

**Description of a new subspecies of *Plebejus* (*Plebejides*)
sephirus FRIVALDSZKY, 1835 from Macedonia with short note
on the pylaon-complex. (Lepidoptera: Lycaenidae)**

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Zusammenfassung: *Plebejus* (*Plebejides*) *sephirus magnificus* ssp.n. wird aus Mazedonien beschrieben mit anschließender kurzer Diskussion der pylaon-Gruppe.

Abstract: *Plebejus* (*Plebejides*) *sephirus magnificus* ssp.n. is described from Macedonia. The pylaon-complex is shortly discussed.

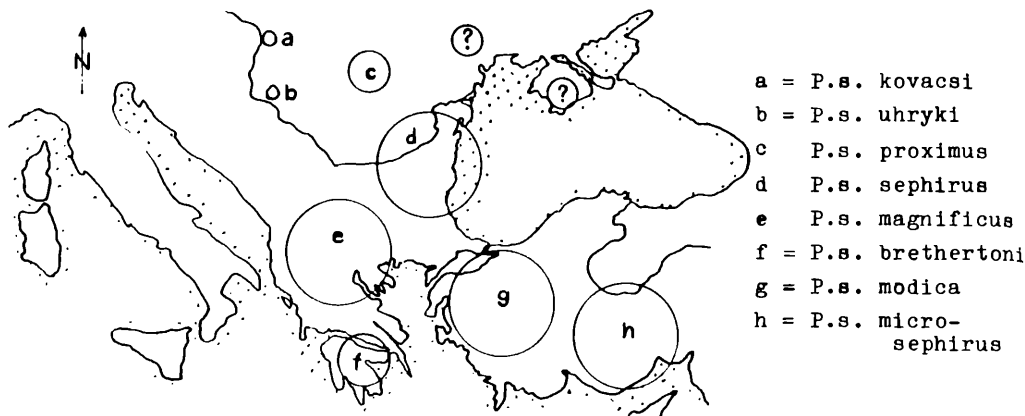
According to the opinion of FORSTER 1938 HIGGINS mentioned the European relatives of sephirus FRIVALDSZKY 1835 as a subspecies of Plebejus pylaon FISCHER von WALDHEIM 1832 (HIGGINS 1970 und 1975). This conception is outdated from zoogeographic and taxonomic point of view.

According to my researches Plebejus sephirus FRIV. is a "bona species", which is different from the related Asian (nicholli ELWES, 1904; zephyrinus CRISTOPH, 1864; usbeka FORSTER, 1939) and European (hespericus RAMBUR, 1842; trappi VERITY, 1927 = lycidas TRAPP, 1863) taxa and the Transcaspic pylaon F.W. not only in morphologic (BEURET 1961), but also in genitalic characters. The taxa nicholli ELW., zephyrinus CRIST., usbeka FORST., hespericus RMBR., trappi VTY. and pylaon F.W. can be also treated as distinct species.

I should like to publish the results of my studies on the pylaon-complex, but first I am giving here a comprehensive table with the morphologic characters of the European taxa together with the photos of both sexes (fig, 1-16) and the drawings of the male genitalia (fig, 17-20) to help the determination (see next page).

	<u>hespericus</u>	<u>trappi</u>		<u>sephirus</u>		<u>pylaon</u>	
		M	A	L	E		
underside ground colour	cornflower blue		deep violet blue		gleaming violet blue	clear violet blue	
black margin	narrow		wide		narrow	very narrow	
underside ground colour	yellowish grey		pale grey		grey	white	
submarginal orange lunules	paler, indistinct		pale, distinct		reddish, distinct	prominent, very wide and indistinct	
special character	cornflower blue upperside		wide black margin, white shade between postdiscal spots and submarginal orange lunules		violet blue upperside with narrow black margin	white underside with very wide submarginal orange band	
		F	E	M	A	L	E
upperside ground colour and markings	paler brown with distinct orange lunules rarely on both wings		blackish brown sometimes with blue suffusion, orange lunules vestigial or absent		brown, hind wing with orange lunules		drab brown with prominent orange band on both wings
underside		as in male but colours and markings much more prominent					
size (fore wing costa in mm)	14/15,5		14/18		14/17		13,5/14,5
distribution	Iberian Peninsula		Southern Alps		South-Eastern Europe, Asia Minor, Western Armenia, Northern Syria		from Southern Ural to foots of Tien-Shan

