

**Supplementary Table S1.** All Pezizales fungi collected and tested for germination and growth in axenic culture. Taxa for which no germination date is listed did not successfully germinate in culture.

Herbarium ID/Collection ID	Taxon	Media	Collection Date	Inoculation date	Germination Date
JV202	<i>Aleuria</i> sp.	MEA & WA	Sep-25 2021	Apr-5 2022	
FLAS-F-68423	<i>Aleuria aurantia</i>	MEA & WA	Sep-6 2021	Jan-24 2022	
JV213	<i>Aleuria aurantia</i>	MEA & WA	Oct-5 2020	Mar-31 2022	
FLAS-F-68218	<i>Galiella</i> sp.	MEA & WA	Aug-16 2021	Feb-14 2022	Feb-19 2022
FLAS-F-68574	<i>Galiella rufa</i>	PDA	Aug-12 2021	Jan-17 2022	Jan-24 2022
MSC0286084	<i>Gyromitra venenata</i>	MEA & WA	May-23 2021	Mar-31 2022	Apr-1 2022
JV259	<i>Gyromitra</i> cf. <i>perlata</i>	MEA & WA	Apr-22 2021	Apr-5 2022	
FLAS-F-68436	<i>Helvella</i> sp.	MMN & WA	Sep-9 2021	Mar-21 2022	
FLAS-F-68434	<i>Helvella</i> cf. <i>crispa</i>	MMN & WA	Sep-6 2021	Mar-14 2022	
FLAS-F-68437	<i>Humaria</i> sp.	MMN & WA	Sep-6 2021	Mar-14 2022	
FLAS-F-68655	<i>Jafnea semitosta</i>	MEA & WA	Sep-8 2021	Jan-24 2022	
FLAS-F-68766	<i>Legaliana</i> sp.	MEA & WA	Sep-10 2021	Jan-31 2022	
JV413	<i>Legaliana</i> sp.	MMN & WA	Nov-3 2021	Mar-21 2022	
FLAS-F-68601	<i>Legaliana</i> sp.	MMN & WA	Aug-13 2021	Mar-21 2022	
FLAS-F-68704	<i>Leucosypha</i> sp.	MMN & WA	Sep-9 2021	Mar-21 2022	
MSC0286085	<i>Morchella angusticeps</i>	MEA & WA	May-1 2021	Apr-5 2022	Apr-6 2022
JV431	<i>Octospora</i> sp.	MEA & WA	Jan-7 2022	Jan-13 2022	
FLAS-F-68679	<i>Otidea</i> sp.	MMN & WA	Sep-9 2021	Mar-14 2022	
FLAS-F-68217	<i>Otidea</i> sp.	MEA & WA	Aug-16 2021	Jan-27 2022	
FLAS-F-68566	<i>Paragalactina</i> sp.	MEA & WA	Aug-12 2021	Mar-28 2022	
JV420	<i>Peziza</i> sp.	MEA & WA	Nov-1 2021	Mar-28 2022	

JV421	<i>Peziza</i> sp.	MEA & WA	Nov-1 2021	Feb-28 2022	
JV436	<i>Peziza</i> sp.	MEA & WA	Oct-27 2021	Feb-28 2022	
JV413	<i>Peziza</i> sp.	MEA & WA	Nov-3 2021	Feb-28 2022	
JV419	<i>Peziza</i> sp.	MEA & WA	Nov-1 2021	Feb-28 2022	
MSC0286082	<i>Peziza varia</i> species complex sp.	MEA & WA	May-23 2021	Apr-12 2022	Apr-14 2022
JV436	<i>Peziza</i> sp.	MEA & WA	Oct-17 2021	Mar-28 2022	
FLAS-F-68216	<i>Peziza atrovinosa</i>	MEA & WA	Aug-2021 2021	Jan-13 2022	
FLAS-F-68233	<i>Peziza griseorosea</i>	MEA & WA	Aug-16 2021	Jan-13 2022	Jan-24 2022
FLAS-F-68375	<i>Peziza griseorosea</i>	MEA & WA	Aug-13 2021	Jan-13 2022	Feb-14 2022
JV249	<i>Peziza</i> sp.	MEA & WA	Mar-31 2021	Mar-28 2022	Apr-23 2022
NSF-BSF-84	<i>Peziza succosa</i>	MEA & WA	Aug-12 2021	Jan-17 2022	
FLAS-F-68232	<i>Peziza succosa</i>	MEA & WA	Aug-16 2021	Feb-7 2022	
MSC0286086	<i>Peziza varia</i> species complex sp.	MEA & WA	Oct-15 2021	Jan-25 2022	Jan-28 2022
MSC0286088	<i>Peziza varia</i> species complex sp.	MEA & WA	Oct-11 2021	Feb-21 2022	Feb-22 2022
MSC0286087	<i>Peziza varia</i> species complex sp.	MEA & WA	Apr-17 2021	Mar-28 2022	Mar-29 2022
MSC0286080	<i>Peziza</i> sp. 1	MEA & WA	Oct-5 2020	Mar-31 2022	Apr-11 2022
MSC0286083	<i>Phylloscypha phyllogena</i>	MMN & WA	May-23 2021	Apr-12 2022	Apr-25 2022
FLAS-F-68602	<i>Plicariella</i> sp.	MMN & WA	Aug-13 2021	Feb-18 2022	
FLAS-F-68770	<i>Plicariella</i> sp.	MMN & WA	Sep-10 2021	Mar-21 2022	
FLAS-F-68342	<i>Plicariella</i> sp.	MMN & WA	Sep-5 2021	Mar-21 2022	
MSC0286081	<i>Pseudoplectania</i> sp.	MEA & WA	May-23 2021	Apr-5 2022	Apr-6 2022
FLAS-F-68775	<i>Pulvinula</i> sp.	MMN & WA	Sep-10 2021	Apr-18 2022	
FLAS-F-68410	<i>Ramsbottomia</i> sp.	MMN & WA	Sep-6 2021	Apr-18 2022	
FLAS-F-68215	<i>Sarcoscypha occidentalis</i>	MEA & WA	Aug-16 2021	Jan-31 2022	Feb-7 2022

FLAS-F-68662	<i>Sarcoscypha occidentalis</i>	MEA & WA	Sep-8 2021	Feb-14 2022	Feb-23 2022
FLAS-F-68705	<i>Scutellinia</i> sp.	MEA & WA	Sep-9 2021	Jan-13 2022	
FLAS-F-68459	<i>Scutellinia</i> sp.	MEA & WA	Aug-14 2021	Mar-28 2022	
FLAS-F-68510	<i>Scutellinia</i> sp.	MEA & WA	Sep-7 2021	Jan-31 2022	Feb-15 2022
MSC0286078	<i>Scutellinia</i> sp.	MEA & WA	Jul-12 2021	Apr-5 2022	Apr-15 2022
JV358	<i>Sphaerosporella brunnea</i>	MEA & WA	Jan-7 2022	Jan-13 2022	Jan-17 2022
FLAS-F-68781	<i>Tricharina</i> sp.	MEA & WA	Sep-10 2021	Jan-24 2022	
JV407	<i>Tricophaea</i> sp.	MMN & WA	Nov-4 2021	Feb-18 2022	
FLAS-F-68776	<i>Wilcoxina</i> sp.	MMN & WA	Sep-10 2021	Mar-21 2022	
FLAS-F-68467	<i>Wynnea americana</i>	MEA & WA	Aug-14 2021	Feb-1 2022	