

Appendix S1: Voucher information table with GenBank accession numbers of the newly generated sequences of different Sisymbriaceae accessions.

Name	Voucher	Isolation code	Herbarium	GenBank Nr. (ITS)	GenBank Nr. (E/TS)	GenBank Nr. (Bra13)	GenBank Nr. (Bra246)	GenBank Nr. (Bra813)	GenBank Nr. (Bra1402)	GenBank Nr. (pubA-trnH)	GenBank Nr. (trnQ-rps16)	GenBank Nr. (ycf1b)
<i>Sisymbrium aculeolatum</i> Boiss.	Freitag 401	I42	MSB	MW270991	/	MW319128	/	MW345515	MW345453	MW331433	MW331379	MW281307
<i>Sisymbrium agrippicium</i> (L.) German, Zedonker Calau & Al-Shehba	B100184623	41_7	B	MW270942	MW355776	MW319135	MW319079	MW345516	MW345454	MW331385	MW331331	MW281259
<i>Sisymbrium afghanicum</i> Gill	Hedge 4901	I44	MSB	MW270992	/	MW319184	MW319129	MW345516	MW345454	MW331434	MW331380	MW281308
<i>Sisymbrium altissimum</i> L.	OSBU 24602	E44	OSBU	MW270951	MW355785	MW319143	MW319088	MW345479	MW345425	MW331393	MW331339	MW281267
<i>Sisymbrium altissimum</i> L.	OSBU 25001	E46	OSBU	MW270952	MW355786	MW319144	MW319089	MW345480	MW345426	MW331394	MW331340	MW281268
<i>Sisymbrium arundanum</i> Boiss.	GDA C32866	G40	GDA	MW270974	MW355802	MW319167	MW319112	/	MW345442	MW331415	MW331361	MW281289
<i>Sisymbrium assonum</i> Loscos & J. Pardo	GDA61204	G41	GDA	MW270975	MW355803	MW319168	MW319113	MW345501	MW345443	MW331416	MW331362	MW281290
<i>Sisymbrium austriacum</i> Jacq.	OSBU 90-08-0100-10	E22	OSBU	MW270945	MW355779	MW319137	MW319082	MW345473	MW345421	MW331387	MW331333	MW281261
<i>Sisymbrium brassiciforme</i> C.A. Mey.	OSBU 115409	F13	OSBU	MW270956	MW355790	MW319148	MW319093	MW345484	MW345430	MW331398	MW331344	MW281272
<i>Sisymbrium burcheffii</i> DC.	HBG_N_02559	G59	HBG	MW270980	MW355807	MW319172	MW319116	MW345506	MW345465	MW331421	MW331367	MW281295
<i>Sisymbrium burcheffii</i> DC.	PRE089593-0	I21	PRE	MW270984	MW355811	MW319177	MW319122	MW345510	MW345466	MW331426	MW331372	MW281300
<i>Sisymbrium capense</i> Thunb.	P05446088	I33	P	MW270988	MW355814	/	MW319125	MW345512	MW345468	MW331430	MW331376	MW281304
<i>Sisymbrium cavendishianum</i> Castrov. & Valdés Bern.	GDA60061	G42	GDA	MW270976	MW355804	MW319169	/	MW345502	MW345444	MW331417	MW331363	MW281291
<i>Sisymbrium chrysanthum</i> Jord.	OSBU 91-50-0069-10	E32	OSBU	MW270948	/	MW319140	MW319085	MW345476	MW345423	MW331390	MW331336	MW281264
<i>Sisymbrium chrysanthum</i> Cav.	OSBU 91-50-0073-10	E28	OSBU	MW270947	/	MW319139	MW319084	MW345475	MW345460	MW331389	MW331335	MW281263
<i>Sisymbrium damascenum</i> Boiss.	HUJ_A_04	I04	HUJ	MW270981	/	MW319173	MW319117	MW345507	MW345457	MW331422	MW331368	MW281296
<i>Sisymbrium encastriifolium</i> (Rape) Trautv.	MW0672644	F31	MW	MW270957	/	MW319149	MW319094	MW345488	MW345462	MW331399	MW331345	MW281273
<i>Sisymbrium encastriifolium</i> (Rape) Trautv.	MW0672670	F32	MW	MW270958	/	MW319150	MW319095	MW345485	/	MW331400	MW331346	MW281274
<i>Sisymbrium erysimoides</i> Desf.	OSBU 15-0402-10-01	E26	OSBU	MW270946	MW355780	MW319138	MW319083	MW345474	MW345422	MW331388	MW331334	MW281262
<i>Sisymbrium erysimoides</i> Desf.	GDA57527	G48	GDA	MW270977	/	MW319170	MW319114	MW345503	MW345445	MW331418	MW331364	MW281292
<i>Sisymbrium erysimoides</i> Desf.	HUJ_A_118	I18	HUJ	MW270983	MW355810	MW319176	MW319120	MW345509	MW345449	MW331425	MW331371	MW281299
<i>Sisymbrium fugax</i> Lag.	GDA28362	G49	GDA	MW270978	/	MW319115	MW319115	MW345504	MW345446	MW331419	MW331365	MW281293
<i>Sisymbrium gaubae</i> Rech.f. & Born.	Rechinger 54517	I46	MSB	MW270993	/	MW319185	MW319130	MW345517	MW345455	MW331435	MW331381	MW281309
<i>Sisymbrium heteromallum</i> C.A. Mey.	OSBU 21821	F05	OSBU	MW270954	MW355788	MW319146	MW319091	MW345482	MW345428	MW331396	MW331342	MW281270
<i>Sisymbrium heteromallum</i> C.A. Mey.	OSBU 22551	F07	OSBU	MW270955	MW355789	MW319147	MW319092	MW345483	MW345429	MW331397	MW331343	MW281271
<i>Sisymbrium integrerrimum</i> Rech.f. & Aellen	HUJ_A_117	I17	HUJ	/	/	MW319175	MW319119	/	MW345448	MW331424	MW331370	MW281298
<i>Sisymbrium irio</i> L.	MW0610916	F34	MW	MW270959	/	MW319151	MW319096	MW345486	MW345431	MW331401	MW331347	MW281275
<i>Sisymbrium irio</i> L.	MW0738460	F38	MW	MW270960	/	MW319152	MW319097	MW345487	MW345432	MW331402	MW331348	MW281276
<i>Sisymbrium isatidifolium</i> Blanca, Cuto & J. Fuentes	GDA C29584	I25	GDAC	MW270986	MW355813	MW319179	MW319123	MW345511	MW345464	MW331428	MW331374	MW281302
<i>Sisymbrium leucocladum</i> (Boiss.) D.A. German & Al-Shehba	HEID8002363	I32	HEID	MW270987	/	MW319180	MW319124	MW345520	MW345450	MW331429	MW331375	MW281303
<i>Sisymbrium linifolium</i> (Nutt.) Nutt.	L1843092	I41	L	MW270990	MW355815	MW319182	MW319127	MW345514	MW345452	MW331432	MW331378	MW281306
<i>Sisymbrium lipskyi</i> N. Busch	MW0672695	F39	MW	MW270961	MW355793	MW319153	MW319098	MW345488	MW345463	MW331403	MW331349	MW281277
<i>Sisymbrium lipskyi</i> N. Busch	MW0672697	F40	MW	MW270962	MW355794	MW319154	MW319099	/	/	MW331404	MW331350	MW281278
<i>Sisymbrium loeselii</i> L.	OSBU 19008	E06	OSBU	MW270943 * MW270944 *	MW355777 * MW355778 *	MW319136	MW319081	MW345472	MW345420	MW331386	MW331332	MW281260
<i>Sisymbrium laterum</i> (Maxim.) O.E. Schulz	MW0082233	F47	MW	MW270963	/	MW319155	MW319100	MW345489	MW345433	MW331405	MW331351	MW281279
<i>Sisymbrium macrosoma</i> Pomel	GDA C37355	G53	GDA	MW270979	MW355806	MW319171	/	MW345505	MW345458	MW331420	MW331366	MW281294
<i>Sisymbrium malayanum</i> Murth. & Karakas	4187JNU12536-2014	KJ557138	INU	KJ557138	/	/	/	/	/	/	/	/
<i>Sisymbrium matsudense</i> Pau	OSBU 91-50-0072-10	E33	OSBU	MW270949	MW355783	MW319141	MW319086	MW345477	MW345424	MW331391	MW331337	MW281265
<i>Sisymbrium maurum</i> Maire	OSBU 91-50-0079-10	E35	OSBU	MW270950	MW355784	MW319142	MW319087	MW345478	MW345461	MW331392	MW331338	MW281266
<i>Sisymbrium officinale</i> (L.) Scop.	MW0082229	F50	MW	MW270964	/	MW319156	MW319101	MW345490	MW345434	MW331406	MW331352	MW281280
<i>Sisymbrium orientale</i> L.	OSBU 23874	E60	OSBU	MW270953	MW355787	MW319145	MW319090	MW345481	MW345427	MW331395	MW331341	MW281269
<i>Sisymbrium orientale</i> L.	MW0366030	G04	MW	MW270965	MW355796	MW319157	MW319102	MW345491	MW345456	MW331407	MW331353	MW281281
<i>Sisymbrium polyceratum</i> L.	OSBU 819	G39	OSBU	MW270973	/	MW319166	MW319111	MW345500	/	MW331414	MW331360	MW281288
<i>Sisymbrium polymorphum</i> (Murray) Roth	OSBU 21748	I18	OSBU	MW270940	MW355774	MW319133	MW319077	MW345469	MW345417	MW331383	MW331329	MW281257
<i>Sisymbrium polymorphum</i> (Murray) Roth	OSBU 22867	I18	OSBU	MW270941	MW355775	MW319134	MW319078	MW345470	MW345418	MW331384	MW331330	MW281258
<i>Sisymbrium reconditum</i> Verl.	WAG0143220	I38	WAG	MW270989	/	MW319181	MW319126	MW345513	MW345451	MW331431	MW331377	MW281305
<i>Sisymbrium rusciniatum</i> Lag. ex DC.	HUJ_A_115	I15	HUJ	MW270982	MW355809	MW319174	MW319118	MW345508	MW345447	MW331423	MW331369	MW281297
<i>Sisymbrium sepulatum</i> DC.	MW0834907	G12	MW	MW270966	/	MW319158	MW319103	MW345492	/	MW331408	MW331354	MW281282
<i>Sisymbrium strictissimum</i> L.	MW0366289	G17	MW	MW270967	MW355797	MW319159 * MW319160 *	MW319104 * MW319105 *	MW345493 * MW345494 *	MW345437 * MW345438 *	MW331409	MW331355	MW281283
<i>Sisymbrium strictissimum</i> L.	MW0366288	G18	MW	MW270968	MW355798	MW319161 * MW319162 *	MW319106 * MW319107 *	MW345495 * MW345496 *	MW345437 * MW345438 *	MW331410	MW331356	MW281284
<i>Sisymbrium subspinescens</i> Bunge	MW019725	G24	MW	MW270969	MW355799	MW319163	MW319108	MW345497	MW345429	MW331411	MW331357	MW281285
<i>Sisymbrium turczaninowii</i> Sande	PRE080156-0	I24	PRE	MW270985	MW355812	MW319178	MW319122	MW345519	MW345467	MW331427	MW331373	MW281301
<i>Sisymbrium volgensae</i> M. Bieb. ex E. Fourr.	MW0366305	G29	MW	MW270971	MW355800	MW319164	MW319109	MW345498	MW345440	MW331412	MW331358	MW281286
<i>Sisymbrium volgensae</i> M. Bieb. ex E. Fourr.	MW0366308	G31	MW	MW270972	MW355801	MW319165	MW319110	MW345499	MW345441	MW331413	MW331359	MW281287
<i>Sisymbrium yunnanense</i> W.W. Sm.	TB13627	TB13627	K	MW270994	MW355817	MW319186 * MW319187 *	MW319131 * MW319132 *	MW345518	MW345459	MW331436	MW331382	MW281310

