SUPPORTING INFORMATION

This historical biogeography of *Scabiosa* (Dipsacaceae): implications for Old World plant disjunctions

Sara E. Carlson, H. Peter Linder, and Michael J. Donoghue

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Appendix S1 List of species used in this study, showing biogeographical distribution, voucher information, and Genbank accession numbers [order: *atp*B–*rbc*L*,* *trn*L–*trn*F, *trn*S^{UGA}–*trn*G^{GCG}, *psb*A–*trn*H, ITS (sequences for which two GenBank numbers are present represent ITS1 and ITS2), ETS]. Taxa for which we were unable to obtain sequence data are indicated by 'NS' and 'a' = sequence acquired from GenBank.

Distribution	Species	Voucher	GenBank
Asia	*S. comosa* Fisch. Ex Roem. & Schult.	*Mayer 930716-2/3* (WU)	JQ023776, JQ023856, JQ023874, JQ023835, JQ023821, JQ023811
	S. japonica Miq.	*No Voucher*	NS, AJ427387[a], NS, NS, AJ426545[a] /AJ426546[a], NS
	S. lacerifolia Hayata	*Hoerandl et al 9556* (WU)	JQ023777, JQ023857, JQ023876, JQ023851, JQ023822, JQ023806
	S. mansenensis Nakai	*Hyun s.n.* (WU)	JQ023775, JQ023859, JQ023875, JQ023836, JQ023820, JQ023812
Europe	*S. achaeta* Vis. & Pančić	*Greuter 13766* (G)	JQ023780, NS, JQ023883, NS, JQ023832, JQ023805
	S. canescens Waldst. et Kit.	*Hadinec 23.8.1980* (G)	NS, NS, JQ023871, JQ023847, NS, NS
	S. cinerea Lapeyr ex Lam	*Gardner & Gardner 2536* (E)	JQ023782, JQ023863, JQ023887, JQ023840, JQ023825, JQ023796
	S. columbaria L.	*Bell 199* (YU)	FJ640620[a], FJ640669[a], FJ640724[a], JQ023849, AY236188[a], JQ023802
	S. lucida Vill.	*No Voucher*	JQ023785, NS, JQ023886, JQ023852, JQ023830, JQ023804
	S. ochroleuca L.	*Gardner & Gardner 3037* (E)	FJ640619[a], FJ640673[a], FJ640726[a], JQ023841, FJ640768[a], JQ023807
	S. silenifolia Waldst. & Kit.	*No Voucher*	JQ023778, JQ023858, JQ023872, JQ023845, JQ023819, JQ023799
	S. taygetea Boiss. & Heldr.	*Strid et al 27700* (E)	JQ023781, JQ023868, JQ023879, JQ023853, JQ023824, JQ023809
	S. tenuis Spruner	*Hagemann et al 649* (E)	JQ023784, JQ023870, JQ023877, JQ023854, JQ023823, JQ023801
	S. triandra L.	*Gardner & Gardner 3299* (E)	JQ023783, JQ023866, JQ023878, JQ023839, JQ023826, JQ023810
	S. triniifolia Friv.	*Gardner & Gardner 3100* (E)	JQ023790, JQ023869, JQ023881, JQ023842, JQ023833, JQ023808
	S. turolensis Pau ex Willk.	*Gardner & Gardner 1423* (E)	JQ023791, JQ023864, JQ023884, JQ023843, NS, JQ023803
	S. vestina Facchini	*No Voucher*	JQ023779, JQ023860, JQ023873, JQ023844, JQ023818, JQ023800
	S. webbiana D. Don	*Jury & Thornton-Wood 9895* (E)	JQ023787, JQ023861, JQ023882, JQ023850, JQ023831, NS
Africa	*S. africana* L.	*Rouke 17-3-1980* (E)	FJ640621[a],

