

The butterfly and moth fauna of the areas around the lakes of Durankulak, Ezerets, Shabla and Shablenska Tuzla in NE Bulgaria

(Insecta: Lepidoptera)

by

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Abstract: The present article contains data for 197 Macrolepidoptera species from the studied area. One species—*Hadena bicruris* (HUFNAGEL, 1766) is new for the Balkan Peninsula (and for Bulgaria), *Scopula corivalaria* (KRETSCHMAR, 1862) and the subspecies, *Diachrysis chryson deltaica* RÁKOSY, 1996 are also new for the Bulgarian fauna. The occurrence of six more species has been confirmed. Two other species—*Eupithecia biornata* CHRISTOPH, 1867 and *Macrochilo cribrumalis* (HÜBNER, 1793) were reported for the first time in the entomological literature for Bulgaria. The number of the new species in this region is about 190.

Introduction

There are very few data for the Macrolepidoptera fauna of the studied area. In the literature such data can be found only in the publications of GANEV & BESCHKOV (1987), BESHKOV (1992), BESHKOV (1993), BESHKOV (1998). Four new species and 2 other species confirmed for Bulgaria were published in these articles. Data for 2 other rare species can be found there. Some of the new species for the country were illustrated in some of these articles. Some very interesting data concerning the family Noctuidae were included and commented by the senior author in his "An Annotated Systematic and Synonymic List of the Noctuidae of Bulgaria" (BESHKOV, in press).

The studied area has been visited irregularly by the senior author from 1985 on. More intensive research were made during the period of 1997–1999. During the last two years the research was supported by the "Le Balkan" foundation. Three trips were made as follows: late September 1998, early June 1999 and late September 1999. Due to the bad weather conditions and the same time of the autumn trips the results were not very satisfactory and with almost no difference. Some additional data for the studied area however are contained in old unpublished results. They were collected in other seasons and localities from this still unsatisfactorily investigated, but very interesting region.

Material was collected close to the beaches of all of the lakes mentioned above in different biotopes during most of the trips. Butterflies were collected at day time by entomological nets. Moths were collected at lamps and during the last three years by plugging in a generator. 160 W MVL and 25 W "black" lamps were used together for better results. A 15 W light trap was used during the last three years, but in a greater distance and in a different biotope in order to cover much larger areas. At the same time and mostly in the autumn a sugar-red wine mixture was used on the bushes for the species not sufficiently attracted by the artificial light. Some material was taken resting on walls near the lamps of the camps.

Because the material was collected irregularly and in a very short period of time, a representative comparison between the lakes is impossible.

The most interesting land area close to the lakes is the southeastern side of the Durankulak Lake opposite the village of Vaklino (fig. 3). This is a high beach with limestones covered by bushes and steppe grass vegetation. Down the beach the lake surface is covered entirely by *Phragmites*, *Typha* and other aquatic vegetation. A similar area can be found much more to the north on the same side on the peninsula opposite the island. The aquatic vegetation there, however, is only a narrow band near the beach. Another well preserved and interesting site is at Shabla Lake (fig. 2), the area between the Residence and the Sea. This area is limited by a sandy beach with halophile vegetation on the one side, and the lake with fresh-water vegetation (*Iris*, *Phragmites*, *Typha*, *Sparganium*, etc) on the other. Another interesting place is the beach along the hedge in the direction of Shabla Town from the gate of the Residence (the second gate). Near the northwestern part of Shablenska Tuzla Lake (in the vicinity of Dobrudzha Camping) is one of the most interesting areas in this region. This is a sandy area between the dunes, close to the lake with aquatic vegetation. There are some trees nearby.

List of species

Hepialoidea

Hepialidae

Triodia amasinus dobrogensis (CARADJA, 1932)

= *Korschetellus amasinus ponticus* CAR. sensu POPESCU-GORJ, 1964

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Ibid.: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., abundant in the first hour of the darkness; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., abundant in the first hour in the darkness.

Tineoidea

Psychidae

Rebelia perlucidella (BRUAND, 1853) or *Rebelia mecedonica* PINKER, 1956

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. In all of the mentioned localities collected at a lamp. All the collected specimens are very difficult for determination, they belong to *Rebelia perlucidella* (BRUAND) or to *Rebelia mecedonica* PINKER. The material was sent to P. HÄT-TENSCHWILER (Uster, CH) who could not name the specimens either.

