

## On the 'Wiener Verzeichnis', its authorship and the butterflies named therein

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**Key words:** 'Wiener Verzeichnis': authorship, date of publication, butterflies named therein, their nomenclatural status, original descriptions, taxonomic history and type material. Ignaz Schiffermüller & Michael Denis. Zoological nomenclature: Opinions 516, 1134 and Case 3241, designation of neotypes and stability of Schiffermüller's names. Lepidoptera: Rhopalocera (Papilionoidea, Hesperioidea).

**Abstract:** The authorship and publication date of the *Wiener Verzeichnis* are reviewed and new facts presented. Contradicting views on the *Wiener Verzeichnis* are critically discussed. It is demonstrated that the sole author of the *Wiener Verzeichnis* [1775, 1776] is Ignaz Schiffermüller. The names proposed for butterflies in the *Wiener Verzeichnis* are revised. The implications for the classification and nomenclature of butterflies are discussed. Nomina nuda are replaced whereas the stability of zoological nomenclature is observed. Questionable identity of four species named in the *Wiener Verzeichnis* is fixed by the designation of neotypes. Recommendations for the International Commission on Zoological Nomenclature are made. The publication of this study coincides with the 230<sup>th</sup> anniversary of the appearance of the 'first impression' of the *Wiener Verzeichnis* in September 1775.

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## 1. Introduction

In September 1775, precisely 230 years ago, an anonymous book on the Lepidoptera was published in Wien (Vienna) and later became known as the *Wiener Verzeichnis*. The full title of the book is *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend*. The complementary statement „herausgegeben von einigen Lehrern am k. k. Theresianum“ is believed to imply that the book was written (rather than published in the strict sense of that word) by some teachers at the Theresianum College in Vienna. There was no specific indication on the title page or elsewhere in the book as to who the teachers or the authors of the book were.

In 1776, the same book reappeared with a different title page as *Systematisches Verzeichniss der Schmetterlinge der Wienergegend*. The text of the two editions is otherwise practically identical (v. SATTLER 1969 for details). The original title (1775) included the word ‘Ankündigung’, which had been thought by some as being possibly a misspelling of ‘Ankündigung’ meaning ‘Announcement’. This assumption is wrong. The word ‘Ankündigung’ was grammatically correct in late 17<sup>th</sup> century and commonly used in Austria. Another assumption was that, because of the alleged “misspelling” in the title, the entire print run of an unknown number of copies, was withdrawn from distribution until a new title page had been printed. This assumption is obviously wrong. Some subsequent authors (cf. SATTLER 1969) claimed, that the word ‘Ankündigung’ indicated, that the that the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* was intended merely as a pre-publication announcement advertising a future book, shortly to become available, to selected booksellers; this explanation is supported by the rarity of the 1775 impression and corroborated by the relatively long lapse of time between the appearance of the 1775 and 1776 impressions; this assumption could well prove to be true. Some authors (cf. KOCÁK 1982-84, SATTLER 1969) subsequently rejected the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* of 1775 for the purposes of zoological nomenclature.

Be as it may, in 1958, the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* of 1775 was placed by the International Commission on Zoological Nomenclature (ICZN) on the *Official List of Works approved as available for Zoological Nomenclature* as title No. 37 (Opinion 516, drafted by F. HEMMING, then the Secretary to the Commission). In the same Opinion the Commission has ruled on the relative priority of a few systematic works on the order Lepidoptera published in 1775 including the anonymous book *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* and attributed it to Michael DENIS & Ignaz SCHIFFERMÜLLER (in that order). It is important to note that the Commission used its plenary powers specifically to determine the date of publication, but not to determine the name(s) of author(s) of the publication. The Commission using its plenary powers has decided that the *Wiener Verzeichnis* was published on 8 December 1775. However, this decision is wrong, as is shown later in this paper: the *Wiener Verzeichnis* was published on or before 11 September 1775.

In view of many typographical and/or grammatical errors in the text of the aforesaid Opinion 516 including the incorrectly quoted title of the *Wiener Verzeichnis*, it is peculiar, how painstakingly the author of the text of the aforesaid Opinion added [sic] after every appearance of the word ‘Ankündigung’. The Commissioners were obviously unfamiliar with the German language and obviously failed to find that ‘cursed’ word ‘Ankündigung’ in a dictionary.

Nonetheless, the paramount problem of the *Wiener Verzeichnis* are the descriptions of Lepidoptera species named therein, or in many cases rather the lack of descriptions, combined with the absence of indications substituting them in the sense of the *International Code of Zoological Nomenclature*.

Although much has already been written and various contradicting opinions concerning some of these names expressed by different authors (e.g. KOÇAK, 1982-84; KUDRNA, 2001; SATTLER 1969; SATTLER & TREMEWAN 1984), as yet generally acceptable solutions have not been found.

Regrettably, even some recent authors retain nomina nuda from the *Wiener Verzeichnis*, although they are fully aware of their nomenclatural status, claiming that their actions contribute positively towards stabilising of zoological nomenclature. Recent examples offer the following two publications: HESSELBARTH, OORSCHOT & WAGENER (1995) and NÄSSIG (1995); their authors emended and retained for instance nomen nudum *Papilio vaualbum*. We consider such actions irresponsible and deplorable violations of the Code.

## 2. Aims, scope and acknowledgements

The main purpose of this paper is to review the nomenclatural status of the names proposed for butterflies in the *Wiener Verzeichnis* and to determine the valid names replacing nomina nuda while observing the stability of zoological nomenclature at the same time (ICZN Case 3241). Further more, the identity of valid names based on questionable description is to be fixed by the designation of neotypes. Where necessary, recommendations to the ICZN are to me made in order to achieve the main goal of this study: stable scientific names for butterfly species (Rhopalocera) named in the *Wiener Verzeichnis*.

We wish to acknowledge the kind assistance of the following colleagues: P.R. Ackery (GB: London), Dr. Z. Balint (H: Budapest), S. Brecknell (GB: Oxford), J.F. Burton (D: Heidelberg), Dr. J. Cain (GB: London), Dr. J. Diller (D: München), Dr. G. Feichtinger (D: Bad Kissingen), Dr. S. Gaal-Haszler (A: Wien), Dr. H. Goulet (Canada: Ottawa), Prof. F. Gschwandtner (A: Wien), Dr. H. Höttinger (A: Wien), Mgr. I. Kares (CZ: C. Budejovice), Dr. M. Lödl (A: Wien), R. Mathes (D: Bad Neustadt), Mgr. J. Pennerstorfer (A: Wien), W. Schulze (D: Münster), Doz. Dr. F. Speta (A: Linz), Dr. Z. Uhlir (CZ: Praha), Dr. A. Wakeham-Dawson (GB: London), Dr. M. Wiemers (A: Wien). Dr. C. Guppy (Canada: BC: Quesnel) and N. Kondla (Canada: BC: Genelle) read and commented upon the manuscript.

### 3. The facts on and about the *Wiener Verzeichniss*

#### 3.1 The book

As already mentioned, the 1775 edition is extremely rare and only a few copies are known to exist. We know of one copy each in the National Libraries in Wien (A: Vienna) and Praha (CZ: Prague) as well as in the Bavarian State Library in München (D: München) and in the British Library (GB: London); SATTLER (1969) reports one copy each in the Library of the Linnaean Society and in British Museum in Bloomsbury (both GB: London). There could be a copy in the French National Library in Paris, too (J. DILLER pers. com). This short list may be incomplete.

Except for the different title page, the text of both the original impression of 1775 and the 'reprint' impression of 1776 is practically identical; v. SATTLER (1969) for details. The text contains the same typographical errors, indicating that the imprints are from the same printing plates. Thus, for the purpose of taxonomy, both editions are usable as their text is identical. The only other difference between the 1775 and 1776 impressions are the two plates appended to some (but probably not to all) copies of the 1776 impression. Colour and monochrome plates correspond.

The most intriguing copy of the *Wiener Verzeichniss* is deposited in the present library of the Theresianum. The copy contains two title pages, one of each impression (1775 and 1776), two slightly different frontispieces, two mirror reversed monochrome and two mirror reversed colour plates (Figs. 2 – 7, reduced). Could this be the original working copy of I. SCHIFFERMÜLLER?

The *Wiener Verzeichniss* is printed in the old German 'Schwabach' script, not used today. The text is difficult to read and understand, partly owing to its layout in tables, with numerous chaotically arranged footnotes, unusual spelling and partly owing to poor quality of both paper and printing. Numerous typographical errors make reading even worse. Occasionally, 'Schwabach' letters 'f' or 's' are found mixed-up with Latin letters in scientific names.

For those readers, who are unfamiliar with the German language: the English translation of the titles of both impressions of this classical work usually referred to as the *Wiener Verzeichniss* is as follows:

*Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* of 1775 can be translated as 'Announcement of the systematic work of the butterflies and moths of the District of Vienna'.

*Systematisches Verzeichniss der Schmetterlinge der Wienergegend* of 1776 can be translated as 'Systematic Checklist of the butterflies and moths of the District of Vienna.'

The commonly used abridged title *Wiener Verzeichniss* is derived from the 1776 impression and was used already by KIRBY (1871). The district of Vienna can be understood as a substantial part of Lower Austria (Niederösterreich). Wien (Vienna) is the type-locality of most, but by no means all, new species named in the *Wiener Verzeichniss*. HIGGINS & RILEY (1970 and subsequent editions) overlooked this important fact.

I. SCHIFFERMÜLLER'S original water-colour art-work (drawings of pupae, larvae and plants), published in the *Wiener Verzeichniss* of 1775 and 1776 was subsequently placed at the disposal of J. HÜBNER, who used them in his work *Geschichte Europäischer Schmetterlinge*. The original colour plates are now in the collections of the Natural History Museum (BMNH) in London.

### 3.2 The Authorship

On the title page of both the first and the second impression, the ‘authorship’ or ‘editorship’ (cf. below) of the *Wiener Verzeichnis* is attributed to some teachers at the Theresianum (in German original ‘herausgegeben von einigen Lehrern am k.k. Theresianum’). The verb ‘herausgegeben’ is one of the keys to the clarification of the authorship.

The German word ‘Herausgeber’ means according to a current German – English language dictionary ‘publisher’. However, this translation is an oversimplification and in the case of the *Wiener Verzeichnis* an erroneous translation at that. The “Herausgeber” of a scientific book or journal is the responsible ‘Editor’ or ‘Editor-in-Chief’ or ‘Scientific Editor’. Under certain circumstances, the ‘Herausgeber’ can be at the same time the author or co-author of the whole or of a part of the work concerned. Since the publisher of the *Wiener Verzeichnis* is the publishing house of A. Bernardt, in Latin A. Bernardi, the words ‘herausgegeben von einigen Lehrern des Theresianum’ can only be interpreted as ‘edited by some (unnamed) teachers of the Theresianum’. This original statement does not constitute any indication of the authors being ‘two’ unnamed teachers, that is I. SCHIFFERMÜLLER and M. DENIS, only.