The distribution of Plebejus sephirus FRIV. ranges from Carpathian Basin through Macedonia, the Balkans and the Peloponnesus Peninsula to the eastern part of Asia Minor and Northern Syria. It is still known from the coastline of the Black-Sea and Moldavia (REBEL 1903). NEKRUTENKO 1985 cited sephirus from the Crimean Peninsula. The range of sephirus can be divided into geographic subspecies:



ssp. sephirus FRIVALDSZKY, 1835

Locus Typicus: Mountains Balkan, Sliven. Distribution: Foothills of Mts. Balkan, Black-Sea coast, Dobrogea (POPESCU GORJ and DRĂGHIA 1967)

ssp. proximus SZABÓ, 1954

Locus Typicus: Transylvania, Kolozsvár (Cluj-Clausenburg). Distribution: Transylvanian Basin

ssp. kovacsi SZABÓ, 1954 (= *foticus* SZABÓ, 1956)

Locus Typicus: Central Hungary, Pécs. Distribution: Central Hungary

ssp. uhryki REBEL, 1911

Locus Typicus: Banat, Deliblát: Flamunda. Distribution: Banat

ssp. brethertoni BROWN, 1976

Locus Typicus: Peloponnesus Peninsula, Parnassos. Distribution: Peloponnesus Peninsula

ssp. modica VERITY, 1935

Locus Typicus: Central Anatolia, Ak-Scheir. Distribution: Western and Central Anatolia

ssp. microsephirus VERITY, 1935

Locus Typicus: Eastern Anatolia, Tece. Distribution: Eastern Anatolia, Western (Turkish) Armenia, Northern Syria

I examined and compared more than 4700 sephirus specimens and I recognised, that the Macedonian sephirus differs from the others. I am going to describe it as a new subspecies below.

Plebejus (Plebejides) sephirus magnificus ssp. n.

Male:

Holotype - Dorsal Surface (see picture above on page 102)

Ground colour gleaming violet blue with narrow black margin. Hind wing with black antemarginal spots between veins 2-3, 3-4 and near anal costa. Fringes white.

Ventral Surface (see picture below on page 102)

Ground colour pale grey. Fore wing with expanded black discoidal spot surrounded by narrow and indistinct white colour. Postdiscal spots black and large. White rings well visible. Submarginal orange lunules narrow and distinct. Bordered black lines well visible. Antemarginal part a bit lighter than inner area. Spots small and brownish. Hind wing with soft blue suffusion on base. Black basal and postdiscal spots, also expanded discoidal spot with white ring.

White arrow-head markings between postdiscal spots and submarginal orange lunules distinct. Antemarginal part whitish with brownish spots very close to submarginal orange lunules. Some metallic scales in antemarginal spot of cell v 2-3.

Female:

Allotype - Dorsal Surface (see figure above on page 103)

Ground colour brown. Fore wing with blackish discoidal patch. Hind wing with small submarginal orange lunules and blackish antemarginal spots in cell v 2-3, v 4-5 and near anal costa. Fringes brownish white.

Ventral Surface (see figure below on page 103)

As in male, but colour and markings much more prominent.