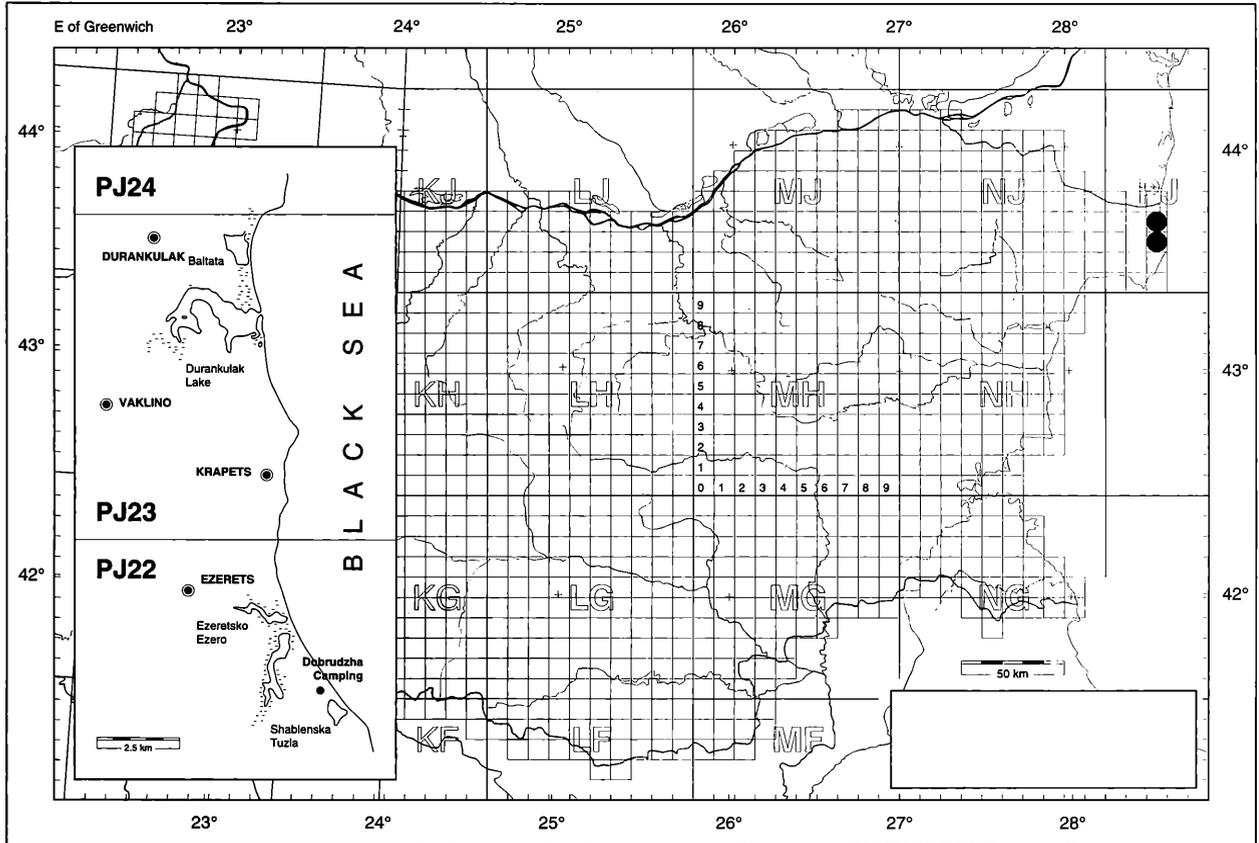


Fig. 1: Map of the investigated area and its position.

Sesioidea

Sesiidae

Tinthia myrmosaeformis (HERRICH-SCHÄFFER, 1846)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Chamaesphecia nigrifrons (LE CERF, 1911)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Cossoidea

Cossidae

Dyspessa ulula (BORKHAUSEN, 1790)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Phragmataecia castaneae (HÜBNER, 1790)

Shabla Lake: the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Bombycoidea

Sphingidae

Agrilus convolvuli (LINNAEUS, 1758)

Cape Shabla: 25.IX.1998: S. BESHKOV leg., resting on lamps; Shablenska Tuzla Lake, 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Macroglossum stellatarum (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; NE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.



Fig. 2: View of the Shabla Lake (Photo S. Бешков).



Fig. 3: View of the Durankulak Lake, SE side, near Vaklino Village (Photo S. Бешков).

Hyles euphorbiae (LINNAEUS, 1758)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., caterpillar last instar and a specimen at a lamp; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hyles hippophaes (ESPER, 1793)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg. Until this finding that species was known in Bulgaria from a single locality only—the districts of Balchik (BESHKOV, 1998; BESHKOV, NOWACKI & PALKA, 1999).

Hyles livornica (ESPER, 1779)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Deilephila elpenor (LINNAEUS, 1758)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Deilephila porcellus (LINNAEUS, 1758)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hesperioidea

Hesperiidae

Hesperiinae

Carcharodus alceae alceae (ESPER, [1780])

Dobrudzha Camping near Shabla Lake: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Carcharodus flocciferus (ZELLER, 1847)

Vakilno Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Carcharodus orientalis (REVERDIN, 1913)

Shablensko Ezero: 21.IX.1999, 1 ♀: S. ABADJIEV leg. et coll.

Pyrgus armoricanus persicus (REVERDIN, 1913)

Vakilno Village: on SE side of Durankulak Lake: 4.VI.1999, 1 ♀: M. LANGOUROV leg. (S. ABADJIEV coll.).

Papilionoidea

Papilionidae

Papilioninae

Papilio machaon syriacus ELLER, 1936

Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Vaklino Village: on SE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Pieridae

Coliadinae

Colias erate erate (ESPER, [1805])

Vaklino Village: on SE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.

Colias crocea (FOURCROY, 1785)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Dobrudzha Camping near Shabla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999, 1 ♂, 1 ♀: S. ABADJIEV leg. et coll.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Vaklino Village: on SE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; *ibid.*: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. (2 ♂♂ and 10 ♀♀ in coll. ABADJIEV); NE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Colias alfacariensis RIBBE, 1905

Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. (1 ♂ in coll. ABADJIEV).

Pierinae

Pieris rapae rapae (LINNAEUS, 1758)

Dobrudzha Camping near Shabla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♀ in coll. ABADJIEV); Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999, 1 ♀: S. ABADJIEV leg. et coll.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Vaklino Village: on SE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; NE side of Durankulak Lake: 7.VIII.1997:

S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Pieris napi napi (LINNAEUS, 1758)

Dobrudzha Camping near Shabla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♀ in coll. ABADJIEV); Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Pontia edusa (FABRICIUS, 1777)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Lycaenidae

Lycaeninae

Lycaena phlaeas phlaeas (LINNAEUS, 1761)

Shablensko Ezero: 21.IX.1999, 1 ♀: S. ABADJIEV leg. et coll.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. (1 ♂ in coll. ABADJIEV).

Lycaena dispar rutila (WERNEBURG, 1864)

Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999, 1 ♂, 1 ♀: S. ABADJIEV leg. et coll.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Lycaena thersamon (ESPER, [1784])

Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Callophrys rubi (LINNAEUS, 1758)

Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Pseudophilotes vicrama schiffermuelleri (HEMMING, 1929)

Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV leg.

Plebeius (Aricia) agestis ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak: 17.V.1995: MILEN MARINOV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Polyommatus (Polyommatus) icarus (ROTTEMBURG, 1775)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♂ in coll. ABADJIEV); ibid.: 21.IX.1999, 1 ♂: S. ABADJIEV leg. et coll.; ibid.: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Dobrudzha Camping: 25.IX.1998: S. BESHKOV leg.; Ezeretsko Ezero Lake: N coast near Ezerets Village: 19.IX.1999, 1 ♂: S. ABADJIEV leg. et coll.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. (1 ♂ in coll. ABADJIEV).

