

TWO NOTES TO SYNTAXA NAMES STEMMED FROM POLISH GEOBOTANICAL STUDIES

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Abstract

This paper comments on nomenclature of the name *Piceion excelsae* of Pawłowski et al. (1928), which should be preferably referred using the form “*Piceion excelsae* Pawłowski ex Pawłowski et al. 1928”. In the author’s opinion, the definition of Recommendation 46D in the current International Code of Phytosociological Nomenclature (author citations with “ex”) needs to be revised to define alternatively the difference in contrast to Recommendation 46C (author citations with “in”): to highlight the difference at the place and time of the valid publication of the name handled. The equally aged name “*Fagetalia sylvaticae* Pawłowski ex Pawłowski et al. 1928” is invalidly published. The oldest validly published homonym found should be ascribed to Walas (1933).

Key words: author citation, *Fagetalia sylvaticae*, nomenclature, *Piceion excelsae*, syntaxonomy.

Izvlček

V članku obravnavamo poimenovanje zveze *Piceion excelsae*, ki so jo podali Pawłowski et al. (1928), kjer pa bi bilo boljše uporabiti obliko “*Piceion excelsae* Pawłowski ex Pawłowski et al. 1928”. Po avtorjevem mnenju definicija Priporočila 46D v trenutni obliki Mednarodnega kodeksa fitocenološke nomenklature (citati avtorjev z “ex”) potrebuje revizijo, ki bi opredelila razlike proti Priporočilu 46C (citati avtorjev z “in”): da bi izpostavili razlike med mestom in časom objave obravnavanega imena. Ime sintaksona “*Fagetalia sylvaticae* Pawłowski ex Pawłowski et al. 1928” je neveljavno objavljeno. Avtor najstarejšega veljavno objavljenega homonima je Walas (1933).

Ključne besede: citati avtorjev, *Fagetalia sylvaticae*, nomenklatura, *Piceion excelsae*, sintaksonomija.

1. INTRODUCTION

The accuracy of a syntaxon name used to label exclusively one syntaxon is an important requirement of modern phytosociology. Syntaxonomical-phytosociological studies should give clear and above all useful results that could be the basis and reason for the wider use of syntaxa names in the biological and geographical sciences, as well as in nature conservation.

The only proper method of defining a syntaxon name is to follow the original description

of a syntaxon as given by the original author. Naturally, preferred is the one that fulfilled the rules of the International Code of Phytosociological Nomenclature (Weber et al. 2000; further as ICPN) for valid publication. Specification of the nomenclatural type for a syntaxon is another condition for the clear use of a syntaxon.

This paper discusses several nomenclatural issues from the famous (and then very influential) paper entitled *Die Pflanzenassoziationen und die Flora des Morskie Oko-Tales* by Pawłowski et al. (1928).

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2. RESULTS AND DISCUSSION

Piceion excelsae

The name *Vaccinio-Piceion* was commonly used in older Polish publications (e.g. W. Matuszkiewicz 1964, 1982; J. Matuszkiewicz 1977) for an alliance comprising natural upper montane *Picea abies* communities. In newer works (see W. Matuszkiewicz 2001, J. Matuszkiewicz 2002), this name was in accordance with ICPN replaced by the older heterotypical synonym *Piceion excelsae* validly published by Pawłowski et al. (1928). [The preferred names for superordinate syntaxa are *Piceetalia abietis* (cf. Matuszkiewicz 2002) and *Piceetea excelsae* (cf. Kučera 2010, 2012).] The corresponding author citation was in the former survey used in the form “Pawł. et al. 1928”, in the latter one longer “Pawł. in Pawł. et al. 1928”. The last mentioned form is also preferred by Czech (Jirásek 2002) and Austrian (Wallnöfer 1993, Willner et al. 2007) authors.

