Table S1. Vouchers, hosts, and sequences used in this study.

Species	Host	Voucher	Country	GenBank accession numbers	
				ITS	LSU
Erysiphe adunca	*Populus nigra*	GLM-F-119062	Germany	MT952872	MT952872
Erysiphe adunca	*Populus* sp.	GUM 1753	Iran	MW077663	–
***Erysiphe adunca* (currently *E. capreae*)**	*Salix futura*	MUMH 171	Japan	LC028968	LC028968
***Erysiphe adunca* var. *adunca* (currently *E. capreae*)**	*Salix rhododenrifolia*	HMNWAFU-CF2009259	China	KR048056	KR048118
***Erysiphe adunca* var. *adunca* (currently *E. capreae*)**	*Salix vulpina*	MUMH39	Japan	D84382	AB022374
Erysiphe aphananthes	*Aphananthe aspera*	MUMH 4648	Japan	AB693961	LC028971
Erysiphe aphananthes	*Aphananthe aspera*	MUMH 4648	Japan	LC028971	LC028971
Erysiphe arcuata	*Carpinus* sp.	IRAN 16841F	Iran	OM530243	OM574833
Erysiphe arcuata	*Carpinus betulus*	MUMH2589	Ukraine	AB252459	AB252459
Erysiphe arcuata	*Carpinus tschonoskii*	MUMH2741	Japan	AB252473	AB252473
Erysiphe australiana	*Lagerstroemia indica*	LPF 666	Brazil	KT941420	KT941422
Erysiphe australiana	*Lagerstroemia speciosa*	LPF 665	Brazil	KT941419	KT941421
Erysiphe australiana	*Lagerstroemia indica*	GUM 1716	Iran	OM574844	OM574835
Erysiphe bulbouncinula	*Koelreuteria paniculata*	HMJAU_PM91868	China	MT026688	–
Erysiphe bulbouncinula	*Koelreuteria paniculata*	HMJAU_PM91870	China	MT026689	–
Erysiphe bulbouncinula	*Koelreuteria paniculata*	HMJAU_PM91873	China	MT026705	–
Erysiphe capreae	*Salix* sp.	GUM 1755	Iran	MW077657	MW077669
Erysiphe capreae	*Salix* sp.	IRAN 8127F	Iran	MW077658	MW077670
Erysiphe capreae	*Salix capreae*	MUMH3532	Japan	MW077660	MW077672
Erysiphe capreae	*Salix aegyptiaca*	IRAN 5841F	Iran	MW077661	MW077673
Erysiphe capreae	*Salix* cf. *eagiptiaca*	IRAN15062F	Iran	MW077662	–
Erysiphe capreae	*Salix aegyptiaca*	GUM 1752	Iran	MW077659	MW077671
Erysiphe capreae	*Salix aegyptiaca*	GUM 1754	Iran	MW077656	MW077668
Erysiphe carpinicola	*Carpinus japonica*	MUMH243	Japan	AB252467	AB252467
Erysiphe carpinicola	*Carpinus japonica*	MUMH3547	Japan	AB252468	AB252468
Erysiphe carpini-cordatae	*Carpinus cordata*	MUMH2966	Japan	AB252465	AB252465
Erysiphe carpini-cordatae	*Carpinus cordata*	MUMH3408	Japan	AB252466	AB252466
Erysiphe carpini-laxiflorae	*Carpinus*	MUMH3640	Japan	AB252471	AB252471

