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The butterflies of Pancharevo Gorge, SW Bulgaria

(Lepidoptera, Hesperioidae & Papilioidea)

by

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Introduction

The investigated area is situated in the SW Bulgaria. It is a deep and narrow gorge in the upper stream of Iskar River, between Mt Plana, Mt Vitosha and Sredna Gora Range (Mt Lozen), connecting Samokov and Sofia kettles. The area falls mainly in square with GN01 UTM grid reference.

The first butterflies from Pancharevo Gorge in press were those in papers of BACHMETJEW (1897–1898). Forty-one species were listed: *Thymelicus sylvestris*, *T. acteon*, *Hesperia comma*, *Carcharodus flocciferus*, *Pyrgus alveus*, *Parnassius apollo*, *Hamearis lucina*, *Lycaena virgau-reae*, *L. tityrus*, *L. alciphron*, *L. thersamon*, *Favonius quercus*, *Satyrium spini*, *S. ilicis*, *Scolitan-tides orion*, *Glaucopsyche arion*, *Plebeius agestis*, *Polyommatus icarus*, *P. daphnis*, *P. coridon*, *Lasiosommata megera*, *L. maera*, *Coenonympha arcana*, *Maniola jurtina*, *Hyponephele lycœon*, *Aphantopus hyperantus*, *Erebia ligea*, *E. aethiops*, *Melanargia galathea*, *Hipparchia fagi*, *H. semele*, *H. statilinus*, *Arethusana arethusa*, *Chazara briseis*, *Apatura ilia*, *Limenitis reducta*, *Inachis io*, *Melitaea didyma*, *M. athalia*, *Argynnis paphia*, *A. pandora*.

The next were those of REBEL (1903). Three more species were listed: *Anthocharis cardamines*, *Nymphalis xanthomelas*, *Melitaea cinxia*.

In 1907 DRENOWSKY cited one more species: *Pyronia tithonus* and in 1912 BURESCH reported *Boloria dia*.

Later GRAVES (1928) reported the occurrence of *Pyrgus malvae*, *P. armoricanus*, *Thecla betulae*, *Cupido argiades*, *C. alcetas*, *C. decoloratus*, *Plebeius argyrognomon* and *Pararge aegeria*.

Of special value is the published in 1929–1930 by BURESCH & TULESCHKOW "Die horizontale Verbreitung der Schmetterlinge in Bulgarien" Five new species for the area were added: *Parnassius mnemosyne*, *Iphiclides podalirius*, *Erebia medusa*, *Minois dryas* and *Neptis rivularis*. Also three more species are reported by BURESCH (1940): *Apatura iris*, *Limenitis camilla* and *L. populi*.

During publication of my "Butterflies of Bulgaria" (ABADJIEV, 1993, 1995) the species list was expanded by another 11 taxa: *Leptidea sinapis*, *Gonepteryx rhamni*, *Pieris napi*, *Coenonympha leander*, *Aglais urticae*, *Polygonia c-album*, *Melitaea phoebe*, *Araschnia levana*, *Issoria lathonia*, *Brenthis daphne*, *Boloria euphrosyne*.

I have done regular collecting in the period of 1990–1998. Recently the fauna comprises 110 species (51.9% of all the Bulgarian butterflies) of which 37 (marked with *) are newly reported in the following list.

Systematic list

Hesperiidae: Hesperiinae

1. *Thymelicus sylvestris sylvestris* (PODA, 1761)

Hesperia thaumas HUFN. (BACHMETJEW, 1897: 166); *Hesperia thaumas* HUFN. (BACHMETJEW, 1898: 34); *Atopaea thaumas* HUFN. (REBEL, 1903: 195); *Adopaea thaumas* HUFN. (BURESCH & TULESCHKOW, 1930: 142).

Kokalyansko Hanche – Urvich. Reported for Kokalyane Monastery: July–August (BACHMETJEW, 1897: 166; 1898: 34; REBEL, 1903: 195; BURESCH & TULESCHKOW, 1930: 142).

2. *Thymelicus acteon acteon* (ROTTEMBURG, 1775)

Hesperia acteon ESP. (BACHMETJEW, 1897: 166); *Hesperia actaeon* ESP. (BACHMETJEW, 1898: 33); *Atopaea acteon* ROTT. (REBEL, 1903: 195); *Adopaea acteon* ROTT. (BURESCH & TULESCHKOW, 1930: 143).

Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 166; 1898: 34; REBEL, 1903: 195; BURESCH & TULESCHKOW, 1930: 143).

3. *Ochlodes venatus faunus* (TURATI, 1905)*

Kokalyansko Hanche – Urvich: 5.VI.1997 1 ♂.

4. *Hesperia comma comma* (LINNAEUS, 1758)

Hesperia comma L. (BACHMETJEW, 1897: 166); *Hesperia comma* L. (BACHMETJEW, 1898: 34).

Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 166; 1898: 34).

Hesperiidae: Heteropterinae

5. *Carterocephalus palaemon palaemon* (PALLAS, 1771)*

Kokalyansko Hanche – Urvich.

Hesperiidae: Pyrginae

6. *Erynnis tages tages* (LINNAEUS, 1758)*

Kokalyansko Hanche – Urvich: 4.V.1997 1 ♂.

7. *Carcharodus flocciferus* (ZELLER, 1847)

Spilothyrus altheae HB. (BACHMETJEW, 1897: 166); *Carcharodus altheae* HB. (REBEL, 1903: 196); *Carcharodus altheae* HB. (BURESCH & TULESCHKOW, 1930: 145).

Reported for Kokalyane Monastery: August (BACHMETJEW, 1897: 166; REBEL, 1903: 196; BURESCH & TULESCHKOW, 1930: 145).

8. *Spialia orbifer orbifer* (HÜBNER, [1823])*

Kokalyansko Hanche – Urvich.

9. *Pyrgus sidae sidae* (ESPER, [1784])
Kokalyansko Hanche – Urvich.

10. *Pyrgus malvae malvae* (LINNAEUS, 1758)

Hesperia malvae (GRAVES, 1928: 81).

Kokalyansko Hanche – Urvich: 21.V.1993 – 1 ♀. Reported for Pancharevo: 20.VII.1927 (GRAVES, 1928: 81).