However, Pawłowski et al. (1928) explicitly specified that they used the system of plant communities as proposed earlier by Pawłowski (1928):

„... Die von uns angeführten Vergleichsangaben bezüglich der letztgenannten Assoziationen sind denn auch in überwiegender Mehrzahl dem Braun'schen Werke entnommen worden. Zu anderen Arbeiten greifen wir nur in den Fällen, wenn es sich um im genannten Werke unberücksichtigt gelassene Pflanzengesellschaften handelt. Die Bedeutung des letzteren besteht ferner darin, daß es das System der alpinen Pflanzengesellschaften weiter ausbaut, indem nicht nur die Assoziationen allein, sondern auch die höheren Einheiten, die *Verbände* und *Ordnungen*, daselbst eine präzise Umgrenzung finden. Erst dadurch wurde es möglich, auch die Pflanzengesellschaften der Tatra in ein sich an das Braun'sche eng anschließendes System zusammenzustellen, was denn auch vor kurzer Zeit von B. Pawłowski (11) ausgeführt wurde. **Dieser Zusammenstellung folgen wir auch in vorliegender Arbeit.**“ (Pawłowski et al. 1928, p. 218) [bold by P. K.].

As the alliance name *Piceion excelsae* was validly published merely in the later, secondary publication (i.e. Pawłowski et al. 1928), the succession of authors' [resp. publications'] order should be expressed, in my opinion, also in the corresponding author citation, i.e. “*Piceion excelsae* Pawłowski ex Pawłowski et al. 1928” as I

proposed in the renewed synopsis of Slovak plant communities (Jarolímek et al. 2008, p. 321). In this case, the name of Pawłowski is repeated in the suggested author citation.

It might seem that such duplication is superfluous: though, ICPN Art. 46 (Rec. 46C, 46D) does not give closer directions to similar “repetitive” situations or their preclusion, respectively. On the contrary, ICPN does not regulate repetitions of author names (Art. 46, 48–51).

The mentioned ICPN Recommendations 46C and 46D handle two different, however similar nomenclatural situations of extending an author citation with the name of an author who is not directly linked with an author of the final publication. Of course, various cases could fall into consideration. For example: (1) author A who proposed the name (eventually with sufficient original diagnosis), and (2) collective of authors (including author A) who published the final outcome (an article, or a book). [Array of authors' groups with a repetition of author's name could also be reverted, which exemplifies Rec. 46C: “Oberdorfer et Th. Müller in Th. Müller”¹].

Comparing the definition of Rec. 46C (author A in author B) and the ICPN example within Rec. 46D (author A ex author B) it might seem that the considered difference between “in” and “ex” could be “authorship of a sufficient original diagnosis”. However, the inclusion of synonyms by origin (Art. 3a) under effect of Rec. 46D does not support only such interpretation: cf. Oberdorfer's (1957) invalidly published name “*Pyrolo-Abietetum* Oberdorfer 1957, pro syn.” already with

¹ In the ICPN Rec. 46C examples, “*Preslietum cervinae* Br.-Bl. in Moor 1937” is not a proper sample, because Moor (1937, p. 23) cited a nomen nudum, exactly in the form “*Preslietum cervinae* Br.-Bl. 1931 n. n.”. Yet, validation of nomina nuda is treated by ICPN Rec. 46D: in a matter of fact relevant author citation should be from the nomenclatural point of view “Br.-Bl. ex Moor 1937” although Moor (1937) published original diagnosis compiled from Braun-Blanquet's phytosociological relevés.

Indeed, Braun-Blanquet (1931) did not publish the name “*Preslietum cervinae*” at all, thus the connection of syntaxon name “*Preslietum cervinae*” with author citation “Br.-Bl. 1931 n. n.” in Moor (1937) should be evaluated as a nomen fictum (phantom name).

A similar case of nomen nudum is name “*Vaccinio-Piceion* Br.-Bl. 1938 n. n.” published by Braun-Blanquet et al. (1939, p. 10): the correct author citation should be “Br.-Bl. ex Br.-Bl et al. 1939” (see below).

an original diagnosis given by Oberdorfer himself. Later validation of this name “by another author” (ICPN, p. 757), i.e. author citation with “ex”, should respect the given original diagnosis of Oberdorfer.

ICPN Rec. 46D speaks of “one author” [author of a name, invalid publication] and “another author” [name validating author]. In my conception, relating to the case *Piceion excelsae* and other similar syntaxa names of Pawłowski et al. (1928), the authorship “Pawłowski” and the authorship “Pawłowski, Sokołowski et Wallisch” are two different cases, highlighted by two different corresponding papers published at different times. Validating authors Pawłowski et al. (1928) exactly and clearly ascribed authorship of the name to Pawłowski (1928).

