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Recently collected Lycaenid Butterflies of Mongolia (V) (Lep., Lycaenidae)

Zsolt Bálint

Abstract:

The author gives new data to the *Lycaenidae*-fauna of Mongolia. The short description of the collecting places with notes on the interesting taxa are also given. *Plebejus (Lycaeides) argyrognomon planorum* (Alphéraky, 1881) is new for the *Lepidoptera*-fauna of Mongolia.

Zusammenfassung:

Der Autor veröffentlicht neue Daten über die Lycaenidenfauna der Mongolei. Die entsprechenden Fangplätze mit den interessanten Taxa werden beschrieben. *Plebejus (Lycaeides) argyrognomon planorum* (Alphéraky, 1881) ist neu für die Schmetterlingsfauna der Mongolei.

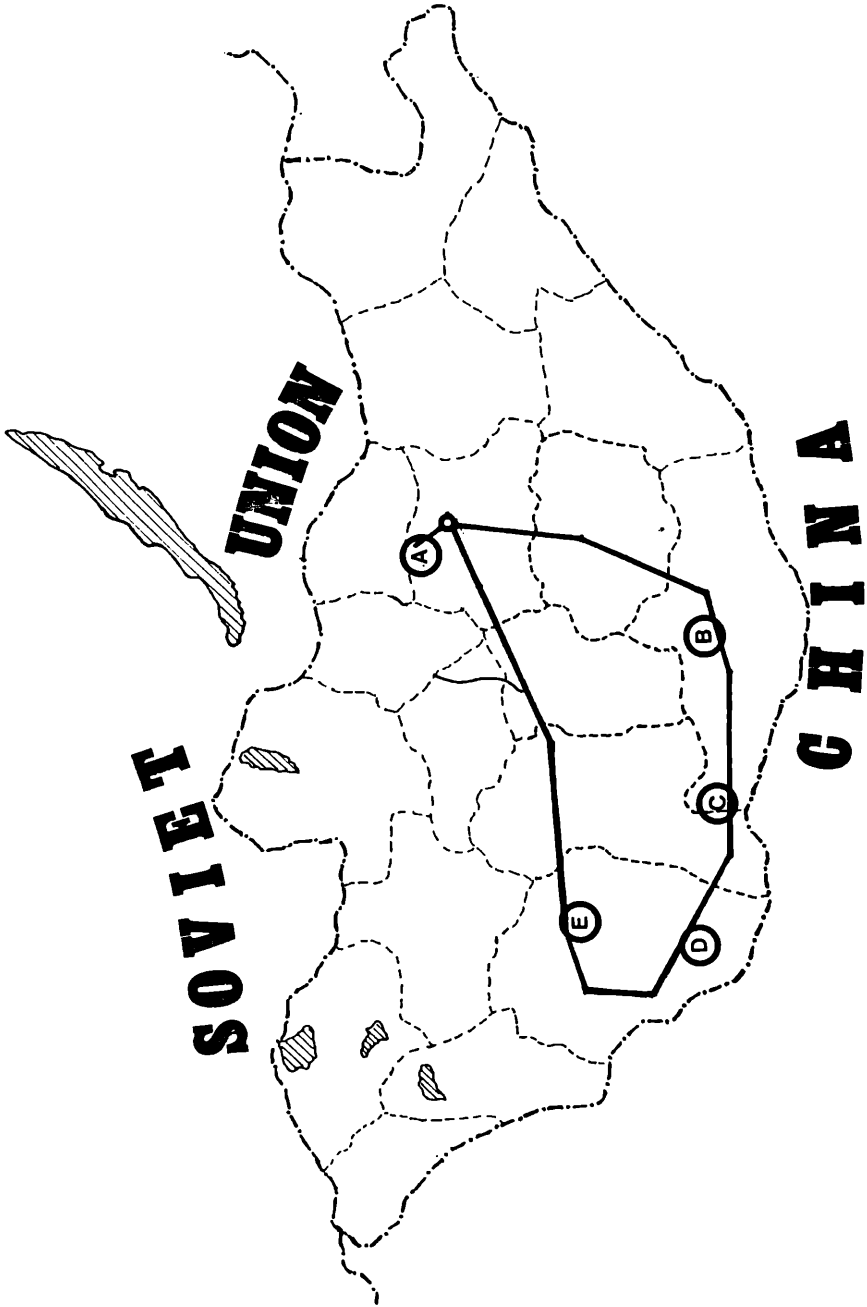
1. Preliminary

1.1 Introduction

In the last few years I have written a couple of works on Mongolian lycaenids. I have published the "result" of my preliminary studies (Bálint 1987) the list of the Mongolian lycaenid butterflies based on the works of Forster (1965, 1967, 1968 and 1971), Korshunov (1977), and Korshunov & Soljanikov (1976). The description of a new *Polyommatus* species followed (Bálint 1988). The third part (Bálint 1989) lists the whole material and data of the expedition made in 1986 in Mongolia with the revised list of the Mongolian lycaenids (mainly after Zhdanko 1983). I have reported the results of newer Hungarian expeditions in the fourth article of mine (Bálint 1988 a) completed with the data of Mongolian lycaenid specimens found by me in the undetermined *Lepidoptera* material of the Hungarian Natural History Museum, Budapest. This is the fifth work in the series on Mongolian lycaenids.

1.2 New Expeditions

Almost at the same period of 1988 two Hungarian expeditions were exploring the mountains and deserts of Mongolia. The botanist Ferenc Németh, an expert of the Mongolian flora, and Csaba



Szabóky, the best nonprofessional Hungarian microlepidopterist, were the participants of one of the expeditions. Up to now I have not get the *Lycaenidae* material collected by them, so I will report about it in an other article. The participants of the other expeditions were two macrolepidopterists, namely László Peregovits and Zoltán Varga. Their lycaenid butterflies are listed in this work.