11. *Pyrgus armoricanus persicus* (REVERDIN, 1913)

Hesperia armoricanus (GRAVES, 1928: 81).

Reported for Pancharevo (GRAVES, 1928: 81).

12. *Pyrgus alveus alveus* (HÜBNER, [1803])

Syrichtus alveus Hb. (BACHMETJEW, 1898: 34).

Reported for Kokalyane Monastery: August (BACHMETJEW, 1898: 34).

Papilionidae: Parnassiinae

13. *Parnassius mnemosyne caucasia* VERITY, [1911]

Parnassius mnemosyne L. (BURESCH & TULESCHKOW, 1929: 170).

Kokalyansko Hanche – Urvich: 11.VI.1996 – 1 ♀; 4.VI.1997 – 1 ♀; 5.VI.1997 – 1 ♂; 7.VI.1997 – 7 ♂♂; 9.VI.1997 – 1 ♂, 1 ♀; 10.VI.1997 – 1 ♂; 13.VI.1997 – 1 ♂. Reported for Urvich: 11.V.1910: HM FERDINAND I leg. (BURESCH & TULESCHKOW, 1929: 170).

14. *Parnassius apollo graecus* ZIEGLER, 1901

Parnassius apollo L. (BACHMETJEW, 1897: 141); *Parnassius apollo* L. (BACHMETJEW, 1898: 30);

Parnassius apollo L. (REBEL, 1903: 158); *Parnassius apollo* L. (BURESCH & TULESCHKOW, 1929: 168).

Reported for Kokalyane Monastery: 17.VI.1896 (BACHMETJEW, 1897: 141; 1898: 30; REBEL, 1903: 158; BURESCH & TULESCHKOW, 1929: 168).

Papilionidae: Papilioninae

15. *Iphiclides podalirius podalirius* (LINNAEUS, 1758)

Papilio podalirius L. (BURESCH & TULESCHKOW, 1929: 164); *Iphiclides podalirius* (ABADJIEV, 1993: Pl. VI: Fig. 1).

Kokalyansko Hanche – Urvich: 21.V.1993 – 1 ♂ (ABADJIEV, 1993: Pl. VI: Fig. 1); 9.V.1997 – 1 ♂; 12.V.1997 – 1 ♂. Reported for Kokalyane: 7.IV.1922: D. İLTSCHEV leg. (BURESCH & TULESCHKOW, 1929: 164).

Pieridae: Dismorphiinae

16. *Leptidea sinapis sinapis* (LINNAEUS, 1758)

Leptidea sinapis sinapis (ABADJIEV, 1993: Pl. VII: Fig. 5).

Kokalyansko Hanche - Urvich: 12.VII.1993 - 2 ♂♂, 1 ♀ (ABADJIEV, 1993: Pl. VII: Fig. 5); 3.V.1997 - 5 ♂♂, 2 ♀♀; 4.V.1997 - 3 ♂♂; 5.V.1997 - 3 ♂♂, 1 ♀; 9.V.1997 - 3 ♂♂, 1 ♀; 10.V.1997 - 3 ♂♂; 12.V.1997 - 1 ♂; 28.VI.1997 - 1 ♂.

Pieridae: Coliadinae

17. *Colias erate erate* (ESPER, [1805])*

Kokalyansko Hanche - Urvich.

18. *Colias crocea* (FOURCROY, 1785)*

Kokalyansko Hanche - Urvich: 24.VII.1994 - 1 ♀; 4.V.1997 - 3 ♂♂; 5.V.1997 - 3 ♂♂, 1 ♀.

19. *Colias sareptensis* STAUDINGER, 1871*

Kokalyansko Hanche - Urvich: 4.V.1997 - 1 ♂; 1 ♀; 10.V.1997 - 1 ♂.

20. *Gonepteryx rhamni rhamni* (LINNAEUS, 1758)

Gonepteryx rhamni rhamni (ABADJIEV, 1993: Pl. XV: Fig. 8).

Kokalyansko Hanche - Urvich: 12.VII.1993 - 1 ♀ (ABADJIEV, 1993: Pl. XV: Fig. 8).

Pieridae: Pierinae

21. *Anthocharis cardamines cardamines* (LINNAEUS, 1758)

Euchloë [sic] *cardamines* L. (REBEL, 1903: 161); *Euchloë* [sic] *cardamines* L. (BURESCH & TULESKOW, 1929: 179); *Anthocharis cardamines cardamines* (ABADJIEV, 1993: Pl. XIII: Figs 6, 7, 8). Kokalyansko Hanche - Urvich: 26.III.1990 - 1 ♂; 1.V.1992 - 2 ♂♂, 1 ♀ (ABADJIEV, 1993: Pl. XIII: Figs 6, 7); 25.IV.1993 - 1 ♂ (ABADJIEV, 1993: Pl. XIII: Fig. 8), 1 ♀; 3.V.1997 - 9 ♂♂; 4.V.1997 - 3 ♂♂, 1 ♀; 9.V.1997 - 7 ♂♂, 2 ♀♀; 10.V.1997 - 1 ♂; 12.V.1997 - 1 ♀. Reported for Pancharevo: 26.IV.1923: HM BORIS III leg. and Kokalyane: 21.V. (REBEL, 1903: 161); 17.IV.1922: D. ILTSCHEV leg. (BURESCH & TULESKOW, 1929: 179).

22. *Aporia crataegi crataegi* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 13.V.1997 - 1 ♂; 16.V.1997 - 1 ♂; Iskar Dam Lake.

23. *Pieris brassicae brassicae* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 24.VII.1994 - 1 ♀.

24. *Pieris rapae rapae* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 15.VII.1993 - 1 ♀; 5.V.1997 - 1 ♀; 9.V.1997 - 2 ♂♂; 12.V.1997 - 1 ♂.

25. *Pieris napi napi* (LINNAEUS, 1758)

Pieris pseudorapae balcana (ABADJIEV, 1993: Pl. X: Figs 1, 2, 4, 6, 7, 8).

