

**New records of PSEUDOLUCIA Nabokov, 1945 from Chile
(Lepidoptera, Lycaenidae)**

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Summary:

The authors list the polyommatine lycaenids of the genus *Pseudolucia* NABOKOV (1945) from Chile, which are deposited in the collection of the junior-author and add some remarks of general importance. For what is in most cases the first time, all of the lycaenids species "both sexes" as available, are pictured in colour.

Zusammenfassung:

Die Verfasser listen die polyommatischen Lycaeniden der Gattung *Pseudolucia* NABOKOV (1945) aus Chile, die sich in der Sammlung des Zweitautors befinden, auf und fügen einige Bemerkungen von allgemeiner Bedeutung hinzu. Sämtliche Lycaeniden-Arten werden in beiden Geschlechtern, soweit vorhanden, meist erstmals farbig abgebildet.

Introducion:

Very recently BÁLINT and JOHNSON (1993) established the occurrence of numerous species of the polyommatine lycaenid genus *Pseudolucia* (NABOKOV, 1945) in the oreol regions of Chile and Patagonia. The genus is remarkably diverse in the Chilean administrative regions of Elqui, Coquimbo and Bio Bio where several distinctive species groups cooccur. Among these, the *plumbea*-group of taxa is remarkably specious with five species occurring in central Chile alone. This central Chilean diversity of *Pseudolucia* is particularly notable, because, within a relatively small geographic region, numerous sister species are both sympatric and synchronic. This situation recalls the Palae-arctic lycaenid genus *Polyommatus*, which is also rather diverse in certain parts of the Old World (eg. in Kurdistan or Uzbekistan).

The Chilean *Pseudolucia* species, nearly all recently described, are readily recognized by wing pattern and their interspecific differences clearly corroborated by genitalic characters in both sexes. Recent description of the species results primarily from the many specimens having been previously unavailable to specialists. Chilean lepidopterists were, in fact, aware of the diversity suggested by local samples but unable until collaborate with specialists who could locate type material, properly diagnose historical taxa and describe new entities. This was also the situation in the largest European museums where important historical polyommatine lycaenid material from the

Neotropical region is housed: the curators were not able to apply most of the available names and larger part of the collection samples were mis- or unidentified (cf. BÁLINT 1993a and BÁLINT 1993b, BÁLINT & JOHNSON 1993).

Present paper is a brief contribution to the knowledge of the Chilean *Pseudolucia* entities giving new spatial and temporal records of their occurrence in the country. All the material examined can be found in the private collection of the junior-author.

Material examined:

Pseudolucia chilensis (BLANCHARD, 1852) (Colour plate 1)

5 males, 4 females: Tongoy, Elqui, 18.IX.1990
1 male, 1 female: Los Vilos, Prov.Coquimbo, 4-6.XI.1981
1 male, 1 female: Quebrada Macul, Santiago, X.1979
2 males: Freirina Huasco, 10.X.1984
1 male: El Panque, X.1990
1 female: Til-Til, Santiago, X.1992
1 female: Gacujacan, Santiago, X.1952

Note: This taxon is the type species of the genus *Pseudolucia*. Very recently it was also described as *Pallidula vichuna* by BALLETO (1993) It is very widely distributed in Chile and it can be found most of the larger historical collections (cf. BÁLINT 1993a: 17) *P.chilensis* has a very interesting sister taxa, *P.parana*
BÁLINT, 1993 occurring in the Sierra de Mar mountain chain of SE Brazil.

Pseudolucia vera (BÁLINT and JOHNSON, 1993) (Colour plate 1)

6 males, 3 females: Las Trancas, Reg.Nuble, 16.I.1954
1 male, 1 female: Malleco, Reg.Aracuania, XI.1990
1 female: Nabelbuta, Reg.Aracuania, 15.XI.1988
1 female: Las Cabras, 1400 m, Reg.Nuble, 23.XII.1954

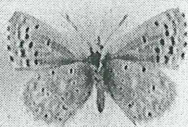
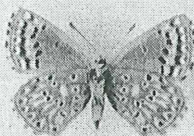
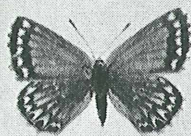
Note: The species structurally is very close to the type species of *Pseudolucia* but its wing morphology suggests a relationship to *P.lyrnessa*.

