

Plebeius Kluk, 1780 or Plebejus Kluk, 1802?
(Lepidoptera: Lycaenidae)

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Plebeius Kluk, 1780 or Plebejus Kluk, 1802? (Lepidoptera: Lycaenidae) — The historical and modern use of the spellings *Plebeius* and *Plebejus* (Lepidoptera: Lycaenidae) for the butterfly genus is reviewed, within the context of the International Code of Zoological Nomenclature. There are two literature citations for the names: Kluk (1780) and Kluk (1802), and also an additional spelling, *Plebeyus*. We conclude that the appropriate name to use for this genus of butterflies is *Plebejus* Kluk, 1780, and provide recommendations to the International Commission on Zoological Nomenclature to ensure stable usage of that name. We also conclude that the author and date of the genera *Nymphalis*, *Heliconius*, and *Danaus* (Lepidoptera: Nymphalidae) is Kluk, 1780.

Key words: *Plebeius*, *Plebejus*, *Plebeyus*, taxonomy, priority, stability, *Nymphalis*, *Heliconius*, *Danaus*, ICZN.

INTRODUCTION

The generic names *Plebeius* Kluk, 1780 and *Plebejus* Kluk, 1802 have both been used for the same group of "blue" butterflies (Lycaenidae) in modern publications. There has been considerable informal discussion, but little documentation, regarding which name should be used for the genus. This confusion between use of the two generic names is long standing in nature, and needs to be resolved within the context of the International Code of Zoological Nomenclature (ICZN).

MATERIALS AND METHODS: THE PROBLEM

The International Commission on Zoological Nomenclature (1954), in Opinion 278, placed three generic names (*Danaus*, *Plebejus* and *Nymphalis* – Lepidoptera: Nymphalidae) of Kluk (1802) on the *Official List of Generic Names in Zoology*. The *Official List* is maintained and published by the Commission, citing available generic names that have been ruled upon in the Opinions of the Commission. To avoid confusion, it must be noted that the *List of Available Names in Zoology* is a different list, that

restricts available names to those on the *List*, even if other names are later found to have been validly published. To our knowledge, there are presently no Lepidoptera names on the *List of Available Names in Zoology*.

Z W I E R Z A T

DOMOWYCH I DZIKICH,
OSOBLIWIE KRAJOWYCH,
HISTORII NATURALNEY

POCZĄTKI I GOSPODARSTWO.
POTRZEBNYCH I POZYTECZNYCH DO
MOWYCH, CHOWANIE, ROZMNOŻE
NIE, CHOROBY LECZENIE, DZIKICH
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Z A Z Y C I E

SZKODLIWYCH ZAS WYGUBIENIE.

T O M I

Z RIGURAMI

O W A D Z I E I R O B A K A C H

PRZEZ

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KANONIKAKRUSWICKIEGO
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W W A R S Z A W I E 1780.

w Drukarni J. K. Moid i Rzeczypospolity
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Wydrukowano w Drukarni Piarnu

Fig. 1. Cover of Kluk (1780), reproduced from Paclt (1955)

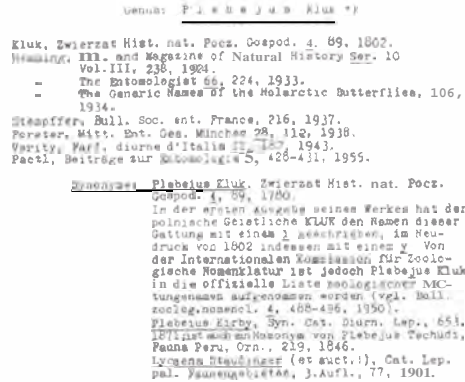
Fig. 2. Cover of Kluk (1780), from Instytut Zoologii, Uniwersytet Jagielloński, Kraków, Poland

