Author	Species	Common Name	Growth Form	Deep Soi	l Water Co	ntribution	G\	W Contribu	tion	Total Use of Past	Geographic Location	Latitude	Longitude	Elevation	Water Table	Topographic Position	Geologic	Soil Texture	Koppen- Geiger Water-	Isotope	Source-3	Notes
	,			Dry Season	Wet Season	Growing season	Dry Season	Wet Season	Growing season	Precip				(m)	Depth (m)	Upland Lowland	Setting		Stress Class	Method	vs. 4	
Antunes et al. 2018a	Erica scoparia, Salix repens	Besom heath, Creeping willow	Evergreen broadleaf shrub;	0.27	0.15	0.21	0.40	0.12	0.26	0.47	Site-A-humidMed, Osso da Baleia,	40.0388	-8.8961	5	3.19-19.07	WT 3-5m accessible to		dune sand	Cs		3	WTD made little
Antunes et al. 2018a	Pinus pinaster, Pinus pinea	maritime pine, stone pine	Deciduous Evergreen needleleaf tree	0.10	0.16	0.13	0.14	0.16	0.15	0.28	Portugal Site-A-humidMed, Osso da Baleia,	40.0388	-8.8961	5	3.19-19.07	plants WT 3-5m accessible to		dune sand	Cs		3	difference in the humidMed site, but deep
Antunes et al. 2018a	Corema album	Portuguese Crowberry	Evergreen needleleaf shrub	0.10	0.11	0.21	0.13	0.10	0.12	0.33	Portugal Site-A-humidMed, Osso da Baleia, Portugal	40.0388	-8.8961	5	3.19-19.07	plants WT 3-5m accessible to plants		dune sand	Cs	O; MixSIAR for R, 4 members:	3	water use is strongly correlated with
Antunes et al. 2018a	Erica scoparia, Salix repens	Besom heath, Creeping willow	Evergreen broadleaf shrub; Deciduous	0.20	0.07	0.14	0.28	0.05	0.17	0.30	Site-B-aridMed, Biological Reserve of Doñana. SW Spain	36.9886	-6.4431	3	0.94-6.97	WT 3-5m accessible to	coastal dunes	dune sand	Cs	0.1m (same as Precip), 0.3m, 0.5m,	3	WTD in the aridMed site, but data not
Antunes et al. 2018a	Pinus pinaster, Pinus pinea	maritime pine, stone pine	Evergreen needleleaf tree	0.22	0.33	0.28	0.38	0.20	0.29	0.57	Site-B-aridMed, Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	1.59-12.28	WT 3-5m accessible to plants		dune sand	Cs	GW	3	given separating deep
Antunes et al. 2018a	Corema album	Portuguese Crowberry	Evergreen needleleaf shrub	0.00	0.12	0.14	0.00	0.06	0.03	0.17	Site-B-aridMed, Biological Reserve of Doñana. SW Spain	36.9886	-6.4431	3	2.79-12.28	WT 3-5m accessible to plants		dune sand	Cs		3	soil water and GW use
Antunes et al. 2018b	Juniperus phoenicea, Pinus	Phoenicean juniper, stone	Evergreen needleleaf	0.42		0.42	0.38		0.38	0.80	Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	2.8m spring,	WT 2-4m accessible to plants		dune sand	Cs		3	
Antunes et al. 2018b	pinea Quercus suber, Erica scoparia, Phillyrea	nine cork oak, Besom heath, Narrow- leaved mock	shrub. xerophyte Evergreen broadleaf tree/shrub,	0.44		0.44	0.25		0.25	0.69	Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	3.9m 2.8m spring, 3.9m	WT 2-4m accessible to plants		dune sand	Cs	O; MixSIAR for R, 4	3	14 species grouped in 5
Antunes et al. 2018b	Halimium halimifolium	Spotted Yellow Sun Rose	Semi-deciduous broadleaf shrub,	0.31		0.31	0.20		0.20	0.51	Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	2.8m spring,	WT 2-4m accessible to	coastal dunes	dune sand	Cs	members: 0.1m (same	3	water-relation groups; results give for groups
Antunes et al. 2018b	Corema album, Cistus libanotis,	,, ,	mesophytic Perennial desert shrub, small leaf,	0.10		0.10	0.00		0.00	0.10	Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	3.9m 2.8m spring,	plants WT 2-4m accessible to		dune sand	Cs	as Precip), 0.3m, 0.5m, GW	3	only (values from Fig 1c trigram)
Antunes et al. 2018b	Halimium Lavandula stoechas, Cistus salviifolius, Ulex	French lavender, ??, ??,	xerophytic (NXs) Semi-deciduous broadleaf shrub, spike/aphyllous	0.43		0.43	0.10		0.10	0.53	Biological Reserve of Doñana, SW Spain	36.9886	-6.4431	3	3.9m 2.8m spring, 3.9m	plants WT 2-4m accessible to plants		dune sand	Cs		3	ting. dinity
Antunes et al. 2019	Eugenia schuechiana	??	Evergreen broadleaf tree				0.04	0.02	0.03	0.03	Coastal dunes, Serra do Mar State Park, restinga forest, Praia	-23.3561	-44.8508	6	mean 0.55m wet, 1.15m dry	subjected to seasonal or perennial		sandy Quartzenic Neosol	Am		3	
Antunes et al. 2019	Euterpe edulis	juçara, palmiteiro	Palm tree				0.08	0.02	0.05	0.05	Coastal dunes, Serra do Mar State Park, restinga forest. Praia	-23.3561	-44.8508	6	mean 0.55m wet, 1.15m drv	subjected to seasonal or perennial		sandy Quartzenic Neosol	Am		3	
Antunes et al. 2019	Faramea pachyantha	??	Evergreen broadleaf tree				0.14	0.05	0.10	0.10	Coastal dunes, Serra do Mar State Park, restinga forest, Praia Coastal dunes, Serra	-23.3561	-44.8508	6	mean 0.55m wet, 1.15m dry mean	subjected to seasonal or perennial subjected to		Sandy Quartzenic Neosol sandy	Am		3	
Antunes et al. 2019	Guapira opposita	??	Evergreen broadleaf tree				0.04	0.02	0.03	0.03	do Mar State Park, restinga forest, Praia Coastal dunes, Serra	-23.3561	-44.8508	6	0.55m wet, 1.15m dry mean	seasonal or perennial subjected to		Quartzenic Neosol sandy	Am		3	
Antunes et al. 2019	Guarea macrophylla	??	Evergreen broadleaf tree				0.03	0.01	0.02	0.02	do Mar State Park, restinga forest. Praia Coastal dunes, Serra	-23.3561	-44.8508	6	0.55m wet, 1.15m drv mean	seasonal or perennial subjected to		Quartzenic Neosol sandy	Am		3	
Antunes et al. 2019 Antunes et al.	Guatteria sp4 Jacaranda	??	Evergreen broadleaf tree Deciduous				0.03	0.01	0.02	0.02	do Mar State Park, restinga forest, Praia Coastal dunes, Serra	-23.3561	-44.8508	6	0.55m wet, 1.15m dry mean	seasonal or perennial subjected to		Quartzenic Neosol sandy	Am	O. Miusian	3	
2019 Antunes et al.	puberula Marlierea	??	broadleaf tree Semi-deciduous				0.04	0.01	0.03	0.03	do Mar State Park, restinga forest, Praia Coastal dunes, Serra	-23.3561	-44.8508	6	0.55m wet, 1.15m dry mean	seasonal or perennial subjected to	Control donor	Quartzenic Neosol sandy	Am	O; MixSIAR for R, 4 members:	3	annual P=2753mm, no continuous dry
2019 Antunes et al.	tomentosa Maytenus	??	broadleaf tree Deciduous				0.07	0.01	0.04	0.04	do Mar State Park, restinga forest. Praia Coastal dunes, Serra do Mar State Park,	-23.3561 -23.3561	-44.8508 -44.8508	6	0.55m wet, 1.15m drv mean 0.55m wet,	seasonal or perennial subjected to seasonal or	Coastal dunes	Quartzenic Neosol sandy Quartzenic	Am Am	0.1m (same as Precip), 0.3m, 0.5m, GW	3	season, but wetter and drier periods
2019 Antunes et al. 2019	littoralis Myrcia brasiliensis	??	Evergreen broadleaf tree				0.07	0.02	0.05	0.05	restinga forest, Praia Coastal dunes, Serra do Mar State Park,	-23.3561	-44.8508	6	1.15m dry mean 0.55m wet,	perennial subjected to seasonal or		Neosol sandy Quartzenic	Am	GW	3	
Antunes et al.	Myrcia multiflora	??	Evergreen broadleaf tree				0.06	0.02	0.04	0.04	restinga forest, Praia Coastal dunes, Serra do Mar State Park,	-23.3561	-44.8508	6	1.15m dry mean 0.55m wet,	perennial subjected to seasonal or		Neosol sandy Quartzenic	Am		3	
Antunes et al. 2019	Myrcia racemosa	??	Evergreen broadleaf tree				0.05	0.03	0.04	0.04	restinga forest. Praia Coastal dunes, Serra do Mar State Park, restinga forest. Praia	-23.3561	-44.8508	6	1.15m drv mean 0.55m wet, 1.15m drv	perennial subjected to seasonal or perennial		Neosol sandy Quartzenic Neosol	Am		3	
Antunes et al. 2019	Pera glabrata	??	Evergreen broadleaf tree				0.09	0.02	0.06	0.06	Coastal dunes, Serra do Mar State Park, restinga forest, Praia	-23.3561	-44.8508	6	nean 0.55m wet, 1.15m dry	subjected to seasonal or perennial		sandy Quartzenic Neosol	Am		3	
Antunes et al. 2019	Psychotria sp1	wild coffee	Evergreen broadleaf shrub				0.04	0.01	0.03	0.03	Coastal dunes, Serra do Mar State Park, restinga forest. Praia	-23.3561	-44.8508	6	mean 0.55m wet, 1.15m drv	subjected to seasonal or perennial		sandy Quartzenic Neosol	Am		3	
Antunes et al. 2019	Psychotria sp2	wild coffee	Evergreen broadleaf shrub				0.09	0.01	0.05	0.05	Coastal dunes, Serra do Mar State Park, restinga forest. Praia	-23.3561	-44.8508	6	mean 0.55m wet, 1.15m drv	subjected to seasonal or perennial		sandy Quartzenic Neosol	Am		3	
Berry et al. 2014	Abies fraseri	Fraser fir red spruce	Evergreen needleleaf tree			0.19			0.08	0.27	Pisgah National Forest, NC, US	35.7100	-82.2700	1510		on south- facing slope	southern		Cf	H+O; IsoSource, 4 members:	3	lat-lon should be decimal
Berry et al. 2014	Picea rubens	Fraser fir	Evergreen needleleaf tree Evergreen			0.24			0.09	0.33	Pisgah National Forest, NC, US Mt Mitchell State Park,		-82.2700	1510		on south- facing slope	Appalachian mountains, on high		Cf	fog, shallow soil (0- 25cm), deep	3	Authors suggest
Berry et al. 2014	Abies fraseri		needleleaf tree			0.25			0.31	0.56	NC, US	35.7600	-82.2600	1960		on ridge	slopes, with thin soil		Df	soil (1.2-	3	that water table likelv within

Berry et al. 2014	Picea rubens	red spruce	Evergreen needleleaf tree			0.28		0.24	0.52	Mt Mitchell State Park, NC, US	35.7600	-82.2600	1960		on ridge				Df	1.5m) and GW	3	
Bertrand et al. 2014	Salix alba	white willow	Deciduous broadleaf tree			0.25		0.48	0.73	site-1, Pfyn forest, Sierre, Wallis canton,	46.3000	7.5972	571	4.00				sand-silt	Cf		3	
Bertrand et al. 2014	Prunus avium	wild cherry, sweet cherry	Evergreen needleleaf tree			0.23		0.15	0.38	CH site-1, Pfyn forest, Sierre, Wallis canton, CH	46.3000	7.5972	571	4.00	1km from river, highest site			sand-silt	Cf		3	
Bertrand et al. 2014	Populus nigra	black poplar	Deciduous broadleaf tree			0.22		0.28	0.50	site-1, Pfyn forest, Sierre, Wallis canton, CH	46.3000	7.5972	571	4.00	site			sand-silt	Cf		3	
Bertrand et al. 2014	Salix alba	white willow	Deciduous broadleaf tree			0.39		0.12	0.51	site-2, Pfyn forest, Sierre, Wallis canton, CH	46.3057	7.5945	568	2.30				sand-silt	Cf		4	average fraction from 4 sampling
Bertrand et al. 2014	Prunus avium	wild cherry, sweet cherry	Deciduous broadleaf tree			0.53		0.12	0.65	site-2, Pfyn forest, Sierre, Wallis canton, CH	46.3057	7.5945	568	2.30			Rhone valley	sand-silt	Cf	O+H; IsoSource, 5 members: 0-	4	dates thrugh the growing season (May to
Bertrand et al. 2014	Populus nigra	black poplar	Deciduous broadleaf tree			0.35		0.04	0.39	site-2, Pfyn forest, Sierre, Wallis canton, CH	46.3057	7.5945	568	2.30		mixed riverine	alluvium	sand-silt	Cf	0.2, 0.2-0.4, 0.4-0.6, 0.6- 0.8, GW	4	late Aug); 0- 40cm assumed recent rain (S1),
Bertrand et al. 2014	Alnus glutinosa	common alder, black alder, Furonean alder	Deciduous broadleaf tree			0.37		0.18	0.55	site-2, Pfyn forest, Sierre, Wallis canton, CH	46.3057	7.5945	568	2.30				sand-silt	Cf		4	40-80cm past rain (S2)
Bertrand et al. 2014	Pinus sylvestris	Scots pine	Evergreen needleleaf tree			0.21		0.11	0.32	site-2, Pfyn forest, Sierre, Wallis canton, CH	46.3057	7.5945	568	2.30				sand-silt	Cf		4	
Bertrand et al. 2014	Salix alba	white willow	Deciduous broadleaf tree			0.42		0.35	0.77	site-3, Pfyn forest, Sierre, Wallis canton, CH site-3, Pfyn forest,	46.3059	7.5876	556	1.00		in gravel bar		sandy with pebbles	Cf		4	
Bertrand et al. 2014	Alnus glutinosa	black alder,  Furonean alder  camel thorn,	Deciduous broadleaf tree Deciduous			0.19		0.03	0.22	Sierre, Wallis canton, CH	46.3059	7.5876	556	1.00		on river bed		sandy with pebbles	Cf		4	
Beyer et al. 2018	(Vachellia eriolob)	giraffe thorn  African teak,	broardleaf tree, legume Deciduous	0.50		0.50	0.37	0.37	0.87	NA NA	-17.5054	16.4739	1130	20.00				sand	BS	H+O; and D	4	
Beyer et al. 2018	Baikiaea plurijuga	Mukusi, Rhodesian teak bushwillow	broardleaf tree, legume	0.96		0.96	0.00	0.00	0.96	Elundu Forest, Elundu, NA	-17.5054	16.4739	1130	20.00	well-drained			sand	BS	labeling; MixSIAR, 5	4	water table likely 15m,
Beyer et al. 2018	Combretum collinum	wild mango	Semi-deciduous broadleaf tree Semi-deciduous	0.88		0.88	0.00	0.00	0.88	NA Elundu Forest, Elundu, NA Elundu Forest, Elundu,	-17.5054	16.4739	1130	20.00	on Kalahari sand		Kalahri Sand	sand	BS	members: surface, 0.2- 0.5, 0.6-1, 1-	4	based on the max relief to the nearest lake
Beyer et al. 2018	Salacia luebertii Terminalia	clusterleaf,	broadleaf tree  Deciduous	0.82		0.82	0.01	0.01	0.83	NA Elundu Forest, Elundu,	-17.5054	16.4739	1130	20.00				sand	BS	4m, deep&GW	4	
Beyer et al. 2018	sericea  Eucalyptus sp.	silver cluster- leaf or silver mallee	broadleaf tree Evergreen	0.67		0.67	0.02	0.02	0.69	NA	-17.5054	16.4739	1130	20.00		lower slope	sand duns an	sand	BS	H+O; linear	4	using 2
Brunel et al. 1995	(mallee)  Eucalyptus sp.	mallee	broadleaf tree Evergreen			0.63			0.63	2HBD site, Vitoria, AU	-34.9176	141.9230	63	2.40		site, roots above WT midslope site,	sand dune on 1m clay over deep sand	sand	BS	mixing model; 3 members: 0-		members only, assuming GW too saline for
Brunel et al. 1995	(mallee)		broadleaf tree Evergreen			0.67			0.67	2HTD site, Vitoria, AU  LBA km-67 site,	-34.9172	141.9241	67	4.70 30-60 15km	on well	roots above WT	aquifer	sand	BS	0.4m, 0.4- 0.8 for		plants
Brum et al. 2018	Manilkara elata		broadleaf tree, canopy Evergreen	0.69		0.69			0.69	Tapajos Nat For, Santarem, Para, Brazil LBA km-67 site,	-3.8500	-54.9667	185	away 30-60 15km	drained plateau on well			tropical clay	Am			Lat may be off by 1 degree, because LBA km-
Brum et al. 2018  Brum et al. 2018	Erisma uncinatum Pseudopiptadenia		broadleaf tree, canopy Evergreen broadleaf tree,	0.90		0.90			0.90	Tapajos Nat For, Santarem, Para, Brazil LBA km-67 site, Tapajos Nat For,	-3.8500 -3.8500	-54.9667 -54.9667	185 185	away 30-60 15km	drained plateau on well drained			tropical clay	Am Am			67 is 1 degree north; also the elevation does
Brum et al. 2018	psilostachya Mezilaurus		canopy Evergreen broadleaf tree,	0.83		0.83			0.83	Santarem. Para. Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	away 30-60 15km	plateau on well drained		tropical	tropical clay	Am			not match (166m at given site, -30m tree
Brum et al. 2018	itauba Tachigali		canopy Evergreen broadleaf tree,	0.74		0.74			0.74	Santarem, Para, Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	away 30-60 15km	plateau on well drained		seasonal forest with deep	tropical clay	Am	O, SIMMER in R, 2 members:		hight = 136m; at LBA km-67, 196- 30=166m,
Brum et al. 2018	Chamaecrista		canopy Evergreen broadleaf tree,	0.76		0.76			0.76	Santarem, Para, Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	30-60 15km	plateau on well drained		weathered clay soil (but such clay soils	tropical clay	Am	shallow soil (enriched, variable, 0-		closer to 185 reported by authors), but
Brum et al. 2018	xinguensis Protium apiculatum		subcanopy Evergreen broadleaf tree,	0.15		0.15			0.15	Santarem. Para. Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	away 30-60 15km away	plateau on well drained		form aggregates,	tropical clay	Am	1m), deep soil (light,		author reports recorded here; Sample
Brum et al. 2018	Coussarea albescens		subcanopv Evergreen broadleaf tree,	0.30		0.30			0.30	Santarem. Para. Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	30-60 15km away	plateau on well drained		giving high infiltration capacity)	tropical clay	Am	stable, 1- 12m)		collected in an extreme
Brum et al. 2018	Miconia sp.		subcanopy Evergreen broadleaf tree,	0.41		0.41			0.41	Santarem, Para, Brazil LBA km-67 site, Tapajos Nat For,	-3.8500	-54.9667	185	30-60 15km away	plateau on well drained			tropical clay	Am			drought year 2005, in early Nov-Dec,
Brum et al. 2018	Amphirrhox longifolia		subcanopy Evergreen broadleaf tree, understory	0.67		0.67			0.67	Santarem. Para. Brazil LBA km-67 site, Tapajos Nat For, Santarem. Para. Brazil	-3.8500	-54.9667	185	30-60 15km away	plateau on well drained plateau			tropical clay	Am			begining of wet season; Endopleura uchi
Brum et al. 2018	Rinorea pubiflora		Evergreen broadleaf tree, understory	0.26		0.26			0.26	LBA km-67 site, Tapajos Nat For, Santarem, Para, Brazil	-3.8500	-54.9667	185	30-60 15km away	on well drained plateau			tropical clay	Am			result not reported (n=1)
Chen et al. 2015	Liana species	??	Evergreen broadleaf liana	0.40	0.08	0.24			0.24	Karst forest (KF), Xishuangbanna Tropical Botanical	21.9202	101.2757	580		well-drained karst hill		shallow coarse calcareous	coarse, low WHC	Cw			3 members: 0-
Chen et al. 2015	Tree species	??	Evergreen broadleaf tree	0.30	0.07	0.19			0.19	Karst forest (KF), Xishuangbanna Tropical Botanical	21.9202	101.2757	580		well-drained karst hill		shallow coarse calcareous	coarse, low WHC	Cw	Н;		60cm, 60-1.5m, 1.5-2.5m; GW not included;