Polyommatus (Meleageria) bellargus (ROTTEMBURG, 1775)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♀ in coll. ABADJIEV); ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. (2 ♀♀ in coll. ABADJIEV).

Nymphalidae

Satyrinae

Coenonympha pamphilus (LINNAEUS, 1758)

Shablenska Tuzla: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero: N coast near Ezerets Village: 19.IX.1999, 4 ♂♂, 1 ♀: ABADJIEV leg. et coll.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: nr Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Maniola jurtina phormia (FRUHSTORFER, 1909)

Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (♂ and ♀ in coll. S. ABADJIEV); Ezeretsko Ezero Lake: N coast near Ezerets Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Vakilno Village: SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (2 ♂♂, 1 ♀ in coll. ABADJIEV); ibid.: 5.VI.1999, ♀: S. ABADJIEV leg. et coll.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Nymphalinae

Vanessa atalanta atalanta (LINNAEUS, 1758)

Dobrudzha Camping near Shabla Lake: 25.IX.1998: S. BESHKOV leg.; Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.

Vanessa cardui (LINNAEUS, 1758)

Dobrudzha Camping: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: nr Vakilno Village: 28.IX.1998: S. BESHKOV leg.; Cape Shabla: 28.VIII.1997: S. BESHKOV leg.; Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; pupa on *Carduus* spec.: ex pupa 11.VI.1999, 1 ♀: S. ABADJIEV leg. et coll.; Vakilno Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Melitaea cinxia cinxia (LINNAEUS, 1758)

Vakilno Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV leg.

Melitaea phoebe phoebe ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♂ in coll. S. ABADJIEV); NE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (1 ♀ in coll. S. ABADJIEV).

Melitaea trivia trivia ([DENIS & SCHIFFERMÜLLER], 1775)

Vaklino Village: on SE side of Durankulak Lake: 7.VIII.1997: S. BESHKOV, N. DILCHEV & MILEN MARINOV leg.; *ibid.*: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg. (2 ♂♂ in coll. S. ABADJIEV); *ibid.*: 5.VI.1999, 1 ♀: S. ABADJIEV leg. et coll.

Heliconiinae

Issoria lathonia (LINNAEUS, 1758)

Shabla Lake: the Residence: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV leg.

Argynnis (Argynnis) paphia paphia (LINNAEUS, 1758)

Shablenska Tuzla Lake: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Argynnis (Pandoriana) pandora ([DENIS & SCHIFFERMÜLLER], 1775)

Vaklino Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 5.VI.1999, 1 ♂: S. ABADJIEV leg. et coll.

Drepanoidea

Drepanidae

Thyatirinae

Tethea ocellaris (LINNAEUS, 1767)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 2 specimens.

Tethea or ([DENIS & SCHIFFERMÜLLER], 1775)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 2 specimens.

Geometroidea

Geometridae

Ennominae

Ligdia adustata ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Stegania dilectaria (HÜBNER, 1790)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., single specimen.

Heliomata glarearia ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Chiasmia clathraria (LINNAEUS, 1758)

Northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Tephрина murinaria ([DENIS & SCHIFFERMÜLLER], 1775)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., single specimen.

Tephрина arenacearia ([DENIS & SCHIFFERMÜLLER], 1775)

Northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; *ibid.*: 11.VIII.1998.

Synopsia sociaria (HÜBNER, 1799)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., single specimen.

Peribatodes rhomboidaria ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring;
Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 4.VI.1999:
S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Hypomecis punctinalis (SCOPOLI, 1763)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Ascotis selenaria ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.;
Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Semiaspilates ochrearia (ROSSI, 1794)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg.

Geometrinae

Antonechloris smaragdaria (FABRICIUS, 1787)

Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Chlorissa etruscaria (ZELLER, 1849) (= *pulmentaria* GUENÉE, 1857)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Sterrhinae

Scopula corrivalaria (KRETSCHMAR, 1862) (fig. 4)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., 1 ♂. New species for the Bulgarian fauna.

Scopula ornata (SCOPOLI, 1763)

Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Scopula rubiginata (HUFNAGEL, 1767)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Scopula marginepunctata (GOEZE, 1781)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Idaea filicata (HÜBNER, 1799)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Idaea dimidiata (HUFNAGEL, 1767)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Idaea subsericeata (HAWORTH, 1809)

Shabla Lake: near the gate of the Residence: 27.IX.1998: S. BESHKOV leg.

Idaea aversata (LINNAEUS, 1758)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Idaea degeneraria (HÜBNER, 1799)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Idaea deversaria (HERRICH-SCHÄFFER, 1847)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.



Fig. 4: *Scopula corrivalaria* (KRETSCHMAR, 1862), ♂, (left) upperside, (right) underside: NE Bulgaria: N Black Sea Coast: SE side of Durankulak Lake: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., at light, in coll. S. BESHKOV (Photo S. BESHKOV).



Fig. 5: *Eupithecia biornata* CHRISTOPH, 1867, ♂, upper-side: NE Bulgaria: N Black Sea Coast: Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOYCHEV leg., at light, in coll. S. BESHKOV (Photo S. BESHKOV).

Larentiinae

Epirrhoe galiata ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Costaconvexa polygrammata (BORKHAUSEN, 1794)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Shabla Lake: the gate of the Residence: 25.IX.1998: S. BESHKOV leg.; *ibid.*: the coast of the lake near the gate of the Residence: 27.IX.1998: S. BESHKOV leg.; *ibid.*: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.

Nebula salicata ([DENIS & SCHIFFERMÜLLER], 1775)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.

Eupithecia inturbata (HÜBNER, 1817)

Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., single female specimen, genitalia checked. Species confirmed for Bulgaria. In Bulgaria known from a single locality only—Rhodopi Mts: Devin. The species wrongly omitted for Bulgaria in MÜLLER (1996: 243).