Size:

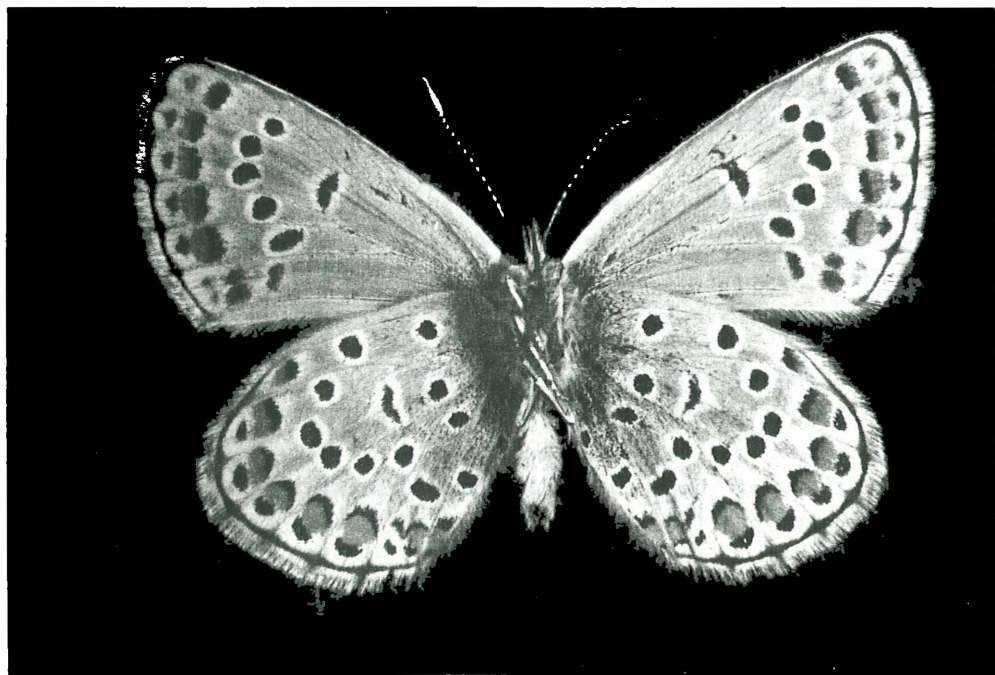
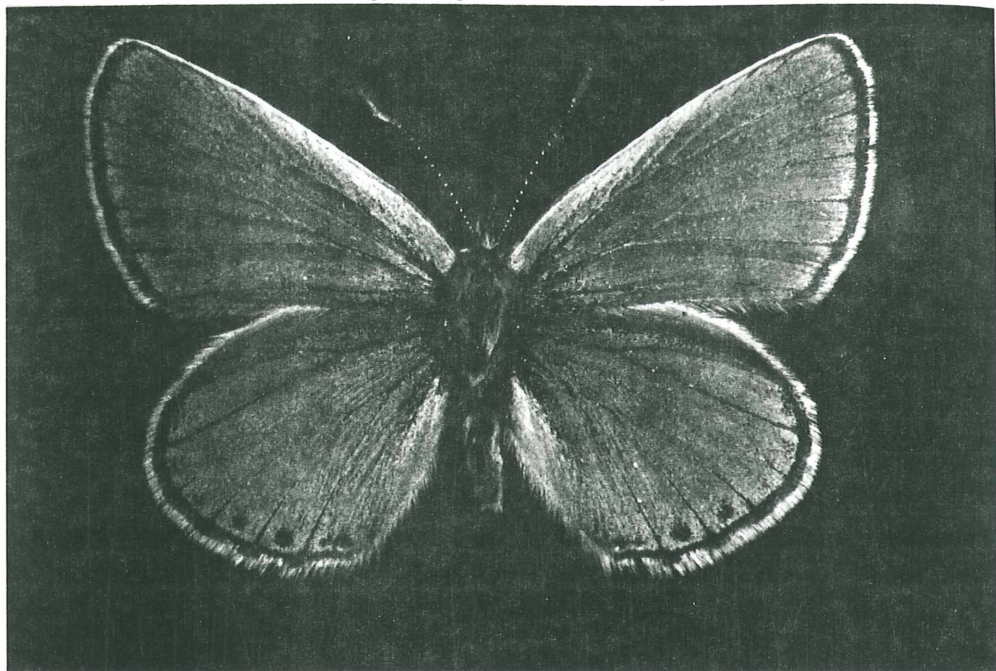
(Length in mm of fore wing along costa from wing base to greatest extent) Holotype: 15,3 mm. Allotype: 16,5 mm.