1 1		??	1	ı			I		1					1				laterite soil			IsoSource, 3		FPF site in the
Chen et al. 2015	Liana species		Evergreen broadleaf liana	0.39	0.09	0.24				0.24	(TSF), nat res, 8km to XTBG, Yunnan Prov, CN	21.9103	101.2163	750		well-drained hill		over siliceous rocks	laterite (clay rich)	Cw	members: 0- 60, 61-150,		botanical garden is 3m
Chen et al. 2015	Pometia tomentosa,	??, East Indian almond	Evergreen broadleaf tree	0.28	0.13	0.21				0.21	(TSF), nat res, 8km to XTBG, Yunnan Prov, CN	21.9103	101.2163	750		well-drained hill		laterite soil over siliceous	laterite (clay rich)	Cw	150-250 (GW for		above river, assumed WTD,
Chen et al. 2015	Terminalia Liana species	??	Evergreen broadleaf liana	0.22	0.20	0.21	0.66	0.67	0.67	0.88	Floodplain forest (FPF), XTBG, Yunnan Prov, CN	21.9198	101.2780	554	3.00		floodplain with shallow WT	rocks deep rich soil with shallow		Cw	riparian site)	4	and the deep uptake 1.5-2.5m assumed from
Chen et al. 2015	Tree species	??	Evergreen broadleaf tree	0.14	0.20	0.17	0.65	0.78	0.72	0.89	Floodplain forest (FPF), XTBG, Yunnan Prov, CN	21.9198	101.2780	554	3.00		floodplain with shallow WT	WT deep rich soil with shallow WT		Cw		4	GW capillary rise
Chen et al. 2016	Populus euphratica	Euphrates poplar, desert	Deciduous broadleaf tree			0.40			0.28	0.68	Site 1.8, Lower Tarim R, Xinjiang Prov, CN	40.5651	87.6007	851	1.80		on river bank	VVI	sandy-loam with clay	BW		4	
Chen et al. 2016	Tamarix ramosissima	saltcedar	Deciduous broadleaf tree			0.41			0.30	0.71	Site 1.8, Lower Tarim R, Xinjiang Prov, CN	40.5651	87.6007	851	1.80		on river bank		sandy-loam with clay	BW	O; IsoSource, max 6	4	the reach below Daxihaizi Reservoir; 3
Chen et al. 2016	Populus euphratica	Euphrates poplar, desert	Deciduous broadleaf tree			0.84			0.15	0.99	Site 3.8, Lower Tarim R, Xinjiang Prov, CN	40.5133	87.8232	848	3.80		200m from river, WT within root	river bank stretches on	sandy-loam with clay	BW	members: 0- 20, 20-75, 75-150, 150-	4	sites are 20km apart, 0, 200, and 800m away
Chen et al. 2016	Tamarix ramosissima	saltcedar	Deciduous broadleaf tree			0.80			0.18	0.98	Site 3.8, Lower Tarim R, Xinjiang Prov, CN	40.5133	87.8232	848	3.80		200m from river, WT within root	alluvial fan deposit	sandy-loam with clay	BW	375 (if above WT), 375-700cm	4	from river; P=30mm/yr, soil >20cm assumed
Chen et al. 2016	Populus euphratica	Euphrates poplar, desert	Deciduous broadleaf tree			0.68			0.30	0.98	Site 7.2, Lower Tarim R, Xinjiang Prov, CN	40.4473	88.0483	841	7.20		800m from river, WT within root		sandy-loam with clay	BW	(if above WT), and GW	4	deep moisture from ealier flooding
Chen et al. 2016	Tamarix ramosissima	saltcedar	Deciduous broadleaf tree			0.64			0.34	0.98	Site 7.2, Lower Tarim R, Xinjiang Prov, CN	40.4473	88.0483	841	7.20		800m from river, WT within root		sandy-loam with clay	BW	GW	4	
Chi et al. 2019	Stipa grandis P. Smirn	needlegrass	Perennial grass			0.06				0.06	Grassland Eco Res Sta, steppe, Inner Mongolia. China	43.6694	116.7520	1250		well-drained dune sand			loamy sand	Dw	H+O; Isotope, 2		site; moved to z=1250m, scene
Chi et al. 2019	Agropyron cristatum	crested wheatgrass	Perennial grass			0.06				0.06	Grassland Eco Res Sta, steppe, Inner Mongolia. China	43.6694	116.7520	1250		well-drained dune sand		fixed dunes	loamy sand	Dw	member: summer rain vs. past		matching photo in SI; P=305mm, only 7% as
Chi et al. 2019	Artemisia frigida	fringed sage brush, prairie sagewort, arctic	Evergreen needleleaf shrub			0.06				0.06	Grassland Eco Res Sta, steppe, Inner Mongolia, China	43.6694	116.7520	1250		well-drained dune sand			loamy sand	Dw	season snow		snow; snow drift site has har greater deen
Chimner & Resh 2014	Quercus macrocarpa	bur oak	Deciduous broadleaf tree			0.11			0.79	0.90	Homestead National Monument, South- central NE, US	40.2876	-96.8382	391	7.00		near a river	Quaternary eolian silt	silty loam, eolian silt	Cf	O; IsoSource, 3 member: 0-	3	average of 3 sites
Cook & O'Grady 2006	Corymbia clarksoniana	Clarkson's bloodwood, grey bloodwood	Evergreen broadleaf tree	0.00		0.00	1.00		1.00	1.00	Pioneer Valley, AU	-21.1496	149.1017	18	10.00		coasal plain with WT accessible		caly loam	Aw	O; observed isotope, sap flow and	4	all samples taken toward end of dry
Cook & O'Grady 2006	Lophostemon suaveolens	swamp mahogany, swamn hox	Evergreen broadleaf tree	0.85		0.85	0.15		0.15	1.00	Pioneer Valley, AU	-21.1496	149.1017	18	10.00		coasal plain with WT accessible coasal plain	coastal plain	caly loam	Aw	leaf-water- potential supporing a	4	season; Based on the measured
Cook & O'Grady 2006	Eucalyptus platyphylla	poplar gum	Evergreen broadleaf tree Evergreen	0.30		0.30	0.09		0.09	0.39	Pioneer Valley, AU	-21.1496	149.1017	18	10.00		with WT accessible coasal plain	deposit	caly loam	Aw	plant uptake model, continuous	4	matric potential profile, authors assume that any
Cook & O'Grady 2006	Melaleuca viridiflora	broad-leaved paperbark	broadleaf tree, small Evergreen	0.10		0.10	0.65		0.65	0.75	Pioneer Valley, AU	-21.1496	149.1017	18	10.00		with WT accessible		caly loam	Aw	to 8.5m depth, then	4	soil water use from below 6.5 0.7m-WT is
Cramer et al. 1999	Casuarina glauca	swamp she-oak, swamp oak, grev oak, or river red gum	broadleaf tree, small leaf				0.75	0.45	0.60	0.60	site-1, Kingaroy, Queensland, AU	-26.5309	151.8890	501	1.60		alluvial valley		clay over heavy clay	Cf	H+O; linear	4	lumped into one layer, may 0.7m-WT is
Cramer et al. 1999	Eucalyptus camaldulensis	swamp she-oak,	Evergreen broadleaf tree Evergreen				0.53	0.46	0.50	0.50	site-2, Bell, Queensland, AU	-26.9216	151.4705	500	3.00		alluvial valley	valley alluvium	deep cracking clay 10cm sandy	Cf	mixing model, 3 members: 0-	4	lumped into one layer, may 0.7m-WT is
Cramer et al. 1999		swamp oak, grev oak or river red gum	broadleaf tree, small leaf				0.48	0.21	0.35	0.35	site-3, Boonah, Queensland, AU	-27.9829	152.6946	141	2.90		alluvial valley		clay over heavy clay 10cm sandy	Cf	0.3, 0.3-0.7, 0.7-WT	4	lumped into one laver. mav 0.7m-WT is
Cramer et al. 1999	Eucalyptus camaldulensis		broadleaf tree				0.21	0.26	0.24	0.24	site-3, Boonah, Queensland, AU	-27.9829	152.6946	141	2.90		alluvial valley		clay over heavy clay	Cf		4	lumped into one layer, may
Cui et al. 2017	Alhagi sparsifolia	camelthorns, manna trees	Perennial desert shrub, small, legume, thorn Deciduous			0.76				0.76	Saline-land site, Dunhuang, Hexi Corridor, Gansu Prov, Saline-land site,	40.2017	94.7248	1110			indicate discharge saline soil		finer grained?	BW			excluded; authors wrote "No IsoSource
Cui et al. 2017	Elaeagnus angustifolia	Russian olive, silver berry,	broadleaf tree, small Perennial desert			0.97				0.97	Dunhuang, Hexi Corridor. Gansu Prov. Saline-land site,	40.2000	94.7200	1110			indicate discharge saline soil	saline soil	finer grained?	BW			solution was obtained for the
Cui et al. 2017	Kalidium foliatum	??	shrub, small, halophyte Deciduous			0.21				0.21	Dunhuang, Hexi  Corridor. Gansu Prov.  Sandy-land site,	40.2000	94.7200	1110		WT too deep	indicate discharge		finer grained?	BW	O; IsoSource, 6 members: 0-		water source of the 4 studied plant species in
Cui et al. 2017	Tamarix ramosissima	saltcedar	broadleaf tree, small Perennial desert			0.93				0.93	unhuang, Hexi Corridor, Gansu Prov, Sandy-land site,	40.2131	94.6778	1108		according to author WT too deep			sandy	BW	20, 20-40, 40-60, 60-		the Gobi habitat due to the mean d180
Cui et al. 2017	Alhagi sparsifolia	camelthorns, manna trees	shrub, small, legume. thorn			0.84				0.84	unhuang, Hexi Corridor. Gansu Prov.	40.2131	94.6778	1108		according to author		eolian sand	sandy	BW	80, 80-120, 120-200cm		stem values were beyond the confine of
Cui et al. 2017	Elaeagnus angustifolia	Russian olive, silver berry, oleaster	Deciduous broadleaf tree, small			0.57				0.57	Sandy-land site, unhuang, Hexi Corridor. Gansu Prov. Sandy-land site,	40.2131	94.6778	1108		WT too deep according to author WT too deep			sandy	BW			those of potential water
Cui et al. 2017	Sophora alopecuroides	??	Deciduous broadleaf tree, small, legume Deciduous			0.84				0.84	unhuang, Hexi Corridor, Gansu Prov, valley-site, southern	40.2131	94.6778	1108		according to author			sandy	BW	0;		source in both 2011 and 2012"; author mention
Dai et al. 2015	Haloxylon ammodendron	saxaul, black saxaul, sometimes	broadleaf tree, small Perennial desert	0.08	0.05	0.07	0.90	0.10	0.50	0.57	edge of Gurbantonggut Desert. crest-site, uthern edge	44.5583	87.7857	435	3.80		dune vlley	inland sand	sand	BS	IsoSource, 5 members: 0- 40, 40-100,	4	1-3m deep soil water, this is a beautiful case
Dai et al. 2015	Haloxylon persicum	white saxaul	shrub, small leaf, succulent	0.90	0.25	0.58	0.08	0.06	0.07	0.65	of Gurbantonggut  Desert. Xiniiang prov.	44.5384	87.8029	446	15.00	dune crest		dunes	sand	BS	40, 40-100, 100-300, GW	4	to show hillslope effect

David et al. 2007	Quercus ilex	evergreen oak, holly oak, holm	Evergreen broadleaf tree				0.74		0.74	0.74	near Évora, Alentejo Prov, S. Portugal	38.5406	-8.0003	229	3.40		~400m from river course,	1m sandy soil	1m sand on bedrock	Cs	H; plus sapflow, soil and leaf	3	winter recharge
David et al. 2007	Quercus suber	oak cork oak	Evergreen				0.72		0.72	0.72	near Évora, Alentejo	38.5406	-8.0003	229	3.40		WT accessible ~400m from river course,	on granite rock	1m sand on	Cs	water potential;	3	to GW
		cork oak	broadleaf tree Evergreen								Prov, S. Portugal						WT accessible coasal plain	coastal plain	bedrock 9m sand over		linear O; root-		in root
David et al. 2013	Quercus suber	acorn banksia or	broadleaf tree	0.30		0.30	0.70	0.16	0.43	0.73	near Lisbon, PT	38.8425	-8.8642	15	4.50		with WT accessible coasal plain	deposit	clay	Cs	uptake model with	4	database; data in August (drv)
Dawson & Pate 1996	Banksia prionotes	orange banksia	Evergreen broadleaf tree				0.60	0.43	0.52	0.52	Site-1, Yanchep, AU	-31.5500	115.6833	24	2.20		with WT accessible	Bassendean sand on	sand	Cs	H; linear mixing	4	based on Fig 2 and 5
Dawson & Pate 1996	Eucalyptus globulus	southern blue gum	Evergreen broadleaf tree				0.08	0.04	0.06	0.06	Site-2, Mt. Barker, AU	-34.7927	116.0706	59	4.50		coasal plain with WT	deep sand on gravel,	sand	Cs	model, 2 members:	4	
Dawson & Pate	Eucalyptus	river red gum	Evergreen				0.37	0.06	0.22	0.22	Site-2, Mt. Barker, AU	-34.7927	116.0706	59	4.50		accessible coasal plain with WT	coastal plain deep sand on gravel,	sand	Cs	shallow soil water	4	based on table-
1996 Dawson & Pate	camaldulensis	Bull Banksia,	broadleaf tree Evergreen														accessible coasal plain	coastal plain deep sand on			(depth not specified)		2, GW saline
1996	Banksia grandis  Cyclobalanopsis	Giant Banksia, Mangite ring-cupped	broadleaf tree				0.28	0.02	0.15	0.15	Site-2, Mt. Barker, AU	-34.7927	116.0706	59	4.50		with WT accessible	gravel, coastal plain	sand none to very	Cs	and GW H+O;	4	
Deng et al 2015	glauca (Quercus alauca)	oak, Japanese	Evergreen broadleaf tree	0.18	0.09	0.14				0.14	on rock, Guling, Guangxi Prov, CN	23.5382	108.3410	606	80.00	karst ridge		Epikarst	thin, gravely,	Cw	IsoSource, 3 members:		spring water assumed to
Deng et al 2015	Cyclobalanopsis glauca (Quercus	ring-cupped oak, Japanese	Evergreen broadleaf tree	0.11	0.12	0.11				0.11	on thin soil, Guling, Guangxi Prov, CN	23.5382	108.3410	606	80.00	karst ridge		Epikarst	none to very thin, gravely,	Cw	rain, soil (3m in		represent deep source
	alauca)	big sagebrush,	Perennial desert								Tintic Range					near			calcareous sandy loam		epikarst). H; linear		
Donovan & Ehleringer 1994	Artemisia tridentata	Great Basin	shrub,	0.66		0.66				0.66	Experimental Station,	39.9231	-112.1824	1775		headwater,		Arid inter-	with caleche	Df	mixing		longitude off by
Lineringer 1994	a de maio	sagehrush.	evergreen, tiny	1							Tintic Juntion UT, US					well drained		mountain valley in	at 0.7m depth		model, 2		10 degrees; 2-
Donovan &	Chrysothamnus	yellow rabbitbrush,	Perennial desert	0.72		0.72				0.72	Tintic Range Experimental Station,	39.9231	-112.1824	1775		near headwater,		Utah, near	sandy loam with caleche	Df	members:		member mixing
Ehleringer 1994	viscidiflorus	green	shrub, deciduous	0.72		0.72				0.72	Tintic Juntion UT. US	35.5231	-112.1024	1//3		well drained			at 0.7m depth	Di	shallow (0-		model applied
Donovan &	Gutierrezia	broom	Perennial desert								Tintic Range					near		far above	sandy loam		35cm) and deep (35-		to the Aug rain event
Ehleringer 1994	sarothrae	snakeweed	shrub	0.46		0.46				0.46	Experimental Station,	39.9231	-112.1824	1775		headwater,		valley oases	with caleche	Df	70cm) soil		event
	5	tuart	F								Tintic Juntion UT. US					well drained			at 0.7m depth		H; linear		WT higher in
Drake et al. 2011	Eucalyptus gomphocephala		Evergreen broadleaf tree				0.19	0.22	0.20	0.20	Site-1, Yalgorup NP, AU	-32.9652	115.6801	11	8.04	dune ridge			sandy calcreous	Cs	mixing, 3	4	wet season,
	gompnocepnala		broadlear tree														duno vallov	coastal plain	calcreous		members: 0-		why plants use
Drake et al. 2011	Eucalyptus	tuart	Evergreen				0.02	0.15	0.09	0.09	Site-2, Yalgorup NP, AU	-32 8259	115.6660	5	2.30		dune valley near saline	sediments	sandy	Cs	1m (site-1) 0- 0.5m (site-	4	more GW; GW at site-2 is
Drane et al. 2022	gomphocephala		broadleaf tree				0.02	0.15	0.03	0.03	Site 2, raigorap III , rio	52.0255	115.0000	Ĵ	2.50		Lake Pollard		calcreous		2). 1-8m		saline, why
	Nitraria	??	Perennial desert								desert ecosystem,							desert valley			H+O; linear		deep moisture
Duan et al. 2008	tangutorum		shrub, deciduous						0.83	0.83	Golmud, Tibetan Plateau. CN	36.4139	94.9431	2793	1.70		desert oasis	deposit	sandy	BW	mixing	4	and GW have same isotopes
		willow	Deciduous								shrub ecosystem,						near a large		coarse over		model; 3 members:		same isotopes
Duan et al. 2008	Salix rehderiana		broadleaf shrub			0.51				0.51	Lhasa, Tibetan Plateau,	29.6774	91.3197	3774			braided river		bedrock at	Cw	not clear		
		oak	broduicar sin ab								CN forest ecosystem,						Didiaca iivei	on slopes	0.7m coarse over		depths;		GW inaccessible
Duan et al. 2008	Quercus	Uak	Evergreen			0.79				0.79	Linzhi, Tibetan Plateau,	29.2270	94.2321	2958		on lower		with bedrock	bedrock at	Cw	sampling		in rocks;
	aquifolioides		broadleaf tree								CN					slope		at 0.7m	0.7m		depths at		P>500m, local recharge
Duan et al. 2000	Pinus	Manchurian red	Evergreen			0.08				0.08	forest ecosystem, Linzhi, Tibetan Plateau,	20 2270	94.2321	2958		on lower			coarse over	C	10, 30, 50, 70cm and		recharge
Duan et al. 2008	tabulaeformis	pine, Southern Chinese nine	needleleaf tree			0.08				0.08	CN CN	29.2270	94.2321	2958		slope			bedrock at 0.7m	Cw	1m at		
Eggemeyer et al.		Ponderosa pine	Evergreen								Nebraska Nat. Forest,					well-drained			deep loose				assuming the
2009	Pinus ponderosa		needleleaf tree	0.70	0.20	0.45				0.45	Halsey NE, US	41.8625	-100.3683	825	7.00	dunes			fine sand	Cf			deepest layer
		cedar, eastern																					(0.9-3m) soil
Eggemeyer et al.	Juniperus	redcedar,	Evergreen	0.60	0.05	0.33				0.33	Nebraska Nat. Forest,	41.8625	-100.3683	825	7.00	well-drained		Sandhills,	deep loose	Cf	H+O; IsoSource, 3		water is from past season
2009	virginiana	Virginian	needleleaf tree								Halsey NE, US					dunes		Quaternary	fine sand		members: 5-		rain; monthly P
Eggemeyer et al.	Schizachyrium	little bluestem	Perennial grass	0.10	0.00	0.05				0.05	Nebraska Nat. Forest,	41.8625	-100.3683	825	7.00	well-drained		eolian sand	deep loose	Cf	50, 50-90,		< 80mm, GW,
2009	scoparium		referinal grass	0.10	0.00	0.03				0.03	Halsey NE, US	41.8023	-100.3083	823	7.00	dunes		deposit	fine sand	Ci	90-300cm		although
Eggemeyer et al.	Panicum	switchgrass									Nebraska Nat. Forest,					well-drained			deep loose				sampled, not
2009	virgatum		Perennial grass	0.10	0.00	0.05				0.05	Halsey NE, US	41.8625	-100.3683	825	7.00	dunes			fine sand	Cf			included in endmembers
Eblada as a shall	Ambrosia	flatspine bur									north of Stud Horse						near a dry						winter vs.
Ehleringer et al. 1991	aeanthicarpa,	ragweed, desert	Annual forb	0.00		0.00				0.00	Point, Glen Canyon	37.0262	-111.6026	1200	5m?		channel, 5m		coarse desert soil	BW			summer rain;
1331	Dicoria	twinhugs narrowleaf									National Recreation north of Stud Horse						above pond near a dry		50		H; linear mixing, 2		reported 2
Ehleringer et al.	Yucca	yucca	Perennial desert	0.00		0.00				0.00	Point, Glen Canyon	37.0262	-111.6026	1200	5m?		channel, 5m		coarse desert	BW	members:		groups quant (herbacious
1991	angustissima		shrub, succulent								National Recreation						above pond		soil		summer		Perennial,
Ehleringer et al.	Astragalus mollissimus.		Perennial desert	0.00		0.00				0.09	north of Stud Horse	37 0262	-111 6026	1200	5m2		near a dry	coarse desert valley	coarse desert	BW	rain, vs.		Woody species),
1991	Cordvlanthus	(legume), Wright's hird's	shrub, some legume	0.09		0.09				0.09	Point, Glen Canyon National Recreation	37.0262	-111.6026	1200	5m?		channel, 5m above pond	sediment	soil	DVV	winter rain		rest from
Ehleringer et al.	Artemisia filifolia,	sand sagebrush,	Perennial desert								north of Stud Horse						near a dry		coarse desert		(same as		discussion; Evans 1994: the
1991	Atriplex	broom	shrub, woody	0.43		0.43				0.43	Point, Glen Canyon	37.0262	-111.6026	1200	5m?		channel, 5m		soil	BW	well water), soil water		2 woody species
Ehlasia	caneseens, Chrysothamnus	snakeweed Chamisa, rubber	Perennial desert	1							National Recreation north of Stud Horse						above pond near a dry				not sampled		with deep roots
Ehleringer et al. 1991	nauseosus,	rabbitbrush, and	shrub, woody,				0.90		0.90	0.90	Point, Glen Canyon	37.0262	-111.6026	1200	5m?		channel, 5m		coarse desert soil	BW		4	are
	Chrvsothamnus	grav	deep rooted				-				National Recreation Sandhill Long						above pond						Chrysothmmus;
Ellsworth and	Lyonia ferruginea	rusty staggerbush	Evergreen	0.32	0.3	0.31				0.31	Unburned-1 (SHLU1),	27.1875	-81.3356	61	24.30	on high sand			sand	Cf			
Sternberg 2015			broadleaf shrub	1							SC FL. US					ridge							
Ellsworth and	Quercus	sand live oak	Evergreen	0.00	0.44	0.55				0.55	Sandhill Long	27 1075	01 2250	64	24.20	on high sand		coastal plain;	ear d	Cf			
Sternberg 2015	geminata		broadleaf tree	0.69	0.41	0.55				0.55	Unburned-1 (SHLU1), SC FL, US	27.1875	-81.3356	61	24.30	ridge		well-drained,	sand	CT			
Ellsworth and	Quercus	myrtle oak	Evergreen	1							Sandhill Long					on high sand		acid, sands, very low					
Sternberg 2015	myrtifolia		broadleaf tree	0.63	0.26	0.44				0.44	Unburned-1 (SHLU1),	27.1875	-81.3356	61	24.30	ridge		nutrient and	sand	Cf			<b> </b>
		turkey oak		1							SC FL. US Sandhill Long							organic					
Ellsworth and Sternberg 2015	Quercus laevis		Semi-deciduous broadleaf tree	0.52	0.24	0.38				0.38	Unburned-1 (SHLU1),	27.1875	-81.3356	61	24.30	on high sand ridge		matter	sand	Cf			
I 5.c5cig 2013	I	I	J. 5. 5. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	I			I				SC FL. US					ugc		content	I		ı l		1 I

