

THE APPLE AND THORN SKELETONIZER, *Eutromula pariana*¹
(CLERCK) (LEPIDOPTERA : CHOREUTIDAE), AN APPLE PEST IN
GÜMÜŞHANE DISTRICT.

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SUMMARY

The apple and thorn skeletonizer, *Eutromula pariana* (Clerck) (Lepidoptera: Choreutidae), is firstly recorded as an apple pest from Torul-Gümüşhane district. Feeding habit, and descriptions of the last instar larva, pupa, and adult of the pest are given. The pest does not make high damage in the district.

INTRODUCTION

Eutromula pariana (Cl.) is very common in apple growing areas throughout most of Europe, Asia (Kuwayama 1922; Minkiewicz 1925; Kiebler 1925; Vorzheva 1958; Ekholm 1959; Böhm, 1962; Kabasinskaite and Zajanckauskas, 1970; Peiu and Patraşcanu, 1970; Danilevsky and Kuznetsov, 1973), and of North America (Felt, 1918; Porter and Garman, 1923; Cameron, 1931; Couture and Paradis, 1962; Hagley and Hikichi, 1972). Although *E. pariana* was firstly recorded as a fig pest from Turkey (Şevket, 1932;

Nizamhoğlu, 1957), that species should be *E. nemorana* Hbn. which has been recorded as only the species feeding on fig in the genus (Illinsky, 1916; Danilevsky and Kuznetsov, 1973). Later, the species was mentioned as a pest of apple, pear and fig from İstanbul and Western Anatolia (İren and Ahmed 1973) and listed in the Turkish Microlepidoptera (İren, 1973).

Eutromula pariana feeds on apple, pear, seewet cherry and mountain ash (Llewellyn Jones, 1938). Over-

(1) Syn.: *Phalaena* (*Tortrix*) *pariana* Cl., *Anthopila lutosa* Haw., *Choreutis pariana* (Cl.), *Asopia parialis* Treit., *Simaethis pariana* (Cl.), *Xylophila pariana* (Cl.), *Anthophila pariana* (Cl.).

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wintered adults appear in May, feed on nectar. At the end of May they lay eggs on surfaces of the leaves of several trees, notably apple and pear. The larvae feed on the leaves, which they skeletonize (Fig. 1), then roll and pupate in cocoons spun near the midribs. Adults of this generation emerge in July, and lay a large number of eggs, which hatch in about ten days. The larvae feed as before, and give rise to adults in August - September. These

adults overwinter beneath the bark or among fallen leaves (Vorzhveva, 1958; Tereshchenko, 1976).

Minkiewicz (1925) stated that the chief damage by *E. pariana* is made by the larvae of the second generation, but that of the third are less injurious. However, it is generally regarded as a pest damaging moderately (Ekholm, 1959; Kabasinskaite and Zajanckauskas 1970; Peiu and Patrascanu, 1970).

MATERIAL AND METHODS

The fourth instar larvae on the leaves of apple were collected, and reared in the petri dishes in each of which ten larvae were placed on leaves of apple under lab. conditions. After emergence of adults, they were killed

and pinned, and preserved in a collection box for working on their taxonomy. Male genitalia was mounted with Canada balsam on a slide which were studied under microscope.

RESULTS AND DISCUSSION

Description:

Last instar larva: Average length 10.3 ± 2 mm. Width of head 0.94-1.04 (av. 0.98) mm (Fig. 1). General colour yellowish with prominent black tubercles each of which with several setae. Head light yellowish brown with black posterior lateral margin. Ocelli black. Mouth parts dark-tipped. A pair of dark spots on upper part of head. Last two segments of thoracic legs dark. Remainder about the same colour as the body. Prolegs slender, pale and translucent.

Pupa: Length 6.86 - 7.75 (av. 7.26) mm. width at widest point 1.83-1.91

(av. 1.85) mm. At first, creamy yellow, later becoming darker, head and terminal abdominal segments becoming almost black. Eyes light brown. Anterior border of segments three to eight with a single row of very fine, short, dark-colored spines. Tenth abdominal segment with two short, dorsal spines. Abdomen is quite flexible and if disturbed, the pupa wriggles back and forth the length of the cocoon. When emergence is about to take place the pupa wriggles the way through the end of the cocoon opposite that at which the larval skin is forced out, and the skin bursts, allowing the moths to escape.

Adult (male and female): Length of body 4.5-5.3 (av. 5) mm. Length of forewing 4.8-5.2 (av. 4.9) mm; Dark reddishbrown, the wings crossed by irregular darker and lighter stripes of by a paler band (Fig. 2). Marginal scales of wings dark brown, sometimes along the costal margin with white spots. Hind wings with a silvery stripe along the costal margin. Beneath of fore wing lighter, with white spots along the costal margin, and the anal area silvery gray. The beneath of hind wings somewhat darker than the fore wings. Labial palpi three - segmented, clothed with scales, white on the basal half and brown on the remainder. The antennae moniliform, clothed with alternating white and dark brown scales.