Eupithecia linariata ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Eupithecia variostrigata ALPHÉRAKY, 1878

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: near the gate of the Residence: 27.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. The species wrongly omitted for Bulgaria (and Romania) in MÜLLER (1996: 244). For Bulgaria published only from a single locality: Atanasovsko Ezero Lake near Burgas (BESHKOV, 1992; BESHKOV, 1993). Another, unpublished locality is Beliya Bryag Camping near Tuzlata, between Balchik and Kavarna, September–October. Species confirmed for Bulgaria.

Eupithecia centaureata ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.

Eupithecia biornata CHRISTOPH, 1867 (fig. 5)

Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOYCHEV leg., 1 ♂. Species wrongly omitted Bulgaria (and Romania) in MÜLLER (1996: 245). Reported for Bulgaria from the same locality by BESHKOV (1993) and by BESHKOV (1998). From the Balkan Peninsula this species is known only from the Danube Delta.

Eupithecia ochridata SCHÜTZE & PINKER, 1968

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg., single female specimen (genitalia checked). Species known in Bulgaria from a few localities only, due to confusion with its closely related species *E. innotata* (HUFNAGEL, 1767).

Eupithecia spec.

1 ♂, genitalia checked (in genitalia similar to *E. extraversaria* HERRICH-SCHÄFFER, 1852), Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Lithostege griseata ([DENIS & SCHIFFERMÜLLER], 1775)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 4 specimens at a lamp.

Lithostege farinata (HUFNAGEL, 1767)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 1 specimen at a lamp.

Noctuoidea

Notodontidae

Clostera curtula (LINNAEUS, 1758)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., single specimen.

Clostera anastomosis (LINNAEUS, 1758)

Cape Shabla: 28.VIII.1997: S. BESHKOV leg., resting at a lamp; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Cerula vinula (LINNAEUS, 1758)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., single specimen.

Tritophia tritophus ([DENIS & SCHIFFERMÜLLER], 1775)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., single specimen.

Drymonia dodonea ([DENIS & SCHIFFERMÜLLER], 1775)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., single specimen.

Pheosia tremula (CLERCK, 1759)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 7 specimens.

Noctuidae

Acronictinae

Acronicta tridens ([DENIS & SCHIFFERMÜLLER], 1775)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Acronicta rumicis (LINNAEUS, 1758)

Durankulak Lake: SE side: near Vaklino Village: 20.IX.1999: S. BESHKOV & S. AVADJIEV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Craniophora ligustri ([DENIS & SCHIFFERMÜLLER], 1775)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Simyra albovenosa (GOEZE, 1781)

Durankulak Lake: 19.VIII.1995: R. RADEV leg.

Bryophilinae

Cryphia algae (FABRICIUS, 1775)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 2 specimens.

Herminiinae

Macrochilo cribrumalis (HÜBNER, 1793)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., 2 ♂♂. Species, confirmed for Bulgaria. Up to now for Bulgaria published only from Kozhuh Volcanic Hill near Petrich in SW Bulgaria (BESHKOV, 1993; BESHKOV, 1998). Species confirmed for Bulgaria.

Quaramia grisealis grisealis ([DENIS & SCHIFFERMÜLLER], 1775)

= *nemoralis* (FABRICIUS, 1775), nec SCOPOLI, 1763

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Zanclognatha tarsipennalis tarsipennalis (TREITSCHKE, 1835)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 1 ♀.

Strepsimaninae

Schrankia costaestrigalis (STEPHENS, 1834)

Shabla Lake: near the gate of the Residence: 27.IX.1998: S. BESHKOV leg., 2 ♀♀; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg. 1 ♂; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg., 1 ♂; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Catocalinae

Catocala nupta (LINNAEUS, 1767)

Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg., 1 ♂.

Catocala elocata (ESPER, [1787])

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 1 ♂.

Drasteria caucasica (KOLENATI, 1846)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 11 specimens; Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 1 specimen; Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg., abundant. These are the only known localities of this species in Bulgaria.

Lygephila cracca ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.

Catephia alchymista ([DENIS & SCHIFFERMÜLLER], 1775)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.

Aedia leucomelas (LINNAEUS, 1758)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABA DJIEV leg., both at lamp and sugaring; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABA DJIEV leg., both at lamp and sugaring; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Tyta luctuosa ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.; Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABA DJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABA DJIEV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hypeninae

Rivula sericealis (SCOPOLI, 1763)

Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABA DJIEV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Plusiinae

Diachrysia nadeja (OBERTHÜR, 1880)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABA DJIEV & M. LANGOUROV leg., 1 ♂; Durankulak Lake: 8.VI.1996: R. RADEV leg. Species confirmed for Bulgaria. For Bulgaria published from a single locality only: Vidin (WEIDLICH, 1984).

Diachrysia chryson deltaica RÁKOSY, 1996 (fig. 6)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABA DJIEV & M. LANGOUROV leg., 2 ♂♂; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABA DJIEV leg., 1 ♂. New subspecies for the Bulgarian fauna. Up to now *Diachrysia chryson deltaica* RÁKOSY was known only from its type locality: Danube Delta.

Macdunnoughia confusa (STEPHENS, 1850)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABA DJIEV leg. at sugaring; Shabla Lake, near the gate of the Residence, 22.IX.1999: S. BESHKOV & S. ABA DJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABA DJIEV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Plusia festucae (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg., 1 ♂.

Autographa gamma (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg. at day and at lamp; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla: 16.V.1995: MILEN MARINOV leg., 1 ♂; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Trichoplusia ni (HÜBNER, [1803])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: NE part: near the beach, 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Acontiinae

Emmelia trabealis (SCOPOLI, 1763)

Northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Eustrotiinae

Pseudeustrotia candidula ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.

Eublemma purpurina ([DENIS & SCHIFFERMÜLLER], 1775), nec (ESPER, [1804])

Durankulak Lake: SE side: near Vakilno Village: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Cuculliinae

Cucullia umbratica (LINNAEUS, 1758)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; near Krapets Village: 8.VIII.1985: S. BESHKOV leg., single specimen.