Ellsworth and Sternberg 2015	Carya floridana	scrub hickory	Deciduous broadleaf tree	0.62	0.3	0.46				0.46	SC FL, US	27.1875	-81.3356	61	24.30	on high sand ridge			sand	Cf			
Ellsworth and Sternberg 2015	Lyonia ferruginea	rusty staggerbush	Evergreen broadleaf shrub	0.33	0.26	0.30				0.30	Sandhill Long Unburned-2 (SHLU2), SC FL. US	27.1546	-81.3555	48	2.30		close to wetland		sand	Cf			deepest soil
Ellsworth and Sternberg 2015	Quercus geminata	sand live oak	Evergreen broadleaf tree	0.46	0.22	0.34				0.34	Sandhill Long Unburned-2 (SHLU2), SC FL. US	27.1522	-81.3555	48	2.30		close to wetland	coastal plain; well-drained, acid, sands,	sand	Cf	H+O;		layer end member (0.5 - 1.5m) assumed
Ellsworth and Sternberg 2015	Quercus myrtifolia	myrtle oak	Evergreen broadleaf tree	0.37	0.27	0.32				0.32	Sandhill Long Unburned-2 (SHLU2), SC FL, US	27.1522	-81.3555	48	2.30		close to wetland	very low nutrient and organic	sand	Cf	IsoSource, 3 members: 0- 20, 20-50,		to represent deep soil moisture. No
Ellsworth and Sternberg 2015	Quercus laevis	turkey oak	Semi-deciduous broadleaf tree	0.56	0.43	0.49				0.49	Sandhill Long Unburned-2 (SHLU2), SC FL. US	27.1522	-81.3555	48	2.30		close to wetland	matter content	sand	Cf	50-150cm		GW endmember in
Ellsworth and Sternberg 2015	Carya floridana	scrub hickory	Deciduous broadleaf tree	0.40	0.3	0.35				0.35	Sandhill Long Unburned-2 (SHLU2), SC FL, US	27.1522	-81.3555	48	2.30		close to wetland		sand	Cf			study
Ellsworth and Sternberg 2015	Lyonia ferruginea	rusty staggerbush	Evergreen broadleaf shrub	0.39	0.38	0.39				0.39	Sandhill Recently Burned (SHRB), SC. FL, US	27.1880	-81.3364	65	24.30	on high sand ridge			sand	Cf			
Ellsworth and Sternberg 2015	Quercus geminata	sand live oak	Evergreen broadleaf tree	0.45	0.36	0.40				0.40	Sandhill Recently Burned (SHRB), SC. FL, US	27.1880	-81.3364	65	24.30	on high sand ridge		coastal plain; well-drained, acid, sands,	sand	Cf			
Ellsworth and Sternberg 2015	Quercus myrtifolia	myrtle oak	Evergreen broadleaf tree	0.45	0.25	0.35				0.35	Sandhill Recently Burned (SHRB), SC. FL, US Sandhill Recently	27.1880	-81.3364	65	24.30	on high sand ridge		very low nutrient and organic	sand	Cf			
Ellsworth and Sternberg 2015	Quercus laevis	turkey oak	Semi-deciduous broadleaf tree	0.57	0.46	0.52				0.52	Burned (SHRB), SC. FL, US Sandhill Recently	27.1880	-81.3364	65	24.30	on high sand ridge		matter content	sand	Cf			
Ellsworth and Sternberg 2015	Carya floridana	scrub hickory  American	Deciduous broadleaf tree	0.49	0.41	0.45				0.45	Burned (SHRB), SC. FL, US	27.1880	-81.3364	65	24.30	on high sand ridge			sand clay but hi-K	Cf			
Evaristo et al. 2016	Swietenia mahagoni	mahogany, Cuhan American	Semi-deciduous broadleaf tree	0.53	0.27	0.40	0.14	0.26	0.20	0.60	ridge top, Luquillo, PR	18.3172	-65.7168	207		ridge top		highly permeable thin soil (56-	soil on fractured rock clay but hi-K	Am		3	
Evaristo et al. 2016	Swietenia mahagoni	mahogany, Cuhan American	Semi-deciduous broadleaf tree	0.26	0.24	0.25	0.29	0.21	0.25	0.50	slope, Luquillo, PR	18.3227	-65.7167	183		midslope		130cm thick) over deep fractured	soil on fractured rock clay but hi-K	Am	H+O; SIAR Bayesian mixing	3	
Evaristo et al. 2016	Swietenia mahagoni	mahogany, Cuhan mahogany,	Semi-deciduous broadleaf tree	0.23	0.18	0.21	0.28	0.25	0.27	0.47	valley, Luquillo, PR	18.3231	-65.7167	160			riparian	volcanic ock	soil on fractured rock clay but hi-K	Am	model, 4 members: 0- 10, >20cm,	4	
Evaristo et al. 2016 Evaristo et al.	Swietenia macrophylla Swietenia	Honduran mahogany hig- mahogany,	Semi-deciduous broadleaf tree Semi-deciduous	0.25	0.32	0.29	0.35	0.23	0.29	0.58	ridge top, Susua, PR	18.0677	-66.9010	172		ridge top		permeable thin soil over	soil on fractured rock clay but hi-K	Aw	rain, GW	3	
2016	macrophylla	Honduran mahogany, big-	broadleaf tree	0.22	0.28	0.25	0.40	0.30	0.35	0.60	valley, Susua, PR	18.0671	-66.9000	132			riparian	serpentine rock	soil on fractured rock	Aw		4	
Ewe et al. 2007	Rhizophora mangle	red mangrove	Evergreen broadleaf shrub				0.55	0.00	0.28	0.28	Everglades LTER, FL, US	25.2140	-80.6490	1	0.25		flooded grassland	coastalplain limestone marl with a	1m marl (limey mud, w/ clay) on	Aw	H+O; linear mixing, 2 member:	3	shllow GW
Ewe et al. 2007	Cladium jamaicense	saw grass	Perennial grass				0.00	0.00	0.00	0.00	Everglades LTER, FL, US	25.2140	-80.6490	1	0.25		flooded grassland	shallow layer (<30 cm) of peat on	1m marl (limey mud, w/ clav) on 1m marl	Aw	soil (5cm), GW (just above	3	fresh, deeper brackish
Ewe et al. 2007	Sesuvium portulacastrum	sea purslane  Brazilian	Perennial forb				0.00	0.00	0.00	0.00	Everglades LTER, FL, US Long-Pine-Key site	25.2140	-80.6490	1	0.25		flooded grassland	surface of tree islands	(limey mud, w/ clay) on	Aw	bedrock at 1m depth)	3	
Ewe & Sternberg 2002	Schinus terebinthifolius	peppertree, argeira rose southern wax	broadleaf tree, small Evergreen				0.94	0.72	0.83	0.83	(undisturbed), Evergrades N. Pk, FL, Long-Pine-Key site	25.3910	-80.6300	3	0.12 (wet) - 1.54 (dry)		rocky wetland	part of Miami Rock Ridge,	Org soil holes /fractures	Aw		4	
Ewe & Sternberg 2002	Myrica cerifera	myrtle, southern eastern	broadleaf tree, small				0.96	0.64	0.80	0.80	(undisturbed), Evergrades N. Pk. FL. Long-Pine-Key site	25.3910	-80.6300	3	0.12 (wet) - 1.54 (dry)		rocky wetland	extending	Org soil holes /fractures	Aw		4	
Ewe & Sternberg 2002	Baccharis halimifolia Rapanea	baccharis, groundsel bush myrsine,	Evergreen broadleaf shrub				0.82	0.59	0.71	0.71	(undisturbed), Evergrades N. Pk, FL, Long-Pine-Key site	25.3910	-80.6300	3	0.12 (wet) - 1.54 (dry)		rocky wetland	from the coast of east Florida into	Org soil holes /fractures	Aw	O, linear	4	On GE, disturbed site
Ewe & Sternberg 2002 Ewe & Sternberg	punctata (Myrsine cubana)	colicwood	Evergreen broadleaf shrub Evergreen				0.95	0.74	0.85	0.85	(undisturbed), Evergrades N. Pk, FL, Long-Pine-Key site	25.3910	-80.6300	3	0.12 (wet) - 1.54 (dry)		rocky wetland	the Florida Everglades; disturbed site	Org soil holes /fractures Org soil holes	Aw	mixig, 2 members:	4	has higher elevation, which may be related
2002 Ewe & Sternberg	Randia aculeata Schinus	indigoberry or white indigo Brazilian	broadleaf shrub Evergreen				0.95	0.67	0.81	0.81	(undisturbed), Evergrades N. Pk. FL. Hole-in-Donut site	25.3910	-80.6300	3	0.12 (wet) - 1.54 (dry) 0.12 (wet) -			is abandoned farm field, now covered	/fractures	Aw	soil water and GW	4	to its less use of GW (WT deeper)
2002 Ewe & Sternberg	terebinthifolius	peppertree, arneira rose southern wax	broadleaf tree, small Evergreen				0.82	0.39	0.61	0.61	(disturbed), Evergrades Nat Park. Hole-in-Donut site	25.3879	-80.6319	6	1.54 (dry) 0.12 (wet) -		rocky wetland	by dense ivnasive Schinus:	plowed thin org soil,	Aw		3	
2002 Ewe & Sternberg	Myrica cerifera  Baccharis	myrtle, southern eastern	broadleaf tree, small Evergreen				0.94	0.12	0.53	0.53	(disturbed), Evergrades Nat Park, Hole-in-Donut site	25.3879	-80.6319	6	1.54 (dry) 0.12 (wet) -		rocky wetland	undistrubed site is natie	plowed	Aw		3	
2002 Feikema et al.	halimifolia Eucalyptus	baccharis, groundsel hush river red gum	broadleaf shrub Evergreen				0.50	0.06	0.28	0.28	(disturbed),  Evergrades Nat Park.  Site-1, Kyabra, Vistoria,	25.3879	-80.6319	6	1.54 (dry)		rocky wetland waterlogging	rock pineland	plowed well-drained	Aw	O+H;	3	GW salinity
2010 Feikema et al.	camaldulensis  Eucalyptus	flooded gum or	broadleaf tree Evergreen				0.22	0.00	0.11	0.11	AU Site-2, Kyabra, Vistoria,	-36.4342	145.2660	113	3.25		in wet season waterlogging	valley	loam, clay then fine sand well-drained	Cf	monthly water balance	4	prevents use, so the shallower
2010 Feikema et al.	grandis Eucalyptus	rose gum river red gum	broadleaf tree Evergreen				0.13	0.00	0.07	0.07	AU Site-3, Kyabra, Vistoria,	-30.4334	145.2663	114	2.80	better	in wet season		loam, clay then fine sand well-drained	Cf	aided by O+H isotopes and	4	the WT, the less GW use;WT rise lags 3mon after
2010	camaldulensis Caragana	Korshinsk pea	broadleaf tree Perennial desert				0.80	0.00	0.40	0.40	AU  Central Loess Plateau,	-30.4328	145.2666	116	5.90	drained  NE-facing			loam, clay then fine sand	Cf	CI O+H; SIAR in	4	wet season mean of 8
Gao et al. 2018	korshinskii	shrub	shrub, deciduous.			0.33				0.33	Shaanxi Prov, CN	37.2352	110.3354	1045	> 50m	slope 160,		Lness Plateau	silty loam	Dw	R; 3 end members of		sampling dates; native

	I .	Constitute	Perennial desert	1	1			ı	ı						12003				shallow,		(Artimesia) vs
Gao et al. 2018	Artemisia gmelinii	Gmelin's wormwood	shrub,	0.39				0.39	Central Loess Plateau, Shaanxi Prov, CN	37.2352	110.3354	1045	> 50m	N-facing slope 13o,			silty loam	Dw	mid, deep		introduced
Goedhart & Pataki 2011	Distichlis spicata	salt grass	Perennial grass				0.00	0.00	Owens Valley CA, US	37.4118	-118.4265	1276	0.30	access to	wt		loam, sandy loam, silty loam soils	BS	SOII U.6-	4	species
Goedhart & Pataki 2011	Distichlis spicata	salt grass	Perennial grass				0.24	0.24	Owens Valley CA, US	36.9998	-118.2263	1177	1.20	access to	WT		loam, sandy loam, silty loam soils	Cs		4	
Goedhart & Pataki 2011	Distichlis spicata	salt grass	Perennial grass				0.81	0.81	Owens Valley CA, US	37.2915	-118.3172	1218	1.80	access to	WT		loam, sandy loam, silty loam soils	BS		4	
Goedhart & Pataki 2011	Distichlis spicata	salt grass	Perennial grass				0.60	0.60	Owens Valley CA, US	36.7842	-118.1645	1174	2.00	access to	WT		loam, sandy loam, silty loam soils	Cs		4	
Goedhart & Pataki 2011	Distichlis spicata	salt grass	Perennial grass				0.37	0.37	Owens Valley CA, US	36.8000	-118.1600	1156	3.20	access to	wT		loam, sandy loam, silty loam soils	Cs		4	
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush	Perennial desert shrub, woody				0.31	0.31	Owens Valley CA, US	36.9998	-118.2263	1177	1.20	access to	WT		loam, sandy loam, silty loam soils	Cs		4	
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush	Perennial desert shrub, woody				0.70	0.70	Owens Valley CA, US	37.2915	-118.3172	1218	1.80	access to	wT		loam, sandy loam, silty loam soils	BS		4	
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush	Perennial desert shrub, woody				0.80	0.80	Owens Valley CA, US	36.7842	-118.1645	1174	2.00	access to	WT		loam, sandy loam, silty loam soils	Cs	O; linear mixing	4	
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush	Perennial desert shrub, woody				0.70	0.70	Owens Valley CA, US	36.8000	-118.1600	1156	3.20	access to	WT		loam, sandy loam, silty loam soils loam, sandy	Cs	mdoel, 2 memebers:	4	
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush	Perennial desert shrub, woody				0.62	0.62	Owens Valley CA, US	36.8180	-118.1580	1153	4.10	access to	dee	p inter-	loam, silty loam soils loam, sandy	BS	surface soil water (0- 50cm?), GW	4	site locations determined
Goedhart & Pataki 2011	Atriplex torreyi	Torrey's saltbush Torrey's	Perennial desert shrub, woody				0.80	0.80	Owens Valley CA, US	36.9473	-118.2535	1188	5.00	access to	WT des	untain, ert basin eposit	loam, silty loam soils loam, sandy	Cs	(well water)	4	from Pataki 2008; desert valley
Goedhart & Pataki 2011	Atriplex torreyi	saltbush	Perennial desert shrub, woody				0.75	0.75	Owens Valley CA, US	36.7082	-118.1430	1178	5.70	access to	WT		loam, silty loam soils loam, sandy	Cs		4	recharged by snow from Sierra's
Goedhart & Pataki 2011	Ericameria nauseosa	rabbitbrush	Perennial desert				0.83	0.83	Owens Valley CA, US	37.2822	-118.3635	1230	1.20	access to	WT		loam, silty loam soils loam, sandy	Cs		4	Sierras
Goedhart & Pataki 2011 Goedhart & Pataki	Ericameria nauseosa Ericameria	rabbitbrush rubber	Perennial desert shrub, woody Perennial desert				0.96	0.96	Owens Valley CA, US	37.2915	-118.3172	1218	1.80	access to	WT		loam, silty loam soils loam, sandy	BS		4	
2011 Goedhart & Pataki	nauseosa Ericameria	rabbitbrush rubber	shrub, woody  Perennial desert				0.83	0.83	Owens Valley CA, US	36.7842	-118.1645	1174	2.00	access to	WT		loam, silty loam soils loam, sandy	Cs		4	
2011 Goedhart & Pataki	nauseosa Ericameria	rabbitbrush rubber	shrub, woody  Perennial desert				0.84	0.84	Owens Valley CA, US	36.8000	-118.1600	1156	3.20	access to			loam, silty loam soils loam, sandy	Cs		4	
2011 Goedhart & Pataki	nauseosa Ericameria	rabbitbrush rubber	shrub, woody  Perennial desert				0.82	0.82	Owens Valley CA, US	36.8180	-118.1580	1153	4.10	access to			loam, silty loam soils loam, sandy	BS		4	
2011	nauseosa	rabbitbrush	shrub, woody				0.92	0.92	Owens Valley CA, US  Los Alamos Survival-	36.7082	-118.1430	1178	5.70	access to	WT		loam, silty loam soils 40-55cm clay	Cs	H+O; SIAR in	4	control case
Grossiord et al. 2017	Juniperus monosperma	one-seed juniper	Evergreen needleleaf tree	0.18				0.18	Mortality site, Los Alamos, NM, US Los Alamos Survival-	35.8218	-106.3028	2175		on plateau		plateau	loam soils on volcanic tuff 40-55cm clay	Cf	R, 3 members: 0- 15, 15-		only; mean of 3 growing seasons; 4 end
Grossiord et al. 2017	Pinus edulis	Colorado pinyon, two- needle niñon	Evergreen needleleaf tree	0.13				0.13	Mortality site, Los Alamos. NM. US	35.8218	-106.3028	2175		on plateau	volc	anic rock	loam soils on volcanic tuff	Cf	55cm, and bedrock		members: shallow, deep
Gu et al. 2015	Cyclobalanopsis glauca (Quercus glauca)	ring-cupped oak, Japanese blue oak	Evergreen broadleaf tree Deciduous		0.13	0.08	0.11	0.11	Gantong, Guangxi Prov. CN	25.0493	110.3380	176	1.75	steep slope 15m above valley	Epil	arst hill	1.5m thick epikasrt zone, soil in fracks 35cm sandy	Cw	H+O; IsoSource, 5 members: 0-	3	the precise hill can be located on GE
Guo et al. 2018	Acacia greggii	catclaw acacia, catclaw mesquite Hopbush	broadleaf tree, legume	0.83				0.83	Desert site, Sonora, AZ, US	34.1800	-112.1600	799		well drained slopes			loam on bedrock 35cm sandy	BS			
Guo et al. 2018	Dodonaea viscosa		Evergreen broadleaf shrub Deciduous	0.56				0.56	Desert site, Sonora, AZ, US	34.1800	-112.1600	799		well drained slopes		dge of Iorado	loam on bedrock 35cm sandy	BS			
Guo et al. 2018	Prosopis velutina	velvet mesquite	broadleaf tree, legume	0.77				0.77	Desert site, Sonora, AZ, US		-112.1600	799		well drained slopes	Pitea	u; desert othill	loam on bedrock 35cm sandy	BS			
Guo et al. 2018	Simmondsia chinensis	goat nut, deer nut, pignut, wild hazel quinine	broadical siliub	0.54				0.54	Desert site, Sonora, AZ, US			799		well drained slopes	ď	eposit	loam on bedrock 35cm sandy	BS			
Guo et al. 2018	Ziziphus obtusifolia	lotebush, graythorn, gumdron tree pointleaf	Perennial desert shrub, thorn	0.32				0.32	Desert site, Sonora, AZ, US			799		well drained slopes			loam on bedrock	BS			
Guo et al. 2018	Arctostaphylos pungens	manzanita  Utah juniper	Evergreen broadleaf shrub	0.27				0.27	Pinyon-juniper site, AZ, US			1778		well drained slopes			clay	Cs			Authors state that sites are
Guo et al. 2018	Juniperus osteosperma	Frémont's	Evergreen needleleaf tree	0.18				0.18	Pinyon-juniper site, AZ, US			1778		well drained slopes	Co	dge of Iorado teau; S-	clay	Cs	O+H;		not riparian, no evidence of
Guo et al. 2018	Mahonia fremontii	mahonia	Evergreen broadleaf shrub	0.30				0.30	Pinyon-juniper site, AZ, US			1778		well drained slopes		ng slope	clay	Cs	Bayesian mixing model		using GW; mean of June and Aug
Guo et al. 2018	Pinus edulis	pinyon, two- needle niñon	Evergreen needleleaf tree	0.12				0.12	Pinyon-juniper site, AZ, US	34.7600	-111.6300	1778		well drained slopes			clay	Cs	framework using the		sampling; a great study

