**Procedures for 'Lists of fungi' from 'working groups'**

Lists of fungi are being prepared by international working groups, following the introduction of articles in the Melbourne *Code* that allow formal decisions about names via lists, rather than on a case by case basis. In consequence, there are a number of procedures that need to be carried out. This document provides background to the issues, and suggestions for how to proceed.

**1. Lists in the *Code***

**2. Confirmation of working groups**

**3. Clarification of 1N:1F versus names in current use**

**4. Collation of names submitted for protection**

**5. Art 57.2**

**1. Lists in the *Code***

For fungi, 'lists of names' are dealt with in Arts 14.13 and 56.3 and also mentioned in Art 57.2.

Art. 14.13 … for organisms treated as fungi (... excluding lichen-forming fungi ... ), lists of names may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi ... for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies. Accepted names on these lists, which become Appendices of the Code once reviewed and approved by the Nomenclature Committee for Fungi and the General Committee, are to be listed with their types together with those competing synonyms (including sanctioned names) against which they are treated as conserved …

Art 56.3 says the same, in respect of lists of names to be rejected.

The situation covered by Art 57.2 (see below) can also be dealt with via the lists allowed by Arts 14.13 and 56.3.

Following the proposal of Hawksworth (2015), the terms 'protect' and 'suppress' are used here for actions under articles 14.13 and 56.3.

**2. Confirmation of working groups**

Working groups and various other initiatives are listed on the ICTF website at:

http://www.fungaltaxonomy.org/subcommissions

At the CBS Symposium week in April, the International Commission for the Taxonomy of Fungi (ICTF) met and agreed to confirm the specific set of working groups as listed in the accompanying document. NCF has already approved all but two of these working groups.

There is a new working group on Diaporthales (chaired by Amy Rossman, and with membership as on http://www.fungaltaxonomy.org/subcommissions). Approval of this working group will be on the next NCF ballot. NCF did not approve the working group on Oomycetes, because there are no one name : one fungus issues (see below).

**3. Clarification of 1N:1F versus names in current use**

The Preface to the current *Code* states

"In Melbourne, … it was decided that all legitimate fungal names were to be treated equally for the purposes of establishing priority, regardless of the life history stage of the type. As a consequence the Melbourne Congress also approved additional special provisions for the conservation and rejection of fungal names to mitigate the nomenclatural disruption that would otherwise arise.

Article 59 … is now limited to one paragraph … The main provisions adopted in Melbourne to minimize consequent nomenclatural disruption are to be found in Art. 14.13, by which lists of names may, after review by the appropriate committees, be conserved *en bloc* … In addition, a new Art. 56.3 provides for similar lists of names to be rejected …"

This makes it clear that the ability to submit lists of names was introduced to expedite the transition to one name : one fungus (1N:1F).

However, it is very important to note that there is nothing in Arts 14.13 and 56.3 that restricts the submission of lists to resolution of 1N:1F issues.

The report on the Nomenclature Section at the Melbourne IBC was published in 2014 in Phytokeys (*http://phytokeys.pensoft.net/articles.php?id=4000*). The discussion on Article 59 is on pp. 219-240. In this discussion, lists were referred to in several places as 'safety nets' to deal with effects of moving to 1N:1F. There was also explicit mention of the similarity of the proposed lists to the concept of lists of 'names in current use' (e.g. Greuter on p. 229). The issue of whether or not to include the types was explicitly discussed, as by Wiersema (p. 230) and Sennokov (p. 234). However, it was only in discussion of Art. 56.3 that the potential for use on names beyond 1N:1F issues was mentioned, by Redhead (p. 236).

I think there remains confusion between the two issues (1) resolve 1N:1F issues, and (2) use of Arts 14.13 and 56.3 to produce lists of names in current use.

Some working groups (such as the International Commission on *Penicillium* and *Aspergillus*) have produced extensive lists of all species within taxa of interest, such as *Penicillium* and *Aspergillus­*. These are clearly intended to be lists of names in current use. Other working groups have dealt only with choice of genera, where names typified on asexual and sexual morphs compete (however, they sometimes list other names, and it is unclear what is their intention about these other names).

Simply, we need to ask each working group what is their intention - whether they are putting up names for protection solely for resolution of 1N:1F situations, or if they wish to submit lists that include a wider scope of names for protection.

For lists that are more comprehensive than 1N:1F situations, further discussion on a standardised format would be useful, particularly around citation of type specimens. For example, the *Colletrotrichum* working group agreed that 'all names on the accepted list [for this group] need to have a living ex-type culture, and a barcode-quality ITS sequence'. The 'Genera of fungi' initiative is an example of another intensive approach, and it may be desirable in time to capture names that are being dealt with by this initiative for formal protection.