The only original indication as to the identity of the true author of the *Wiener Verzeichnis* is that contained in a letter written by I. SCHIFFERMÜLLER to Carolus LINNAEUS, dated 11<sup>th</sup> September 1775 at the “Theresiano Collegio” in Vienna. The original letter is deposited as no. 274 in the collections of the Linnaean Society of London. According to this letter the sole author of the *Wiener Verzeichnis* is unequivocally I. SCHIFFERMÜLLER himself. Nonetheless, I. SCHIFFERMÜLLER, received in course of his lepidopterological research assistance from some friends at the Theresianum. The most important among these friends was M. DENIS, who (according to SCHIFFERMÜLLER’S letter to C. LINNAEUS), “was particularly helpful by the identification of Tortrices, Pyralides and Tineae” after *Systaema Naturae*. Owing to the importance and extent of M. DENIS’ contribution, I. SCHIFFERMÜLLER mentioned only his name in the letter. The offer of help made to I. SCHIFFERMÜLLER by M. DENIS influenced the decision of the former to start the research leading to the *Wiener Verzeichnis* (SPETA 2003). In his modesty, I. SCHIFFERMÜLLER specifically stated that he had decided to leave out his name, because his research received support from some of his friends, teachers at the ‘Theresianum’ in Wien. I. SCHIFFERMÜLLER obviously could not recognize the consequences of an anonymous publication for the science of lepidopterology and zoological nomenclature. Thanks to SPETA (2003) we now know that I. SCHIFFERMÜLLER received help also from some pupils or students of the Theresianum, who apparently collected for him butterflies, moths and their larvae, and probably other insects. What we do not know is the precise extent and nature of the ‘help’ he received. There is no indication whatsoever that his ‘assistants’ or ‘friends’ factually contributed as authors of a part or parts of the *Wiener Verzeichnis*; this applies to M. DENIS, too. I. SCHIFFERMÜLLER’S cooperation with M. DENIS came to an abrupt end in the summer of 1773, i.e. two

Aged 19 in 1746 I. SCHIFFERMÜLLER joined the *Societas Jesu* (The Society of Jesus) and thus became a Jesuit. The *Societas Jesu* is the largest and most influential Roman Catholic order, founded in 1534 by St. Ignatius Loyola; at present the order has nearly 30 000 members, (about a half of them are priests), who concentrate their attention mainly on the fields of sciences, research and education. The political influence of the Society of Jesus and the exaggerated implementation of some principles of Roman Catholic theology by some Jesuits led the Pope Clement XIV to the dissolution of the order in 1773; the order was revived by Pius VII in 1814. I. SCHIFFERMÜLLER received a comprehensive education; he studied many diverse subjects including numismatics, mineralogy, botany, entomology and ornithology and, of course, theology. He completed his studies and graduated in 1759. In course of his university studies of theology in Wien I. SCHIFFERMÜLLER was ordained. Having graduated, I. SCHIFFERMÜLLER joined in 1759 the Collegium Theresianum and in 1765 was there promoted to the rank of a professor, his subject being civil and military architecture.

In 1757 I. SCHIFFERMÜLLER started collecting insects, especially butterflies and moths. Actively supported by the then director of the Theresianum and his friends, probably all Jesuits, and also some of the school's pupils, he undertook many collecting trips around Wien. In the years 1770 – 1774 some of his collecting trips were as long as 10 days at a time and led to 'far away' mountains such as the Schneeberg (Eastern Alps), reaching over 2000 m and rich in butterfly species and flora. The promise of support made by M. DENIS (1729 – 1800), who accompanied I. SCHIFFERMÜLLER on some collecting trips, was decisive for the start of SCHIFFERMÜLLER'S systematic studies of Lepidoptera. All collected specimens were identified according to the *Systaema Naturae* (12<sup>th</sup> edition) by Carolus LINNAEUS. At this stage M. DENIS played an important part by the identification of 'Tortrices, Pyrales and Tinaeae'. Their co-operation came to an abrupt end in July or September 1773 as M. DENIS had to leave the Theresianum in order to take-up a post of a librarian following the (temporary) dissolution of the Jesuit order. To complete his book, the *Wiener Verzeichnis*, I. SCHIFFERMÜLLER could stay on at the Theresianum until the beginning of 1777. This fact is most important for the determination of the authorship of the *Wiener Verzeichnis*: M. DENIS could not be the co-author, let alone the senior author, because he was away and had no time to continue his co-operation with his old friend after July of 1773.

From the over 1100 Lepidoptera species dealt with by I. SCHIFFERMÜLLER in the *Wiener Verzeichnis*, only some 450 were known to C. LINNAEUS – an enormous advance in the study of butterflies and moths. Apart from discovering and naming new species, I. SCHIFFERMÜLLER studied and described their life history and early stages, a great step forward at the time.

The *Wiener Verzeichnis* was based on the collection made by I. SCHIFFERMÜLLER and his friends. I. SCHIFFERMÜLLER took the collection with him to Linz, where he was transferred to continue his career of a teacher. Sadly, he had no time to continue his systematic studies in entomology and could not return back to Wien either. The

fact that I. SCHIFFERMÜLLER was the owner and curator of the collection corroborates further the case for his sole authorship of the *Wiener Verzeichnis*. After his death, his collection eventually found its way in the 'Kaiserliches Naturalienkabinett' (Imperial Natural History Collection) in Wien. Towards the end of the 1848 revolution, on 31 October, the General Prince A. Windischgrätz decided to bombard the centre of Wien. One of his grenades hit a church and the flames soon set on fire also the roof of the adjacent building housing the 'Kaiserliches Naturalienkabinett'. Within a few hours SCHIFFERMÜLLER'S collection containing uncountable types of the Lepidoptera species he discovered, the work of his life, apart from other treasures, were for ever completely destroyed. The destruction of SCHIFFERMÜLLER'S collection is long known (HORN & KAHLE 1935-37).

### 3.4 The Theresianum

Over the centuries the Theresianum had a deeply moved history. The 'Theresianische Akademie' or 'Collegium Theresianum' was founded in 1746 by the Empress Maria Theresia, who converted the palace of 'Favorita' into a school for upper-class boys, recruited mostly from titled families; the Theresianum was therefore also called 'Theresianische Ritterakademie'. The pupils were educated for their future employment especially as high ranking civil servants. There were also branches 'Militärakademie' and 'Akademie der Orientalischen Sprachen' educating mainly adepts of military and diplomatic services. From 1746 until 1773 the Theresianum was owned and run by the Jesuits (*Societas Jesu*) and called 'Collegium Theresianum'. This was the state of Theresianum at the period I. Schiffermüller and M. DENIS were there active as teachers, in Austria customarily titled professors. In 1773, following the dissolution of the Jesuit Order, the Emperor Josef II: turned the Theresianum temporarily into an 'Ingenieurakademie', until the Emperor Franz I. re-instated here the 'Theresianische Ritterakademie' run by the Order of Piarists.

Immediately after the WW2 the whole complex of buildings of 'Favorita' was for about ten years taken over by the 'Victorious Red Army', used as army barracks, and badly devastated. For instance the antique book cases and furniture in the 'Bibliotheca Theresiana' were 'utilized' as fire wood by the primitive Russian soldiers and their communist commanders. The old books could have been removed just in time, but some suffered badly in provisional storage. After the 'Victorious Red Army' left Austria, the book shelves and some furniture could have been replaced by replicas made by Austrian craftsmen.

Today, the Theresianum is an 'öffentliches Gymnasium' (a grammar school in British terms) all pupils of which are obliged to study four foreign languages – Latin, English, French and Russian – apart from the standard subjects of the curriculum. Languages have always enjoyed high priority in the curriculum of the Theresianum; for instance around 1900 practically all languages of the former Empire were taught at the Theresianum. The 'Gymnasium' is being owned and run by the foundation of 'Theresianische Akademie' and shares the building complex of the palace of 'Favorita' since 1964 with the 'Diplomatische Akademie', the successor of the former 'Konsularakademie'. The 'Favorita' accommodates also the valuable ancient 'Bibliotheca Theresiana', now formally a part of the Austrian National Library, and contains mostly duplicates of rare old prints.

### 3.5 The text of SCHIFFERMÜLLER'S letter to C. LINNAEUS

*Nobilissime ac clarissime Vir!*

*Excusa, munusculum tibi offerre ignotus quod audeam, Systematicum Lepidopterorum circa Vienam observatorum catalogum. Cupido summopere, tuum de eo nosse iudicium; quo, quae erronea aut quoquo modo defectuosa sunt, emendare in ea, quam per partes edere meditor, horum insectorum historia possim. Ego te, ut in Botanica, ita et in hac naturalis historiae parte ducem per omnia ac magistrum secutus sum; paulo amplius tamen, pro enormi, quam haec regio obtulit, ac porro promittit, phalaenarum praecipue copia, tua subdividenda Genera censui, Familie nomine, plantarum a te statutis generibus fors suppari, adapto. Tu, Vir illustrissime! boni rem consule, ac, si tantillum tibi vacat, vel leviter opus perlustra, ac tribus saltem lineis, quae de eo sentis expone.*

*Nomen meum in libri fronte non adjeci; cujus rei rationes alio in opere, quod de coloribus in lucem dedi, exposui; praecipua est, quod amici quidam observationes aliquas suppeditaverint praecipuus illorum, Michael Denis, etiam operam multam, in determinandis ordinandisque Tortricibus praesertim, Pyralidibus ac Tineis contulerit. Vale, Vir nobilissime ac summe colende!*

Datum Vienae in caes. reg.  
Theresiano Collegio  
11ma Septembris 1775

Ignatius Schiffermüller  
Architecturae civilis  
ac militaris Professor

### 3.6 ICZN Opinion 516

It is useful to recapitulate here the substance of the 'Opinion 516', drafted by F. HEMMING and based on his research (HEMMING 1957), issued by the Commission on 16<sup>th</sup> May 1958, so far as it concerns the *Wiener Verzeichnis* and the names proposed for butterflies therein.

The Commission used its plenary powers to rule that the publication dates and relative precedence of certain works published in 1775 are for the purposes of zoological nomenclature as follows:

*Systema Entomologicae* by J.C. FABRICIUS was published on 17<sup>th</sup> April 1775 and has been placed on the *Official List of Works Approved as Available for Zoological Nomenclature*.

*Anmerkungen zu den Hufnagelischen Tabellen* by S.A. ROTTEMBURG have been accorded precedence over the two works cited below and placed on the *Official List of Works Approved as Available for Zoological Nomenclature*.

*Verzeichniss der ihm bekannten Schweizerischen Insecten* by J.C. FÜESSLY has been accorded precedence over the work cited below and placed on the *Official List of Works Approved as Available for Zoological Nomenclature*.

*Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* was published on an unspecified date after 17<sup>th</sup> May 1775 and before 8<sup>th</sup> December 1775, has been accorded precedence below the above three works and placed on the *Official List of Works Approved as Available for Zoological Nomenclature*.

The 'Opinion 516' and the subsequent publications issued by the Commission attribute the authorship of this work to 'DENIS & SCHIFFERMÜLLER' except on p. 9, where the authorship is attributed to 'SCHIFFERMÜLLER & DENIS'.

## 4. SCHIFFERMÜLLER'S butterflies

### 4.1 Preliminary remarks

The International Commission on Zoological Nomenclature is 110 years old (founded in 1895) whereas the *Wiener Verzeichnis* is 230 years old. It is unavoidable



to judge the names proposed by I. SCHIFFERMÜLLER in the *Wiener Verzeichnis* by the present day standards, laid down by the Commission in the of the *International Code of Zoological Nomenclature* (4<sup>th</sup> edition effective since 1 January 2000).