Type Locality:

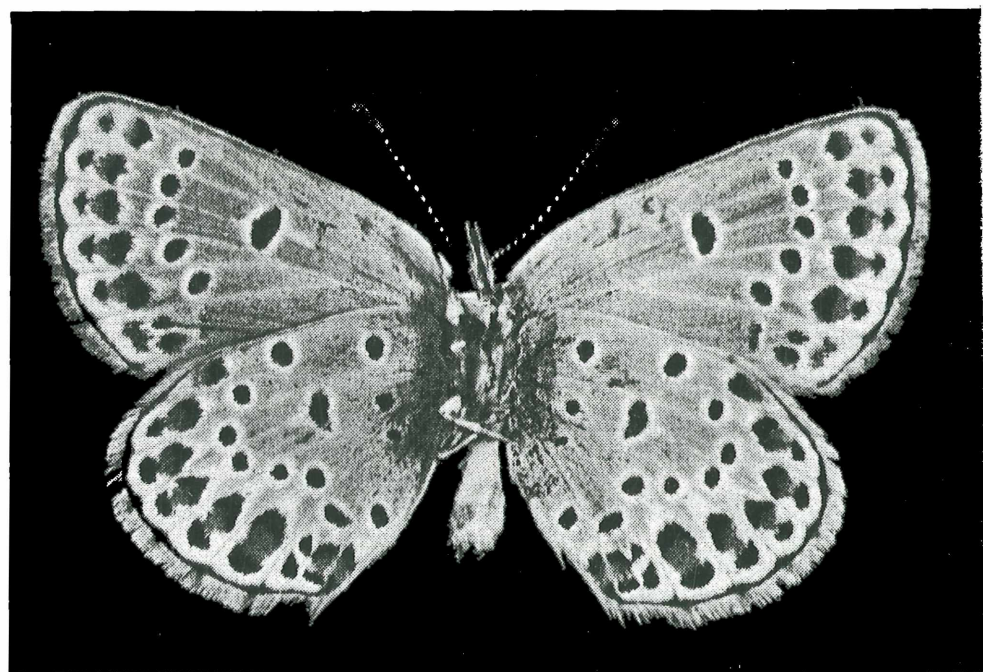
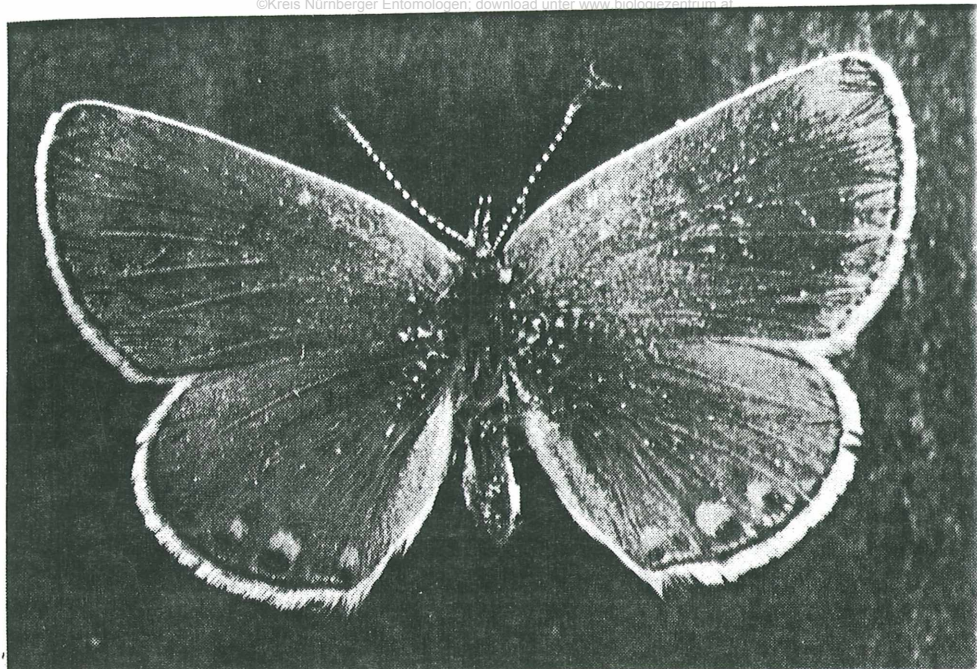
Macedonia, 1600 m, Petrina planina. THURNER 1938. (fig. 2, 4-7, 10, 15, 16)

