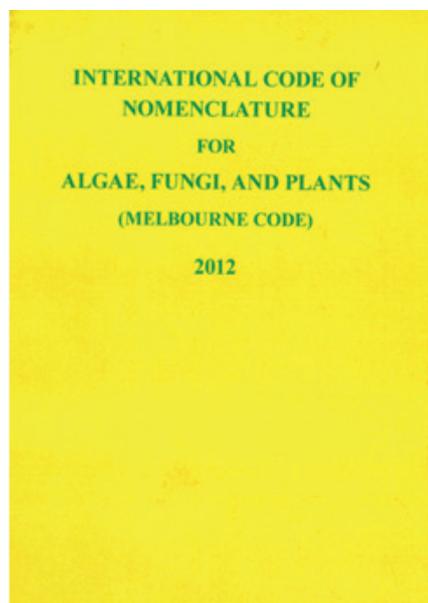


Mycologists' committees strongly support changes to the governance of fungal nomenclature



At the 10th International Mycological Congress (IMC10) in Edinburgh 2010, 86 % of mycologists responding to a questionnaire favoured that the nomenclature of fungi should continue to be governed by the then *International Code of Botanical Nomenclature* provided that matters relating only to fungi were decided at International Mycological rather than International Botanical Congresses. A suggestion supported by 71 % was that the name of the *Code* be changed to make clear it covered fungi (Norvell *et al.* 2010). At the 18th International Botanical Congress (IBC XVIII) in Melbourne in 2011, mycologists were instrumental in getting the name of the *Code* changed to the *International Code of Nomenclature for algae, fungi, and plants* (McNeill *et al.* 2012), but the issue of governance was referred to a Special Subcommittee on Governance of the *Code* with Respect to Fungi, which was charged with reporting to the next IBC to be held in Shenzhen, China, in July 2017. In the interim, 93.6 % (104:7:6) of those responding to a questionnaire distributed at IMC11 in Bangkok in 2014 agreed that decisions relating to fungal nomenclature should be voted at IMCs and not IBCs (Redhead *et al.* 2014). In line with these sentiments, a detailed and carefully

considered set of proposals was published by the Subcommittee (May *et al.* 2016) and these are now to be voted on in Shenzhen. Essentially, the proposals replicate procedures for altering the *Code* already in place at the Nomenclature Section of an IBC at a proposed formal “Nomenclature Session” of an IMC, charged with dealing with matters in the *Code* solely related to fungi. The recommendations of the Special Subcommittee were supported by 80% of the Subcommittee membership and also endorsed by the International Mycological Association (May 2016).

Proposals made to an upcoming IBC are considered by the General Committee on Nomenclature (GC) appointed by the previous IBC, commented on by the Rapporteurs for the Congress, and a guiding mail vote is requested. Only individual members of the International Association for Plant Taxonomy (IAPT), members of Committees appointed by IBCs (e.g. the Nomenclature Committee for Fungi, NCF), and those who had made formal proposals are allowed to participate in the mail vote.

The International Commission on the Taxonomy of Fungi (ICTF) was pleased to note that the NCF had supported the proposals of the Subcommittee (11:5:2¹), but disappointed that the GC had voted against them (8:14:3) (Turland & Wiersema 2017). The results of the mail vote are expected to be reported in the June issue of *Taxon*. Given the extremely strong support among the mycological community for changes to the governance of fungal nomenclature, mycologists expect that the proposals from the Special Subcommittee will be considered with due care and respect at the Shenzhen Nomenclature Section — emphasising to the Section that the “fungi governance” proposals relate only to matters specific to fungi. Notwithstanding the expectation of a positive outcome for fungi governance at Shenzhen, following a telephone conference on 6 March 2017, the ICTF considered it prudent for mycologists to start to consider how to respond either to the proposals being accepted; rejected; or referred to another Special Committee. Special Committees established at an IBC report to the next IBC, which in this case

would be in 2023 – and with no assurance that any proposals made would be accepted at the next IBC.

