

## NOMENCLATURE COMMITTEE REPORTS

Edited by John McNeill

## Report of the Nomenclature Committee for Fungi 19: Official repositories for fungal names

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**Summary** The Committee supports recognition of multiple official repositories over a single repository, and accepted three: Fungal Names, Index Fungorum, and MycoBank starting 1 January 2013, noting that parties representing the three have signed a Memorandum of Cooperation that expires immediately following the next International Botanical Congress in 2017. The effectiveness of this arrangement will be evaluated and reviewed by 2014 when the International Mycological Congress must ratify the NCF recommendations.

The previous report of the Nomenclature Committee for Fungi, dealing with conservation and rejection of names, appeared in *Taxon* 60: 1199–1201. 2011. The Committee as established at the International Botanical Congress in Melbourne, Australia in July–August 2011 comprised the following members: L.L. Norvell (U.S.A., Secretary), J.L. Crane (U.S.A.), J. Dianese (Brazil), M. Gryzenhout (South Africa), T. Iturriaga (Venezuela), M. Kirchmair (Austria), P.M. Kirk (U.K.), R. Kirschner (Taiwan), Pei-Gui Liu (China), T.W. May (Australia), J. Melot (Iceland), A.M. Minnis (U.S.A.), S.R. Pennycook (New Zealand), C. Printzen (Germany), S.A. Redhead (Canada), S. Ryman (Sweden), D. Triebel (Germany), Yi-Jian Yao (China). Subsequent to the Congress, the Committee elected S.A. Redhead as its new Chair in succession to Vincent Demoulin, who had resigned after over 30 years service on the Committee (12 as Chair) to permit his appointment as a member of the General Committee. In October, Dr. Christian Printzen, a valuable member since 2004, resigned from the NCF, bringing the current membership down to 17.

Beginning 1 January 2013, a prerequisite for valid publication of a fungal name is the citation in the protologue of an identifier issued by a recognized repository as set out in Art. 42.1 of *The International Code of Nomenclature for algae, fungi, and plants (Melbourne Code)* (ICN) (McNeill & al. in *Regnum Veg.* 154. 2012). Article 42.3 empowers the Nomenclature Committee for Fungi (NCF) with the ability to appoint and recognize one or more repositories subject to later ratification by an International Mycological Congress. Taken at face value, this would appear to be a simple task that would have, and should have, been decided much earlier in 2012. However, the ‘Realpolitik’ behind this task was far more complex.

Those attending the XVIII International Botanical Congress in Melbourne in July 2011 regarded one prominent online registry established in 2005, MycoBank (<http://www.mycobank.org>), as being used voluntarily and frequently enough by mycologists to serve as a cited example of a potential repository (Art. 42.1 Ex. 1). In reality, however, two other repositories had been developed in anticipation of the need for official repositories. These were Index Fungorum (<http://www.indexfungorum.org>) and Fungal Names (<http://fungalinfo.im.ac.cn/fungalname/fungalname.html>). Currently, MycoBank is owned by the International Mycological Association and is run on servers in Belgium and the Netherlands. Index Fungorum, which began functioning as a repository in 2009, was run by a partnership that changed during 2012,

initially comprising three partners—CABI, U.K. (<http://www.cabi.org>), CBS-KNAW Fungal Biodiversity Centre, Netherlands (<http://www.cbs.knaw.nl>), and Landcare Research, New Zealand (<http://www.landcareresearch.co.nz/home>)—but by mid 2012 consisting of two, CABI and Landcare Research; by November 2012, following the transfer of Index Fungorum curator, Dr. Paul Kirk from CABI (on whose servers IF resided) to the Royal Botanic Gardens, Kew, the IF partnership consisted of a single partner, Landcare Research, on whose servers it currently resides. Fungal Names is an initiative of the Institute of Microbiology, Chinese Academy of Sciences (IM-CAS), with servers in Beijing.

The differing views in the mycological community became readily apparent at the CBS symposium: One Fungus = Which Name? (<http://www.cbs.knaw.nl/News/NewsDetails.aspx?Rec=70>) held in Amsterdam (12–13 April 2012) and subsequent meetings of the International Mycological Association executive and the International Commission on the Taxonomy of Fungi, both held at CBS in Utrecht (14 April). On 14 May, IMA president Dr. John Taylor wrote to the NCF urging the NCF to consider MycoBank as the “central registry” but also acknowledging that other repositories (Index Fungorum, Fungal Names) might be recognized.

Further discussions on registries were held during a nomenclatural session (16 July) at the Mycological Society of America annual meeting (Yale University, New Haven, Connecticut, U.S.A.).