Types:

Holotype ♂: 23.-31. Mai 1935, Ochrida Umg., Macedonien, leg. Thurner; Allotype ♀: 4.-9. Juni 1935, Petrina plan., Maced. 1600 m, leg. Thurner.



Plebejus sephirus magnificus ssp. n. Holotype ♂
above: upperside below: underside



Plebejus sephirus magnificus ssp. n. Allotype ♀
above: upperside below: underside

Ochrida, Aszandzsura, 6.-12.7.1936. dr. Podor (2 males);
Ochrida Umg., Macedonien, 23.-31.5.1935. leg. Thurner (1 male);
Petrida plan., Maced., 4.-9.6.1935. leg. Thurner (1 male);
Drenowo, Mazedonien, 5.1907. Smlg. Pfeiffer (1 male, 1 female);
Macedonia Salonika, 1000, 25.5. (1 male), 26.5. (1 male, 1 female),
27.5. (1 female), 30.5. (1 female), 31.5.1935 (1 male), Romei,
Smlg. Pfeiffer (all 3 males, 3 females);
Petrina plan., Macedonia, 1600 m, 21.-26.6. (2 males), 23.6. (1
male), 24.6. (1 male) 1959. leg. Thurner. (all 4 males).
Petrina plan., Macedonia, 23.-27.6.1939 (1 male). leg. Thurner;
Asandzsura, Macedonia, 20.-23.6.1939 (2 males). leg. Thurner;
Ochrida-See, Macedonien, Juni 1932 (2 males). leg. Pfeiffer;
Petrina pl., Macedon. occ. Ochrida mts.m., 20.6. (2 females), 8.6.
(1 female), 26.6. (1 female) (all 4 females);
Ochrid. Petrina., Macedonia, 6.6.-7.7.1935 (1 female). leg. Wolf-
schläger.

Deposition of Type Material:

The holotype, allotype and 4 male paratypes are deposited in the lepidoptera collection of the Hungarian Natural History Museum, Budapest. 1 male paratype specimen can be found in the Alexander Koenig Museum, Bonn. The remaining paratypes are in the lepidoptera section of the Zoologische Staatssammlung, Munich.

Geographical Range and Phenology:

The new taxon is known from the Mountains of Macedonia (Albania, Yugoslavia and Greece). The type specimen have been captured from the end of May to the beginning of July. The foodplant of the caterpillar is unknown as well as the early stages.

Taxonomic Status:

The new taxon is situated between *ssp. uhryki* RBL. and *ssp. brethertoni* BROWN.

Acknowledgements:

I would like to express my gratitude to Mr. W.DIERL and Mr. E. LEHMANN (Munich), Mr. Fr.KASY and Mr. B.IMB (Vienna) and Mr. D.STÜNING (Bonn), for allowing me to study the lepidoptera collection of their Institutes. Special thanks to my wife Annamária KERTÉSZ for help in the preparation of this paper. The SOROS-Foundation of the Hungarian Academy of Sciences provided financial support for my work.

