

Genera and Genomes symposium

The CBS Spring Symposium (24–25 April 2014) in Amsterdam again formed part of a Spring Symposium week, which was preceded by a two-day DNA Barcoding Master Class meeting held at CBS in Utrecht. More than 150 participants registered for the Amsterdam meeting, representing 26 different countries. The successful CBS Spring Symposia, “One Fungus = One Name” (2011), “One Fungus = Which Name” (2012), and “One Fungus = Which Genes” (2013) had a great impact on the mycological community. Following on from the Amsterdam declaration on Fungal Nomenclature (Hawksworth *et al.* 2011), which led to the merging of asexual and sexual genera (see several papers in *IMA Fungus*), and the “Best Gene for Fungi” meeting held in Amsterdam (2011), which again resulted in the ITS region being chosen as official barcode for fungi (Schoch *et al.* 2012), as well as the “One Fungus = Which Genes” meeting held in 2013 to identify secondary DNA barcodes, it was clear that a meeting had to be organized to merge the new Genera of Fungi initiative with fungal genomics. Issues that needed to be addressed concerned procedures for choosing appropriate generic names, typification of these genera, and selecting appropriate isolates for whole genome analysis. The meeting was kicked off with a genomics session, and talks presented by Adrian Tsang (gene curation), Xingzhong Liu (secondary metabolism in *Pestalotiopsis*), Jason Stajich (comparative genomics), Joey Spatafora (F1000

progress) and John Taylor (evolutionary genomics). The morning was rounded off by a session focusing on fungal databases, with talks from Urmas Koljag (Unite and next generation sequencing), Conrad Schoch (New developments at NCBI), Vincent Robert (Mycobank and next generation sequencing) and Henrik Nilsson (ITS data curation). Following a light lunch the third session dealing with protected lists of names saw excellent talks delivered by Paul Kirk (development of lists), David Hawksworth (Changes to be implemented in the Code), Scott Redhead (Protected names and the NCF), and a general discussion.

During the General Discussion the various proposals for changes were discussed and, dissent mainly concerned the issues of allowing any precedence for sexually typified names and the complexity of the proposals for cases where the same epithet had been deliberately introduced when a new morph had been discovered. In addition, the possibility of having either a cut-off date where old names could not be taken up or omitted names added to Index Fungorum was raised.

The day was rounded off by a book launch, namely “*Philatelic Mycology: Families of Fungi*” by Marasas *et al.*, as number 14 in the CBS Biodiversity Series.

Friday started with the two CBS awards, namely the Johanna Westerdijk (awarded to Jens Frisvad) and Josef von Arx Awards (awarded to Harry Evans and Amy Rossman) (see pp. (11)–(12)). The first scientific session of the

day dealt with the generic concept in fungi, and saw talks by Harry Evans (entomopathogenic ascomycetes), Amy Rossman (genera of *Leotiomyces*), Keith Seifert (genera are real), Marc Stadler (genera of *Xylariaceae*), Jens Frisvad (Chemotaxonomy and the generic concept), Hugo Madrid (the *Exerobilum* generic complex), and Pedro Crous (launch of the “Genera of Fungi” project). The final session after lunch focused on new taxonomic and phylogenetic studies, and saw talks from Wilhelm de Beer (*Ceratocystis*), Joyce Woudenberg (*Alternaria*), Marc-Henri Lebrun (*Pyricularia*), William Quaedyvlieg (*Teratosphaeriaceae*), Lorenzo Lombard (*Nectriaceae*), and Eric Kuhnert (secondary metabolites in *Xylariaceae*).

The next CBS Spring Symposium week will be held 20–25 April 2015, and will consist of three meetings, namely a two-day *Fusarium* workshop to be held at CBS, Utrecht (20–21 April), the Genera of Fungi symposium in Amsterdam (23–24 April), and the Second International Workshop on Ascomycete Systematics (25–26 April), to be held at CBS, Utrecht. For details and updates, please consult the CBS website, www.cbs.knaw.nl.