<i>Erysimum cheiranthoides</i> L.	OSBU 99-0255-10-00	E17	OSBU	MW271653	/	/	/	/	/	/	/	/
<i>Erysimum cheiranthoides</i> L.	OSBU 91-31-0049-10	E30	OSBU	MW271662	/	/	/	/	/	/	/	/
<i>Erysimum cheiranthoides</i> L.	OSBU 03-0030-10-00	F21	OSBU	MW271695	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 8927	E38	OSBU	MW271665	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 17120	E39	OSBU	MW271666	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 24570	E41	OSBU	MW271667	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 90-17-0039-10	E42	OSBU	MW271668	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 90-10-0097-10	E43	OSBU	MW271669	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 24603	E45	OSBU	MW271670	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 00-0080-10-00	F19	OSBU	MW271693	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	OSBU 90-19-0010-00	F22	OSBU	MW271696	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	MW0365641	F23	MW	MW271697	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	MW0365667	F24	MW	MW271698	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	MW0365462	F25	MW	MW271699	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	MW0365468	F26	MW	MW271700	/	/	/	/	/	/	/	/
<i>Sisymbrium altissimum</i> L.	MW0082279	F27	MW	MW271701	/	/	/	/	/	/	/	/
<i>Sisymbrium arundanum</i> Boiss.	OSBU 91-50-0067-10	E37	OSBU	MW271664	/	/	/	/	/	/	/	/
<i>Sisymbrium assonum</i> Loscos & J. Pardo	OSBU 91-50-0068-10	E36	OSBU	MW271663	/	/	/	/	/	/	/	/
<i>Sisymbrium austriacum</i> Jacq.	OSBU 90-18-0074-10	E21	OSBU	MW271657	/	/	/	/	/	/	/	/
<i>Sisymbrium austriacum</i> Jacq.	OSBU 91-12-0051-50	E34	OSBU	MW271659	/	/	/	/	/	/	/	/
<i>Sisymbrium austriacum</i> Jacq.	MW0082277	F28	MW	MW271702	/	/	/	/	/	/	/	/
<i>Sisymbrium brassiciforme</i> C.A. Mey.	OSBU 22869	F14	OSBU	MW271689								