Guo et al. 2018	Pinus ponderosa	Pondersora pine	Evergreen needleleaf tree			0.22			0.22	Ponderosa site, AZ, US	35.0200	-111.6600	2140		well drained slopes		Edge of Colorado	clay	Cs	'simmr' package; 3 emebers: 0-		showing as annual P increases with
Guo et al. 2018	Quercus gambelii	Gambel oak, scrub oak, oak	Deciduous broadleaf tree			0.31			0.31	Ponderosa site, AZ, US	35.0200	-111.6600	2140		well drained slopes		Plateau; W- facing slope, near ridge	clay	Cs	2cm, 19- 36cm,		elevation, plants use less
Guo et al. 2018	Pinus ponderosa	hrush and Pondersora pine	Evergreen needleleaf tree			0.21			0.21	Mixed-conifer site, AZ, US	35.3500	-111.7300	2590		well drained slopes			sandy loam	Ds	deep soil, winter		past winter's P; it also documented all
Guo et al. 2018	Pinus strobiformis	southwestern white pine, Mexican white	Evergreen needleleaf tree			0.15			0.15	Mixed-conifer site, AZ, US	35.3500	-111.7300	2590		well drained slopes		Edge of Colorado Plateau; W-	sandy loam	Ds	precip used)		site information - the most complete
Guo et al. 2018	Populus tremuloides	quaking aspen, trembling aspen	Deciduous broadleaf tree			0.20			0.20	Mixed-conifer site, AZ, US	35.3500	-111.7300	2590		well drained slopes		facing mid slope, base of a ski resort	sandy loam	Ds			report!
Guo et al. 2018	Pseudotsuga menziesii	Douglas fir	Evergreen needleleaf tree			0.21			0.21	Mixed-conifer site, AZ, US	35.3500	-111.7300	2590		well drained slopes		a ski resore	sandy loam	Ds			
Guo et al. 2018	Abies lasiocarpa	subalpine fir or Rocky Mountain fir	Evergreen needleleaf tree			0.19			0.19	Spruce-fir site, AZ, UA	35.3700	-111.6700	2965		well drained slopes			sandy loam	Ds			
Guo et al. 2018	Picea engelmannii	Engelmann spruce, white	Evergreen needleleaf tree			0.17			0.17	Spruce-fir site, AZ, UA	35.3700	-111.6700	2965		well drained slopes		Edge of Colorado Plateau; N-	sandy loam	Ds			
Guo et al. 2018	Pinus strobiformis	southwestern white pine, Mexican white	Evergreen needleleaf tree			0.19			0.19	Spruce-fir site, AZ, UA	35.3700	-111.6700	2965		well drained slopes		facing slope, bnear summit	sandy loam	Ds			
Guo et al. 2018	Populus tremuloides	quaking aspen, trembling aspen	Evergreen needleleaf tree			0.23			0.23	Spruce-fir site, AZ, UA	35.3700	-111.6700	2965		well drained slopes		valley	sandy loam	Ds	O;		1-3m soil taken
Hao et al. 2013	Populus euphratica	Euphrates poplar, desert	Deciduous broadleaf tree	0.16		0.16	0.84	0.84	1.00	Taklimakan Desert, Xiniiang Prov. CN	41.0611	86.6231	842	4.40		on banks of Tarim river	alluvium deposit	sandy/sandy loam	BW	IsoSoource, 4 members: H+O;	4	to represent Source-2 (it
Hasselquist & Allen 2009	Grindelia fraxino- pratensis	Ash Meadows gumweed	Perennial forb, meadow, shrub Perennial forb,					0.58	0.58	Amargosa Valley, CA, US	36.3028	-116.4139	623	<1		desert valley floor	desert valley deposit	silts and clay	BW	IsoSource, 4 members: 0- 10, 10-20,	4	
Hasselquist & Allen 2009	Nitrophila mohavensis	Amargosa	sucullent, halophyte Evergreen					0.12	0.12	Amargosa Valley, CA, US	36.3028	-116.4139	623	<1		floor	sand/gravel	silts and clay	BW	20-30cm, GW H+O; no	4	GW use ruled
Henschel et al. 2018	Welwitschia mirabilis	welwitschia  Korshinsk pea	broadleaf shrub, gymnosperm Perennial desert					0.00	0.00	Welwitschia Plain, coastal Namibia Shapotou, SE Tengger	-22.6711	14.9851	371	57-75	high Namibia desert plain		on gypsum on calcite/sand	sand/gravel	BW	model used, but no root H+O;	3	out by WTD and isotopes: plants P=188mm, >1m
Huang & Zhang 2015	Caragana korshinskii	shrub	shrub, deciduous. Perennial desert	0.60	0.51	0.56			0.56	Desert, Ningxia Prov, CN Shapotou, SE Tengger	37.5333	105.0333	1318	80.00	well-drained dunes		stablized sand dunes	sand	BW	IsoSource, 7 members: 5,10, 20, 60,		considered deep recharge by large P
Huang & Zhang 2015	Artemisia ordosica	_	shrub, evergreen. small	0.12	0.11	0.12			0.12	Desert, Ningxia Prov, CN	37.5333	105.0333	1318	80.00	well-drained dunes		stablized sand dunes	sand	BW	100, 150, 200cm H+O;		events; mean of  4 age groups only mature
Huo et al. 2018	Ziziphus jujuba	jujube, red date, Chinese date	Deciduous broadleaf tree			0.42			0.42	Central Loess Plateau, Shaanxi Prov, CN Toolik Field Sta, N	37.2500	110.3000	1100	> 50m	well-drained loess	on poorly	Loess Plateau	silt loam	Dw	IsoSource; 3 end		stands; lon off (not 118)
Jespersen et al. 2018	Betula nana	dwarf birch	Deciduous broadleaf shrub			0.26			0.26	foothill Brooks Range, AK. US Toolik Field Sta, N	68.6298	-149.5778	760	0.50		drained permafrost. on poorly	thin (50cm)	organic soil	Df	H+O; SIAR in		Frost table, not
Jespersen et al. 2018	Salix pulchra	willow, tealeaf	Deciduous broadleaf shrub			0.44			0.44	foothill Brooks Range, AK, US Toolik Field Sta, N	68.6298	-149.5778	760	0.50		drained permafrost, on poorly	organic soil on	organic soil	Df	R; 4 end members: tussock,		WT; snow depth manipulation did not change
Jespersen et al. 2018	Eriophorum vaginatum Rhododendron	hare's-tail cottongrass,	Perennial grass, tussock			0.11			0.11	foothill Brooks Range, AK. US Toolik Field Sta, N	68.6298	-149.5778	760	0.50		drained permafrost. on poorly		organic soil	Df	0–10cm, >10 cm, snowmelt		water source partition
Jespersen et al. 2018	tomentosum (Ledum nalustre)	marsh Labrador tea, northern	Evergreen broadleaf shrub			0.11			0.11	foothill Brooks Range,  AK. US  Site-1, 5yr-old, Gonghe	68.6298	-149.5778	760	0.50		drained nermafrost.		organic soil	Df			юсану
Jia et al. 2012	Caragana intermedia	pea shrub	Perennial forb, woody, legume					0.08	0.08	Desert Ecosystem Research Station, Site-2, 9yr-old, Gonghe	36.2336	100.2169	2890	<5		WT 3-5m accessible		sand	BS	H+O; IsoSource, 7 members:	3	recharged soil moisture; >1.5m assumed
Jia et al. 2012	Caragana intermedia	pea shrub pea shrub	Perennial forb, woody, legume			0.05		0.06	0.11	Desert Ecosystem  Research Station.  Site-3, 25yr-old,	36.2501	100.2169	2870	<5		WT 3-5m accessible	sand dunes	sand	BS	10, 20, 30, 50, 100, 150, well	3	Source-2, based on soil
Jia et al. 2012	Caragana intermedia	Chinese sumac,	Perennial forb, woody, legume Deciduous			0.04		0.03	0.07	Gonghe Desert Fcosystem Research	36.2834	100.2667	2878	<5		WT 3-5m accessible		sand	BS	water	3	moisture/root buldge above
Jiang et al. 2019	Rhus chinensis	nutgall tree Nepali hog plum	broadleaf shrub, large	0.56	0.10	0.33			0.33	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102					soil (clay?)	Cf			
Jiang et al. 2019	Choerospondias axillaris Michelia maudiae		Deciduous broadleaf tree	0.51	0.18	0.35			0.35	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102					soil (clay?)	Cf			all under
Jiang et al. 2019	(Magnolia maudiae)	Forest Tree Millet's	Evergreen broadleaf tree Evergreen	0.64	0.13	0.39			0.39	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102					soil (clay?)	Cf			all understory shrubs in a mature pine
Jiang et al. 2019	Adinandra millettii	Adinandra  Chinese sweet	broadleaf shrub, large	0.60	0.20	0.40			0.40	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102					soil (clay?)	Cf			plantation; 3 soil layers as endmembers: 0-
Jiang et al. 2019	Liquidambar formosana	gum, Formosan	Deciduous broadleaf tree	0.72	0.23	0.48			0.48	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102			many		soil (clay?)	Cf			20cm, 20-60cm, 60cm-2m; deepest layer
Jiang et al. 2019	Schima superba	oil-seed	Evergreen broadleaf shrub Evergreen	0.56	0.17	0.37			0.37	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102			reserviors with water	red tropical	iron-rich red soil (clay?)	Cf	O; IsoSource, 3		assumed to represent
Jiang et al. 2019	Camellia oleifera	camellia or tea	broadleaf shrub, large	0.65	0.26	0.46			0.46	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102			2m below	soil over rolling hills	iron-rich red soil (clay?)	Cf	members: 0- 20, 20-60,		source-2; No site loction info,

Ì	ı	Faber's oak	1	ı			ſ			I	I			1	ı	Surrace o	1			l eo 2000- l		even in the
Jiang et al. 2019	Quercus fabri	Faber's oak	Deciduous broadleaf shrub	0.60	0.20	0.40				0.40	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102		suroundir hills	g	iron-rich red soil (clay?)	Cf	60-200cm		Jiang et al 2018 paper on the
Jiang et al. 2019	Vaccinium bracteatum	sea bilberry	Evergreen broadleaf shrub	0.55	0.20	0.38				0.38	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102				iron-rich red soil (clay?)	Cf			same site; loction guessed to be a
Jiang et al. 2019	Symplocos confusa	??	Evergreen broadleaf shrub	0.22	0.20	0.21				0.21	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102				iron-rich red soil (clay?)	Cf			planation with 70% canopy
Jiang et al. 2019	Eurya muricata	??	Evergreen broadleaf shrub	0.64	0.21	0.43				0.43	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102				iron-rich red soil (clay?)	Cf			cover on GE, to the east of Qianyanzhou;
Jiang et al. 2019	Viburnum dilatatum	linden arrowwood,	Deciduous broadleaf shrub	0.52	0.18	0.35				0.35	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102				iron-rich red soil (clay?)	Cf			
Jiang et al. 2019	Rhaphiolepis indica	linden vihurnum Indian hawthorn, India	Evergreen broadleaf shrub	0.33	0.20	0.27				0.27	Qianyanzhou, Eco Sta, Jiangxi Prov, CN	26.7457	115.0797	102				iron-rich red soil (clay?)	Cf			
Jobbagy et al.		mesquite	Deciduous								High, Site-C, Central							3011 (Clay:)				
2011	Prosopis alpataco	chaparral	broadleaf shrub, legume Evergreen				0.97	1.00	0.99	0.99	Monte desert, Argentina High, Site-C, Central	-32.3955	-68.0366	554	7.10	low interdu	ne	sandy	BS	O, linear mixing, 2	4	P=156mm, 80%
Jobbagy et al. 2011	Larrea divaricata	Chaparran	broadleaf shrub, small leaf				0.95	0.71	0.83	0.83	Monte desert, Argentina	-32.3955	-68.0366	554	7.10	low interdu	ne eoalian sandv	sandy	BS	members:	4	Oct-Mar; shallow GW
Jobbagy et al.	Capparis	??	Perennial desert					0.61	0.61	0.61	High, Site-C, Central Monte desert,	-32.3955	-68.0366	554	7.10	low interdu	plain near	sandy	BS	rain(soil,	4	sourced from Andes P and
2011 Jobbagy et al.	atamisquea	algarrobo	shrub Semi-deciduous								Argentina High, Site-C, Central						Medoza			2.5m in		Mendos river
2011	Prosopis flexuosa		broadleaf tree, legume				0.87	0.53	0.70	0.70	Monte desert, Argentina	-32.3955	-68.0366	554	7.10	low interdu	ne	sandy	BS	interdune), GW from	4	out of the Andes
Jobbagy et al. 2011	Panicum urvilleanum	desert panicgrass, silky	Perennial grass, stolons					0.25	0.25	0.25	High, Site-C, Central Monte desert,	-32.3955	-68.0366	554	7.10	low interdu	ne	sandy	BS	the Andes	4	
		Box elder,	Deciduous				0.07	0.80	0.03	0.03	ephemeral stream site,	34.9925	-111.7443	1650	10.67	winawian.		conductional	Cs	O; linear mixing	4	the 2 sites are 0.4km apart, at
Kolb et al. 1997	Acer negundo	boxelder maple, ash-leaved Box elder,	broadleaf tree				0.97	0.89	0.93	0.93	Oak Creek Canyon, AZ, US Perennial stream site,	34.9925	-111.7443	1650	10.67	riparian	coarse valley	sandy-skeletal	CS	model, 2 members:	4	same eleation of 1650, and
Kolb et al. 1997	Acer negundo	box elder, boxelder maple, ash-leaved	Deciduous broadleaf tree				1.00	0.66	0.83	0.83	Oak Creek Canyon, AZ, US	34.9960	-111.7379	1650	10.67	riparian	diidridiii	sandy-skeletal	Cs	shallow soil (0.30cm)	4	ephemeral steam is 0.2km
Kurz-Besson 2006	Quercus suber	cork oak	Evergreen broadleaf tree				0.51		0.51	0.51	Herdade da Mitra, S. PT	38.5277	-8.0230	221	5.00	~70m from river chan	el over Aplite	sandy soil over Aplite	Cs	O+H; 3 members: P,	3	WTD from a well 500m away
Lefroy et al. 2001	Chamaecytisus	silky cytisus, tagasaste, tree	Evergreen broadleaf shrub,						0.61	0.61	Moora, 150km north	-30.8594	116.4944	297	5.00	near salt crusted	deep sand on	and Gneise sand	Cf	GW. stream H; combining 2-	3	very flat, hydrology is
	proliferus Artemisia	budsage	legume Perennial desert								of Perth, AU Hongjiannao Ecological					vallevs 100m fro	coastal plain			memher		vertical in a desert lake
Li et al. 2013	desertorum		shrub, deciduous, small	0.50	0.63	0.57	0.26	0.12	0.19	0.76	Reserve, Shenmu Cty, N. Shaanxi Prov, CN	39.0724	109.8632	1224	1.00	lake		loamy sand	BS		4	basin; local P=450mm;
Li et al. 2013	Caragana korshinskii	Korshinsk pea shrub	Perennial desert shrub, legume	0.28	0.41	0.35	0.26	0.13	0.20	0.54	Hongjiannao Ecological Reserve, Shenmu Cty, N. Shaanxi Prov. CN	39.0655	109.8903	1229	1.10	500m from lake	desert lake	loamy sand	BS	H; IsoSource, 4	4	author mention infitIration shallow; 50-
Li et al. 2013	Pinus tabuliformis	Manchurian red pine, Southern	Evergreen needleleaf tree	0.58	0.56	0.57	0.37	0.19	0.28	0.85	Hongjiannao Ecological Reserve, Shenmu Cty,	39.0631	109.9001	1225	1.00	100m froi lake		loamy sand	BS	members: 0- 10, 10-50,	4	100cm depth considered
Li et al. 2013	Populus simonii	Chinese nine Simon poplar	Deciduous	0.12	0.69	0.41	0.88	0.15	0.52	0.92	N. Shaanxi Prov. CN Hongjiannao Ecological Reserve, Shenmu Cty,	39.0699	109.8851	1228	1.05	1km fro la	Lake)	loamy sand	BS	50-100cm, GW	4	Source-2; although
	Salix	sand willow	broadleaf tree  Deciduous								N. Shaanxi Prov, CN Hongjiannao Ecological					100m from		,			•	directly above WT, capilary
Li et al. 2013	psammophila		broadleaf shrub	0.28	0.5	0.39	0.32	0.16	0.24	0.63	Reserve, Shenmu Cty, N. Shaanxi Prov. CN	39.0677	109.9195	1224	1.00	lake		loamy sand	BS		4	rise is low in sand
Liu-H et al. 2015	Populus euphratica	Euphrates poplar, desert	Deciduous broadleaf tree			0.66			0.32	0.98	Ulan Tug, Inner Mongolia, CN	42.0761	101.0379	928	2.90	riparian	desert floodplain deposit	thick sand and thin clay beds alternating	BW	O+H; IsoSource, 5	4	mean of mature and over-
Liu-J et al. 2019	Fraxinus chinensis Roxb, Pagoda, etc	Chinese ash	Evergreen broadleaf tree	0.61	0.28	0.45				0.45	Longche karst valley, near Chongqing,	29.7102	106.4327	437		karst slope		not given,	Cw	members: 0- H + 0; IsoSource, 3		only tunnel- unaffected site;
	Viburnum	viburnum	Evergreen								Sichuen Prov. CN Longche karst valley,						50cm soil on karst rock	not given,		members: 0.2, 0.4,		no WTD info, so spring water
Liu-J et al. 2019	Chinshanense Graebn. etc		broadleaf shrub	0.57	0.17	0.37				0.37	near Chongqing, Sichuen Prov. CN	29.7102	106.4327	437		karst slope WT 3-5n	eolian sandy	likely coarse	Cw	spring (rock water) O;		likely refers to deep infiltration P=163mm, T
Liu-R et al. 2018	Haloxylon ammodendron	saxaul, black saxaul,	Evergreen needleleaf shrub						0.91	0.91	S edge Gurbantonggut Desert, Xinjiang Prov,	44.2914	87.9360	475	3.75	accessible	o soil at	eolian sandy	BS	IsoSource, 2	4	recharged by
Liu-W et al. 2010	Pometia tomentosa	sometimes ??	Semi-deciduous broadleaf tree						0.64	0.64	Menglun, Yuennan Prov, CN	21.9554	101.2618	750	2.50	lower hil	foothills tropical mountains SW China,	sand over fractured	Cw	end O; 2- member linear	3	snow runoff NE of town, z- 750, between 2 hills E-W;
Liu-W et al. 2010	Gironniera subaequalis	??	Evergreen broadleaf tree						0.39	0.39	Menglun, Yuennan Prov, CN	21.9554	101.2618	750	2.50	lower hil	yellow sand	fractured	Cw	mixing: shallow soil	3	Authors lumped >0.6m as deep
Liu-W et al. 2014	Celtis wightii	??	Evergreen	0.79		0.79				0.79	Xishuangbanna,	21.8984	101.2394	700	10.00	on karst hill	sandstone	sandstone 0.4m skeletal soil on	Cw	(0-60cm) IsoSource, 3		water: soil at sompled to
	Cleistanthus	??	broadleaf tree Evergreen								Yuennan Prov, CN Xishuangbanna,						tropical, kars	limestone 0.4m skeletal		members: fog, shallow soil (0-		1.4m; plants use "rock moisture"; GW
Liu-W et al. 2014	sumatranus	??	broadleaf tree	0.63		0.63				0.63	Yuennan Prov, CN	21.8984	101.2394	700	10.00	on karst hill	SW China	soil on limestone 0.4m skeletal	Cw	40cm), and bedrock		is deeper than sampling depth,
Liu-W et al. 2014	Lasiococca comberi		Evergreen broadleaf tree	0.85		0.85				0.85	Xishuangbanna, Yuennan Prov, CN	21.8984	101.2394	700	10.00	on karst hill		soil on limestone	Cw	water (40-		not analyzed;
Liu-Z et al. 2017	Platycladus orientalis	Chinese thuja, Oriental	Evergreen needleleaf tree	0.58	0.14	0.36				0.36	Jiufeng Nat For Park, SW Beijing, CN	40.0656	116.0888	236		well drained hills		clay with hi humus;	Dw	H+O;		spring as deep water source,
Liu-Z et al. 2017	Pinus tabuliformis	arborvitae. Manchurian red	Evergreen	0.20	0.06	0.13				0.13	Jiufeng Nat For Park,	40.0656	116.0888	236		well drained		increasing clay with hi	Dw	IsoSource, 4 members:		recharged in past season;
Liu-2 et al. 201/	Firius tubulijormis	Pine, Southern Chinese nine	needleleaf tree	0.20	0.06	U.13				0.13	SW Beijing, CN	40.0656	110.0888	230		hills	hilly terrain with <1m soil	humus; increasing	υW	0.2, 0.6, 1m		summer rain infiltrated

Liu-Z et al. 2017	Robinia pseudoacacia	black locust	Deciduous broadleaf tree, legume	0.05	0.19	0.12	0.1	12	Jiufeng Nat For Park, SW Beijing, CN	40.0656	116.0888	236	well drained hills		over bedrock	clay with hi humus; increasing	Dw	and spring (Deep rock water or		entire 1m soil, so the deepest soil layer use
Liu-Z et al. 2017	Quercus variabilis	Chinese cork oak	Deciduous broadleaf tree	0.12	0.41	0.27	0.2	27	Jiufeng Nat For Park, SW Beijing, CN	40.0656	116.0888	236	well drained hills			clay with hi humus; increasing	Dw	winter rain)		(0.6-1m) is no recorded;
Liu-Z et al. 2018	Platycladus orientalis	Chinese thuja, Oriental	Evergreen needleleaf tree	0.14	0.18	0.16	0.1	16	National For Ecosys Res Sta, SW Beijing, CN	40.0505	116.0765	450	well drained hills			clay with hi humus; increasing	Dw	H+O;		spring as deep water source, recharged in
Liu-Z et al. 2018	Quercus variabilis	Chinese cork oak	Deciduous broadleaf tree	0.11	0.28	0.20	0.2	20	National For Ecosys Res Sta, SW Beijing, CN	40.0505	116.0765	450	well drained hills		hilly terrain	clay with hi humus; increasing	Dw	IsoSource, 4 members: 0.2, 0.6, 1m		past season; summer rain
Liu-Z et al. 2018	Vitex negundo L. var. heterophylla	Chinese chaste tree, five-leaved	Deciduous broadleaf shrub,	0.16	0.13	0.15	0.1	15	National For Ecosys Res Sta, SW Beijing, CN	40.0505	116.0765	450	well drained hills		with <1m soil over bedrock	clay with hi humus;	Dw	and spring (Deep rock		infiltrated entire 1m soil so the deepes
Liu-Z et al. 2018	Corylus heterophylla	chaste tree Asian hazel	large Deciduous broadleaf shrub,	0.10	0.07	0.09	0.0	09	National For Ecosys Res Sta, SW Beijing, CN	40.0505	116.0765	450	well drained hills			increasing clay with hi humus;	Dw	water or winter rain)		soil layer use (0.6-1m) is no recorded;
McCole & Stern 2007	Juniperus ashei	Ashe juniper, post cedar,	Evergreen needleleaf tree	0.52	0.00	0.26	0.2	26	Site-1, Edwards Plateau, SC Texas	29.8572	-98.4787	347	well drained karst above channel head			0.4m soil over kasrt	Cf	O+H; linear mixing, 2 members:		spring water assumed to
McCole & Stern 2007	Juniperus ashei	Ashe juniper, post cedar,	Evergreen needleleaf tree	0.44	0.00	0.22	0.2	22	Site-3, Edwards Plateau, SC Texas	29.8521	-98.4849	354	well drained karst above		karst plateau	kasrt	Cf	soil water (0.1-0.2m),		epresents "deep" water
Moore et al. 2016	Arundo donax	giant cane, carrizo, arundo, Spanish cane	Perennial grass, giant, cane				0.55 0.5	55	lower Rio Grande, TX, US	29.2220	-100.7809	255	channel head	on floodplain	floodplain of lower Rio Grande	limestone loamy fine sand, deep	BS	O+H; SIAR in R, 3	4	14% from flooding wate
Nardini et al. 2016	Ostrya carpinifolia	European hop- hornbeam	Deciduous broadleaf tree	0.30		0.30	0.3	30	Bac Cave, Trieste, NE IT	45.6333	13.8667	400	well-drained kast hill		karst limestone in	thin or no soil on limestone	Cf	members: model based o		techaring GW below site sampled;
Nardini et al. 2016	Quercus pubescens	downy oak, pubescent oak	Deciduous broadleaf tree	0.55		0.55	0.5	55 E	Bac Cave, Trieste, NE IT	45.6333	13.8667	400	well-drained kast hill		NE Italy Apls (clay soil+roots in	thin or no soil on limestone	Cf	IsoSource, 2 members: shallow soil		assumed to represent dee soil water; rai
Nardini et al. 2016	Prunus mahaleb	mahaleb cherry, St Lucie cherry	Deciduous broadleaf tree	0.68		0.68	0.6	68 E	Bac Cave, Trieste, NE IT	45.6333	13.8667	400	well-drained kast hill		cave 16m deep).	thin or no soil on limestone	Cf	water (using rain water),		water used a shallow soil
Nie et al. 2011	Alchornea trewioides	??	Deciduous broadleaf shrub	0.05	0.03	0.04	0.0	04	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf	nean rave		from the research static
Nie et al. 2011	Alchornea trewioides	??	Deciduous broadleaf shrub	0.24	0.28	0.26	0.2	26	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			thin soil on dolostone	Cf			website on Huanjiang Observation
Nie et al. 2011	Ficus orthoneura	Fig	Evergreen broadleaf shrub, large		0.96	0.96	0.9	96	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf	O+H; IsoSource, 6		and Research Station for Kar
Nie et al. 2011	Radermachera sinica	china doll, serpent tree, emerald tree	Evergreen broadleaf tree	0.99	0.37	0.68	0.6	68	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge		karst dolostone, SW China	dolostone outcrop	Cf	members: rain, 0-5, 5- 10, 10-20,		Ecosystems, Chinese Academy of
Nie et al. 2011	Radermachera sinica	china doll, serpent tree, emerald tree	Evergreen broadleaf tree	0.87	0.59	0.73	0.7	73	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			thin soil on dolostone	Cf	20-30, GW (spring)		Sciences - China; since th sites are ner th
Nie et al. 2011	Scheffera octophylla	Ivy Tree	Evergreen broadleaf shrub, large		0.87	0.87	0.8	87	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf			ridges, and since WT dept is not known
Nie et al. 2011	Stercolia euosma	??	Semi-deciduous broadleaf tree		0.88	0.88	3.0	88	Outcrop, Huanjiang, Guangxi Prov, CN	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf			plant use of spring water i
Nie et al. 2012	Alchornea trewioides	??	Deciduous broadleaf shrub	0.17		0.17	0.1	17	Site-1, Outcrop, Huanjiang, Guanxi Prov. CN	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf			
Nie et al. 2012	Alchornea trewioides	??	Deciduous broadleaf shrub	0.22		0.22	0.2	22	Site-1, Thin soil,	24.7570	108.3144	390	near ridge			thin soil on dolostone	Cf	0;		since the site
Nie et al. 2012	Radermachera sinica	china doll, serpent tree, emerald tree	Evergreen broadleaf tree	0.58		0.58	0.5	58	Site-1, Outcrop,	24.7570	108.3144	390	near ridge			dolostone outcrop	Cf	IsoSource, 6 members, rain, spring		are ner the ridges, and since WT dept
Nie et al. 2012	Radermachera sinica	china doll, serpent tree, emerald tree	Evergreen broadleaf tree	0.49		0.49	0.4	49	Site-1, Thin soil, Huanjiang, Guanxi Prov. CN	24.7570	108.3144	390	near ridge		karst dolostone, SW China	thin soil on dolostone	Cf	(GW), 0-5, 5- 10, 10-20, 20-30cm for		is not known plant use of
Nie et al. 2012	Alchornea trewioides	??	Deciduous broadleaf shrub	0.06		0.06	0.0	06	Site-2, Outcrop, Huanjiang, Guanxi Prov. CN	24.7580	108.3123	340	near ridge			dolostone outcrop	Cf	site-1, 0-5, 5- 20, 20-30, 30-1m at		spring water i best interprete as using deep
Nie et al. 2012	Alchornea trewioides	??	Deciduous broadleaf shrub	0.09		0.09	0.0	09	Site-2, Thin soil,	24.7580	108.3123	340	near ridge			thin soil on dolostone	Cf	site-2		rock moisture
Nie et al. 2012	Radermachera sinica	china doll, serpent tree,	Evergreen broadleaf tree	0.21		0.21	0.2	21	Site-2, Outcrop,	24.7580	108.3123	340	near ridge			dolostone outcrop	Cf			
Nippert & Knapp 2007	Andropogon gerardii	big bluestem	Perennial grass	0.08	0.47	0.28	0.2	28	Konza Prairie Biological Station, KS, US	39.0833	-96.5833	375		near stream		thin soil on shale/ limestone	Cf			as proxy for deep soil wate
Nippert & Knapp 2007	Schizachyrium scoparium	little bluestem	Perennial grass	0.04	0.44	0.24	0.2	24	Konza Prairie Biological Station, KS, US	39.0833	-96.5833	375		near stream	Flint Hills of E	thin soil on shale/ limestone	Cf			soil sampled to 30cm depth du to rocks; June
Nippert & Knapp 2007	Sorghastrum nutans	Indiangrass	Perennial grass	0.07	0.38	0.23	0.2	23	Konza Prairie Biological Station, KS, US	39.0833	-96.5833	375		near stream	Kansas; thin soil over	thin soil on shale/ limestone	Cf	O; IsoSource, 2		2004 is the onl month with no water stress;
Nippert & Knapp 2007	Ceanothus americanus	New Jersey tea	Deciduous broadleaf shrub	0.12	0.76	0.44	0.4	44	Konza Prairie Biological Station, KS, US	39.0833	-96.5833	375	upland		chert-bearing shales and limestones;	shale/ limestone	Cf	members: 0- 30cm soil, deep soil		unfortunately the results are
Nippert & Knapp 2007	Amorpha canescens	leadplant	Deciduous broadleaf shrub	0.14	0.61	0.38	0.5	38	Konza Prairie Biological Station, KS, US	39.0833	-96.5833	375		near stream	lowland soil can be 2m deep	thin soil on shale/ limestone	Cf	(using winter P)		averaged by species and month, but