Zoological names, particularly the species-group names, are being used by trained taxonomists on the one hand and by ecologists, conservations, wild biologists, butterfly collectors and watchers etc. on the other. It is the members of the latter group of users that often inadvertently cause major confusions (and some times other major problems) because of their elementary lack of knowledge of methods and procedures used in zoological taxonomy and nomenclature.

Since this paper is likely to be read and should be widely understood both by trained taxonomists and non-taxonomists, it is expedient to explain here the meaning of some taxonomic and nomenclatural terms as well as the contents of certain articles of the Code and decisions made by the Commission, related to the names proposed by I. SCHIFFERMÜLLER, that is to the species-group names published before 1931. The definitions are abridged or simplified as far as possible. They should help the understanding of this paper, but are not intended to substitute full definitions as contained in the Code.

For some reasons better known only to himself, I. SCHIFFERMÜLLER ‘replaced’ a few available names proposed earlier by other authors by ‘junior synonyms’; such action does not confirm with the Art.11.6 of the Code. SCHIFFERMÜLLER’S descriptions are often combined with the vernacular name for the species concerned. The provisions concerning the significance of vernacular names for the availability of the scientific name concerned are laid down in the Code as follows:

Article 12. Names published before 1931. 12.3. “Exclusions. The mention of any of the following does not in [i.e. by] itself constitute a description, definition or indication: a vernacular name, geological horizon, host, label, or specimen.”

This article, as various other parts of the Code, is not quite clearly written: it surely should read ‘by’ and not ‘in’ itself. Clearly, if a vernacular name – or what may seem to be one – contains words describing the taxon, then such vernacular name constitutes the description or a part of it. This is very often the case by I. SCHIFFERMÜLLER; this is apparent from the original description cited in this paper.

Authorship (Article 50 of the Code). The author (authors) of a name (or of a nomenclatural act) is (are) the person (persons) who first published it. If the name (names) of the author (authors) of a name or act cannot be determined from the contents of the publication concerned, then the name or act is deemed to be anonymous. Anonymous publication of a name before 1951 does not prevent its availability. If the authorship of an anonymous publication is attributed to a persons or persons, the author(s) name(s) is (are) to be placed in [square brackets].

Available name is a Latinised scientific name applied to an animal taxon that is not excluded under Article 1.3 and confirming to the provisions of Articles 10 to 20. In case of SCHIFFERMÜLLER’S names it is a Latinised name accompanied by a description, definition or an indication of such a description (e.g. a bibliographical reference) or by an illustration.

Homonym is one of two or more species-group names with the same spelling. Junior homonym is the later established name of two homonyms. Primary homonym is one of two or more homonyms originally combined with the same generic name.

Name-bearing type (holotype, lectotype or neotype) provides the objective standard of reference or the “objective definition of identity” of the species-group name concerned. Other types (e.g. paratype, allotype) are not name bearing. The hierarchical type concept fixing objectively the identity of all nominal taxa is fundamental for the stability of zoological nomenclature.

Neotype is the single specimen designated as the name-bearing type of a nominal species of which no name-bearing type is believed to be extant; neotype may be designated only if there is a need to define the nominal taxon objectively. The designation and subsequent validity of neotypes is restrictively regulated by the Code (Art. 75).

Nomen nudum is a scientific name that, if published before 1931, fails to conform to Article 12. A nomen nudum is not an available name; therefore the same name may be made available later for the same or a different nominal species. In such a case the “former nomen nudum” takes the authorship, the date of publication and the identity (cf. name bearing type) from the act that made the “former nomen nudum” available.

Valid name is the oldest potentially valid name of a name-bearing type which falls within an author’s concept of the taxon, i.e. the correct name of the nominal taxon concerned under the Code.

Vernacular name is a common name of a species usually in the language of the publication concerned, as opposed to the scientific (Latinised) name. Vernacular names have no standing under the Code.

Classical descriptions are usually inadequate for the recognition of the nominal species from closely related taxa. The precision of most SCHIFFERMÜLLER’S species descriptions is inadequate by any standards. These statements are simple declarations; they are not to be seen as unfair criticism. Naturally: lepidopterology has progressed in the past centuries. Some SCHIFFERMÜLLER’S descriptions are so inadequate, that the identity of the nominal species concerned is questionable. This has been pointed out in taxonomic revisions and similar publications. In three cases only the designation of neotypes can safeguard lasting stable usage of four long established names. These names are: *Papilio alcon*, *Papilio cynthia*, *Papilio manto* and *Papilio pales*. The Code (Article 75.3) is very restrictive so far designation of neotypes is concerned. The following declaration justifies the subsequent designation of all four neotypes under the Code (Article 75).

The neotypes designated herewith

1. serve expressly clarifying of the taxonomic status and safeguarding of the established name usage and type locality;
2. reference is made (v. under the nominal species concerned in the following subchapter) to descriptions of the nominal species concerned published in taxonomic revisions and similar standard works of reference;
3. the loss of the original name bearing types is a well established fact (cf. subchapter 3.3);
4. the identity of all neotypes is consistent with the present interpretation of identity of the nominal species concerned the original identity being unknown;
5. all neotypes come from the original type locality or its vicinity so far as this can be determined;
6. all neotypes are properly labelled bearing apart from the original data label also the name and neotype labels; they are deposited in the Naturhistorisches Museum in Wien, an internationally recognized scientific institution and depository of high esteem:

Neotype of *Papilio alcon*  
[SCHIFFERMÜLLER], 1775  
(Kudrna & Belicek 2005)

Neotype of *Papilio cynthia*  
[SCHIFFERMÜLLER], 1775  
(Kudrna & Belicek 2005)

Neotype of *Papilio manto*  
[SCHIFFERMÜLLER], 1775  
(Kudrna & Belicek 2005)

Neotype of *Papilio pales*  
[SCHIFFERMÜLLER], 1775  
(Kudrna & Belicek 2005)

## 4.2 Alphabetical checklist

All entries in this checklist are arranged alphabetically. I. SCHIFFERMÜLLER followed *Systema Naturae* (13<sup>th</sup> edition) and placed all butterflies in the single genus *Papilio*. In his short species descriptions the word “Falter” is almost always abbreviated “F.” or “f.”; the German word “Falter” means both butterfly and moth. Many descriptions make an impression of a long, usually hyphenated, German vernacular name; it is therefore in some cases impossible to distinguish between the description and the vernacular name. In this checklist, the binominal original combination is – separated by a long hyphen – followed by the number of the page where the name concerned appears in the *Wiener Verzeichnis*; the original description follows after a colon. The original descriptions are quoted between pointed brackets. Brief comments are included at the end of the entry. Valid names are preceded by \*, nomina nuda are preceded by °, the remaining names are not marked. It is interesting to observe, that I. SCHIFFERMÜLLER classified an Ascalaphid he named *Papilio cocajus* as a butterfly.

*Papilio acis* [SCHIFFERMÜLLER], 1775 - p. 182: <Vollblauer (das Männchen) oder schwarzbrauner (das Weibchen) unten aschgrauer F.>. This name is unavailable as it is a primary junior homonym of *Papilio acis* DRURY, 1773. It is at the same time a junior subjective synonym of *Papilio semiargus* ROTTEMBERG, 1775 (Opinion 516).

*Papilio adonis* [SCHIFFERMÜLLER], 1775 - p. 184: <Glänzend himmelblauer (das Männchen) oder brauner blausprenglichter (das Weibchen) saumschecklichter F.>. This name is available but invalid as it is a junior subjective synonym of *Papilio bellargus* ROTTEMBERG, 1775 (Opinion 516), now placed in the genus *Polyommatus* LATREILLE, 1804.

° *Papilio aegon* [SCHIFFERMÜLLER], 1775 - p. 185: <GeißkleeF.>. This name is nomen nudum because it is not accompanied by any description or indication. This SCHIFFERMÜLLER’S name is generally believed to have been originally proposed for a species already described and at present referred to as *Plebejus argus* (LINNAEUS, 1758).

\* *Papilio agestis* [SCHIFFERMÜLLER], 1775 - p. 184: <Lichtfeuerblauer (das Männchen) oder kaffebrauner (das Weibchen) ganz randflechlichter F.>. This name is valid and at present placed in the genus *Aricia* R.L., 1817. The original description is inadequate for the identification of this species. Owing to the generally confused classification of European species of the genus *Aricia*, we prefer not to designate a neotype at present, although such designation would be fully justified under the Code. TL: Austria: Wien.

\* *Papilio alcon* [SCHIFFERMÜLLER], 1775 - p. 182: <Gemeinblauer (das Männchen) oder halbblauer, düsterflecklichter (das Weibchen) unten staubbräunlichter F.>. This name is valid and the species is at present placed in the genus *Maculinea* EECKE, 1915. The identity of this species and its taxonomic status is obscured since a number of authors misidentified *Lycaena alcon* f. *rebeli* HIRSCHKE, 1905, and continue to do so despite the the existence of the valid lectotype of

the latter taxon (BALINT 1995). To fix the identity of *Papilio alcon* [SCHIFFER-MÜLLER], 1775, and bearing in mind that the type-material was destroyed in 1848, we designate herewith the neotype (male) bearing the following label data: Austria: Bgld. [= Burgenland]: Zitzmannsdorfer Wiesen: 14.7.[20]02: Rachinger [leg.]; it is deposited in the Naturhistorisches Museum in Wien. The neotype is further labelled 'Neotype' and '*Papilio alcon*'. The neotype originates from a locality with *Gentiana pneumonante* (KUDRNA 2001).

*Maculinea alcon* cannot be confused with any other congeneric resp. closely related species except *M. rebeli* auct., nec. HIRSCHKE, 1905, which is a junior subjective synonym of *M. alcon*. The following descriptions of *M. alcon* satisfy the Code (Article 75): HIGGINS 1976:133-134 and fig. 163 (male genitalia); HIGGINS & RILEY 1983:64 (description, identification); TOLMAN & LEWINGTON 1997:pl.26, col. figs. (illustration of *M. alcon* and *M. rebeli* auct.). These works enable to distinguish *M. alcon* from similar species.

The complex taxonomic case of the identity and classification of *Maculinea alcon* and *Maculinea rebeli* (auct., nec HIRSCHKE, 1905) was recently discussed in some detail by KUDRNA (2001). Since then ALS et al. (2004) and PECH et al. (2004) utilizing methods of molecular biology resp. cladistics confirmed that *M. alcon* and *M. rebeli* (auct., nec HIRSCHKE, 1905) are taxonomically so closely related, that they cannot be treated as two distinct species. Neither ALS et al. (2004) nor PECH et al. (2004) have examined the true *Lycaena alcon* f. *rebeli* HIRSCHKE, 1905, an individual form of *M. alcon*, as objectively defined by its valid lectotype, designated by BALINT (1995). BEURET (1949) failed, too, to find constant differences between *M. alcon* and *M. rebeli* auct., (nec HIRSCHKE, 1905).