Appendix S2: Primer specifications and PCR programmes used in this study

Region	Primers	PCR programme	Reference
ITS of nuclear DNA	F: 5'-GGAAGGAGAAGTCGTAACAAGG-3' R: 5'-CTTTCCTCCGCTTATTGATATG-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 55 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Blattner, 1999
ETS of nuclear DNA	F: 5'-GAGACAAGCATATGACTACTGGCAGGATC-3' R: 5'-CATGGGCGTGAGTGGTGA-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 65 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Baldwin and Markos, 1998 Wright et al., 2003
Bra13 of nuclear DNA	F: 5'- GCACAACCAGGTTTGGATCT-3' R: 5'- AGTGGTGGTGGGAATGGTAG-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 55 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Stockenhuber et al., 2015
Bra246 of nuclear DNA	F: 5'- ACATGGTGCTGGATGTTTGA-3' R: 5'- CGATGTCTCTGAGTGTCACCAT-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 55 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Stockenhuber et al., 2015
Bra813 of nuclear DNA	F: 5'- GGATCAAACCACAAGCGAAA-3' R: 5'- CCTCAGCATCAGAGAATGGA-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 50 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Stockenhuber et al., 2015
Bra1402 of nuclear DNA	F: 5'- ATAGCCGTCTCCACCTTGTT-3' R: 5'- CAGCGTGTCTCCTCAAACAGA-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 58 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Stockenhuber et al., 2015
psbA-trnH of cpDNA	F: 5'- GTTATGCATGAACGTAATGCTC-3' R: 5'- CGCGCATGGTGGATTACAAAATC-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 58 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Sang et al., 1997
trnQ-rps16 of cpDNA	F: 5'-GCGTGGCCAAGYGGTAAGGC-3' R: 5'-GTTGCTTTYTACCACATCGTTT-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 58 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Shaw et al., 2007
ycf1b of cpDNA	F: 5'-TCTCGACGAAAATCAGATTGTTGTGAAT-3' R: 5'-ATACATGTCAAAGTGATGGAAAA-3'	initial denaturation at 95 °C for 5 min, 35 cycles of denaturation at 95 °C for 30 s, primer annealing at 58 °C and extension at 68 °C for 1 min, and final extension at 68 °C for 10 min	Dong et al., 2015

Appendix S3: Species names and GenBank numbers of accessions used in different Lineage II datasets. The ITS accessions in bold were generated in the course of this study, while the rest of the accessions was downloaded directly from the taxonomically curated Brassicaceae database (<https://brassicbase.cos.uni-heidelberg.de/>).