Kokalyansko Hanche - Urvich: 25.IV.1993 – 4 ♂♂ (ABADJIEV, 1993: Pl. X: Figs 1, 2); 3.VII.1993 – 3 ♂♂ (ABADJIEV, 1993: Pl. X: Fig. 4); 4.VII.1993 – 1 ♂; 12.VII.1993 – 3 ♀♀ (ABADJIEV, 1993: Pl. X: Figs 6–8); 3.IX.1994 – 1 ♂; 25.VIII.1996 – 1 ♂; 3.V.1997 – 3 ♂♂, 2 ♀♀; 4.V.1997 – 2 ♂♂, 1 ♀; 9.V.1997 – 2 ♂♂, 1 ♀; 10.V.1997 – 2 ♂♂; 12.V.1997 – 1 ♂.

26. *Pontia edusa* (FABRICIUS, 1777)*

Kokalyansko Hanche - Urvich.

Lycenidae: Riodininae

27. *Hamearis lucina* (LINNAEUS, 1758)

Nemeobius lucina L. (BACHMETJEW, 1897: 151); *Nemeobius lucina* L. (BACHMETJEW, 1898: 32).

Kokalyansko Hanche - Urvich: 10.V.1997 – 1 ♂; 12.V.1997 – 1 ♂. Reported for Kokalyane Monastery (BACHMETJEW, 1897: 151; 1898: 32).

Lycenidae: Lycaeninae

28. *Lycaena dispar rutila* (WERNEBURG, 1864)*

Kokalyansko Hanche - Urvich.

29. *Lycaena virgaureae virgaureae* (LINNAEUS, 1758)

Polyommatus virgaureae L. (BACHMETJEW, 1897: 150); *Polyommatus virgaureae* L. (BACHMETJEW, 1898: 31); *Chrysophanus virgaureae* L. ab. *elongata* COURW. (BURESCH, 1912: 50); *Chrysophanus virgaureae* L. (BURESH & TULESCHKOW, 1930: 113).

Kokalyansko Hanche - Urvich: 28.VI.1997 – 1 ♂. Reported for Kokalyane: 10.VIII.1903: I. BURESH leg. (BURESCH, 1912: 50; BURESCH & TULESCHKOW, 1930: 113); Kokalyane Monastery: August-September (BACHMETJEW, 1897: 150; 1898: 31).

30. *Lycaena tityrus tityrus* (PODA, 1761)

Polyommatus dorilis HUFN. (BACHMETJEW, 1897: 150); *Chrysophanus dorilis* HUFN. (REBEL, 1903: 186); *Chrysophanus dorilis* HUFN. (BURESCH & TULESCHKOW, 1930: 118).

Kokalyansko Hanche - Urvich: 2.VI.1997 – 1 ♀. Reported for Kokalyane Monastery (BACHMETJEW, 1897: 150; REBEL, 1903: 186; BURESCH & TULESCHKOW, 1930: 118).

31. *Lycaena alciphron chairemon* (FRUHSTORFER, 1917)

Polyommatus alciphron ROTT. (BACHMETJEW, 1898: 31).

Kokalyansko Hanche - Urvich: 11.VI.1996 – 1 ♂; 12.VI.1996 – 1 ♂. Reported for Kokalyane Monastery: August (BACHMETJEW, 1898: 31).

32. *Lycaena thersamon* (ESP., [1784])

Polyommatus thersamon ESP. (BACHMETJEW, 1898: 31).

Reported for Kokalyane Monastery: May and August (BACHMETJEW, 1898: 31).

33. *Thecla betulae betulae* (LINNAEUS, 1758)

Ruralis betulae (GRAVES, 1928: 82); *Zephyrus betulae* L. (BURESCH & TULESCHKOW, 1930: 112).
Reported for Pancharevo: 20.VII.1927 (GRAVES, 1928: 82; BURESCH & TULESCHKOW, 1930: 112).

34. *Favonius quercus quercus* (LINNAEUS, 1758)*

Thecla quercus L. (BACHMETJEW, 1898: 31).

Reported for Kokalyane Monastery: August (BACHMETJEW, 1898: 31).

35. *Callophrys rubi* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 12.V.1997 1 ♂, 1 ♀.

36. *Satyrium spini* (FABRICIUS, 1787)

Thecla spini SCHIFF. (BACHMETJEW, 1897: 150); *Thecla spini* SCHIFF. (BACHMETJEW, 1898: 31).

Kokalyansko Hanche - Urvich: 30.VI.1997 1 ♂; 2.VII.1997 2 ♂♂. Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 150; 1898: 31).

37. *Satyrium ilicis ilicis* (ESPER, [1789])

Thecla ilicis ESP. (BACHMETJEW, 1897: 150); *Thecla ilicis* ESP. (BACHMETJEW, 1898: 31).

Kokalyansko Hanche - Urvich: 16.VI.1997 1 ♂. Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 150; 1898: 31).

38. *Fixsenia pruni* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 10.VI.1997 - 3 ♂♂.

39. *Cupido (Cupido) osiris* (MEIGEN, [1829])*

Kokalyansko Hanche - Urvich: 2.VI.1997 1 ♂; 4.VI.1997 1 ♂.

40. *Cupido (Everes) argiades argiades* (PALLAS, 1771)

Everes argiades (GRAVES, 1928: 66).

Reported for Pancharevo Gorge (GRAVES, 1928: 66).

41. *Cupido (Everes) alcetas* (HOFFMANSEGG, 1804)

Everes alcetas (GRAVES, 1928: 66).

Reported for Pancharevo Gorge (GRAVES, 1928: 66).

42. *Cupido (Everes) decoloratus* (STAUDINGER, 1866)

Everes decolorata (GRAVES, 1928: 66).

Reported for Pancharevo Gorge (GRAVES, 1928: 66).

43. *Celastrina argiolus argiolus* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 4.V.1997 1 ♂.

44. *Pseudophilotes vicrama schiffermuelleri* (HEMMING, 1929)*

Kokalyansko Hanche - Urvich.

45. *Scolitantides orion orion* (PALLAS, 1771)

Lycaena orion v. nigricans ROTT. (BACHMETJEW, 1898: 31); *Lycaena orion* PALL. (BURESCH & TULESHKOW, 1930: 124).

Kokalyansko Hanche - Urvich: 12.V.1997 1 ♂. Reported for Pancharevo: 7.VI.1913: HM FERDINAND I leg. (BURESCH & TULESHKOW, 1930: 124) and Kokalyane Monastery: August (BACHMETJEW, 1898: 31).