The body clothed with dark brown scales, those on the sides of the abdomen being gray - tipped. The legs clothed with brown, gray tipped scales except the tarsi, which have alter-

nating encircling bands of brown and white scales.

Observation: The last instar larvae of *E. pariana* were collected from apple leaves at some orchards in Torul - Gümüşhane on 17.VI.1979. The infestation was very low in the district.

Two males (28.VI., 5. III. 1979) and four females (28.VI., 2.VII., 5. VII.1979) were reared from 20 larvae collected from the district. They were identified by the work on the male genitalia of the specimens from Torul -Gümüşhane and of from British Columbia, Canada. It showed that the specimens from the both regions are same.

Although, *E. pariana* seems a minor pest according to this brief observation, its distribution, and the biology and importance of the pest in the regions where it is found should be investigated in near future.

ÖZET

Gümüşhane Yöresinde bir elma zararlısı olarak saptanan *Eutromula pariana* (Clerck) (Lepidoptera: Chorentidae)

Eutromula pariana (Cl.) Torul-Gümüşhane çeçresinde bir elma zararlısı olarak ilk kez saptanmıştır. Zararlının beslenme durumu, son dönem larva pup ve ergini tanımlanmıştır. Zararlı bölgede fazla zarar yapmamaktadır.

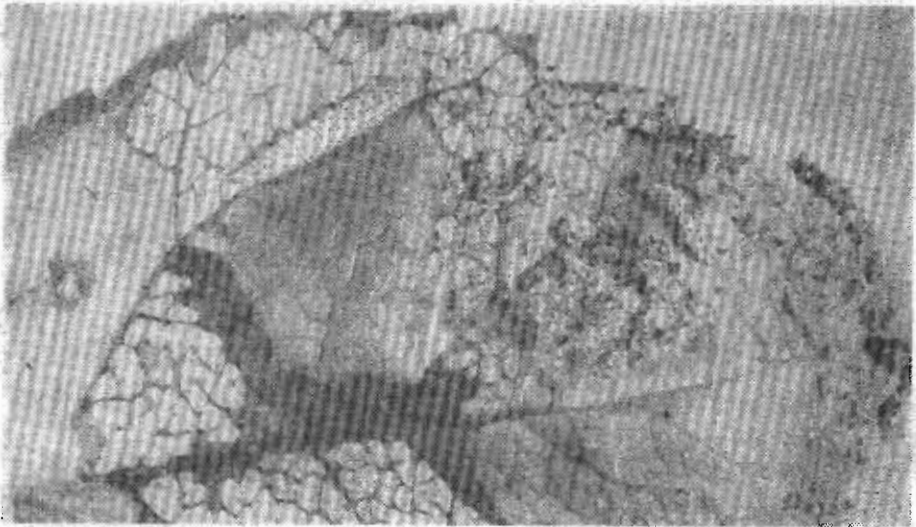


Fig. 1. Apple leaf damaged by the larvae of *Eutromula pariana* and the last instar larvae of the pest.

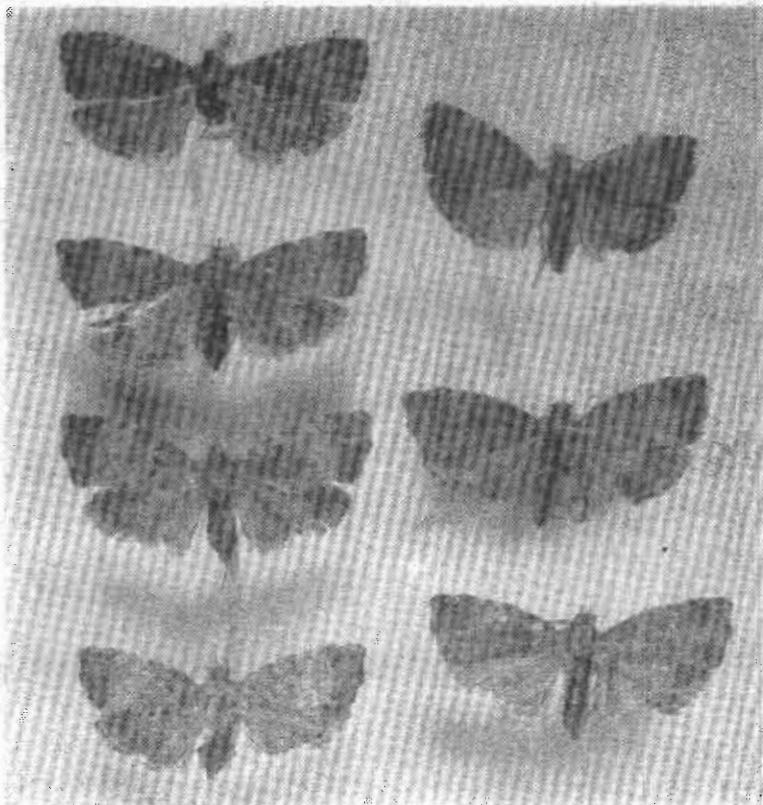


Fig 2. Colour variations in the wings of the adults of *Eutromula pariana*.

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