

An illustrated checklist of *Agrodiaetus* HÜBNER, 1822, a subgenus of *Polyommatus* LATREILLE, 1804 (Lepidoptera: Lycaenidae)

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Abstract: This checklist of the subgenus *Agrodiaetus* HÜBNER, 1822 of *Polyommatus* LATREILLE, 1804 contains 190 available species-group names, which are presented in a tentative systematic arrangement and also in alphabetic form. Chromosome numbers known are stated for individual taxa, and nearly all recognised species are illustrated in colour.

Systematisches Verzeichnis von *Agrodiaetus* HÜBNER, 1822, einer Untergattung von *Polyommatus* LATREILLE, 1804 (Lepidoptera: Lycaenidae)

Zusammenfassung: In dieser Arbeit werden 190 verfügbare und gültige Taxa der zu *Polyommatus* LATREILLE, 1804 gehörenden Untergattung *Agrodiaetus* HÜBNER, 1822 systematisch und auch alphabetisch aufgelistet. Die Chromosomenzahl der einzelnen Taxa werden – soweit bekannt – angegeben und fast alle *Agrodiaetus*-Arten werden farbig abgebildet.

Introduction

The subgenus *Agrodiaetus* HÜBNER comprises to date 190 available species-group taxa (HÄUSER & ECKWEILER 1997), more than any other group included in the genus *Polyommatus* LATREILLE, 1804. The taxonomic position of many taxa has changed repeatedly since the comprehensive treatments of the group by FORSTER (1956–1961) and DE LESSE (1957–1972), and is still being disputed in many cases. Most *Agrodiaetus* taxa occur in the Near and Middle East, and in Central Asia, an area that has only been investigated more thoroughly during the past 20 years, which led to the description of more than 50 new taxa during this period. For these reasons, an attempt has been made here to compile a list of all taxa presently included in *Agrodiaetus* in systematic arrangement. As several of the recently discovered taxa have never been properly illustrated, we provide colour illustrations of all representative taxa to facilitate the identification of specimens without access to the primary literature or large reference collections.

This checklist cannot anticipate a revision of *Agrodiaetus*, although we have made efforts to assign all individual taxa to a particular species(-group). In doing so, we have tried to strike a balance between largely opposing views as expressed in the literature. Several recent authors (e.g., CARBONELL 1993–1996, DANTCHENKO 1994–1995, KOLEV & DE PRINS 1995), on the one hand, tend to split the group into numerous species, granting species rank to almost every newly described taxon. HESSELBARTH et al. (1995), on the other hand, have sunk almost all subspecies for the Turkish fauna into synonymy. Therefore, a comprehensive and critical revision of all *Agrodiaetus* taxa is clearly needed for which this contribution is meant to provide some kind of basis.

In *Agrodiaetus*, like in some other groups of *Polyommatus*, many closely related taxa do not exhibit clear differences in traditional morphological characters like wing pattern and genitalia, but differ considerably with regard to their chromosome numbers. Within the group, the haploid chromosome number can range from 8 to more than 120 (for reviews of chromosome numbers in *Agrodiaetus*, see DE LESSE 1960a: 29–30, and HESSELBARTH et al. 1995: 703–706). As with other characters, chromosome numbers also exhibit considerable variation in different groups of Lepidoptera, which can be intrapopulational (e.g., SUOMALAINEN & BROWN 1984, LORKOVIĆ 1990) or geographic (e.g., DE LESSE 1962a, 1969). Furthermore, fertile interbreeding between taxa with different chromosome numbers could already be demonstrated for different groups of Lepidoptera (FEDERLEY 1953, LORKOVIĆ 1990). Therefore, we feel that, in *Agrodiaetus*, different chromosome numbers alone cannot provide the ultimate taxonomic criterion for separate species, and certainly they cannot be taken as absolute proof of complete reproductive isolation.

On zoogeographic grounds, there is no reason to treat each allopatric taxon as a distinct species. For this checklist, therefore, we have tried to lump all apparently related, allopatric taxa – even including taxa with different chromosome numbers – into possible species. The ranges of by such means “extended species” or super-species correspond well to those of accepted species from other groups of western palaeartic Lepidoptera. On the other hand, we do not agree with the total denial of subspecies (e.g., HESSELBARTH et al. 1995), and we have therefore left in this list most names as subspecies but synonymized only a few on geographic grounds, leaving definite taxonomic decisions for future revisionary work.

Subdivision of the subgenus *Agrodiaetus*

For this paper, the subgenus *Agrodiaetus* is tentatively divided into the following seven species-groups, which are named by their oldest species:

admetus-group

A species-group with brown-coloured males, well developed androconial patches on the forewing upperside, and faint postdiscal markings on the hindwing underside.

dolus-group

A species-group with differently (i.e. white-, blue-, brown-) coloured males, well developed androconial patches on the forewing upperside, and faint postdiscal markings on the hindwing underside.

dama-group

A species-group with blue-coloured males, well developed androconial patches on the forewing upperside, and faint postdiscal markings on the hindwing underside. Most species are large in size. This group corresponds to the “*poseidon*-group” of HESSELBARTH et al. (1995), except for *poseidon* and subordinate taxa which we include in the next group.

damon-group

A large species-group with blue-colored males, sparsely developed androconial patches on the forewing upperside, and faint postdiscal markings on the hindwing underside. This assemblage has been further subdivided into five groups (*actis*-, *transcaspicus*-, *damone*-, *carmon*- and *damon*-group) by HESSELBARTH et al. (1995), but the available evidence appears too weak to clearly support this classification for evidently closely related taxa.

iphigenides-group

A species-group with blue-coloured males, sparsely or well developed androconial patches on the forewing upperside, and well developed postdiscal markings on the hindwing underside, which is distributed in Central Asia. The pattern on the hindwing underside resembles the *Polyommatus stoliczkanus*-group, but lacks the basal spots on the forewing underside.

dagmara-group

A small species-group with blue-coloured males, sparsely developed androconial patches on the forewing upperside, and well developed post-

discal markings on the hindwing underside, which is distributed in the Pamir region. Closely related to the next group (Tschikolowez 1992), but lacks the basal spots on the forewing underside.

erschoffii-group (= *Paragrodiaetus* ROSE & SCHURIAN, 1977)

A species-group with blue- or brown-coloured males, sparsely developed androconial patches on the forewing upperside, well developed postdiscal markings on the hindwing underside and basal spots of forewing underside. Distributed in the Middle East and Central Asia.

How to use this checklist

In addition to the conventionally accepted species, subspecies, and synonymes, we have used the following two levels of classification for taxa of uncertain status:

“spec.?” indicates that a taxon has been accorded species rank by some authors, often on the basis of different chromosome numbers, but is placed here under a closely related species to which is generally allopatric in distribution. The taxon could represent a subspecies or a species.

“syn.?” indicates that the type locality is near to the one of the previously listed taxon, and constant differences between the two taxa are not apparent to us. The taxon could represent a subjective synonym or a subspecies of the same species.

The list is divided into two parts. For clarity and to avoid many footnotes, the first part is a mere list of all the names with author(s) and year in systematic order, and indications of plate numbers for those taxa which are illustrated. Within the species-groups, the sequence of species is meant to indicate their presumed relatedness; within species, subspecies are listed geographically, generally from north to south and west to east. In the second part, all names are listed alphabetically with an indication of their rank and taxonomic placement as expressed in the first part. Chromosome numbers are stated for each taxon for which we found published reports. Further comments about disputed taxonomic placements are given where appropriate including some pertaining references. For further technical details about individual taxa, such as date of publication and type locality, readers are referred to the separately published catalogue of species-group names (HÄUSER & ECKWEILER 1997).

Part I: Systematic checklist of *Agrodiaetus* HÜBNER*admetus*-group*admetus* (ESPER, [1783])subsp. *admetus* (ESPER, [1783]) □ plate 1subsp. *anatoliensis* (FORSTER, 1960) □ plate 1*fabressei* (OBERTHÜR, 1910)subsp. *fabressei* (OBERTHÜR, 1910) □ plate 1subsp. *violetae* (GOMEZ-BUSTILLO, HERMOSA & BORREGO, 1979)spec.? *humedasmae* (TOSO & BALETTO, 1976) □ plate 1spec.? *aroaniensis* (BROWN, 1976)spec.? *budashkini* KOLEV & DE PRINS, 1995*ripartii* (FREYER, 1830)subsp. *ripartii* (FREYER, 1830) □ plate 1syn.? *montanesea* (GOMEZ-BUSTILLO, 1971)syn.? *mozuelicus* (AGENJO, [1973])subsp. *agenjoi* (FORSTER, 1965)subsp. *rippertii* BOISDUVAL, 1832syn.? *exuberans* (VERITY, 1926)spec.? *galloi* (BALETTO & TOSO, 1979)subsp. *pelopi* (BROWN, 1976)subsp. *paralcestis* (FORSTER, 1960)*alcestis* (ZERNY, 1932)subsp. *alcestis* (ZERNY, 1932) □ plate 1spec.? *interjectus* (DE LESSE, 1960)

demavendi (PFEIFFER, 1938)

subsp. *amasyensis* (DE LESSE, 1961)

subsp. *eriwanensis* (FORSTER, 1960)

subsp. *demavendi* (PFEIFFER, 1938)

subsp. *lorestanus* ECKWEILER, 1997

valiabadi (ROSE & SCHURIAN, 1977)

subsp. *valiabadi* (ROSE & SCHURIAN, 1977) □ plate 1

subsp. *rjabovianus* (KOÇAK, 1980)

nephohiptamenos (BROWN & COUTSIS, 1978)

□ plate 1

dolus-group

mithridates (STAUDINGER, 1878)

subsp. *mithridates* (STAUDINGER, 1878) □ plate 2

subsp. *saetosus* (PFEIFFER, 1932)

ardschira (BRANDT, 1938)

□ plate 2

peilei BETHUNE-BAKER, 1921

□ plate 2

sennanensis (DE LESSE, 1959)

□ plate 2

antidolus (REBEL, 1901)

subsp. *antidolus* (REBEL, 1901) □ plate 2

spec.? *kurdistanicus* (FORSTER, 1961) □ plate 2

spec.? *morgani* (LE CERF, 1909) □ plate 2

spec.? *femininoides* (ECKWEILER, 1987) □ plate 2

- menalcas* (FREYER, [1837]) □ plate 3
 syn.? *epidohus* (BOISDUVAL, 1840)
- dohus* (HÜBNER, [1823])
 subsp. *dohus* (HÜBNER, [1823]) □ plate 3
 syn.? *lefebvrüi* GODART, [1824]
 subsp. *vittatus* (OBERTHÜR, 1892)
 subsp. *virgilius* (OBERTHÜR, 1910)
 subsp. *gargano* (WIMMERS, 1931)
 spec.? *fulgens* (DE SAGARRA, 1925)
 spec.? *ainsae* (FORSTER, 1961) □ plate 3
 subsp. *pseudovirgilius* (DE LESSE, 1962)
 syn.? *magnabrillatus* (GOMEZ-BUSTILLO, 1971)
 syn.? *iris* (AGENJO, [1973])
- dama-group**
- hamadanensis* (DE LESSE, 1959) □ plate 3
- dama* (STAUDINGER, 1892)
 subsp. *dama* (STAUDINGER, 1892) □ plate 3
 subsp. *karindus* (RILEY, 1921) □ plate 3
- theresia* SCHURIAN, VAN OORSCHOT & VAN DEN BRINK, 1992
 subsp. *theresia* SCHURIAN, VAN OORSCHOT
 & VAN DEN BRINK, 1992 □ plate 3
 subsp. *larseni* (CARBONELL, 1994)