There is a wide range of opinions, from the 'Without prejudice list' approach of listing everything, through to listing being restricted to 1N:1F issues.

A middle ground is to use the mechanism of joint NCF / ICTF approval of working groups that work intensively on particular groups. This seems to have worked extremely well so far in resolving many potentially contentious issues. I would like to encourage continuation of this approach.

**4. Collation of names submitted for protection**

We need to be clear about which names are being proposed for formal protection. Each working group has produced their list in a different format, and some have explicit designation of formal actions (using the term 'protect') while others do not.

The status of lists is summarised in the accompanying spreadsheet *Names from working groups*. One table collates names put up for protection (this table needs to be completed), the other table lists the working groups and the scope of names they have proposed (genera and/or species) and the detail they have provided (citation and/or types).

In some cases name are indicated as being 'protected' when there is no need to do so from a 1N:1F perspective (e.g. a name is being taken up that is the oldest teleomorph name or that has no competing synonyms). There is also some confusion about Art. 57.3, which we have to live with for the moment (but see below).

**It would be easiest to separate out the cases that are resolution of 1N:1F issues, collate all the names, publish this list, and then the NCF can consider and approve this combined list.** Then we could move on to lists serving as lists of names in current use.

The *Code* states that names protected via lists are to be listed in an Appendix to the *Code* and that the types should be listed. For the types, most working groups have already supplied necessary data. For those that have not, and for future utility, I propose a bioinformatic solution. The global fungi name databases will need to flag which names are protected. Therefore, I will work with *Index Fungorum* and *Mycobank* to populate these databases with the fact that names are 'proposed for protection' (analogous to 'nom. cons. prop.'). The set of names can then be compared to the lists as already published. In some cases, authors of lists have already compared their lists against, for example, *Index Fungorum*. Where types have not been provided, they can be pulled out of databases, and the list returned to the working group to be checked.

I think we can put aside the precise format for the moment, and this is something that can be finalised when the Appendices are prepared. Again, a bioinformatic solution is the obvious way to go - by taking the elements from the global name databases, and doing the formatting in one go at this stage.

As an aside, we need to work within the current *Code*. As the *Code* stands at the moment names are only protected against listed synonyms. However, keep in mind that a proposal to protect listed names against all competing names has strong support (Hawksworth 2015) and could well come in to force at the 2017 IBC or 2018 IMC.

**5. Article 57.2**

Article 57.2 can be paraphrased as: must reject rejection of an anamorph name in order to take it up, when the anamorph and teleomorph names have both been widely used. This rather convoluted article has already been the cause of some confusion, and in addition, it now seems un-necessary.

The wording is: Art 57.2 … In pleomorphic fungi (… excluding lichen-forming fungi …), in cases where, prior to 1 January 2013, both teleomorph-typified and anamorph-typified names were **widely used** for a taxon, an anamorph-typified name that has priority is not to displace the teleomorph name(s) unless and until a proposal to reject the former … or to deal with the latter under Art. 14.1 or 14.13 has been submitted and rejected.

A single formal proposal utilising article 57.2 has been published. Samuels (2014, *Taxon* 63: 936–938) requested rejection of Prop. 2307 to conserve *Hypocrea lutea* against *Gliocladium deliquescens* (*Trichoderma deliquescens*) in order to take up the earlier anamorph name *G. deliquescens*, basionym of *T.* *deliquescens*, against the later teleomorph name *H. lutea*.

In the lists from working groups, there are cases of anamorph names with priority being taken up over later teleomorph names. However, there is some confusion as to when Art. 57.2 needs to be utilised, because in some cases choice of an anamorph name has been marked as a formal action ('protect'), even when it is clear that the teleomorph name has **not** been widely used.

After consultation of mycological community, and noting that there is no sanction in the Code for not following Art. 57.2, Hawksworth (2015) has proposed that Art. 57.2 be deleted. This action had support from 93% of respondents to the IMC10 nomenclature questionnaire.

There is no mechanism specified for decisions taken under Art. 57.2 to be noted formally, as in an Appendix to the *Code*. Rather than try to tease out which items in lists could fall under Art. 57.2, it seems best to henceforth bypass and/or ignore the article, both in respect of lists and in regard to the single formal proposal.

I will put to the NCF that all situations so far covered by Art 57.2 should be considered automatically approved by the NCF, and further proposals are un-necessary. If approved, this procedure will be included in the next formal report of the NCF, and I will prepare an article in *IMA Fungus*: **Mycologists instructed to ignore Article 57.2**

**Reference**

Hawksworth DL (2015) Proposals to clarify and enhance the naming of fungi under the *International Code of Nomenclature for algae, fungi, and plants*. *IMA Fungus* **6**: 199–205. [download pdf](http://www.imafungus.org/Issue/61/22.pdf)

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