Considering “in” and “ex” author citations, main accent should be given by ICPN, in my opinion, into the “place and time” of the publishing of a valid syntaxon name. After this manner, no changes are required to the current definition of ICPN Rec. 46C (author citation with “in”): “When the name of syntaxon with a sufficient original diagnosis is validly **published by one author in the work of another author(s)**...” [bold by P. K.]. Following this definition, it is obvious that the place and time of publication (and also the place and time of a valid publication) of the name is identical with the place and time of the final paper (an article within a scientific journal, a monograph).

In contrast to Rec. 46C, subsequent Rec. 46D (author citation with “ex”) should cover, from my point of view, above all the different sources (papers) of (1) the first, however invalid proposal of the name, and (2) the subsequent validation of the same name in a different paper, published later of course. Generally, three cases of such validation could occur [in addition to Rec. 46C specifying only “one author” and “another author”, see above]:

- 1) author B who validly publishes an older invalid name of author A,
- 2) authors B + C + A validating an older invalid name of author A, or, author C who validly publishes an older invalid name of authors A + B + C,
- 3) author A who validates his own older invalid name.

The first example is simple and clear. However, it should be kept in mind the case that also “author B” might use for validating of an invalid name (for example: nomen nudum) the sufficient

original diagnosis of “author A”. Formally, this is not a reason for author citation with “in”.

The second example is the case of *Piceion excelsae* Pawłowski ex Pawłowski et al. 1928. In my opinion, in such a way should be expressed the correct author citation of this syntaxon name: simply because the name *Piceion excelsae* was originally proposed by Pawłowski (1928), and this study was the keystone on which other papers could lean. I propose the re-definition of Rec. 46D in this way. A future solution within ICPN might help clear up also more complicated author citations, as could be shown with the complicated form “*Piceetea excelsae* Klika in Klika et Hadač ex Klika 1948” once used by me (cf. Kučera 2007).²

The third example given above could seem disputable. In my opinion, such a case should not be predestined to automatic rejection by ICPN, especially in the case of older works published before the establishment of ICPN. Technically, it is an identical situation as above in examples 1 and 2, with two different places and time of publication. Naturally, a limitation should be ruled by ICPN (cf. current Art 6³, Rec. 46D) including the age of handled names to avoid a flood of fruitless validations in the present.

In respect of the original statements of Pawłowski et al. (1928) on the origin of the syntaxonomical system used by them, I treat as the correct form of the name *Piceion excelsae* Pawłowski ex Pawłowski et al. 1928. In my opinion, this proposal is not in conflict with ICPN rules, however, a revision of current Rec. 46D definition is necessary, as shown above.

Considering the author citation of *Piceion excelsae* as published in various studies (i.e. Pawłowski in Pawłowski et al. 1928), it seems that some authors are focused more on the first pages of the later published study (Pawłowski et al. 1928) than on the factual origin of the syntaxonomical system of Pawłowski et al. (1928). The following quotation is given there::

² Compare also other names, e.g. *Delphinion elati* Hadač ex Hadač et al. 1969/*Delphinion elati* (Hadač ex Hadač et al. 1969) Kliment et al. 2004, *Festuco supinae-Racomitrium lanuginosi* (Hadač 1956) Dúbravcová ex Dúbravcová et Jarolímek 2007, *Ranunculo pseudomontani-Caricetum sempervirens* (Krajina 1933) Dúbravcová ex Dúbravcová et Jarolímek 2007 (Kliment et al. 2004, 2007); or a special “in” citation example *Mulgedio-Aconitetea* Hadač et Klika in Klika et Hadač 1944 (Chytrý et al. 2007).

³ The current definition of ICPN Recommendation 51A does not correspond with ICPN Art. 6.

„In die Bearbeitung der einzelnen Assoziationen haben sich die Verfasser in der Weise geteilt, das K. Wallisch das *Luzuletum spadiceae*, *Salicion herbaceae* und *Nardion*, M. Sokołowski das *Adenostyletum*, *Aconitetum firmi*, *Piceetum* und die *Cardamine Opizii*-, *Cratoneuron*-Assoziation, B. Pawłowski die übrigen Assoziationen sowie außerdem die Behandlung des floristischen Teiles übernahm.“ (Pawłowski et al. 1928, p. 206).