Hemming (1954), in his application to the ICZN that resulted in Opinion 278, stated that "to place on the Official List the name which under the *Régles* is the oldest available name for the genus concerned represents the most effective way of recording the view of the Commission that that name and no other should be used for that genus". This statement was made by Hemming in his capacity as Secretary to the ICZN, but, unfortunately, was incorrect because generic names placed on the *Official List* are available (Article 80.6.1) but still subject to the usually rules of priority should an older name exist (Article 80.6.4). Hemming's incorrect statement may have resulted in subsequent interpretation that *Plebejus* Kluk, 1802 is not subject to the normal principle of priority in zoological nomenclature (Article 23.1). However Hemming's interpretation was unfortunate, because "An Opinion applies only to the particular case before the Commission and is to be rigidly construed; no conclusions other than those expressly specified are to be drawn from it" (Article 80.5). Hemming's statement may have resulted in most authors ignoring Paclt (1955) when he documented that Kluk (1802) was the second edition of the book (Figs 1,3), a fact that was apparently unknown to Hemming and the rest of the ICZN at the time of publication of Opinion 278. Paclt documented that the first edition was Kluk (1780), and used the spelling *Plebeius*, rather than *Plebejus*.

There is, however, additional spellings of the generic name. There was apparently more than one printing of Kluk (1780) (cf. Cowan 1970). Paclt (1955) examined a copy of Kluk (1780) in the Central Library of the Uniwersytet Jagiellonski in Krakow, Poland, according to the library stamp on the cover he illustrated. This copy can no longer be found in that library. The copy now in the library of the Instytut Zoologii, Uniwersytet Jagiellonski has a different cover (Fig. 2) than the copy (Fig. 1) examined by Paclt (1955). Thus both *Plebeius* and *Plebejus* are attributed to Kluk (1780). Kluk (1802) also appears to have been printed more than once, because the copy examined by Beuret (1961) used the spelling *Plebeyus* (Fig. 4).



Fig. 3. Cover of Kluk (1780), reproduced from Paclt (1955)



English translation of highlighted sentence:

"In the first edition of the work the Polish intellectual Kluk wrote the name with an i, in the new edition of 1802 the name with a y."

Fig. 4. statement by Beuret (1961, p. 318) regarding the spelling *Plebeyus* Kluk, 1802

Therefore there are at least four variations of the generic name — *Plebejus* Kluk, 1780; *Plebeius* Kluk, 1780; *Plebejus* Kluk, 1802; and *Plebeyus* Kluk, 1802. The variation in spelling is perfectly reasonable. The letter "i" in classical Latin can be used as either a vowel or a consonant, with a convention whereby using "i" as a consonant is indicated by replacing the "i" with a "j". The letters "y" and "i" are also used interchangeably in Latin. As a result, species-level names that differ only in the use of "i" rather than "j", or "i" rather than "y" are considered homonyms (Article 58). The Code does not make such variant spellings homonyms at the generic level, therefore all three spellings are distinct and without homonymy (Fig. 5).

Plebeius was used extensively in taxonomic literature for over 90 years until the 1960s. During this same period, authors describing new taxa commonly used three generic names (*Lycaena*, *Plebeius* and *Plebejus*) for "blues" in what is now accepted as the *Plebeius/Plebejus-group*. The use of *Plebejus* has predominated in most journal publications since the mid-1960s, apparently as a result of ICZN Opinion 278. Biological Abstracts 1981-2000 lists only one journal publication that used the spelling *Plebeius* (Balint et al. 1993), and 42 that used *Plebejus*.

Lepidopterists in the territory of the former Soviet Union have generally continued to use the spelling *Plebeius*, including Nekrutenko (1985), Tshikolovets (1997, 1998, 2000), and

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31. *Nymphalis ufeja*, *Bladokras.*
 32. — *rimma*, *Czarnonokrop.*
 33. — *lucina*, *Siata.*

(center portion of page 89 omitted)

148. *Kodźszy V. Pafobitka* (*Plebejus*) zawiera najpospolitsze dzienne Motyle, które iak wszędzie widzieć się dają, tak od wszystkich poprzedzających mniejsze są. Kolory na nich są słabe. Jedne mają plamy ledwie znoszone, a drugich przechodzą aż na dolną stronę skrzydeł: pierwsze zowią się *Rurales*, albo *Wiesniaki*: drugie *Urbicolas*, albo *Mieszczanie*.