The mentioned lepidopterists of the second expedition are interested in *Heterocera* only, so they have collected *Rhopalocera* in small numbers: they have captured butterflies only in five places of the 17 collecting localities. The route of the expedition (fig. 1) had been promising, because the expedition went to the scarcely visited southwestern part of Mongolia. The collected lycaenid material is not large (166 specimens of 20 species), but in spite of its number it is of great value, for it brings new data from the less explored part of the country.

I complete also this work with an few data of some Mongolian lycaenid specimens found in the undetermined material of the *Lepidoptera* collection of the Hungarian Natural History Museum, as I have done in the fourth part of the series "Lycaenidae of Mongolia" (Bálint 1988 a).

1.3 Acknowledgements

I should like to express my gratitude to my wife Annamária Kertész for her indispensable help during the preparation of the manuscript. Special thanks are due to my colleagues László Peregovits (Budapest) and Prof. Dr. Zoltán Varga (Debrecen) for allowing me to study their collected material and to publish their slides.

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2. Collected Material

2.1 Data and Collecting Places

CaTSD Mongolia, Central aimak, 1400-1600 m, Tsagaan Davaa, 20 km NW of Bayan Tsadami, 106°05'E / 48°17'N
(A) collecting days: 13., 18., 23. VII.; 12., 13. VIII.
The collecting place was shortly described by Bálint 1988 (CaCD, fig. 1).

- ÖaGS Mongolia, Ömnögovi aimak, Govi Altay, Mts. Gurvan Sayhan, valley Yulin am, 2350 m, 104°03'E / 43°26'N
(B) collecting days: 28. and 29. VII.
The collecting place was described by Bálint 1988 a (fig. 14.) and Bálint 1989 (YA). It is the type locality of the recently described *Polyommatus aloisi* Bálint 1988, what was not collected during this expedition here.
- ÖaB Mongolia, Ömnögovi aimak, 60 km S-SW of Bayandalay, 103°08'E / 43°21'N
(C) collecting day: 30. VII.
Dried out water-course with luxuriant vegetation (*Iris* ssp., large stocks of *Lasiograstis* sp., a lot of *Papilionaceae*) in semidesert. *)
- GHaBT Mongolia, Govi Altay aimak, Bayan Toroy, 1200 m, 96°49'E / 45°09'N (fig. 3)
(D) collecting day: 2. VIII.
Surroundings of a spring, extremely luxuriant vegetation (*Tamariscus* sp., *Salix* sp., a lot of *Monocotyledons*) in a sandy and solty semidesert.
- GaHH Mongolia, Govi Altay aimak, Mts. Hasagt Hayhran, 2200 m, 25 km S of Dzargalent, 95°44'E / 46°48'N (fig. 4)
(E) Stream valley on limestone, pastured steppe fields on southern slopes; humid, luxuriant places in the valley with a lot of lycaenids.