Taxon	Tribus	Datasets	Accession number(s)
<i>Ammosperma cinerea</i>	Brassicaceae	ABCD	GQ424606
<i>Brassica aucheri</i>	Brassicaceae	ABCD	AY722413
<i>Brassica balearica</i>	Brassicaceae	ABCD	AF263402
<i>Brassica barleri</i>	Brassicaceae	ABCD	GQ268071
<i>Brassica carinata</i>	Brassicaceae	ABCD	DQ003698
<i>Brassica cretica</i>	Brassicaceae	ABCD	GQ268075
<i>Brassica deflexa</i>	Brassicaceae	ABCD	GQ268077
<i>Brassica desmettiae</i>	Brassicaceae	ABCD	GQ268070
<i>Brassica elongata subsp integrifolia</i>	Brassicaceae	ABCD	AY722460
<i>Brassica fruticulosa</i>	Brassicaceae	ABCD	GQ268073
<i>Brassica gravinae</i>	Brassicaceae	ABCD	GQ268072
<i>Brassica incana</i>	Brassicaceae	ABCD	AF022695
<i>Brassica insularis</i>	Brassicaceae	ABCD	GQ268067
<i>Brassica juncea subsp integrifolia</i>	Brassicaceae	ABCD	DQ003676
<i>Brassica macrocarpa</i>	Brassicaceae	ABCD	GQ268076
<i>Brassica maurorum</i>	Brassicaceae	ABCD	GQ268065
<i>Brassica montana</i>	Brassicaceae	ABCD	GQ268066
<i>Brassica napus</i>	Brassicaceae	ABCD	DQ003666
<i>Brassica nigra</i>	Brassicaceae	ABCD	DQ003664
<i>Brassica oleracea var capitata</i>	Brassicaceae	ABCD	DQ003652
<i>Brassica oxyrrhina</i>	Brassicaceae	ABCD	GQ268074
<i>Brassica procumbens</i>	Brassicaceae	ABCD	AY722425
<i>Brassica rapa subsp rapa</i>	Brassicaceae	ABCD	GQ268060
<i>Brassica repanda</i>	Brassicaceae	ABCD	AY722426
<i>Brassica rupestris</i>	Brassicaceae	ABCD	AY722427
<i>Brassica tournefortii</i>	Brassicaceae	ABCD	GQ268069
<i>Brassica villosa</i>	Brassicaceae	ABCD	GQ268064
<i>Cakile arabica</i>	Brassicaceae	ABCD	KJ685049
<i>Cakile arctica</i>	Brassicaceae	ABCD	KJ685075
<i>Cakile constricta</i>	Brassicaceae	ABCD	KJ685076
<i>Cakile edentula subsp harperii</i>	Brassicaceae	ABCD	KJ685080
<i>Cakile edentula var edentula</i>	Brassicaceae	ABCD	KJ685078
<i>Cakile edentula var lacustris</i>	Brassicaceae	ABCD	KJ685079
<i>Cakile lanceolata</i>	Brassicaceae	ABCD	KJ685081
<i>Cakile lanceolata subsp fusiformis</i>	Brassicaceae	ABCD	KJ685082
<i>Cakile lanceolata subsp pseudocnestricta</i>	Brassicaceae	ABCD	KJ685086
<i>Cakile maritima</i>	Brassicaceae	ABCD	AY722494
<i>Carrichtera annua</i>	Brassicaceae	ABCD	DQ249829
<i>Ceratocnemum longistroides</i>	Brassicaceae	ABCD	AY722429
<i>Coincya rapistris</i>	Brassicaceae	ABCD	AY722430
<i>Coincya monensis</i>	Brassicaceae	ABCD	AY722431
<i>Coincya rupestris</i>	Brassicaceae	ABCD	AY722432
<i>Corylocarpus muricatus</i>	Brassicaceae	ABCD	DQ249827
<i>Crambe arborea</i>	Brassicaceae	ABCD	AF450012 AF450043
<i>Crambe aspera</i>	Brassicaceae	ABCD	AF039974 AF040017
<i>Crambe cordifolia</i>	Brassicaceae	ABCD	AF039966 AF040009
<i>Crambe edentula</i>	Brassicaceae	ABCD	AF039968 AF040011
<i>Crambe feuillei</i>	Brassicaceae	ABCD	AF450032 AF450063
<i>Crambe filiformis</i>	Brassicaceae	ABCD	AY722434
<i>Crambe frigida</i>	Brassicaceae	ABCD	AF450015 AF450046
<i>Crambe gurgitea</i>	Brassicaceae	ABCD	AF039959 AF040002
<i>Crambe gomeraea</i>	Brassicaceae	ABCD	AF039960 AF040003
<i>Crambe gordjagini</i>	Brassicaceae	ABCD	AF039961 AF040004
<i>Crambe grossheimii</i>	Brassicaceae	ABCD	AF039982 AF040025
<i>Crambe hispanica subsp hispanica</i>	Brassicaceae	ABCD	AY722441
<i>Crambe juncea</i>	Brassicaceae	ABCD	AF039978 AF040021
<i>Crambe juncea</i>	Brassicaceae	ABCD	AF039979 AF040022
<i>Crambe killmanscharica</i>	Brassicaceae	ABCD	AF039975 AF040018
<i>Crambe koktebelica</i>	Brassicaceae	ABCD	AF039972 AF040015
<i>Crambe kotschyana</i>	Brassicaceae	ABCD	AF039967 AF040010
<i>Crambe kraljicki</i>	Brassicaceae	ABCD	AF039961 AF040004
<i>Crambe laevigata</i>	Brassicaceae	ABCD	AF450018 AF450049
<i>Crambe maritima</i>	Brassicaceae	ABCD	AF039970 AF040013
<i>Crambe microcarpa</i>	Brassicaceae	ABCD	AF450019 AF450050
<i>Crambe orientalis</i>	Brassicaceae	ABCD	AF039969 AF040012
<i>Crambe orientalis subsp sulphurea</i>	Brassicaceae	ABCD	AF039977 AF040020
<i>Crambe pritzelii</i>	Brassicaceae	ABCD	AF450025 AF450056
<i>Crambe scaberrima</i>	Brassicaceae	ABCD	AF450026 AF450057
<i>Crambe schugiana</i>	Brassicaceae	ABCD	AF039980 AF040023
<i>Crambe scoparia</i>	Brassicaceae	ABCD	AF450031 AF450062
<i>Crambe strigosa</i>	Brassicaceae	ABCD	AF450035 AF450066
<i>Crambe sventeniana</i>	Brassicaceae	ABCD	AF039976 AF040019
<i>Crambe tamadabensis</i>	Brassicaceae	ABCD	AF450041 AF450072
<i>Crambe tatarica</i>	Brassicaceae	ABCD	AF039964 AF040007
<i>Crambe wildpretii</i>	Brassicaceae	ABCD	AF450042 AF450073
<i>Crambellia terebinthifolia</i>	Brassicaceae	ABCD	AF039986 AF040029
<i>Dilesmus aegyptius</i>	Brassicaceae	ABCD	GQ424531
<i>Dilesmus bipinnatus</i>	Brassicaceae	ABCD	GQ497860
<i>Diplotaxis acris</i>	Brassicaceae	ABCD	DQ983948 DQ983992
<i>Diplotaxis antiensis</i>	Brassicaceae	ABCD	DQ983950 DQ983994
<i>Diplotaxis assurgens</i>	Brassicaceae	ABCD	DQ983951 DQ983995
<i>Diplotaxis berthautii</i>	Brassicaceae	ABCD	AY722444
<i>Diplotaxis brachycarpa</i>	Brassicaceae	ABCD	DQ983953 DQ983997
<i>Diplotaxis brevisiliqua</i>	Brassicaceae	ABCD	DQ983954 DQ983998
<i>Diplotaxis catholica</i>	Brassicaceae	ABCD	DQ983955 DQ983999
<i>Diplotaxis cossoniana</i>	Brassicaceae	ABCD	AY722447
<i>Diplotaxis erucoides</i>	Brassicaceae	ABCD	DQ983956 DQ984000
<i>Diplotaxis gorgadensis</i>	Brassicaceae	ABCD	DQ983960 DQ984004
<i>Diplotaxis gracilis</i>	Brassicaceae	ABCD	DQ983961 DQ984005
<i>Diplotaxis griffithii</i>	Brassicaceae	ABCD	DQ983962 DQ984006
<i>Diplotaxis harra</i>	Brassicaceae	ABCD	AY722449
<i>Diplotaxis hirta</i>	Brassicaceae	ABCD	DQ983969 DQ984013
<i>Diplotaxis ibicensis</i>	Brassicaceae	ABCD	DQ983970 DQ984014
<i>Diplotaxis iloreitana</i>	Brassicaceae	ABCD	DQ983971 DQ984015
<i>Diplotaxis muralis</i>	Brassicaceae	ABCD	DQ983972 DQ984016
<i>Diplotaxis siettiana</i>	Brassicaceae	ABCD	DQ983974 DQ984018
<i>Diplotaxis stiftiana</i>	Brassicaceae	ABCD	DQ249824
<i>Diplotaxis simplex</i>	Brassicaceae	ABCD	DQ983977 DQ984021
<i>Diplotaxis sundingii</i>	Brassicaceae	ABCD	DQ983978 DQ984022
<i>Diplotaxis tenuifolia</i>	Brassicaceae	ABCD	AM905721
<i>Diplotaxis tenuifolia subsp creticaea</i>	Brassicaceae	ABCD	AFJ28309 AJ628310
<i>Diplotaxis tenuisiliqua</i>	Brassicaceae	ABCD	DQ983981 DQ984025
<i>Diplotaxis varia</i>	Brassicaceae	ABCD	DQ983982 DQ984026
<i>Diplotaxis viminea</i>	Brassicaceae	ABCD	AY722454
<i>Diplotaxis virgata</i>	Brassicaceae	ABCD	DQ983985 DQ984029
<i>Douespea tortuosa</i>	Brassicaceae	ABCD	GQ497862
<i>Enarthrocarpus arcuatus</i>	Brassicaceae	ABCD	AY722456
<i>Enarthrocarpus lyratus</i>	Brassicaceae	ABCD	AY722457
<i>Eremophyton chevallieri</i>	Brassicaceae	ABCD	GQ424535
<i>Erica pinnatifida</i>	Brassicaceae	ABCD	AY722458
<i>Erica vesicaria</i>	Brassicaceae	ABCD	AY722459
<i>Erica vesicaria subsp sativa</i>	Brassicaceae	ABCD	AY254536
<i>Ericaria cakileoides</i>	Brassicaceae	ABCD	KJ685099
<i>Ericaria erucarioides</i>	Brassicaceae	ABCD	KJ685102
<i>Ericaria hispanica</i>	Brassicaceae	ABCD	AY722495
<i>Ericaria hispanica</i>	Brassicaceae	ABCD	KJ685104
<i>Ericaria macrocarpa</i>	Brassicaceae	ABCD	KJ685105
<i>Ericaria olliivieri</i>	Brassicaceae	ABCD	KJ685106
<i>Ericaria pinnata</i>	Brassicaceae	ABCD	AF531614
<i>Ericastrum abyssinicum</i>	Brassicaceae	ABCD	AF531606
<i>Ericastrum austroafricanum</i>	Brassicaceae	ABCD	AY722461
<i>Ericastrum brevisrostre</i>	Brassicaceae	ABCD	AY722462
<i>Ericastrum canariense</i>	Brassicaceae	ABCD	KJ685100
<i>Ericastrum cardaminoides</i>	Brassicaceae	ABCD	KJ685101
<i>Ericastrum elatum</i>	Brassicaceae	ABCD	DQ249831
<i>Ericastrum gallicum</i>	Brassicaceae	ABCD	AF531607
<i>Ericastrum gaulense</i>	Brassicaceae	ABCD	AY722463
<i>Ericastrum littorale</i>	Brassicaceae	ABCD	AF531646
<i>Ericastrum murense</i>	Brassicaceae	ABCD	AY722464
<i>Ericastrum nasturtifolium</i>	Brassicaceae	ABCD	AY722465
<i>Ericastrum strigosum</i>	Brassicaceae	ABCD	AF531605
<i>Ericastrum supinum</i>	Brassicaceae	ABCD	AY722466
<i>Ericastrum varium</i>	Brassicaceae	ABCD	GQ424536
<i>Ericastrum virgatum</i>	Brassicaceae	ABCD	GQ497866
<i>Fezia pterocarpa</i>	Brassicaceae	ABCD	AF263398
<i>Foleyola billotii</i>	Brassicaceae	ABCD	AY722468
<i>Fortynia garcinii</i>	Brassicaceae	ABCD	AF263398
<i>Guttrara arvensis</i>	Brassicaceae	ABCD	AY722468
<i>Hemicrambe fruticulosa</i>	Brassicaceae	ABCD	AF039984 AF040027
<i>Henophyton deserti</i>	Brassicaceae	ABCD	GQ424537
<i>Hirschfeldia incana</i>	Brassicaceae	ABCD	AY722470
<i>Kremeriella corylocarpa</i>	Brassicaceae	ABCD	AY722471
<i>Moricandia arvensis</i>	Brassicaceae	ABCD	EF601900
<i>Moricandia foetida</i>	Brassicaceae	ABCD	EF601902
<i>Moricandia foleyi</i>	Brassicaceae	ABCD	EF601903
<i>Moricandia moricandioides</i>	Brassicaceae	ABCD	EF601904
<i>Moricandia nitens</i>	Brassicaceae	ABCD	EF601905
<i>Moricandia sinaica</i>	Brassicaceae	ABCD	EF601906
<i>Moricandia spinosa</i>	Brassicaceae	ABCD	EF601907
<i>Moricandia suffruticosa</i>	Brassicaceae	ABCD	EF601908
<i>Morisia monanthos</i>	Brassicaceae	ABCD	AY722476
<i>Muricaria arvensis</i>	Brassicaceae	ABCD	AF039992 AF040035
<i>Nasturtiopsis coronopifolia</i>	Brassicaceae	ABCD	GQ424548
<i>Otocarpus virgatus</i>	Brassicaceae	ABCD	AY722477
<i>Physochloa chamaerapistrum</i>	Brassicaceae	ABCD	AF039990 AF040033
<i>Pseudercaria terebinthifolia</i>	Brassicaceae	ABCD	GQ497891
<i>Psychine stylosa</i>	Brassicaceae	ABCD	DQ249835
<i>Raffenaldia primuloides</i>	Brassicaceae	ABCD	AY722478
<i>Raphanus raphanistrum</i>	Brassicaceae	ABCD	AY722479
<i>Raphanus sativus</i>	Brassicaceae	ABCD	AY563100
<i>Rapistrum perenne</i>	Brassicaceae	ABCD	AY722481
<i>Rapistrum rugosum</i>	Brassicaceae	ABCD	DQ249825
<i>Rytidocarpus moricandioides</i>	Brassicaceae	ABCD	EF601910
<i>Savignya parviflora subsp parviflora</i>	Brassicaceae	ABCD	AF263399
<i>Schouwia purpurea</i>	Brassicaceae	ABCD	AF263399
<i>Sinapidendron angustifolium</i>	Brassicaceae	ABCD	AF039993 AF040036
<i>Sinapidendron frutescens</i>	Brassicaceae	ABCD	DQ249823
<i>Sinapis alba</i>	Brassicaceae	ABCD	AF128106
<i>Sinapis arvensis</i>	Brassicaceae	ABCD	DQ249828
<i>Sinapis pubescens subsp pubescens</i>	Brassicaceae	ABCD	AY722488
<i>Sinapis pubescens subsp pubescens</i>	Brassicaceae	ABCD	AF263395
<i>Succowia balearica</i>	Brassicaceae	ABCD	AY722491
<i>Trachystoma aphanoneurum</i>	Brassicaceae	ABCD	AY722492
<i>Trachystoma ballii</i>	Brassicaceae	ABCD	AY722492
<i>Trachystoma labasi</i>	Brassicaceae	ABCD	AF263387
<i>Vella anemericia</i>	Brassicaceae	ABCD	AF263387
<i>Vella aspera</i>	Brassicaceae	ABCD	AF263394
<i>Vella bourgaeana</i>	Brassicaceae	ABCD	AF263385
<i>Vella bourgaeana</i>	Brassicaceae	ABCD	AY722496
<i>Vella castrilensis</i>	Brassicaceae	ABCD	AJ841702
<i>Vella lucentina</i>	Brassicaceae	ABCD	AF263389
<i>Vella mairei</i>	Brassicaceae	ABCD	AF263388
<i>Vella pseudocytisus subsp glabrata</i>	Brassicaceae	ABCD	AF263392
<i>Vella spinosa</i>	Brassicaceae	ABCD	AF263390
<i>Zilla macroptera</i>	Brassicaceae	ABCD	AF263397
<i>Zilla spinosa subsp spinosa</i>	Brassicaceae	ABCD	AY722501
<i>Eutrema bulbiferum</i>	Eutremaceae	CD	KP402246
<i>Eutrema japonicum</i>	Eutremaceae	CD	AF531622
<i>Eutrema tenue</i>	Eutremaceae	CD	DQ165355
<i>Eutrema yunnanense</i>	Eutremaceae	CD	DQ165356
<i>Eutrema heterophyllum</i>	Eutremaceae	CD	KR303759
<i>Eutrema racemosum</i>	Eutremaceae	CD	DQ165362
<i>Eutrema schulzei</i>	Eutremaceae	CD	DQ165362
<i>Eutrema vuchengyii</i>	Eutremaceae	CD	DQ165363
<i>Eutrema edwardsii</i>	Eutremaceae	CD	DQ165350
<i>Eutrema deltoideum</i>	Eutremaceae	CD	DQ165349
<i>Eutrema bouffordii</i>	Eutremaceae	CD	DQ165367
<i>Eutrema fontanum</i>	Eutremaceae	CD	DQ165366
<i>Eutrema hookeri</i>	Eutremaceae	CD	DQ165369
<i>Eutrema verticillatum</i>	Eutremaceae	CD	DQ165370
<i>Eutrema scapiflorum</i>	Eutremaceae	CD	FM183898
<i>Eutrema altaicum</i>	Eutremaceae	CD	FM164653
<i>Eutrema himalaicum</i>	Eutremaceae	CD	DQ165354
<i>Eutrema integrifolium</i>	Eutremaceae	CD	DQ165353
<i>Eutrema violifolium</i>	Eutremaceae	CD	DQ165361
<i>Eutrema renifolium</i>	Eutremaceae	CD	GQ424528
<i>Eutrema botschantzevii</i>	Eutremaceae	CD	FM164654
<i>Eutrema halophilum</i>	Eutremaceae	CD	AF137563
<i>Eutrema salsugineum</i>	Eutremaceae	CD	AF531626
<i>Chartoloma glaucycarpum</i>	Isatideae	ABCD	GQ424529
<i>Isatis platensis</i>	Isatideae	ABCD	GQ424528
<i>Isatis taktajanii</i>	Isatideae	ABCD	GQ131332
<i>Isatis costata</i>	Isatideae	ABCD	KF454071
<i>Isatis cappadocica subsp macrocarpa</i>	Isatideae	ABCD	GQ131333
<i>Isatis cappadocica subsp besseri</i>	Isatideae	ABCD	GQ131311
<i>Isatis cappadocica subsp cappadocica</i>	Isatideae	ABCD	GQ131312
<i>Isatis kotschyana</i>	Isatideae	ABCD	GQ131317
<i>Isatis cappadocica subsp steveniana</i>	Isatideae	ABCD	GQ131335
<i>Isatis cappadocica subsp stenophylla</i>	Isatideae	ABCD	GQ131334
<i>Isatis pachycarpa</i>	Isatideae	ABCD	GQ131321
<i>Isatis tinctoria</i>	Isatideae	ABCD	AF384104
<i>Isatis microcarpa</i>	Isatideae	ABCD	KF022712
<i>Isatis lusitanica</i>	Isatideae	ABCD	GQ131319
<i>Isatis raphanifolia</i>	Isatideae	ABCD	GQ131322
<i>Isatis aquatica</i>	Isatideae	ABCD	GQ497851
<i>Isatis quadrilata</i>	Isatideae	ABCD	GQ131309
<i>Isatis armena</i>	Isatideae	ABCD	GQ131329
<i>Isatis elegans</i>	Isatideae	ABCD	GQ131330
<i>Isatis hispanica</i>	Isatideae	ABCD	GQ131310
<i>Isatis buschiana</i>	Isatideae	ABCD	GQ131318
<i>Isatis leucocarpa</i>	Isatideae	ABCD	GQ131314
<i>Isatis brevipes</i>	Isatideae	ABCD	GQ131326
<i>Isatis emarginata</i>	Isatideae	ABCD	GQ131313
<i>Isatis minima</i>	Isatideae	ABCD	GQ131320
<i>Isatis stocksii</i>	Isatideae	ABCD	GQ131328
<i>Isatis thalicifolia</i>	Isatideae	ABCD	GQ131324
<i>Isatis multicaulis</i>	Isatideae	ABCD	GQ131327
<i>Isatis gymnocarpa</i>	Isatideae	ABCD	GQ131331
<i>Isatis zarrei</i>	Isatideae	ABCD	GQ424555
<i>Myagrum perfoliatum</i>	Isatideae	ABCD	GQ424547
<i>Schimpera arabica</i>	Isatideae	ABCD	GQ424556
<i>Sisymbrium aculeolatum</i>	Sisymbriaceae	AC	MW270991
<i>Sisymbrium aegyptiacum</i>	Sisymbriaceae	ABCD	MW270942
<i>Sisymbrium afghanicum</i>	Sisymbriaceae	AC	MW270992
<i>Sisymbrium altissimum</i>	Sisymbriaceae	ABCD	MW270951
<i>Sisymbrium altissimum</i>			

