

makes an exception in that cultures of fungi and algae preserved in a metabolically inactive state (e.g., by lyophilization or deep-freezing) are acceptable as types. Moreover, Rec. 8B.2 recommends that “any living isolates obtained from [cultures thus preserved] should be referred to as “ex-type” (ex typo), “ex-holotype” (ex holotypo), “ex-isotype” (ex isotypa), etc., in order to make it clear they are derived from the type but are not themselves the nomenclatural type.” We propose a new Recommendation 8B.3, similar to 8B.2, but in reverse order and valid also for vascular plants, in the sense that the specified living material is the origin of the preserved herbarium sheet (type material).

(276) Add a new Recommendation immediately following Rec. 8B.2:

“8B.3. In cases where the nomenclatural type was prepared from cultivated material in a registered collection of a botanic garden, such cultivated material (but not its sexually propagated progeny) should be referred to as “pre-type” (*pre typum*), “pre-holotype” (*pre holotypum*), “pre-paratype” (*pre paratypum*), etc., in order to make it clear that that material was the origin of the type but not itself the nomenclatural type.”

The most judicious way to distinguish a duplicate of the original material from a duplicate of a subsequent gathering from the same pre-type is to create a new category of type: a *clonotype*. This would allow information from all the specimens prepared from a pre-type to be aggregated, while avoiding the accidental confusion of a later specimen with original material. Following this line of thinking, any new herbarium specimen prepared from a pre-type from which, for example, a paratype was previously prepared should be referred to as a *clonoparatype*.

In herbaria, the clonotype should be seen as an additional source of information, complementing the original material and contributing mainly in four ways: (1) avoiding further physical degradation of historical types during handling; (2) presenting the

same plant in various phenological stages; (3) complementing information present in the protologue but absent in herbaria; and (4) to be primarily used should there ever be need to designate a neotype or epitype.

(277) Add a new Article and Note between Art. 9.7 and 9.8:

“9.7 bis. A clonotype is a specimen prepared from a pre-type (see Rec. 8B.3) to serve as an interpretative type. When an epitype is designated, the holotype, lectotype, or neotype that the epitype supports must be explicitly cited.

Note 3 bis. A clonotype will never substitute a holotype, isotype, paratype or syntype and will never have priority over any specimen from among the original material. A clonotype will have priority when the necessity arises for the designation of an epitype or neotype. When a clonotype is prepared after the designation of an epitype or neotype, this recent material should be designated as epitype or neotype substituting the previous designation, also substituting any original illustration designated as lectotype since Art. 9.10 places illustrations, even those based upon a holotype, as possessing inferior priority compared with any herbarium material. A clonotype can never substitute a specimen designated as a lectotype, as in accordance with Art. 9.10 such a lectotype would be a specimen from among the original material.”

(278) Add a new Recommendation following Rec. 9B:

“9C.1. The herbarium label of a clonotype should include primarily the collection data of the botanic garden where it is cultivated, the collector and date being those of the ex situ gathering. The data of the original *in situ* gathering should be mentioned in the observations field. This order should be followed also in publications.”

(279–280) Proposals towards harmonization in the ranks in which names can be conserved and rejected

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There is a strange anomaly in the Code, in that at present Art. 14 on conservation applies only to the names of “families, genera, and species” (Arts 14.1), whereas Art. 56 on rejection can be applied to “any name that would cause disadvantageous nomenclatural change” (Art. 56.1). In consequence, names in, for example, the rank of variety are listed in App. IV (e.g., *Actaea spicata* var. *alba* L., *Lecanora anomala* var. *tenebricosa* Ach.), which even includes a subdivision of a genus of uncertain rank (i.e., *Peziza* [unranked] *Phialea* Pers.). While there are unlikely to be many cases for the conservation of names other than in the principal ranks which would ever be formally proposed for consideration by the appropriate Permanent Committee, there are instances where being able to conserve a taxon in some other rank, perhaps with a conserved type, could be the simplest solution to prevent some disadvantageous change in name. An example is afforded by the name *Parmelia perlata* var. *olivaria* Ach., where conservation with a conserved type would have been an unambiguous and preferred solution to a long-standing confusion, as opposed to a pro-

posal to reject the name in order to protect that of both a rare and local species and simultaneously safeguard that of another much better known and widely distributed species (Hawksworth & al. in Taxon 51: 626–627. 2002).