Considering only this statement, the citation form “*Piceion excelsae* Pawłowski in Pawłowski et al. 1928” would seem the right one. However, according to this quotation, the association *Piceetum excelsae* was characterised by Sokołowski: in this relation Sokołowski would be the author of the association name. Interestingly, the superordinate alliance *Piceion excelsae* is not characterised at all in the same publication (cf. Pawłowski et al. 1928, p. 257), so we should identify the alliance with its only association *Piceetum excelsae* (Pawłowski et al. 1928, p. 257–258, tab. XII). Thus in the frame of this approach, there would be relatively more space for ascribing the alliance name to Sokołowski than to Pawłowski.

As shown above, in my opinion a consideration of the original authors’ statement on p. 218 is the most important basis for creating the correct author citation (i.e. Pawłowski ex Pawłowski et al. 1928). In addition, the beginning of the above given quotation should be carefully regarded, where it is specified that above all the *association syntaxa* were characterised by the particular authors of the study. A more detailed description of the manner of cooperation of the authors is given in Polish, regularly a more explicit version of the whole study, i.e. Pawłowski et al. (1929), where an equivalent part of the text brings important details:

„Materiały nagromadzone przez nas obejmują przede wszystkim przeszło 130 ‚zdjęć‘ (spisów) fytosocjologicznych, dalej przeszło 20 fotografii, znaczna ilość zapisków odnośnie do pionowego zasięgu poszczególnych gatunków, wreszcie spory zielnik, zawierający m. i. szereg rzadkości florystycznych.

Pracą w terenie dzieliliśmy się zazwyczaj w ten sposób, że dwóch z nas wykonywało ‚zdjęcie‘ – przyczem przeważnie jeden pisał, a drugi dyktował – trzeci zaś miał głównie zadanie zebrać równocześnie mchy i porosty. Umożliwiło to pracę szybką. Co do samego opracowania wyników, to zespoły *Luzuletum spadiceae*, *Salicion herbaceae* i *Nardetum* opisał K. Wallisch – zespoły: *Adeno-*

styletum, *Aconitetum firmi*, *Piceetum* i *Cratoneuron decipiens-Cardamine Opizii*, opisał M. Sokołowski; opisy reszty zespołów wykonał B. Pawłowski, który ponadto zajął całą florystyczną stronę pracy.“ (Pawłowski et al. 1929, p. 172).⁴

It is clear that the entire publication (in Polish as well as German version) was the result of the team work of all three authors. The same stands for the authorship of “a sufficient original diagnosis” of *Piceetum excelsae* (thus also *Piceion excelsae*: see above). Therefore the author citation “Pawłowski in Pawłowski et al. 1928” [in this case rather “Sokołowski in Pawłowski et al. 1928”] is incorrect.

Fagetalia sylvaticae

Similarly, others author citations of syntaxa of Pawłowski et al. (1928) should be corrected, including another higher-ranked name for forest communities: *Fagetalia sylvaticae* Pawłowski ex Pawłowski et al. 1928. The corresponding name is widely used as correct one (cf. Moravec et al. 1982). Mostly overlooked is the fact that publication of this name does not fit the condition of a valid publication (Kučera 2008), as its original diagnosis does not contain the required indication of the name giving taxon, i.e. *Fagus sylvatica*, specified by ICPN (Art. 3f) as follows:

“... When the name-giving taxon or taxa are not indicated in the original diagnosis either directly or indirectly (i.e. in the original diagnoses of the subordinate syntaxa that have been quoted in the original diagnosis of a syntaxon above association).”

⁴ Translation in Polish (P. Kučera):

“Material collected by us contains above all over 130 phytosociological relevés, a further over 20 photographs, a considerable amount of records on the vertical range of particular species, finally considerable herbarium, containing among others a number of floristic rarities.

We divided the field work usually in such a way that two of us were making the relevé (whereby mostly one was writing and the other dictating) while the third had mainly the task to collect bryophytes and lichens at the same time. It enabled a quick work. As for the elaboration of results, K. Wallisch described the associations *Luzuletum spadiceae*, *Salicion herbaceae* i *Nardetum**, M. Sokołowski associations *Adenostyletum*, *Aconitetum firmi*, *Piceetum* and *Cratoneuron decipiens-Cardamine Opizii**, B. Pawłowski made a description of the rest of the associations, he also took the entire floristic part of the study.”