l	l	roundhead	I	I			I			l	Konza Prairie				l			thin soil on		ı		averaged over
Nippert & Knapp 2007	Lespedeza capitata	lespedeza	Perennial forb	0.10	0.56	0.33				0.33	Biological Station, KS,	39.0833	-96.5833	375		near stream		shale/	Cf			the three topo position,
Nippert & Knapp 2007	Vernonia baldwinii	Baldwin's ironweed	Perennial forb	0.15	1.00	0.58				0.58	Konza Prairie Biological Station, KS,	39.0833	-96.5833	375		near stream		limestone thin soil on shale/	Cf			athough authors note
Palacio et al. 2017	Helianthemum squamatum	rock rose, sunrose,	Evergreen needleleaf shrub (extracting				0.00	0.00	0.00	0.00	Hilltop, gypsum outcrop, Alfajarin, NE Spain	41.6300	-0.6878	315	on hilltop			limestone coarse desert gypsum soil	BS			cignificant
Palacio et al. 2017	Helianthemum syriacum	rock rose, sunrose,	Evergreen needleleaf shrub				0.00	0.00	0.00	0.00	Hilltop, gypsum outcrop, Alfajarin, NE Spain	41.6300	-0.6878	315	on hilltop		gypsum	coarse desert gypsum soil	BS			strong dependence on
Palacio et al. 2017	Lepidium subulatum	??	Perennial desert shrub				0.00	0.00	0.00	0.00	Hilltop, gypsum outcrop, Alfajarin, NE Spain	41.6300	-0.6878	315	on hilltop		outcrop	coarse desert gypsum soil	BS			crystaline gypsum water
Palacio et al. 2017	Linum suffruticosum	??	Perennial desert shrub				0.00	0.00	0.00	0.00	Hilltop, gypsum outcrop, Alfajarin, NE Spain	41.6300	-0.6878	315	on hilltop			coarse desert gypsum soil	BS	H + O, SIAR for R; 4 end		
Palacio et al. 2017	Gypsophila struthium subsp. hispanica	??	Perennial desert shrub				0.83	0.60	0.72	0.72	Foothill, gypsum outcrop, Alfajarin, NE Spain	41.6302	-0.6882	305		access to WT		coarse desert gypsum soil	BS	members: 0- 10cm, 10- 20cm,	4	
Palacio et al. 2017	Ononis tridentata	restharrows	Perennial forb, legume				0.56	0.50	0.53	0.53	Foothill, gypsum outcrop, Alfajarin, NE Spain	41.6302	-0.6882	305		access to WT		coarse desert gypsum soil	BS	gypsum crystal water, and	4	WT depth not given; spring
Palacio et al. 2017	Artemisia herba- alba	white wormwood	Evergreen needleleaf shrub				0.12	0.32	0.22	0.22	Plain, gypsum outcrop, Alfajarin, NE Spain	41.6314	-0.6891	280		access to WT	soil with clay	coarse desert gypsum soil	BS	GW (springs)	4	water used as surrogate;
Palacio et al. 2017	Salsola vermiculata	Mediterranean saltwort	Perennial desert shrub				0.70	0.62	0.66	0.66	Plain, gypsum outcrop, Alfajarin, NE Spain Salin depression,	41.6314	-0.6891	280		access to WT	and man	coarse desert gypsum soil	BS		4	rooting depth data available; wonderful
Palacio et al. 2017	Atriplex halimus	Mediterranean saltbush, Sea orache Shrubhy	Evergreen broadleaf shrub				0.70	0.75	0.73	0.73	gypsum outcrop, Alfaiarin. NE Spain Salin depression,	41.6321	-0.6896	265		access to saline WT		coarse desert gypsum soil	BS		4	illustration
Palacio et al. 2017	Suaeda vera	alkali seepweed, shrubby sea- blite Bigtooth Maple,	Evergreen needleleaf shrub				0.65	0.90	0.78	0.78	gypsum outcrop,  Alfaiarin. NF Spain  Slope-site, Red Butte	41.6321	-0.6896	265	on S-facing	access to saline WT		coarse desert gypsum soil sandy-gravely	BS		4	
Phillips and Ehleringer 1995	Acer grandidentatum	Big-toothed  Manle: Uvalde Gambel oak,	Deciduous broadleaf tree	0.98		0.98				0.98	Canyon Res Area, SLC, Utah, US Slope-site, Red Butte	40.7963	-111.7790	1890	slope 60m above main on S-facing		mountain slope	loam over shale- sandy-gravely	Ds	H; linear mixing model, 2		end members
Phillips and Ehleringer 1995	Quercus gambelii	scrub oak, oak hrush and Bigtooth Maple,	Deciduous broadleaf tree	1.00		1.00				1.00	Canyon Res Area, SLC, Utah. US Stream-site, Red Butte	40.7963	-111.7790	1890	slope 60m above main	nwithin 3m of		loam over shale- sandy-gravely	Ds	members: winter-		are winter- spring P and summer P, no
Phillips and Ehleringer 1995	Acer grandidentatum	Big-toothed  Manle I Ivalde Gambel oak,	Deciduous broadleaf tree	1.00		1.00				1.00	Canyon Res Area, SLC, Utah. US Stream-site, Red Butte	40.7827	-111.8004	1680		Perennial stream nwithin 3m of	mountain valley	floodplain alluvium sandy-gravely	Ds	spring precip, summer		soil water samples
Phillips and Ehleringer 1995	Quercus gambelii	scrub oak, oak brush and Gingko,	Deciduous broadleaf tree Deciduous	1.00		1.00				1.00	Canyon Res Area, SLC, Utah. US W. Shore of Taihu	40.7827	-111.8004	1680		Perennial stream	clay lake	floodplain alluvium	Ds	precip H + O;		2-way GW-lake
Qian et al. 2017	Ginkgo biloba Caragana	maidenhair tree Korshinsk pea	broadleaf tree Perennial desert				0.25	0.13	0.19	0.19	Lake, Jiangsu Prov, CN Gulang, N slope of	31.4569	120.0007	5	2.00 N slope, aw	lake riparian	depo	clay loam coarse alpine	Cf	IsoSource; 8 members	3	flow; mean of 3
Qiu et al. 2019	korshinskii Caragana	shrub Korshinsk pea	shrub, legume Perennial desert			0.25				0.25	Qilian Mountains, NE Tibet Wushaoling, ridge of	37.4833	102.9000	2072	from river	s	thin alpine	cold desert soil coarse alpine	BS	H + O;		shows that large P and deep infiltration
Qiu et al. 2019	korshinskii Caragana	shrub Korshinsk pea	shrub, legume Perennial desert			0.10				0.10	Qilian Mountains, NE Tibet Tianzhu, S slope of	37.2000	102.8667	3045	near ridge S slope, aw		soil on bedrock	cold desert soil coarse alpine	Dw	IsoSource, 4 members		actually encourage deep uptake;
Qiu et al. 2019  Querejeta et al.	korshinskii Cordia	shrub Ziricote	shrub, legume Semi-Deciduous	0.20		0.15	0.02		0.02	0.15	Qilian Mountains, NE Tibet Kampepén, N Yucatan,	36.9833 20.8333	103.1833	2485	from river	S	shallow karst	cold desert soil thin, skeletal,	Dw			countary to that
2007 Querejeta et al.	dodecandra Enterolobium	guanacaste,	broadleaf tree Deciduous	0.38		0.38	0.03		0.03	0.41	MX Kampepén, N Yucatan,	20.8333	-89.6528 -89.6528	11	9.00 well drains		soil shallow karst	rocky, hi organic thin, skeletal,	Aw	O+H; IsoSource, 4	3	plants using rock moisture;
2007 Querejeta et al.	cyclocarpum Brosimum	caro caro, monkev-ear breadnut or Maya nut	broadleaf tree, legume Evergreen broadleaf tree,	0.82		0.80	0.11		0.11	0.91	MX Kampepén, N Yucatan,	20.8333	-89.6528	11	9.00 well draine		soil shallow karst	rocky, hi organic thin, skeletal, rocky, hi	Aw	members: soil (0- 15cm),	3	shallow and deep rock layers
2007 Querejeta et al.	alicastrum Talisia	??	large Evergreen	0.89		0.89	0.08		0.08	0.97	MX Kampepén, N Yucatan,	20.8333	-89.6528	11	9.00 well draine		soil shallow karst	organic thin, skeletal, rocky, hi	Aw	shallow bedrock (15- 70), deep	3	combined here; annual P=1m, 4- 6 dry season,
2007 Querejeta et al.	olivaeformis Ficus cotinifolia	fig	Evergreen	0.12		0.12	0.01		0.01	0.13	MX Santa Cruz, N Yucatan,	20.8792	-89.6533	14	9.00 well draine		soil	organic thin skeletal	Aw	bedrock (0.7- 3m), groundwate	3	GW likely locally recharged in
2007 Querejeta et al. 2007	Spondias	Jocote, red mombin, plum,	Deciduous broadleaf tree	0.22		0.22	0.01		0.01	0.23	MX Hocabá, N Yucatan, MX	20.8156	-89.2450	14	20.00 well draine	·d	soil shallow karst soil	organic thin, skeletal, rocky, hi	Aw	r	3	wet season
Rong et al. 2011	purpurea  Pyracantha fortuneana	Graber's Pyracantha	Evergreen broadleaf shrub	1.00	0.06	0.53				0.53	Bush-site, Wangjiazhai, Qingzhen Plateau,	26.5205	106.3498	1306	well-draine	d	SUII	organic thin soil (0.4- 0.6m) on	Cw			
Rong et al. 2011	Viburnum utile	Eskimo viburnum,	Evergreen broadleaf shrub	1.00	0.15	0.58				0.58	Guizhou Prov. CN Bush-site, Wangjiazhai, Qingzhen Plateau,	26.5205	106.3498	1306	well-draine	d		karst thin soil (0.4- 0.6m) on	Cw			
Rong et al. 2011	Rhamnus davurica	Service Dahurian buckthorn	Deciduous broadleaf shrub	1.00	0.00	0.50				0.50	Guizhou Prov, CN Bush-site, Wangjiazhai, Qingzhen Plateau,	26.5205	106.3498	1306	well-draine	ed		karst thin soil (0.4- 0.6m) on	Cw	H+O; linear		
Rong et al. 2011	Platycarya Iongipes	??	Deciduous broadleaf shrub	0.94	0.29	0.62				0.62	Guizhou Prov. CN Bush-site, Wangjiazhai, Qingzhen Plateau, Guizhou Prov. CN	26.5205	106.3498	1306	well-draine	d		karst thin soil (0.4- 0.6m) on karst	Cw	mixing model, 3 members:		3 and mamhass
Rong et al. 2011	Carpinus pubescens	a hornbeam	Deciduous broadleaf tree		0.24	0.24				0.24	Bush-site, Wangjiazhai, Qingzhen Plateau, Guizhou Prov, CN		106.3498	1306	well-draine	·d	karst plateau in SW China,	Able sell (O.A.	Cw	upper soil (0- 0.1m), lower soil		3 end members 0-0.1m, 0.1- 0.5m,

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Rong et al. 2011	Pyracantha fortuneana	Graber's Pyracantha	Evergreen broadleaf shrub	0.84	0.45	0.65				0.65	Forest-site, Wangjiazhai, Qingzhen Plateau, Guizhou Prov,	26.5142	106.3400	1353	well-	drained	(1206mm/yr P)	thin soil (0.4- 0.6m) on karst	Cw	(0.1-0.5m), subcutaneo us water		zone (rock water, using
Rong et al. 2011	Viburnum utile	Eskimo viburnum, Service	Evergreen broadleaf shrub	1.00	0.23	0.62				0.62	Forest-site, Wangjiazhai, Qingzhen Plateau. Guizhou Prov.	26.5142	106.3400	1353	well-	drained		thin soil (0.4- 0.6m) on karst	Cw	(deep rock water, using spring water		springs)
Rong et al. 2011	Rhamnus davurica	Dahurian buckthorn	Deciduous broadleaf shrub	0.86	0.22	0.54				0.54	Forest-site, Wangjiazhai, Qingzhen Plateau. Guizhou Prov.	26.5142	106.3400	1353	well-	drained		thin soil (0.4- 0.6m) on karst	Cw	as proxy)		
Rong et al. 2011	Platycarya Iongipes	??	Deciduous broadleaf shrub		0.12	0.12				0.12	Forest-site, Wangjiazhai, Qingzhen Plateau, Guizhou Prov,	26.5142	106.3400	1353	well-	drained		thin soil (0.4- 0.6m) on karst	Cw			
Rong et al. 2011	Carpinus pubescens	a hornbeam	Deciduous broadleaf tree	0.00	0.22	0.11				0.11	Forest-site, Wangjiazhai, Qingzhen Plateau. Guizhou Prov.	26.5142	106.3400	1353	well-	drained		thin soil (0.4- 0.6m) on karst	Cw			
Saha et al. 2015	Capparis flexuosa	falseteeth	Evergreen broadleaf tree	0.42	0.40	0.41	0.36	0.10	0.23	0.64	Buttonwood Hammock, Everglades Nat Park. Florida. US	25.1751	-80.9218	0.5	0.38	everglades wetland		clay marl on limestone	Aw		3	
Saha et al. 2015	Eugenia foetida	Spanish stopper, boxleaf stopper	Evergreen broadleaf tree	0.35	0.98	0.67	0.30	0.00	0.15	0.82	Buttonwood Hammock, Everglades Nat Park, Florida, US Buttonwood	25.1751	-80.9218	0.5	0.38	everglades wetland		clay marl on limestone	Aw		3	difficult to read
Saha et al. 2015	Piscidia piscipula	fishpoison tree,	Evergreen broadleaf tree	0.30	0.00	0.15	0.40	0.95	0.68	0.83	Hammock, Everglades Nat Park. Florida. US Buttonwood	25.1751	-80.9218	0.5	0.38	everglades wetland		clay marl on limestone	Aw	O;	3	the graph Fig 4 for soruce
Saha et al. 2015	Chromolae frustrata	Cape Sable false thoroughwort, Cane Sable buttonwood or	Perennial forb	0.05	0.90	0.48	0.02	0.01	0.02	0.49	Hammock, Everglades Nat Park. Florida. US Buttonwood	25.1751	-80.9218	0.5	0.38	everglades wetland	Everglade	clay marl on limestone	Aw	IsoSource, 3 members: shallow soil	3	proportions - the 3 sources don't add up to
Saha et al. 2015	Conocarpus erectus	button mangrove Spanish stopper,	broadleaf shrub, mangrove	0.50	0.70	0.60	0.40	0.00	0.20	0.80	Hammock, Everglades Nat Park, Florida, US Buttonwood Priarie,	25.1751	-80.9218	0.5	0.38	everglades wetland	wetlands on limestone platform	clay marl on limestone	Aw	(0-5cm), deep soil (5- 30),	3	100%; mean water table is below sea
Saha et al. 2015	Eugenia foetida	boxleaf stopper	Evergreen broadleaf tree	0.30	0.05	0.18	0.40	0.00	0.20	0.38	Everglades Nat Park, Florida. US Buttonwood Priarie,	25.1383	-80.9723	0.4	0.33	everglades wetland		clay marl on limestone	Aw	groundwate r	3	level??? Where GE shows =1m, the site is raised
Saha et al. 2015	Piscidia piscipula	fishpoison tree, lamaican saltwort or	Deciduous broadleaf tree Perennial forb,	0.70	0.25	0.48	0.10	0.02	0.06	0.54	Everglades Nat Park, Florida. US Hardwood Hammock,	25.1383	-80.9723	0.4	0.33	everglades wetland everglades		clay marl on limestone clay marl on	Aw		3	to 0.5m (GE round to 1m)
Saha et al. 2015	Batis maritima  Conocarpus	beachwort buttonwood or	sucullent, halophyte, shrub Evergreen	0.25	0.50	0.38	0.35	0.05	0.20	0.58	Everglades Nat Park, Florida, US Hardwood Hammock,	25.1779	-80.9070	0.5	0.31	wetland everglades		limestone	Aw		3	
Saha et al. 2015	erectus	button	broadleaf shrub, mangrove	0.30	0.40	0.35	0.35	0.30	0.33	0.68	Everglades Nat Park, Florida, US	25.1779	-80.9070	0.5	0.31	wetland		limestone	Aw		3	
Schachtschneider & February 2010	Acacia erioloba (Vachellia eriolob)	camel thorn, giraffe thorn	Deciduous broardleaf tree, legume	0.41	0.70	0.56	0.36	0.11	0.24	0.79	Research Centre, coastal Nmibia	-23.5644	15.0404	398	4.50	desert riparian	Desert floodplain, riparian,	coarse sand/gravel	BW	O+H; IsoSource, 4 members:	4	All trees within 50m of active channel, rely on
Schachtschneider & February 2010	Tamarix usneoides	wild tamarisk	Evergreen broadleaf shrub, small leaf Deciduous	0.34	0.45	0.40	0.47	0.22	0.35	0.74	Research Centre, coastal Nmibia Gobabeb Training and	-23.5644	15.0404	398	4.50	desert riparian	gravel plain on north side, and dunes on	coarse sand/gravel	BW	shallow soil (0-1m), deep soil	4	GW recharged by flash flooding from
& February 2010	Faidherbia albida	apple-ring acacia, white acacia and tree Euphrates	broadleaf tree, legume	0.19	0.49	0.34	0.63	0.11	0.37	0.71	Research Centre, coastal Nmibia Riverside-site1, Ejina	-23.5644	15.0404	398	4.50	desert riparian	south side of river	coarse sand/gravel	BW	(1.5-3m), GW, fog O;	4	upland cachments
Si et al. 2014	Populus euphratica	poplar, desert nonlar Euphrates	Deciduous broadleaf tree			0.82			0.00	0.82	Oasis, Inner Mongolia.CN Riverside-site2, Ejina	41.9490	101.0774	943	1.80	river side	floodplain	alluvium	BW	IsoSource, 6- 8 members: 0.4, 0.6, 0.8,	4	Desert oasis; local
Si et al. 2014	Populus euphratica	poplar, desert nonlar Euphrates	Deciduous broadleaf tree			0.33			0.53	0.86	Oasis, Inner Mongolia,CN	41.9516	101.0783	944	2.00	river side	floodplain alluvium	coarse desert alluvium	BW	1, 1.2, 1.4, 1.6, GW	4	P=42mm/yr; shallow GW recharged by
Si et al. 2014	Populus euphratica Populus	poplar, desert nonlar Euphrates	Deciduous broadleaf tree Deciduous			0.56			0.18	0.74	Dune-site, Ejina Oasis, Inner Mongolia,CN Gobi-site, Ejina Oasis,	41.9557	101.2684	931	3.25	dune field farther Gobi desert	sand dune Gobi desert,	sand coarse desert	BW	(site 1.8), 0.6, 0.8, 1, 1.2, 1.6, 1.8,	4	seeps from river sourced in the mountains
Si et al. 2014	euphratica	poplar, desert	broadleaf tree			0.64			0.24	0.88	Inner Mongolia,CN	42.0394	101.3102	924	3.80	even farther	coarse	alluvium	BW	GW (site 2.0), 0.2-0.6,	4	lat lan avecced
Slavich et al. 1999	Atriplex nummularia	Old man saltbush, hluegreen	Perennial desert shrub, salt- tolerant.				0.51	0.03	0.27	0.27	Plantation H & M, Green Gully, old bed of R. Murrav	-37.6648	144.7771	132	2.2-1.6	in depression	lower Murray valley	loamy-clay on sandy clay at 2m	Cf	H, linear mixing, 2 members:	4	lat-lon guessed by finding Green Gully and
Snyder & Williams 2000	Populus fremontii	Fremont's cottonwood or the Alamo velvet mesquite	Deciduous broadleaf tree Deciduous				1.00	0.92	0.96	0.96	Lewis Springs site, San Pedro R., AZ, US	31.6285	-110.1762	1207	1.80	Perennial reach of San along			BS	O; linear mixing, 2	4	
Snyder & Williams 2000	Prosopis velutina	Goodding's	broadleaf tree, legume				1.00	1.00	1.00	1.00	Pedro R., AZ, US	31.6285	-110.1762	1207	1.80	Perennial reach of San along		alluvium	BS	member: soil water (0- 50cm), GW	4	MT stable alone
Snyder & Williams 2000 Snyder & Williams	Salix gooddingii	willow, or Goodding's Fremont's	Deciduous broadleaf tree Deciduous				1.00	1.00	1.00	1.00	Lewis Springs site, San Pedro R., AZ, US Boquillas Ranch site,		-110.1762		1.80	Perennial reach of San alongintermit		coarse desert alluvium coarse desert	BS	""	4	WT stable along main valley, variable at
2000 Snyder & Williams	Populus fremontii	cottonwood or the Alamo velvet mesquite	broadleaf tree Deciduous					0.91	0.91	0.91	San Pedro R, AZ, US  Boquillas Ranch site,	31.7848	-110.2203	1140	2.61	tent reach of San Pedro alongintermit	secondary fluvial terrace	alluvium coarse desert	BS		4	ephemeral site; site location based on
2000 Snyder & Williams	Prosopis velutina	Fremont's	broadleaf tree, legume Deciduous				1.00	0.70	0.70	0.70	San Pedro R, AZ, US  Escapule Wash site,	31.7848	-110.2203	1140	2.61	tent reach of San Pedro on ephemeral		alluvium coarse desert	BS	O+H; linear mixing, 3 members:	4	elevation given in 2003 paper, and GE for
2000 Snyder & Williams	Populus fremontii  Prosopis velutina	the Alamo velvet mesquite	broadleaf tree  Deciduous  broadleaf tree,				1.00	0.74	0.87	0.87	San Pedro R, AZ, US  Escapule Wash site,	31.6240 31.6240	-110.1390 -110.1390	1250	4.26 4.26	tributary to San Pedro on ephemeral tributary to		alluvium coarse desert	BW	soil water, shallow GW, deep GW	4	Boquillas site
2000 Snyder & Williams	Salix gooddingii	Goodding's willow, or	legume Deciduous				1.00	1.00	1.00	1.00	San Pedro R, AZ, US  Escapule Wash site,	31.6240	-110.1390	1250	4.26	San Pedro on ephemeral tributary to		alluvium coarse desert	BW		4	
2000 Sohel 2019	Agathis	Goodding's black kauri or blue kauri	Evergreen	0.34		0.34	1.50	2.50	1.00	0.34	San Pedro R, AZ, US  Danbulla State Forest,  Queensland, NE		145.5877	748	70m	San Pedro above		alluvium sandy-clay	Aw			
	atropurpurea	(conifer)	broadleaf tree						l		Australia			-		ained		loam				<b> </b>