Calophasia opalina (ESPER, [1794])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg., larvae 2 cm long on *Linaria* spec.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

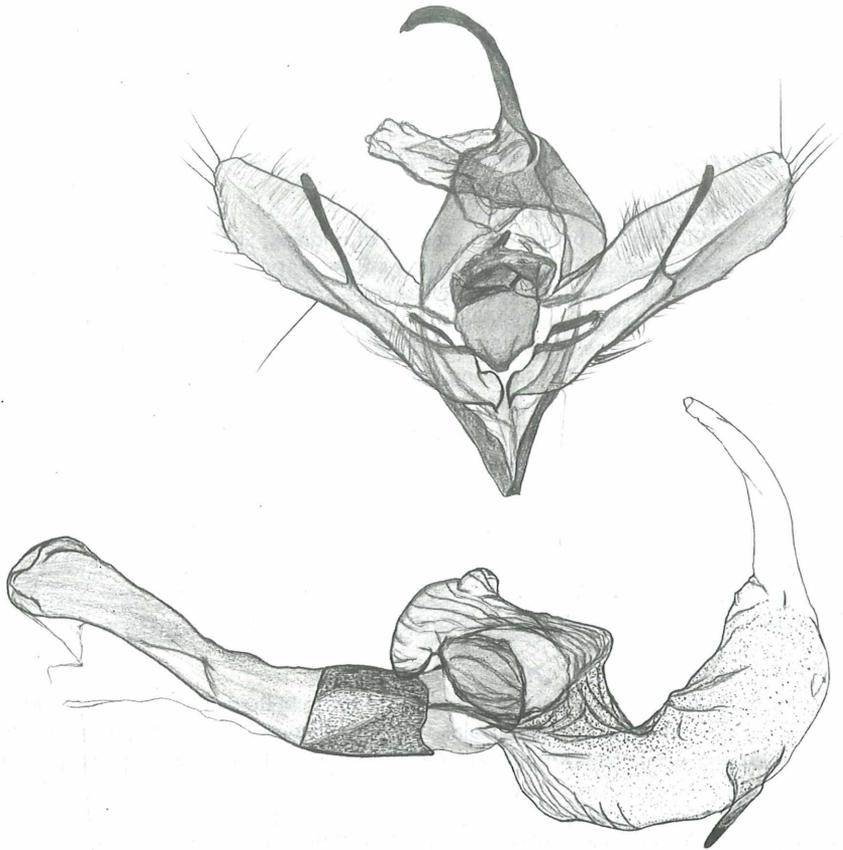


Fig. 6: [Top] Male genitalia of *Diachrysa chryson deltaica* RÁKOSY, 1996 (Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.); [bottom] same, everted vesica (same locality: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.).

Amphipyrinae

Amphipyra tragopogonis (CLERCK, 1759)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring.

Heliothinae

Schinia scutosa ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.

Heliothis maritima bulgarica (DRAUDT, 1938)

Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 2 specimens.

Heliothis peltigera ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Helicoverpa armigera (HÜBNER, [1808])

Cape Shabla: 28.VIII.1997: S. BESHKOV leg., resting at a lamps; Shablenska Tuzla Lake, 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; *ibid.*: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hadeninae

Elaphria venustula (HÜBNER, 1790)

Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOICHEV leg.

Caradrina morpheus (HUFNAGEL, 1766)

Durankulak lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; near Krapets Village: 8.VIII.1985: S. BESHKOV leg., single specimen.

Paradrina clavipalpis (SCOPOLI, 1763)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Paradrina flavirena (GUENÉE, 1852)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hoplodrina blanda ([DENIS & SCHIFFERMÜLLER], 1775)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., single specimen.

Hoplodrina ambigua ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV

leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. both at lamps and sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26—27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Charanyca trigammica (HUFNAGEL, 1766)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Spodoptera exigua (HÜBNER, [1808])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Athetis gluteosa (TREITSCHKE, 1835)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg.

Athetis furvula (HÜBNER, [1808])

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg., 10 specimens; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg. In Bulgaria *Athetis furvula* is a very local species, known from Preobrazhenski Manastir near Veliko Tarnovo (TULESCHKOW, 1931; 1932), Black Sea Coast: Euxinograd (BURESCH & TULESCHKOW, 1932), Krapets Village (GANEV & BESHKOV, 1987) and some other, still unpublished localities in NE Bulgaria.

Proxenus lepigone (MÖSCHLER, 1860)

Dobrudzha Camping near Shablenska Tuzla Lake, 11.V.1986, S. BESHKOV leg.; Durankulak Lake: 24.VIII.1995: R. RADEV leg., 1 ♀, Gen. prep. 1./28.IX.1997, BESHKOV. In Bulgaria *Proxenus lepigone* (MÖSCHLER) was reported from a single locality only: Cape Shabla [Shablenska Tuzla Lake]: 11.V.1985 (BESHKOV, 1992). It is a species, confirmed for Bulgaria. However, it wrongly omitted Bulgaria in NOWACKI & FIBIGER (1996: 270).

Thalpophila matura (HUFNAGEL, 1766)

Cape Shabla: 25.IX.1998: S. BESHKOV leg. resting on lamps; Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring.

Trachea atriplicis (LINNAEUS, 1758)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Ipimorpha subtusa ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.

Atethmia centrigo (HAWORTH, 1809)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg., many specimens in the mixed *Quercus-Ulmus-Fraxinus* forest; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Agrochola circellaris (HUFNAGEL, 1766)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg., at sugar-ing.

