

TABLE S4. Origin of myxomycete isolates and culture methods

Species	Isolate	Comment
<i>Didymium</i>		
<i>D. clavus</i>	It-IG45	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
<i>D. dubium</i>	Fr-K7	Collected as sporocarps; classified according to fruiting body morphology; cell-line obtained; cultivated and DNA extracted according to [12]
<i>D. dubium</i>	Fr-K15	Collected as sporocarps; classified according to fruiting body morphology; cell-line obtained; cultivated and DNA extracted according to [12]
<i>D. dubium</i>	It-K64	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. dubium</i>	Uk-K80	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. dubium</i>	Uk-K77	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. iridis</i>	Pan1-66	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. iridis</i>	Pan2	Cultivated according to [38]; DNA extracted according to [11]
<i>D. iridis</i>	Pan3-3	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. iridis</i>	Hon1-7	Cultivated according to [38]; DNA extracted according to [11]
<i>D. iridis</i>	CUR1-4	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. iridis</i>	HA4-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. iridis</i>	CR19-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. iridis</i>	CR8-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>D. squamulosum</i>	Cr10	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>Diderma</i>		
<i>D. meyeriae</i>	It-K61	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. microcarpum</i>	Uk-K93	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. niveum</i>	Fr-K10	Collected as sporocarps; classified according to fruiting body morphology; cell-line obtained; cultivated and DNA extracted according to [12]
<i>D. niveum</i>	Fr-M26	Collected as sporocarps; classified by MM; DNA extracted directly from the sporocarps
<i>D. niveum</i>	It-K66	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. niveum</i>	Uk-K79	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. saundersii</i>	Mx-K30	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>D. testaceum</i>	It-IG50	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
<i>Diderma</i> sp.	It-K68	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Diderma</i> sp.	Fr-K12	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Diderma</i> sp.	It-K56	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Diderma</i> sp.	Uk-K78	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Diderma</i> sp.	It-IG46	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
<i>Diderma</i> sp. ^(a)	Pr3-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>Lepidoderma</i>		
<i>L. aggregatum</i>	Uk-K86	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>L. carestianum</i>	Fr-K18	Collected as sporocarps; classified according to fruiting body morphology; cell-line obtained; cultivated and DNA extracted according to [12]
<i>L. carestianum</i>	It-K71	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>L. crustaceum</i>	It-K62	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>L. peyerimhoffii</i>	It-K63	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Lepidoderma</i> sp.	It-K52	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Mucilago</i>		
<i>M. crustacea</i>	No-K94	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>Badhamia</i>		
<i>B. melanospora</i>	Az4-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>B. melanospora</i>	Pr-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>B. utricularis</i>	-- ^(b)	Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]

Physaracea-like sp.	Cur1	Collected by JC; cultivated according to [38]; DNA extracted according to [12]
Craterium		
<i>C. minutum</i>	It-IG38	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
Fuligo		
<i>F. septica</i>	IW-1	Collected as sporocarps; classified by PH; DNA extracted directly from the sporocarps
<i>F. septica</i>	Mx-K28	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>F. septica</i>	NY-1	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
Leocarpus		
<i>L. fragilis</i>	It-IG39	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
Physarella		
<i>P. oblonga</i>	--	Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]
Physarum		
<i>P. albescens</i>	Fr-K2	Collected as sporocarps; classified according to fruiting body morphology; DNA extracted directly from sporocarps
<i>P. bivalve</i>	It-IG42	Collected as sporocarps; classified by I and GM; DNA extracted directly from the sporocarps
<i>P. cinereum</i>	Idn-2	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>P. compressum</i>	CJ1-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>P. compressum</i>	Cr-1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>P. didermoides</i>	--	Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]
<i>P. flavicomum</i>	UFF1	Collected and classified by GS; cultivated according to [38]; DNA extracted according to [12]
<i>P. polycephalum</i>	Wis1	Cultivated according to [38]; DNA extracted according to [11]
<i>P. pusillum</i>	CJA3	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]
<i>P. rigidum</i>	ATCC22485	Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]
<i>P. roseum</i>	C1	Collected and classified by JC; cultivated according to [38]; DNA extracted according to [12]

MYCETOZOA

Myxomycetes (plasmodial slime molds)

Stemonitales (Order)

Stemonites flavogenita ATCC24714 Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]

Echinosteliales (Order)

Echinostelium minutum ATCC22345 Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]

Protostelids

Soliformovum irregulare ATCC26826 Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]

Dictyostelids (cellular slime molds)

Acytostelium ellipticum ATCC22247 Collected and classified by EFH; cultivated according to [38]; DNA extracted according to [12]

Notes:

Collectors: I and GM, Iolantha and Giovanni Manavella (Italy); JC, Jim Clark (University of Kentucky, USA); MM, Marianne Meyer (France); EFH, Edward F. Haskins (University of Washington, USA); PH, Peik Haugen (University of Tromsø, Norway); GS, Greg Shipley (University of Texas, USA).

Geographic regions of isolates: Fr, French Alps; It, Italian maritime Alps; Mx, Mexico; Uk, Western Ukraine; No, Northern Norway; NY, New York State, USA; IW, Iowa State, USA; Us, USA.

^(a) Reported previous as *Didymium anellus* in [11,12]. ^(b) --, no isolate name given