Hadena persimilis HACKER, 1996 (Lepidoptera: Noctuidae)
new for Bulgaria

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ABSTRACT. The first record of Hadena persimilis HACKER, 1996 from Bulgaria is presented. A single female specimen was collected at light trap on the Cape Kaliakra, Black Sea coastal region. The specimen, its genitalia and the habitat, where it was collected are illustrated.

KEY WORDS: Lepidoptera, Noctuidae, Hadena persimilis, Bulgaria, faunistics, first record.

INTRODUCTION

Genus Hadena SCHRANK, 1802 is represented worldwide by 136 species (HACKER 1996, 1999, HACKER et al. 2002), most of which inhabit the Palearctic region. In Europe, 34 species of the discussed genus are known to occur (HACKER et al. 2002), whereas 16 species have been registered in Bulgaria, so far (BESHKOV 2000).

Biology of most species is poorly known. Caterpillars of the majority of representatives of the genus Hadena feed on different herbaceous plants of the family Caryophyllaceae, particularly on flowers and seeds of the species of Dianthus sp., Gypsophila sp., Lychnis sp., Melandrium sp. and Silene sp. (POOLE 1989, HACKER et al. 2002).

During the field studies on the Noctuidae in Bulgaria in the summer of 2003, a single female of Hadena persimilis HACKER, 1996 (Figs 1 & 2) was found for the first time in the country. Descriptions of the collecting site, its vegetation and notes on the distribution of H. persimilis are presented in this paper.
Fig. 1. *Hadena persimilis* Hacker, 1996 (female) collected at light trap on the Bulgarian Black Sea coastal region, Cape Kaliakra, 04th July 2003 (in coll. J. Nowacki).

Fig. 2. Female genitalia of *H. persimilis* Hacker, 1996 (genital slide: J. Nowacki) collected at light trap on the Bulgarian Black Sea coastal region, Cape Kaliakra, 04th July 2003 (in coll. J. Nowacki).
Fig. 3. General view of the Cape Kaliakra, Kaliakra Reserve (photo by J. Nowacki)

Fig. 4. The collecting site of *H. persimilis* (photo by J. Nowacki)
Acknowledgments

The authors would like to thank Mr. Hermann Hacker (Staffelstein, Germany) for his help in checking determination of the discussed species.

COLLECTING SITE

Northern Bulgarian Black Sea Coast, SW side of Cape Kaliakra, the cross line between the border of the Kaliakra natural reserve and the vertical slopes of the cape, about 60 m above the see level (UTM: PJ10). This site is situated at the end of the ground road directed south-eastern from the crossroad Kavarna-Kaliakra to Bolata Dere.

The collecting locality is a habitat of herbaceous plants on a rocky slope of a calcareous sea coast (Figs 3 & 4). This site is the northernmost point of the famous Silver Coast, which begin from the Zlatni Pyasatzi Resort on the North and continues nearly to the Cape Kaliakra with some small interruptions. Just about 1–2 km before the Cape Kaliakra, the costal silver calcareous sedimental loess rocks complete and another kind of carbonate sedimental rocks of different geological age and rusty in colour, composed of phoraminiferans’ shells begin there. The collecting locality of *H. persimilis* is nearly just on the border between the two types of the rocks.

The Silver Coast northern of Balchik to the Cape Kaliakra is the type locality of 13 Macrolepidoptera subspecies and of 5 infrasubspecific taxa. Eleven other Macrolepidoptera taxa (9 species and 2 subspecies) till now are known in Bulgaria only from the Silver Coast (northern of Balchik to the Lake Dourankoulak on the north); ten of these taxa were recorded as new for Bulgaria after 1990.

VEGETATION

The vegetation of the flat part of the Kaliakra Reserve is predominated mainly by grasses, whereas trees and bushes are scarcely presented. Majority of plants belongs to the xerothermic formations with predominance of *Dichantheta ischaemii*, *Poaeta bulbosa*, *Agropyreta pectiniformae* and *Agropyreta brandzii*. Other formations are those of the native steppe vegetation and of the ephemers. Many of plants are calciphilous. The flora of Cape Kaliakra contains more than 450 species, and the vegetation at all is similar to this of Crimea. Majority of the grasses (116 out of 359) represents a group of steppe-pontic species, which form a primary steppe vegetation that does not exist anywhere in Bulgaria.

and the sea, below the place where the light trap was situated, is a virgin area covered with Cotinus coggygria Scop., Ficus carica L., Jasminum fruticans L., Medicago sp., Pistacia terebinthus L. and many grasses, shrubs and bushes.

RESULTS

The female specimen of *H. persimilis* was collected at light trap with UV “black” lamp-tubes during extremely windy weather with thunder-storm, after the first hour of the night (on the 4th July 2003, in coll. J. Nowacki).

Following more interesting species were collected together with *H. persimilis*, synchronically and synoptically, as follows: Exophila rectangularis (GEYER, [1828]), Eutelia adoratrix (STAUDINGER, 1892), Odice suava (HÜBNER, [1813]), Glossodice polygramma (DUPONCHEL, [1842]), Eremodrina pertinax argentea (CARADIA, 1930), Chersotis multangula (HÜBNER, [1803]), Dichagyris candelissequa ([DENIS et SCHIFFERMÜLLER], 1775), Dichagyris melanura albida (CARADIA, 1931), Parocneria terebinthi (FREYER, 1838).

For some of these taxa, this locality is the northernmost one in the whole of Bulgaria, as well as in the eastern part of the Balkan Peninsula. Data on the remaining species collected there will be published in the forthcoming paper. Nevertheless, *H. persimilis* has not been attracted to light, when the authors had been collecting butterflies in the steppe area about 2 km away from the coast. This fact suggests that *H. persimilis* probably inhabits the vertical slopes between the plateau and the see in this collecting locality.

DISTRIBUTION

*H. persimilis persimilis* is a species of the Pontic range, distributed from the north-eastern part of the Balkan Peninsula through Asia Minor, south-eastern Ukraine and southern Russia (European Part) to western Kazakhstan and Turkmenistan on the east, and northern Iran, Armenia, Azerbaijan and Levant on the south. Most of the reported specimens were caught in high mountain regions above 1000 m up to 3600 m above sea level. On the Balkan Peninsula, *H. persimilis* has been up to date recorded only in north-western Greece as a subspecies *H. persimilis balcanica* HACKER, 1996 (HACKER 1996, HACKER et al. 2002). Finding of *H. persimilis* in north-eastern Bulgaria is the second record of the discussed species in the Balkans. The record fills the gap in the range of this species around the Black Sea basin.

REFERENCES


Received: January 6, 2004
Accepted: January 20, 2004