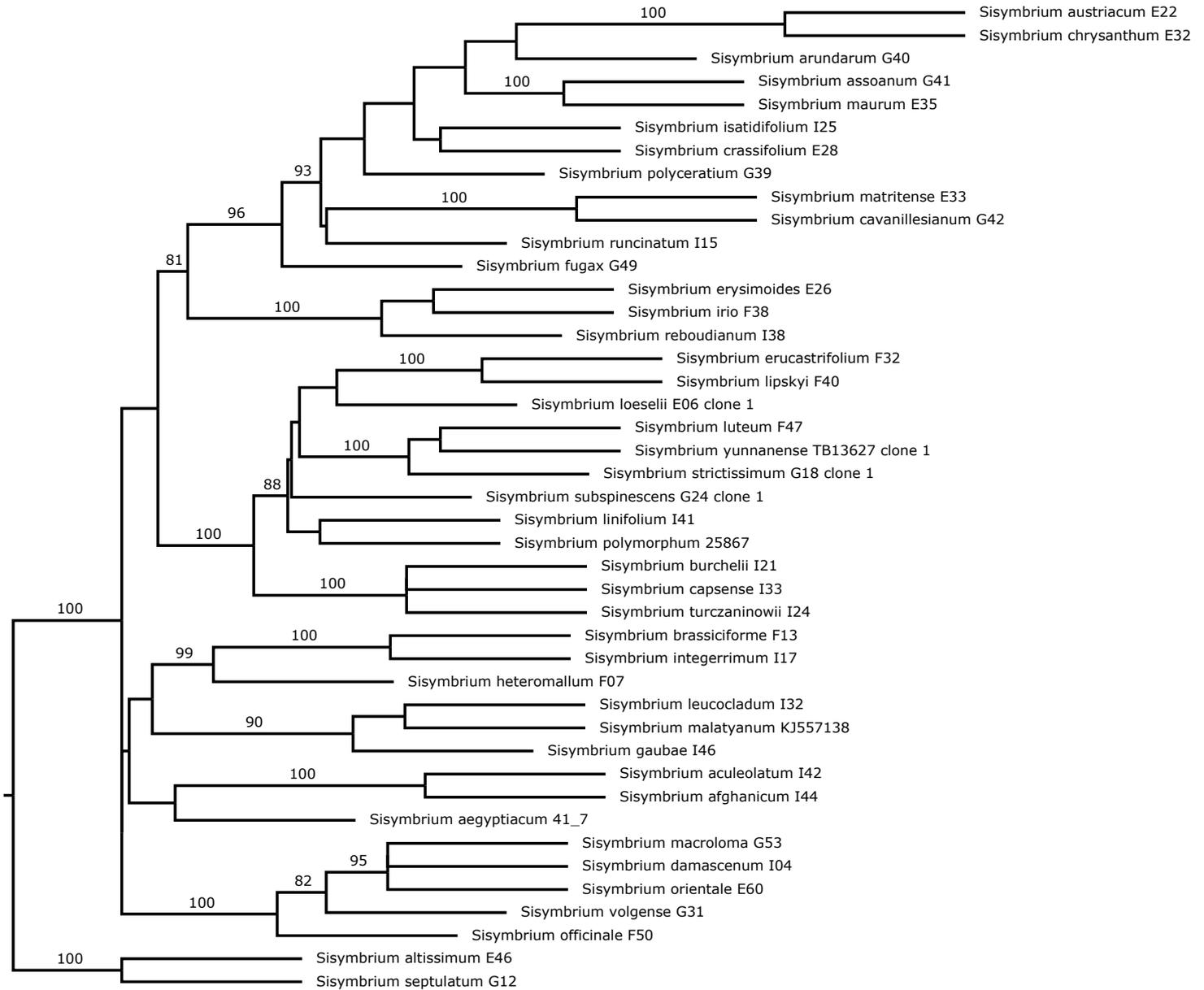
Appendix S4: Alignment statistics of individual loci in Sisymbrieae and Lineage II datasets.