- A. *Wiesniaki.*
- | | |
|---|--|
| 1. <i>Plebejus cupido</i> , <i>Srebrnokrop.</i> | |
| 2. — <i>polybe</i> , <i>Jedwab zielawy.</i> | |
| 3. — <i>thero</i> , <i>Ogoniczek.</i> | |
| 4. — <i>betula</i> , <i>Brzeczatek.</i> | |
- 5-

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- | | |
|--|--|
| 5. <i>Plebejus pumi</i> , <i>Kropkowiec.</i> | |
| 6. — <i>quercus</i> , <i>Włóknoczek.</i> | |
| 7. — <i>maffus</i> , <i>Dziuraw.</i> | |
| 8. — <i>echin</i> , <i>Kogucok.</i> | |
| 9. — <i>telamon</i> , <i>Dziuraw.</i> | |
| 10. — <i>betulus</i> , <i>Szłach.</i> | |

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41. <i>Plebejus aycar</i> , <i>Żłtar.</i>	
42. — <i>domuscula</i> , <i>Dziurawcz.</i>	
43. — <i>chiron</i> , <i>Chiron.</i>	
44. — <i>cruciat</i> , <i>Emulicz.</i>	
45. — <i>phorus</i> , <i>Folow.</i>	
46. — <i>pyralis</i> , <i>Jomunniczowefig.</i>	

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74. <i>Plebejus splo</i> , <i>Grzebistożeryd.</i>	
75. — <i>phalarax</i> , <i>Karabok-syul.</i>	
76. — <i>avaleus</i> , <i>Błkiczek.</i>	
77. — <i>ceveus</i> , <i>Włóknoc.</i>	
78. — <i>palamon</i> , <i>Palamon.</i>	
79. — <i>morpheus</i> , <i>Alufiras.</i>	

149. Z tych *Plebejus avaleus*, jest wcieleny z wierzchu Tab: II. Fig: 4. a od spodu Fig: 5. Skrzydła zwierzchnie są czarne z białą obwódką, a na każdym znajdują się plamieniste ciemno-błękitne plamy: a dolne mają takoweż na sobie obrączki. Spód skrzydeł jest białawy, z czarno-brązowemi kropkami: oraz niższych obwódka jest złoto-złota.

Fig. 5. The use of *Plebejus* on pages 89-92 of Kluk (1780) from Instytut Zoologii, Uniwersytet Jagielloński, Krakow, Poland. Portions of each page have been omitted for brevity

Tuzov (2000). This spelling has also appeared in a few books by non-Russian authors, notably Karsholt & Razowski (1996) and Guppy & Shepard (2001). However some Russian authors, such as Korshunov & Gorbunov (1995), have used the spelling *Plebejus*, and that has been the spelling used by most non-Russian authors, including Vane-Wright & Ackery (1984), Emmet & Heath (1990), Ebert (1991), Emmel (1998), and Kristensen (1999) (Figs 6-7).

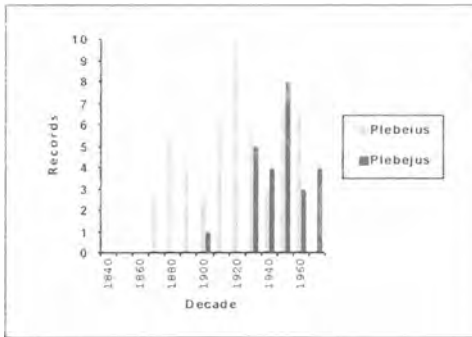


Fig. 6. Number of occurrences of the use of *Plebejus* and *Plebejus* by decade, from 1840-1971 as recorded in *Zoological Record*, 1864-1971 and *Berichte uber die wissenschaftlichen im Gebiete der Entomologie*, 1834-1863 (as tabulated by Beattie 1976)

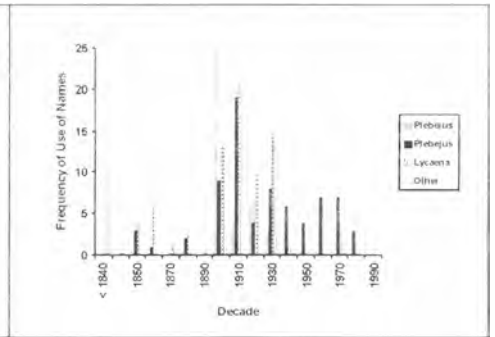


Fig. 7. Genera in which species, forms and aberrations attributed to *Plebejus* (*sensu stricto*) by Bridges (1988) were originally described. The frequency of use of *Plebejus* was actually 79 between 1900 and 1909, all of which were names in Tutt, but the number was arbitrarily truncated to 25 for presentation. Prior to 1840, all taxa were named in the genus *Papilio*.

