

Supplementary File 3

Phylogenetic placement of fungal orders described after Hibbett *et al.* (2007).

ASCOMYCOTA

(Lumbsch & Huhndorf, 2010)

- Abrothallales: (Pérez-Ortega *et al.*, 2014)
- Acrospermales, Dyfrolomycetales, Monoblastiales, Lichenotheliales, Strigulales: (Wijayawardene *et al.*, 2014)
- Amphisphaeriales: (Senanayake *et al.*, 2015)
- Archaeorhizomycetes: (Rosling *et al.*, 2011)
- Ascosphaerales & Arachnomycetales: (Kirk *et al.*, 2008)
- Asterinales: (Hongsanan *et al.*, 2014)
- Asterotexiales: (Guatimosim *et al.*, 2014)
- Celotheliales: (Gueidan *et al.*, 2014)
- Dothideomycete families: (Schoch *et al.*, 2009a; Wijayawardene *et al.*, 2014)
- Eremithallales: (Lucking *et al.*, 2008)
- Geoglossomycetes & Geoglossales: (Schoch *et al.*, 2009b)
- Lecanoromycete families: (Miadlikowska *et al.*, 2014)
- Lecanoromycete orders (Arctomiales, Caliciales, Hymeneliales, Sarrameanales, Trapeliales): (Miadlikowska *et al.*, 2014)
- Lecideales: (Schmull *et al.*, 2011)
- Leotiomycete families: (Wang *et al.*, 2006)
- Mytilinidiales: (Boehm *et al.*, 2009)
- Natipusillales: (Hongsanan *et al.*, 2014)
- Phaeomoniellales: (Chen *et al.*, 2015)
- Saccharomycotina families: (Kurtzman, 2011)
- Sordariomycete families and orders (Amplistromatales, Annulatascales, Cordanales, Falcocladiales, Glomerellales, Jobellisiales, Koralionastetales, Magnaporthales, Pisorisporiales, Savoryellales, Togniniales): (Maharachchikumbura *et al.*, 2015)
- Taxonomic confusion exists at almost all taxonomic levels within the Leotiomycetes: (Johnston *et al.*, 2014)
- Trapeliales & Sarrameanales: (Hodkinson & Lendemer, 2011)
- Trypetheliales: (Hyde *et al.*, 2013)
- Tubeufiales: (Boonmee *et al.*, 2014)
- Umbilicariales: (Miadlikowska *et al.*, 2014)
- Valsariales: (Jaklitsch *et al.*, 2015)
- Venturiales: (Wijayawardene *et al.*, 2014; Zhang *et al.*, 2011)
- Xylonomycetes: (Gazis *et al.*, 2012)

BASIDIOMYCOTA

- Amylocorticiales & Jaapiales: (Binder *et al.*, 2010) Jaapiales is sister to Agaricomycetidae
- Ceraceosorales: (Wang *et al.*, 2015)
- Geminibasidiales: (Nguyen *et al.*, 2013)
- Geminibasidiomycetes: (Nguyen *et al.*, 2015)
- Golubeviales: (Wang *et al.*, 2015)
- Holtermanniales: (Liu *et al.*, 2015)
- Kriegeriales: (Toome *et al.*, 2013)
- Lepidostromatales: (Hodkinson *et al.*, 2014)
- Moniliellales: (Wang *et al.*, 2014)
- Robbauerales: (Wang *et al.*, 2015)
- Trichosporonales: (Liu *et al.*, 2015)
- Tritirachiomycetes: (Schell *et al.*, 2011)
- Wallemiomycetes at base of Agaricomycotina: (Nguyen *et al.*, 2013)

EARLY-DIVERGING FUNGI

- Basidiobolales (Gryganskyi *et al.*, 2012)
- Cladochytriales (Mozley-Standridge *et al.*, 2009)
- Lobulomycetales (Simmons *et al.*, 2009)
- Mortierellomycotina (Hoffmann *et al.*, 2011)
- Olpidiomycota: Index Fungorum no. 42, Effectively published 27/12/2013 22:02:48 (ISSN 2049-2375), Nomenclatural novelties: Alexander B. Doweld; Publication Name: Index Fungorum 42: 1. 28 Dec 2013.
- Rhizophlyctidales (Letcher *et al.*, 2008)

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