The ICTF therefore established an *ad hoc* Working Group to consider the various options. The Working Group comprised interested members of the Commission, with the addition of several other mycologists: Lei Cai (China), Pedro W. Crous (The Netherlands), Z. Wilhelm De Beer (South Africa), David L. Hawksworth (UK, Convenor), Kevin D. Hyde (Thailand), Paul M. Kirk (UK), Robert Lücking (Germany), H. Thorsten Lumbsch (USA), Tom W. May (Australia), Andrew Miller (USA), Amy Rossman (USA), Conrad Schoch (USA), and Keith A. Seifert (Canada). This report has been prepared following e-mail exchanges amongst members of the *ad hoc* Working Group, and provides a consensus of its opinions.

There was overwhelming support for: (a) Remaining within the framework of the existing *Code*, especially in view of the change in title and the adoption of organism-neutral language wherever possible, agreed in 2011; (b) fungal-only matters being under the control of IMCs not IBCs; and (c) fungal-only material controlled by IMCs being presented as a separate section within the body of the *Code*. The optimum outcome is therefore that the fungi governance proposals (with the amendment introduced below) are accepted at Shenzhen (Option 1 in Box 1). Nevertheless, four other options were identified during discussions (Box 1). While a few felt the idea of a separate *MycCode* attractive, it was felt there was much to be gained by continuing to draw on the expertise and support of the wider botanical, mycological and phycological nomenclatural community. The *BioCode* option (Greuter *et al.* 1998) could have much to commend it for the future, but could not be implemented until there were comprehensive lists of names at all ranks to be accepted as validly published.

An amendment to the already published fungi governance proposals made here,

¹Ballots are reported in the form yes : no : abstain.

Box 1: Possible options for the future governance of the nomenclature of fungi

- (1) Separate out all fungal-only provisions into a separate chapter in the *Code* to be modified only by decisions at IMCs, with the proposals necessary to enact this being accepted at Shenzhen.
- (2) If the proposals in (1) are not accepted at Shenzhen, present the proposals to the next IMC and should they be accepted there, announce any new changes agreed at IMCs through IMA/ICTF with an instruction they are to be followed by mycologists.
- (3) Delete all non-fungal provisions in the *Code* to be adopted in Shenzhen and issue it as a separate publication with fungal rather than plant examples under a title such as the *International Code of Nomenclature for Fungi (based on the International Code of Nomenclature for algae, fungi and plants)*.
- (4) Develop an independent *MycoCode*, based on the current *Code*, but not following its precise arrangement and numbering.
- (5) Adopt the organism-neutral *BioCode* developed by the International Commission on Bionomenclature.

providing additional clarity, is to collect all material in the *Code* relating to fungi into a single section; this being the matter that will be controlled by IMCs. As IBCs are on a six-year cycle and IMCs one of four years, in some cases there would be two IMCs between IBCs; for example, IMC11 and IMC12 will be in 2018 and 2022, and the XXth IBC in 2023. Making changes in the body of the *Code* between IBCs could potentially become rather messy and confusing to mycologists, and the Working Group saw great advantage in having all material relating to fungi in a single section. This concept was originally proposed by Werner Greuter (General Committee, Germany) on 7 April 2017 during discussions of the proposals at the Botanical Gardens and Museum in Berlin. It was noted that there is already a precedent for having a particular section in the *Code* devoted to particular groups of organisms in Appendix I dealing with the names of hybrids, and this and perhaps other organisms with special rules (e.g. fossils) might also be brought together in separate sections in the existing *Code*; perhaps better indicated as Chapters rather than Appendices.

In conclusion, this *ad hoc* Working Group suggests that the Nomenclature Section of the XIXth IBC, meeting in Shenzhen on 17–22 July 2017, might favourably view the following proposal to be made from the floor during the Congress as a clarifying amendment to the set of proposals already in place concerning “fungi governance” (May *et al.* 2016):

“The Section instructs the Editorial Committee to bring together all material relating only to fungi into a separate section or chapter within the Code, and that this section be subject to modification only by International Mycological Congresses operating as proposed by the Special Subcommittee on the Governance of the Code with Respect to Fungi.”