			AJ427386[a], FJ640727[a], JQ023834, AJ426543[a] /AJ426544[a], JQ023792
	S. angustiloba (Sond.) Burtt ex Hutch.	*Hillard & Burtt 10838* (E)	JQ023788, JQ023862, NS, JQ023846, JQ023828, JQ023795
	S. beukiana Eckl. & Zeyh.	*Hillard & Burtt 10899* (E)	JQ023789, JQ023865, JQ023880, JQ023848, JQ023827, JQ023793
	S. drakenbergensis Burtt	*Hilliard & Burtt 16091* (E)	JQ023786, JQ023867, JQ023885, JQ023855, JQ023829, JQ023797
	S. transvaalensis S. Moore	*Hillard & Burtt 5960* (E)	FJ640624[a], FJ640672[a], FJ640723[a], JQ023837, FJ640769[a], JQ023794
	S. tysonii L. Bolus	*Edwards & al. 3225* (E)	FJ640625[a], FJ640671[a], FJ640725[a], JQ023838, FJ640770[a], JQ023798
Outgroups	*Sixalix atropurpurea* (L.) Greuter & Burdet	*Carlson 137* (YU)	FJ640623[a], FJ640667[a], FJ640728[a], NS, FJ640771[a], JQ023817
	Pterocephalus strictus Boiss. & Hohen.	*Archibald 8316* (E)	FJ640645[a], FJ640679[a], FJ640733[a], NS, FJ640775[a], JQ023816
	Lomelosia cretica (L.) Greuter & Burdet	*Cellinese 6002* (YU)	FJ640628[a], FJ640689[a], FJ640746[a], NS, FJ640788[a], JQ023815
	Knautia arvensis (L.) Coult.	*Carlson 181* (YU)	FJ640617[a], FJ640666[a], FJ640722[a], NS, AJ426529[a]/AJ426530[a], JQ023814
	Bassecoia hookeri V. Mayer & Ehrendorfer	*Boufford et al. 28691* (A)	AF446946[a], AF447006[a], FJ640695[a], NS, AY236186[a], JQ023813
	Triplostegia glandulifera Wall ex DC	*Boufford et al. 27738* (A)	GQ983612[a], AF366921[a], FJ640694[a], AY794234[a], AY236189[a], NS
	Valeriana officinalis L.	*Bell 2006-53* (YU)	AF44858[a], AY360120[a], NS AY794273[a], AY360110[a], NS
	Centranthus ruber (L.) DC	*Bell 203* (YU)	AF447016[a], AF446986[a], NS, AY794225[a], AY236196[a], NS
	Nardostachys jatamansi DC	*Boufford et al. 28099* (A)	AF447010[a], AF446980[a], NS, AY794227[a], AY236190[a], NS
	Patrinia triloba Miq.	*Eriksson 807* (SBT)	AF446951[a], AF447011[a],

Patrinia triloba Miq.	*Eriksson 807* (SBT)	AF446951[a], AF447011[a], FJ640693[a], AY794228[a], AY236191[a], NS
Morina longifolia Wall.	*Eriksson s.n. 2 Nov. 1999* (SBT)	AF446945[a], AF447005[a],

Appendix S2 Description of biogeographical models used in LAGRANGE analysis

Two DEC models (A and B) were used that differed in dispersal probabilities (*d*) between different biogeographic regions. In model A, dispersal probabilities were equal between all biogeographic areas (*d* = 1.0) with no constraints between regions. In model B, dispersal parameters were allowed to vary, reflecting changes in dispersal opportunities through time, beginning from the age of the root node from the BEAST analysis. For example, dispersal probabilities were set to 0.001 during periods when areas are assumed to have been unconnected, representing dispersal by chance (for example by wind or water), and to 1.0 during periods when movement between regions is thought to have been possible. Regarding dispersal between Asia and Europe, the Turgai Strait is considered to have been a major barrier until the Late Eocene (*d* = 0.001), after which movement between the two regions is thought to have been possible (*d* = 1.0; Tiffney & Manchester, 2001). Dispersal between Asia and Africa may have occurred over India and the Seychelles plateau during the Late Cretaceous and early Palaeocene (*d* = 0.5; Patriat & Segoufin, 1988; Rage & Rocek, 2003), and via short distance dispersal by island hopping between the Arabian plate and southwest Asia during the Palaeocene to early Miocene (*d* = 0.5; Muelenkamp & Sissingh, 2003). After the middle Miocene, when the Arabian plate collided with Eurasia, dispersal over land between Africa and southwest Asia was possible (*d* = 1.0; Krijgsman, 2002). Migration between Europe and Africa may have been possible until the Middle Eocene between the Apulia microplate and North Africa (*d* = 1.0; Dercourt *et al*., 1986), and by short distance dispersal before the middle Miocene between North Africa and the Iberian Peninsula and/or the Arabian plate and the eastern Mediterranean ($d = 0.75$), after which a land corridor between the Arabian plate and Eurasia allowed movement between the two areas ($d = 1.0$; Muelenkamp & Sissingh, 2003). All possible area combinations with a maximum of three simultaneous areas were permitted and dispersal between areas was permitted bidirectionally.

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