		Queensland	Evergreen				anbulla State Forest,			70m above	sandy-clay			
Sohel 2019	Agathis robusta	kauri pine,	broadleaf tree	0.35 0.3	5 0.3	.35		145.5877	748	lake, well-	loam	Aw	1 1	
		smooth-harked				l D	Australia anbulla State Forest,			drained 70m above			1 1	
Sohel 2019	Alangium	muskwood, black	Evergreen	0.67 0.6	7 0.6			145.5877	748	lake, well-	sandy-clay	Aw	1 1	
501161 2015	villosum	muskheart	broadleaf tree	0.07	,	,	Australia	145.5077	, 40	drained	loam	/ ***	1 1	
	Aleurites	candlenut,	Evergreen				anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	moluccana	candleberry,	broadleaf tree	0.40 0.4	0 0.40	.40		145.5877	748	lake, well-	loam	Aw	1 1	
		Indian walnut ink Silky oak;					Australia anbulla State Forest,			drained 70m above			1 1	
Sohel 2019	Alloxylon	Satin Silky oak;	Evergreen	0.89 0.8	9 0.89			145.5877	748	lake, well-	sandy-clay	Aw	1 1	
	wickhamii	Satin Oak: Tree	broadleaf tree		-		Australia			drained	loam		1 1	
	Anthocarapa	Incensewood;	Evergreen				anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	nitidula	Jimmy Jimmy;	broadleaf tree	0.36 0.3	6 0.30	.36		145.5877	748	lake, well-	loam	Aw	1 1	
		Incense Cedar· Wild Holly;	_			l <sub>D</sub>	Australia anbulla State Forest,			drained 70m above			1 1	
Sohel 2019	Aphananthe	Rough Leaved	Evergreen	0.37 0.3	7 0.3			145.5877	748	lake, well-	sandy-clay	Aw	1 1	
	philippinensis	Hickory: Rough	broadleaf tree				Australia			drained	loam		1 1	
	Argyrodendron	Red Crowsfoot;	Evergreen				anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	peralatum	Oak, Red Tulip;	broadleaf tree	0.74 0.7	4 0.74	./4	Queensland, NE -17.1755 Australia	145.5877	748	lake, well- drained	loam	Aw	1 1	
	1	Red Tulin Oak: Brown Booyong;				D	anbulla State Forest,			70m above			1 1	
Sohel 2019	Argyrodendron trifoliolatum	Brown	Evergreen broadleaf tree	0.29 0.2	9 0.29	.29	Queensland, NE -17.1755	145.5877	748	lake, well-	sandy-clay loam	Aw	1 1	
	trijonolatam	Crowsfoot.	broadlear tree				Australia			drained	IOdiii		1 1	
Sohel 2019	Arytera divaricata	Rose Tamarind;	Evergreen	0.17 0.1	7 0.1		anbulla State Forest,  Queensland, NE -17.1755	145.5877	748	70m above lake, well-	sandy-clay	Aw	1 1	
30Hei 2019	Arytera aivaricata	Tamarind, Rose;	broadleaf tree	0.17	,   0.1	.1/	Australia	143.3077	740	drained	loam	Aw	1 1	
	Castanospermum	Moreton Bay	Evergreen			D	anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	australe	chestnut or	broadleaf tree	0.32 0.3	2 0.3	.32		145.5877	748	lake, well-	loam	Aw	1 1	
		blackbean					Australia anbulla State Forest,			drained 70m above			1 1	
Sohel 2019	Castanospora	Brown Tamarind;	Evergreen	0.18 0.1	8 0.13			145.5877	748	lake, well-	sandy-clay	Aw	1 1	
	alphandii	Native Chestnut	broadleaf tree				Australia			drained	loam		1 1	
		native celtis,	Deciduous				anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	Celtis paniculata	silky celtis,	broadleaf tree	0.54 0.5	4 0.5	.54	Queensland, NE -17.1755 Australia	145.5877	748	lake, well- drained	loam	Aw	1 1	
		three veined				D	anbulla State Forest,			70m above			1 1	
Sohel 2019	Cryptocarya triplinervis	laurel, three	Evergreen broadleaf tree	0.12 0.1	2 0.1	.12	Queensland, NE -17.1755	145.5877	748	lake, well-	sandy-clay Ioam	Aw	1 1	
	tripiirici vis	veined	broadicar tree			,	Australia			drained	loani		1 1	
Sohel 2019	Daphnandra	northern sassafras,	Evergreen	0.17 0.1	7 0.1		anbulla State Forest, Queensland, NE -17.1755	145.5877	748	70m above lake, well-	sandy-clay	Aw	1 1	
301101 2013	repandula	scentless	broadleaf tree	0.17	,   0.1		Australia	145.5077	/40	drained	loam	_ ^w	1 1	
	Dendrocnide	shining-leaved	Evergreen				anbulla State Forest,			70m above	sandy-clay		1 1	
Sohel 2019	photinophylla	stinging tree,	broadleaf tree	0.42 0.4	2 0.4	.42		145.5877	748	lake, well-	loam	Aw	1 1	
		fibrewood Scrub Ebony;				l D	Australia anbulla State Forest,			drained 70m above			1 1	
Sohel 2019	Diospyros	Ebony, Scrub;	Evergreen	0.14 0.1	4 0.1			145.5877	748	lake, well-	sandy-clay	Aw	1 1	
	hebecarpa	Tulican	broadleaf tree			- 1-	Australia			_drained	loam		1 1	P=1680mm,
Sohel 2019	Diploglottis	Wild Tamarind;	Evergreen	0.16 0.1	6 0.10		anbulla State Forest,  Queensland, NE -17.1755	145.5877	748	70m above lake, well-	sandy-clay	Aw	1 1	60% Dec-Feb
30Hei 2019	diphyllostegia	northern Tamarind	broadleaf tree	0.16	0.1	.10	Australia -17.1755	143.36//	/46	drained	loam	Aw	1 1	(summer), Jul-
	Doryphora	Net Sassafras,	Evergreen			D	anbulla State Forest,			70m above	sandy-clay		1 1	ug-Sep-Oct each
Sohel 2019	aromatica	northern	broadleaf tree	0.33 0.3	3 0.3	.33		145.5877	748	lake, well-	loam	Aw	1 1	<50mm (winter
		caccafrac					Australia anbulla State Forest,			drained 70m above			1 1	dry season); All samples
Sohel 2019	Dysoxylum	Pink Mahogany	Evergreen	0.33 0.3	3 0.33			145.5877	748	lake, well-	sandy-clay	Aw	1 1	collected in 22-
	oppositifolium	"	broadleaf tree				Australia			drained	loam		1 1	23 July 2016
	Dysoxylum	yellow	Evergreen		_		anbulla State Forest,			70m above	sandy-clay		1 1	(late dry
Sohel 2019	schiffneri	Mahogany	broadleaf tree	0.32 0.3	2 0.33	.32		145.5877	748	lake, well-	loam	Aw	1 1	season); soil
	(Dusaxulum Elaeocarpus	blue marble	F			D	Australia anbulla State Forest,			drained 70m above	Atherton		1 1	water content
Sohel 2019	grandis	tree, blue fig or	Evergreen broadleaf tree	0.56 0.5	6 0.50	.56	Queensland, NE -17.1755	145.5877	748	lake, well-	Tableland, loam	Aw	1 1	increases with depth from 5-
	(Flaencarnus	hlue auandong	broadlear tree				Australia			drained	basalt from		O+H,	10% at surface
Sohel 2019	Endiandra	Buff Walnut	Evergreen	0.39 0.3	9 0.39		anbulla State Forest, Queensland, NE -17.1755	145.5877	748	70m above lake, well-	Pliocene to sandy-clay	Aw	MixSIAR, 5	to 25-30% at
50 2015	longipedicellata	Sun .vaiilut	broadleaf tree	0.3	-   0.3:		Australia	1-3.3077		drained	Holocene lava loam		members: 0-	1m depth;
			Evergreen				anbulla State Forest,			70m above	flows; upland setting, sandy-clay		0.2m, 0.2-	ET=150mm in
Sohel 2019	Ficus spp.	Fig	broadleaf tree	0.19 0.1	9 0.19	.19		145.5877	748	lake, well-	~370m from loam	Aw	1m, 1-2m, 2-	July, P=40mm;
						D.	Australia anbulla State Forest,			drained 70m above	lake, 70m		3m, 3-4m	assuming 0.2
Sohel 2019	Ficus hispida	Hairy Fig	Evergreen	0.84 0.8	4 0.8			145.5877	748	lake, well-	above lake sandy-clay	Aw		field capacity, and all P comes
			broadleaf tree				Australia			drained	level loam			as a single
Sobol 2010	Figur Instantant	Atherton Fig;	Evergreen	0.20			anbulla State Forest,	145 5077	740	70m above	sandy-clay	A		pulse, without
Sohel 2019	Ficus leptoclada	Figwood	broadleaf tree	0.29 0.2	9 0.29	.29	Queensland, NE -17.1755 Australia	145.5877	748	lake, well- drained	loam	Aw		canopy
	Flindersia	Mountain Ash;	Everesee			D	anbulla State Forest,			70m above	annaha -1			intercetion,
Sohel 2019	schottiana	Stavewood;	Evergreen broadleaf tree	0.24 0.2	4 0.24	.24		145.5877	748	lake, well-	sandy-clay Ioam	Aw		then 40mm will
		Southern Silver				_	Australia anbulla State Forest,			drained 70m above	100111			wet only 0.2m, so it is safe to
Sohel 2019	Glochidion	Water Gum, Cheese Tree,	Evergreen	0.78 0.7	8 0.73			145.5877	748	lake, well-	sandy-clay	Aw		assume here
	ferdinandi	Pencil Cedar	broadleaf tree				Australia		-	drained	loam	"		that >0.2m soil
C-1-12010	Gmelina	Grey Teak;	Evergreen	0.46	_		anbulla State Forest,	445 5000	740	70m above	sandy-clay	l .		depth is
Sohel 2019	fasciculiflora	North	broadleaf tree	0.46 0.4	6 0.4	.46	Queensland, NE -17.1755 Australia	145.5877	748	lake, well- drained	loam	Aw		recharged by
		Oueensland Shuttlecock	5			D	Australia anbulla State Forest,			drained 70m above				past season rain
Sohel 2019	Homalium circumpinnatum	Plant; Brown	Evergreen broadleaf tree	0.25 0.2	5 0.29			145.5877	748	lake, well-	sandy-clay Ioam	Aw		
	circumpilinatum	Roxwood	Stoduled tiet			_	Australia			drained	ivaill			
Sohel 2019	Mallotus	kamala tree, red	Evergreen	0.11 0.1	1 0.1		anbulla State Forest,  Queensland, NE -17.1755	145.5877	748	70m above lake, well-	sandy-clay	Aw		
JOHE 2013	philippensis	kamala,	broadleaf tree	0.1	-   0.1		Australia -17.1755	1-13.3011	. 40	drained	loam	~~		
	Mallotus		Evergreen		_		anbulla State Forest,			70m above	sandy-clay	1 .		
		Kamala		0.33 0.3	3 0.3	.33	Queensland, NE -17.1755	145.5877	748	lake, well-		Aw	1	1 1
Sohel 2019	polyadenos	Kaillala	broadleaf tree			- 1	Australia			drained	loam		1	

March   Marc																								
Marche   M	1	Memecylon		Evergreen																sandy-clay				
Marche   M	Sohel 2019		Memecylon		0.08		0.08				0.08		-17.1755	145.5877	748						Aw			
Part		Misshaannus	many frontead	Fuerareen																condu alou				
Part	Sohel 2019			-	0.33		0.33				0.33	Queensland, NE	-17.1755	145.5877	748		lake, well-				Aw			
Monte   Mont		pyrijorinis		Droddiedi tree																100				
March   Marc	Sohel 2019	Mvristica insipida			0.41		0.41				0.41		-17.1755	145.5877	748						Aw			
Section   Sect		, ,		broadleaf tree																loam				
March   Marc		Phaleria		Evergreen											= 40					sandy-clay				
Process of the content of the cont	Sonel 2019	clerodendron		broadleaf tree	0.38		0.38				0.38		-17.1755	145.58//	748					loam	Aw			
Section   Sect				Fuerareen																condu alou				
Part	Sohel 2019	Polyscias elegans			0.22		0.22				0.22	Queensland, NE	-17.1755	145.5877	748						Aw			
Second   Control   Contr		Dautaria		Droddiedi tree																100				
March   Marc	Sohel 2019				0.69		0.69				0.69		-17.1755	145.5877	748						Aw			
Section   Control of the Control o			,	broadleaf tree								Australia					drained			loam				
March   Marc	Cahal 2010	Pouteria		Evergreen	0.15		0.15				0.15		17 1755	145 5077	740					sandy-clay	A			
Second Column	30Hei 2019	xerocarpa		broadleaf tree	0.13		0.13				0.13		-17.1733	143.3677	740					loam	AW			
Second Second   Second Secon		Pseudoweinmann		Evergreen													70m above			sandy-clay				
Part	Sohel 2019		,		0.16		0.16				0.16		-17.1755	145.5877	748						Aw			
Section   Control   Cont				_																				
Part	Sohel 2019				0.32		0.32				0.32	Queensland, NE	-17.1755	145.5877	748		lake, well-				Aw			
Seption   Commonweal   Common		Sinaatas		broadical tree																Ioaiii				
Marchand   Company   Com	Sohel 2019				0.16		0.16				0.16		-17.1755	145.5877	748						Aw			
Section 1.5   Companies   Co		brunonianus		broadleaf tree								Australia					drained			loam				
Company   Comp	C-1-1 2040	Syzygium	, ,	Evergreen	0.75		0.75				0.75		47.4755	445 5077	740					sandy-clay				
Description   Processing   Pr	30Hei 2019	claviflorum		broadleaf tree	0.75		0.75				0.75		-17.1755	145.56//	740					loam	AW			
200   201		Terminalia		Evergreen																sandy-clay				
Description of the 2019   Protein Circle of the Control of the C	Sohel 2019				0.26		0.26				0.26		-17.1755	145.5877	748						Aw			
Solid District   Soli																								
Description   Company	Sohel 2019	Toona ciliata			0.81		0.81				0.81		-17.1755	145.5877	748						Aw			
Seeler 1999   Applications   Appli				broadical tree																Ioaiii				
Control of the Cont	Sohel 2019				0.22		0.22				0.22		-17.1755	145.5877	748						Aw			
September   1.00   September		ovalifolium	Oval-leaf Vellow	broadleaf tree								Australia								loam				
Series et al.   200   One of the production of	Song et al. 2014	Dinus sulvestris	Scots pine	Evergreen			0.32			0.15	0.47		12 9695	122 3510	260	2 30			eolian sand	sand	Dw	1 1	3	
Special Control of all Accordance of all Control of all	5011g Ct uii 2024	Tinus syrvesens		needleleaf tree			0.52			0.13	0.47		12.5055	122.0010	200	2.50			deposit	50110				
Accordance   Control of the Contro	6	01	Scots pine	Evergreen						0.44	0.44		42.7467	422.2667	262	F 45		on dune, GW			D		2	
	Song et al. 2016	Pinus sylvestris		needleleaf tree						0.11	0.11		42./16/	122.3667	262	5.45		accessible	eolian sand	sand	DW		3	
Designation and all	Stratton et al	Metrosideros	'ōhi'a lehua	Evergreen								Nature Conservancy of					well-drained		volcanic	silty-clay				
System et al.   Agromatical profession   Decideous					1.00		1.00				1.00		20.8745	-156.9816	530						As			-
Section et al.   Dispyred Section et al.	Character at al	Danier delair	'ohe makai																teaste					
Stratton et al.   Nestergis   Sombiticensis   Stratton et al.   Sergis   Sombiticensis   Som				broadleaf tree,	1.00		1.00				1.00		20.8745	-156.9816	530						As			
Section of all   Company	2000	Sundwicensis	Hawai'i aliwa	drought													busuitie i iuge		piaceau					cm depth.
Stratton et al.   Dispyration of al.   Dispyration et al.   Dispyratio					0.00		0.00				0.00		20.8745	-156.9816	530						As			
Stratton et al.   Dispyros   Soration et al.   Dispyros	2000	sanawicensis										Forest Preserve, Lanai					basaltic ridge		plateau	drained, 4-5m		H; no mixing		
Page	Stratton et al.	Schinus			0.00		0.00				0.00		20 9745	156 0016	E20		well-drained		volcanic		۸۵			
Seath production et al.   Dispyres   Lama   Dispyres   Disp	2000	terebinthifolius			0.00		0.00				0.00		20.0743	130.3010	330		basaltic ridge		plateau		73			
Disappress and selection and s	Stratton et al.	Nesoluma	keahi, island	Evergreen								Nature Conservancy of					well-drained		volcanic			1		
Stratton et al. 2000 sondwicensis sondwicens			nesoluma		0.00		0.00				0.00		20.8745	-156.9816	530						As	1		
2000   Sandwicensis   Stratton et al.   Myoporum   naio, bastard   Stratton et al.   Myoporum   Nature Conservancy of   Stratton et al.   Myoporum   Nature Conservancy of   Nature Conserv	Charatter at al	8/	lama	5															ta.a.ta			Figure 4		
Stratton et al. 2000					0.00		0.00				0.00		20.8745	-156.9816	530						As			
Stratton et al.   2000   2000   3ondwicense   200			naio hartard														_							values of about
Stratton et al. 2010 sondwicensis et al. 2011 suglans regia (Eargeren verticilator			,		0.00		0.00				0.00		20.8745	-156.9816	530						As			
Stratton et al. 2000 sandwicensis   Forest Preserve, Lanal   Forest Pre	2000	suriuwicense	false	produleat shrub	1												nasailic riage		piaceau					
2000   Sandwicensis		Pouteria			0.00		0.00				0.00		20 8745	-156 9816	530		well-drained		volcanic		Δs			
Sune tal. 2011	2000	sandwicensis	Lia a	broadleaf tree	0.00		0.00				0.00		20.07 13	150.5010	550		basaltic ridge		plateau		7.5			
Swaffer et al. 2014   Eucalyptus oak affer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Evergreen broadleaf tree   Evergreen broadleaf tree   Evergreen broadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Swaffer et al. 2014   Giversifolia mallee and rooping shebroadleaf tree   Giversifolia mallee   Giversifolia	C1 -1 2011			Deciduous	0.53	0.22	0.42				0.43	south aspect of Tai-	25.0467	442 4667	240		gravely, well-				6			
Swaffer et al. 2014   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus   Same male   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus   Eucalyptus diversifolia   Eucalyptus diversifolia   Eucalyptus   Eucalyptus diversifolia   Eucalyptus diversifolia	Sun et al. 2011	Jugians regia		broadleaf tree	0.53	0.32	0.43				0.43		35.0167	112.4667	310		drained				CW	-		
Swaffer et al. 2014 diversifolia mallae drooping shewaffer et al. 2014 Modern et al. 2018		Fucalyntus		Evergreen								Site-1, borehole										IIICIIIDCI3. 0		
Swaffer et al. 2014 Allocasuarina verticillata verticilla	Swaffer et al. 2014									0.48	0.48			135.5400	13	3.70		coastal dunes			Cs		3	
Swaffer et al. 2014 Verticillata verticillat				_									•											
Swaffer et al. 2014 Evergreen soap mallee, coastal white mallow diversifolia and method in the proposed of the	Swaffer et al. 2014				1					0.49	0.49	ULE099, Eyre	-34.7890	135.5390	17	4.20		coastal dunes		calcareous	Cs		3	
Swaffer et al. 2014   Eucolyptus   Soap malile, coastal white   Evergreen   Swaffer et al. 2014   Eucolyptus   Soap malile, coastal white   Evergreen   Swaffer et al. 2014   Evergreen   Swaffer et al. 2018   Finus tabuliformis   Finus tabulifo	1		soon mallas		1																			
Tang et a. 2018 Pinus tabuliformis Finance in things a nine sea-buckthorn age to a content with depth; thorn and the product to a content with depth; the product to a content with the product to a con	Swaffer et al. 2014				1					0.76	0.76		-34.7890	135.5390	17	4.20		coastal dunes			Cs		3	
Tang et a. 2018 Pinus tabuliformis profiles a needleleaf tree per hammoides rhammoides rhammoides to black box Thorburn et al. Eucolyptus black box Thorburn et al. 1000 and a perfection of the		diversifolia	mallee	broadleaf tree											·				micstolie					l I
Tang et a. 2018 Pinus tabuniprims pine, Southern Chinesee nine Sea-buckthorn Flateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess loess sit loam by lateau, deep members: 0 decreasing water content with depth; 109.329 1231 loess loess loess loess loess sit loam by lateau, deep loess loe	Tang et a 2010	Dinus tahuliforni'-		Evergreen	0.16	0.00	0.13				0.13	Ansai, Shannxi Prov,	20 0746	100 2200	1221		well drained			cilt Innu	pc			
Tang et a. 2018 Hippophae rhamnoides Thorum et al. Eucolyptus Thorum et al. 100 Indicate Thorum et al.	rang et a. 2018	rınus tuvulijormis		needleleaf tree	0.16	0.09	0.13				0.13		36.6/40	109.3299	1231		loess				в5			
Thorburn et al.    Eucolyptus   Drawling to a   Drawling to a	1_	Hippophae			1.							Ansai, Shannxi Prov.					well drained							water content
Thorburn et al. Eucolyptus black box Evergreen 1.00 0.72 0.86 0.86 BH site, Monoman swelling clay shallow shal	Tang et a. 2018				0.45	0.14	0.30				0.30		38.8746	109.3299	1231				2	silt loam	BS	1		
1.00 0.72 0.86 0.86   Island All   -33.9767   140.8636 26   5.00   R. Murray,   endogs and   BS   U.O.bb   4   shallow	Thorburn of al	Fucalizatus	black box									RH site Monoman						floodplain of		swelling class				
I I I South AU   South AU   I infiltration, I								1.00	0.72	0.86	0.86		-33.9767	140.8636	26	5.00					BS	H+O; the	4	
	1			1	I			I			I	· · · · · · · · · · · · · · · · · · ·	-		l			South AU	I					intiltration,