Dataset	Region	Number of entries	Alignment length (bp)	Number of constant characters	Number of variable, but parsimony uninformative characters	Number of parsimony informative characters
Sisymbrieae	ITS of nuclear DNA	56	627	526	48	125
Sisymbrieae	ETS of nuclear DNA	44	403	3049	82	298
Sisymbrieae	Bra13 of nuclear DNA	55	345	279	34	68
Sisymbrieae	Bra246 of nuclear DNA	55	453	373	21	64
Sisymbrieae	Bra813 of nuclear DNA	52	442	313	35	96
Sisymbrieae	Bra1402 of nuclear DNA	52	347	284	39	75
Sisymbrieae	psbA-trnH of cpDNA	54	408	312	51	45
Sisymbrieae	trnQ-rps16 of cpDNA	54	554	470	36	51
Sisymbrieae	ycf1b of cp DNA	54	826	714	60	52
Lineage II without two out-groups and with <i>Sisymbrium aculeolatum</i> and <i>S. afghanicum</i>	ITS of nuclear DNA	403	1081	656	107	318
Lineage II without two out-groups and without <i>Sisymbrium aculeolatum</i> and <i>S. afghanicum</i>	ITS of nuclear DNA	401	1068	643	107	318
Lineage II with two out-groups and with <i>Sisymbrium aculeolatum</i> and <i>S. afghanicum</i>	ITS of nuclear DNA	443	1121	637	108	340
Lineage II with two out-groups and without <i>Sisymbrium aculeolatum</i> and <i>S. afghanicum</i>	ITS of nuclear DNA	441	1108	660	108	340

