

P E R S O O N I A

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REPLY TO SINGER & MACHOL

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Some additional arguments are provided for a few name changes in *Russula*. We conclude, contrary to Singer & Machol, that the 1821-starting point rules failed to put the nomenclature of the past into order and that the new sanctioning system will be better in this respect. Some dangers inherent in special provisions for particular taxonomic groups are mentioned. The disadvantage of a special typification status for sanctioned names is discussed.

We are pleased that Singer & Machol (1986) accepted the invitation to comment upon our conclusions regarding the nomenclature of the genus *Russula* (Kuyper & van Vuure, 1985). We consider their comments as a contribution to a rational discussion of the advantages and disadvantages of the sanctioning system. Only a rational discussion will help us to arrive at a deliberate judgment whether the 'Sydney Code' (Voss & al., 1983) should be set back or left unaltered.

A balanced assessment of the various nomenclatural systems can only be made on the basis of a careful study of a large number of individual nomenclatural problems. For that reason we start with a discussion of the three examples that Singer & Machol reviewed and supplement it with some general considerations concerning mycological nomenclature.

It should be noted at the outset that the introduction of the sanctioning system, after more than a decade of discussion, yielded several unforeseen but not unforeseeable difficulties. For that reason the present wording is not always unambiguous. It might therefore well be possible that our interpretation of the ICBN differs from that by Singer & Machol.

RUSSULA DELICA VERSUS R. EXSUCCA

When writing our paper we were of course aware that *Agaricus exsuccus* (Pers.) Otto could well threaten the name *Russula delica* Fr., although our wording is apparently somewhat cryptic. We also noted that such a name change could be avoided by a judicious typification of the former name.

Agaricus exsuccus is automatically typified by the type of *Lactarius piperatus* β *exsuccus* Pers. (ICBN, Art. 7.10). The latter taxon could be typified either by a neotype conforming to Persoon's short description or by the type of an included element. The types of the included elements can serve as syntypes, and lectotypification from syntypes takes precedence over neotypification (Art. 7.4).

Singer & Machol (1986: 190) assert that our lectotypification of Persoon's taxon by the type of *A. giganteus* is in serious conflict with the protologue and for that reason

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may be superseded (Art. 8). They therefore rejected our lectotypification and designated a neotype purported to make *A. exsuccus* a priorable synonym of *R. delica*.

However, our choice is definitely *not* in conflict with the protologue, as the protologue consists not only of the diagnosis and description, but also of its included synonymy (see definition of protologue). It is the protologue itself that contains contradictory elements, but the ICBN does not provide guidelines which element is then to be preferred for typification purposes.

Our lectotypification of Persoon's (and Otto's) taxon, purported to get rid of the name *A. exsuccus* by making it illegitimate on specific level, was the first and must hence be followed (Art. 8). The consequence of Singer & Machol's neotypification would be that if the 'Sydney Code' remains unaltered the name *R. delica* would have to make way for *R. exsucca*, a name change that neither Singer & Machol nor we want.

However, our previous analysis was incomplete, as we overlooked that Fries (1821: 77) introduced *A. vellereus* β *exsuccus* Fr.: Fr. with the explicit exclusion of its type (*A. giganteus* was treated on p. 80 of the same work). Fries therefore created a new name that must be ascribed solely to him (Art. 48). Singer & Machol seem to suggest that this taxon is identical with *R. delica*, but it is noteworthy that Fries (1838: 340) recognised both *R. delica* and a milkless variant of *Lactarius vellereus* and emphasized that it is extremely difficult to differentiate between both taxa. Neuhoﬀ (1956: 94) also interpreted var. *exsuccus* as a milkless variant of *L. vellereus*.

It seems unlikely then that we can now interpret for certain what species Persoon or Fries thought to have had at hand.

RUSSULA ATROPURPUREA VERSUS R. KROMBHOLZII

Singer & Machol agree with our conclusion that *R. atropurpurea* (Krombh.) Britz. is an illegitimate homonym of *R. atropurpurea* Peck. They seem to disagree that *R. krombholzii* is the correct name, mentioning four older names that could well refer to that taxon. As all names are heterotypic, we will make only a few comments that are relevant from a nomenclatural point of view.

Russula depallens (Pers.: Fr.) Fr. has, according to our restricted interpretation of Art. 7.17, to be typified by the type of *A. depallens* Pers. Unfortunately, no authentic material of this species is found at the Persoon Herbarium (L). Persoon's description is too short in our opinion to allow a reliable interpretation. We also note that according to Romagnesi (1967: 941) the name *R. depallens* has been used for at least ten different species! This makes the name an extremely apt candidate for rejection as a nomen dubium.

Although the concepts of nomen dubium and nomen ambiguum are not any longer mentioned explicitly in the ICBN, it seems clear that no rule of nomenclature can force us to reintroduce a name of extremely dubious application.

Concerning *R. atropurpurina* (Sing.) Crawsh. and its basionym *R. emetica* subsp. *atropurpurina* Sing. we wish to draw attention to the fact that *R. emetica* var. *atropurpurea* Sing. (which is homotypic with *R. emetica* subsp. *atropurpurina*) was explicitly kept separate from *R. atropurpurea* (Krombh.) Britz. by Singer (1925)!