*) The description of the collecting places "ÖaB", "GaBT" and "GaHH" are based on the notes of László Peregovits.

2.2 List of Collected Lycaenids

Subfamily Lycaeninae

Lycaena (Heodes) virgaureae virgaureola (Staudinger, 1892)

(Iris 5: 314)

1 ♂: CaTSD (13.VII.)

Subfamily Polyommatinae

Everes argiades hellotia (Ménétrières, 1857)

(Enum.Corp.Anim.Mus.Petr. 2: 124)

1 ♂ 1 ♀: CaTSD (13.VIII.)

Everses prosecusa duplex (Alphéraky, 1889) (fig. 5-6)

(Mem.Rom.Lep. 5: 78)

5 ♂♂: GaBT (2.VIII.)

The species was known from Mongolia by a single female specimen only and this record was its easternmost occurrence (Forster 1968). The above mentioned new locality is still eastward from the first Mongolian collecting place of *prosecusa*. This occurrence of *prosecusa* suggests (with the occurrence of other *Lepidoptera* species eg. *Lycaena dimorpha* (Staudinger, 1881) *Cucullia umbristriga* (Alphéraky, 1892) *Cucullia tescorum* (Püngeler, 1909), *Pseudohadena pexa* (Staudinger, 1889) *Pseudohadena gnorima* (Püngeler, 1906), etc.) that Govi Altay functions as a "bridge" between the xeromountaneous and arid biotops of Mongolia and Turkestan.

Everses (Tongeia) fischeri (Eversmann, 1843)

(Bull.Soc.Imp.Nat.Moscou 16/III: 537)

4 ♂♂ 1 ♀: CaTSD (13.VIII.)

Scolitantides orion ssp.

1 ♂: "Mongolia, Öndörhám, 1979. VII., leg. Fittler Zs."

I have found the above mentioned male specimen in the undetermined material of the *Lepidoptera* collection of the Hungarian Natural History Museum. The species was collected only Chövsgöl aimak, Selenge aimak, Töv and Dornod aimak (Korshunov 1977). The mentioned place "Öndörhám" (Öndör Chaan) Chentey aimak.

The specimen strongly differs from the nominate *orion*, what was described from the Volga-region. A longer series of Mongolian specimens would be necessary to establish the taxonomic status of the Mongolian *orion*.

Glaucoopsyche lycormas lederi (A. Bang-Haas, 1907) (fig.7)

(Iris 20: 69)

1 ♂: CaTSD (23. VII.)

Glaucoopsyche (Maculinea) arion cyanecula (Eversmann, 1848)

(fig. 8) (Bull.Soc.Mosc.: 287)

3 ♂♂ 3 ♀♀: CaTSD (23.VII.), 1 ♂: CaTSD (12.VIII.)

Glaucoopsyche (Maculinea) teleius obscurata (Staudinger, 1892)

(Iris 320)

1 ♂ 1 ♀: CaTSD (23.VII.)

Plebejus (Lycaeides) idas ongodai (Tutt, 1908)

(Brit. Butt. 3: 199)

1 ♂♂: "Chovd aimak, Mergen Uul, 1984. VII., leg. Németh".

The specimens were found in the undetermined *Lepidoptera* material of the Hungarian Natural History Museum, Budapest.

Plebejus (Lycaeides) argyrognomon mongolicus (Rühl & Heyne, 1895)

(Pal. Großschmetterlinge 1: 235)

12 ♂♂: CaTSD (18.Vii.), 26 ♂♂ 13 ♀♀: CaTSD (23. VII.), 1 ♂ 1 ♀: CaTSD (12. VIII.), 2 ♂♂ 2 ♀♀: CaTSD (13. VIII.)

Plebejus (Lycaeides) argyrognomon gabrieli Bálint, 1989

(Atalanta 19)

15 ♂♂ 10 ♀♀: ŌaGS (29. VII.)

Plebejus (Lycaeides) argyrognomon planorum (Alphéraky, 1881)

(Hor. Soc. Ent. Ross. 16: 279)

19 ♂♂ 6 ♀♀: GaBT (2. VIII.)

We can find many references to the extreme variability of the Mongolian *argyrognomon* (Bálint 1989, Forster 1936, 1965, 1967, Moucha 1968). The literature usually identifies the Mongolian *argyrognomon* with the taxon *mongolicus*.