46. *Glaucomysche (Glaucomysche) alexis alexis* (PODA, 1761)*

Kokalyansko Hanche - Urvich: 9.V.1997 1 ♂.

47. *Glaucomysche (Maculinea) arion arion* (LINNAEUS, 1758)

Lycaena arion v. obscura CHRIST. (BACHMETJEW, 1898: 32).

Kokalyansko Hanche - Urvich: 3.VII.1993 1 ♂. Reported for Kokalyane Monastery: August (BACHMETJEW, 1898: 32).

48. *Plebeius (Plebejides) pylaon sephirus* (FRIVALDSZKY, 1835)*

Kokalyansko Hanche - Urvich: 1.VI.1996 - 3 ♂♂; 2.VI.1997 - 9 ♂♂; 4.VI.1997 - 9 ♂♂.

49. *Plebeius (Plebeius) argus aegidion* (MEISNER, 1818)*

Kokalyansko Hanche - Urvich: 4.VI.1997 1 ♂.

50. *Plebeius (Plebeius) argyrogномон euergetes* (STAUDER, 1914)

Plebeius argyrogномон (GRAVES, 1928: 82).

Reported for Pancharevo (GRAVES, 1928: 82).

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

Lycaena astrarche BGSTR., ab. *allous* Hb., and var. *aestiva* (BACHMETJEW, 1897: 150); *Lycaena astrarche* BGSTR., ab. *allous* Hb., and var. *aestiva* (BACHMETJEW, 1898: 31); *Lycaena astrarche* BGSTR. ab. *allous* Hb., (REBEL, 1903: 188).

Kokalyansko Hanche - Urvich: 25.VIII.1996 - 1 ♂. Reported for Kokalyane Monastery: August-September (BACHMETJEW, 1897: 150; 1898: 31; REBEL, 1903: 188).

52. *Plebeius (Aricia) anteros anteros* (FREYER, [1838])*

Kokalyansko Hanche - Urvich: 25.V.1998 - 1 ♂.

53. *Polyommatus (Cyaniris) semiargus semiargus* (ROTTEMBURG, 1775)*

Kokalyansko Hanche - Urvich: 5.VI.1997 - 1 ♂.

54. *Polyommatus (Polyommatus) amandus amandus* (SCHNEIDER, 1792)*

Kokalyansko Hanche - Urvich: 11.VI.1996 - 1 ♂; 16.VI.1997 - 1 ♂.

55. *Polyommatus (Polyommatus) thersites* (CANTENER, [1835])*

Kokalyansko Hanche - Urvich: 4.VI.1997 1 ♂.

56. *Polyommatus (Polyommatus) eroides eroides* (FRIVALDSZKY, 1835)*

Iskar Dam Lake: 720 m: 22.VI.1997 - 3 ♂♂.

57. *Polyommatus (Polyommatus) icarus* (ROTTEMBURG, 1775)

Lycaena icarus ROTT. (BACHMETJEW, 1897: 150).

Kokalyansko Hanche – Urvich: 25.VIII.1996 2 ♂♂; 4.VI.1997 1 ♂. Reported for Kokalyane (BACHMETJEW, 1897: 150).

58. *Polyommatus (Meleageria) daphnis daphnis* ([DENIS & SCHIFFERMÜLLER], 1775)

Lycaena meleager ESP. (BACHMETJEW, 1897: 151); *Lycaena meleager* ESP. (BACHMETJEW, 1898: 32).

Reported for Kokalyane Monastery: July–September (BACHMETJEW, 1897: 151; 1898: 32).

59. *Polyommatus (Meleageria) bellargus* (ROTTEMBURG, 1775)*

Kokalyansko Hanche – Urvich.

60. *Polyommatus (Meleageria) coridon coridon* (PODA, 1761)

Lycaena corydon PODA (BACHMETJEW, 1897: 151); *Lycaena coridon* PODA (BACHMETJEW, 1898: 32); *Lycaena coridon* PODA (REBEL, 1903: 192).

Reported for Kokalyane Monastery: July–August (BACHMETJEW, 1897: 151; 1898: 32; REBEL, 1903: 192).

61. *Polyommatus (Agrodiætus) ripartii* (FREYER, 1830)*

Kokalyansko Hanche – Urvich: 12.VII.1993 – 1 ♀; 30.VI.1997 1 ♂; 2.VII.1997 – 4 ♂♂.

Nymphalidae: Satyrinae

62. *Pararge aegeria tircis* (GODART, 1821)

Pararge aegeria f. *egerides* STGR. (GRAVES, 1928: 84); *Pararge aegeria egerides* STGR. (BURESCH & TULESCHKOW, 1929: 238); *Pararge aegeria tircis* (ABADJIEV, 1995: Pl. V: Figs 7, 8; 129: Fig. 2 [genitalia]).

Kokalyansko Hanche – Urvich: 1.V.1992 1 ♀ (ABADJIEV, 1995: Pl. V: Figs 7, 8); 15.VII.1993 1 ♂ (ABADJIEV, 1995: 129: Fig. 2); 9.V.1997 1 ♂; 9.VI.1997 1 ♂. Reported for Pancharevo (GRAVES, 1928: 84; BURESCH & TULESCHKOW, 1929: 238).

63. *Lasiommata megera transcaspica* (STAUDINGER, 1901)

Pararge megera L. (BACHMETJEW, 1897: 166); *Pararge megera* L. (BACHMETJEW, 1898: 33); *Pararge megera lyssa* (GRAVES, 1928: 84); *Lasiommata megera* (ABADJIEV, 1995: Pl. VI: Figs 1, 2).

Kokalyansko Hanche – Urvich: 21.V.1993 1 ♂ (ABADJIEV, 1995: Pl. VI: Figs 1, 2); 9.V.1997 1 ♂. Reported for Pancharevo (GRAVES, 1928: 84); Kokalyane Monastery: July–August (BACHMETJEW, 1897: 166; 1898: 33).

64. *Lasiommata maera* (LINNAEUS, 1758)

Pararge maera L. (BACHMETJEW, 1897: 166); *Pararge maera* L. (BACHMETJEW, 1898: 33).

Reported for Kokalyane Monastery: July–August (BACHMETJEW, 1897: 166; 1898: 33).

