

Supplementary Data S3. Fully resolved phylogenetic tree of the AGF LSU D1-D2 region. DQ536493 (*Chytriomycetes* sp. WB235A) was included as an outgroup. Filled symbols: reference strain(s) of a validly published species is available; valid taxonomic assignments are in italics. Open symbols: No cultured reference strain available, species defined only by genetic traits („genospecies“). Filled triangles pointing left: compressed clade. Triangle pointing down: Order level node. Triangle pointing up: Potential family level node. Square: Genus level node (established or > 95% sequence identity); „>“ in assignments means that the clades have genus level but only one species can be shown. Circle: Species-level node (established or > 98.5 % sequence identity).