

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 Diskus-  
sion der pylaon-Gruppe.

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

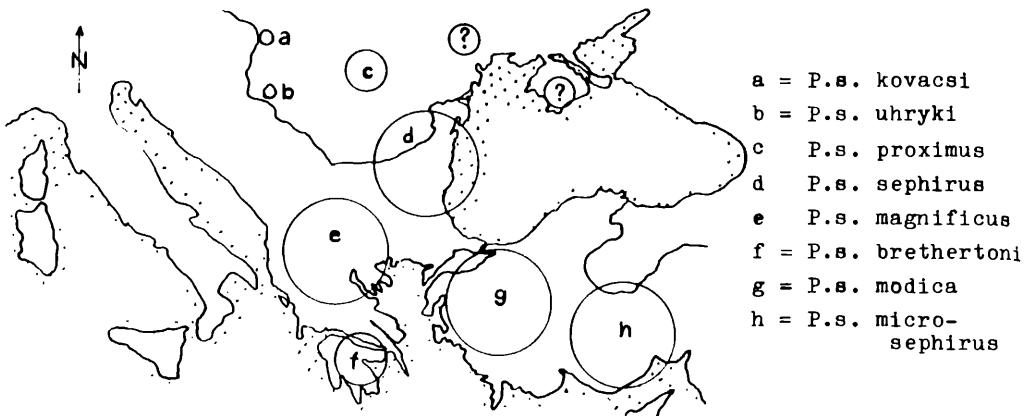
According to the opinion of FORSTER 1938 HIGGINS mentioned the European relatives of *sephirus* FRIVALDSZKY 1835 as a subspecies of *Plebejus pylaon* FISCHER von WALDHEIM 1832 (HIGGINS 1970 und 1975). This conception is outdated from zoogeographic and taxonomic point of view.

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<br>A   | L<br>E   |  |
| underside<br>ground colour                 | cornflower blue  | deep violet blue   | gleaming violet<br>blue  | clear violet blue  |
| black margin                               | narrow   | wide   | narrow   | very narrow  |
| underside<br>ground colour                 | yellowish grey   | pale grey  | grey   | white  |
| submarginal<br>orange lunules              | paler, indistinct  | pale, distinct   | reddish, distinct  | prominent, very wide<br>and indistinct                       |
| special character                          | cornflower blue<br>upperside   | wide black margin,<br>white shade between<br>postdiscal spots<br>and submarginal<br>orange lunules | violet blue<br>upperside with<br>narrow black margin                       | white underside with<br>very wide submarginal<br>orange band |
|  | F  | E  | M<br>A   | L<br>E   |
| upperside<br>ground colour<br>and markings | paler brown with<br>distinct orange<br>lunules rarely on<br>both wings | blackish brown<br>sometimes with<br>blue suffusion,<br>orange lunules<br>vestigial or<br>absent    | brown,<br>hind wing with<br>orange lunules                                 | drab brown with<br>prominent orange<br>band on both<br>wings |
| underside                                  |  | as in male but colours and markings much more prominent  |  |  |
| size<br>(fore wing<br>costa in mm)         | 14/15,5  | 14/18  | 14/17  | 13,5/14,5  |
| distribution                               | Iberian Peninsula  | Southern Alps  | South-Eastern<br>Europa, Asia Minor,<br>Western Armenia,<br>Northern Syria | from Southern Ural to<br>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: Foots of Mts. Balkan, Black-Sea coast, Dobrogea (POPESCUGORJ 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, Föbt. 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. microsephyrus VERITY, 1935

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

I examined and compared more than 700 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:

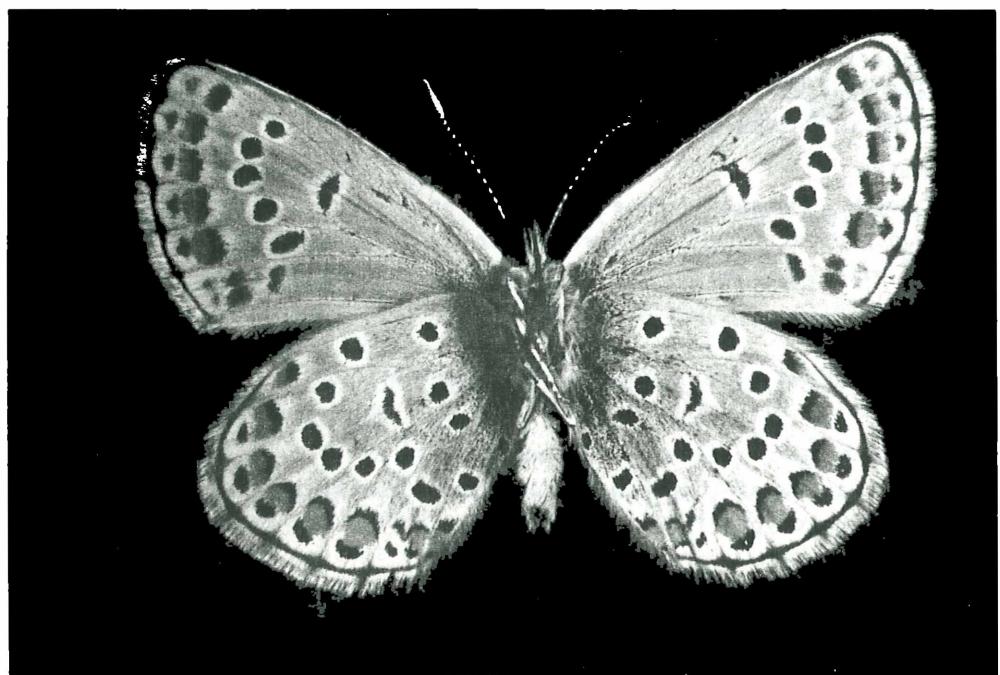
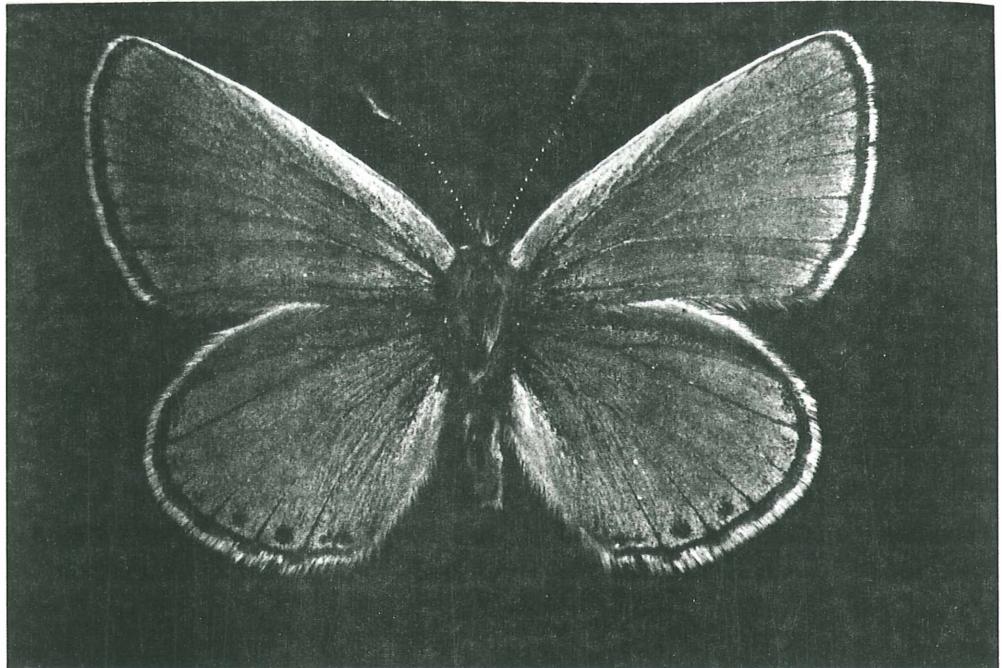
(Length in mm of fore wing along costa from wing base to greatest extent) Holotype: 15,3 mm. Allotype: 16,5 mm.