damon-group*hopfferi* (HERRICH-SCHÄFFER, [1851])subsp. *hopfferi* (HERRICH-SCHÄFFER, [1851]) □ plate 4syn.? *hadjinus* (HEYNE, [1895])syn.? *malatiae* (FORSTER, 1961)spec.? *lycius* (CARBONELL, 1996)*poseidon* (HERRICH-SCHÄFFER, [1851])subsp. *poseidon* (HERRICH-SCHÄFFER, [1851]) □ plate 4subsp. *mesopotamicus* (STAUDINGER, 1892) □ plate 4spec.? *deebi* (LARSEN, 1974) □ plate 4*damocles* (HERRICH-SCHÄFFER, [1844])subsp. *damocles* (HERRICH-SCHÄFFER, [1844]) □ plate 4subsp. *rossicus* DANTCHENKO & LUKHTANOV, 1993subsp. *krymaeus* (SHELJUZHKO, 1928)*damone* (EVERSMANN, 1841)subsp. *damone* (EVERSMANN, 1841) □ plate 4subsp. *irinae* DANTCHENKO, 1997subsp. *tanais* DANTCHENKO & PLJUSHTCH, 1993subsp. *pljushtchi* LUKHTANOV & BUDASHKIN, 1993subsp. *altaicus* (ELWES, 1899) □ plate 4syn.? *altaiensis* (FORSTER, 1956)subsp. *walteri* DANTCHENKO & LUKHTANOV, 1993subsp. *bogdoolensis* DANTCHENKO & LUKHTANOV, 1997

caeruleus (STAUDINGER, 1871)

subsp. *caeruleus* (STAUDINGER, 1871) □ plate 5

subsp. *khoshyeilaqi* (BLOM, 1979)

transcaspicus (HEYNE, [1895])

spec.? *damonides* (STAUDINGER, 1899) □ plate 5

spec.? *ninae* (FORSTER, 1956) □ plate 5

subsp. *firuze* (CARBONELL, 1993)

spec.? *aserbeidschanus* (FORSTER, 1956) □ plate 5

spec.? *elbursicus* (FORSTER, 1956) □ plate 5

subsp. *difficillimus* (FORSTER, 1956)

subsp. *turcicola* (KOÇAK, 1977) □ plate 5

subsp. *zapvadi* (CARBONELL, 1993)

subsp. *avajicus* (BLOM, 1979)

subsp. *kotzschi* (FORSTER, 1956)

subsp. *transcaspicus* (HEYNE, [1895]) □ plate 5

anticarmon (KOÇAK, 1983) □ plate 5

syn.? *huberti* (CARBONELL, 1993)

carmon (HERRICH-SCHÄFFER, [1851])

subsp. *carmon* (HERRICH-SCHÄFFER, [1851]) □ plate 6

syn. *eurypilos* (GERHARD, [1851])

syn. *alpestris* (FREYER, [1851])

syn. *kindermannii* (LEDERER, 1852)

subsp. *munzuricus* (ROSE, 1978)

spec.? *schuriani* (ROSE, 1978)

subsp. *surakovi* DANTCHENKO & LUKHTANOV, 1994

- kendevani* (FORSTER, 1956)
 subsp. *kendevani* (FORSTER, 1956) □ plate 6
 spec.? *dizinensis* (SCHURIAN, 1982) □ plate 6
 subsp. *pseudoxerxes* (FORSTER, 1956)
- carmonides* ECKWEILER, 1997 □ plate 6
- cyaneus* (STAUDINGER, 1899)
 subsp. *cyaneus* (STAUDINGER, 1899) □ plate 6
 syn.? *pseudocyaneus* (FORSTER, 1956)
 spec.? *merhaba* DE PRINS, VAN DER POORTEN,
 BORIE, OORSCHOT, RIEMIS & COENEN, 1991 □ plate 6
 subsp. *xerxes* (STAUDINGER, 1899)
 subsp. *paracyaneus* (DE LESSE, 1963)
 subsp. *damalis* (RILEY, 1921)
 subsp. *fredi* ECKWEILER, 1997 □ plate 6
 subsp. *kermansis* (DE LESSE, 1962)
- zarathustra* ECKWEILER, 1997 □ plate 6
- actis* (HERRICH-SCHÄFFER, [1851]) □ plate 6
 syn. *atys* (GERHARD, [1851])
 syn. *athis* (FREYER, [1851])
- firdussii* (FORSTER, 1956)
 subsp. *ernesti* ECKWEILER, 1989 □ plate 7
 subsp. *sertavulensis* (KOÇAK, 1979)
 subsp. *maraschi* (FORSTER, 1956)
 subsp. *pseudactis* (FORSTER, 1960)
 subsp. *firdussii* (FORSTER, 1956) □ plate 7
- pfeifferi* (BRANDT, 1938) □ plate 7

- wagneri* (FORSTER, 1956) □ plate 7
- altivagans* (FORSTER, 1956)
- subsp. *altivagans* (FORSTER, 1956) □ plate 7
- spec.? *gorbunovi* DANTCHENKO & LUKHTANOV, 1994 □ plate 7
- spec.? *ectabanensis* (DE LESSE, 1963) □ plate 7
- turcicus* (KOÇAK, 1977)
- subsp. *turcicus* (KOÇAK, 1977) □ plate 7
- spec.? *charmeuxi* (PAGÈS, 1994)
- tankeri* (DE LESSE, 1960) □ plate 8
- iphigenia* (HERRICH-SCHÄFFER, [1847])
- subsp. *nonacriensis* (BROWN, 1977)
- subsp. *iphigenia* (HERRICH-SCHÄFFER, [1847]) □ plate 8
- spec.? *iphicarmon* ECKWEILER & ROSE, 1993 □ plate 8
- subsp. *barthae* (PFEIFFER, 1932)
- subsp. *araratensis* (DE LESSE, 1957)
- spec.? *iphidamon* (STAUDINGER, 1899) □ plate 8
- damon* ([DENIS & SCHIFFERMÜLLER], 1775)
- subsp. *damon* ([DENIS & SCHIFFERMÜLLER], 1775) □ plate 8
- subsp. *biton* (SULZER, 1776)
- syn.? *ferreti* (FAVRE, 1903)
- syn.? *ultramarinus* (SCHAWERDA, 1924)
- syn.? *rufosaturior* (VERITY, 1943)
- syn.? *clarior* (VERITY, 1943)
- subsp. *noguerae* (DE SAGARRA, 1924)
- syn.? *cabrerae* (DE SAGARRA, 1930)
- syn.? *meinsii* (GOMEZ-BUSTILLO, 1971)

- subsp. *acutus* (AGENJO, [1973])
- subsp. *meridiocassus* (VERITY, 1951)
- subsp. *ausonius* (VERITY, 1914)
 - syn.? *centralitalicus* (DANNEHL, 1927)
- subsp. *zhicharevi* (SOVINSKY, 1915)
- subsp. *kotshubeji* (SOVINSKY, 1915)
- subsp. *merzbacheri* (COURVOISIER, 1913)
- subsp. *mongolensis* (KOÇAK, 1980)

baytopi (DE LESSE, 1959)

- subsp. *baytopi* (DE LESSE, 1959) □ plate 8

- spec.? *rovshani* DANTCHENKO & LUKHTANOV, 1994 □ plate 8

mofidii (DE LESSE, 1963)

□ plate 8

posthumus (CHRISTOPH, 1877)

□ plate 9

phyllis (CHRISTOPH, 1877)

- subsp. *zeitunus* (FORSTER, 1960)

- subsp. *vanensis* (DE LESSE, 1957)

- subsp. *dagestanicus* (FORSTER, 1960)

- subsp. *sheljuzhkoii* (FORSTER, 1960)

- subsp. *nekrutenkoi* DANTCHENKO & LUKHTANOV, 1994

- subsp. *phyllis* (CHRISTOPH, 1877) □ plate 9

iphigenides-group*muelleriae* ECKWEILER, 1997

□ plate 9

iphigenides (STAUDINGER, 1886)

- subsp. *karatavicus* LUKHTANOV, 1990
- subsp. *iphigenides* (STAUDINGER, 1886) □ plate 9
- spec.? *melanius* (STAUDINGER, 1886) □ plate 9
- subsp. *ishkashimicus* SHCHETKIN, 1986 □ plate 9

juldusus (STAUDINGER, 1886)

- subsp. *kasachstanus* LUKHTANOV & DANTCHENKO, 1994 □ plate 9
- subsp. *juldusus* (STAUDINGER, 1886) □ plate 9
- syn.? *duplicatus* (BANG-HAAS (A.), 1910)
- subsp. *kirgisorum* LUKHTANOV & DANTCHENKO, 1994
- subsp. *rueckbeili* (FORSTER, 1960)

poseidonides (STAUDINGER, 1886)

- subsp. *danilevskyi* DANTCHENKO, 1994 □ plate 10
- subsp. *poseidonides* (STAUDINGER, 1886) □ plate 10
- subsp. *rickmersi* (FORSTER, 1956)
- subsp. *florenciae* (TYTLER, 1926)
- syn.? *evansi* (FORSTER, 1956)

actinides (STAUDINGER, 1886)

- subsp. *actinides* (STAUDINGER, 1886) □ plate 10
- spec.? *praeactinides* (FORSTER, 1960) □ plate 10
- subsp. *weidenhofferi* ECKWEILER, 1997

afghanicus (FORSTER, 1973)

□ plate 10

phyllides (STAUDINGER, 1886)

- subsp. *askhabadicus* (FORSTER, 1960)
- subsp. *kentauensis* LUKHTANOV, 1990
- subsp. *phyllides* (STAUDINGER, 1886) □ plate 10

dagmara-group

dagmara (GRUM-GRSHIMAILO, 1888) □ plate 10

pulcher (SHELJUZHKO, 1928) □ plate 10

subsp. *chaburobatus* TSCHIKOLOWEZ, 1992

subsp. *pulcher* (SHELJUZHKO, 1928) □ plate 10

erschoffii-group

bogra EVANS, 1932

spec.? *baltazardi* (DE LESSE, 1962) □ plate 11

subsp. *taftanus* ECKWEILER, 1997 □ plate 11

subsp. *bogra* EVANS, 1932 □ plate 11

syn.? *afghanistanus* (FORSTER, 1972)

glaucias (LEDERER, 1871) □ plate 11

erschoffii (LEDERER, 1869)

subsp. *erschoffii* (LEDERER, 1869)

subsp. *tekkeanus* (CHRISTOPH, 1887) □ plate 11

subsp. *pashtu* ECKWEILER, 1997 □ plate 11

magnificus (GRUM-GRSHIMAILO, 1885) □ plate 11

syn.? *superbus* (STAUDINGER, 1887)

avinovi STCHETKIN, 1980

subsp. *avinovi* STCHETKIN, 1980 □ plate 11

subsp. *dangara* ECKWEILER, 1997

Part II: Comments

actinides (STAUDINGER, 1886)

Species in the *iphigenides*-group. Formerly regarded as conspecific with *actis* (FORSTER 1960–1961, KORSHUNOV 1972), a species which does not occur in Central Asia.

actis (HERRICH-SCHÄFFER, [1851])

Species in the *damon*-group. Chromosome number: $n = 27$ (DE LESSE 1962b). The three taxa *actis* HERRICH-SCHÄFFER, *athis* FREYER, and *atys* GERHARD were apparently all based on material collected by KINDERMANN in central Turkey, and, on the basis of the three descriptions, the different names can confidently be regarded as synonyms. All three nominal taxa, however, were published in short intervals during 1851, and their exact dates of publication and the question of priority are still partly contentious (e.g., KOÇAK 1980). Here, for the principle of stability, we follow previous authors and accept the long established name *actis* HERRICH-SCHÄFFER as valid for this taxon (STAUDINGER 1899, FORSTER 1960, HESSELBARTH et al. 1995). For a final decision, the case should perhaps be submitted to the International Commission on Zoological Nomenclature.

acutus (AGENJO, [1973])

Subspecies of *damon* (*damon*-group).

admetus (ESPER, [1783])

Species in the *admetus*-group. Chromosome number (ex Bulgaria): $n = 80$ (DE LESSE 1960b).