Episema tersa ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Apamea syriaca (OSTHELDER, 1933)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., 1 ♂. *Apamea syriaca* is recognised as a bona spec. by HACKER & TALHOUK (1998). It was reported as a new species for the country from SE Bulgaria: Simeonovo (Otmanli) village near Burgas (GANEV & BESHKOV, 1987). Known also from SW Bulgaria, several localities in E Rhodopi Mts and from S Black Sea Coast, Arkutino near Primorsko (BESHKOV, NOWACKI & PALKA, 1999: 181). Probably *Apamea syriaca* is not uncommon in the low-lying temperate areas of Bulgaria. The very limited number of published localities is probably due to confusion with the closely related species *Apamea monoglypha* (HUFNAGEL, 1766). However, the two species have a different flight period. *Apamea syriaca* is single brooded and flies during May to July, whereas the flight period of *Apamea monoglypha* in Bulgaria is from the end of June to the beginning of October.

Apamea anceps ([DENIS & SCHIFFERMÜLLER], 1775)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Mesoligia furuncula ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Mesapamea secalis (LINNAEUS, 1758)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg. single specimen.

Luperina rubella sericea (CARADJA, 1932)

Shabla Lake: the gate of the Residence: 25.IX.1998: S. BESHKOV leg., resting on lamps, 1 ♂, gen. prep. 5./25.I.1999: S. BESHKOV, genitalia with everted vesica; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., 1 ♂ and 2 ♀♀; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. For some more details concerning the distribution and the taxonomy of this taxon see in BESHKOV (in press).

Luperina dumerilii (DUPONCHEL, 1826)

Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., 1 ♂ and 1 ♀.

Rhizedra lutosa (HÜBNER, [1803])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg. 1 ♀; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., single female specimen at sugaring; Shabla Lake: near the gate of the Residence: 27.IX.1998: S. BESHKOV leg., single female at a lamp.

Gortyna flavago ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: near the gate of the Residence: 27.IX.1998: S. BESHKOV leg., 1 ♂.

Nonagria typhae (THUNBERG, 1784)

Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., 1 ♂.

Archanara dissoluta (TREITSCHKE, 1825)

Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOYCHEV leg., many specimens. *Archanara dissoluta* is a rare species in Bulgaria, published from the above mentioned locality and from Atanasovsko Ezero Lake near Burgas (BESHKOV, 1992), from SW Bulgaria: Kozhuh Volcanic Hill near Petrich (GANEV, 1982; 1984), from SE Bulgaria: Svilengrad (GANEV, 1987) and from S Black Sea Coast: Arkutino (FRANKE, 1989).

Hadula trifolii (HUFNAGEL, 1766)

Cape Shabla: 28.VIII.1997: S. Beshkov leg., resting at a lamps; Shablenska Tuzla Lake, 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. both at lamps and sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; *ibid.*: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Lacanobia w-latinum (HUFNAGEL, 1766)

Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Lacanobia oleracea (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Lacanobia blenna (HÜBNER, [1823-1824])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg., 1 ♀; Shabla Lake: 25.VIII.1995: R. RADEV leg.

Lacanobia suasa ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.

Hecatera dysodea ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg. single specimen.

Hecatera cappa (HÜBNER, [1809])

Durankulak Lake: 19.VIII.1995: R. RADEV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Hadena bicruris (HUFNAGEL, 1766)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg., 1 ♀, gen. prep. 2./03/II.1999: S. BESHKOV. *Hadena bicruris* (HUFNAGEL, 1766) differs from its closely related sister species *Hadena capsicola* ([DENIS & SCHIFFERMÜLLER], 1775) mostly in the female genitalia (length of the apophyses), as well as in the structure of the everted vesica in the male genitalia. The pattern of occurrence of both species in Bulgaria is not clear enough. In the past, all specimens from this complex had been considered as *H. bicruris*. For some more details see also in HACKER (1996) and in BESHKOV (in press). This is the first authentic report for this species for the Balkan Peninsula and Bulgaria.

Sideridis rivularis (FABRICIUS, 1775)

Near Krapets Village: 8.VIII.1985: S. BESHKOV leg. single specimen.

Mamestra brassicae (LINNAEUS, 1758)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna turca (LINNAEUS, 1761)

Shabla Lake: near the gate if the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna vitellina (HÜBNER, [1808])

Cape Shabla: 28.VIII.1997: S. BESHKOV leg., resting at a lamps; *ibid.*: 25.IX.1998: S. BESHKOV leg., resting on lamps; Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg. at sugaring; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.-27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna straminea (TREITSCHKE, 1825)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg., 1 ♂ and 1 ♀; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., genitalia of 3 ♂♂ checked; Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and

the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg. *Mythimna straminea* in Bulgaria is reported from the districts of Burgas (TschORBADJIEV, 1915), from W Bulgaria: Zemen Gorge: Skakavitsa Railway Station (GANEV, 1984a; 1985), from Kostinbrod, Sofia Region (GANEV, 1984a), from SW Bulgaria, Kozhuh Hill (GANEV, 1987) and from Shabla Lake (BESHKOW, 1992).

Mythimna ferrago (FABRICIUS, 1787)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna albipuncta ([DENIS & SCHIFFERMÜLLER], 1775)

Cape Shabla: 28.VIII.1997: S. BESHKOV leg., resting at a lamps; Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna congrua (HÜBNER, [1817])

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 22.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Mythimna l-album (LINNAEUS, 1767)

Durankulak Lake: SE side: nr Vakilno: 20.IX.1999: S. BESHKOV leg. at sugaring.

Pseudaletia unipuncta (HAWORTH, 1809)

Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. at sugaring.

Leucania obsoleta (HÜBNER, [1800–1803])

Shabla Lake: near the gate of the Residence, 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Egira conspicularis (LINNAEUS, 1758)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 1 ♀, Gen. prep. 19./30.I.1996, BESHKOV.

Noctuidae

Axylia putris (LINNAEUS, 1761)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Ochropleura plecta (LINNAEUS, 1761)

Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

Noctua pronuba (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg. both at lamp and sugaring; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Noctua orbona (HUFNAGEL, 1766)

Northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Noctua interposita (HÜBNER, 1790)

Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Noctua comes (HÜBNER, [1813])

Shablenska Tuzla Lake: 25.IX.1998: S. Beshkov leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Noctua tertia VON MENTZER, MOBERG & FIBIGER, 1991

Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg., 2 ♀♀; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg., 1 ♂. In Bulgaria, till now, *Noctua tertia* is published only from the southern parts of the country. Seems to be widespread throughout Bulgaria, collected both at light and sugar. Known from the Romanian part of the Dobrogea, very close to the Bulgarian/Romanian border (RÁKOSY, 1996).