The recently described ssp. *gabrieli* from the south Mongolian mountains of Gurvan Sayhan is close to *mongolicus*, but with wider wings, darker mouse-grey ground colour of underside, more distinct markings, large gleaming antemarginal spot in each cell (Bálint 1989). The specimens collected in Bayan Toroy are very different. The upperside ground colour of the males is a bright violet blue.

The underside ground colour of the males is whitish, very bright grey, the postdiscal spots are small, the basal part of hindwing bears an extended suffusion of sky blue scales. The orange submarginal lunules are indistinct, the inner black cap spots are smaller, not so gleaming as in *mongolicus* and *gabrieli*.

The upperside ground colour of the females is pale brown with a slight suffusion of blue scales on the basal part. The orange submarginal lunules are well developed, the black antemarginal spots are prominent. The apex of the forewing is whitish. The underside ground colour is bright yellowish grey, otherwise as in male. This form is identical with ssp. *planorum* (Alphéraky), which was described from Tien-Shan. This subspecies of *argyrognomon* is new for the *Lepidoptera* fauna of Mongolia.

Plebejus (Lycaeides) cleobis ida (Groum-Grashimailo, 1891)
(Hor.Soc.Ent.Ross. 25: 451)

1 ♂ 1 ♀: CaTSD (18. VII.) 3 ♂♂ 2 ♀♀: CaTSD (23. VII.),
1 ♀: CaTSD (13. VII.), 1 ♂: GaHH (8. VIII.)

Plebejus (Lycaeides) cleobis boreas Bálint, 1989
(Atalanta 19)

10 ♂♂ 2 ♀♀: ÖaGS (29. VII.)

The male and the female specimens of the *cleobis*-populations breeding in Govi Altay (Gurvan Bogd, Gurvan Sayhan) are considerably smaller with less (or without any) blue scales the upperside than the subspecies *ida* flying in the taiga-zone. The males of these populations are usually unicoloured brown or with some blue scales merely along the forewing costa. The wings of both sexes are expanded, their underside is sooty grey with gleaming goldish green antemarginal spots in each cell end. This form was described as ssp. *boreas* from the mountains of Gurvan Sayhan (Bálint 1989).

Polyommatus (Albulina) luciferus (Staudinger, 1867)
(Stett.Ent.-Zeit. 28: 100)

1 ♂ 1 ♀: CaTSD (23. VII.), 1 ♂: ÖaGS (29. VII.)

Polyommatus (Albulina) orbitulus sajanus (Rühl & Heyne, 1895)
(Pal. Großschmetterlinge 1: 757)

2 ♂♂ 2 ♀♀: CaTSD (23. VII.), 2 ♂♂ 1 ♀: GaHH (8. VIII.)

As well as to the variability of Mongolian *argyrognomon*, we can find references to the smaller size of *orbitulus* in the mountains of Govi Altay, too (Bálint 1988 a, Forster 1968). It seems to be a constant characteristic, because the specimens collected in Hasagt Hayhran by the expedition of Peregovits-Varga bear also this feature.

Polyommatus (Polyommatus) icarus fuchsi (Sheljuzko, 1928)
(Lep. Rundschau 119)

24 ♂♂ 13 ♀♀: GaHH (8. VIII.)

Polyommatus (Polyommatus) sp.

8 ♂♂ 2 ♀♀: ÖaB (30. VII.)

The specimens are close to the taxon *icadius* (Groum-Grshimailo, 1890). The taxonomic statement of these butterflies needs longer investigation.

Polyommatus (Polyommatus) thersites orientis (Sheljuzko, 1928)

(Lep. Rundschau 119)

1 ♀: CaTSD (23. VII.)

The Mongolian distribution of *thersites* is scarcely known. Korshunov & Soljanikov (1976) mentioned only the record of Kurentzov (1970). The expedition made in 1986 has collected one male and one female of *thersites* in the mountains of Hangay (Bálint 1989). The *Lepidoptera* collection of the Hungarian Natural History Museum has one female specimen from "Öndörhám" (Öndör Chaan) (Bálint 1988 a). The new occurrence is geographically situated between the two above mentioned collecting places.

Polyommatus (Polyommatus) erotides (Staudinger, 1892)

(Iris 319)

15 ♂♂: CaTSD (18. VII.), 4 ♂♂ 1 ♀: CaTSD (23. VII.)