afghanicus (FORSTER, 1973)

Species in the *iphigenides*-group.

afghanistanus (FORSTER, 1972)

Probably a synonym or a subspecies of *bogra* (*erschoffii*-group).

agenjoi (FORSTER, 1965)

Subspecies of *ripartii* (*admetus*-group). Chromosome number: $n = 88-90$ (MUNGUIRA et al. 1995). Originally described as a subspecies of *admetus*, a species which does not occur in western Europe, the taxon has been associated with *fabressei* (MANLEY & ALLCARD 1970) or treated as a separate species (e.g., KOLEV & DE PRINS 1995). According to recent chromosome studies, it differs from *fabressei* but corresponds well to *ripartii* (DE LESSE 1968, MUNGUIRA et al. 1995).

ainsae (FORSTER, 1961)

Possibly a subspecies of *dolus* or a separate species in the *dolus*-group. The taxon is closely related and allopatric in distribution to *dolus* and *fulgens*. It has sometimes been treated as a separate species based on differences in chromosome number (e.g., HIGGINS & RILEY 1983, KUDRNA 1986, MUNGUIRA et al. 1995): *ainsae*: n = 108-110; *dolus*: n = 123-125; *fulgens*: n = 103 (DE LESSE 1962a, DE LESSE 1966, MUNGUIRA et al. 1995).

alcestis (ZERNY, 1932)

Species in the *admetus*-group. Chromosome number (ex Lebanon): n = 19 (DE LESSE 1960b).

alpestris (FREYER, [1851])

Synonym of *carmon* (*damon*-group). See also under *carmon*.

altaicus (ELWES, 1899)

Subspecies of *damone* (*damon*-group). Chromosome number: n = 62-65 (LUKHTANOV 1989)

altaiensis (FORSTER, 1956)

Probably a synonym of *altaicus* or a separate subspecies of *damone* (*damon*-group). Known only from the unique holotype, the identity of this taxon remains questionable; it could equally represent a separate species or simply an aberration. In any case, the taxon seems closely related to *damone* and not to *carmon* as originally suggested (FORSTER 1960-1961, KORSHUNOV 1972), a species which does not occur in Siberia.

altivagans (FORSTER, 1956)

Species in the *damon*-group. Chromosome number (ex Turkey): n = 18-23 (DE LESSE 1962b).

amasyensis (DE LESSE, 1961)

Subspecies of *demavendi* (*admetus*-group). Chromosome number (ex Amasya): n = 70 (DE LESSE 1961b).

anatoliensis (FORSTER, 1960)

Subspecies of *admetus* (*admetus*-group). Chromosome number (ex Turkey): n = 78-80 (DE LESSE 1960b).

anticarmon (KOÇAK, 1983)

Species in the *damon*-group. The identity of this taxon remains somewhat mysterious, as the original description is very short and without illustration, the exact type locality has not been indicated (KOÇAK 1981–1983), and type material has never been made available for examination. Probably for these reasons, the exact position of this taxon was left unresolved by HESSELBARTH et al. (1995) in their comprehensive treatise on the butterfly fauna of Turkey.

antidolus (REBEL, 1901)

Species in the *dolus*-group. Chromosome number (ex Turkey): 40–42 (according to HESSELBARTH et al. 1995: 704).

araratensis (DE LESSE, 1957)

Subspecies of *iphigenia* (*damon*-group). Chromosome number: $n = 13$ (DE LESSE 1957).

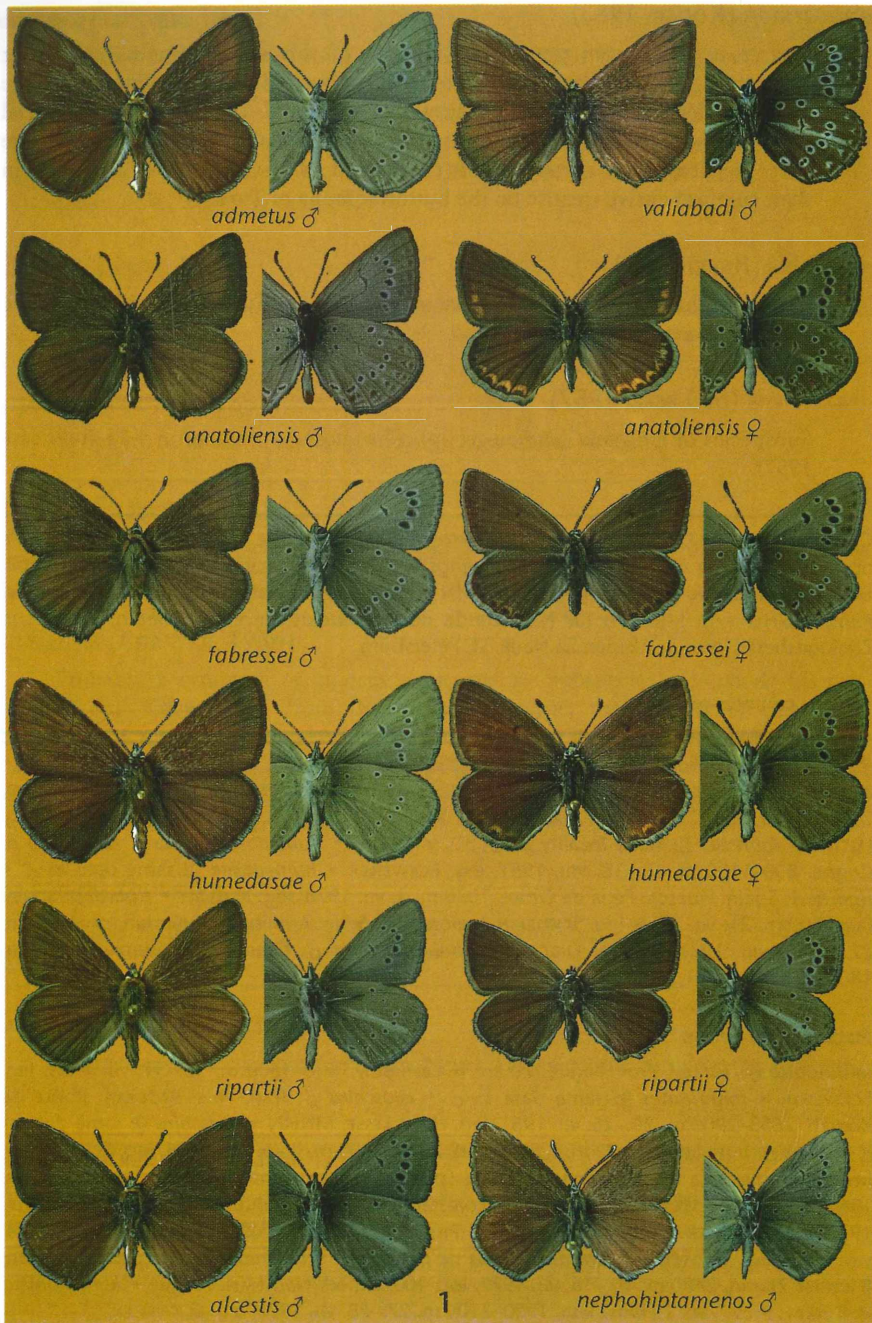
Colour plates 1–11: *Polyommatus* (*Agrodiaetus*) taxa. Each figure is composed of the whole upperside and the underside of the left wings of the same specimen. All specimen in coll. ECKWEILER, exceptions mentioned as: MNHN = in Muséum National d'Histoire Naturelle, Paris; MNHU = in Museum für Naturkunde der Humboldt-Universität, Berlin; ZIAN Zoologitsheskij Institut, Akademija Nauk, St. Petersburg.

Plate 1: *admetus*-group

admetus ♂: Macedonia: Ochrid, Petrina Planina, 24. VII. 1982, leg. HOLLÄNDER • *anatoliensis* ♂: Turkey, Prov. Adana: Pozanti, Tekir, 1400–1700 m, 27.–28. VII. 1983, leg. ECKWEILER • *anatoliensis* ♀: same data as ♂ • *valiabadi* ♂: Iran: Mazanderan, Vali-abad, ca. 1650 m, 21. VII. 1979, leg. C. NAUMANN • *fabressei* ♂: Spain, Prov. Teruel: Alberacin, 20. VII. 1969, leg. LUCIEN • *fabressei* ♀: same locality as ♂: 19. VII. 1969 • *humedasaе* ♂: Italy: Aosta, Val di Cogne, 800–1100 m, 12.–18. VIII. 1981, leg. ECKWEILER • *humedasaе* ♀: same data as ♂ • *ripartii* ♂: Spain: Huesca: Pena de Oroel, 1080 m, 3. VII. 1978, leg. RESHÖFT • *ripartii* ♀: Spain: Jaca, 700 m, 21. VII. 1976, leg. SCHURIAN • *alcestis* ♂: Syria: Antilibanon, Bludan, ca. 1600 m, 27. VII.–5. VIII. 1981, leg. M. DIETZ • *nephoiptamēnos* ♂: Greece: Macedonia, Pangeon, 1800 m, 5. VIII. 1981, leg. COUTSIS.

Plate 2: *dolus*-group

mithridates ♂: Turkey, Prov. Niğde: 20 km N Camardi, 1600–1800 m, 30.–31. VII. 1983, leg. ECKWEILER • *mithridates* ♀: same data as ♂ • *ardschira* ♂: Iran: Fars, Ardekan, Route de Komeh, 2650–2900 m, 20.–25. VII. 1961, leg. H. DE LESSE, MNHN • *ardschira* ♀: same data as ♂ • *peilei* ♂: Iran: Lorestan, Dorud, Saravand, 2000–2300 m, 2.–5. VIII. 1979, leg. ECKWEILER • *peilei* ♀: same data as ♂ • *sennanensis* ♂: (paratype) Iran: Sanadaj, Route Sakkez, 28. VII. 1961, leg. H. DE LESSE • *morgani* ♂: Iran: Lorestan, Dorud, Saravand, 2000–2300 m, 2.–5. VIII. 1979, leg. GÖRGNER • *antidolus* ♂: Turkey, Prov. Hakkari: vic. Hakkari, ca. 2000 m, 21.–24. VIII. 1979, leg. ECKWEILER • *antidolus* ♀: same data as ♂ • *femininoides* ♂: (paratype) Iran: 8 km NE Ziāran, 2400 m, 10.–16. VII. 1977, loc. 400, Exped. Nat. Mus. Prague • *kurdistanicus* ♂: Turkey, Prov. Van: 10 km S Van, 1900–2100 m, 27.–28. VII. 1978, leg. ECKWEILER.





ardschira (BRANDT, 1938)

Species in the *dolus*-group. Chromosome number: $n = 113-115$ (DE LESSE 1961d).

aroaniensis (BROWN, 1976)

Possibly a subspecies of *fabressei* or a separate species in the *admetus*-group. The taxon is closely related to *budashkini*, *fabressei*, and *humedasae*, to which it is allopatric in distribution. It has often been treated as a separate species based on morphometric data of male genitalia (WAKEHAM-DAWSON & SPURDENS 1994) and differences in chromosome number (e.g., BROWN & COUTSIS 1978, HIGGINS & RILEY 1983, KOLEV & DE PRINS 1995, DE PRINS & IVERSEN 1996): *aroaniensis*: $n = 15-16$; *fabressei*: $n = 90$; *humedasae*: $n = 38$ (according to HESSELBARTH et al. 1995: 703).

aserbeidschanus (FORSTER, 1956)

Possibly a subspecies of *transcaspicus* or a separate species in the *damon*-group. The taxon is closely related to *damonides*, *elbursicus*, *ninae*, and *transcaspicus*, to which it is apparently mostly allopatric in distribution. Recently, it has often been treated as a separate species based on differences in chromosome number (e.g., LUKHTANOV 1989, CARBONELL 1993): *aserbeidschanus*: $n = 22-23$; *elbursicus*: $n = 16-17$; *ninae*: $n = 33-37$; *transcaspicus*: $n = 52-53$ (according to HESSELBARTH et al. 1995: 705).

askhabadicus (FORSTER, 1960)

Subspecies of *phyllides* (*iphigenides*-group). Chromosome number: $n = \text{ca. } 61-63$ (DE LESSE 1963a).

athis (FREYER, [1851])

Synonym of *actis* (*damon*-group). See also under *actis*.

atys (GERHARD, [1851])

Synonym of *actis* (*damon*-group). See also under *actis*.

ausonius (VERITY, 1914)

Subspecies of *damon* (*damon*-group).

avajicus (BLOM, 1979)

Subspecies of *transcaspicus* (*damon*-group). The taxon is closely related to *aserbeidschanus*, *damonides*, *elbursicus*, and *ninae*, to which it is apparently allopatric in distribution. Some of these taxa are held to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995). See also under *aserbeidschanus*, *elbursicus*, and *ninae*.

avinovi STCHETKIN, 1980

Species in the *erschoffii*-group.

baltazardi (DE LESSE, 1962)

Possibly a subspecies of *bogra* or a separate species in the *erschoffii*-group. The taxon is closely related but allopatric in distribution to *bogra* (ECKWEILER 1997).

barthae (PFEIFFER, 1932)

Subspecies of *iphigenia* (*damon*-group).

baytopi (DE LESSE, 1959)

Species in the *damon*-group. Chromosome number: $n = 27$ (DE LESSE 1959c).

biton (SULZER, 1776)

Subspecies of *damon* (*damon*-group).

bogdoolensis DANTCHENKO & LUKHTANOV, 1997

Subspecies of *damone* (*damon*-group).

