

Table S1. Sequences of *Erysiphe* sect. *Microsphaera* retrieved from NCBI.

Species	Host	Voucher	Location	GenBank accession numbers	
				ITS	LSU
<i>Erysiphe trifoliorum</i>	<i>Trifolium pratense</i>	GUM 94	Iran	AB104521	AB103078
<i>Erysiphe alphitoides</i>	<i>Quercus robur</i>	MUMH 773	Lithuania	AB292710	
<i>Erysiphe alphitoides</i>	<i>Quercus serrata</i>	MUMH 1160	Japan	AB292695	
<i>Erysiphe alphitoides</i>	<i>Quercus</i> sp.	MUMH 3250	Australia	AB292704	
<i>Erysiphe astragali</i>	<i>Astragalus</i> sp.	N.D.*	Iran	AB104515	–
<i>Erysiphe astragali</i>	<i>Astragalus glycyphyllos</i>	HAL3358F	Germany	MZ265150	
<i>Erysiphe astragali</i>	<i>Astragalus glycyphyllos</i>	HAL3356F Epitype	Germany	MZ265151	
<i>Erysiphe astragali</i>	<i>Astragalus glycyphyllos</i>	MUMH 2585	Ukraine	LC010052	
<i>Erysiphe astragali</i>	<i>Astragalus glycyphyllos</i>	MUMH 2590	Ukraine	LC010055	
<i>Erysiphe berberidis</i>	<i>Berberis amurensis</i>	MUMH 0201	Japan	LC009930	LC009929
<i>Erysiphe berberidis</i>	<i>Berberis thunbergii</i>	HMJAU-PM92003	China	OL636062	
<i>Erysiphe berberidis</i>	<i>Berberis vulgaris</i>	GUM 73	Iran	AB104520	AB103076
<i>Erysiphe berberidis</i>	<i>Mahonia fortunei</i>	MUMH 0575	Japan	LC009951	
<i>Erysiphe berberidis</i> var. <i>asiatica</i>	<i>Berberis thunbergii</i>	HAL003460F	Germany	OL739139	
<i>Erysiphe berberidis</i> var. <i>berberidis</i>	<i>Berberis koreana</i>	ex GLM-F99423	Germany	OL739138	
<i>Erysiphe berberidis</i> var. <i>dimorpha</i>	<i>Berberis caroli</i>	CFSZ05267	China	OL636079	
<i>Erysiphe bremeri</i>	<i>Alhagi</i> sp.	N.D.	Iran	AB104463	–
<i>Erysiphe castaneigena</i>	<i>Castanea crenata</i>	KUS F28837	South Korea	KY926847	–
<i>Erysiphe castaneigena</i>	<i>Castanea crenata</i>	MUMH s0059	N.D.	LC010079	
<i>Erysiphe castaneigena</i>	<i>Quercus dentata</i>	HMNWAFU-CF2009267	China	KR048059	KR048121
<i>Erysiphe cornutae</i>	<i>Corylus cornuta</i>	WTU-F-71964	United States	MT095109	
<i>Erysiphe cornutae</i>	<i>Corylus cornuta</i>	WTU-F-71963	United States	MT095108	
<i>Erysiphe corylacearum</i>	<i>Corylus avellana</i>	WU 43287	Austria	MW031866	
<i>Erysiphe corylacearum</i>	<i>Corylus avellana</i>	MUMH 7047	Azerbaijan	LC270863	
<i>Erysiphe coryli-americanae</i>	<i>Corylus americana</i>	DAOM207741	Canada	MT095096	
<i>Erysiphe coryli-americanae</i>	<i>Corylus americana</i>	DAOM90461	United States	MT095100	
<i>Erysiphe ehrenbergii</i>	<i>Lonicera × bella</i>	MUMH 1435	Switzerland	LC009990	
<i>Erysiphe ehrenbergii</i>	<i>Lonicera tatarica</i>	G566299	Switzerland	MN211363	
<i>Erysiphe ehrenbergii</i>	<i>Lonicera xylosteum</i>	MUMH 1438	Switzerland	LC009992	–
<i>Erysiphe erlangshanensis</i>	N.D.	QHU2016070	N.D.	MT309709	MT309779
<i>Erysiphe erlangshanensis</i>	<i>Lonicera maackii</i>	MUMH 2586	Russia	LC010053	
<i>Erysiphe euonymicola</i>	<i>Euonymus japonicus</i>	MUMH 7012	Azerbaijan	LC270841	
<i>Erysiphe euonymicola</i>	<i>Euonymus japonicus</i>	MUMH 6999	Azerbaijan	LC270834	
<i>Erysiphe euonymicola</i>	<i>Euonymus japonicus</i>	MUMH 133	Japan	AB250228	AB250230