	laxiflora				
Erysiphe carpini-laxiflorae	*Carpinus laxiflora*	MUMH50	Japan	AB252472	AB252472
Erysiphe celtidis	*Celtis caucasica*	GUM 1770	Iran	OM574855*	OM574834*
Erysiphe flexuosa	*Aesculus indica*	OE2015PMCS240	United Kingdom	KY660886	–
Erysiphe flexuosa	*Aesculus hippocastanum*	OE2015PMCS280	United Kingdom	KY660885	–
Erysiphe flexuosa	*Aesculus* x *carnea*	OE2014PM154CS	United Kingdom	KY660863	–
Erysiphe kenjiana	*Ulmus pumila*	KW:34763F	Ukraine	AB475119	AB475112
Erysiphe kenjiana	*Ulmus minor*	KW:34760F	Ukraine	AB475118	AB475111
Erysiphe kenjiana	*Ulmus glabra*	KW:34758F	Ukraine	AB475117	AB475110
Erysiphe kenjiana	*Ulmus pumila*	HMJAU-PM91841	China	MK452611	MK452684
Erysiphe kusanoi	*Celtis sinensis*	MUMH 20	Japan	AB475120	AB475113
Erysiphe kusanoi	*Celtis bungeana*	HMNWAFU-CF2013124	China	KR048067	KR048129
Erysiphe ljubarskii	*Acer palmatum*	MUMH 404	Japan	LC028987	LC028987
Erysiphe ljubarskii	*Acer amoenum* var. *matsumurae*	MUMH 475	Japan	LC028986	–
Erysiphe mandshurica	*Populus* sp.	HMJAU-PM91908	Russia	MW071174	MW071174
Erysiphe mandshurica	*Populus adenopoda*	HMJAU-PM91909	China	MW071173	MW071173
Erysiphe michikoae	*Celtis jessoensis*	MUMH 5055	Japan	AB693963	AB693965
Erysiphe necator	*Hevea brasiliensis*	isolate SMBR	Brazil	MT182958	MT182949
Erysiphe necator	*Vitis coignetiae*	MUMH s141	N.A.**	LC028995	LC028995
Erysiphe necator	*Vitis vinifera*	MUMH 530	Japan	LC028996	LC028996
Erysiphe necator	*Anacardium occidentale*	OID158	Brazil	MK240383	MK240390
Erysiphe necator	*Carica papaya*	MVAP06370315	USA	LC228619	–
Erysiphe necator* var. *necator	*Vitis vinifera*	GUM 1768	Iran	OM574832	–
Erysiphe paracarpinicola	*Carpinus cordata*	MUMH207	Japan	AB252464	AB252464
Erysiphe paradoxa	*Acer monspessulanum*	GUM 1767	Iran	OM574845*	–
Erysiphe paradoxa	*Acer hyrcanum*	GUM 1764	Iran	OM574846*	–
Erysiphe parvifoliae	*Ulmus parvifolia*	R. Kirschner 4612 (TNM)	Taiwan	MH427792	–
Erysiphe parvifoliae	*Ulmus parvifolia*	R. Kirschner 4572 (TNM)	Taiwan	MG954111	–
Erysiphe prunastri* var. *japonica	*Prunus maximowiczii*	MUMH 3575	Japan	AB709959	AB709964
Erysiphe prunastri* var. *japonica	*Prunus maximowiczii*	MUMH 3406	Japan	AB709958	AB709963
Erysiphe prunastri* var. *prunastri	*Prunus divaricata*	GUM 1766	Iran	OM530246	–
Erysiphe prunastri* var. *prunastri	*Prunus divaricata* spp. *caspica*	IRAN 12343F	Iran	OM530248	OM574837
***Erysiphe prunastri* var.**	*Prunus* sp.	IRAN 10993F	Iran	OM530247	OM574836

prunastri					
Erysiphe prunastri* var. *prunastri	*Prunus spinosa*	MUMH652	Switzerland	AB046983	AB709961
***Erysiphe pseudoregularis* (currently *E. capreae*)**	*Salix caprea*	HAL2395F	Germany	MT952870	MT952870
Erysiphe salicis* var. *salicis	*Salix* sp.	IRAN16921F	Iran	MW077655	MW077667
Erysiphe salicis* var. *salicis	*Salix* sp.	IRAN 5842F	Iran	MW077654	MW077666
Erysiphe salicis* var. *salicis-gracilistylae	*Salix gracilistyla*	MUMH 83	Japan	MW077664	MW077674
Erysiphe salicis* var. *salicis-gracilistylae	*Salix gracilistyla*	MUMH2097	Japan	MW077665	MW077675
***Erysiphe* sp.**	*Celtis timorensis*	MUMH 5693	Indonesia	LC371303	LC371324
***Erysiphe* sp.**	*Celtis sinensis*	CNUFC PWS1	South Korea	MK757876	–
***Erysiphe* sp.**	*Celtis sinensis*	CNUFC PWS2	South Korea	MK757877	–
***Erysiphe* sp.**	*Celtis sinensis*	CNUFC PWS3	South Korea	MK757878	–
Erysiphe simulans* var. *simulans	*Rosa multiflora*	TPU-3087	N.A.**	AB015926	–
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	GUM 1773	Iran	OM574849	–
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	IRAN 10827F	Iran	OM574852	OM574839
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	IRAN 10826F	Iran	OM574851	OM574838
Erysiphe ulmi* var. *ulmi	*Ulmus campestris = U. minor*	IRAN 11585F	Iran	OM574850	–
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	GUM 1775	Iran	OM574854	OM574841
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	GUM 1772	Iran	OM574848	–
Erysiphe ulmi* var. *ulmi	*Ulmus* sp.	GUM 1776	Iran	OM574853	OM574840
Erysiphe ulmi* var. *ulmi	*Ulmus glabra*	GUM 1769	Iran	OM574847	–
Erysiphe ulmi	*Ulmus* sp.	R. Kirschner 4674 (FR)	Germany	MT218387	–
Erysiphe ulmi	*Ulmus* cf. *minor*	R. Kirschner 4693 (FR)	Germany	MT218388	–
Erysiphe ulmi	*Ulmus* sp.	R. Kirschner 4795 (FR)	Germany	MT218389	–
Erysiphe ulmi	*Ulmus* cf. *minor*	R. Kirschner 4796 (FR)	Germany	MT218390	–
Erysiphe ulmi	*Ulmus* cf. *laevis*	M. Piepenbring 5423 (FR)	Germany	MT218391	–
Erysiphe zelkowae	*Zelkova serrata*	MUMH 403	Japan	AB475121	AB475114
Leveillula taurica	*Vicia* sp.	MUMH 4223	Iran	AB667884	–
Phyllactinia moricola	*Morus* sp.	MUMH923	Iran	AB080561	AB080459

* These sequences are deposited in the NCBI for the first time.

** Voucher specimen or Country not available.