROL

The brown-tail moth can be controlled by two different methods — burning the infested foliage or spraying the foliage with chemicals. Tachinid flies are the only natural parasites of the brown-tail moth, but they are unable to effectively destroy this insect. Therefore, chemical control through the use of systemic insecticides is recommended.

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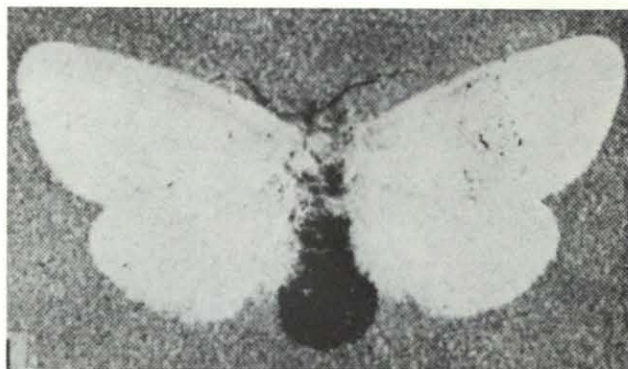


Fig. 1. The brown-tail moth (*Euproctis chrysorrhoea* L.), approximately natural size.



Fig. 2. The tachinid fly (*Compsilura concinnata* Meig.), natural enemy of the brown-tail moth.

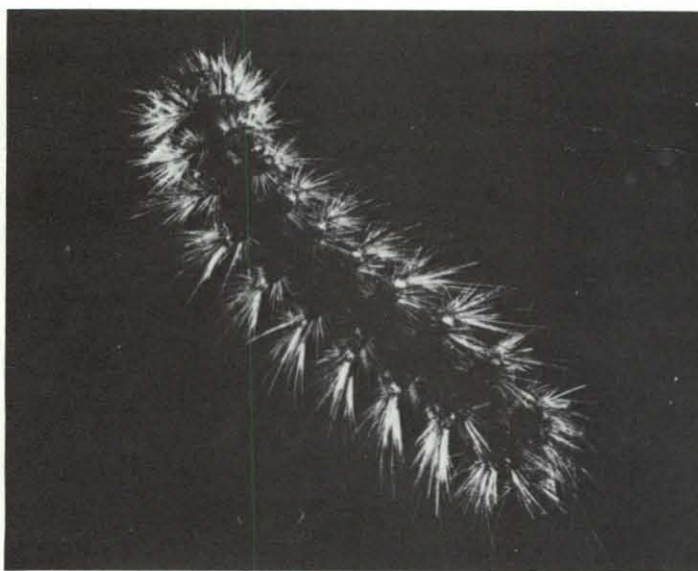


Fig. 3. Larva of the brown-tail moth, approximately natural size.

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