Rhyacia simulans (HUFNAGEL, 1766)

Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg., 1 ♂, gen. prep. 4./16.XII.1998: S. BESHKOV, male genitalia with everted vesica.

Xestia c-nigrum (LINNAEUS, 1758)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998:

S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Xestia xanthographa ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABAĐJIEV leg., both at lamp and sugaring; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABAĐJIEV leg., both at lamp and sugaring; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg., both at lamp and sugaring; *ibid.*: 19.IX.1999: S. BESHKOV & S. ABAĐJIEV leg.; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.; *ibid.*: 20.IX.1999: S. BESHKOV & S. ABAĐJIEV leg., at sugaring.

Euxoa aquilina ([DENIS & SCHIFFERMÜLLER], 1775)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.

Euxoa temera (HÜBNER, [1808])

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg., at sugaring only.

Euxoa segnilis (DUPONCHEL, 1836)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Dichagyris renigera argentina (CARADJA, 1930)

Durankulak Lake: 8.VI.1996: R. RADEV leg. (probably incorrect locality due to a mistake on the label). This taxon, endemic for the Bulgarian North Black Sea coast, is surely proved for the "Silver Coast" only between Varna and Balchik.

Agrotis obesa scitha (ALPHÉRAKY, 1889)

Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg., single male specimen.

Agrotis bigramma (ESPER, [1790])

Northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Agrotis puta (HÜBNER, [1803])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; *ibid.*: 21.IX.1999: S. BESHKOV & S. ABAĐJIEV leg., both at lamps and sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg., abundant; Durankulak Lake: SE side: near Vaklino Village: 28.IX.1998: S. BESHKOV leg.

Agrotis ipsilon (HUFNAGEL, 1766)

Cape Shabla: 25.IX.1998: S. BESHKOV leg. resting on lamps; Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.; Shabla Lake: near the gate of the Residence: 22.IX.1999: S. BESHKOV & S. ABAĐJIEV leg. at sugaring only;

Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg., both at lamp and sugaring; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg., both at lamp and sugaring; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Agrotis exclamationis (LINNAEUS, 1758)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Vakilno Village: on SE side of Durankulak Lake: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Agrotis segetum ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; ibid.: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg., at sugaring; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg. both at lamp and sugaring; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; ibid.: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg. at sugaring; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.; ibid.: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Agrotis vestigialis (HUFNAGEL, 1766)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; ibid.: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg. *Agrotis vestigialis* was reported as a new species for Bulgaria and also the Balkan Peninsula from Pobitite Kamani near Varna (SLUVOV, 1979). Published also from NW Bulgaria: Negovantsi village, Vidin Region (GANEV & BOCHAROV, 1982), from Arkutino Lake near Sozopol, Black Sea Coast (GOATER, 1996; BESHKOV & NOWACKI, 1998: 50).

Lymantriidae

Lymantria dispar (LINNAEUS, 1758)

Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOYCHEV leg.

Orgyia antiqua (LINNAEUS, 1758)

Ezeretsko Ezero Lake: north coast near Ezerets Village: 19.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Laelia coenosa (HÜBNER, 1808)

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; ibid.: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: the Residence: 3.VII.1989: S. BESHKOV & I. STOYCHEV leg.

Nolidae

Meganola albula ([DENIS & SCHIFFERMÜLLER], 1775)

Shablenska Tuzla Lake: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; ibid.: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.

Arctiidae

Pelosia obtusa (HERRICH-SCHÄFFER, 1847)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg., 1 specimen; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg., 3 ♂♂. In Bulgaria known only from Kozhuh Volcanic Hill near Petrich (GANEV, 1983), from Arkutino Lake (FRANKE, 1989) and from Shabla Lake (BESHKOV, 1992).

Eilema caniola (HÜBNER, [1808])

Shablenska Tuzla Lake: 25.IX.1998: S. BESHKOV leg.; ibid.: 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Ezeretsko Ezero Lake: north coast near Ezerets Village: 26.IX.1998: S. BESHKOV leg.; Durankulak Lake: SE side: near Vakilno Village: 28.IX.1998: S. BESHKOV leg.; ibid.: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; northern part of Durankulak Lake: between the lake and the Sea: 26.–27.VIII.1997: S. BESHKOV, M. & K. BESHKOVI leg.

Eilema pygmaeola (DOUBLEDAY, 1847)

Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Phragmatobia fuliginosa (LINNAEUS, 1758)

Cape Shabla: 28.VIII.1997: S. BESHKOV leg., resting at a lamp; Shablenska Tuzla Lake, 21.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg.; Durankulak Lake: SE side: near Vakilno Village: 20.IX.1999: S. BESHKOV & S. ABADJIEV leg.; Durankulak Lake: NE part: near the beach: 11.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.; Sea Coast between Durankulak Lake and Krapets Village: 12.VIII.1998: S. BESHKOV, M. & K. BESHKOVI leg.

Diaphora mendica (CLERCK, 1759)

Dobrudzha Camping near Shablenska Tuzla Lake: 11.V.1986: BESHKOV leg., 3 specimens.

Rhyparioides metelkana (LEDERER, 1861)

Shabla Lake: the Residence: 3.VII.1989, S. BESHKOV & I. STOYCHEV leg., 1 ♀. Reported as a new genus for Bulgaria by BESHKOV (1992). Still the only specimen collected in Bulgaria.

Arctia villica (LINNAEUS, 1758)

Shabla Lake: near the gate of the Residence: 3.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.; Durankulak Lake: SE side: near Vakilno Village: 4.VI.1999: S. BESHKOV, S. ABADJIEV & M. LANGOUROV leg.