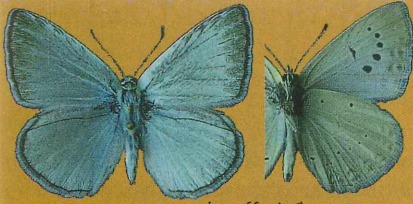
Plate 3: *dolus*-group, *dama*-group

menalcas ♂: Turkey, Prov. Niğde: 20 km N Camardı, 1600–1800 m, 30.–31. VII. 1983, leg. ECKWEILER • *menalcas* ♀: same data as ♂ • *dolus* ♂: France, Prov. Var: Rians, 12. VII. 1975, leg. ECKWEILER • *dolus* ♀: same data as ♂ • *ainsae* ♂: Spain: Jaca, Col Bernues, 1400 m, 29. VII. 1970, leg. LUCIEN • *hamadanensis* ♂: Iran: Lorestan, Dorud, Saravand, 2000–2300 m, 2.–5. VIII. 1979, leg. ECKWEILER • *hamadanensis* ♀: same data as ♂ • *karindus* ♂: Iran: Lorestan, Dorud, Saravand, 2000–2300 m, 2.–5. VIII. 1979, leg. ECKWEILER • *dama* ♂: (syntype) [Turkey] Malatia, [18]84, [leg.] Man[iissadjan], MNHU • *dama* ♀: same data as ♂ • *theresiaae* ♂: (paratype) Turkey, Prov. Adana: 7–15 km N Saimbeyli, 1300–1500 m, 18.–19. VII. 1991, leg. ECKWEILER • *theresiaae* ♀: Turkey, Prov. Konya: vic. Taşkent, 1400–1600 m, 18.–19. VII. 1993, leg. SCHURIAN.

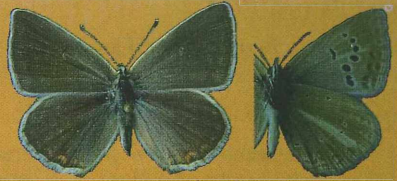
Plate 4: *damon*-group

hopfferi ♂: Turkey, Prov. Konya: 27 km W Konya, 1300–1400 m, 22. VII. 1991, leg. ECKWEILER • *hopfferi* ♀: same data as ♂ • *poseidon* ♂: Turkey, Prov. Niğde: 20 km N Camardı, 1600–1800 m, 30.–31. VII. 1983, leg. ECKWEILER • *poseidon* ♀: same data as ♂ • *mesopotamicus* ♂: Turkey, Prov. Maraş: 10 km E K. Maraş, 1000 m, 20. VII. 1991, leg. ECKWEILER • *mesopotamicus* ♀: same data as ♂ • *deebi* ♂: Syria: Antilibanon, Bludan, ca. 1600 m, 1. VII. 1981, leg. M. DIETZ • *deebi* ♀: same locality as ♂: 27. VII.–5. VIII. 1981. • *damocles* ♂: Russia: Ural m., Kisilskaja, leg. RANGNOW • *altaicus* ♂: Russia: Altai, Chermal, 400–600 m, 20. VI. 1988, leg. SAZONOV • *damone* ♂: (lectotype) [Russia] Sergiewsk, coll. EVERS-MANN, ZIAN • *damone* ♀: (paralectotype) same data as ♂, ZIAN.

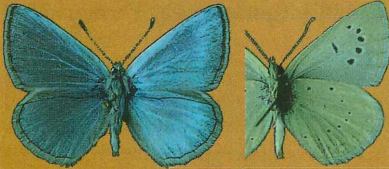




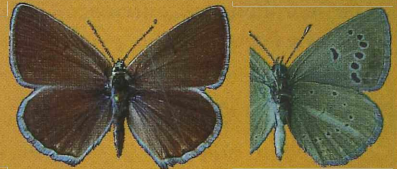
hopferi ♂



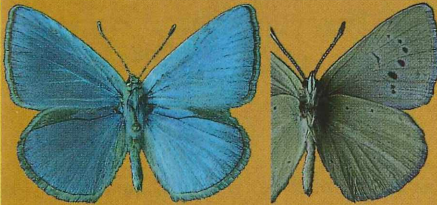
hopferi ♀



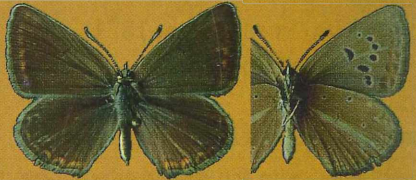
poseidon ♂



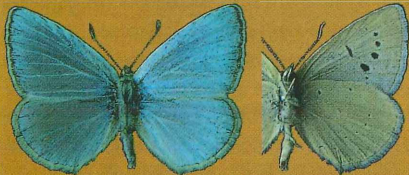
poseidon ♀



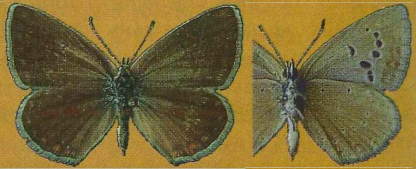
mesopotamicus ♂



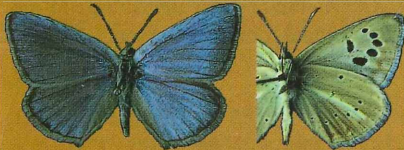
mesopotamicus ♀



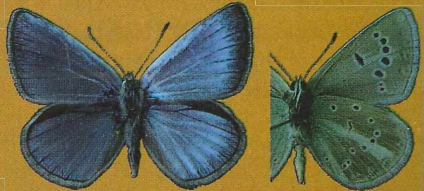
deebi ♂



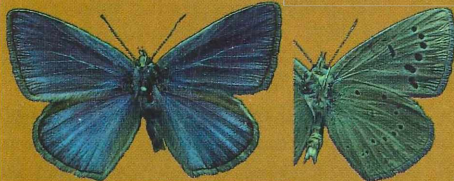
deebi ♀



damocles ♂



altaicus ♀



damone ♂



damone ♀

bogra EVANS, 1932

Species in the *erschoffii*-group.

budashkini KOLEV & DE PRINS, 1995

Possibly a subspecies of *fabressei* or a separate species in the *admetus*-group. The taxon is closely related to *aroaniensis*, *fabressei*, and *humedasmae*, from which it is geographically well separated. It has been regarded as a separate species based on morphometric differences in male genitalia (KOLEV & DE PRINS 1995, DE PRINS & IVERSEN 1996).

cabrerana (DE SAGARRA, 1930)

Probably a synonym of *noguerae* or a separate subspecies of *damon* (*damon*-group).

caeruleus (STAUDINGER, 1871)

Species in the *damon*-group.

carmon (HERRICH-SCHÄFFER, [1851])

Species in the *damon*-group. Chromosome number (ex Turkey): $n = 81-82$ (DE LESSE 1963b). The four taxa *alpestris* FREYER, *carmon* HERRICH-SCHÄFFER, *eurypilus* GERHARD, and *kindermannii* LEDERER were evidently all based on material collected by KINDERMANN in central Turkey, probably around Amasia, and, on the basis of the four descriptions, the different names can confidently be regarded as synonyms. All four nominal taxa, however, were published in short intervals during 1851 and 1852, and their exact dates of publication and the question of priority are still partly contentious (KOÇAK 1980, SCHURIAN 1984). Here, for the principle of stability, we follow previous authors and accept the long established name *carmon* HERRICH-SCHÄFFER as valid for this taxon (STAUDINGER 1899, FORSTER 1956, HESSELBARTH et al. 1995). For a final decision, the case should perhaps be submitted to the International Commission on Zoological Nomenclature.

carmonides ECKWEILER, 1997

Species in the *damon*-group. Chromosome number: $n = 15-16$ (LUKHTANOV 1989).

centralitalicus (DANNEHL, 1927)

Probably a synonym of *ausonius* or a separate subspecies of *damon* (*damon*-group).

chaburobatus TSCHIKOLOWEZ, 1992

Subspecies of *pulcher* (*dagmara*-group).

charmeuxi (PAGÈS, 1994)

Possibly a subspecies of *turcicus* or a separate species in the *damon*-group. The taxon is closely related but apparently allopatric in distribution to *turcicus*. It has been treated as a separate species based on differences in wing coloration and pattern (HESSELBARTH et al. 1995).

clarior (VERITY, 1943)

Probably a synonym of *biton* or a separate subspecies of *damon* (*damon*-group).

cyaneus (STAUDINGER, 1899)

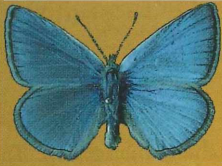
Species in the *damon*-group. Chromosome number (ex Turkey): $n = 18-20$ (DE LESSE 1963b)

Plate 5: *damon*-group

caeruleus ♂: Iran: Schahkuh • *caeruleus* ♀: Iran: Hyrcania, Schahkuh, 23. VII. • *transcaspicus* ♂: Turkmenia: Kopetdag, Nokhur, 1500 m, 9. VII. 1991, leg. TUZOV • *transcaspicus* ♀: same data as ♂ • *transcaspicus* ♂ ST: (syntype?) [Turkmenia], [Achal-]Tekke, [18]94, [leg.] WILD, MNHU • *transcaspicus* ♀ ST: (syntype?) same data as ♂, MNHU • *aserbeidschanus* ♂: Azerbaydzhan: Talysh, Zuvand, 11. VII. 1986, leg. GORBUNOV • *elbursicus* ♂: Iran: Mazandaran, Kendevan-Nordseite, 2600–2800 m, 29. VII. 1979, leg. ECKWEILER • *damonides* ♂: (lectotype) [Azerbaydzhan] Ordubad [leg.] CHR[ISTOPH], 10. VII. [18]81, MNHU • *turcicola* ♂: Turkey, Prov. Van: 10 km S Van, 1900–2100 m, 27.–28. VII. 1978, leg. ECKWEILER • *ninae* ♂: Turkey, Prov. Kars: 8 km W Kazikoporan, 2300–2500 m, 13.–15. VIII. 1977, leg. ECKWEILER • *anti-carmon* ♂: Turkey, Prov. Kars: 8 km W Kazikoporan, 2300–2500 m, 16.–21. VII. 1977, leg. ECKWEILER.