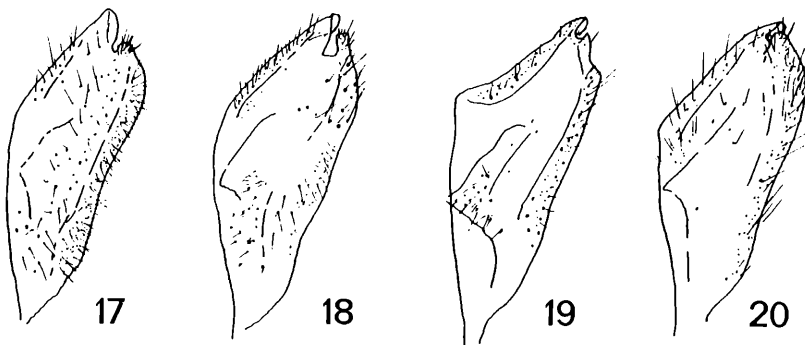
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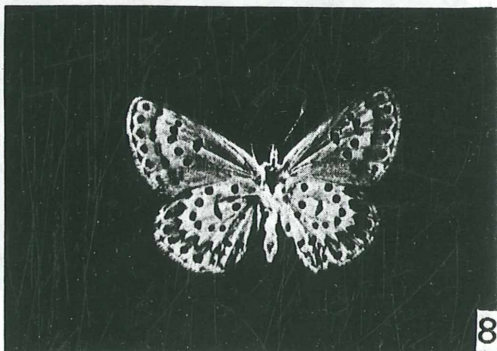
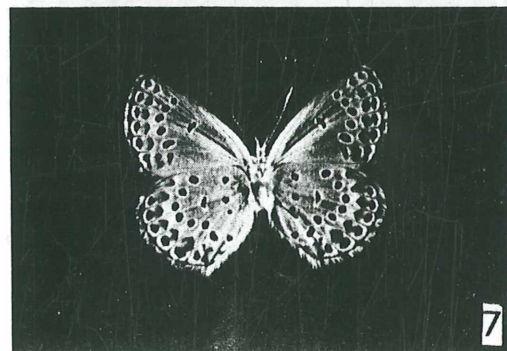
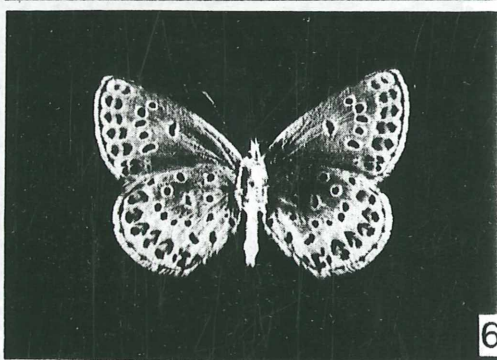
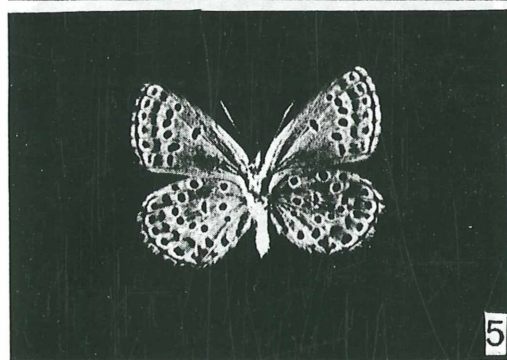
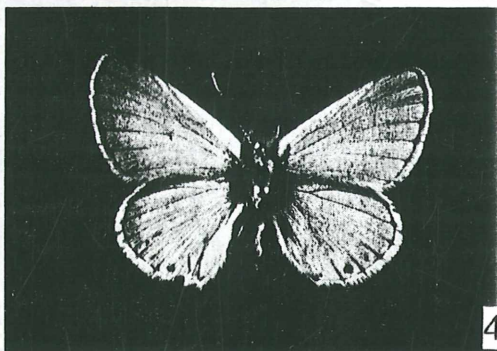
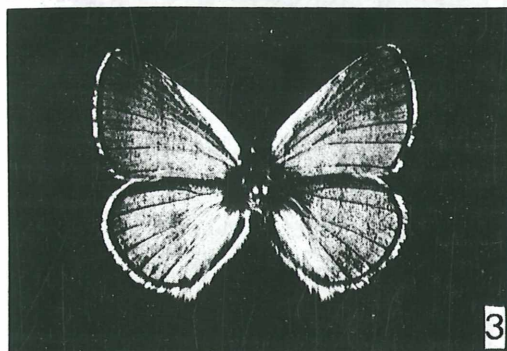
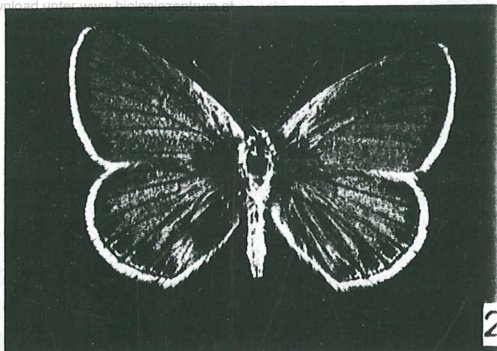
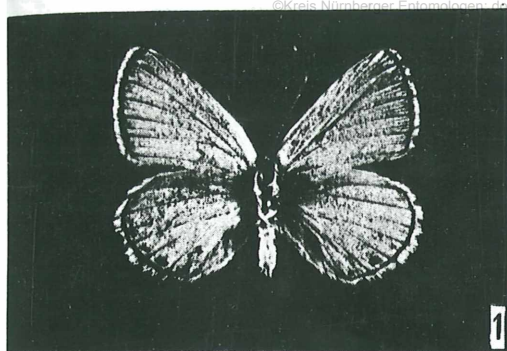
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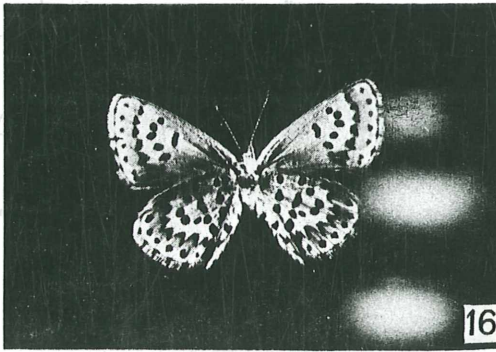
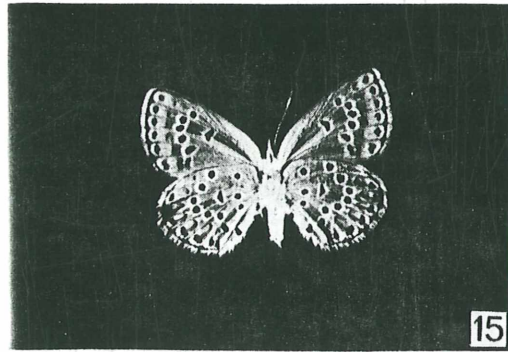
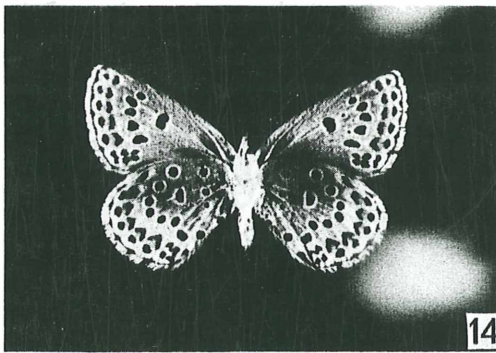
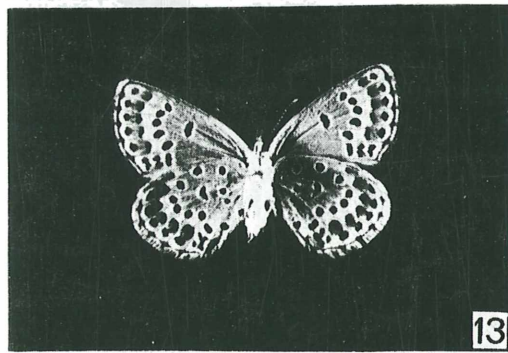
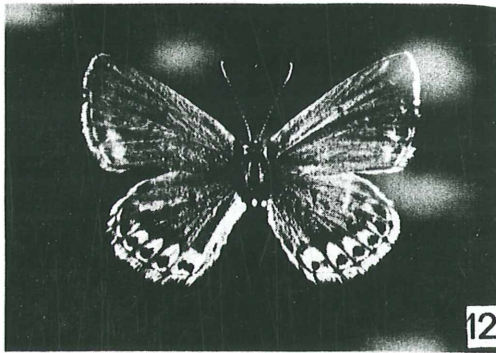
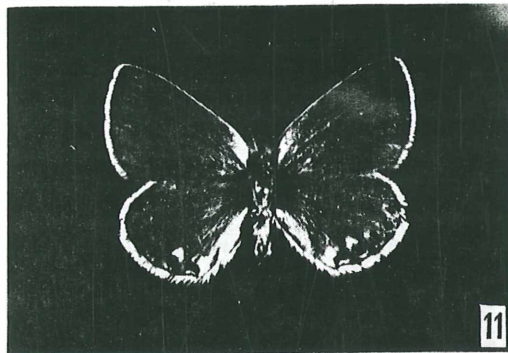
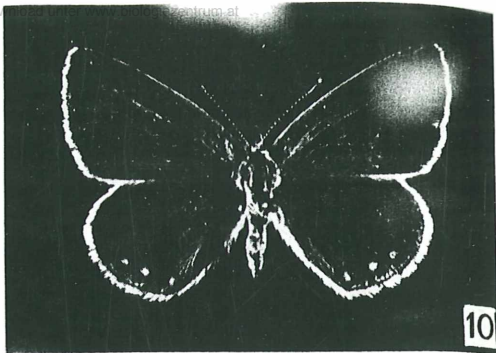