The “material” comprises pertinent Articles, Notes, and Recommendations: Articles 13.1 (d) (starting point date), 14.3 and 56.3 (lists of names for protection or suppression), 15 (sanctioning), 42 (registration), 57.2 (take up of names typified by asexual morphs), and 59 (pleomorphic fungi). Of these, there is strong support for Art. 57.2 to be removed at Shenzhen (Hawksworth 2016). The parts of Preamble 8, addressing what organisms are treated as “fungi” for nomenclatural purposes, would also be better moved to the start of the new section or chapter. Fungal examples given elsewhere in the *Code* would remain in their current positions (which mycologists would need to consult on matters not only related to fungi), as would mentions in the Glossary. Similarly, the fungal entries in the Appendices would remain; although, for lists of fungi generated through Art. 14.13, there are various options for delivery as discussed by Wiersma *et al.* (2017).

The Working Group considers that this outcome would be in the best interests of the nomenclature of fungi. The proposal above is regarded by the Special Subcommittee on Governance of the *Code* with Respect to Fungi as a friendly

amendment to their formal proposals, agreed by eight of the ten voting members (being those who supported the original published proposals of the Subcommittee). The proposal has also been circulated to the complete membership of the ICTF which strongly support the Working Group’s conclusion (18:2:1), and also to the Executive Committee of the International Mycological Association (IMA) 19 members of which (100 % of those responding) voted in favour.

The ICTF *ad hoc* Working Group is indebted to Sandra A. Knapp (Chair of the Shenzhen Nomenclatural Section) and Nicholas J. Turland (Rapporteur-General to the Section; Germany) for constructive and frank discussions and advice.

Greuter W, Hawksworth DL, McNeill J, Mayo MA, Minelli A, *et al.* (1998) Draft BioCode (1997): the prospective international rules for the scientific names of organisms. *Taxon* 47: 127–372.

Hawksworth DL (2016) 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.

May TW (2016) Report of the Special Subcommittee on Governance of the Code with Respect to Fungi. *Taxon* 65: 921–925.

May TW, de Beer ZW, Crous PW, Hawksworth DL, Liu X, *et al.* (2016) (363–363) Proposals to amend the *Code* to modify its governance with respect to names of organisms treated as fungi. *Taxon* 65: 918–920.

McNeill J, Barrie FR, Buck WR, Demoulin V, Greuter W, *et al.* (eds) (2012) *International Code of Nomenclature for algae, fungi, and plants*

- (*Melbourne Code*) adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011. [Regnum Vegetabile No. 154.] Königstein: Koeltz Scientific Books.
- Norvell LL, Hawksworth DL, Petersen RG, Redhead SA (2010) The IMC9 Edinburgh Nomenclature Sessions. *Mycotaxon* 113: 503-511; *IMA Fungus* 1: 143-147.
- Redhead SA, Demoulin V, Hawksworth DL, Seifert KA, Turland NH (2014) Fungal nomenclature at IMC10: report of the Nomenclature Sessions. *IMA Fungus* 5: 449-462.
- Turland NJ, Wiersema JH (2017) Synopsis of proposals on nomenclature – Shenzhen 2017: a review of the proposals concerning the *International Code of Nomenclature for algae, fungi, and plants* submitted to the XIX International Botanical Congress. *Taxon* 66: 217-274.
- Wiersema JH, May TW, Turland NJ (2017) Report on corrections and future considerations for Appendices II–VIII of the *International Code of Nomenclature for algae, fungi, and plants*. *Taxon* 66: in press.
- Andrew Miller
(Secretary, ICTF; amiller7@illinois.edu)
Lei Cai, Pedro W. Crous,
Z. Wilhelm De Beer, David L.
Hawksworth, Kevin D. Hyde,
Paul M. Kirk, Robert Lücking,
H. Thorsten Lumbsch, Tom W.
May, Amy Y. Rossman, Conrad L.
Schoch, and Keith A. Seifert

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