65. *Coenonympha arcania* (LINNAEUS, 1761)

Coenonympha arcania L. (BACHMETJEW, 1897: 166); *Coenonympha arcania* L. (BACHMETJEW,

1898: 33); *Coenonympha arcania* (ABADJIEV, 1995: Pl. XVIII: Figs 5, 6).

Kokalyansko Hanche Urvich: 21.VI.1993 3 ♂♂ (ABADJIEV, 1995: Pl. XVIII: Figs 5, 6; 139: Fig. 41 [genitalia]); 9.VI.1996 2 ♂♂; 11.VI.1996 - 1 ♂; 12.VI.1996 1 ♂. Reported for Kokalyane Monastery: July–August (BACHMETJEW, 1897: 166; 1898: 34) and Vedena River and (BACHMETJEW, 1898: 34).

66. *Coenonympha leander leander* (ESPER, [1784])

Coenonympha leander leander (ESPER, [1784]) (ABADJIEV, 1993: 76).

Kokalyansko Hanche – Urvich: 9.VI.1996 - 1 ♀; 12.VI.1996 - 1 ♀; 2.VI.1997 - 2 ♂♂; 4.VI.1997 - 3 ♂♂, 2 ♀♀; 5.VI.1997 14 ♂♂, 1 ♀. Reported for Pancharevo Gorge (ABADJIEV, 1993: 76).

67. *Coenonympha pamphilus* (LINNAEUS, 1758)*

Kokalyansko Hanche – Urvich: 25.VIII.1996 - 1 ♀; 2.VI.1997 - 2 ♂♂; 4.VI.1997 - 3 ♂♂.

68. *Pyronia (Pyronia) tithonus* (LINNAEUS, 1767)

Epinephele tithonus L. (DRENOWSKY, 1907: 6); *Epinephele tithonus* L. (BURESCH & TULESCHKOW, 1929: 244); *Pyronia tithonus* (ABADJIEV, 1995: Pl. XVI: Figs 9, 10).

Kokalyansko Hanche – Urvich: 12.VIII.1994 - 1 ♀ (ABADJIEV, 1995: Pl. XVI: Figs 9, 10). Reported for Pancharevo (BURESCH & TULESCHKOW, 1929: 244); western slopes of Mt Lozen (DRENOWSKY, 1907: 6).

69. *Maniola jurtina phormia* (FRUHSTORFER, 1909)

Epinephele janira L. (BACHMETJEW, 1898: 33); *Maniola jurtina* (ABADJIEV, 1995: Pl. XVI: Figs 1, 2).

Kokalyansko Hanche – Urvich: 8.VII.1994 - ♀ (ABADJIEV, 1995: Pl. XVI: Figs 1, 2); 28.VI.1997 1 ♂. Reported for Kokalyane Monastery: June–September (BACHMETJEW, 1898: 33).

70. *Hyponephele lycanon lycanon* (ROTTEMBURG, 1775)

Epinephele lycanon ROTT. (BACHMETJEW, 1897: 166); *Epinephela* [sic] *lycanon* ROTT. (BACHMETJEW, 1898: 33); *Epinephele lycanon* ROTT. (REBEL, 1903: 179); *Epinephele lycanon* ROTT. (BURESCH & TULESCHKOW, 1929: 243).

Reported for Kokalyane Monastery: 17.VII.1896 (BACHMETJEW, 1897: 166; 1898: 33; REBEL, 1903: 179; BURESCH & TULESCHKOW, 1929: 243).

71. *Aphantopus hyperantus* (LINNAEUS, 1758)

Epinephele hyperanthus L. (BACHMETJEW, 1897: 166); *Epinephele hyperanthus* L. (BACHMETJEW, 1898: 34); *Aphantopus hyperantus* (ABADJIEV, 1995: Pl. XVI: Figs 7, 8).

Kokalyansko Hanche – Urvich: 3.VII.1993 - 2 ♂♂ (ABADJIEV, 1995: Pl. XVI: Figs 7, 8). Reported for Kokalyane Monastery: 17.VII.1896 (BACHMETJEW, 1897: 166; 1898: 34); 10.VIII.1897 (BACHMETJEW, 1898: 34).

72. *Erebia ligea herculeana* WARREN, 1931

Erebia ligea L. (BACHMETJEW, 1897: 151); *Erebia ligea* L. (BACHMETJEW, 1898: 33).

Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 151; 1898: 33).

73. *Erebia aethiops aethiops* (ESPER, [1777])

Erebia aethiops ESP. (BACHMETJEW, 1897: 151); *Erebia aethiops* ESP. (BACHMETJEW, 1898: 33);

Erebia aethiops Esp. (REBEL, 1903: 175); *Erebia aethiops* Esp. (BURESCH & TULESCHKOW, 1929: 226).

Reported for Kokalyane Monastery: 20.VIII.1896 (BACHMETJEW, 1897: 151; 1898: 33; REBEL, 1903: 175; BURESCH & TULESCHKOW, 1929: 226).

74. *Erebia medusa euphrasia* FRUHSTORFER, 1917

Erebia medusa F. (BURESCH & TULESCHKOW, 1929: 222); *Erebia medusa* ([DENIS & SCHIFFERMÜLLER], 1775) (ABADJIEV, 1993: 52); *Erebia medusa* (ABADJIEV, 1995: Pl. XIV: Figs 1, 2).

Kokalyansko Hanche - Urvich: 21.V.1993 – 3 ♂♂ (ABADJIEV, 1995: Pl. XIV: Figs 1, 2); 2.VI.1997 1 ♂. Reported for Kokalyane Monastery: 2.VI.1912: I. BURESCH leg. (BURESCH & TULESCHKOW, 1929: 78); Pancharevo Gorge (ABADJIEV, 1993: 52).

75. *Melanargia galathea satnia* FRUHSTORFER, 1917

Melanargia galathea var. *procida* Hbst. (BACHMETJEW, 1897: 151); *Melanargia galathea* v. *procida* Hbst. (BACHMETJEW, 1898: 33); *Melanargia galathea* (ABADJIEV, 1995: Pl. XII: Figs 5, 6).

Kokalyansko Hanche - Urvich: 12.VII.1993 2 ♂♂ (ABADJIEV, 1995: Pl. XII: Figs 5, 6); 15.VII.1993 – 1 ♂; 1.VII.1997 1 ♂. Reported for Kokalyane Monastery: July (BACHMETJEW, 1897: 151; 1898: 33).