Thorburn et al. 1993	Eucalyptus largiflorens	black box	Evergreen broadleaf tree				0.83	0.51	0.67	0.67	BT site, Monoman Island, AU	-33.9725	140.8608	27	5.20	floodplain o R. Murray, South AU	Floodplain of		BS	method, 2 members:	4	assuming >50cm comes from GW cap
Thorburn et al. 1993	Eucalyptus camaldulensis	river red gum	Evergreen broadleaf tree				0.81	0.58	0.70	0.70	RM site, Monoman Island, AU	-33.9690	140.8763	28	4.00	floodplain o R. Murray, South AU	f River Murray	swelling clay on deep sand	BS	shllow soil water, GW (0.5m to	4	rise; WTD inferred from
Thorburn et al. 1993	Eucalyptus largiflorens	black box	Evergreen broadleaf tree				1.00	1.00	1.00	1.00	BM site, Chowilla Island, AU	-33.9802	140.8906	30	4.10	floodplain o R. Murray,		swelling clay on deep sand	BS	WT)	4	Fig 6; P=260mm/yr, shallow valley
Tobella et al. 2017	Vitellaria	Shea tree	Deciduous broadleaf tree	0.52	0.05	0.29	0.32	0.04	0.18	0.47	near Ouagadougou, Burkina Faso, West Africa	12.0781	-1.5697	327	4.5 (wet) - 6.5 (dry)	South AU WT accessib	low relief fluvial plain	sandy-loam on laterite at 0.5-1.5m	BS	O; IsoSource, 3 members: 0-	3	distinct wet-dry season
Valentini et al. 1992	Juniperus oxycedrus	Cade, cade juniper, prickly	Evergreen needleleaf shrub				0.00		0.00	0.00	Montalto di Castro, IT	42.3512	11.5256	2	1.50	on dune nearest to		sand	Cs	members, o-	4	Authors did not apply mixing model; based
Valentini et al. 1992	Pistacia lentiscus	lentisk, mastic	Evergreen broadleaf tree,				0.00		0.00	0.00	Montalto di Castro, IT	42.3518	11.5759	4	3.00	shore dune crest		sand	Cs	D, no mixing	4	on Fig 2, a simple 2-
Valentini et al. 1992	Phillyrea angustifolia	narrow-leaved mock privet	small Evergreen needleleaf tree				0.00		0.00	0.00	Montalto di Castro, IT	42.3521	11.5258	5	3.50	dune crest	sandy coastal	sand	Cs	model, inference from Fig 2	4	member (rain and GW) inference can
Valentini et al. 1992	Quercus ilex	evergreen oak, holly oak, holm	Evergreen broadleaf tree				0.20		0.20	0.20	Montalto di Castro, IT	42.3515	11.5274	4	2.70	dune botton WT shallow	Tirrenian	sand	Cs	base on distance	4	be made based on the relative distance of
Valentini et al. 1992	Quercus pubescens	downy oak, pubescent oak	Deciduous broadleaf tree				0.80		0.80	0.80	Montalto di Castro, IT	42.3515	11.5274	4	2.70	dune botton WT shallow	1,	sand	Cs	from rain nd GW	4	xylem to these end members; WT not given (D
Valentini et al. 1992	Quercus cerris	Turkey oak or Austrian oak	Deciduous broadleaf tree				0.90		0.90	0.90	Montalto di Castro, IT	42.3515	11.5274	4	2.70	dune botton WT shallow	1,	sand	Cs		4	smple taken at 12m depth), but
Voltas et al. 2015	Pinus halepensis	Aleppo pine, Jerusalem's	Evergreen needleleaf tree	0.86	0.4	0.63				0.63	Castellon, east coast Spain	39.8247	-0.5728	640		well-drained slope	coastal hills of eastern	soil on	Cs	O+H, SIAR in R, 3		estimated from unlikely that the seedlings can
Wang-J et al. 2017	Stipa bungeana	feather grass, needle grass,	Perennial grass, tussock			0.21				0.21	Yangjuangou, C. Loss Plateau, Shanxi Prov, CN	36.7125	109.5292	1194	40-100	well-drained loess slope	Spain	calcified silty loam, 50 200m deep	Dw	members: 0-		40cm, 40- 120cm, 120-
Wang-J et al. 2017	' Artemisia gmelinii	Gmelin's wormwood	Perennial desert shrub, evergreen			0.20				0.20	Yangjuangou, C. Loss Plateau, Shanxi Prov,	36.7125	109.5292	1194	40-100	well-drained loess slope	Loess Plateau, China	silty loam, 50 200m deep	Dw	MixSIAR, 3 members: 0-		300cm; deepest layer
Wang-J et al. 2017	Vitex negundo	Chinese chaste tree, five-leaved	Deciduous broadleaf shrub,			0.25				0.25	Yangjuangou, C. Loss Plateau, Shanxi Prov,	36.7125	109.5292	1194	40-100	well-drained loess slope	Cillia	silty loam, 50- 200m deep	Dw	40, 40-120, 120-300cm		considered deep soil water here; GW too
Wang-J et al. 2019a	Sophora viciifolia	Sophora	Deciduous broadleaf tree, small, legume			0.35				0.35	Yangjuangou, C. Loss Plateau, Shanxi Prov,	36.7125	109.5292	1194	40-100	well-drained loess slope	Loess Plateau, China	silty loam, 50- 200m deep	Dw	O+H; IsoSource recorded, 3		comparing 4 models:
Wang-J et al. 2019b	Spiraea pubescens	Downy Spirea	Deciduous broadleaf shrub, hardy			0.50				0.50	Yangjuangou, C. Loss Plateau, Shanxi Prov, CN	36.7125	109.5292	1194	40-100	well-drained loess slope	Loess	silty loam, 50 200m deep	Dw	H+O, MixSIAR, 3		same site as
Wang-J et al. 2019b	Hippophae rhamnoides	sea-buckthorn	Deciduous broadleaf shrub, thorny.			0.47				0.47	Yangjuangou, C. Loss Plateau, Shanxi Prov, CN	36.7125	109.5292	1194	40-100	well-drained loess slope	Plateau, China	loess silty loam, 50 200m deep loess	Dw	members: 0- 40, 40-120, 120-300cm		2017, 2019a, but new species
Wang-P et al. 2019	Celtis sinensis	Chinese hackberry	Evergreen broadleaf tree	0.26	0.09	0.18				0.18	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Pterocarya tonkinensis	Tonkin wingnuts	Deciduous broadleaf tree	0.18	0.05	0.12				0.12	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Bombax ceiba	red cotton tree	Deciduous broadleaf tree	0.22	0.13	0.18				0.18	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Broussonetia papyrifera	paper mulberry	Deciduous broadleaf tree	0.52	0.13	0.33				0.33	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Ficus callosa	Asian species of fig tree	Evergreen broadleaf tree	0.38	0.16	0.27				0.27	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Streblus asper	Siamese rough bush,	Evergreen broadleaf tree	0.27	0.20	0.24				0.24	Floodplain, Xishuangbanna Tropical Botanical	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Piper aduncum	spiked pepper	Evergreen broadleaf tree	0.03	0.16	0.10				0.10	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Humulus scandens	Japanese hop	Deciduous broadleaf liana	0.17	0.1	0.14				0.14	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			
Wang-P et al. 2019	Chromolaena odorata	Siam weed, Christmas bush, devil weed	Perennial forb	0.05	0.15	0.10				0.10	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			Authors state that the wter
Wang-P et al. 2019	Tithonia diversifolia	tree marigold,  Mexican	Annua or Perennial forb, shrub	0.08	0.07	0.08				0.08	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw			table is too deep, but these are river
Wang-P et al. 2019	Merremia vitifolia	woodroses	Deciduous broadleaf liana	0.05	0.07	0.06				0.06	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw	H + O; MixSIAR, 6 members: 0-		floodplain sites. The lower site is about 2m above
Wang-P et al. 2019	Mallotus barbatus	??	Evergreen broadleaf tree, small	0.02	0.13	0.08				0.08	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw	5, 5-15, 15- 30, 30-50,		river level, and the terrace may
Wang-P et al.	Ricinus communis	Castor Oil Plant	Perennial forb, shrub	0.18	0.14	0.16				0.16	Floodplain, XTBG, Yunnan Prov, CN	21.9329	101.2467	541		river floodplain, seasonally		sandy (higher sand content)	Cw	50-80, 80- 110cm; deepest		be 6m above river level; if both sites
2019		l	1	I							Floodplain, XTBG,					river		sandy (higher	1	layer ahs similar		experience flooding, WT

Wang-P et al. 2019	Celtis sinensis	Chinese hackberry	Evergreen broadleaf tree	0.17	0.14	0.16				0.16	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		river terr seldor floode	ı	finer (lower sand content)	Cw	river water esp in dry season		deep. GW was not reached at 1.1m sampling
Wang-P et al. 2019	Pterocarya tonkinensis	Tonkin wingnuts	Deciduous broadleaf tree	0.29	0.05	0.17				0.17	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		river terr seldor	ice,	finer (lower sand content)	Cw	season		depth, so GW is not included in
Wang-P et al.	Bombax ceiba	red cotton tree	Deciduous broadleaf tree	0.30	0.04	0.17				0.17	Terrace, XTBG, Yunnan	21.9322	101.2472	548		floode river terr seldor	ice,	finer (lower	Cw			samping and the MixSIAR as an end member
2019 Wang-P et al.	Broussonetia	paper mulberry	Deciduous	0.32	0.04	0.18				0.18	Prov, CN Terrace, XTBG, Yunnan	21.9322	101.2472	548		floode river terr seldor	ice,	sand content) finer (lower	Cw			an enu member
2019 Wang-P et al.	papyrifera	Asian species of	broadleaf tree Evergreen								Prov, CN Terrace, XTBG, Yunnan	21.9322	101.2472	548		floode river terr	l ice,	sand content) finer (lower				
2019 Wang-P et al.	Ficus callosa	fig tree Siamese rough	broadleaf tree Evergreen	0.23	0.13	0.18				0.18	Prov, CN Terrace, XTBG, Yunnan					seldor floode river terr	l ice,	sand content) finer (lower	Cw			
2019	Streblus asper	bush, toothbrush tree spiked pepper	broadleaf tree	0.30	0.09	0.20				0.20	Prov, CN	21.9322	101.2472	548		seldor floode river terr	1	sand content)	Cw			
Wang-P et al. 2019	Piper aduncum	??	Evergreen broadleaf tree	0.28	0.06	0.17				0.17	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		seldor floode river terr	1	finer (lower sand content)	Cw			
Wang-P et al. 2019	Pseuderanthemu m crenulatum		Evergreen broadleaf shrub	0.06	0.07	0.07				0.07	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		seldor floode	i	finer (lower sand content)	Cw			
Wang-P et al. 2019	Alangium chinense	??	Evergreen broadleaf tree	0.10	0.06	0.08				0.08	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		river terr seldor floode	i	finer (lower sand content)	Cw			
Wang-P et al. 2019	Cinnamomum burmanni	Indonesian cinnamon	Evergreen broadleaf tree	0.17	0.12	0.15				0.15	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		river terr seldor floode	ı	finer (lower sand content)	Cw			
Wang-P et al. 2019	Ficus cyrtophylla	fig	Evergreen broadleaf tree	0.06	0.07	0.07				0.07	Terrace, XTBG, Yunnan Prov, CN	21.9322	101.2472	548		river terr seldor floode		finer (lower sand content)	Cw			
Wei-L et al. 2013	Avicennia marina	grey mangrove, white mangrove	Evergreen broadleaf tree,	0.87	0.99	0.93	0.00	0.00	0.00	0.93	Creek front mangrove site, Tinchi Tamba	-27.2947	153.0383	6	6	creek fr mangro	nt	??	Cf	O+H,	3	P=656- 1305mm/yr;
Wei-L et al. 2013	Avicennia marina	grey mangrove, white mangrove	mangrove. tall Evergreen broadleaf tree,	0.00	0.63	0.32	0.91	0.00	0.46	0.77		-27.2959	153.0396	3	3	intertic scrub	sected plain	??	Cf	IsoSource, 4 members: shallow soil	3	WTD not given, estimated to be
Wei-L et al. 2013	Casuarina glauca	swamp she-oak, swamp oak,	mangrove, tall Evergreen broadleaf tree,	0.77	0.89	0.83	0.01	0.02	0.02	0.85	Tamba Wetland Inland forest site, Tinchi Tamba Wetland	-27.2980	153.0414	11	11	mangro inland fo	deposit	??	Cf	water (30cm?), tidal water,	3	at sea level owning to the short distance
Wei-L et al. 2013	Melaleuca	prev nak or broad-leaved paperbark,	small leaf Evergreen	1.00	1.00	1.00		0.00	0.00	1.00	Reserve. Moreton Bav. Inland forest site, Tinchi Tamba Wetland	-27.2980	153.0414	11	11	inland fo	est	??	Cf	rain-water, GW	3	to shoreline; it is likely shallower
	quinquinervia	Scots pine	broadleaf tree Evergreen								Reserve. Moreton Bav. Naiman Desert Res						desert alluvia	sand, thick,		D,		P=366mm/yr,
Wei-Y et al. 2012	Pinus sylvestris	Utah juniper	needleleaf tree						0.09	0.09	Stn, Inner Mongolia, China	42.9072	120.7045	364	8.20	well-drained	plain hills S of	loose and coarse	BS	IsoSource, 7 members: 0-	3	flat land, locally recharged
Williams and Ehleringer 2000	Juniperus osteosperma		Evergreen needleleaf tree			0.82				0.82	Site-1, Tooele, UT, US	40.5027	-112.2636	1980		intermountai n hills	Great Salt Lake,	silt loam	Df			P=448mm
Williams and Ehleringer 2000	Quercus gambelii	Gambel oak, scrub oak, oak hrush and	Deciduous broadleaf tree			0.93				0.93	Site-1, Tooele, UT, US	40.5027	-112.2636	1980		intermountai n hills	intermounta n valley	silt loam	Df			
Williams and Ehleringer 2000	Juniperus osteosperma	Utah juniper	Evergreen needleleaf tree			0.77				0.77	Site-2, Birdseye, UT, US	39.9196	-111.5356	1860		valley slope	valley slope	clay loam	Cf			
Williams and Ehleringer 2000	Pinus edulis	Colorado pinyon, two- needle niñon	Evergreen needleleaf tree			0.73				0.73	Site-2, Birdseye, UT, US	39.9196	-111.5356	1860		valley slope	behind Wasatch	clay loam	Cf			P=368mm/yr
Williams and Ehleringer 2000	Quercus gambelii	Gambel oak, scrub oak, oak brush and	Deciduous broadleaf tree			0.97				0.97	Site-2, Birdseye, UT, US	39.9196	-111.5356	1860		valley slope	Front	clay loam	Cf	D, linear		
Williams and Ehleringer 2000	Juniperus osteosperma	Utah juniper	Evergreen needleleaf tree			0.70				0.70	Site-3, Zion NP, UT, US	37.2382	-112.8957	2000		mesa		clay	Cs	mixing model, 2		
Williams and Ehleringer 2000	Pinus edulis	Colorado pinyon, two-	Evergreen needleleaf tree			0.72				0.72	Site-3, Zion NP, UT, US	37.2382	-112.8957	2000		mesa	sandstone mesa in S Utah	clay	Cs	members: summer rain, deep		P=374mm/yr
Williams and Ehleringer 2000	Quercus gambelii	Gambel oak, scrub oak, oak	Deciduous broadleaf tree			0.94				0.94	Site-3, Zion NP, UT, US	37.2382	-112.8957	2000		mesa	Ottair	clay	Cs	soil water (50cm, or winter rain);		
Williams and Ehleringer 2000	Juniperus osteosperma	hrush and Utah juniper	Evergreen needleleaf tree			0.59				0.59	Site-4, Grand Canyon NP, AZ, US	36.0556	-112.1257	2120		canyon rim		clay loam	Cs	the sites are along		
Williams and Ehleringer 2000	Pinus edulis	Colorado pinyon, two-	Evergreen needleleaf tree			0.55				0.55	Site-4, Grand Canyon NP, AZ, US	36.0556	-112.1257	2120		canyon rim	southern rim	clay loam	Cs	Monson gradient, with		P=367mm/yr
Williams and Ehleringer 2000	Quercus gambelii	needle niñon Gambel oak, scrub oak, oak	Deciduous broadleaf tree			0.93				0.93	Site-4, Grand Canyon NP, AZ, US	36.0556	-112.1257	2120		canyon rim	Canyon	clay loam	Cs	stronger summer rain in the		
Williams and	Juniperus osteosperma	hrush and Utah juniper	Evergreen needleleaf tree			0.48				0.48	Site-5, Pinedale, AZ, US	34.3108	-110.2514	1970		intermountai n hills		clay	Cs	south		
Williams and	Pinus edulis	Colorado pinyon, two-	Evergreen			0.49				0.49	Site-5, Pinedale, AZ, US		-110.2514	1970		intermountai	intermounta	, clay	Cs			P=427mm/yr
Williams and	Quercus gambelii	needle niñon Gambel oak, scrub oak, oak	needleleaf tree Deciduous			0.62				0.62	Site-5, Pinedale, AZ, US		-110.2514	1970		n hills intermountai	n slopes of A	clay	Cs			
Ehleringer 2000 Williams and		hrush and Colorado	broadleaf tree Evergreen													n hills intermountai						
Ehleringer 2000	Pinus edulis	pinyon, two- needle niñon.	needleleaf tree			0.58				0.58	Site-6, Blue, AZ, US	33.6350	-109.0841	1980		n hills	intermounta	clay	Cs			490mm/vr