Polyommatus (Polyommatus) aloisi (Bálint, 1988)

(Atalanta 18: 385)

1 ♂: GaHH (8. VIII.)

It is the fourth known occurrence of the recently described *Polyommatus* species. This expedition did not succeed in collecting *aloisi* in its type locality.

Polyommatus (Agrodiaetus) amandus ssp.

1 ♂: CaTSD (23. VII.)

The taxonomic position of the Mongolian *amandus* not yet clear (Bálint 1988 a).

Polyommatus (Agrodiaetus) sp.

16 ♂♂ 10 ♀♀: GaHH (8. VIII.)

In my earlier publications (Bálint 1988 a and 1989) I have called this butterfly as *Polyommatus (Agrodiaetus) damone sibiricus* (Staudinger, 1899) according to Forster (1968 and 1971). After examining the type specimens of "*Lycaena sibirica*" I can establish that the species *Agrodiaetus* from Gobi Altay is not identical with "*sibirica*". Presumably *sibiricus* is a bona species. According to Sheljuzko (1928) the name "*sibirica*" is a nomen nudum and *altaicus* (Elwes, 1899) is the valid name of this taxon. Forster (1956) did not mention this, on the other hand Forster's description of one of Elwes's male specimen strongly resembles to the specimens in question.

Perhaps the two taxa *sibiricus* and *altaicus* are not the

The correct identification of the blue *Agrodiaetus* species flying in Govi Altay is possible only after the examination of the type specimens of the following taxa:

"*Lycaena damone sibirica* (Staudinger, 1899)"

"*Lycaena damone altaica* (Elwes, 1899)"

"*Agrodiaetus damone mongolica* (Kurentzov, 1970)" and

"*Agrodiaetus damone mongolicus* (Forster, 1970)".

Figures Abbildungen

fig. 1 (map Karte)

Route and mentioned collecting places of expedition Peregovits-Varga in Mongolia, 1988.

A CaTSD, B ÖaGS, C ÖaB, D GaBT, E GaHH

fig. 2 (Colour foto above left Farbbild oben links)

Mts. Gurvan Sayhan, 2350 m, valley Yulin am. Biotop of *Plebejus cleobis boreas*, *Plebejus luciferus*.

fig. 3 (Colour foto above right Farbbild oben rechts)

Surroundings of Bayan Toroy. Biotop of *Everes proscusa duplex* and *Plebejus argyrognomon planorum*.

fig. 4 (Colour foto middle right Farbbild Mitte rechts)

Mts. Hasagt Hayhran, 2200 m, 25 km S of Dzargalant. Biotop of *Polyommatus icarus fuchsi*, *Polyommatus aloisi* and *Polyommatus (Agrodiaetus) sp.*

fig. 5 (Colour foto below left Farbbild unten links)

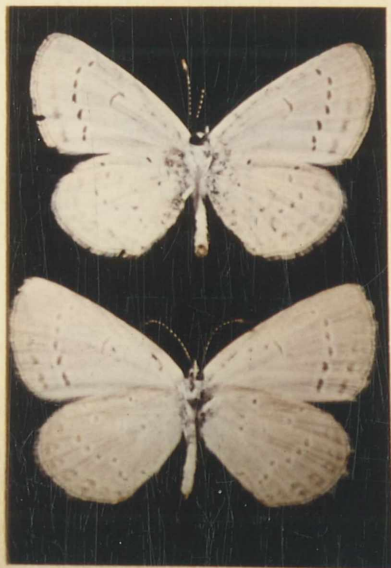
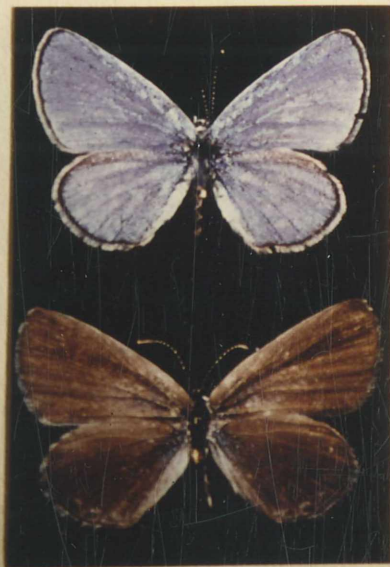
Everes proscusa duplex (Alphéraky, 1889) upperside, male:
"Mongolia, Govi Altay aimak, Bayan Toroy, 1200 m, 96°49'E/45°9'N"
female: "Chovd aimak, 10 km SSW Somon Bulgan, 1200 m, 4.-5. VII.
1966", "No. 628, Exp. Kaszab, 1966."
Length of forewing male: 13,2 mm female: 14