76. *Minois dryas dryas* (SCOPOLI, 1763)

Satyrus dryas Sc. (BURESCH & TULESCHKOW, 1929: 237).

Reported for Kokalyane Monastery: 10.VIII.1903: I. BURESCH leg. (BURESCH & TULESCHKOW, 1929: 237).

77. *Hipparchia fagi fagi* (SCOPOLI, 1763)

Satyrus hermione L. (BACHMETJEW, 1897: 166); *Satyrus hermione* L. (BACHMETJEW, 1898: 33);

Satyrus hermione L. (REBEL, 1903: 176); *Satyrus hermione* L. (BURESCH & TULESCHKOW, 1929: 231–232); *Satyrus hermyone* [sic] (BURESCH, 1940: 245); *Hipparchia fagi fagi* (ABADJIEV, 1995: Pl. IX: Figs 1, 2).

Kokalyansko Hanche - Urvich: 15.VII.1993 – 1 ♂ (ABADJIEV, 1995: Pl. IX: Figs 1, 2); 30.VI.1997 2 ♂♂. Reported for Kokalyane Monastery: July–August (BACHMETJEW, 1897: 166; 1898: 33; REBEL, 1903: 176); 22.VII.1906: I. BURESCH leg. (BURESCH & TULESCHKOW, 1929: 231); Urvich: 29.VI.1927: HM BORIS III leg. (BURESCH, 1940: 245); Vedena River (BACHMETJEW, 1898: 33) and Pasarel: 24.VI.1916: HM FERDINAND I leg. (BURESCH & TULESCHKOW, 1929: 232).

78. *Hipparchia semele semele* (LINNAEUS, 1758)

Satyrus semele L. and var. *aristaeus* BOH. (BACHMETJEW, 1897: 166); *Satyrus semele* L. and v. *aristaeus* BOH. (BACHMETJEW, 1898: 33); *Satyrus semele* L. (REBEL, 1903: 177); *Satyrus semele* L. (BURESCH & TULESCHKOW, 1929: 233).

Reported for Kokalyane Monastery: July–September (BACHMETJEW, 1897: 166; 1898: 33; REBEL, 1903: 177; BURESCH & TULESCHKOW, 1929: 233).

79. *Hipparchia statilinus* (HUFNAGEL, 1766)

Satyrus statilinus HFN. (BACHMETJEW, 1897: 166); *Satyrus statilinus* HFN. (BACHMETJEW, 1898: 33); *Satyrus statilinus* HUFN. (REBEL, 1903: 177); *Satyrus statilinus allionia* F. (BURESCH & TULESCHKOW, 1929: 235).

Reported for Pancharevo - Kokalyane: August-September (BACHMETJEW, 1897: 166; 1898: 33; REBEL, 1903: 177; BURESCH & TULESCHKOW, 1929: 235).

80. *Arethusana arethusa* ([DENIS & SCHIFFERMÜLLER], 1775)

Satyrus arethusa var. *erythia* Hb. (BACHMETJEW, 1897: 166); *Satyrus arethusa* v. *erythia* Hb. (BACHMETJEW, 1898: 33); *Satyrus arethusa* Esp. (REBEL, 1903: 177); *Satyrus arethusa* Esp. var. *erythia* Hb. (DRENOWSKY, 1907: 5); *Satyrus arethusa* Esp. (BURESCH & TULESCHKOW, 1929: 234). Reported for Kokalyane Monastery: August (BACHMETJEW, 1897: 166; 1898: 33; REBEL, 1903: 177; DRENOWSKY, 1907: 5; BURESCH & TULESCHKOW, 1929: 234).

81. *Brintesia circe* (FABRICIUS, 1775)*

Kokalyansko Hanche - Urvich: 2.VII.1997 1 ♂.

82. *Chazara briseis briseis* (LINNAEUS, 1764)

Satyrus briseis L. (BACHMETJEW, 1897: 166); *Satyrus briseis* L. (BACHMETJEW, 1898: 33); *Satyrus briseis* L. var. *major* OBTH. (REBEL, 1903: 176); *Satyrus briseis meridionalis* STGR. (BURESCH & TULESCHKOW, 1929: 232).

Reported for Pancharevo and Kokalyane: July-August (BACHMETJEW, 1897: 166; 1898: 33); Kokalyane Monastery (REBEL, 1903: 176; BURESCH & TULESCHKOW, 1929: 232).

Nymphalidae: Apaturinae

83. *Apatura iris iris* (LINNAEUS, 1758)

Apatura iris (BURESCH, 1940: 245); *Apatura iris iris* (LINNAEUS, 1758) (ABADJIEV, 1995: 21). Kokalyansko Hanche - Urvich: 30.VI.1997 1 ♂. Reported for Urvich: 29.VI.1927: HM BORIS III leg. - 2 ♂♂ (BURESCH, 1940: 245). Reported for Pancharevo Gorge (ABADJIEV, 1995: 21).

84. *Apatura ilia ilia* ([DENIS & SCHIFFERMÜLLER], 1775)

Apatura ilia SCHIFF. (BACHMETJEW, 1897: 151); *Apatura ilia* SCHIFF. (BACHMETJEW, 1898: 32); *Apatura ilia* SCHIFF. (REBEL, 1903: 163); *Apatura ilia clytie* SCHRIFT. [sic] (BURESCH & TULESCHKOW, 1929: 186); *Apatura ilia ilia* ([DENIS & SCHIFFERMÜLLER], 1775) (ABADJIEV, 1995: 20; Pl. XIX: Figs 5, 6; 140; Fig. 45 [genitalia]).

Urvich: 3.VII.1979: S. Beshkov leg. - 1 ♂ (ABADJIEV, 1995: 140: Fig. 45 [genitalia]); Kokalyansko Hanche - Urvich: 8.VII.1994 - 1 ♂ (ABADJIEV, 1995: 20; Pl. XIX: Figs 5, 6); 30.VI.1997 - 5 ♂♂; 1.VII.1997 - 5 ♂♂; 2.VII.1997 - 4 ♂♂. Reported for Pancharevo (BACHMETJEW, 1897: 151; 1898: 32; REBEL, 1903: 163; BURESCH & TULESCHKOW, 1929: 186).