Appendix S5: Nuclear DNA-based phylogenetic tree of Sisymbrieae reconstructed with ASTRAL.

Numbers on branches correspond to node-support values based on bootstrapping.

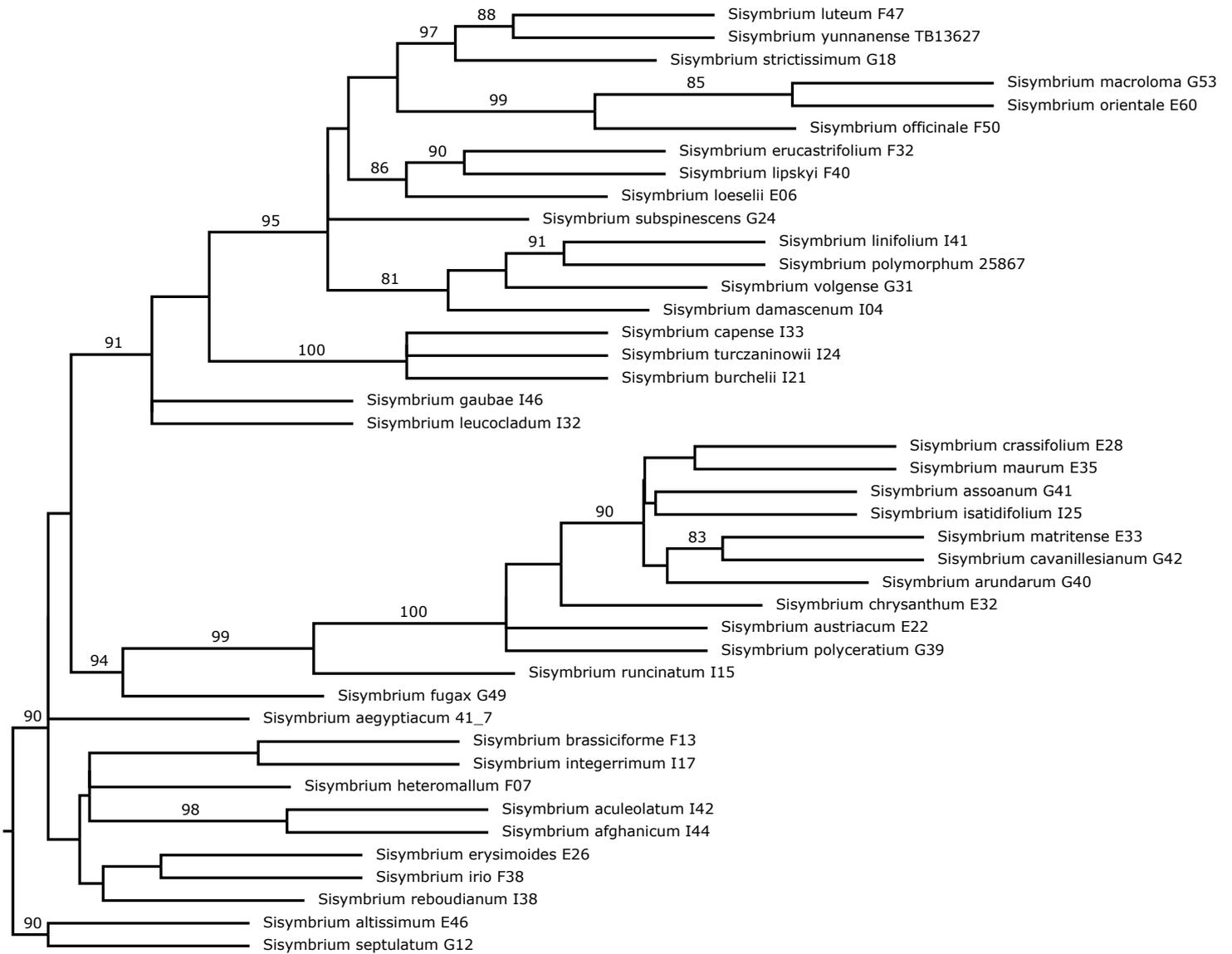
Codes next to species names refer to the isolation codes from Appendix S1.



Appendix S6: Chloroplast DNA-based phylogenetic tree of Sisymbrieae reconstructed with ASTRAL.

Numbers on branches correspond to node-support values based on bootstrapping.

Codes next to species names refer to the isolation codes from Appendix S1.



0.7

Appendix S7: Ancestral range reconstruction statistics

NODE61:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
BE->BE^B^E->BE|BE
PROBABILITY:
 1.0000

NODE63:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
BE->BE^B^E->BE|BE
PROBABILITY:
 0.6006

NODE65:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
H->H^H->H|H
PROBABILITY:
 0.9835

NODE67:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
G->G^G->G|G
PROBABILITY:
 1.0000

NODE69:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
G->G^G->G|G
PROBABILITY:
 1.0000

NODE62:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
BE->BE^B^E->BE|BE
PROBABILITY:
 1.0000

NODE64:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
H->H^H->H|H
PROBABILITY:
 0.9982

NODE66:
EVENT MATRIX:
 Dispersal:1
 Vicariance:1
 Extinction:0
 Event Route:
BH->BEH->H|BE
PROBABILITY:
 0.2985

NODE68:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
G->G^G->G|G
PROBABILITY:
 1.0000

NODE70:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
BD->BD^B^D->BD|BD
PROBABILITY:
 1.0000

NODE71:
EVENT MATRIX:
 Dispersal:2
 Vicariance:1
 Extinction:1
 Event Route:
BC->B->BDG->BD|G
PROBABILITY:
 0.3991