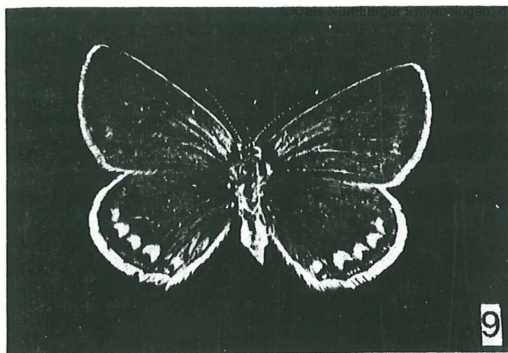
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|---|-------------|
| fig. 1. <i>Plebejus hespericus hespericus</i> RMBR. | ♂ upperside |
| fig. 2. <i>Plebejus trappi</i> VTY. (= <i>lycidas</i> TRAPP) | ♂ upperside |
| fig. 3. <i>Plebejus sephirus sephirus</i> FRIV.
(Neotype specimen before designation) | ♂ upperside |
| fig. 4. <i>Plebejus pylaon pylaon</i> F.W. | ♂ upperside |
| fig. 5. <i>Plebejus hespericus hespericus</i> RMBR. | ♂ underside |
| fig. 6. <i>Plebejus trappi</i> VTY. (= <i>lycidas</i> TRAPP) | ♂ underside |
| fig. 7. <i>Plebejus sephirus sephirus</i> FRIV. | ♂ underside |
| fig. 8. <i>Plebejus pylaon pylaon</i> F.W. | ♂ underside |

- fig. 9. *Plebejus hespericus hespericus* RMBR. ♀ upperside
 fig. 10. *Plebejus trappi* VTY. (= *lycidas* TRAPP) ♀ upperside
 fig. 11. *Plebejus sephirus sephirus* FRIV. ♀ upperside
 fig. 12. *Plebejus pylaon pylaon* F.W. ♀ upperside
 fig. 13. *Plebejus hespericus hespericus* RMBR. ♀ underside
 fig. 14. *Plebejus trappi* VTY. (= *lycidas* TRAPP) ♀ underside
 fig. 15. *Plebejus sephirus sephirus* FRIV. ♀ underside
 fig. 16. *Plebejus pylaon pylaon* F.W. ♀ underside



- fig. 17. *Plebejus hespericus hespericus* FRIV. valva inner side
 fig. 18. *Plebejus trappi* VTY. (= *lycidas* TRAPP) valva inner side
 fig. 19. *Plebejus sephirus sephirus* FRIV. valva inner side
 fig. 20. *Plebejus pylaon pylaon* F.W. valva inner side





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