Hawksworth DL, Crous PW, Redhead SA, Reynolds DR, Samson RA, *et al.* (2011). The Amsterdam Declaration on Fungal Nomenclature. *IMA Fungus* 2: 105–112.
Schoch CL, Seifert KA, Huhndorf S, Robert V, Spouge JL, *et al.* (2012) *Proceedings of the National Academy of Sciences, USA* 109: 6241–6246.

IMA Executive Committee Meeting

The IMA Executive Committee met on 26 April 2014 at CBS in Utrecht. Those present included John W. Taylor (President), Nick D. Read (Vice President), Karen Hansen (Treasurer), Dominik Begerow (General Secretary), Pedro Crous (Past President), David L. Hawksworth (Hon President); EC members Lene Lange, Wieland Meyer, Mike Wingfield, Aida Vasco (RMMO Latin America), Xingzhong Liu (RMMO Asia); Sustaining Mycological Member Organizations: Scott Redhead (MSA), Marc Stadler (DGfM), by telephone Paul Dyer (British Mycological Society); and

Jennifer Luangsa-ard (IMC10 Organizing Committee).

IMA Treasurer Karen Hansen reported that the IMA treasury contains almost 40,000 € and that dues from the SMMOs are paid up. Regarding the most significant expense, *IMA Fungus*, EiC David Hawksworth reported on the journal. The good news is that the *IMA Fungus* is receiving a healthy number of manuscripts. It could, however, use more news articles and contributions from RMMOs and SMMOs. Annual costs are running at 9,500 € despite significant

volunteer labour from CBS. Raising revenue through a modest, voluntary page charge was discussed. The journal is available on the web and the possibility of print-on-demand for individuals and institutions needing a printed copy was discussed. Another significant expense comes from the IMA Young Mycologist Awards and it was decided that, beginning at IMC11 in 2018, these awards shall consist of free registration and an invitation to make an oral presentation at the next IMC.

Mycobank is also enjoying an abundance of submissions. The next big



Scenes from the “Genera and Genomes” symposium held in the Trippenhuis, headquarters of the Royal Netherlands Academy of Arts and Sciences, Amsterdam, on 24–25 April 2014.



Scenes from the “Genera and Genomes” symposium held in the Trippenhuys, headquarters of the Royal Netherlands Academy of Arts and Sciences, Amsterdam, on 24–25 April 2014; the launch and presentation of “*Philatelic Mycology: Families of Fungi*” to Thom Kuyper (past chair of the Dutch Mycological Society), and the committee meetings on Saturday, 26 April at the CBS.

unveiling will be community annotation, which will require a training protocol, which is currently under development. An area needing attention is the quality of the metadata that accompany new species. One solution discussed at the EC would be the creation of a set of data fields that must be filled before registering a novel species. If journals required the data, as they now do for DNA sequence and phylogenetic alignments, the scheme could solve the problem. To personalize MycoBank, IMA Vice-President Pedro Crous suggested creating profiles of submitters, including their photos and links to their websites. Synchronization of registration of new species is not yet automated, which requires considerable labour and resources for manual synchronization. Solutions to this problem were discussed.

IMC10 Steering Committee Co-Chair, Jennifer Luangsa-ard, reported on the preparations for IMC10. Nearly 1000 delegates have indicated participation at the congress, which has engaged the keynote, plenary and symposium speakers. To save resources, the EC recommended not printing the abstracts, rather making them available on the web. The EC suggested some minor adjustments to the IMC10 programme concerning the opening and closing ceremonies. The EC was enthused about the nomenclature sessions and the role that IMC10 will play in ratification of changes made at the IBC in Melbourne.

EC member Lene Lange reported on the effort of global mycology to engage with the OECD, which has evolved from a broad initiative to the need for a focused programme along the lines of successful international mycology efforts, such as, fungal barcoding or MycoBank.

RMMO reports, initiated by EC member, Lene Lange, were received from RMMOs in Asia, Australasia and Latin America. From Asia, Xingzhong Liu reported on the very successful Asian



The IMA Executive Committee meeting at the CBS, 26 April 2014.