*Maculinea alcon* inhabits basically two habitat types: wet meadows with *Gentiana pneumonante* and dry meadows with *Gentiana cruciata*. According to their ecological preferences, the populations inhabiting wet meadows represent a hygrophilous ecological race, those inhabiting dry meadows form a xerophilous ecological race. Ecological races (MAYR 1969) are from nomenclatural point of view infrasubspecific entities, excluded under the Code. These two ecological races are indistinguishable by traditional methods of taxonomy (morphology, anatomy) and do not have distinct race-specific ranges (i.e. they do not inhabit definite subdivisions of the species' range – cf. KUDRNA 1986); thus they cannot be classified as subspecies (MAYR 1969). The nominotypical form *alcon* has always been associated with the hygrophilous ecological race and with larval food plant *Gentiana pneumonante*, whereas the xerophilous race has always been associated with larval food plant *Gentiana cruciata* and usually denoted *rebeli* (auct., nec HIRSCHKE, 1905). The nominate form *alcon* is believed to be extinct in the 'Wiener Gegend'. Nonetheless, it is certain, that hygrophilous populations of *M. alcon* feeding on *Gentiana pneumonante* lived in the 'Wiener Gegend' in the 18<sup>th</sup> Century and thus could have been available to I. SCHIFFERMÜLLER (Z. BALINT & H. HÖTTINGER pers. com.). None of the old museum specimens of *M. alcon* from the 'Wiener Gegend' available to us can be related to a specific habitat type. For the sake of the continuous association of the name *alcon* with the hygrophilous ecological race, the neotype does not come from 'Wiener Gegend', but from the nearest extant hygrophilous population of *M. alcon*. The site is well known and the population strong enough to enable collecting of samples for biochemical studies, should this be necessary in the course of further research.

*Lycaena alcon* f. *rebeli* HIRSCHKE, 1905 (fig. 8), is an individual (i.e. infrasubspecific) form of *M. alcon*. It differs from *alcon* by the presence of blurred whitish spots in the postdiscal-submarginal fields on the dorsal surface of hind wings, similar to those found in most females of *Celastrina argiolus* (LINNAEUS, 1758) and occasionally found weakly pronounced in *Maculinea teleius* (BERGSTRÄSSER, 1779). The type locality of *Lycaena alcon* f. *rebeli* HIRSCHKE, 1905, is [Austria:] Steiermark: 1700 m.

- Papilio aleyone* [SCHIFFERMÜLLER], 1775 - p. 169: <Dunkelbrauner, bleihgelbstreifiger Falter.> This name is considered available; it is invalid as it is a junior subjective synonym of *Papilio hermione*, LINNAEUS, 1764, now in the genus *Hipparchia* FABRICIUS, 1807. However, it could also be argued that *Papilio aleyone* was originally published in synonymy (Art. 11.6 of the Code). Curiously, this name is often being erroneously used as valid, although its status is well known (HONEY & SCOBLE 2001, KUDRNA 1977, 1984, 2001, VERITY 1913).
- Papilio alfus* [SCHIFFERMÜLLER], 1775 - p. 184: <Lazurblauer (das Männchen) oder braunschwarzer blaubestäubter (das Weibchen) unten lichgrauer F.> This name is available, but invalid as it is a junior subjective synonym of *Papilio minimus* FÜESSLY, 1775, at present placed in the genus *Cupido* SCHRANK, 1801.
- Papilio amyntas* [SCHIFFERMÜLLER], 1775 - p. 185: <Hochfeuerblauer (das Männchen) oder blauschwarzer (das Weibchen) kleinschwänziger, unten vieläugiger F.> This name is a primary junior homonym of *Papilio amyntas* PODA, 1761, and describes a species earlier named *Papilio argiades* PALLAS, 1771, at present placed in the genus *Cupido* SCHRANK, 1801.
- Papilio arachne* [SCHIFFERMÜLLER], 1775 - p. 169: <Fahlbrauner eirundäugiger Falter.>. This name is available under the present Code, but it cannot be applied without 'reasonable doubts' to any known species: nomen dubium (i.e. a name of unknown or doubtful application).
- \* *Papilio arethusa* [SCHIFFERMÜLLER], 1775 - p. 169: <Goldbrauner, oranienfleckichter Falter.>. This name is valid for this species and is now placed in the genus *Hipparchia* FABRICIUS, 1807, subgenus *Arethusana* LESSE, 1952. TL: Austria: Wien.
- Papilio artemis* [SCHIFFERMÜLLER], 1775 - p. 185: <Oraniengelber benderseit einfach punctirter F. von Frankfurt, Gernig.> This name is a primary junior homonym of *Papilio artemis* DRURY, 1773; it is a junior subjective synonym of *Papilio aurinia* ROTTEMBURG, 1775 (Opinion 516), now placed in the *Euphydryas* SCUDDER, 1872.
- Papilio battus* [SCHIFFERMÜLLER], 1775 - p. 185: <Dunkelblauer schwarzschekichter F.“> This name is available but invalid as it is generally considered to be a junior subjective synonym of *Papilio orion* PALLAS, 1771, at present placed in the genus *Scolitantides* HÜBNER, 1819.
- Papilio brontes* [SCHIFFERMÜLLER], 1775 - p. 160: <Goldgelber oben veilbrauner, unten bleichfleckichter Falter.> The name is available, but invalid, as it is a junior subjective synonym of *Papilio palaemon* PALLAS, 1771, now placed in the genus *Carterocephalus*, LEDERER, 1852.
- Papilio camilla* [SCHIFFERMÜLLER], 1775 - p. 172: <Oben blaulichtschwarzer, unten zimmetbrauner Falter.>. This name is a primary junior homonym of *Papilio camilla* LINNAEUS, 1764. The valid name of this SCHIFFERMÜLLER'S species is *Limenitis reducta* STAUDINGER, 1901.

Ankündigung  
eines  
systematischen Werkes  
von dem  
Schmetterlingen  
der Wienergegend  
herausgegeben  
von einigen Lehrern  
am k. k. Theresianum.



WESSELY,  
verlegt bey Augustin Bernardi Buchhändler. 1775

Fig. 2. Title page of the 'Ankündigung' (1775).

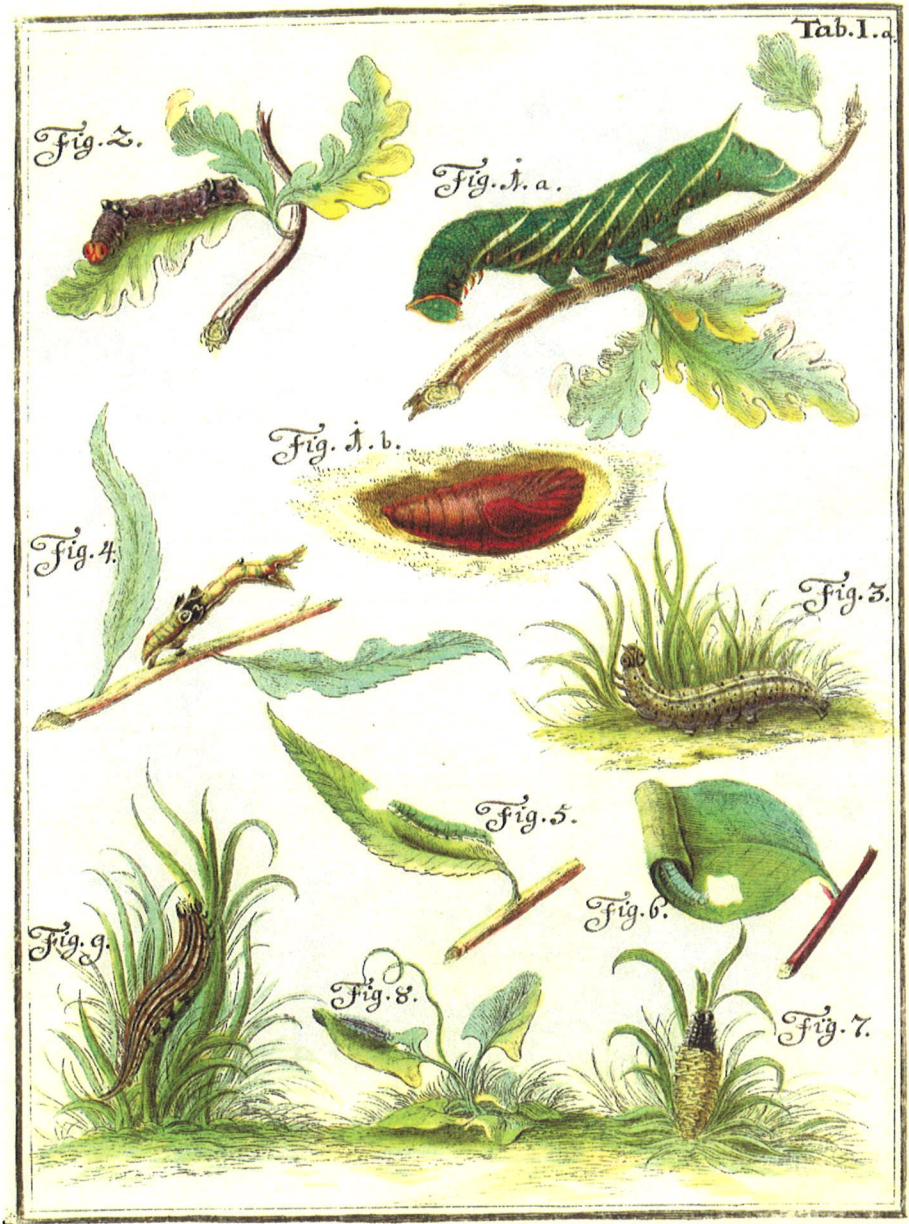


Fig. 3. Colour plate Ia (Bibliotheca Theresiana).



Fig. 4. Frontispiece 'A' (Bibliotheca Theresiana).





Fig. 5. Frontispiece 'B' (Bibliotheca Theresiana).