Plate 6: *damon*-group

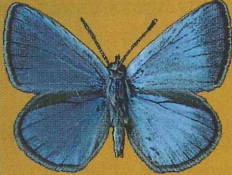
carmon ♂: Turkey, Prov. Adana: 7–15 km N Saimbeyli, 1300–1500 m, 18.–19. VII. 1991, leg. ECKWEILER • *carmonides* ♂: Russia: Caucasus, Kislovodsk, Podkumok, 800 m, 25. VII.–15. VIII. 1992, leg. A. DANTCHENKO • *carmonides* ♀: same data as ♂ • *kendevani* ♂: Iran: [Mazandaran] Kendevanpass, 2600–3100 m, 3.–8. VII. 1936, leg. SCHWINGENSCHUSS • *dizinensis* ♂: (paratype) Iran: Prov. Teheran, Dizin bei Gajereh, 3000 m, 7. VIII. 1979, leg. SCHURIAN • *merhaba* ♂: (paratype) [Turkey, Prov. Artvin], Yusufeli, 23. VII. 1991, leg. BORIE • *cyaneus* ♂: (lectotype) [Armeniya] Hankynda, coll. LEDERER, MNHU • *fredi* ♂: Iran: Fars, Straße Ardakan–Talochosroe, Comèe, ca. 2600 m., 26. VI. 1937, leg. F. BRANDT • *fredi* ♀: same data as ♂ • *zarathustra* ♂: (paratype) Iran: Lorestan, Dorud, Saravand, 2000–2300 m, 2.–5. VIII. 1979, leg. ECKWEILER • *actis* ♂: Turkey, Prov. Niğde: Camardı, Cukurbağ, 1600–2000 m, 1.–6. VIII. 1983, leg. ECKWEILER • *actis* ♀: Turkey, Prov. Niğde: Camardı, Ala Dağ, 2100–2500 m, 3.–5. VIII. 1983, leg. ECKWEILER.



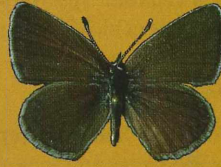
caeruleus ♂



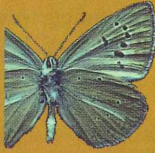
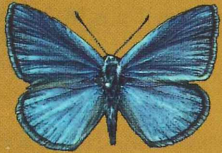
caeruleus ♀



transcaspicus ♂



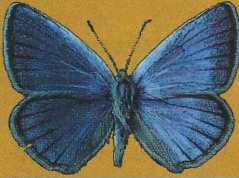
transcaspicus ♀



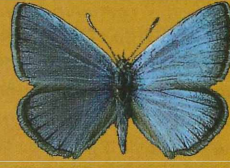
transcaspicus ♂ ST



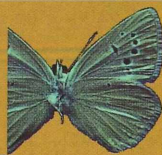
transcaspicus ♀ ST



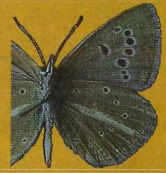
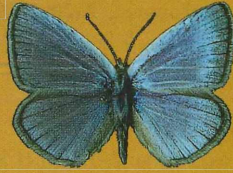
aserbeidschanus ♂



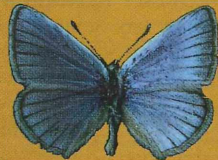
elbursicus ♂



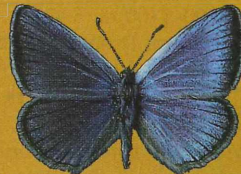
damonides ♂



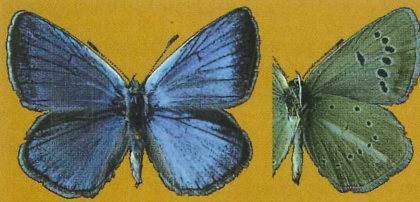
turcicola ♂



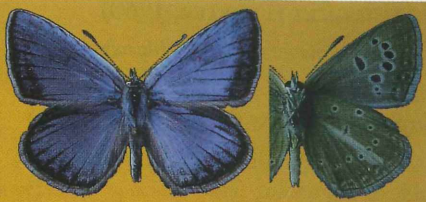
ninae ♂



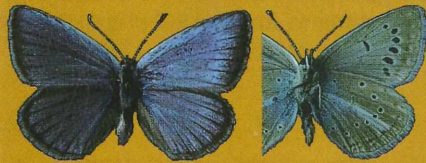
anticarmon ♂



carmon ♂



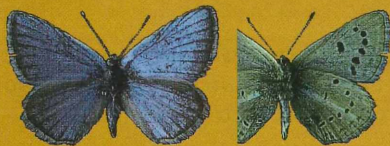
carmonides ♂



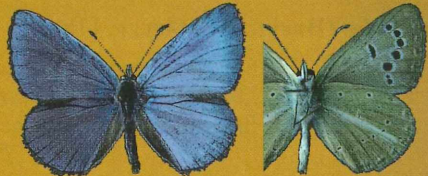
kendevari ♂



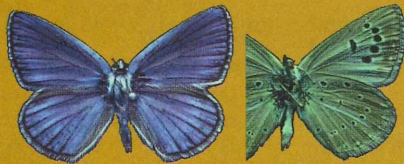
carmonides ♀



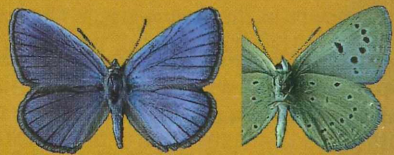
dizinensis ♂



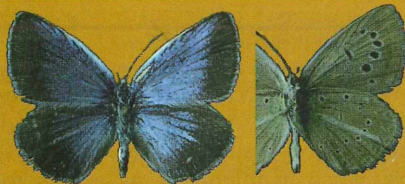
merhaba ♂



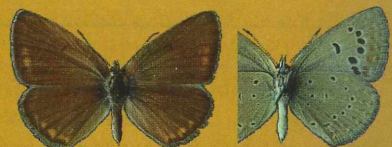
cyaneus ♂



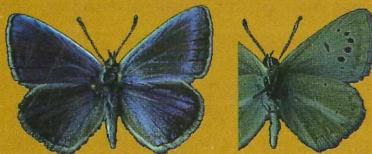
fredi ♂



zarathustra ♂



fredi ♀



actis ♂



actis ♀

dagestanicus (FORSTER, 1960)

Subspecies of *phyllis* (*damon*-group).

dagmara (GRUM-GRSHIMAILO, 1888)

Species in the *dagmara*-group.

dama (STAUDINGER, 1892)

Species in the *dama*-group. Chromosome number (ex Turkey): $n = 41-42$ (DE LESSE 1959a).

damalis (RILEY, 1921)

Subspecies of *cyaneus* (*damon*-group).

damocles (HERRICH-SCHÄFFER, [1844])

Species in the *damon*-group. The taxon was long treated as a synonym of *damone* (e.g., STAUDINGER 1899, FORSTER 1956) until DANTCHENKO & LUKHTANOV (1993) demonstrated the sympatric occurrence of two species.

damon ([DENIS & SCHIFFERMÜLLER], 1775)

Species in the *damon*-group. Chromosome number (ex France): $n = 45$ (according to HESSELBARTH et al. 1995: 704).

damone (EVERSMANN, 1841)

Species in the *damon*-group. Chromosome number (ex Russia): $n = 66-68$ (LUKHTANOV et al. 1997).

damonides (STAUDINGER, 1899)

Possibly a subspecies of *transcaspicus* or a separate species in the *damon*-group. The taxon is closely related to *aserbeidschanus*, *elbursicus*, *ninae*, and *transcaspicus*, to which it is apparently mostly allopatric in distribution. Some of these taxa are held to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995). See also under *aserbeidschanus*, *elbursicus*, *ninae*, and *transcaspicus*.

dangara ECKWEILER, 1997

Subspecies of *avinovi* (*erschoffii*-group).

danilevskyi DANTCHENKO, 1994

Subspecies of *poseidonides* (*iphigenides*-group). Originally placed with *ishkashimicus*, which we regard here as conspecific with *iphigenides*.

deebi (LARSEN, 1974)

Possibly a subspecies of *poseidon* or a separate species in the *damon*-group. The taxon is closely related but allopatric in distribution to *poseidon*. It has been treated as a separate species based on differences in chromosome number (e.g., LARSEN 1975, CARBONELL 1994): *deebi*: n = 17; *poseidon*: n = 19–23 (according to CARBONELL 1994, and HESSELBARTH et al. 1995: 704).

demavendi (PFEIFFER, 1938)

Species in the *admetus*-group. Chromosome number: n = 67–70 (DE LESSE 1960b).

Plate 7: *damon*-group

firdussii ♂: Iran: Elburz Central, Demavend, 2800–3000 m, 28. vi. 1963, leg. LUCIEN • *firdussii* ♀: same locality as ♂: 19. vi. 1967 • *ernesti* ♂: (holotype) Turkey, Prov. Antalya: Kohu Dağları, Elmalı, Dokuz Gölü, 1700–2000 m, 23. vii. 1986, leg. ECKWEILER • *pfeifferi* ♂: Iran: Fars, Ardekan, Route de Komeh, 2650–2900 m, 20.–25. vii. 1961, leg. H. DE LESSE • *wagneri* ♂: Turkey, Prov. Niğde: 20 km N Camardı, 1600–1800 m, 30.–31. vii. 1983, leg. ECKWEILER • *wagneri* ♀: same data as ♂ • *altivagans* ♂: Azerbaydzhan: Nachichevan, Zangezör r., 3100 m, 22. vii. 1970, leg. TSVETAJEV • *gorbunovi* ♂: (paratype) Azerbaydzhan, Talysh, Zuvand, 12. vii. 1984, leg. A. DANTCHENKO • *ectabanensis* ♂: Iran: Hamedan, Avaj, 2000–2300 m, 1. viii. 1979, leg. ECKWEILER • *ectabanensis* ♀: same data as ♂ • *turcicus* ♂: Turkey, Prov. Kars: 8 km W Kazikoporan, 2200–2500 m, 16.–21. vii. 1977, leg. ECKWEILER • *turcicus* ♀: same data as ♂.

Plate 8: *damon*-group

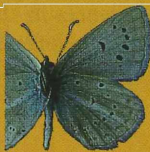
iphigenia ♂: Turkey, Prov. Kayseri: ca. 40 km NW Saimbeyli, Gezbeyli Gecidi, 1800–2000 m, 18.–19. vii. 1991, leg. ECKWEILER • *iphigenia* ♀: same data as ♂ • *iphicarmon* ♂: (holotype) Turkey, Prov. İsparta: Eğirdir, Dedegöl Dağ, 1500–1800 m, 23.–25. vii. 1991, leg. ECKWEILER • *iphidamon* ♂ LT: (lectotype) [Iran] Schahkuh [leg.] CHR[ISTOPH], 17. vi., MNHU • *iphidamon* ♂: Iran: Elburz Central, Demavend, 2800–3000 m, 11. vi. 1967, leg. LUCIEN • *damon* ♂: Germany: Fränkische Schweiz, Pottenstein, 20. vii. 1975, leg. ECKWEILER • *damon* ♀: same data as ♂ • *tankeri* ♂: Turkey, Prov. Erzurum: 7 km S Erzurum, 2300–2500 m, 24. vii.–2. viii. 1977, leg. ECKWEILER • *baytopi* ♂: Turkey, Prov. Kars: 8 km W Kazikoporan, 2200–2500 m, 16.–21. vii. 1977, leg. ECKWEILER • *baytopi* ♀: same locality as ♂: 29.–31. vii. 1976 • *rovshani* ♂: Iran, Prov. Azerbaydzhan: 20 km W Ahar, 1700–2200 m, 1. vii. 1978, leg. ECKWEILER • *mofidii* ♂: (paratype) Iran: Kopet Dagh, Col d'Allahoakba, 1800 m, 14. vii. 1961, leg. H. DE LESSE.