NODE73:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
BE->BE^B^E->BE|BE
PROBABILITY:
 0.7936

NODE75:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
D->D^D->D|D
PROBABILITY:
 1.0000

NODE77:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
B->B^B->BD^B->BD|B
PROBABILITY:
 0.4143

NODE79:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
F->F^F->F|F
PROBABILITY:
 1.0000

NODE81:
EVENT MATRIX:
 Dispersal:0
 Vicariance:1
 Extinction:0
 Event Route:
BF->F|B
PROBABILITY:
 0.1794

NODE72:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
B->B^B->BCH^B->BC|BH
PROBABILITY:
 0.1203

NODE74:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
B->B^B->BE^B->BE|B
PROBABILITY:
 0.4042

NODE76:
EVENT MATRIX:
 Dispersal:0
 Vicariance:1
 Extinction:0
 Event Route:
BD->B|D
PROBABILITY:
 0.7283

NODE78:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
F->F^F->F|F
PROBABILITY:
 1.0000

NODE80:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
F->F^F->F|F
PROBABILITY:
 1.0000

NODE82:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->C|C
PROBABILITY:
 1.0000

NODE83:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE84:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->CE^C->C|CE
PROBABILITY:
 0.5742

NODE85:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 0.5742

NODE86:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE87:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE88:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE89:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE90:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->AC^C->AC|C
PROBABILITY:
 1.0000

NODE91:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE92:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
 C->C^C->C|C
PROBABILITY:
 1.0000

NODE93:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
 AC->AC^A^C->AC|AC
PROBABILITY:
 0.6763

NODE94:
EVENT MATRIX:
 Dispersal:2
 Vicariance:0
 Extinction:0
 Event Route:
 AC->AC^A^C->AC|AC
PROBABILITY:
 0.5143

NODE95:
EVENT MATRIX:
Dispersal:3
Vicariance:0
Extinction:0
Event Route:
ABC->ABC^A^B^C->ABC|ABC
PROBABILITY:
1.0000

NODE97:
EVENT MATRIX:
Dispersal:0
Vicariance:0
Extinction:0
Event Route:
C->C^C->C|C
PROBABILITY:
0.5394

NODE99:
EVENT MATRIX:
Dispersal:3
Vicariance:1
Extinction:0
Event Route:
C->BCF->C|BF
PROBABILITY:
0.1424

NODE101:
EVENT MATRIX:
Dispersal:2
Vicariance:0
Extinction:0
Event Route:
B->B^B^D->BD^B^D->BD|BD
PROBABILITY:
0.3683

NODE103:
EVENT MATRIX:
Dispersal:0
Vicariance:0
Extinction:0
Event Route:
A->A^A->A|A
PROBABILITY:
1.0000

NODE105:
EVENT MATRIX:
Dispersal:2
Vicariance:0
Extinction:0
Event Route:
A->A^A->ABD^A->A|ABD
PROBABILITY:
0.4169

NODE96:
EVENT MATRIX:
Dispersal:3
Vicariance:0
Extinction:0
Event Route:
C->C^A^C->ABC^A^C->ABC|AC
PROBABILITY:
0.4676

NODE98:
EVENT MATRIX:
Dispersal:0
Vicariance:0
Extinction:0
Event Route:
C->C^C->C|C
PROBABILITY:
0.8772

NODE100:
EVENT MATRIX:
Dispersal:0
Vicariance:1
Extinction:0
Event Route:
ABD->A|BD
PROBABILITY:
1.0000

NODE102:
EVENT MATRIX:
Dispersal:1
Vicariance:0
Extinction:0
Event Route:
ABD->ABD^B->B|ABD
PROBABILITY:
0.2422

NODE104:
EVENT MATRIX:
Dispersal:0
Vicariance:0
Extinction:0
Event Route:
A->A^A->A|A
PROBABILITY:
1.0000

NODE106:
EVENT MATRIX:
Dispersal:0
Vicariance:1
Extinction:0
Event Route:
AC->C|A
PROBABILITY:
0.3177

NODE107:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
A->A^A->AC^A->A|AC
PROBABILITY:
 0.6137

NODE108:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
AC->AC^A->AC|A
PROBABILITY:
 0.6137

NODE109:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->AC^C->C|AC
PROBABILITY:
 0.5127

NODE110:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
B->B^B->B|B
PROBABILITY:
 1.0000

NODE111:
EVENT MATRIX:
 Dispersal:0
 Vicariance:1
 Extinction:0
 Event Route:
 BC->B|C
PROBABILITY:
 0.2601

NODE112:
EVENT MATRIX:
 Dispersal:3
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->ABCE^C->ACE|BC
PROBABILITY:
 0.1306

NODE113:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->AC^C->C|AC
PROBABILITY:
 0.0709

NODE114:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->C|C
PROBABILITY:
 0.1893

NODE115:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->C|C
PROBABILITY:
 1.0000

NODE116:
EVENT MATRIX:
 Dispersal:0
 Vicariance:1
 Extinction:0
 Event Route:
 AC->A|C
PROBABILITY:
 0.7129

NODE117:
EVENT MATRIX:
 Dispersal:1
 Vicariance:0
 Extinction:0
 Event Route:
C->C^C->AC^C->AC|C
PROBABILITY:
 0.2057

NODE118:
EVENT MATRIX:
 Dispersal:0
 Vicariance:0
 Extinction:0
 Event Route:
A->A^A->A|A
PROBABILITY:
 1.0000

NODE119:
 EVENT MATRIX:
 Dispersal:0
 Vicariance:1
 Extinction:0
 Event Route:
 AC->A|C
 PROBABILITY:
 0.0917

Dispersal Between Areas:

A->B:1
 A->C:1
 A->D:1
 B->C:1
 B->D:3.5
 B->E:1.5
 B->G:0.5
 B->H:1
 C->A:7
 C->B:3
 C->D:0.5
 C->E:2
 C->F:1
 C->G:0.5
 H->E:0.5

Speciation Within Areas:

A:10
 B:12
 C:23
 D:3
 E:4
 F:3
 G:3
 H:2

Dispersal Table:

	from	to	within
A	3.00	7.00	10
B	7.50	4.00	12
C	14.00	2.00	23
D	0.00	5.00	3
E	0.00	4.00	4
F	0.00	1.00	3
G	0.00	1.00	3
H	0.50	1.00	2

Global Cost:

Global Dispersal: 45
 Global Vicariance: 10
 Global Extinction: 1

Model testing:

LnL	numparams	d	e	j	AICc	AICc_wt	
DEC	-108.3	3	0.0056	0.050	0.012	223	1.00
DEC+J	-160.3	2	0.033	0.026	0	324.8	7.8e-23
DIVALIKE	-163.4	3	0.024	0.0050	0.0052	333.2	1.2e-24
DIVALIKE+J	-175.8	2	0.029	2.0e-08	0	355.9	1.4e-29
BAYAREALIKE	-175.8	3	0.029	1.0e-12	1.0e-05	358.1	4.7e-30
BAYAREALIKE+J	-126.3	2	0.014	0.13	0	256.8	4.7e-08