Pseudolucia lyrnessa (HEWITSON, 1874) (Colour plate 1)

1 male, 1 female: Hacienda San Manuel, Prov.Linares, I.1953
1 male, 1 female: 40 km s.of Cognago, 24.X.1983
1 female: Estero Leiva, Prov.Linares, I.1953

Note: The taxon superficially resembles the taxa *P.vera* and *P.collina* but structurally strongly differs from them: the *lyrnessa* female genitalia is "winged" while the female genitalia of *collina* is bifurcate and that of *vera* is tubular. The species is widely distributed and also occurs in Argentina. The taxon has two synonyms very recently established: *Pseudolucia zembla* BÁLINT and JOHNSON, 1993 and *Lycaena patago* MABILLE, 1899 (BÁLINT and JOHNSON in print)

Colour plate 1: left specimen of each couple is male, right female
left row show the uppersides, right row the undersides
top to bottom: *P. chilensis*, *vera*, *lyrnessa*, *collina*



Pseudolucia collina (PHILIPPI, 1859)(Colour plate 1)

3 males: Elqui, Reg.Coquimbo, XI.1991

1 female: Hacienda Illapel, 2900 m, Reg.Coquimbo, 9.XI.1954

Note: The taxon is a strict central Chilean endemic species. The female genitalia with its bifurcate terminalia is unique amongst the known polyommatae.

Pseudolucia plumbea (BUTLER, 1881)(Colour plate 2)

1 male, 1 female: Refugio audino, Las Trancas, Nuble, 1650 m,
16.XII.1976

1 female: Battos Mocates, 2800 m, Santiago, 15.XII.1986

Note: *P.plumbea* with the following two taxa (plus *P.clarea* BÁLINT and JOHNSON, 1993 unrecorded here) listed below creates a well distinguishable sister group of *P.sibylla* (KIRBY,1871) and its close relatives, restricted in its distribution to central Chile. Another historical taxon, *Itylos grata* KÖHLER (TL: Tecka, Chubut, Argentina) is a further player of the group, probably a subspecies or an older available name for *P.annamaria* (G.LAMAS in litt.).

Pseudolucia hazeorum (BÁLINT and JOHNSON, 1993)(Colour plate 2)

1 male: Los Valdes, 2300 m, Santiago, 15.XII.1986

1 male: Las Cabras, 1480 m, Prov.Nuble, 23.XII.1954

Pseudolucia annamaria (BÁLINT and JOHNSON, 1993)(Colour plate 2)

3 males: Vicuna, Elqui, X.1992

Pseudolucia andina (BARLETT-CALVERT, 1894)(Colour plate 2)

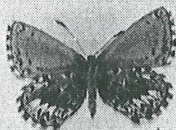
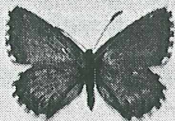
5 males: Farellones, Santiago, I.1993

Note: Widely distributed, unmistakable species, which is known to occur also in Argentina, north from Province Mendoza (Park Aconcagua), south to Province Chubut, Patagonia. It is also widely distributed in Chile (cf. BÁLINT and JOHNSON, 1993: 19). The larval hostplant of *P.andina* is an *Astragalus* sp. recorded by D.BENYAMINI (in litt.).

Postscript:

As the material elaborated above shows, private collections in Europe can also contain South American polyommatae samplings originating from Chilean lepidopterists. Some specimens of the above mentioned samples are coming from the same series as the description of the recently discovered taxa were based (eg. *Pseudolucia vera* and *P. hazeorum*). It appears that some Chilean workers have widely distributed their material before its elaboration perhaps with the hope that somebody could properly determine the sample. This caused that BALLETT (1993) and the first editor published almost at the same time taxonomic papers on the high Andean polyommatae (BÁLINT, 1993a and 1993b, BÁLINT and JOHNSON, 1993) creating several synonyms, many of

Colour plate 2: first couple: left male, right female; rest males only
left row show the uppersides, right row the undersides
top to bottom: *P. plumbea*, *hazeorum*, *annamaria*, *andina*



them based on the same historical or recently collected material (BÁLINT, in print)

With the publications mentioned above the diversity of the endemic Chilean lycaenid fauna is well documented and these papers with the work of NABOKOV (1945) serve as a good basis for further studies. Beside the continuation of the taxonomic investigations the most urgent task to collect and publish biologic data of the neotropical polyommatae lycaenids, because their biology is almost totally unknown.

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Note: All fotos are in the same scale magnified.

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