firdussii ♂



firdussii ♀



ernesti ♂



pfeifferi ♂



wagneri ♂



wagneri ♀



altivagans ♂



gorbunovi ♂



ectabanensis ♂



ectabanensis ♀



turcicus ♂



turcicus ♀



difficillimus (FORSTER, 1956)

Subspecies of *transcaspicus* (*damon*-group). The taxon is closely related to *damonides*, *elbursicus*, *ninae*, and *transcaspicus*, to which it is apparently allopatric in distribution. Some of these taxa are held to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., Lukhtanov 1989, Carbonell 1993, HESSELBARTH et al. 1995). See also under *elbursicus*, *ninae*, and *transcaspicus*.

dizinensis (SCHURIAN, 1982)

Possibly a subspecies of *kendevani* or a separate species in the *damon*-group. The taxon is closely related to *kendevani*, but the two taxa occur allopatrically in the Elburs Mountains on the northern and southern slopes.

dolus (HÜBNER, [1823])

Species in the *dolus*-group. Chromosome number (ex France): $n = 123-125$ (DE LESSE 1962a, 1966).

duplicatus (BANG-HAAS (A.), 1910)

Probably a synonym or a subspecies of *juldusus* (*iphigenides*-group).

ectabanensis (DE LESSE, 1963)

Possibly a subspecies of *altivagans* or a separate species in the *damon*-group. The taxon is closely related to *altivagans* and *gorbunovi*, to which it is allopatric in distribution. Chromosome number: $n = 18$ (DE LESSE 1963d).

elbursicus (FORSTER, 1956)

Possibly a subspecies of *transcaspicus* or a separate species in the *damon*-group. The taxon is closely related to *aserbeidschanus*, *damonides*, *ninae*, and *transcaspicus*, to which it is apparently mostly allopatric in distribution. It has been treated as a separate species based on differences in chromosome number (e.g., CARBONELL 1993, HESSELBARTH et al. 1995): *elbursicus*: $n = 16-17$; *aserbeidschanus*: $n = 22-23$; *ninae*: $n = 33-37$; *transcaspicus*: $n = 52-53$ (according to HESSELBARTH et al. 1995: 705).

epidolus (BOISDUVAL, 1840)

Probably a synonym or a subspecies of *menalcas* (*dolus*-group).

eriwanensis (FORSTER, 1960)

Possibly a subspecies of *demavendi* or a separate species in the *admetus*-group. The taxon is closely related but apparently allopatric in distribution to *dema-*

vendi. It has been treated as a separate species based on differences in size and wing pattern (HESSELBARTH et al. 1995: 713).

ernesti ECKWEILER, 1989

Subspecies of *firdussii* (*damon*-group).

erschoffii (LEDERER, 1869)

Species in the *erschoffii*-group.

eurypilos (GERHARD, [1851])

Synonym of *carmon* (*damon*-group). See also under *carmon*.

evansi (FORSTER, 1956)

Probably a synonym of *florenciae* or a separate subspecies of *poseidonides* (*iphigenides*-group) (ECKWEILER 1997).

Plate 9: *damon*-group, *iphigenides*-group

posthumus ♂: (syntype) [Iran] Schahkuh [leg.] CHR[ISTOPH], 26. VII., MNHU • *phyllis* ♂: (syntype) [Iran, Schahkuh], 11. VII., [leg. CHRISTOPH], MNHU • *phyllis* ♀: Iran: Mazanderan, Elburs-Gebirge, Kendevan-Nordseite, 2500–2700 m, 7.–9. VIII. 1979, leg. ECKWEILER • *ishkashimicus* ♂: Tadjikistan, Pamir: Shugnanskyi r., Sangou–Dara, 4000 m, 26. VII. 1971, leg. V. MURZIN • *iphigenides* ♂: Usbekistan: Alai, Jordan, 2000 m, 20.–25. VII. 1987, leg. K.-H. SALPETER • *iphigenides* ♀: Usbekistan: Alai, Chamsaabad, 15. VII. 1987, leg. K.-H. SALPETER • *juldusus* ♂: (lectotype) [China, Xinjiang] Juldus [leg. ALPHÉRAKY], MNHU • *melanius* ♂: (syntype) [Tadjikistan/Kirgistan] Alai, Hb. [leg. HABERHAUER], MNHU • *kasachstanus* ♂: Kasachstan: Dshungaria, Burchansayrytau Mts., 1200m, 3. VII. 1996, leg. ZHDANKO • *kasachstanus* ♀: same data as ♂ • *muelleræ* ♂: (paratype) Pakistan: Chitral, Birmoglasht, 2700–2900 m, 6. VII. 1983, leg. ECKWEILER • *muelleræ* ♀: (paratype) same data as ♂.

Plate 10: *iphigenides*-group, *dagmara*-group

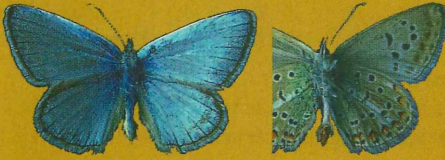
poseidonides ♂: Tadjikistan: Karategin r., Romit, 1400 m, 12. VII. 1979, leg. WEIDENHOFFER • *poseidonides* ♀: same locality as ♂: 10. VII. 1981 • *danilevskiyi* ♂: (paratype) Tadjikistan: Iskanderkul, 27. VII. 1966 • *praeactinides* ♂: Usbekistan: Tshatkalskyi r., Tshimgan, 2900 m, 15. VII. 1988, leg. K.-H. SALPETER • *actinides* ♂: (holotype) [Tadjikistan/Kirgistan] Alai [18]89 Hb. [leg. HABERHAUER], MNHU • *actinides* ♀: Kirgistan: Transalai, Aram Kungei, 2900 m, 21. VII. 1995, leg. V. LUKHTANOV • *afghanicus* ♂: Afghanistan: Kapisa, Pandshir, Kotal-e-Zerja, 4000 m, 25. VII. 1972, leg. KHORAM • *pulcher* ♂: Afghanistan: Hindu-Kush, Anjuman, Bala Quran, 3200 m, 13. VII. 1967, leg. LUCIEN • *phyllides* ♂: Usbekistan: Serafshan mts., Aman Kutan, 1600–1900 m, 15.–16. VI. 1993, leg. ECKWEILER • *phyllides* ♀: Usbekistan: Serafshan mts., Karhi, 1200–1400 m, 16. VI. 1993, leg. ECKWEILER • *dagmara* ♂: Tadjikistan: Hissar r., Varzob, 2000 m, 15.–25. VI. 1985, leg. P. SALK • *dagmara* ♀: same locality as ♂: 12.–13. VII. 1987, leg. U. SALK.



posthumus ♂



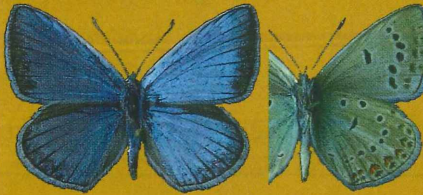
phyllis ♂



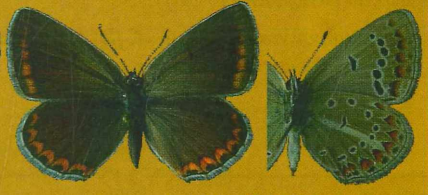
ishkashimicus ♂



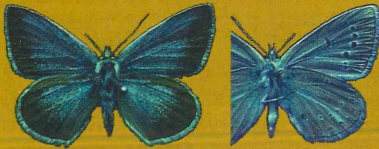
phyllis ♀



iphigenides ♂



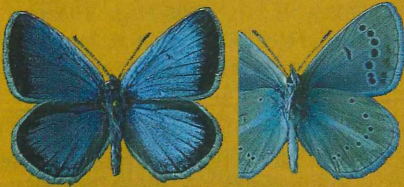
iphigenides ♀



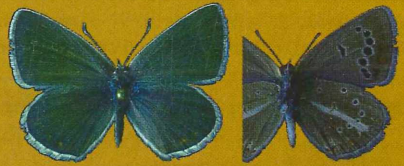
juldus ♂



melanius ♂



kasachstanus ♂



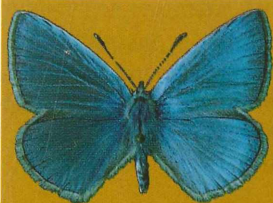
kasachstanus ♀



muellerae ♂



muellerae ♀



poseidonides ♂



poseidonides ♀



danilevskiyi ♂



praeactinides ♂



actinides ♂



actinides ♀



afghanicus ♂



phyllides ♂



pulcher ♂



phyllides ♀



dagmara ♂



dagmara ♀

exuberans (VERITY, 1926)

Probably a synonym of *rippertii* or a separate subspecies of *ripartii* (*admetus*-group). The taxon was regarded as a valid subspecies of *ripartii* by TOSO & BALLETO (1976), and even as a separate species by KUDRNA (1986), but the availability of the name *rippertii* had not been realized by these authors.

fabressei (OBERTHÜR, 1910)

Species in the *admetus*-group. Chromosome number: $n = 90$ (DE LESSE 1960b, 1961a, MUNGUIRA et al. 1995).

femininoides (ECKWEILER, 1987)

Possibly a subspecies of *antidolus* or a separate species in the *dolus*-group. The taxon is closely related and allopatric in distribution to *antidolus*, *kurdistanicus*, and *morgani*, but very distinct with regard to wing colouration (ECKWEILER 1987).

ferreti (FAVRE, 1903)

Probably a synonym of *biton* or a separate subspecies of *damon* (*damon*-group).

firdussii (FORSTER, 1956)

Species in the *damon*-group (ECKWEILER 1989). Chromosome number: $n = 31-32$ (DE LESSE 1962b).

firuze (CARBONELL, 1993)

Subspecies of *transcaspicus* (*damon*-group). The taxon is closely related to *aserbeidschanus*, *damonides*, *elbursicus*, *ninae*, and *turcicola*, to which it is apparently mostly allopatric in distribution. Some of these taxa are considered to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995). See also under *aserbeidschanus*, *elbursicus*, and *ninae*.

florenciae (TYTLER, 1926)

Subspecies of *poseidonides* (*iphigenides*-group).

fredi ECKWEILER, 1997

Subspecies of *cyaneus* (*damon*-group). Chromosome number: $n = 18-19$ (DE LESSE 1963b).

fulgens (DE SAGARRA, 1925)

Possibly a subspecies of *dolus* or a separate species in the *dolus*-group. The taxon is closely related and allopatric in distribution to *ainsae* and *dolus*. Recently, it has been treated as a separate species based on differences in chromosome number (MUNGUIRA et al. 1995, DE PRINS & IVERSEN 1996): *fulgens*: n = 103; *ainsae*: n = 108–110; *dolus*: n = 123–125 (DE LESSE 1962a, MUNGUIRA et al. 1995).

galloi (BALETTO & TOSO, 1979)

Possibly a subspecies of *ripartii* or a separate species in the *admetus*-group. The taxon is closely related and allopatric in distribution to *ripartii*, *rippertii*, and *exuberans*. It has generally been treated as a separate species based on differences in chromosome number (KUDRNA 1986, DE PRINS & IVERSEN 1996): *galloi*: n = 66; *ripartii* (Spain): n = 90; *rippertii* (France): n = 90 (according to HESSEL-BARTH et al. 1995: 703).

gargano (WIMMERS, 1931)

Subspecies of *dolus* (*dolus*-group). Chromosome number: n = 121–123 (DE LESSE 1966).

glaucias (LEDERER, 1871)

Species in the *erschoffii*-group.

gorbunovi DANTCHENKO & LUKHTANOV, 1994

Possibly a subspecies of *altivagans* or a separate species in the *damon*-group. The taxon is closely related to *altivagans* and *ectabanensis*, to which it is allopatric in distribution.

hadjinus (HEYNE, [1895])

Probably a synonym or a separate subspecies of *hopfferi* (*damon*-group). Chromosome number: n = 15 (DE LESSE 1959a).