RUSSULA NITIDA

Singer & Machol's (1986: 190) statement that *Russula nitida* and *Agaricus nitidus* are undoubtedly superfluous names under the new Code needs some qualification. Implicit in their wording is the suggestion that sanctioning can make a name superfluous.

But sanctioning itself can never make a name superfluous; all that counts is whether *A. nitidus* Pers. was superfluous when published (Art. 63.1). There is no need to typify *A. nitidus* by the type of *A. purpureus* or *A. risigallinus*. Article 7.11 relates only to the status of the name when published and Art. 7.13 relates to special starting points, now irrelevant under the new rules. We could of course typify *A. nitidus* Pers.: Fr. by the type of *A. purpureus* or *A. risigallinus*, such a typification being allowed under the present wording of Art. 7.17. However, this is not obligatory.

Was *A. nitidus* (Persoon, 1801: 444) superfluous when published? It is true that Persoon included *A. purpureus* Schaeff. in it, albeit with a statement that makes it debatable whether he considered both names as simple synonyms. But under a strict interpretation of Art. 63 the name was superfluous when published. We dismissed that point too simply in our previous paper.

Sanctioning legitimises such names. Admittedly, this is not stated explicitly in the present wording, although the formulation 'treated as if conserved against competing synonyms' makes it at least implicit. We agree with Singer & Machol that it should be clarified in the next edition.

Article 7.11 deals with the typification of superfluous names and the wording of that article discriminates between true superfluous names, which are typified automatically and apparent superfluous names, which are not typified automatically because the author of the superfluous name has definitely indicated another type. Persoon divided *A. nitidus* into two subspecies, viz. α *nitidus* (not mentioned explicitly) and β *purpureo-fuliginus*. It seems likely that Schaeffer's taxon had to be referred to this latter subspecies; it is at least certain that Persoon definitely indicated a different type for *A. nitidus*.

We therefore uphold our conclusions that *A. nitidus* Pers. is not to be typified by the type of *A. purpureus* Schaeff. but has to be typified according to Persoon's diagnosis.

This technical discussion undoubtedly seems more a juridical contrivance than straightforward legislation, and one is immediately reminded of Holtum's devastating judgment about 'superfluous non-sense' (Holtum, 1961). There can hardly be any doubt that Donk (1963) was basically correct in his opposition against the ruling of superfluous names. Although it would seem the better solution to discard the concept of superfluity and illegitimacy completely, all efforts to remodel or improve Art. 63 have failed so far. Abandon of this concept would now undoubtedly lead to quite a lot of name changes. Retention of a less than perfect but stable ICBN seems in this case more worthwhile than a continuously improving but unstable ICBN.

However, is it not inconsistent to defend a stable 'Code' and at the same time be a partisan of the introduction of the sanctioning system? Is the new wording of Art.

13.1(d) really 'detrimental to stability in nomenclature', as Singer & Machol (1986: 189) state?

We should first recognise that the change in Art. 13.1(d) was not so drastic as commonly presumed, as the concept of sanctioning was incorporated in the ICBN more than 35 years ago. Sanctioning acknowledges the fact that mycological nomenclature was heavily influenced by the works of E.M. Fries ('Systema mycologicum' and 'Elenchus Fungorum') but not or hardly so by other mycological publications that happened to have appeared in 1821. We should also be aware that the 1821-starting point arbitrarily divided perfectly normal names into valid ones and invalid ones. Demoulin & al. (1981) provided ample illustrations that the old system was often difficult to work with.

It is often insufficiently realised that even after 75 years several problems associated with the 1821-starting point have not been resolved, e.g. the question what constitutes (re)validation and the typification of revalidated names. We must therefore conclude that the old rules failed to put the nomenclature of the past into order.

There is a difficulty with the sanctioning system that has hitherto been insufficiently recognised. Such a nomenclatural novelty as sanctioning might well have far-reaching ramifications for other articles. This could easily lead to a plethora of special provisions for fungal nomenclature. Greuter & McNeill (1987) warned against such a development, stating that special provisions are acceptable when they have their roots in the particular biological features of the fungi, but that they should not be extended to cases where the peculiarities are in the specialists themselves.

We should therefore resist our tendency to extend the special provision of sanctioning. In particular we should restrict sanctioning to nomenclatural protection and not extend it to typification purposes, as is now the case with Art. 7.17. The present equivocal wording of Art. 7.17, which allows even for supersession of a holotype, can lead to the persistence of ambiguous application of names. This is clearly contrary to the spirit of the ICBN, which aims at rejecting the use of names which may cause ambiguity (Preamble 1). It seems also likely that this article can have a lot of unexpected consequences (e.g. for Arts. 7.3, 7.10, 8, 46, 48, and 50), necessitating subsequent alterations in the ICBN.

Whereas the sanctioning system was discussed during more than a decade, Art. 7.17 was introduced at the last minute. It is conspicuously absent in the wording of Demoulin & al. (1981). Such last-minute legislation is apt to create new controversies and new legislation; it leads away from a stable method of naming taxonomic groups (Preamble 1).

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