RESULTS: SUGGESTIONS FOR THE SOLUTION

A decision is required as to which of the four known variations of the generic name of this group of "blue" butterflies should be used. We found no evidence to determine which printing of Kluk (1780) was the first edition, and consider it unlikely that it will ever be possible to do so. The two printings must therefore be considered to have been published on the same date. Paclt (1955) was not the first reviser because he was unaware of the name *Plebejus* Kluk, 1780 (Article 24.2.3). We are therefore the first revisers (Article 24.2), and, as such, we fix *Plebejus* Kluk, 1780 for use rather than *Plebeius* Kluk, 1780.

Following the principle of priority, which is a key principle of the ICZN, *Plebejus* Kluk, 1780 has priority over *Plebejus* Kluk, 1802. However, the name chosen for use should not "*threaten stability or universality or cause confusion*" (Article 23.9.3), because "*the Principle of Priority is to be used to promote stability and it is not intended to be used to upset a long-accepted name in its accustomed meaning by the introduction of a name that is its senior synonym*" (Article 23.2). A change in publication date, while retaining spelling and author, will not threaten stability or universality or cause confusion. Therefore, the principle of priority combined with the objective of stability is met by our fixation of *Plebejus* Kluk, 1780 as the generic name. It is important to note that Paclt (1955) has established that the author and date of Kluk, 1780 similarly applies to the genera *Danaus*, *Nymphalis*, and *Heliconius*, which have no variation of spelling in the Kluk publications.

The spelling *Plebeyus* Kluk, 1802 is simply an incorrect subsequent spelling of *Plebejus* Kluk, 1780, because it is not in prevailing usage (Article 33.3.1). It is worth noting that *Plebejus* was the accepted Latin spelling of the word at the time of Kluk (1802), and is specifically listed with that spelling on page 1123 of the Latin-German part of Joh & Scheller (1806), the most widely distributed classical Latin-German dictionary in central Europe at that time.

A generic name must have a type species designated to stabilize the usage of the genus. Hemming (1933) designated the type species of *Plebejus* Kluk, 1802 as *Papilio argus* Linnaeus, 1758, and that designation was finalized in ICZN Opinion 278. *Plebejus* Kluk, 1780 is the same taxon, therefore Hemming's (1933) designation of *Papilio argus* Linnaeus, 1758 as the type species of *Plebejus* Kluk, 1802 results in *Papilio argus* Linnaeus being the type species of *Plebejus* Kluk, 1780.

We will refer the following recommendations for Opinions to the *International Commission on Zoological Nomenclature*:

1. That the name *Plebejus* Kluk, 1780 be placed on the *Official List of Generic Names*;
2. That the first publication date of the generic name *Plebejus* Kluk be accepted as 1780;
3. That the type species for *Plebejus* Kluk, 1780 be designated as *Papilio argus* Linnaeus, 1758;
4. That the name *Plebejus* Kluk, 1780 has priority over *Plebeius* Kluk, 1780;
5. That the name *Plebeyus* Kluk, 1802 is an incorrect subsequent spelling of *Plebejus* Kluk, 1780.

These five recommendations will together result in establishing *Plebejus* Kluk, 1780 as the correct name for the genus. The important principles of priority and stability of the ICZN will both be met.

We will also refer the following recommendation for an Opinion:

6. That the date of first publication of names *Nymphalis* Kluk, *Heliconius* Kluk, and *Danaus* Kluk (Lepidoptera: Nymphalidae) be determined to be 1780.

The purpose of this last recommendation is to establish the date of publication of *Nymphalis*, *Heliconius* and *Danaus* as 1780 through the principle of priority, without affecting stability because there is no variation in spelling.

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