hamadanensis (DE LESSE, 1959)

Species in the *dama*-group. Chromosome number: n = 21–22 (DE LESSE 1959a).

hopfferi (HERRICH-SCHÄFFER, [1851])

Species in the *damon*-group. Chromosome number: n = 13–16 (DE LESSE 1959a).

huberti (CARBONELL, 1993)

Probably a synonym or a separate subspecies of *anticarmon* (*damon*-group). HESSELBARTH et al. (1995) accept *huberti* as a separate species, but they do not allocate *anticarmon* specifically to any other taxon. See also under *anticarmon*.

humedasaе (TOSO & BALETTO, 1976)

Possibly a subspecies of *fabressei* or a separate species in the *admetus*-group. The taxon is closely related to *aroaniensis*, *budashkini*, and *fabressei*, to which it is allopatric in distribution. It has often been treated as a separate species based on differences in chromosome number (e.g., KUDRNA 1986, KOLEV & DE PRINS 1995, DE PRINS & IVERSEN 1996) *humedasaе*: $n = 38$; *aroaniensis*: $n = 15-16$; *fabressei*: $n = 90$ (according to HESSELBARTH et al. 1995: 703, MUNGUIRA et al. 1995).

interjectus (DE LESSE, 1960)

Possibly a subspecies of *alcestis* or a separate species in the *admetus*-group. The taxon cannot be distinguished morphologically from *alcestis*, and its original species status was exclusively based on different chromosome number (DE LESSE 1960b): *alcestis*: $n = 19-22$; *interjectus*: $n = 29-31$ (according to HESSELBARTH et al. 1995). It might possibly represent a hybrid between *alcestis* and *demavendi*, as both taxa occurred together at its type locality (HESSELBARTH et al. 1995: 711).

iphicarmon ECKWEILER & ROSE, 1993

Possibly a subspecies of *iphigenia* or a separate species in the *damon*-group. The taxon is closely related to *iphigenia* but occurs sympatrically with it, and some apparent hybrids between the two taxa have been found at the type locality (ECKWEILER & ROSE 1993).

Plate 11: erschoffii-group

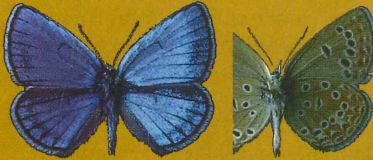
bogra ♂: Pakistan: Baluchistan, Quetta, Urak, 2400–2700 m, 24.–26. v. 1983, leg. ECKWEILER • *bogra* ♀: same locality as ♂: 23.–24. v. 1979 • *taftanus* ♂: Iran: Belutschistan, Kuh-e-Taftan, Varaj, 2200–2700 m, 17.–21. v. 1978, leg. ECKWEILER • *baltazardi* ♂: (holotype) Iran: Prov. Kerman, Kuh-i-Lalihzar, 3200 m, 28. vii. 1961, leg. H. DE LESSE, MNHN • *glaucias* ♂: Iran: Mazandaran, Golestan–Park, Dasht, 1000–1200 m, 31. v.–3. vi. 1980, leg. ECKWEILER • *glaucias* ♀: same data as ♂ • *tekkeanus* ♂: Turkmenia: Kopetdag, Dushak, 1600–1900 m, 1.–4. vii. 1991, leg. TUZOV • *tekkeanus* ♀: same data as ♂ • *pashtu* ♂: (holotype) Afghanistan, Paktia, Kotale Altimur, 2900 m, 14. vii. 1973, leg. RESHÖFT • *avinovi* ♂: (paratype) Tadschikistan: Peter-I-Mts., Chazor-Tschaschma • 2200 m, 3.–5. vi. 1976, leg. STCHETKIN. • *magnificus* ♂: Tadschikistan: Hissar r., Varzob, 2000 m, 8. vii. 1986, leg. K.-H. SALPETER • *magnificus* ♀: Tadschikistan: Karategin r., Romit, 1400 m, 2. vii. 1976, leg. J. VANEK.



bogra ♂



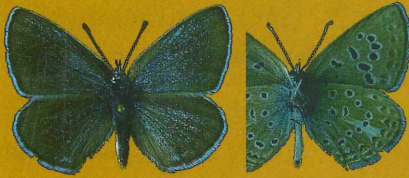
bogra ♀



taftanus ♂



baltazardi ♂



glaucias ♂



glaucias ♀



tekkeanus ♂



tekkeanus ♀



pashtu ♂



avinovi ♂



magnificus ♂



magnificus ♀

iphidamon (STAUDINGER, 1899)

Possibly a subspecies of *iphigenia* or a separate species in the *damon*-group. The taxon is closely related to *iphigenia* but is allopatric in distribution. It has sometimes been treated as a separate species (COUTSIS 1985, 1986) although chromosome numbers do not differ: *iphidamon*: n = 14 (DE LESSE 1959d); *iphigenia*: n = 12-16 (according to HESSELBARTH et al. 1995).

iphigenia (HERRICH-SCHÄFFER, [1847])

Species in the *damon*-group.

iphigenides (STAUDINGER, 1886)

Species in the *iphigenides*-group.

irinae DANTCHENKO, 1997

Subspecies of *damone* (*damon*-group).

iris (AGENJO, [1973])

Probably a synonym of *magnabrillatus* or a separate subspecies of *dolus* (*dolus*-group). The original combination as a subspecies of *damon* was most probably an error, as the author compared the new taxon in his description with *pseudovirgilius* and *vittatus* (AGENJO 1973).

ishkashimicus SHCHETKIN, 1986

Subspecies of *iphigenides* (*iphigenides*-group). The taxon is closely related and allopatric in distribution to *iphigenides*, but was treated as a separate species by DANTCHENKO (1994) based on different forewing colouration in the males.

juldusus (STAUDINGER, 1886)

Species in the *iphigenides*-group.

karatavicus LUKHTANOV, 1990

Subspecies of *iphigenides* (*iphigenides*-group).

karindus (RILEY, 1921)

Subspecies of *dama* (*dama*-group).

kasachstanus LUKHTANOV & DANTCHENKO, 1994

Subspecies of *juldusus* (*iphigenides*-group).

kendevani (FORSTER, 1956)

Species in the *damon*-group (stat. nov.). The taxon seems closely related to *carmon* as originally suggested (FORSTER 1960–1961), but *carmon* is a montane species and does not occur at higher altitudes like *kendevani*. *P. carmon* is much larger than *kendevani*, and the underside hindwing lacks the extended basal blue scaling. In North Iran (Azerbaijan) are no intermediary forms found. *P. carmon* ssp. *surakovi* from Azerbaijan is much more different from *kendevani* than typical *carmon* from Turkey. Chromosome number of ssp. *pseudoxerxes*: $n = 16$ (DE LESSE 1962b) and of *carmon* (ex Turkey): $n = 81-82$ (DE LESSE 1963b).

kentauensis LUKHTANOV, 1990

Subspecies of *phyllides* (*iphigenides*-group).

kermansis (DE LESSE, 1962)

Subspecies of *cyaneus* (*damon*-group). Chromosome number: $n = 22$ (DE LESSE 1963b).

khoshyeilaqi (BLOM, 1979)

Subspecies of *caeruleus* (comb. nov.) (*damon*-group). The taxon is closely related and allopatric in distribution to *caeruleus*, but differs in having only brown females.

kindermannii (LEDERER, 1852)

Synonym of *carmon* (*damon*-group). See also under *carmon*.

kirgisorum LUKHTANOV & DANTCHENKO, 1994

Subspecies of *juldusus* (*iphigenides*-group).

kotshubeji (SOVINSKY, 1915)

Subspecies of *damon* (*damon*-group). Chromosome number (ex Turkey): $n = 45$ (according to HESSELBARTH et al. 1995: 704).

kotzschii (FORSTER, 1956)

Subspecies of *transcaasicus* (*damon*-group).

krymaeus (SHELJUZHKO, 1928)

Subspecies of *damocles* (*damon*-group). The taxon has previously been regarded as a subspecies of *poseidon* (e.g., NEKRUTENKO 1985, BUDASHKIN & LUKHTANOV 1993, HESSELBARTH et al. 1995), but the early stages and its biology suggest a close relationship with *damocles* (DANTCHENKO 1997).

kurdistanicus (FORSTER, 1961)

Possibly a subspecies of *antidolus* or a separate species in the *dolus*-group. The taxon is closely related to *antidolus* and *morgani*, to which it is allopatric in distribution. Recently, it has been treated as a separate species based on differences in chromosome number (HESSELBARTH et al. 1995): *kurdistanicus*: n = 57-62; *antidolus*: n = 40-42; *morgani*: n = 25-26 (according to HESSELBARTH et al. 1995: 704).

larseni (CARBONELL, 1994)

Subspecies of *theresia* (*dama*-group).

lefebvreii GODART, [1824]

Probably a synonym or a subspecies of *dolus* (*dolus*-group).

lorestanus ECKWEILER, 1997

Subspecies of *demavendi* (*admetus*-group).

lycius (CARBONELL, 1996)

Possibly a subspecies of *hopfferi* or a separate species in the *damon*-group. Chromosome number: n = ca. 20-25 (CARBONELL 1996). The taxon is closely related to *hopfferi*, and also to *poseidon*, to which it is both allopatric in distribution.

magnabrillatus (GOMEZ-BUSTILLO, 1971)

Probably synonym of *pseudovirgilius* or a separate subspecies of *dolus* (*dolus*-group).

magnificus (GRUM-GRSHIMAILO, 1885)

Species in the *erschoffii*-group.

malatiae (FORSTER, 1961)

Probably a synonym or a separate subspecies of *hopfferi* (*damon*-group).

maraschi (FORSTER, 1956)

Subspecies of *firdussii* (*damon*-group). Chromosome number: n = 16 (according to HESSELBARTH et al. 1995: 705). Originally placed with *damone*, a species which does not occur in Turkey, the taxon has recently been associated with *wagneri* (HESSELBARTH et al. 1995).

meinsii (GOMEZ-BUSTILLO, 1971)

Probably a synonym of *noguerae* or a separate subspecies of *damon* (*damon*-group).

melanius (STAUDINGER, 1886)

Possibly a subspecies of *iphigenides* or a separate species in the *iphigenides*-group. The taxon is closely related to *iphigenides*, to which it is allopatric in distribution. Both taxa could possibly occur sympatrically in the Transalai or the Peter I.-Range.

menalcas (FREYER, [1837])

Species in the *dolus*-group. Chromosome number: $n = 85$ (DE LESSE 1961c).

merhaba DE PRINS, VAN DER POORTEN, BORIE, OORSCHOT, RIEMIS & COENEN, 1991

Possibly a subspecies of *cyaneus* or a separate species in the *damon*-group. The taxon is closely related to *cyaneus* and *pseudocyaneus*, to which it is allopatric in distribution. It was originally described and has been regarded as a separate species (HESSELBARTH et al. 1995) despite no differences in chromosome number: *merhaba*: $n = 17$; *cyaneus*: $n = 16-22$ (according to HESSELBARTH et al. 1995: 706).

meridiocassus (VERITY, 1951)

Subspecies of *damon* (*damon*-group).

merzbacheri (COURVOISIER, 1913)

Subspecies of *damon* (*damon*-group).

mesopotamicus (STAUDINGER, 1892)

Subspecies of *poseidon* (*damon*-group). Chromosome number: $n = 20$ (DE LESSE 1963c).

mithridates (STAUDINGER, 1878)

Species in the *dolus*-group. Chromosome number: $n = 21-27$ (DE LESSE 1960b)

mofidii (DE LESSE, 1963)

Species in the *damon*-group. Chromosome number: $n = 34-35$ (DE LESSE 1963a).

mongolensis (KOÇAK, 1980)

Subspecies of *damon* (*damon*-group).

montanesa (GOMEZ-BUSTILLO, 1971)