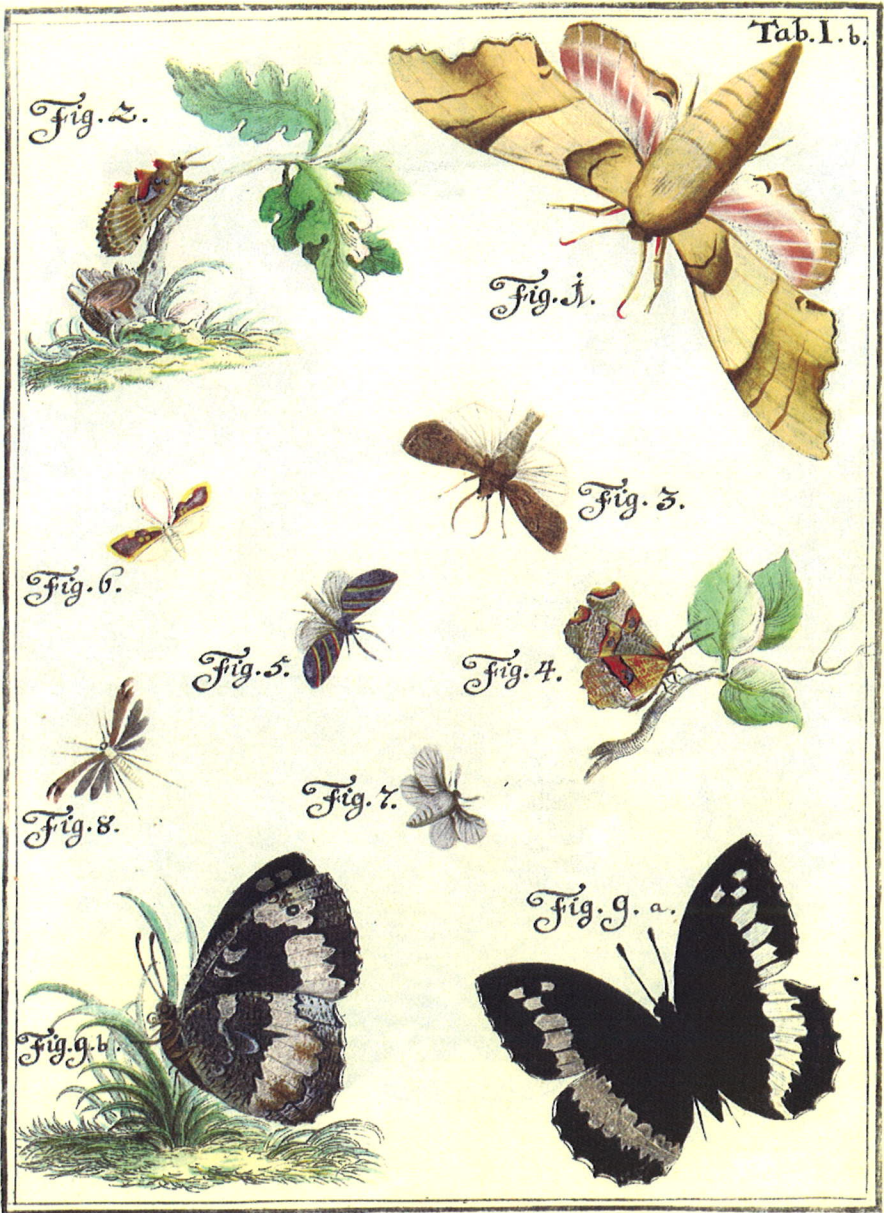


Fig. 6. Colour plate Ib (Bibliotheka Theresiana)

Systematisches Verzeichniß  
der  
Schmetterlinge  
der  
Wienergegend  
herausgegeben  
von einigen Lehrern  
am k. k. Theresianum  
*Braun, f.*

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Wien  
verlegt Augustin Bernardi  
Buchhändler 1776

Fig. 7. Title page of the 'Systematisches Verzeichnis' (1776).

*Papilio chryseis* [SCHIFFERMÜLLER], 1775 - p. 181: <Rothgold-und stahlblauschielender, unten staubfärbiger F. beydes Geschlecht geflecket.> This name is a primary junior homonym of *Papilio chryseis* DRURY, 1773; this SCHIFFERMÜLLER'S name denotes a species earlier named *Papilio hippothoe* LINNAEUS, 1761, at present placed in the genus *Lycaena* FABRICIUS, 1807.

*Papilio circe* [SCHIFFERMÜLLER], 1775 - p. 181: <Kupferbrauner schwarzpunctirter, unten schwefelgelblicher F.> This name is is a primary junior homonym of *Papilio circe* FABRICIUS, 1775 (Opinion 516); it denotes a species named earlier *Papilio dorilis* HUFNAGEL, 1767, of which it is a junior synonym.

*Papilio coccajus* [SCHIFFERMÜLLER], 1775 - p. 179: <Halbdurchsichtiger schwefelgelber, nur am Innenwinkel schwarzgefleckter F.> aus Oberösterreich und dem deutschen Reiche. A valid name for *Libelloides coccajus* ([SCHIFFERMÜLLER, 1775) (Planipennia: Ascalaphidae), not denoting a butterfly.

\* *Papilio Cynthia* [SCHIFFERMÜLLER], 1775 - p. 179: <Oben zimmetrother, unten blaßgelb gestreifter Falter>. Although HIGGINS (1950) maintains the customary use of this name for an Alpine Fritillary, he claims that the author of this name in fact described another species, earlier named *Papilio maturna* LINNAEUS, 1758 and now being referred to as *Euphydryas maturna* (LINNAEUS, 1758). The type material is lost since 1848. To clarify the taxonomic status, to avoid future confusion and to secure stable nomenclature, it is necessary to designate herewith the neotype of *P. Cynthia*. The specimen is a male bearing the following data label: [Austria]: N[ider]-Ö[sterreich]: Rax 2002 m: Schlangenweg 13.7.1949: Coll. R. Hoerl, Wien, and is deposited in the Naturhistorisches Museum Wien. The neotype is also labelled 'Neotype' and '*Papilio Cynthia*'.

*Euphydryas Cynthia* is described in the following works: HIGGINS 1950:450-452, figs. 21-24 (description, identification, comparison with closely related species, genitalia); HIGGINS 1976:206, 278 (genitalia); TOLMAN & LEWINGTON 1997:pl. 54, col. figs. denoted *Hypodryas Cynthia* (*Hypodryas* HIGGINS, 1978, is a junior synonym of *Euphydryas* SCUDDER, 1872).

*Papilio damaetas* [SCHIFFERMÜLLER], 1775 - p. 183: <Wirbelkrautfalter>. This SCHIFFERMÜLLER'S name was proposed as a junior subjective synonym (Art. 11.6 of the Code) for a species earlier named *Papilio alexis* PODA, 1761, currently placed in the genus *Glaucopsyche* SCUDDER, 1872.

\* *Papilio Damon* [SCHIFFERMÜLLER], 1775 - p. 182: <Hahnenkopff. unterscheidet sich von andern vorzüglich durch einen langen weißen Geradstreif auf der Unterseite der Unterflügel, oder auch durch des Männchens silberblaue Oberseite>. Valid name of this species, now placed in the genus *Polyommatus* LATREILLE, 1804.

◦ *Papilio daphne* [SCHIFFERMÜLLER], 1775 - p. 177: <Hohlbeerfalter.> This is nomen nudum as it is not accompanied by a description, indication or figure; it is mentioned in a table with the above vernacular name. The name was subsequently published accompanied by a description and figured, and thus made available by J.A.B. BERGSTRÄSSER (1780). This SCHIFFERMÜLLER'S name is

currently being erroneously used for *Papilio daphne* BERGSTRÄSSER, 1780. The present classification of this species is *Brenthis daphne* (BERGSTRÄSSER, 1780).

\* *Papilio daphnis* [SCHIFFERMÜLLER], 1775 - p. 182: <Gezählter glänzend feinblauer F.> This name is valid and at present placed in the genus *Polyommatus* LATREILLE, 1804 (cf. *Papilio endymion* [SCHIFFERMÜLLER], 1775).

*Papilio delia* [SCHIFFERMÜLLER], 1775 - p. 179: <Spitzwegerichf.> Apart from the vernacular name, there is a confusing comparison with *Papilio cinxia* LINNAEUS, 1758 making this name arguably available. The identity of the species denoted by this name is questionable (nomen dubium). As this name has probably never been used as a valid name for of a species, it is better treated as a junior subjective synonym of *Melitaea cinxia* (LINNAEUS, 1758) (cf. HIGGINS 1941).

*Papilio dictynna* [SCHIFFERMÜLLER], 1775 - p. 179: <Oranienfarbener, unten afteräugigter F.> This name is available, but invalid, it being a junior subjective synonym of *Papilio ino* ROTTEMBURG, 1775, at present placed in the genus *Brenthis* HÜBNER, 1819.

\* *Papilio dorylas* [Schifferrmüller], 1775 – <Feinblauer silberglänzender F.> This is the valid name of this species, at present placed in the genus *Polyommatus* LATREILLE, 1804. As the meaning of this name has never been questioned, the designation of a neotype is not necessary at present.

*Papilio endymion* [SCHIFFERMÜLLER], 1775 - p. 182: <Zackichter blankbauer F. Die Unterseite der Unterflügel graulich ohne rothgelbes Querband.> This name is a junior primary homonym of *Papilio endymion* FABRICIUS, 1775. The valid name of this species is another SCHIFFERMÜLLER'S name: *Papilio daphnis* [SCHIFFERMÜLLER], 1775.

*Papilio fritillum* [SCHIFFERMÜLLER], 1775 - p. 159: <Kartenf.>. A name published without description or indication in synonymy, arguably a replacement name for an earlier named species *Papilio fritillarius* PODA, 1761.

\* *Papilio hecate* [SCHIFFERMÜLLER], 1775 - p. 179: <Rothgelber, zweyfach punctierter Falter>. This name is valid for this species, at present placed in the genus *Brenthis* HÜBNER, 1819, of which it is the type-species. TL Austria: Wien.

\* *Papilio helle* [SCHIFFERMÜLLER], 1775 - p. 181: <Goldgelber blankvioletgefleckter, unten gelgrauer F. aus Sachsen>. This name is valid for this species, at present placed in the genus *Lycaena* FABRICIUS, 1807. The type-locality fixed by HIGGINS & RILEY (1970) as '[Austria]: Vienna', is invalid as the original description clearly stated the distribution of this butterfly: [Germany]: Sachsen (Saxonia).

*Papilio hylas* [SCHIFFERMÜLLER], 1775 - p. 185: <Hellblauer schwarzgestrichelter F.> This name is a junior primary homonym of *Papilio hylas* LINNAEUS, 1758. KOCAK (1986) claims that the oldest available name for this SCHIFFERMÜLLER'S species is *Papilio baton* BERGSTRÄSSER, 1779; he is obviously wrong

as *Scolitantides baton* (BERGSTÄSSER, 1779) does not occur anywhere in Lower Austria.

\* *Papilio ilia* [SCHIFFERMÜLLER], 1775 - p. 171, 172: <Bandweidenfalter“. Gelbbraun mit safran oder ockergelben Mackeln und Bande> with an additional reference to an illustration in ROESEL, [1761] vol. 3, pl. 42, f. 3, 4. This name is valid for the species at present placed in the genus *Apatura* FABRICIUS, 1807.

◦ *Papilio iphis* [SCHIFFERMÜLLER], 1775 – p. 321. <Zittergrasf.>. This name is nomen nudum as it is not accompanied by a description or indication; according to PACLT (1947) it is a junior primary homonym of *Papilio iphis* DRURY, 1773. It is generally believed that SCHIFFERMÜLLER’S name denotes the species referred to as *Coenonympha glycerion* (BORKHAUSEN, 1788).

*Papilio jole* [SCHIFFERMÜLLER], 1775 - p. 177: <Ganz schwarzbrauner blauspieler Falter>. This name is available but invalid, it being a junior subjective synonym of *Papilio iris* LINNAEUS, 1758, at present placed in the genus *Apatura* FABRICIUS, 1807. SCHIFFERMÜLLER’S name is being used to denote a dark infrasubspecific form of *Apatura iris* (LINNAEUS, 1758).

*Papilio lampetie* [SCHIFFERMÜLLER], 1775 – <Golden und blauschillender F.>. This name is available, but following the Opinion 516 invalid, as it is a junior synonym of *Papilio alciphron* ROTTEMBERG, 1775, at present classified in the genus *Lycaena* FABRICIUS, 1807.