Type Locality:

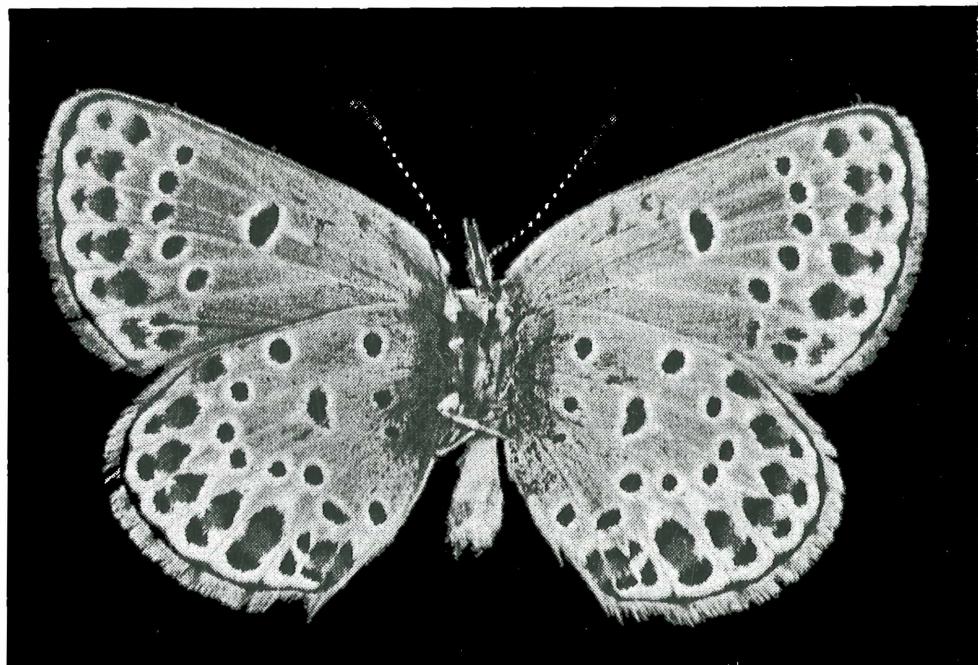
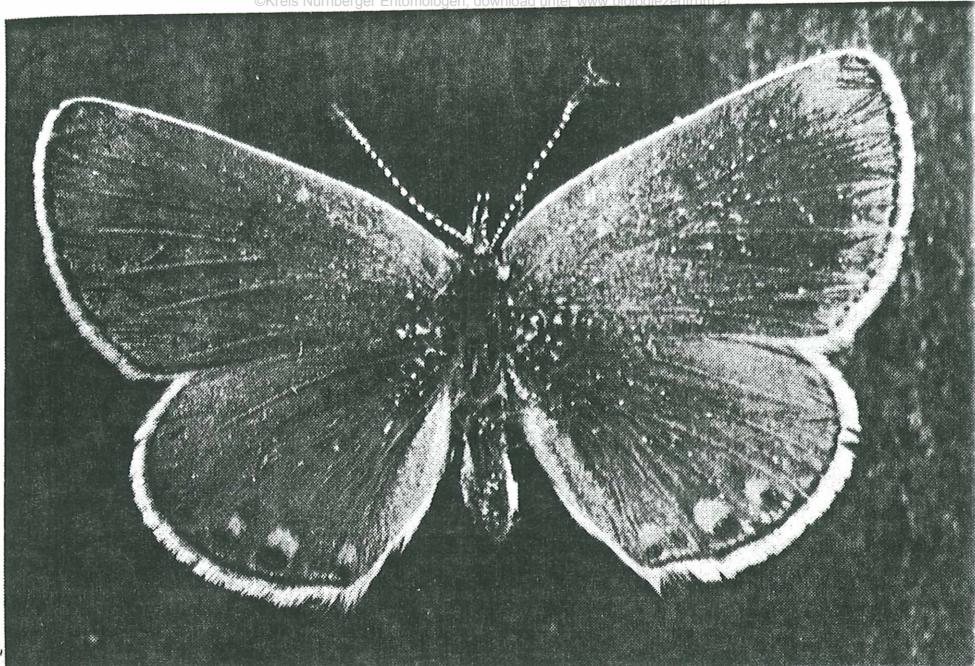
Macedonia, 1600 m, Petrina planina. THURNER 1938. (fig. 2, 4-7, 10, 15, 16)

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. Fodor ( 2 males);  
Ochruda 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;  
Asandzura, 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. *bretthertoni* 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.

