

**Table S3: Cultures used in experimental assessment of saprotrophy**

<b>Species Name</b>	<b>Strain ID</b>	<b>Source</b>	<b>GenBank Accession # of nuLSU Sequence</b>
<i>Amanita muscaria</i> var <i>guessowii</i> (type 1)*	PS #283	Penn State Spawn Collection, #283 (from forest in United States, Pennsylvania)	HQ593121
<i>Amanita muscaria</i> var <i>guessowii</i> (type 2)	Koide BX008	Mushroom collected by Dr. Roger Koide, (from forest in United States, Pennsylvania)	HQ593120
<i>Amanita crenulata</i>	MM 9.01.06	Mushroom collected by authors, United States, Massachusetts	HQ593117
<i>Amanita</i> affin. <i>flavoconia</i>	PS 35	Penn State Spawn Collection, #35; (isolated in United States, Oregon)	HQ539663
<i>Amanita</i> affin. <i>brunnescens</i>	BW HF10C	Mushroom collected by authors, United States, Massachusetts	HQ539661
<i>Amanita</i> affin. <i>citrina</i>	BW PNC	Mushroom collected by authors, United States, New Jersey	HQ539662
<i>Amanita cinereoconia</i>	BW_PSF	Mushroom collected by authors, United States, New Hampshire	HQ593118
<i>Amanita polypyraxis</i>	BW_CC	Mushroom collected by authors, United States, Massachusetts	HQ593122
<i>Amanta cokeri</i>	BW_STF 090506-19	Mushroom collected by authors, United States, Massachusetts	HQ593113
<i>Amanita inopinata</i>	Kibby_2008	Mushroom collected by authors, United Kingdom, Suffolk	HQ593116
<i>Amanita thiersii</i>	SKay4041_het	Mushroom provided to authors by Sherry Kay, United States, Kansas	HQ593114
<i>Amanita manicata</i>	Hemmes_2008	Mushroom collected by authors, United States, Hawaii	HQ593115
<i>Volvariella bombycina</i>	PS# WC 427	Penn State Spawn Collection, WC 427 (isolated from wood, United States, Michigan)	HQ593119
<i>Volvariella volvacea</i>	PS# WC 439	Penn State Spawn Collection, WC 439 (isolated in China)	HQ539767

\*The two *Amanita muscaria* var. *guessowii* strains represent two genetically distinct types based on SNPs identified in the ITS sequences of these strains. They are placed in the I/A NE US clade of the *Amanita muscaria* species complex identified by Geml J, Tulloss RE, Laursen GA, Sazanov NA, Taylor DL. 2008. Evidence for strong inter- and intracontinental phylogeographic structure in *Amanita muscaria*, a wind-dispersed ectomycorrhizal basidiomycete. Mol Phylogenet Evol 48(2):694-701.