*Papilio lucilla* [SCHIFFERMÜLLER], 1775 - p. 173: <Oben braunschwarzer, unten kupferbrauner Falter aus Kärnthen>. This name is available but invalid as it is a junior subjective synonym of *Papilio rivularis* SCOPOLI, 1763, at present classified in the genus *Neptis* FABRICIUS, 1807.

\* *Papilio manto* [SCHIFFERMÜLLER], 1775 - p. 169: <Nägelchenbrauner kleinpunctierter Falter>. The German vernacular name contains a kind of a very brief description and this name is therefore available. However, the description is inaccurate and not unequivocally referable to any known species (WARREN 1936). The type-material was lost in 1848. Although the identity of this name, now placed in the genus *Erebia* DALMAN, 1816, has not been seriously questioned of late, it has to be fixed by the designation of the neotype in order to clarify and secure lasting taxonomic status and identity. We designate the neotype male bearing the following label data: Austria inf[er]ior]: Schneeberg: leg. V. Altai-Kovach: 31.VII.1921: Coll. Oldenburg. It is deposited in the Naturhistorisches Museum in Wien. The neotype bears also labels ‘Neotype’ and ‘*Papilio manto*’.

This species is well described as *Erebia manto* by WARREN 1936:80-83 and pl. 64 figs. 682-692 (identification, comparison with closely related taxa, genitalia); for good colour illustrations see e.g. TOLMAN & LEWINGTON 1997:pl. 74.

◦ *Papilio medea* [SCHIFFERMÜLLER], 1775 – p. 167. This name is nomen nudum as it was not accompanied by any description or indication. It is generally believed

(WARRREN 1936) that this SCHIFFERMÜLLER's name denotes the species well known as *Erebia aethiops* (ESPER, 1777).

- *Papilio medusa* [SCHIFFERMÜLLER], 1775 - p. 167: Nomen nudum, published without a description or indication. The name was subsequently made available as *Papilio medusa* by J.C. FABRICIUS (1787): The present classification is *Erebia medusa* (FABRICIUS, 1787). The type-locality (by implication) is Wiener Gegend (Austria: Vienna). *Erebia medusa* ([SCHIFFERMÜLLER], 1775) is at present being erroneously used for the species correctly named *Erebia medusa* FABRICIUS, 1787. It is noteworthy that PACLT (1952) proposed this replacement more than 50 years ago. KOCAK (1982-84) replaced SCHIFFERMÜLLER's name by *Papilio psodea* HÜBNER, 1804, his action is unjustified as HÜBNER's name is a junior subjective synonym of *Papilio medusa* FABRICIUS, 1787; it is deemed to denote a subspecies distinct from the nominotypical form *medusa*. Luckily, KOCAK's (1982-84) unfortunate action has been overlooked or ignored by subsequent authors.
- \* *Papilio pales* [SCHIFFERMÜLLER], 1775 - p. 177: <Oraniengelber, unten roth und silberfleckichter Falter> This name is valid; at present this species is classified as *Boloria pales* ([SCHIFFERMÜLLER], 1775). The original description is inadequate and fits easily several species. Surprisingly, no subsequent author has 'made use' of this fact. To secure lasting use of this name and clarify the taxonomic status, and bearing in mind that the type-material was lost in 1848, we designate the neotype, it being a male specimen bearing the following label data and deposited in the Naturhistorisches Museum in Wien: [Austria]: Niederösterreich: Schneeberg: Ochsenboden 1900 m: 20.7.1969: leg. R. Hoerl, Wien. The neotype bears also labels 'Neotype' and '*Papilio pales*'.  
*Boloria pales* is well described by WARREN 1944:54-56, pl. 34-36, figs. 192-217 (description, identification, comparison with closely related species, variation, genitalia); for good colour illustrations see TOLMAN & LEWINGTON 1997: pl. 47.
- \* *Papilio pandora* [SCHIFFERMÜLLER], 1775 - p. 177: <Blankolivengruener, und purpurroethlicher F> This name is valid; at present this species is classified as *Argynnis padora* ([SCHIFFERMÜLLER], 1775).
- *Papilio phoebe* [SCHIFFERMÜLLER], 1775 - p. 179: <Flockenblumenfalter>. This SCHIFFERMÜLLER's name is nomen nudum because it was published without description, definition or indication; the species was not figured. The name was subsequently made available by J.A.E. GOEZE (1779) as *Papilio phoebe*. *Melitaea phoebe* ([SCHIFFERMÜLLER], 1775) is at present being erroneously used instead of the valid name for the species named and described *Papilio phoebe* GOEZE, 1779. The present classification is *Melitaea phoebe* (GOEZE, 1779).
- \* *Papilio polyxena* [SCHIFFERMÜLLER], 1775 - p. 162: <Osterluceifalter> This name was proposed in synonymy for *Papilio hypermnestra* SCOPOLI, 1763, of which it would be a junior subjective synonym (Art. 11.6 of the Code). In 1979, the species name *Papilio polyxena* [DENIS & SCHIFFERMÜLLER], 1775 was placed on the *Official List of Specific Names in Zoology* as the name number 2683 (Opin-

ion 1134). At present this SCHIFFERMÜLLER'S name is placed in the genus *Zerynthia* OCHSENHEIMER, 1816, of which it is the type-species.

*Papilio proserpinus* [SCHIFFERMÜLLER], 1775 - p. 169: This name proposed without description for a species figured on the plate Ia, figs. 9a, 9b is available; it is the only butterfly figured in *Wiener Verzeichnis*. By the decision of the Commission it is a junior subjective synonym of *Papilio circe* FABRICIUS, 1775 (Opinion 516).

*Papilio pyrrrha* [SCHIFFERMÜLLER], 1775 - p. 167: <Zimmetbrauner, schwarzpunctierter Falter aus Kärnten>. This name is a junior primary homonym of *Pailio pyrrihus* LINNAEUS, 1758. This SCHIFFERMÜLLER'S name denotes *Erebia pandrose* (BORKHAUSEN, 1780) according to WARREN (1936) or *Erebia pronoe* (ESPER, 1780) according to KOCAK (1982-84).

\* *Papilio selene* [SCHIFFERMÜLLER, 1775] - p. 321: <Rotlichtodergelber unten braun und silberfleckichter F.> This valid species name is at present placed in the genus *Boloria* MOORE, 1900. The type-locality is Austria: Wiener Gegend (Vienna).

◦ *Papilio spini* [SCHIFFERMÜLLER], 1775 - p. 186: <Schlehenf.>. Nomen nudum published without any description or indication, linked in a table to a German vernacular name only; the name was subsequently made available by FABRICIUS (1787) as *Papilio spini*. This SCHIFFERMÜLLER'S nomen nudum is at present being still used as *Satyrium spini* [SCHIFFERMÜLLER], 1775, for the species correctly called *Papilio spini* FABRICIUS, 1787. The present classification is *Satyrium spini* (FABRICIUS, 1787).

\* *Papilio trivia* [SCHIFFERMÜLLER], 1775 - p. 179: – <Wollkrautf. mit zwey gelblichtweißen und drey braungelben Querbändern>. This name is valid and currently placed in the genus *Melitaea* FABRICIUS, 1807. PACLT (1947) and later KOCAK (1982-84) rejected this name considering it nomen nudum and replaced it by *Papilio fascelis* ESPER, 1784. Their actions are unjustified; they must have overlooked the original description accompanying this SCHIFFERMÜLLER'S name. The type-locality is Austria: Wiener Gegend (Vienna).

◦ *Papilio vau album* [SCHIFFERMÜLLER], 1775 - p. 176: <Rosenweidenf.> Nomen nudum published without any description or indication, accompanied by a German vernacular name only (KUDRNA 2001). As this name is nomen nudum, it is irrelevant, that its original spelling contradicts the Code. ESPER (1780) described the same species from Vienna and Hungary and named it *Papilio l-album*. *Nymphalis vaualbum* ([SCHIFFERMÜLLER], 1775) is at present being erroneously used by many authors for *Nymphalis (Roddia) l-album* (ESPER, 1780). The type-locality *N. l-album* can remain Austria: Wiener Gegend (Vienna). Syntypes of *N. l-album* is not represented in the ESPER'S collection now deposited in the Zoologische Staatssammlung in München (they are probably lost).



For about 200 years since the erection of *Papilio l-album* ESPER, 1780, all relevant European works of reference but one used correctly the valid name (e.g. FORSTER & WOHLFAHRT 1952; BRETHERTON 1962). The only exception is LANG (1884) who used *Vanessa vau-album* [sic]. Surprisingly, HIGGINS & RILEY (1970) most regrettably resurrected the nomen nudum as *Nymphalis vau-album* [sic] DENIS & SCHIFFERMÜLLER, 1775. Undoubtedly, this popular book and its subsequent editions contributed to the present confusion concerning the valid name of the species, currently classified as *Nymphalis l-album* (ESPER, 1780); some authors place this species in a monotypical genus *Roddia* KORSHUNOV, 1995. The nomenclature of this species was dealt with also by KOÇAK (1982-84) and KUDRNA (2001).

*Papilio xanthe* [SCHIFFERMÜLLER], 1775 - p. 181: <Sauerampferf.> A name proposed in synonymy for the species earlier named *Papilio tityrus* PODA, 1761 (Art. 11.6 of the Code), at present placed in the genus *Lycaena* FABRICIUS, 1807.

° *Papilio xanthomelas* [SCHIFFERMÜLLER], 1775 - p. 175: <Dotterweidenfalter aus dem deutschen Reiche und aus der Steyermark>. This nomen nudum is at present being used as *Nymphalis xanthomelas* ([SCHIFFERMÜLLER], 1775) although the valid name of this species is *Papilio xanthomelas* ESPER, 1777.

ESPER (1780) described and figured *Papilio Nymphalis xanthomelas*, citing 'P. xanthomelas, System. Verz. d. Wiener Schm. Fam. I. p. 175. nr. 6. Dotterweiden Falter'. In his description ESPER (1780) compared it with *P. polychloros* LINNAEUS, 1758. The present classification is *Nymphalis xanthomelas* (ESPER, 1780). According to some authors, the date of publication of the above ESPER's name should be 1777, according to others 1781; we follow HEPPNER (1981). HIGGINS & RILEY (1970) fixed 'Vienna' as the type locality of '*N. xanthomelas* SCHIFFERMÜLLER, 1775'; their fixation is invalid as it contradicts SCHIFFERMÜLLER's original statement. In view of ESPER's (1780) reference to the SCHIFFERMÜLLER's nomen nudum and for the sake of stability, the type-locality of *Papilio xanthomelas* ESPER, 1777, is to be fixed herewith as Austria: Steyermark (Styria).

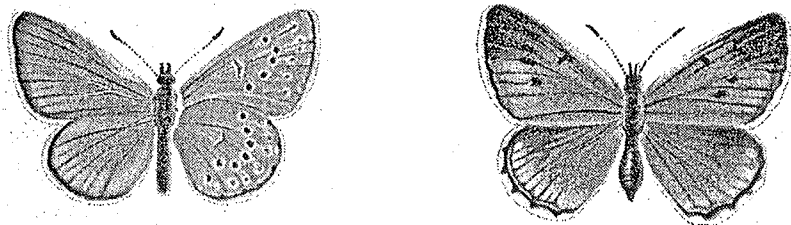


Fig. 8. *Lycaenaalcon f. rebeli* HIRSCHKE, 1905 (after HIRSCHKE 1905).