Nymphalidae: Limenitidinae

85. *Limenitis camilla camilla* (LINNAEUS, 1764)

Limenitis [sic] *sybila* [sic] (BURESCH, 1940: 244); *Limenitis camilla camilla* (LINNAEUS, 1764) (ABADJIEV, 1995: 23-24; Pl. IV: Fig. 1 [habitat]; Pl. XX: Figs 1, 2; 141: Fig. 47 [genitalia]).

Kokalyansko Hanche – Urvich: 21.VI.1993 – 3 ♂♂ (ABADJIEV, 1995: 23–24; Pl. XX: Figs 1, 2; 141: Fig. 47); 11.VI.1996 – 1 ♂; 30.VI.1997 1 ♀. Reported for Urvich: 29.VI.1927: HM BORIS III leg. – 4 ex. (BURESCH, 1940: 244).

86. *Limenitis populi populi* (LINNAEUS, 1758)

Limenitis [sic] *populi* (BURESCH, 1940: 245); *Limenitis populi populi* (LINNAEUS, 1758) (ABADJIEV, 1995: 24–25).

Kokalyansko Hanche – Urvich: 12.VI.1996 – 2 ♂♂; 12.VI.1997 – 5 ♂♂; 13.VI.1997 1 ♂; 16.VI.1997 – 2 ♂♂; 28.VI.1997 1 ♀; 1.VII.1997 1 ♀; Iskar Dam Lake: 720 m: 22.VI.1997 – 2 ♂. Reported for Urvich: 29.VI.1927: HM BORIS III leg. – 1 ♂ (BURESCH, 1940: 245). Reported also by ABADJIEV (1995: 24–25).

87. *Limenitis reducta herculeana* STICHEL, [1908]

Limenitis camilla SCHIFF. (BACHMETJEW, 1897: 151); *Limenitis camilla* SCHIFF. (BACHMETJEW, 1898: 32); *Limenitis camilla* SCHIFF. (REBEL, 1903: 164).

Kokalyansko Hanche – Urvich. Reported for Kokalyane Monastery: 20.VIII.1896 (BACHMETJEW, 1897: 151), 10.VIII.1897 (BACHMETJEW, 1898: 32) and also by REBEL (1903: 164).

88. *Neptis sappho sappho* (PALLAS, 1771)*

Kokalyansko Hanche – Urvich: 2.VI.1997 1 ♂.

89. *Neptis rivularis rivularis* (SCOPOLI, 1763)

Neptis lucilla F. (BURESCH & TULESCHKOW, 1929: 189); *Neptis rivularis rivularis* (SCOPOLI, 1763) (ABADJIEV, 1995: 30).

Kokalyansko Hanche Urvich: 9.VI.1996 1 ♂; 11.VI.1996 – 5 ♂♂, 1 ♀; 12.VI.1996 1 ♂; 9.VI.1997 1 ♂; 16.VI.1997 – 1 ♂; 28.VI.1997 1 ♀; Iskar Dam Lake: 720 m: 22.VI.1997 1 ♂. Reported for Pancharevo: 7.VI.1913: HM FERDINAND I leg. (BURESCH & TULESCHKOW, 1929: 189); (ABADJIEV, 1995: 30).

Nymphalidae: Nymphalinae

90. *Vanessa atalanta atalanta* (LINNAEUS, 1758)*

Kokalyansko Hanche – Urvich: 2.VII.1997 – 1 ♂.

91. *Vanessa cardui* (LINNAEUS, 1758)*

Kokalyansko Hanche – Urvich: 2.VII.1997 1 ♂.

92. *Inachis io io* (LINNAEUS, 1758)

Vanessa jo L. (BACHMETJEW, 1898: 32).

Kokalyansko Hanche – Urvich. Reported for Kokalyane Monastery: August (BACHMETJEW, 1898: 32).

93. *Aglais urticae urticae* (LINNAEUS, 1758)

Aglais urticae (ABADJIEV, 1995: Pl. XXIV: Figs 1, 2).

Kokalyansko Hanche – Urvich: 21.VI.1993 1 ♂ (ABADJIEV, 1995: Pl. XXIV: Figs 1, 2).

94. *Polygonia c-album* (LINNAEUS, 1758)

Polygonia c-album (LINNAEUS, 1758) (ABADJIEV, 1995: 42; Pl. XXIV: Figs 3, 4).

Kokalyansko Hanche - Urvich: 3.VII.1993 1 ♂ (ABADJIEV, 1995: 42; Pl. XXIV: Figs 3, 4); 3.IX. 1994 - 1 ♂; 2.VII.1997 - 2 ♂♂.

95. *Nymphalis polychloros polychloros* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 28.VI.1997 1 ♂; 30.VI.1997 1 ♂; 2.VII.1997 1 ♀.

96. *Nymphalis xanthomelas xanthomelas* (ESPER, [1781])

Vanessa xanthomelas ESP. (REBEL, 1903: 166); *Vanessa xanthomelas* ESP. (BURESCH & TULESCHKOW, 1929: 194).

Reported for Pancharevo (REBEL, 1903: 166; BURESCH & TULESCHKOW, 1929: 194).

97. *Nymphalis antiopa antiopa* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich.

98. *Melitaea cinxia cinxia* (LINNAEUS, 1758)

Melitaea cinxia L. (REBEL, 1903: 167); *Melitaea cinxia* L. (BURESCH & TULESCHKOW, 1929: 200);

Melitaea cinxia cinxia (LINNAEUS, 1758) (ABADJIEV, 1995: 64).

Kokalyansko Hanche - Urvich: 21.V.1993 - 4 ♂♂; 1.VI.1996 - 1 ♀; 2.VI.1997 1 ♂; 4.VI.1997 2 ♂♂; 7.VI.1997 - 2 ♂♂; 13.VI.1997 1 ♂. Reported for Kokalyane Monastery: 21.V.1896 (REBEL, 1903: 167) and Kokalyane: 2.VI.1912: A. URUMOVA leg. (BURESCH & TULESCHKOW, 1929: 200); also by ABADJIEV (1995: 64).

99. *Melitaea phoebe phoebe* ([DENIS & SCHIFFERMÜLLER], 1775)

Melitaea phoebe (ABADJIEV, 1995: 148: Fig. 74 [genitalia]).