Mycological Congress held in Beijing in 2013 and the next AMC, to be held in Goa, India in 2015. From Australasia, Wieland Mayer reported on the effort by that RMMO to expand service to Oceania and New Zealand. From Latin America, Aido Vasco reported about the efforts of that RMMO to base the administration of the Asociación Latinoamericana de Micología around the website, thus enabling transitions as the presidency transitions from country to country. A written report was received from Marieka Gryzenhout of the African RMMO.

IMA Fellows: A new, mid-career IMA award was discussed for unveiling at IMC10, the IMA Fellows. Population of the founding IMA Fellow cohort was discussed with emphasis placed on former officers and others who made the most significant contributions to the functioning of the IMA.

IMC11 (2018): Detailed bids were received from China and Puerto Rico. The EC felt that both bids were of high quality,

but had some questions for both groups concerning student bursaries and other matters, including the IMA delegate levy, which the EC voted to raise to 40 € per delegate. The EC also instituted a standing, IMA programme committee to work with the committee of mycologists from the host country to provide help in designing and implementing the IMC program.

One Fungus – One Name: To facilitate community involvement in the lists of fungi associated with choosing which name to apply to fungi, and to make the most of the nomenclature sessions at IMC10, the IMA needs to ensure that the various lists are available on the IMA website. The EC is taking steps to achieve this goal.

New members for the IMA Executive Committee: All mycologists, RMMO, SMMOs and MMOs are encouraged to forward the names of mycologists who would make good EC members before the end of July 2014 to IMA Secretary-General, Dominik Begerow, dominik.begerow@rub.de.

Meeting Report: Workshop on Sequence-based Classification of Fungi

Twenty-nine systematists, ecologists, plant pathologists, students, and bioinformaticians met on 12–13 June 2014, in East Lansing (MI, USA), to ponder the complexities of DNA sequence-based classification and identification (SBCI) in *Fungi*. The gathering drew participants

from seven nations and was supported by the US National Science Foundation (NSF award number DEB-1434740, to DG, DH, AP, and JT). The goals of the workshop were to: (1) develop a blueprint for the establishment and promotion of community standards and protocols for classification

of fungi using diverse DNA sequence data; (2) facilitate molecular studies of the environment that involve bioinventories of fungal community members; and (3) serve as a model for adapting classification tools to next-generation studies of microbial biodiversity.

A white paper describing the products of the workshop in detail will be produced, and a draft will be posted on the IMA website in advance of IMC10 in Bangkok

(3–8 August 2014). The IMC will include several events focused on the challenges of SBCI, including a “Special Interest Group” session on “Classifying, naming and

communicating sequence based species” that will provide opportunities for discussion and feedback, centered on the conclusions of the East Lansing workshop.



Participants at the East Lansing Workshop. *First row* (left to right): Brandy R. Lawrence, University of Findlay; Shiloh Lueschow, Western Illinois University; Qiong Wang, Michigan State University; Andrea Porras-Alfaro, Western Illinois University; Amy Kelly, USDA ARS NCAUR; Ryoko Oono, University of California, Santa Barbara. *Second row*: Thorunn Helgason, University of York; Pedro Crous, CBS-KNAW Biodiversity Centre; Shiou-Ruei Lin, Tea Research and Extension Station; Maarja Öpik, University of Tartu; Vincent Robert, CBS-KNAW Biodiversity Centre. *Third row*: John Taylor, University of California, Berkeley; Donald M. Walker, University of Findlay; Urmas Kõljalg, University of Tartu; Kessy Abarenkov, University of Tartu; David M. Geiser, Penn State University; Benli Chai, Michigan State University. *Last row*: Joshua R. Herr, Michigan State University; Nathan Wilson, Encyclopedia of Life; Peter Young, University of York; James R. Cole, Michigan State University; Conrad Schoch, National Center for Biotechnology Information; R. Henrik Nilsson, University of Gothenburg; Paul Kirk, Royal Botanic Gardens Kew; Lynnaun Johnson, Northwestern University; Kerry O'Donnell USDA ARS NCAUR; Todd Ward, USDA ARS NCAUR; David Hibbett, Clark University. *Not shown*: Christopher Smyth, Penn State University.