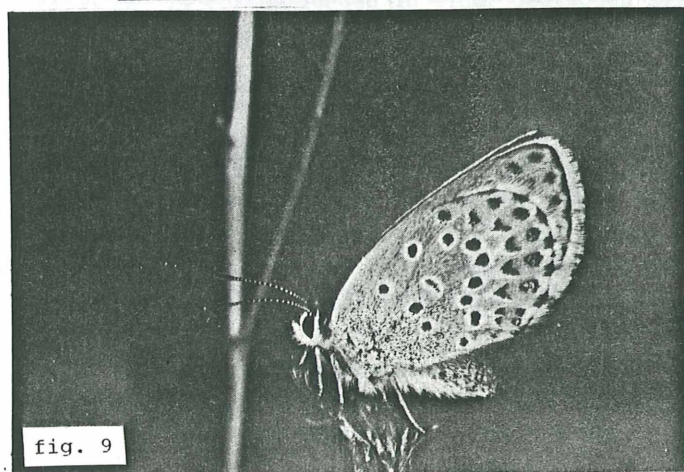
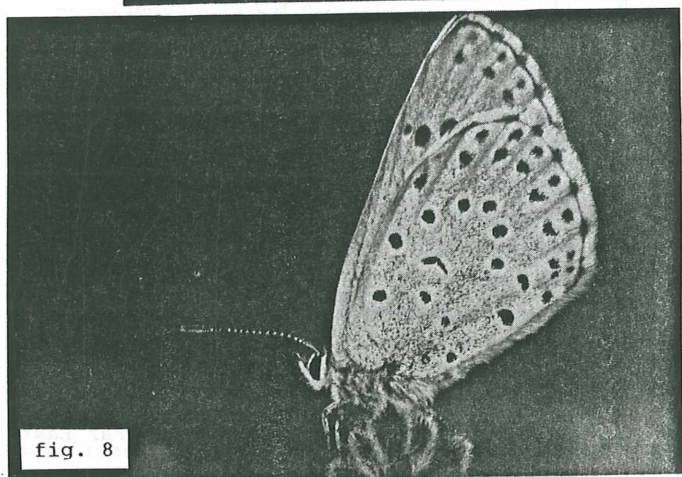
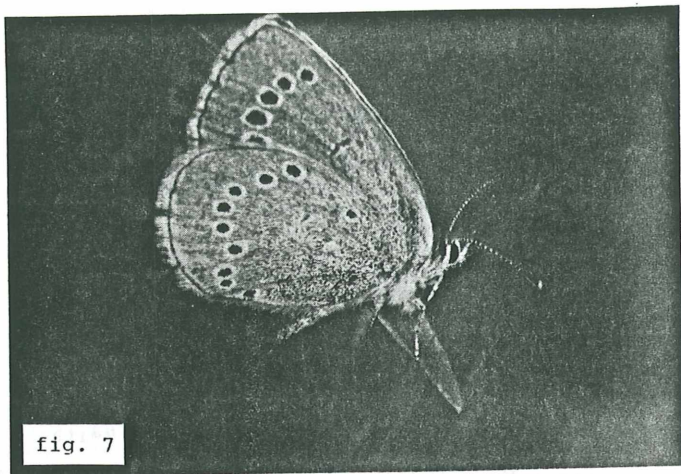
fig. 6 (Colour foto below right Farbbild unten rechts)
idem, underside

fig. 7 (black and white foto above Schwarzweißbild oben)
Glaucopsyche lycormas lederi, male (CaTSD)

fig. 8 (black and white foto middle Schwarzweißbild Mitte)
Glaucopsyche arion cyanecula, male (CaTSD)

fig. 9 (black and white foto below Schwarzweißbild unten)
Plebejus cleobis ida, female (CaTSD)





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Verfasser: Zsolt Bálint
Zoological Department
Hungarian Natural History Museum
H-1088 Budapest VIII
Baross utca 13
Hungary / Ungarn

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