<i>Erysiphe intermedia</i>	<i>Lupinus latifolius</i>	HAL3389F	United States	MZ265167	–
<i>Erysiphe intermedia</i>	<i>Lupinus polyphyllus</i>	HAL3385F	United States	MZ265162	–
<i>Erysiphe intermedia</i>	<i>Lupinus rivularis</i>	HAL3384F	United States	MZ265165	–
<i>Erysiphe lonicerae</i>	<i>Lonicera japonica</i>	JGSJYH002	China	MF623858	–
<i>Erysiphe lonicerae</i>	<i>Lonicera periclymenum</i>	OE2015PM36CS	United Kingdom	KY660928	–
<i>Erysiphe lonicerae</i>	<i>Lonicera</i> sp.	MUMH 835	Japan	LC009963	
<i>Erysiphe lonicerina</i>	<i>Lonicera japonica</i>	MUMH 601	Japan	LC009953	
<i>Erysiphe magnifica</i>	<i>Magnolia compressa</i>	KUS-F 30183	South Korea	MW729344	MW729345
<i>Erysiphe magnifica</i>	<i>Nelumbo nucifera</i>	R. Kirschner 3360 (FR)	Germany	GU195045	GU198953
<i>Erysiphe miurae</i>	<i>Lonicera morrowii</i>	MUMH 1216	Japan	LC009980	
<i>Erysiphe miurae</i>	<i>Lonicera vidalii</i>	MUMH 1209	Japan	LC009979	
<i>Erysiphe penicillata</i>	<i>Alnus glutinosa</i>	KR M36341	Germany	MN759661	–
<i>Erysiphe penicillata</i>	<i>Alnus incana</i>	MUMH 1432	Germany	LC009987	
<i>Erysiphe platani</i>	<i>Koelreuteria paniculata</i>	HMJAU_PM91876	China	MW131643	MW131642
<i>Erysiphe platani</i>	<i>Platanus × acerifolia</i>	MUMH 5657	Japan	AB926022	
<i>Erysiphe platani</i>	<i>Platanus × hispanica</i>	KR26134	Germany	JQ365940	JQ365936
<i>Erysiphe platani</i>	<i>Platanus orientalis</i>	KR29265	Greece	JQ365943	JQ365939
<i>Erysiphe pseudocorylacearum</i>	<i>Corylus sieboldiana</i>	MUMH2935	Japan	MT095103	
<i>Erysiphe pseudocorylacearum</i>	<i>Corylus sieboldiana</i>	MUMH 0199	Japan	LC009928	
<i>Erysiphe quercicola</i>	<i>Quercus crispula</i>	MUMH 1956	Japan	AB292691	
<i>Erysiphe quercicola</i>	<i>Quercus</i> sp.	MUMH 3242	Iran	AB292693	
<i>Erysiphe rayssiae</i>	<i>Baptisia australis</i>	MUMH 1433	Netherlands	LC009988	
<i>Erysiphe robiniae</i>	N.D.	QHU2019007	N.D.	MT309809	MT420267
<i>Erysiphe robiniae</i> var. <i>chinensis</i>	N.D.	QHU2016095	N.D.	MT309808	MT420266
<i>Erysiphe sesbaniae</i>	<i>Sesbania punicea</i>	GUM777	Iran	MF663776	–
<i>Erysiphe symphoricarpi</i>	<i>Symphoricarpos albus</i>	BPI747015	United Kingdom	AB078969	–
<i>Erysiphe symphoricarpi</i>	<i>Symphoricarpos albus</i>	N.D.	Hungary	AY322494	–
<i>Erysiphe syringae-japonicae</i>	<i>Syringa vulgaris</i>	MUMH 1736	Switzerland	AB295458	–
<i>Erysiphe syringae-japonicae</i>	<i>Syringa vulgaris</i>	MUMH 1916	Japan	LC010006	AB571060
<i>Erysiphe tortilis</i>	<i>Cornus sanguinea</i>	HAL 231 F	Germany	MT524082	–
<i>Erysiphe tortilis</i>	<i>Cornus</i> sp.	HAL 3334 F	Germany	MT524081	
<i>Erysiphe trifoliorum</i>	<i>Lupinus polyphyllus</i>	HAL3363F	Germany	MZ265172	
<i>Erysiphe trifoliorum</i>	<i>Medicago littoralis</i>	MUMH 7038	Azerbaijan	LC270860	
<i>Erysiphe trifoliorum</i>	<i>Medicago</i> sp.	Medicago	United States	FJ378877	–
<i>Erysiphe trifoliorum</i>	<i>Pisum sativum</i>	GH 05	United States	FJ378874	–
<i>Erysiphe trifoliorum</i>	<i>Pisum sativum</i>	EI 08-2	United States	GU361634	–
<i>Erysiphe trifoliorum</i>	<i>Trifolium arvense</i>	MUMH 0701	Hungary	LC009955	LC009954
<i>Erysiphe trifoliorum</i>	<i>Trifolium hybridum</i>	KUS-F28516	South Korea	MN216307	MT380914
<i>Erysiphe trifoliorum</i>	<i>Trifolium pratense</i>	MUMH 7031	Azerbaijan	LC270858	–

<i>Erysiphe viburni</i>	<i>Viburnum opulus</i>	WTUF71035	United States	MN431625	
<i>Erysiphe viburni</i>	<i>Viburnum opulus</i>	GLMF99785	Germany	MN431621	
<i>Erysiphe viburni-plicati</i>	<i>Viburnum plicatum</i> var. <i>plicatum</i>	MUMH 794	Japan	NR 147416	–
<i>Erysiphe viburni-plicati</i>	<i>Viburnum plicatum</i> var. <i>plicatum</i>	MUMH 794	Japan	AB863612	
<i>Pseudoidium</i> sp.	<i>Coronilla varia</i>	MUMH 2587	Ukraine	LC010054	
<i>Leveillula taurica</i>	<i>Vicia</i> sp.	MUMH 4223	Iran	AB667884	–
<i>Phyllactinia moricola</i>	<i>Morus</i> sp.	MUMH 923	Iran	AB080561	AB080459

* Not Defined