## 5. Results

I. SCHIFFERMÜLLER is the sole author of the following two works:

- *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend*
- *Systematisches Verzeichniss der Schmetterlinge der Wienergegend*.

The former book was published on or before 11<sup>th</sup> September 1775. The latter book was published in 1776 under the new title page, its content being practically identical for all taxonomical purposes with the former title.

I. SCHIFFERMÜLLER is the sole author of the following 15 valid names proposed for butterflies in the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* and arranged here in alphabetical order:

- Apatura ilia* ([SCHIFFERMÜLLER], 1775)
- Argynnis pandora* ([SCHIFFERMÜLLER], 1775)
- Aricia agestis* ([SCHIFFERMÜLLER], 1775)
- Boloria pales* ([SCHIFFERMÜLLER], 1775)
- Boloria selene* ([SCHIFFERMÜLLER], 1775)
- Brenthis hecate* ([SCHIFFERMÜLLER], 1775)
- Erebia manto* ([SCHIFFERMÜLLER], 1775)
- Euphydryas cynthia* ([SCHIFFERMÜLLER], 1775)
- Hipparchis (Arethusana) arethusana* ([SCHIFFERMÜLLER], 1775)
- Lycaena helle* ([SCHIFFERMÜLLER], 1775)
- Maculineaalcon* ([SCHIFFERMÜLLER], 1775)
- Polyommatus damon* ([SCHIFFERMÜLLER], 1775)
- Polyommatus daphnis* ([SCHIFFERMÜLLER], 1775)
- Polyommatus dorylas* ([SCHIFFERMÜLLER], 1775)
- Zerynthia polyxena* ([SCHIFFERMÜLLER], 1775)

The valid names as listed in this paragraph are in their current combinations; they were all originally proposed in combination with the generic name *Papilio* LINNAEUS, 1758.

The following six SCHIFFERMÜLLER's nomina nuda (in the left column, in their original combinations and spelling) are not available for zoological nomenclature. Contrary to the rules on zoological nomenclature they are still being used by many authors. These names were made available by subsequent authors (the valid names in the right column, in current combinations), who have taken their respective authorships:

- |                            |   |   |
|----------------------------|---|---|
| <i>Papilio daphne</i>      | → | <i>Brenthis daphne</i> (BERGSTRÄSSER, 1780) |
| <i>Papilio medusa</i>      | → | <i>Erebia medusa</i> (FABRICIUS, 1787)      |
| <i>Papilio phoebe</i>      | → | <i>Melitaea phoebe</i> (GOEZE, 1779)        |
| <i>Papilio spini</i>       | → | <i>Satyrium spini</i> (FABRICIUS, 1787)     |
| <i>Papilio vau album</i>   | → | <i>Nymphalis l-album</i> (ESPER, 1780)      |
| <i>Papilio xanthomelas</i> | → | <i>Nymphalis xanthomelas</i> (ESPER, 1780)  |

## 6. Recommendations for the Commission

Our concluded research enables us to address the following four recommendations to the Commission:

Recommendation 1. Following the Article 80.4 of the Code we recommend to correct the following errors contained in the Opinion 516:

- (a) *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* is the grammatically correct title of the work placed on the Official List of Works Approved as available for Zoological Nomenclature;
- (b) the sole author of this work is [I. SCHIFFERMÜLLER];
- (c) the publication date of this work is on or prior to 11<sup>th</sup> September 1775.

Recommendation 2. For the sake of the stability of zoological nomenclature, the precedence of the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* in relation to the other works published in 1775 and listed in the Opinion 516 is to remain as directed by the Commission in the aforesaid Opinion.

Recommendation 3. Following the Article 80 of the Code we recommend to place the following species-group names proposed by I. SCHIFFERMÜLLER in the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* on the Official List of Specific Names:

- Papilio agestis* ([SCHIFFERMÜLLER], 1775)
- Papilio alcon* ([SCHIFFERMÜLLER], 1775)
- Papilio arethusa* ([SCHIFFERMÜLLER], 1775)
- Papilio cynthia* ([SCHIFFERMÜLLER], 1775)
- Papilio damon* ([SCHIFFERMÜLLER], 1775)
- Papilio daphnis* ([SCHIFFERMÜLLER], 1775)
- Papilio dorylas* ([SCHIFFERMÜLLER], 1775)
- Papilio hecate* ([SCHIFFERMÜLLER], 1775)
- Papilio helle* ([SCHIFFERMÜLLER], 1775)
- Papilio ilia* ([SCHIFFERMÜLLER], 1775)
- Papilio manto* ([SCHIFFERMÜLLER], 1775)
- Papilio pales* ([SCHIFFERMÜLLER], 1775)
- Papilio pandora* ([SCHIFFERMÜLLER], 1775)
- Papilio selene* ([SCHIFFERMÜLLER], 1775)

The name *Papilio polyxena* appears already on the Official List of Specific Names (Opinion 1134). Following the Article 80.4 of the Code we recommend to correct the authorship of the above name to ([SCHIFFERMÜLLER], 1775) by deleting 'DENIS'.

Recommendation 4. Bearing in mind the confusion already made by the use of unavailable names and following the Article 80 of the Code we recommend to place the following nomina nuda proposed by I. SCHIFFERMÜLLER in the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* on the Official Index of Specific Names not available for zoological nomenclature:

- Papilio daphne* ([SCHIFFERMÜLLER], 1775)
- Papilio medusa* ([SCHIFFERMÜLLER], 1775)
- Papilio phoebe* ([SCHIFFERMÜLLER], 1775)

*Papilio spini* ([SCHIFFERMÜLLER], 1775)  
*Papilio vau album* [sic] ([SCHIFFERMÜLLER], 1775)  
*Papilio xanthomelas* ([SCHIFFERMÜLLER], 1775)

Our recommendations as summarized in the present chapter will be presented to the Commission as the Case 3241 in due course.

## 7. Zusammenfassung

Das vor 230 Jahren veröffentlichte *Wiener Verzeichnis* gehört zu den klassischen Werken der Schmetterlingskunde. Obwohl sich mit dem Inhalt des Werkes in der Vergangenheit bereits zahlreiche Wissenschaftler auseinander gesetzt haben, bleiben noch viele offene Fragen zu beantworten. Das Ziel der vorliegenden Arbeit ist es, die noch offene Fragen im Hinblick auf das Erscheinungsdatum, die Autorschaft und die Verfügbarkeit der im Wiener Verzeichnis benannten Tagfalterarten zu klären. Die im englischen Text ausführlich erörterten Forschungsergebnisse können wie folgt kurz zusammengefasst werden: Es gibt zwei für den taxonomischen Zweck gleichwertige Fassungen des *Wiener Verzeichnisses*: *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend* (1775) und *Systematisches Verzeichniss der Schmetterlinge der Wienergegend* (1776).

Im Gegenteil zu im Opinion 516 veröffentlichten Behauptungen: (1) Die Schreibweise des Titel (vgl. das Wort „Ankündigung“) von 1775 ist richtig. (2) Das Veröffentlichungsdatum der ersten Exemplare (d.h. „das true date of publication“) ist am oder vor dem 11. September 1775. (3) Der alleinige Autor ist I. SCHIFFERMÜLLER.

Die folgenden auch in der gegenwärtigen Fachliteratur häufig verwendeten SCHIFFERMÜLLER'S nomina nuda sind wie folgt zu ersetzen:

<i>Papilio daphne</i>	→	<i>Brenthis daphne</i> (BERGSTRÄSSER, 1780)
<i>Papilio medusa</i>	→	<i>Erebia medusa</i> (FABRICIUS, 1787)
<i>Papilio phoebe</i>	→	<i>Melitaea phoebe</i> (GOEZE, 1779)
<i>Papilio spini</i>	→	<i>Satyrium spini</i> (FABRICIUS, 1787)
<i>Papilio vau album</i> [sic]	→	<i>Nymphalis (Roddia) l-album</i> (ESPER, 1780)
<i>Papilio xanthomelas</i>	→	<i>Nymphalis xanthomelas</i> (ESPER, 1780)

Die Sammlung von I. SCHIFFERMÜLLER ist bekanntlich seit 1848 durch Brand verloren. Um die taxonomische Stellung und die Stabilität der Nomenklatur langfristig zu sichern, wurden in anbetracht des Artikels 75 der Nomenklaturregeln Neotypen für die folgenden Arten geschaffen: *Papilio alcon*, *Papilio cynthia*, *Papilio manto* und *Papilio pales*; alle Neotypen sind im Naturhistorischen Museum zu Wien deponiert.

Nach der Veröffentlichung dieser Arbeit wird als Case 3241 ein Antrag bezüglich der hier festgestellten Fakten der Nomenklaturkommission vorgelegt (vgl. Kapitel 6).

Im Hinblick auf die Komplexität der mit dem *Wiener Verzeichnis* verbundenen Problematik wird dem deutschsprachigen Leser dringend empfohlen, den gesamten auf English verfassten Text dieser Publikation aufmerksam zu lesen.

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## Literaturspiegel

**C.L. BOGGS, W.B. WATT & P.R. EHRLICH (Eds.):  
Butterflies. Ecology and evolution taking flight.**

The University of Chicago Press, Chicago 2003. 739 pp., 16 col. pls., numerous b/w ill., diagr. and maps. ISBN 0-226-06318-6. Price (RRP) 45.-- \$ (paperback). Softback 18 × 25 cm (hardback also available: ISBN 0-226-06317-8).

Alle 10 oder 20 Jahre erscheint ein „Schmetterlingsbuch“, dessen Herausgeber und Autoren versuchen, den Stand unserer Kenntnisse der Tagfalter bzw. der Schmetterlinge zu erfassen und die Möglichkeiten des weiteren Weges des Fortschritts bzw. der Forschung aufzuzeigen (vgl. z.B. „Advances in entomology“) – keine leichte Aufgabe. Das vorliegende Buch gehört in diese Kategorie; schade nur, dass der Buchtitel eher an einen Boulevardzeitungsartikel erinnert. Der Inhalt des vorliegenden Buchs ist in sieben Abschnitte gegliedert (Introduction, Behaviour, Ecology, Genetics and evolutionary dynamics, Systematics and species diversification, Conservation and biodiversity and Synthesis), die wiederum aus insgesamt 28 Kapiteln bestehen:

P.R. Ehrlich: Butterflies, test systems and biodiversity

R.L. Ruttowski: Visual ecology of adult butterflies

A.D. Briscoe: Molecular and physiological diversity of visual mechanisms in *Papilio*.

R.A. Raguso & M.A. Willis: Hawkmoth pollination in Arizona's Sonoran Desert: Behavioral responses to floral trails.

C. Wiklund: Sexual selection and the evolution of butterfly mating systems.

E.J. Deinert: Mate location and competition for mates in a pupal mating butterfly.

A.M. Shapiro et al.: Phenofaunistics: Seasonality as a property of butterfly fauna.

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Otakar Kudrna (August 2005)

**G.C. BOZANO (Ed.):**

**Guide to the butterflies of the Palearctic region. Lycaenidae (II).**

Omnes Artes, Milano 2004. 94 pp., numerous unnumbered col. and b/w ill. throughout. ISBN 88-87989-06-0. Price (RRP) € 44.--. Softback 21 × 30 cm.