Probably a synonym or a separate subspecies of *ripartii* (*admetus*-group).

morgani (LE CERF, 1909)

Possibly a subspecies of *antidolus* or a separate species in the *dolus*-group. The taxon is closely related to *antidolus* and *kurdistanicus*, to which it is allopatric in distribution. Recently, it has been treated as a separate species based on differences in chromosome number (HESSELBARTH et al. 1995): *morgani*: n = 25–26; *antidolus*: n = 40–42; *kurdistanicus*: n = 57–62 (according to HESSELBARTH et al. 1995: 704).

mozuelicus (AGENJO, [1973])

Probably a synonym or a separate subspecies of *ripartii* (*admetus*-group).

muellerae ECKWEILER, 1997

Species in the *iphigenides*-group.

munzuricus (ROSE, 1978)

Subspecies of *carmon* (*damon*-group).

nekrutenkoi DANTCHENKO & LUKHTANOV, 1994

Subspecies of *phyllis* (*damon*-group).

nephohiptamenos (BROWN & COUTSIS, 1978)

Species in the *admetus*-group. The taxon occurs sympatrically with *ripartii* (ssp. *pelopi*) and *aroaniensis* (KOLEV & VAN DER POORTEN 1997), and differs in chromosome number: *nephohiptamenos*: n = ca. 8–11; *aroaniensis*: n = 15–16; *ripartii* (Turkey): n = 90 (according to HESSELBARTH et al. 1995).

ninae (FORSTER, 1956)

Possibly a subspecies of *transcaspicus* or a separate species in the *damon*-group. The taxon is closely related to *aserbeidschanus*, *damonides*, *elbursicus*, and *transcaspicus*, to which it is apparently mostly allopatric in distribution. It has been treated as a separate species based on differences in chromosome number (LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995): *ninae*: n = 33–37; *aserbeidschanus*: n = 22–23; *elbursicus*: n = 16–17; *transcaspicus*: n = 52–53 (according to HESSELBARTH et al. 1995: 705).

noguerae (DE SAGARRA, 1924)

Subspecies of *damon* (*damon*-group).

nonacriensis (BROWN, 1977)

Subspecies of *iphigenia* (*damon*-group). Chromosome number: $n = 10-13$ (according to HESSELBARTH et al. 1995: 706).

paracyaneus (DE LESSE, 1963)

Subspecies of *cyaneus* (*damon*-group). Chromosome number: $n = 19-20$ (DE LESSE 1963b).

paralcestis (FORSTER, 1960)

Subspecies of *ripartii* (*admetus*-group). Chromosome number (ex Turkey): $n = 90$ (according to HESSELBARTH et al. 1995: 703).

pashtu ECKWEILER, 1997

Subspecies of *erschoffii* (*erschoffii*-group).

peilei BETHUNE-BAKER, 1921

Species in the *dolus*-group.

pelopi (BROWN, 1976)

Subspecies of *ripartii* (*admetus*-group).

pfeifferi (BRANDT, 1938)

Species in the *damon*-group. Chromosome number: $n = 106-108$ (DE LESSE 1961d)

phyllides (STAUDINGER, 1886)

Species in the *iphigenides*-group.

phyllis (CHRISTOPH, 1877)

Species in the *damon*-group. Chromosome number: $n = 79-82$ (DE LESSE 1959b).

pljusstchi LUKHTANOV & BUDASHKIN, 1993

Subspecies of *damone* (*damon*-group). Originally described and still sometimes treated as a separate species (e.g., DE PRINS & IVERSEN 1996), the taxon is closely related to *damone* and *tanais*, to which it is allopatric in distribution (see also DANTCHENKO 1997).

poseidon (HERRICH-SCHÄFFER, [1851])

Species in the *damon*-group. Chromosome number: $n = 19-22$ (according to HESSELBARTH et al. 1995: 704).

poseidonides (STAUDINGER, 1886)

Species in the *iphigenides*-group.

posthumus (CHRISTOPH, 1877)

Species in the *damon*-group. Chromosome number: $n = 10-11$ (DE LESSE 1959b).

praeactinides (FORSTER, 1960)

Possibly a subspecies of *actinides* or a separate species in the *iphigenides*-group. The taxon is closely related and allopatric in distribution to *actinides*. Recently, it has been placed as a separate species by LUKHTANOV & LUKHTANOV (1994).

pseudactis (FORSTER, 1960)

Subspecies of *firdussii* (*damon*-group). Chromosome number: $n = 24-32$ (DE LESSE 1962b).

pseudocyaneus (FORSTER, 1956)

Probably a synonym or a separate subspecies of *cyaneus* (*damon*-group).

pseudovirgilius (DE LESSE, 1962)

Subspecies of *dolus* (*dolus*-group). Chromosome number: $n = 108$ (DE LESSE 1962a). The taxon is closely related and allopatric to *ainsae* and *fulgens*, both of which are sometimes regarded as separate species. See also under *ainsae* and *fulgens*.

pseudoxerxes (FORSTER, 1956)

Subspecies of *kendevani* (*damon*-group). Chromosome number: $n = 16$ (DE LESSE 1962b).

pulcher (SHELJUZHKO, 1928)

Species in the *dagmara*-group.

rickmersi (FORSTER, 1956)

Subspecies of *poseidonides* (*iphigenides*-group).

ripartii (FREYER, 1830)

Species in the *admetus*-group. Chromosome number (Spain): $n = 90$ (according to HESSELBARTH et al. 1995: 703).

rippertii BOISDUVAL, 1832

Subspecies of *ripartii*. Chromosome number (S-France): $n = 90$ (according to HESSELBARTH et al. 1995: 703). This name is not an unjustified emendation of *ripartii* but an available taxon referable to populations from southern France (HÄUSER & ECKWEILER 1997).

rjabovianus (KOÇAK, 1980)

Subspecies of *valiabadi* (*admetus*-group).

rossicus DANTCHENKO & LUKHTANOV, 1993

Subspecies of *damocles* (*damon*-group). Chromosome number (ex Russia): $n = 23-26$ (LUKHTANOV et al. 1997).

rovshani DANTCHENKO & LUKHTANOV, 1994

Possibly a subspecies of *baytopi* or a separate species in the *damon*-group. The taxon is closely related and allopatric in distribution to *baytopi*. The ecological requirements of *rovshani* in northern Iran are just the same as of *baytopi* in eastern Turkey (ECKWEILER, unpublished).

rueckbeili (FORSTER, 1960)

Subspecies of *juldusus* (*iphigenides*-group).

rufosaturior (VERITY, 1943)

Probably a synonym of *biton* or a separate subspecies of *damon* (*damon*-group).

saetosus (PFEIFFER, 1932)

Subspecies of *mithridates* (*dolus*-group).

schuriani (ROSE, 1978)

Possibly a subspecies of *carmon* or a separate species in the *damon*-group. The taxon is closely related to *carmon*, to which it is allopatric in distribution. Alternatively, it could be related to *anticarmon*.

sennanensis (DE LESSE, 1959)

Species in the *dolus*-group. Chromosome number: $n = 28-30$ (DE LESSE 1959a).

sertavulensis (KOÇAK, 1979)

Subspecies of *firdussii* (*damon*-group). According to HESSELBARTH et al. (1995: 730) a separate species, which occurs sympatrically with *firdussii* on the Sertavul-Pass in Turkey. This second species found together with *sertavulensis*, however, was *wagneri* and not *firdussii* (W. DE PRINS and S. WAGENER, pers. communication).

sheljuzhkoi (FORSTER, 1960)

Subspecies of *phyllis* (*damon*-group).

superbus (STAUDINGER, 1887)

Probably a synonym or a subspecies of *magnificus* (*erschoffii*-group).

surakovi DANTCHENKO & LUKHTANOV, 1994

Subspecies of *carmon* (*damon*-group).

taftanus ECKWEILER, 1997

Subspecies of *bogra* (*erschoffii*-group).

tanais DANTCHENKO & PLJUSHTCH, 1993

Subspecies of *damone* (*damon*-group).

tankeri (DE LESSE, 1960)

Species in the *damon*-group. Chromosome number: $n = 20-21$ (according to HESSELBARTH et al. 1995: 706).

tekkeanus (CHRISTOPH, 1887)

Subspecies of *erschoffii* (*erschoffii*-group). Chromosome number: $n = 13-15$ (DE LESSE 1963a).

theresia SCHURIAN, VAN OORSCHOT & VAN DEN BRINK, 1992

Species in the *dama*-group. Chromosome number: $n = 42$ (HESSELBARTH et al. 1995: 740).

transcaspicus (HEYNE, [1895])

Species in the *damon*-group. Chromosome number: $n = 52-53$ (DE LESSE 1963c). See also under *aserbeidschanus*, *elbursicus*, and *ninae*.

turcicola (KOÇAK, 1977)

Subspecies of *transcaspicus* (*damon*-group). Chromosome number: $n = 20-21$ (according to HESSELBARTH et al. 1995: 705). The taxon is closely related to *aserbeidschanus*, *damonides*, *firuze*, *ninae*, and *zapvadi*, to which it is apparently allopatric in distribution. Some of these taxa are considered to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995). See also under *aserbeidschanus*, *elbursicus*, and *ninae*.

turcicus (KOÇAK, 1977)

Species in the *damon*-group. Chromosome number: $n = 24$ (HESSELBARTH et al. 1995: 706).

ultramarinus (SCHAWERDA, 1924)

Probably a synonym of *biton* or a separate subspecies of *damon* (*damon*-group).

valiabadi (ROSE & SCHURIAN, 1977)

Species in the *admetus*-group.

vanensis (DE LESSE, 1957)

Subspecies of *phyllis* (*damon*-group). Chromosome number: $n = 78$ (DE LESSE 1959b).

violetae (GOMEZ-BUSTILLO, HERMOSA & BORREGO, 1979)

Subspecies of *fabressei* (*admetus*-group). Chromosome number: $n = 90$ (MUNGUIRA et al. 1995). The taxon is closely related to *fabressei* and *humedasaе*, to which it is allopatric in distribution. It has sometimes been treated as a separate species (e.g., KUDRNA 1986), but with regard to chromosome number it is not different from *fabressei* (MUNGUIRA et al 1995).

virgilius (OBERTHÜR, 1910)

Subspecies of *dolus* (*dolus*-group). Chromosome number: $n = 122-123$ (DE LESSE 1966).

vittatus (OBERTHÜR, 1892)

Subspecies of *dolus* (*dolus*-group). Chromosome number: $n = 124-125$ (DE LESSE 1961c, 1962a).

wagneri (FORSTER, 1956)

Species in the *damon*-group. Chromosome number: $n = 16$ (according to HESSELBARTH et al. 1995: 705). Originally described as a subspecies of *damone*, a species

which does not occur in Turkey, the taxon was elevated to species rank by HESSELBARTH et al. (1995).

walteri DANTCHENKO & LUKHTANOV, 1993

Subspecies of *damone* (*damon*-group).

weidenhofferi ECKWEILER, 1997

Subspecies of *actinides* (*iphigenides*-group).

xerxes (STAUDINGER, 1899)

Subspecies of *cyaneus* (*damon*-group).

zapvadi (CARBONELL, 1993)

Subspecies of *transcaspicus* (*damon*-group). The taxon is closely related to *aserbeidschanus*, *damonides*, *firuze*, *ninae*, and *turcicola*, to which it is apparently mostly allopatric in distribution. Some of these taxa are considered to represent different species based on differences in chromosome number, wing colouration, and morphometric data (e.g., LUKHTANOV 1989, CARBONELL 1993, HESSELBARTH et al. 1995). See also under *aserbeidschanus*, *elbursicus*, and *ninae*.

zarathustra ECKWEILER, 1997

Species in the *damon*-group.

zeitunus (FORSTER, 1960)

Subspecies of *phyllis* (*damon*-group).

zhicharevi (SOVINSKY, 1915)

Subspecies of *damon* (*damon*-group).

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