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References

- BESHKOV, S. (1992): Faunistic Advances on Bulgarian Lepidoptera. – Boll. Ass. Romana Entomol. **46**: 37–56.
- BESHKOV, S. (1993): Lepidoptera. In: HUBENOV et al. Insecta: Blattodea, Mantodea, Isoptera, Orthoptera, Dermaptera, Embioptera, Megaloptera, Raphidioptera, Neuroptera, Mecoptera, Hymenoptera, Trichoptera, Lepidoptera and Diptera. – The National Biological Diversity Conservation Strategy Vol. 1: 366–380, 399–402. Biodiversity Support Program c/o WWF [In Bulgarian].
- BESHKOV, S. (1998): *Hyles hippophaes* new for Bulgaria and *Euxoa cos crimaea* new for the Balkan Peninsula (Lepidoptera: Sphingidae, Noctuidae). – Phegea **26** (1): 9–11.
- BESHKOV, S. (2000): An Annotated Systematic and Synonymic Check List of the Noctuidae of Bulgaria (Insecta, Lepidoptera, Noctuidae). – Neue Entomologische Nachrichten **49**.
- BESHKOV, S. & J. NOWACKI (1998): New records of Macrolepidoptera from Bulgaria. – Roczn. Mus. gornosl. (Przyr.) **15**: 45–51.
- BESHKOV, S., NOWACKI, J. & K. PALKA (1999): Contribution to the knowledge on the distribution of Macrolepidoptera in Bulgaria. – Wiadam. entomol., Poznan **18** (3): 169–185.
- BESHKOV, S. (1998): Lepidoptera. In: HUBENOV et al.: Insects of Bulgaria, Part 2: Blattodea, Mantodea, Isoptera, Orthoptera, Dermaptera, Embioptera, Megaloptera, Raphidioptera, Neuroptera, Mecoptera, Hymenoptera, Trichoptera, Lepidoptera, and Diptera. – Bulgaria's Biological Diversity: Conservation Status and Needs Assessment, Volumes I and II, Washington, D. C., Biodiversity Support program: 236–243, 255–257.
- BURESCH, I. & K. TULESCHKOW (1932): Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. III (1). Teil: Noctuiformes. – Izv. tsarsk. prirodonauch. Inst. Sof. **5**: 67–144.
- FRANKE, F. (1989): Ergebnis einer Macrolepidopterenaufsammlung in Bulgarien im Jahre 1985. – Mitt. int. ent. Ver. **13** (3/4): 133–154.
- GANEV, J. (1982): Records of new and local species of Heterocera from Bulgaria. – Nota lepid. **5** (4): 157–168.
- GANEV, Y. (1983): Species of Butterflies (Lepidoptera), New for the Bulgarian Fauna. – Acta Zoologica Bulgarica **22**: 86–88.
- GANEV, J. (1984a): Studies on Heterocera from Bulgaria (Lepidoptera). – Phegea **12** (2): 37–42.
- GANEV, J. (1984b): Die Schmetterlingsfauna des Vulkanhügels Kozuch in Südwest-Bulgarien (Lepidoptera: Macrolepidoptera). – Phegea **12** (4): 121–136.
- GANEV, J. (1985): Studies on Heterocera from Bulgaria – II (Lepidoptera). – Phegea **13** (3): 85–91.
- GANEV, J. (1987): New contribution to the studies on Lepidoptera-Heterocera. – SHILAP Revta. lepid. **15** (58): 99–104.
- GANEV, J. & S. BESHKOV (1987): Records of Macrolepidoptera from Bulgaria (Lepidoptera). Phegea **15** (2): 113–117.

- GANEV, J. & S. BOCHAROV (1982): Studies on Butterflies (Lepidoptera) in Bulgaria. – *Acta Zoologica Bulgarica* 20: 102–106.
- GOATER, B. (1996): Two weeks entomologising in Bulgaria, 12–26 September 1995. – *Entomologist's Rec. J. Var.* 108: 269–284.
- HACKER, H. (1996): Revision der Gattung *Hadena* SCHRANK, 1802 (Lepidoptera: Noctuidae). – *Esperiana* 5: 7–696 + Taf. A–Y.
- HACKER, H. & A. S. TALHOUK (1998): Contribution to the Noctuidae Fauna of Lebanon with the first proof of ten species and taxonomic comments (Lepidoptera, Noctuidae). *Esperiana* 6: 376–380.
- KARSHOLT, O. & J. RAZOWSKI (Eds) (1996): The Lepidoptera of Europe. A distributional Checklist. – Apollo Books, Stenstrup, 380 pp.
- MÜLLER, B. (1996): Geometridae. – In: KARSHOLT, O. & J. RAZOWSKI (Eds) The Lepidoptera of Europe: 218–249.
- NOWACKI, J. & M. FIBIGER (1996): Noctuidae. – In: KARSHOLT, O. & J. RAZOWSKI (Eds) The Lepidoptera of Europe: 251–293.
- RÁKOSY, L. (1996): Die Noctuidae Rumäniens (Lepidoptera Noctuidae). – Druckerei Gutenberg, Linz-Dornach, 648 pp.
- SLIVOV, A. (1979): A Contribution to the Study on the Lepidopteral Fauna (Lepidoptera) in Bulgaria. – *Acta Zoologica Bulgarica* 12: 36–43.
- TSCHORBADJIEV, P. (1915): Beitrag zur Macrolepidopterenfauna (Macrolepidoptera) der Umgebung von Bourgass. – *Sbornik na BAN* 5: 3–45.
- TULESCHKOW, K. (1931): In: Referate und Mitteilungen, Bulgarische Entomologische Gesellschaft. – *Izv. bulg. ent. Druzh.* 6: 26–28.
- TULESCHKOW, K. (1932): Für die Schmetterlingsfauna Bulgariens neue Arten gesammelt von 1928 bis 1931. – *Izv. bulg. ent. Druzh.* 7: 100–115.
- WEIDLICH, M. (1984): Ein Erstfund für Bulgarien: *Diachrysis nadeja* (OBERTHÜR, 1880) (Lep., Noctuidae). – *Entomologische Nachrichten und Berichte* 28 (4): 183.

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