* Differently when compared to the German version (cf. Pawłowski et al. 1928, p. 206).

Within the order of *Fagetalia sylvaticae*, the subordinate alliance *Fagion sylvaticae* contains only one association *Fagetum sylvaticae tatricum* without any phytosociological relevé (cf. Pawłowski et al. 1928, p. 259), and *Fagus sylvatica* is not present in two relevés of the association *Alnetum incanae* (cf. Pawłowski et al. 1928, p. 259–260, tab. XIII) of the second alliance (*Alnion incanae*) in the frame of this order. Thus, another equivalent validly published name should be found.⁵

The name *Fagetalia* was described several times in the phytosociological literature. Probably the most known paper should be Vlieger's (1937) *Aperçu sur les Unités Phytosociologiques Supérieures des Pays-Bas*, as in common phytosociological use the name *Fagetalia* is inseparably united with a name of pan-European importance: *Querceto-Fagetea* originally described by Vlieger. The original description of the class *Querceto-pubescentis-Fagetea* (Vlieger 1937, p. 349)⁶ contains two orders: (1) *Quercetalia pubescentis* Br.-Bl. ex Vlieger 1937, and (2) "*Fagetalia* (Pawłowski 1928 n.n.) Tüxen et Diemont 1936", i.e. "*Fagetalia sylvaticae* Pawłowski ex Tüxen et Diemont 1936".

In spite of that one could understand Vlieger's reasons for giving such author citation (= to "guess the right paper" of Pawłowski), given association of the authors' names is fictitious in the view of ICPN as Tüxen & Diemont (1936, p. 135) did not indicate nor the name of Pawłowski neither his corresponding paper when they mentioned the order "*Fagetalia*". In addition, this order name was not validly published by Tüxen & Diemont (1936), since the conditions of the sufficient original diagnosis (ICPN Art. 2b, Art. 8) were not fulfilled: subordinate alliance "*Eufagion (Fagion)*" is nomen nudum (Art. 2b), names "*Alnio-Carpinion*" / "*Fraxinio-Carpinion*" are to be rejected according to the ICPN Art. 3b.

Into the order *Fagetalia*, Vlieger (1937, p. 350) classified the alliance "*Alneto-Fraxinion* (Tüxen et Diemont 1936) Meyer Drees 1936", and at the

same time an unambiguous reference to the study of Meijer Drees was given. Because *Fagus sylvatica* is included in the cited work of Meijer Drees (1936) within the original diagnoses of subordinated units, Vlieger (1937) published the order name validly. The nomenclatural evaluation of related syntaxa names is the following:

Order *Fagetalia sylvaticae* Tüxen et Diemont ex Vlieger 1937, nom. illeg. (Art. 31)

Nomenclatural type: Vlieger (1937), p. 350, *Alno-Fraxinion* Meijer Drees 1936⁷, holotypus (Art. 18).

However, in this way Vlieger (1937) published a nomenclatural (homotypical) synonym because Meijer Drees (1936) also described a syntaxon carrying the same name *Fagetalia sylvaticae*:

Order *Fagetalia sylvaticae* Meijer Drees 1936, nom. illeg. (Art. 31)

Nomenclatural type: Meijer Drees (1936), p. 26, 61, *Alno-Fraxinion* Meijer Drees 1936, holotypus (Art. 18).

Alliance *Alno-Fraxinion* Meijer Drees 1936

Nomenclatural type: Meijer Drees (1936), p. 61, *Querceto-Carpinetum* Meijer Drees 1936⁸, holotypus (Art. 18).

Concerning the distribution of forest phytocoenoses with *Fagus sylvatica*, as well as the original phytosociological content of these names, it is clear that the above given two "*Fagetalia*" names have syntaxonomical meaning somewhat different from the traditional use. Another homonymous (but heterotypical) order name *Fagetalia sylvaticae* Klika 1936 was published by Klika (1936). Based on forest phytocoenoses from the Velká Fatra Mts, the Western Carpathians, this name provides a syntaxonomical content corresponding to current general scientific use. However, there is another and older order name available. It comes from another monograph, which belongs after studies of Szafer and coll. to one of

⁵ The same nomenclatural conclusion was published already by Dengler et al. (2004). However, their consequent proposal on name priority was insufficient (see below). [Note by P. K., 28. 3. 2013.]