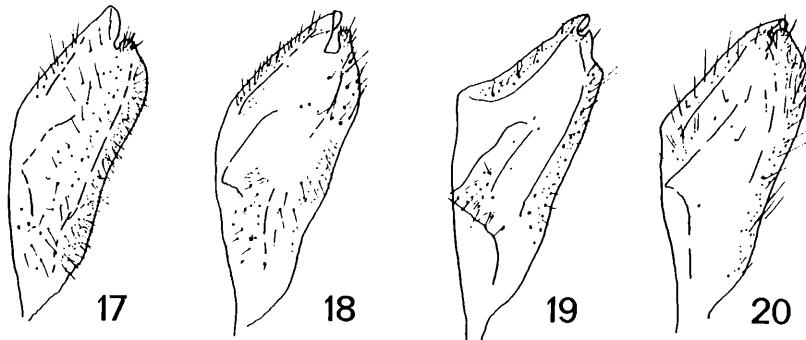
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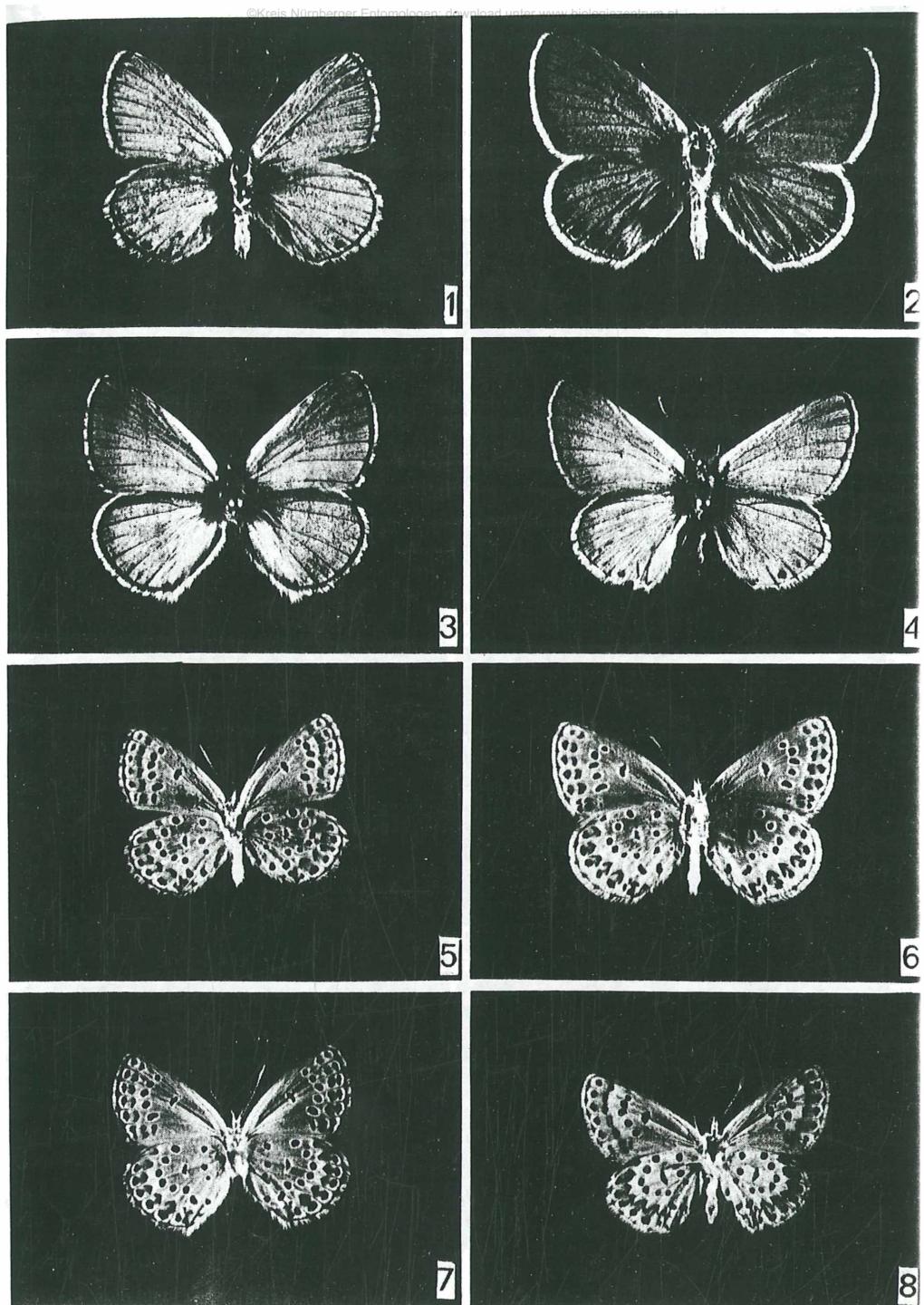
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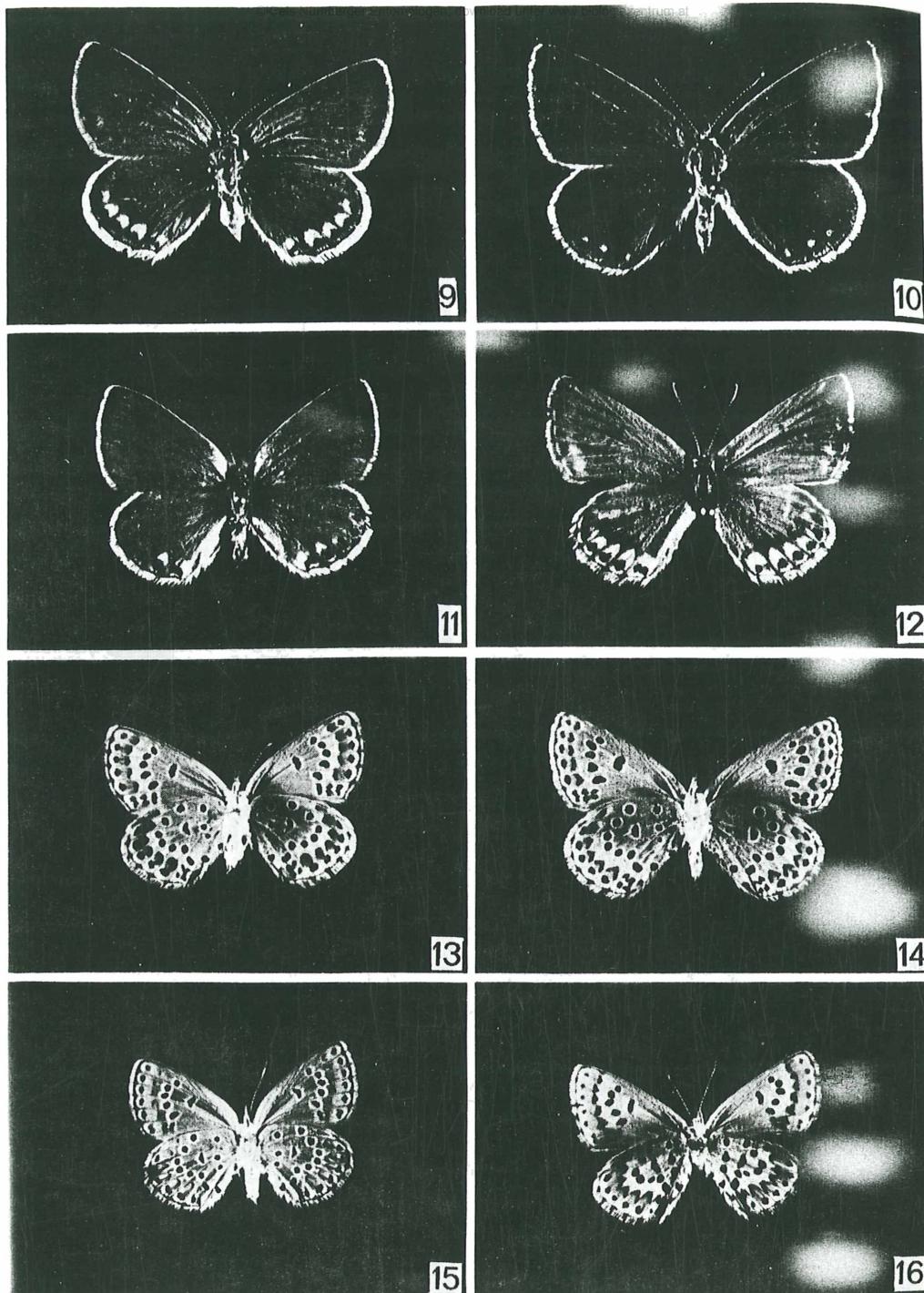
- fig. 1. *Plebejus hespericus hespericus* RMBR. ♂ upperside
- fig. 2. *Plebejus trappi* VTY. (= *lycidas* TRAPP) ♂ upperside
- fig. 3. *Plebejus sephirus sephirus* FRIV.  
( Neotype specimen before designation) ♂ upperside
- fig. 4. *Plebejus pylaon pylaon* F.W. ♂ upperside
- fig. 5. *Plebejus hespericus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