Die vorliegende Publikation ist bereits der siebte Band der o.a. Serie. Die Autoren dieses Bandes sind Z. WEIDENHOFER, G.C. BOZANO und S. CHURKIN. Behandelt wird hier die Subfamilie Theclinae bzw. ein Teil des Tribus Eumaeini, der zwei Genera *Satyrium* (mit den Untergattungen *Satyrium*, *Superflua* und *Armenia*) und *Neolycaena* (mit Untergattungen *Neolycaena* und *Rhymnaria*) umfasst. Auf der Titelseite werden diese Untergattungen allerdings als Gattungen aufgeführt; das ist falsch und trägt zur Verwirrung des Lesers bei. Bearbeitet werden in diesem Band etwa 80 Arten, eine davon wird neu beschrieben: *Satyrium (Superflua) nikoforovi* Weidenhoffer, 2004. Alle Gattungen und Untergattungen werden beschrieben bzw. diagnostiziert; sehr hilfreich sind die chronologische Darstellung der taxonomischen Geschichte der Gattung *Satyrium* und verwandter Genera sowie die übersichtlichen Bestimmungstabellen der behandelten Arten. Die Besprechungen der einzelnen Arten sind wie folgt gegliedert: „Name, Synonymy and type localities, diagnostic characters, genitalia morphology, variation, range“ und ggf. ‚taxonomic notes‘; ergänzt werden die Besprechungen durch gelungene Farbabbildungen (oft mit Hinweisen auf die artspezifischen Bestimmungsmerkmale), instruktive Strichzeichnungen der männlichen Genitalien und (leider zu kleine und zu stark vereinfachte) Verbreitungskarten. Ein umfassendes (aber ungerechtfertigt als „Bibliography“ bezeichnetes) Literaturverzeichnis und Namensregister runden das vorliegende Heft ab. Das Gesamturteil kann dank der akribischen Arbeitsweise der Autoren nur positiv sein. Bedauerlicherweise werden die Inhalte der Fachbegriffe vom Herausgeber oder seitens der Autoren nicht sehr ernst genommen; so werden beispielsweise Kurzbeschreibungen des Habitus als „diagnostic characters“ und der Genitalien als „genitalia morphology“ bezeichnet. Im direkten Vergleich mit dem ersten Band zeigt der siebte deutliche Fortschritte vor allem in der Art der optischen Darstellung wobei der Preis seit 1999 kaum gestiegen ist. Den-



noch ist der Preis zweifelsohne zu hoch und dem Verkauf sicher nicht gerade dienlich. Der Verleger würde gut beraten, über seine Verkaufsstrategie nachzudenken.

Otakar Kudrna (May 2005)

**F. HELLMANN & E. BERTACCINI:**

**I Macrolepidotteri della Valle di Susa.**

Museo Regionale di Scienze Naturali, Torino 2004. 389 pp., 16 col. pls., 4 col. figs. ISBN 88-86041-58-6. (Monografie 15, ISSN 1121-7545). Price 40,-- EUR. Hardback 17 × 25 cm.

Das vorliegende Buch stellt eine umfassende Bearbeitung der Macrolepidoptera (Großschmetterlinge) des Valle di Susa in Nordwestitalien (Alpi Cozie-Graie) dar. Die Autoren haben der intensiven Erfassung der Macrolepidoptera im Untersuchungsgebiet acht Jahre, 1996 bis 2003, gewidmet. Dabei konnten insgesamt beinahe 1200 Arten festgestellt werden, davon fast 190 Tagfalterarten. Die Artenbesprechungen informieren über die gesamte Verbreitungssituation der entsprechenden Art im Untersuchungsgebiet, ergänzt durch ein Verzeichnis der bestätigten bzw. festgestellten Fundorte und Quellen. Besonders erfreulich ist dabei die Wiederentdeckung bzw. Wiederbestätigung von *Polyommatus exuberans* Verity, 1926; die Farbabbildungen dieser Art samt männlicher Genitalien sind für das Studium der Arten dieser Gattung sehr hilfreich. Besauerlich ist hingegen, dass die Verbreitung der Arten nicht graphisch dargestellt ist. Zumindest die ausführlich bekannte Verbreitung der Tagfalterarten hat gute, übersichtliche Verbreitungskarten verdient. Verbreitungskarten gehören heute zum Standard bei einer umfassenden Bearbeitung der Tagfalterfauna eines europäischen Teilgebiets. Die Farbtafeln sind gut gelungen und die exakten Fundortangaben der abgebildeten Exemplare begrüßenswert. Das Verzeichnis benutzter Literatur ist sehr ausführlich, aber die Einteilung (allgemeine Literatur pp. 35-37, spezielle Literatur pp. 363-370) ist unpraktisch. Ich vermisse eine ausführliche englische Zusammenfassung. Die englische Bezeichnung der Autoren als „Editors“ auf dem Buchumschlag ist rätselhaft und nicht richtig. Das vorliegende schöne Buch stellt insgesamt eine gelungene Bearbeitung eines lepidopterologisch interessanten und artenreichen Gebietes dar, empfehlenswert für jeden Lepidopterologen, der sich für die Schmetterlingsfauna der Alpen interessiert. Die Autoren können mit den eigenen Forschungsergebnissen zufrieden sein.

Otakar Kudrna (August 2005)

**J. SETTELE, R. STEINER, R. REINHARDT & R. FELDMANN:**

**Schmetterlinge. Die Tagfalter Deutschlands.**

Eugen Ulmer Verlag, Stuttgart 2005. 256 pp., col. ill. throughout, distribution maps, tables. ISBN 3-8001-4167-1. Price (RRP) € 14,90. Softback 13 × 19 cm.

Drei Partner – ZDF, UFZ und BUND – haben im Frühjahr eine Aktion ‚Abenteuer Schmetterling‘ für den Sommer 2005 ins Leben gerufen. Diese Aktion selbst ist aus lepidopterologischer Sicht wenig bedeutend, wie seiner Zeit die ‚Aktion Schmetterling‘ des BUND war. Dennoch besteht diesmal die Hoffnung, dass das UFZ, unterstützt durch neue, außerhalb des o.a. „Dreiecks“ stehende Partner, diese PR-Aktion beginnend im Frühjahr 2006 in ein ernstzunehmendes Tagfalter-Monitoring-Deutschland (TMD) nach dem Modell Großbritanniens und Hollands umwandeln kann. Und vor allem dem TMD dient auch das vorliegende Taschenbuch. Die Tagfalterarten Deutschlands werden durch die vier Autoren – alle angesehene Fachleute – dem interessierten TMD-Recorder so vorgestellt, dass „er“ (und hoffentlich auch „sie“) alle Arten im Gelände bestimmen und zählen kann. Dieses Ziel wird durch eine allgemeine (vielleicht zu kurz gehaltene) Einführung in die Tagfalterkunde und kurze Besprechungen aller in Deutschland vorkommenden Tagfalterarten erreicht. Da es sich nur um die Tagfalter handelt, ist das Wort „Schmetterlinge“ im Buchtitel falsch; dafür ist aber der Untertitel – „Die Tagfalter Deutsch-

lands“ – richtig. Das oben erwähnte Ziel erfüllt dieses Taschenbuch zweifelsohne; allerdings wäre eine bessere und umfangreichere Behandlung der Methoden und Ziele des Monitoring der Tagfalter im Allgemeinen und eine tiefergehende Behandlung des TMD im speziellen mehr als wünschenswert. Warum haben die Autoren gerade hier „gespart“? Übersichtlichkeit, gute Fotos und instruktive Farbtafeln sowie der ziemlich günstige Preis machen das vorliegende Taschenbuch attraktiv auch für einen ‚Butterfly-Watcher‘ der sich bewusst nur auf die Tagfalter in Deutschland beschränkt.

Otakar Kudrna (July 2004)

#### F. SLAMKA:

##### **Die Tagfalter Mitteleuropas – östlicher Teil.**

Selbstverlag F. Slamka, [Bratislava], 2004. 288 pp., 60 col. pls., 27 numbered and numerous unnumbered col. figs. throughout. ISBN 80-969052-1-X. Price (RRP) 1330,-- Sk in Slovakia (or € 35,-- in the EU). Hardback 12 × 17 cm.

Vor einem Jahr hat T. Lafranchis die Lepidopterologen Europas mit seinem Feldführer ‚Butterflies of Europe‘ sehr positiv überrascht. Heuer sind zwei neue interessante Feldführer herausgekommen; einer davon stellt das vorliegende deutschsprachige Taschenbuch dar. Das Bearbeitungsgebiet fokussiert auf Tschechien, die Slowakei, Ungarn und Polen sowie auf den südwestlichen Zipfel der Ukraine ( d.h. die „Karpatenukraine“). Das vorliegende Buch besteht aus zwei Teilen. Der allgemeine Teil erläutert neben der morphologischen Terminologie auch ökologische und biogeographische Begriffe sowie einige Fragen des Schmetterlingsschutzes. Der spezielle Teil enthält neben Kurzdarstellungen von Tagfalterfamilien Besprechungen aller ostmitteleuropäischen Arten. Die Besprechungen sind für einen Taschenfeldführer ungewöhnlich umfangreich und reichhaltig illustriert: Farbfotos im Gelände (zwar nicht homogen, aber insgesamt viel besser als die in Tolman’s bekanntem Tagfalter-Fotoführer), Strichzeichnungen der Flügelbestimmungsmerkmale, ggf. Strichzeichnungen der männlichen Genitalien, ergänzt durch 60 Farbtafeln (gute Abbildungen präparierter Falter in Lebensgröße stellen eine sinnvolle Hilfe für Bestimmung der Arten dar). Hilfreich sind auch die Fundortangaben der abgebildeten Exemplare. Jede Artbesprechung beinhaltet die folgenden Abschnitte: „Imago“, „Ähnliche Arten“, „Biotope und Bionomie“ (gemeint ist Biologie der Art), „Geographische Verbreitung“ und „Bemerkung“, die über den Status der entsprechenden Art aus der Sicht des Naturschutzes informiert. Das kleine Buch ist insgesamt – bis auf einige unglaubliche Fehler – gut gelungen und empfehlenswert, obwohl z.T. „schwerfällig“ geschrieben. Und die Fehler? Nur zwei seine hier als beispielhaft erwähnt: Auf p. 137 ist als „*Nymphalis vau-album*“ (nomen nudum, falsch geschrieben, richtig *N. l-album*) das verwandte nordamerikanische Art *N. j-album* abgebildet. Viel Platz wird auf pp. 97-99 der Unterscheidung von *Maculinea alcon* und „*M. rebeli* (Hirschke, 1905)“ gewidmet; dabei handelt es sich nur um eine Art (*M. alcon*) und der Name „*rebeli*“ gehört einer ganz anderen Individualform, als die beschriebene. Schade, dass zumindest diese grobe Fehler nicht rechtzeitig entdeckt und korrigiert wurden. Der sicher nicht unfaire, aber für ein Taschenbuch verhältnismäßig hohe Preis kann den Verkauf dieses schönen Feldführers etwas bremsen.

Otakar Kudrna (March 2004)