Kokalyansko Hanche - Urvich: 2.VII.1997 1 ♂. Reported by ABADJIEV (1995: 148: Fig. 74: 5.VIII.1955: N. VÍHODTSEVSKI leg.).

100. *Melitaea didyma didyma* (ESPER, [1778])

Melitaea didyma var. *meridionalis* STG. (BACHMETJEW, 1897: 151); *Malitaea* [sic] *didyma* var. *merridionalis* [sic] STRG. [sic] (BACHMETJEW, 1898: 32).

Reported for Kokalyane Monastery: August (BACHMETJEW, 1897: 151; 1898: 32).

101. *Melitaea athalia athalia* (ROTTEMBURG, 1775)

Melitaea athalia ROTT. (BACHMETJEW, 1897: 151); *Melitaea athalia* ROTT. (BACHMETJEW, 1898: 32); *Melitaea athalia* ROTT. (REBEL, 1903: 168); *Melitaea athalia* ROTT. (BURESCH & TULESCHKOW, 1929: 205).

Kokalyansko Hanche - Urvich: 21.VI.1993 1 ♂ (ABADJIEV, 1995: 71; Pl. XXIX: Figs 5, 6); 5.VI.1997 1 ♂; 9.VI.1997 1 ♂; 13.VI.1997 1 ♀. Reported for Pancharevo: 7.VI.1913: HM FERDINAND I leg. (BURESCH & TULESCHKOW, 1929: 205); Kokalyane (BURESCH & TULESCHKOW, 1929: 205); Kokalyane Monastery: July (BACHMETJEW, 1897: 151; 1898: 32; REBEL, 1903: 168).

102. *Araschnia levana levana* (LINNAEUS, 1758)

Araschnia levana (LINNAEUS, 1758) (ABADJIEV, 1995: 45; Pl. XXIV: Figs 9, 10).

Kokalyansko Hanche - Urvich: 15.VII.1993 - 1 ♂ (ABADJIEV, 1995: 45; Pl. XXIV: Figs 9, 10).

Nymphalidae: Heliconiinae

103. *Argynnis (Argynnis) paphia paphia* (LINNAEUS, 1758)

Argynnis paphia L. (BACHMETJEW, 1897: 151); *Argynnis paphia* L. (BACHMETJEW, 1898: 33); *Argynnis paphia* L. (REBEL, 1903: 171); *Argynnis paphia* L. (BURESCH & TULESCHKOW, 1929: 217); *Argynnis paphia* (ABADJIEV, 1995: Pl. XXV: Figs 1, 2).

Kokalyansko Hanche - Urvich: 3.VII.1993 - 1 ♀ (ABADJIEV, 1995: Pl. XXV: Figs 1, 2); 28.VI.1997 1 ♂; 30.VI.1997 1 ♂; 1.VII.1997 2 ♂♂; 2.VII.1997 - 4 ♂♂, 2 ♀♀. Reported for Kokalyane Monastery (BACHMETJEW, 1897: 151; 1898: 33; REBEL, 1903: 171; BURESCH & TULESCHKOW, 1929: 217).

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

Argynnis pandora SCHIFF. (BACHMETJEW, 1897: 151); *Argynnis pandora* SCHIFF. (BACHMETJEW, 1898: 33); *Argynnis pandora* SCHIFF. (REBEL, 1903: 171); *Argynnis pandora* SCHIFF. (BURESCH & TULESCHKOW, 1929: 218).

Iskar Dam Lake: 720 m: 22.VI.1997 1 ♂. Reported for Kokalyane Monastery (BACHMETJEW, 1897: 151; 1898: 33; REBEL, 1903: 171; BURESCH & TULESCHKOW, 1929: 218).

105. *Argynnis (Fabriciana) adippe adippe* ([DENIS & SCHIFFERMÜLLER], 1775)*

Kokalyansko Hanche - Urvich: 28.VI.1997 - 2 ♂♂; 2.VII.1997 1 ♂.

106. *Argynnis (Fabriciana) niobe niobe* (LINNAEUS, 1758)*

Kokalyansko Hanche - Urvich: 12.VI.1996 - 1 ♂; Iskar Dam Lake: 720 m: 22.VI.1997 1 ♂.

107. *Issoria lathonia* (LINNAEUS, 1758)

Issoria lathonia (ABADJIEV, 1995: Pl. XXVI: Figs 1, 2).

Kokalyansko Hanche - Urvich: 21.V.1993 - 2 ♂♂ (ABADJIEV, 1995: Pl. XXVI: Figs 1, 2); 9.VI.1997 1 ♂.

108. *Brenthis daphne daphne* (BERGSTRÄSSER, 1780)

Brenthis daphne daphne ([DENIS & SCHIFFERMÜLLER], 1758) (ABADJIEV, 1995: 53; Pl. XXVI: Figs 3, 4).

Kokalyansko Hanche - Urvich: 8.VII.1994 - 1 ♀ (ABADJIEV, 1995: 53; Pl. XXVI: Figs 3, 4); 12.VI.1996 - 1 ♂; 1.VII.1997 1 ♂; 2.VII.1997 1 ♀.

109. *Boloria (Classiana) euphrosyne euphrosyne* (LINNAEUS, 1758)

Boloria euphrosyne (ABADJIEV, 1995: 53; Pl. XXVII: Figs 11, 12).

Kokalyansko Hanche - Urvich: 21.V.1993 1 ♂ (ABADJIEV, 1995: Pl. XXVII: Figs 11, 12); 7.VI.1997 1 ♀.

110. *Boloria (Classiana) dia* (LINNAEUS, 1767)

Argynnis dia L. (BURESCH, 1912: 46); *Argynnis dia* L. (BURESCH & TULESCHKOW, 1929: 211); *Boloria dia dia* (LINNAEUS, 1767) (ABADJIEV, 1995: 62).

Kokalyansko Hanche - Urvich: 25.VIII.1996 - 1 ♂. Reported for Kokalyane: 23.VIII.1909 (BURESCH, 1912: 46); 17.IV.1912: D. ILTSCHEV leg., 10.VIII.1903: I. BURESCH leg. (BURESCH & TULESCHKOW, 1929: 211) also by ABADJIEV (1995: 62).

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