When the decision was taken to permit the conservation of names in the rank of species at the Sydney Congress in 1981, the provision was initially “restricted to species of major economic importance” (*Sydney Code* Art. 14.2. 1983) because there were major concerns over the burden that might be placed on the Permanent Committees by large numbers of proposals. It was even suggested that an office be provided and financed “to handle the flood of proposals that would come in” (Fosberg in Englera 2: 53. 1982). When the decision to remove the “major economic importance” restriction was taken at the Toyko Congress in 1993 (Tokyo Code Art. 14. 1994), a key factor was that the floods of proposals which had been forecast when species rank names had first been agreed as eligible for conservation had not occurred (e.g., Brummitt in Englera 14: 97. 1994). Experience over the last

decade has been that the further release of restrictions has not increased the work of the Permanent Committees to an unacceptable level. Further and particularly pertinently, the provision enabling names in any rank to be proposed for rejection has also not resulted in floods of proposals. In general, botanists have evidently been prudent over which cases to put forward to Committees, and there is no reason to assume that removing the current rank restrictions would lead to a significant increase in the number of names proposed for conservation. However, to relax the current restrictions in Art. 14 would empower the Permanent Committees and Congresses to take action to prevent disadvantageous changes in any names it deems appropriate through the simplest route, either by rejection or by the conservation of names or types.

The proposals made here relate only to names in the rank of genus and below, as the situation with the names of families is already well-covered for spermatophytes in App. IIB of the *Code*. As priority does not apply above the rank of family (Art. 11.1), there would appear to be no case for extending conservation to suprafamilial ranks at this time.

Recognizing that some botanists would be in favour of extending the conservation procedures so as to cover names below the rank of species, but not those between genus and species, two separate proposals are made here.

(279) Proposal to enable the conservation of names of infraspecific taxa.

Replace “species” in Art. 14.1 by “species, and infraspecific taxa”.

Replace “species” by “species or infraspecific taxon” in Art. 14.4.

Replace “A species name” by “The name of a species or an infraspecific taxon” in Art. 14 Note 2.

Insert “et nomina infraspecifica” after “specifica” in the heading of App. IIIB.

(280) Proposal to enable the conservation of names of subdivisions of genera

Replace “genera,” in Art. 14.1 by “genera, subdivisions of genera,”.

Replace “or genus” by “genus, or subdivision of a genus” in Art. 14.4.

Insert “et nomina subdivisionum genericorum” after “generica” in the heading of App. IIIA.

These two proposals will both increase the range of options open to the Permanent Committees to conserve names of genera, species, and their subdivisions in order to avoid disadvantageous name changes contrary to the principles expressed in Pre. 1 of the *Code*, and further improve the harmonization in ranks between those governed by Arts 14 and 56, so contributing to the internal consistency of the *Code*. Neither change would result in any nomenclatural disruption unless it were endorsed by the appropriate Permanent Committee, nor would they on past experience lead to any flood of new proposals.

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(281–295) Art. 19 and stability of names

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Maintaining recognizable names at ranks below that of family

This set of proposals brings up an issue that threatens to deprive taxa well-known to the general public of recognizable names. A recent review of *Ericaceae* and allied families (Kron & al. in *The Botanical Review*, Vol. 68(3): 335–423. 2002) decided, in the APG-style of recognizing very large families (now in vogue), to reduce the status of *Epacridaceae* to a subfamily of *Ericaceae*. As *Epacridoideae* is not the earliest available name, these well-known plants would, by a mere change of rank, lose a name of two centuries standing and get a new and quite unfamiliar name.

This is part of a larger issue. The *Code* prescribes that any subdivision of a family that includes the type of the name of the family to which it is assigned to is to have a name that is based on the same generic name as is the name of that family (Art. 19.4). When a family is reduced to the status of a subfamily (and moved to another family) all the formerly “typical” subordinate taxa must have their names re-evaluated in terms of priority.

Going by the letter of the 1983 and 1988 *Code*, this issue did not exist under those *Codes*. The “name of any subdivision of a family that includes the type of ... the family” was an autonym,

which meant protection when moved to a new taxonomic position (see Art. 11.6 and the accompanying Ex. 22–24). At Yokohama (1993) this was changed, upon a proposal that was summarised by the Rapporteurs: “the only change brought about by the proposal would be to permit author citation for such names” (Taxon 42: 225. 1993). Priority was not explicitly considered.

The present problem could conceivably be handled by restoring autonyms for these ranks, even if only partly (e.g., only for purposes of priority), but the autonym-concept is not without its complications at these ranks. Rather than going back, it is easier to go forward, adapting the wording of the present Art. 19 to add a new paragraph to that Article. The alternative would be to introduce conservation for names of subfamilies (and possibly other subdivisions of families).

(281) Add a paragraph to Art. 19 following 19.4 or preceding or following 19.7 (and refer to it in Art 11.3, 14.4 or 14.5 and Art. 19 Note 1):

“The name of any subdivision of a family that includes the type of a name listed in App. IIB (i.e., a name of a family conserved against all unlisted names, see Art 14.5) is to be based on the generic name equivalent to that type, unless this is contrary to