



**The first record of Afrotropical species, *Vittaplusia vittata* (Wallengren, 1856)  
(Lepidoptera: Noctuidae) in Türkiye**

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**Abstract**

This is the first record of the Afrotropical species *Vittaplusia vittata* (Noctuidae: Lepidoptera) in Türkiye. A comparison to similar species has been carried out.

**Keywords:** Afrotropical species, Noctuidae, new record, Osmaniye, Türkiye.

**1. Introduction**

The last comprehensive work on Turkish Noctuidae was published by Hacker (1990). During that time Euteliidae and a part of today's Erebidae were considered to belong to the family Noctuidae. Today Noctuidae together with the families Erebidae, Euteliidae, Nolidae and Notodontidae are grouped under Noctuoidea based on genetic results.

Since Hacker's work a vast number of publications have contributed to the knowledge of Turkish Noctuoidea with many additional species for the Turkish fauna and many further taxa described for science. Despite this there is still a lot to discover in Türkiye and many regions are largely unexplored.

In this context, citizen science may play an increasingly important role in Lepidoptera research in the future. The hobby of butterfly and moth observation and photography has spread in Türkiye in recent years and the discovery presented here highlights the potential role hobbyist lepidopterologists can play in faunistic research.

The article presents the first record of *Vittaplusia vittata* (Wallengren, 1856) for the Turkish fauna. The specimen was discovered by the 3rd author on his balcony.

The species most similar to *V. vittata* is *Ctenoplusia albostrata* (Bremer & Grey, 1853), an oriental species. However, it can usually be distinguished by a smaller wingspan, a more indistinct postmedian line and differences in the shape of the stigma. In addition, many parts of the male and female genitalia of both species differ in various details (Behounek et al. 2010). The specimen has also been compared to the similar American *C. oxygramma* (Geyer, 1832) (Thöny and Pinas, 2017).

## 2. Materials and Methods

A specimen of *Vittapplusia vittata* was collected and photographed from a light trap using a 40-watt lamp in Osmaniye Province, located in the Mediterranean Region of Türkiye.

The collected adult was identified based on the female genitalia by Dr. Feza Can (Hatay Mustafa Kemal University, Türkiye). Specifically, genitalia were dissected, and embedded in Entellan on slides following standard procedures according to Doğanlar (2003).

## 3. Results and Discussion

*Vittapplusia vittata* (Wallengren, 1856)

*Plusia vittata* Wallengren, 1856. Anteckningar i Zoologen. Kafferlandets Macrolepidopt-fauna 1856: 63. Type locality: (South Africa): “Kaffern”.

*Trichoplusia vittata* (Wallengren, 1856)

*Ctenoplusia vittata* (Wallengren, 1856)

### Synonyme:

*Abrostola transfixa* Walker, [1858]

*Habrostola commidendri* Wollaston, 1879

The species is listed as *Ctenoplusia vittata* (Wallengren, 1856) in volume 10 of Noctuidae Europaeae (Goater et al. 2003). It was transferred to *Vittapplusia* (*Vittapplusia*) by Behounek et al. (2010).

**Material examined:** Osmaniye Province in the Mediterranean Region of Türkiye, 37°03'30" N, 36°16'07" E, 174 m, 19.09.2024, 1 ♀, M. Çelik.

Wingspan 31 mm, which is rather small for this species. Head and thorax dark grey-brown, patagium and tegulae lighter, double crest on the metathorax; abdomen light brown. Forewing dark grey, the most conspicuous is the narrow, oblique cream-coloured scimitar-shaped line in the place of the gamma sign. Hindwing grey-brown and, both wings paler in the basal half.

Female genitalia: Anal papillae elongate-quadrangular with an obtusely triangular apical part. The ostial part is highly enlarged, the ostium bursa very large cup-shaped, sclerotized laterally, strongly cristate ribbed like a mammalian skeleton. The ductus bursae long, the corpus bursae large, in elliptical form (Figure 1).

*Vittapplusia vittata* is an Afrotropical species, widely distributed in the Ethiopian region, “including Madagascar, Mauritius, Réunion and St. Helena” (Behounek et al., 2010). In the Palaearctic region, it has been found on Cyprus and in Israel, Tripolitania, the Arabian Peninsula to Yemen and Oman and once in England (Goater & al. 2003; Behounek & al., 2010). Records from Pakistan are due to confusion with *C. albostrigata* (Goater et al. 2003; Behounek et al., 2010). In Central Asia, it is recorded in Iran (Hormozgan) (Rajaei & Karsholt, 2023).

The species was recorded from Hormozgan in the southernmost part of Iran, quite far from Türkiye. It is also known from Israel in the Levant region, but has not been recorded from Lebanon and Syria. Therefore, it may have been introduced to Türkiye from the island of Cyprus, which is closer. The records in Cyprus, as well as the new record for

Türkiye, are assumed to relate to migration of the species. After the larvae were reported on *Erigeron* and *Solanum* (Goater & al. 2003), belonging to the families Asteraceae and Solanaceae, the species can be assumed to be polyphagus.



**Figure 1.** *Vittaplesia vittata*: **a.** adult, **b.** female genitalia

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