⁶ According to the current author, the original name form "*Querceto-Fagetales*" was created in the same way as the class name "*Isoeto-Litoretetales*" (Vlieger 1937, p. 339): as a combination of names of two subordinated orders, i.e. "*Quercetalia pubescentis*" and "*Fagetalia*" in the first case. Therefore the class name is completed here according to ICPN Rec. 10C.

⁷ Only Meijer Drees (1936, p. 61) should be presented as the author of the alliance name: the work of Tüxen & Diemont (1936) referred to by Vlieger (1937) was not mentioned by Meijer Drees, notwithstanding that Meijer Drees could be inspired by R. Tüxen (cf. Meijer Drees 1936, p. 61).

⁸ The nomenclatural type for the association *Querceto-Carpinetum* (resp. according to ICPN Art. 10b *Carpino-Quercetum roboris* Meijer Drees 1936) is not proposed here, because it should be published from the phytosociological material of Meijer Drees (1936) according to the situation of the association phytocoenoses in Holland: probably from the subassociation *Carpino-Quercetum roboris stachyetosum sylvaticae*.

the basic phytosociological works in Poland, also well-known at least in Slovakia and Czech Republic. It is the study of Walas (1933) on the vegetation of Babia Góra. His syntaxonomical system relies greatly on the syntaxonomical system of Pawłowski (cf. Walas 1933, p. 16–17), yet any particular study of Pawłowski is cited by syntaxa names. So the syntaxa names are here ascribed directly to Walas:

Order *Fagetalia sylvaticae* Walas 1933

Nomenclatural type: Walas (1933), p. 54, *Fagion sylvaticae* Walas 1933, holotypus (Art. 18).

Alliance *Fagion sylvaticae* Walas 1933, nom. illeg. (Art. 31)

Nomenclatural type: Walas (1933), p. 54, *Fagetum sylvaticae carpaticum* Walas 1933, holotypus (Art. 18).

Association *Fagetum sylvaticae carpaticum* Walas 1933, nom. illeg. (Art. 31, 34)

Nomenclatural type: Walas (1933, p. 54–61), tab. XVII, rel. 3, lectotypus hoc loco.

The name *Fagion sylvaticae* Walas 1933, nom. illeg. is a heterotypic (syntaxonomical) synonym of the older homonym *Fagion sylvaticae* Luquet 1926, which should be syntaxonomically subordinated to the order *Fagetalia sylvaticae* Walas 1933. According to the performed study of literature sources, a substitution for the invalidly published name *Fagetalia sylvaticae* Pawłowski ex Pawłowski et al. 1928, nom. inval. (Art. 3f) is the name *Fagetalia sylvaticae* Walas 1933, which is the earliest validly published homonym, thus a “correct name” (Art. 22).⁹ Therefore the suggestion of giving priority to the name “*Fagetalia sylvaticae* Pawłowski et al. ex Tx. 1937” published by Dengler et al. (2004) is improper.¹⁰

It is for the consideration of a particular syntaxonomical approach whether one will refer this order within (1) the class *Quercus pubescentis-Fagetea* Braun-Blanquet et Vlieger in Vlieger 1937, which originally combines xerophilous communities with *Quercus pubescens* and obviously wet *Alno-Fraxinion* communities with A-G soil profile

(cf. Meijer Drees 1936, p. 61), or into (2) a syntaxonomically narrower class, according to Willner et al. (2007, p. 228) with the proper name *Carpino-Fagetea* Jakucs 1967.

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⁹ This conclusion (from the manuscript version of this paper) has been already adopted in this journal (cf. Hacquetia, 11/1, p. 154, 2012).

¹⁰ Moreover, Dengler et al. (2004) created by this way a fictitious author citation as Tüxen (1937) did not ascribe the name *Fagetalia sylvaticae* to “Pawłowski et al.”. In addition, Tüxen (1937) did not accompany the name with an unambiguous reference to the paper of Pawłowski (1928).

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