Major decisions on registries were delayed pending a meeting of representatives of the three repositories (Drs. Kirk, Vincent Robert, and Yi-Jian Yao) at the New Era of Fungal Nomenclature symposium in Beijing (9–10 August), ([http://www.mycolab.org.cn/templates/T\\_second\\_EN/index.aspx?nodeid=248](http://www.mycolab.org.cn/templates/T_second_EN/index.aspx?nodeid=248)). Notably, Drs. Kirk and Yao are also NCF members while NCF secretary Dr. Lorelei Norvell was unable to attend due to illness. Following negotiations between the three representatives, NCF Chairman Scott Redhead reported on an agreement to work towards a Memorandum of Cooperation (MOC), noting that letters of institutional support might be needed to help the NCF decide which repositories could be supported.

The Chinese Academy of Science provided a letter of support for Fungal Names (16 August 2012) and V. Robert initiated a draft MOC starting with MycoBank and IMA. All documents were circulated within the NCF (10 October) and among the three repositories. Voting was further delayed during the transfer of Index Fungorum

to Landcare Research while still curated by P. Kirk (at Kew since 1 November). The NCF began voting on repositories on 19 November, and the MOC between CBS-KNAW (Dr. Pedro Crous) and IMA (Dr. John Taylor) for MycoBank, Landcare Research (LCR) (Dr. Richard Gordon) for Index Fungorum, and Dr. Li Huang, Institute of Microbiology, CAS (IM-CAS), for Fungal Names was signed 27–29 November. NCF members have been kept up-to-date and allowed to modify votes following receipt of the final signed MOC should they so desire. Voting essentially ended 3 December 2012.

As noted above, the resignation of Dr. Printzen brought the membership down to 17. A ballot containing 13 repository-related items was sent to the remaining 17 members, of whom 14 returned ballots, 2 acknowledged receipt of the earlier documentation leading up to the votes, and 1 has not responded and cannot be contacted. A 60% majority (11 of the remaining 17 members) of the NCF membership must vote yes or no to make a recommendation. Although not all issues have received the necessary consensus, the following principal issues were resolved by ballot.

Each of the three repositories was accepted:

Fungal Names (~71% recommend): Yes: 12; No: 1; Abstain: 1  
 Index Fungorum (~71% recommend): Yes: 12; No: 1; Abstain: 1  
 MycoBank (~82% recommend): Yes: 14; No: 0; Abstain: 0

Do you favour a single repository? (~65% do not recommend): Yes: 3; No: 11

Do you favour more than one repository? (~71% recommend): Yes: 12; No: 2

Should the NCF require that responsible representatives for any repository sign an MOU or MOC indicating that they will cooperate as requested by the NCF? (~71% recommend): Yes: 12; No: 2

If multiple registries are approved, is synchronized data-sharing in the minimal fields essential? (~71% recommend): Yes: 12; No: 2

If requiring synchronized data, should the NCF also require shared unique identifier numbers among all the registries? (~65% recommend): Yes: 11; No: 2; Abstain: 1

If multiple repositories are approved, should all be pre-fixed with the same identifying acronym identifier? (~71% recommend): Yes: 12; No: 2  
 Note: No consensus was reached as to which unique prefix should be used. This will be discussed further and the next question should be noted.

Given the short period of time, do you accept that the NCF will recognize the current prefix in any official repository for the year 2013? (~65% recommend): Yes: 11; No: 2; Abstain: 1

Do you agree that only the minimal requirements are required for an official repository (see data below)? (~76% recommend): Yes: 13; No: 1

[Notably the single vote “no” was based upon the current irregularities in existing databases and raises a legitimate question that will be discussed further within the NCF.]

Minimal requirements for registration of fungal names (Art. 42.2):

1) Scientific name

a. rank [plus combined taxon name where applicable] (Art. 37.1)

b. Basionym (Art. 41.5)

i. basionym or replaced synonym name and citation [date, volume, page, or equivalents]

2) Validating description (or) diagnosis (Latin or English) of new taxon names (Art. 39.2)

3) Place of effective publication of name (Art. 29.1)

a. Book or Journal volume or DOI equivalent

b. Page [or page equivalent]

c. year

4) Holotype [or equivalent when new] (Art. 40.1)

a. Holotype specimen identifier number or other identifying data for species and subspecific taxon names

b. Type taxon name and authorship [or identifier] for supraspecific taxon names

5) Location of holotype [herbarium, institute, collection] (Art. 40.7)

Should the NCF require that official repositories (in the future) also require recommended data (see below)? (Unresolved; ~47% do not recommend) Yes: 4; No: 8

Additional data (Recommendation 42A.2):

1) Gender of new name

2) Etymology

The Committee will continue discussions on how best to implement registration and will review and evaluate the effectiveness of the arrangement after one year in order to provide a more complete report in time for the International Mycological Congress in 2014 and also to decide whether any repository is not functioning as expected and should be removed or whether to consider additional repositories. We note that the MOC between the four parties (i.e. CBS-KNAW, IMA, IM-CAS, and LCR) runs until August 2017 immediately following the next International Botanical Congress, at which time it automatically expires unless renewed.