Williams and	Quercus gambelii	Gambel oak, scrub oak, oak	Deciduous			0.46				0.46	Site-6, Blue, AZ, US	33.6350	-109.0841	1980	intermou	tai	n slopes of AZ	clay	Cs			
Ehleringer 2000		brush and	broadleaf tree Deciduous								Ketu Exp Range, shore				n hills							D=269mm
Wu-H et al. 2016a	Hippophae	sea-buckthorn	broadleaf shrub,	0.42		0.42				0.42	of Qinghai Lake,	36.7667	100.7667	3232	sand, we	I-		sand	Dw			P=368mm soil layer
	rhamnoides		thornv.								Qinghai Prov. CN				draine		drifting sand			0,		membe
M. II I 2046-	Artemisia	a sagebrush	Perennial desert	0.44		0.14				0.14	Ketu Exp Range, shore	26.7667	400 7667	2222	sand, we	I-	dunes being		D	IsoSource, 3 members: 0-		<0.3m, 0.
Wu-H et al. 2016a	oxycephala		shrub, smll, deciduous.	0.14		0.14				0.14	of Qinghai Lake, Qinghai Prov. CN	36.7667	100.7667	3232	draine		stablized;	sand	Dw	0.3, 0.3-0.6,		0.6>1.2n
		a sedge	Perennial grass,								Ketu Exp Range, shore				sand, we		near shore, sites >20m			0.6-1.2m;		recorded
Wu-H et al. 2016a	Carex moorcroftii		rhizomatous	0.14		0.14				0.14	of Qinghai Lake,	36.7667	100.7667	3232	draine	1-	above lake	sand	Dw	the deepest		results
		Prairie									Qinghai Prov, CN Ketu Exp Range, shore						level			recorded		mean
Wu-H et al. 2016a	Astragalus adsuraens	Milkvetch	Perennial forb	0.07		0.07				0.07	of Qinghai Lake,	36.7667	100.7667	3232	sand, we	I-		sand	Dw	here		sampling
	uusurgens										Oinghai Prov. CN				uranie							over 1
Wu-H et al. 2016b	Achnatherum	a needle grass	Perennial grass,	0.62	0.16	0.39				0.39	lower Shaliu R. basin, north of Qinghai Lake,	37.2476	100.2344	3213	well-drain	ed		silty loam	Dw			P=400mn
WW 11 Ct al. 2010b	splendens		rhizomatous	0.02	0.10	0.33				0.55	Qinghai Prov. CN	37.2470	100.2344	3213	sand		eolian-	sircy loans	"	Н,		not give
	Heteropappus	aster									Ketu Exp Range, shore				well-drain	ed	lacustrine			IsoSource, 3		site 4m
Wu-H et al. 2016b	altaicus		Perennial forb	0.16	0.2	0.18				0.18	of Qinghai Lake,	37.2476	100.2344	3213	sand		depo of	silty loam	Dw	members: 0-		nearest
	A 111	Chinese wild	Demonstrat foot								Qinghai Prov, CN Ketu Exp Range, shore						desert lake			0.1, 0.1-0.3,		body; au
Wu-H et al. 2016b	Allium tanguticum	onion	Perennial forb, bulb	0.09	0.16	0.13				0.13	of Qinghai Lake,	37.2476	100.2344	3213	well-draii sand	ea	basin, sites 15m above	silty loam	Dw	0.3-0.6m (recorded		mention signal in
	tunguticum	Chinasa	buib								Qinghai Prov. CN Ketu Exp Range, shore				Saliu		lake level			here)		drought
Wu-H et al. 2016b	Leymus chinensis	Chinese rye grass	Perennial grass,	0.15	0.13	0.14				0.14	of Qinghai Lake,	37.2476	100.2344	3213	well-drain	ed		silty loam	Dw	,		as dry s
	,	_	rhzome								Oinghai Prov. CN				sand							,
M. V1 2044	Nitraria	??	Perennial desert				0.65	0.22	0.44	0.44	Fukang,	44 2002	07.0404	475	F 00	desert valley		silty clay loam		0,	١.	
Wu-Y et al. 2014	tangutorum		shrub, deciduous				0.65	0.22	0.44	0.44	Gurbantunggut Desert, Xiniiang Prov. CN	44.2903	87.9404	475	5.00	oasis	Gurbantungg	on valley deposit, saline	BS	IsoSource, 3 members:	4	anna
	Reaumuria	??	Perennial desert								Fukang,					desert valley		silty clay loam		shllow (0-		P=160
Wu-Y et al. 2014	songarica		shrub, deciduous					0.39	0.39	0.39	Gurbantunggut Desert,	44.2903	87.9404	475	5.00	oasis	eolian/fluvial	on valley	BS	50), middle	4	shallov from mo
		saltcedar									Xiniiang Prov. CN Fukang,						deposit	deposit. saline silty clay loam		(50-180),		to the
Wu-Y et al. 2014	Tamarix ramosissima	Sarcecaar	Deciduous broadleaf shrub				0.88	0.31	0.60	0.60	Gurbantunggut Desert,	44.2903	87.9404	475	5.00	desert valley oasis		on valley	BS	deep (180-	4	10 1110
	Turnosissimu	. 16	broadlear stirub								Xiniiang Prov. CN					UdSIS		denosit. saline		300cm, GW)		P=884
Xu et al. 2011	Abies fargesii-	Farges' fir	Evergreen						0.68	0.68	Wolong Nat Rev., W.	30.9451	103.0777	2849	on nort			??	Cw	H, linear	3	WTD=
7.0 Ct 0.1 2011	faxoniana		needleleaf tree						0.00	0.00	Sichuan Prov, CN	30.3131	103.0777	2013	facing slo	oe .	at the eastern	1	"	mixing, 2		nearby
		Himalayan	Deciduous								Wolong Nat Rev., W.				on nort		rim of the			members:		but unk
Xu et al. 2011	Betula utilis	birch, bhojpatra	broadleaf tree						0.46	0.46	Sichuan Prov, CN	30.9451	103.0777	2849	facing slo		Tibet Plateau subalpine	, ??	Cw	recent rain, GW (from	3	undner s smpled a
	Bashania	an east Asian	Perennial grass,								Walens Not Day W						altitude			spring		20-40, 40
Xu et al. 2011	fangiana	bamboo	tall. bamboo						0.41	0.41	Wolong Nat Rev., W. Sichuan Prov, CN	30.9451	103.0777	2849	on nort			??	Cw	nearby)	3	80cm to
	Pinus	Masson's pine,	tan, bannoo								Qianyanzhou,				mid slop			red soil on		O+H,		P=137
Yang et al. 2015	massoniana/Pinu	Chinese red	Evergreen	0.45	0.29	0.37				0.37	ChinaFLUX site, Jiangxi	26.7440	115.0599	102	~10m ab			sandstone	Cf	IsoSource, 3		discrapa
	s	nine horsetail	needleleaf tree								Prov. CN				neares		40	/mudstone		soil		O and H
Yin et al. 2015	Salix matsudana	Chinese willow	Deciduous				0.45	0.80	0.63	0.63	Mu Us Desert, Yulin,	38.3905	109.1957	1255	1.40	WT accesible	40m thick eolian sand	sand	BS	O, IsoSource, 3	3	WT rise a
1111 Ct al. 2015	Sanx matsadana		broadleaf tree				0.43	0.00	0.03	0.03	Shaanxi Prov, CN	30.3303	105.1557	1233	1.40	WT accesible	dune field	Suita	53	members: 0-		recha
Young-Robertson		dwarf birch	Deciduous								Stable site, University				thaw depth	on poorly		organic soil,				frost-tab
et al. 2017	Betula nana		broadleaf shrub			0.44				0.44	of Alaska Fairbanks campus, AK, US	64.8661	-147.8564	155	0.6m max	drained permafrost		thaw to 34- 55cm	Df			no long thawing
Varing Dahartson		black spruce	- Francisco								Stable site, University				thou donth	on poorly		organic soil,				here the
Young-Robertson et al. 2017	Picea mariana		Evergreen needleleaf tree			0.43				0.43	of Alaska Fairbanks	64.8661	-147.8564	155	thaw depth 0.6m max	drained		thaw to 34-	Df			soil mo
	Ledum palustre	marsh Labrador									campus, AK, US Stable site, University					permafrost on poorly		55cm organic soil,				refers
Young-Robertson	(Rhododendron	tea, northern	Evergreen			0.39				0.39	of Alaska Fairbanks	64.8661	-147.8564	155	thaw depth	drained		thaw to 34-	Df			falle
et al. 2017	tomentosum)	I ahrador tea or	broadleaf shrub								campus. AK. US				0.6m max	permafrost		55cm				previ
Young-Robertson	Calinan	willow	Deciduous			0.45				0.45	Stable site, University of Alaska Fairbanks	64.8661	147.0564	155	thaw depth	on poorly drained		organic soil,	Df	O+H, a		frozen
et al. 2017	Salix sp.		broadleaf shrub			0.45				0.45	campus, AK, US	04.0001	-147.8564	155	0.6m max	permafrost		thaw to 34- 55cm	DI DI	hierachical Byesian		spring/s
Young-Robertson	Vaccinium	bog bilberry,	Deciduous								Stable site, University				thaw depth	on poorly	organic layer	organic soil,		model using		thaw; su
et al. 2017	uliginosum	bog	broadleaf shrub,			0.45				0.45	of Alaska Fairbanks	64.8661	-147.8564	155	0.6m max	drained	over mineral soil over	that to 54	Df	a suit of		low, insu
		dwarf birch	small								campus, AK, US Unstable site,					permafrost on poorly	permafrost	55cm organic soil,		data, 2		to supp
Young-Robertson	Betula nana	awaii biicii	Deciduous			0.40				0.40	University of Alaska	64.8675	-147.8580	156	thaw depth	drained	with seasonal		Df	members:		degred
et al. 2017		l	broadleaf shrub								Fairbanks campus. AK.				0.8m max	permafrost	thaw	60cm		rain, melt of		thawing
Young-Robertson	Picea mariana	black spruce	Evergreen			0.37				0.37	Unstable site, University of Alaska	64.8675	-147.8580	156	thaw depth	on poorly drained		organic soil, thaw to 40-	Df	past-season		the de
et al. 2017			needleleaf tree			5.57				3.37	Fairbanks campus. AK.	55075	1	130	0.8m max	permafrost		60cm	"	ice		moisture
	Ledum palustre	marsh Labrador	Evergreen								Unstable site,				thaw depth	on poorly		organic soil,				to P fa
Young-Robertson	(Knoaoaenaron	tea, northern	broadleaf shrub			0.35				0.35		64.8675	-147.8580	156	0.8m max	drained		thaw to 40-	Df			prev
Young-Robertson et al. 2017	tomentosum)	I ahrador tea or willow									Fairbanks campus, AK, Unstable site,				about done	permafrost on poorly		60cm organic soil,				frozen
et al. 2017			Deciduous			0.40				0.40	University of Alaska	64.8675	-147.8580	156	thaw depth 0.8m max	drained		thaw to 40-	Df			spring/s
et al. 2017 Young-Robertson	Salix sp.		broadlesf chrub				1				Fairbanks campus. AK.				U.OIII IIIAX	permafrost		60cm				thaw; su
et al. 2017		h	broadleaf shrub								Unstable site, University of Alaska	64.8675	-147.8580	156	thaw depth	on poorly drained		organic soil, thaw to 40-	Df			low, insu
et al. 2017 Young-Robertson et al. 2017 Young-Robertson	Salix sp.  Vaccinium	bog bilberry,	Deciduous			0.39				0.39					0.8m max	permafrost	1				1	to supp
et al. 2017 Young-Robertson et al. 2017	Salix sp.	bog hlueberry [2]				0.39				0.39	Fairbanks campus, AK.							60cm				
et al. 2017 Young-Robertson et al. 2017 Young-Robertson et al. 2017	Salix sp.  Vaccinium  uliginosum	bog	Deciduous	0.20	0.30	0.39	0.80	0.20	0.50	0.39	Fairbanks campus. AK. Damp-land site, N Swan Coastal Plain, NE	-31.7556	115.9609	48	2.50	damp-land embankment		60cm coarse sand	Cs		4	
et al. 2017  Young-Robertson et al. 2017  Young-Robertson et al. 2017  Zencich et al. 2002	Salix sp.  Vaccinium uliginosum  Banksia ilicifolia	bog bluebern [2] holly-leaved banksia holly-leaved	Deciduous broadleaf shrub, small Evergreen			0.25				0.75	Damp-land site, N Swan Coastal Plain, NE of Perth, Western Lower-slope site, site,					damp-land embankment		coarse sand				
et al. 2017  Young-Robertson et al. 2017  Young-Robertson et al. 2017  Zencich et al. 2002	Salix sp.  Vaccinium  uliginosum	holly-leaved banksia	Deciduous broadleaf shrub, small Evergreen broadleaf tree	0.20	0.30		0.80	0.20	0.50		Fairbanks camous. AK Damp-land site, N Swan Coastal Plain, NE of Perth, Western Lower-slope site, site, N Swan Coastal Plain,		115.9609 115.9590	48 51	2.50	damp-land			Cs Cs		4	
et al. 2017 Young-Robertson et al. 2017 Young-Robertson et al. 2017 Zencich et al. 2002	Salix sp.  Vaccinium uliginosum  Banksia ilicifolia Banksia ilicifolia	bog bluebern [2] holly-leaved banksia holly-leaved	Deciduous broadleaf shrub, small Evergreen broadleaf tree Evergreen broadleaf tree	0.50	0.40	0.25	0.40	0.20		0.75	Damp-land site, N Swan Coastal Plain, NE of Perth, Western Lower-slope site, site,				4.00	damp-land embankment		coarse sand		H, linear		
et al. 2017  Young-Robertson et al. 2017  Young-Robertson et al. 2017  Zencich et al. 2002	Salix sp.  Vaccinium uliginosum  Banksia ilicifolia  Banksia ilicifolia  Banksia	bog bluebern [2] holly-leaved banksia holly-leaved banksia	Deciduous broadleaf shrub, small Evergreen broadleaf tree Evergreen broadleaf tree Evergreen			0.25				0.75	Fairbanks campus. AK Damp-land site, N Swan Coastal Plain, NE of Perth, Western Lower-slope site, site, N Swan Coastal Plain, NE of Perth. Western Lower-slope site, site, N Swan Coastal Plain,					damp-land embankment		coarse sand		mixig, 3		
et al. 2017 Young-Robertson et al. 2017 Young-Robertson et al. 2017 Zencich et al. 2002	Salix sp.  Vaccinium uliginosum  Banksia ilicifolia Banksia ilicifolia	bog hushero (21 holly-leaved banksia holly-leaved banksia candlestick banksia, slender	Deciduous broadleaf shrub, small Evergreen broadleaf tree Evergreen broadleaf tree	0.50	0.40	0.25	0.40	0.20	0.30	0.75	Fairbanks campus. AK Damp-land site, N Swan Coastal Plain, NE of Perth. Western Lower-slope site, site, N Swan Coastal Plain, NE of Perth. Western Lower-slope site, site, N Swan Coastal Plain, NE of Perth. Western	-31.7574	115.9590	51	4.00	damp-land embankment lower slope		coarse sand	Cs	mixig, 3 members: 0-	4	Belov
et al. 2017 Young-Robertson et al. 2017 Young-Robertson et al. 2017 Zencich et al. 2002	Salix sp.  Vaccinium uliginosum  Banksia ilicifolia  Banksia ilicifolia  Banksia attenuata  Banksia	bog blueberry [2] holly-leaved banksia holly-leaved banksia candlestick banksia, slender	Deciduous broadleaf shrub, small Evergreen broadleaf tree Evergreen broadleaf tree Evergreen	0.50	0.40	0.25	0.40	0.20	0.30	0.75	Fairbanks campus. AK Damp-land site, N Swan Coastal Plain, NE of Perth, Western Lower-slope site, site, N Swan Coastal Plain, NE of Perth. Western Lower-slope site, site, N Swan Coastal Plain,	-31.7574	115.9590	51	4.00	damp-land embankment lower slope lower slope		coarse sand	Cs	mixig, 3	4	Belov Darling ! topo hig

Zencich et al. 2002	Banksia	candlestick	Evergreen	0.90	0.50	0.70	0.00	0.00	0.00	0.70	Dune-crest site, site, N Swan Coastal Plain, NE	21 7572	115 0545	69	30.00	dune crest		leached coarse sand	coarse sand	Cs	one of	4	which likely
	attenuata Hibbertia	banksia, slender hanksia or hiara yellow	broadleaf tree Perennial forb,								of Perth, Western Damp-land site, N					dulle crest	damp-land	on coastal plain			deeper 2 zones; assuming no	4	contribute to local GW; a nice case showing
Zencich et al. 2002	hypericoides	buttercups yellow	shrub Perennial forb,	0.60	0.30	0.45	0.40	0.10	0.25	0.70	Swan Coastal Plain, NE of Perth. Western Lower-slope site, site,	-31.7556	115.9609	48	2.50		embankment		coarse sand	Cs	GW access at dune	4	topo and WT gradient
Zencich et al. 2002	Hibbertia hypericoides	buttercups	shrub	0.80	0.50	0.65	0.08	0.08	0.08	0.73	N Swan Coastal Plain, NE of Perth. Western Upper-slope site, site,	-31.7574	115.9590	51	4.00		lower slope		coarse sand	Cs	crest (WT=30m)	4	
Zencich et al. 2002	Hibbertia hypericoides	buttercups	Perennial forb, shrub	0.80	0.50	0.65	0.10	0.10	0.10	0.75	N Swan Coastal Plain, NE of Perth, Western	-31.7550	115.9558	53	9.00	upper slope			coarse sand	Cs		4	
Zencich et al. 2002	Hibbertia hypericoides	yellow buttercups	Perennial forb, shrub	0.60	0.50	0.55	0.00	0.00	0.00	0.55	Dune-crest site, site, N Swan Coastal Plain, NE of Perth. Western	-31.7573	115.9545	69	30.00	dune crest			coarse sand	Cs		4	
Zhang-Cicheng et al. 2017	Reaumuria songarica	??	Perennial desert shrub, deciduous			0.30			0.00	0.30	High-P site, mid-low Heihe River basin, Gansu Prov. CN	39.4000	100.1200	1442	12.00	well-drained			coarse sandy loam	BW		3	P=112mm; 80%
Zhang-Cicheng et al. 2017	Nitraria sphaerocarpa	??	Perennial desert shrub, deciduous			0.25			0.00	0.25	High-P site, mid-low Heihe River basin, Gansu Prov, CN	39.4000	100.1200	1442	12.00	well-drained		desert valley,	coarse sandy loam	BW	O + H;	3	in warm season
Zhang-Cicheng et al. 2017	Reaumuria songarica	??	Perennial desert shrub, deciduous			0.72			0.00	0.72	Mid-P site, mid-low Heihe River basin,	39.8800	98.9900	1413	14.00	well-drained		on edge /foothill of oasis of Heihe	coarse sandy loam	BW	IsoSource, 4 members: 0- 30, 30-80,	4	
Zhang-Cicheng et al. 2017	Nitraria sphaerocarpa	??	Perennial desert shrub, deciduous			0.38			0.00	0.38	Gansu Prov. CN Mid-P site, mid-low Heihe River basin,	39.8800	98.9900	1413	14.00	well-drained		River	coarse sandy loam	BW	80cm-2m, GW	4	P=65mm;
Zhang-Cicheng et al. 2017	Reaumuria songarica	??	Perennial desert			0.17			0.65	0.82	Gansu Prov. CN Low-P site, mid-low Heihe River basin,	42.0400	101.0100	940	3.25		WT access		coarse sandy loam	BW		4	P=35mm;
Zhang-Congzhi et	Zea mavs	maize, corn	Annual grass						0.16	0.16	Agro-ecological Exp	35.0161	114.3996	72	1-2m in		near cannal, 15km from	Huang-Huai-	sandy loam	Cw	H, linear	3	P=615mm,
al. 2011	zeu muys	a saltceder							0.10	0.10	Stat, Fengqiu, Henan Prov. CN Mega dunes, Badain	33.0101	114.3330	/2	growing season	site nearly	Yellow River	Hai River Plain	on silty-clay loam. on	CW	mixing, 4 members: O + H;		mean of 6 samples: site location of P1
Zhang-Jinhu et al. 2018	Tamarix laxa	a saitteuei	Deciduous broadleaf shrub			0.36				0.36	Jaran Desert, Inner Mongolia, CN	39.7708	102.1383	1344	> 100m	200msteeply above lake		mega sand duens	dune sand	BW	IsoSource, 3		recorded; results given as
Zhang-Yiping et al. 2018	Larix principis- rupprechtii	Prince Rupprecht's	Deciduous needleleaf tree			0.39				0.39	near summit Luya Mountain, Shanxi Prov,	38.7534	111.9264	2685		ridge top		shallow 50cm soil on	well-drained sandy loam	Dw	O + H; SIAR, 3 end		deep soil water recharged by
Zhao-P et al. 2018	Platycladus orientalis	Chinese thuja, Oriental	Evergreen needleleaf tree			0.31			0.34	0.65	Yanting Ct, SiChuan Prov. CN	31.2667	105.4667	522	2.70		shallow perched WT	headwater catchment on	silty loam, 50cm thick,	Cw	members: O+H, SIAR in R, 4	3	previous vr
Zhao-P et al. 2018	Vitex negundo	arhorvitae Chinese chaste tree, five-leaved	Deciduous broadleaf shrub,			0.28			0.21	0.49	Yanting Ct, SiChuan Prov. CN	31.2667	105.4667	522	2.70		shallow perched WT	mudstone/sa ndstone	on mudtone silty loam, 50cm thick,	Cw	members: shallow soil	3	P=826, 85% in summer-fall
Zhao-P et al. 2018	Zea mays	chaste tree maize, corn	large Annual grass			0.00			0.00	0.00	Yanting Ct, SiChuan Prov. CN	31.2667	105.4667	522	2.70		shallow perched WT	bedrok at 50cm depth, 50% terraced	on mudtone silty loam, 50cm thick,	Cw	(0-20), deep soil (20-50), GW, P		
Zhao-L et al. 2019	Caragana korshinskii	Korshinsk pea shrub	Perennial desert shrub, legume,			0.32				0.32	fixed dunes, Shapotou, SE edge of Tengger	37.4697	105.0040	1339	80.00	deep dune sands		fixed sand dunes	on mudtone dune sand	BW	O only;		
Zhao-L et al. 2019	Artemisia ordosica	sgebrush	deciduous Perennial desert shrub, evergreen			0.39				0.39	Desert. Ningxia Prov fixed dunes, Shapotou, SE edge of Tengger	37.4697	105.0040	1339	80.00	deep dune sands		fixed sand dunes	dune sand	BW	IsoSource, 7 soil depth members to		P=182mm; GW too deep for plants; mean of
Zhao-L et al. 2019	Hedysarum scoparium	sweetvetch	Perennial desert shrub, legume,			0.37				0.37	Desert. Ningxia Prov fixed dunes, Shapotou, SE edge of Tengger	37.4697	105.0040	1339	80.00	deep dune sands		fixed sand dunes	dune sand	BW	3.8-4m, 2.6- 2.8m (AO)		May and August
Zhou-H et al. 2013	Tamarix	saltcedar	deciduous Deciduous						0.93	0.93	Desert. Ningxia Prov near Changji, Xinjiang	44.1167	87.1000	475	5.00		foothill oases,		alkaline desert soils,	BS	O+H,	4	in Chinese; P=168mm, GW
Zhou-H et al. 2013	ramosissima Nitraria sibirica	??	broadleaf shrub Perennial desert						0.53	0.53	Prov, CN near Changji, Xinjiang	44.1167	87.1000	475	5.00		GW access foothill oases,	desert oasis at (northern) foothill of	cracking clav alkaline desert soils,	BS	IsoSource, 5 members: 0-	4	fed by rivers from the
Zhou-H et al. 2013	Reaumuria	??	shrub Perennial desert						0.13	0.13	Prov, CN near Changji, Xinjiang	44.1167	87.1000	475	5.00		GW access foothill oases,	Tian Shan Mountains	cracking clav alkaline desert soils,	BS	20, 20-50, 50-90, 90- 180cm, GW	4	mountains; located at foothill of
	songarica	??	shrub Perennial desert								Prov, CN Fukang,						GW access	Gurbantungg	cracking clav		O, linear		mountains annaul
Zhou-H et al. 2015	Nitraria sibirica Haloxylon	saxaul, black	shrub Evergreen				0.80	0.46	0.63	0.63	Gurbantunggut Desert, Xiniiang Prov. CN 20yr old, Oasis at S	44.2903	87.9404	475	5.00		desert oasis foothill oases,	ut Desert eolian/fluvial	sline-alkaline	BS	mixing, 2 members: O,	4	P=160mm, shallow GW 4 end-
Zhou-H et al. 2017	ammodendron	saxaul, sometimes saxaul, black	needleleaf shrub			0.13			0.71	0.84	edge of Badain Jaran  Desert, foothill of  40yr old, Oasis at S	39.3786	100.1475	1388	4.40		GW access	desert oasis at foothill of	sandy	BW	IsoSource, 4 members: 0- 0.5, 0.05-	4	members: 0-0.5, 0.05-1.5-1.5- 3m, GW; last 2
Zhou-H et al. 2017	Haloxylon ammodendron	saxaul,	Evergreen needleleaf shrub			0.07			0.88	0.95	edge of Badain Jaran  Desert, foothill of  Badain Jaran Desert,	39.3495	100.1328	1386	4.56		foothill oases, GW access	Quilian Mt desert oasis,	sandy	BW	1.5, 1.5-3m, GW O.	4	recorded; 110mm annual
Zhou-H et al. 2018	Caragana microphylla	Littleleaf Peashrub	Perennial desert shrub, legume			0.35			0.39	0.74	Linze Res Sta, Gansu Prov. CN	39.3500	100.1167	1374	5.00		foothill oases, GW access	dunes, fixed and mobile	coarse loose texture	BW	IsoSource, 4 members:	4	P=117mm, GW from mountains
Zhu-Jinfang et al. 2016	Ziziphus jujuba	jujube, red date, Chinese date	Deciduous broadleaf tree				0.14	0.12	0.13	0.13	Yellow Rvr Delta, Shandong Prov, CN	38.2278	117.9456	3	3.00		flooded grassland	coastal plain sand w/ shells	coarse sand	BS	O, IsoSource, 6 members: 0-	3	P=552mm, summer rain, WT locally rat-lon givellynot
Zhu-Lin et al. 2016	Medicago sativa	alfafa, lucerne	Perennial forb, legume						0.67	0.67	Prov, CN	37.9018	107.4839	1316	3.70		lower topo position	hilly transition	higher clay; gengle hilly alluvium	BS	O, IsoSource, 3	3	right; not on farm lands;
Zhu-Lin et al. 2016	Medicago sativa	alfafa, lucerne	Perennial forb, legume						0.40	0.40	Hillslope position-2 (mid), Yanchi, Ningxia Prov. CN	37.8852	107.4681	1324	6.10	mid		among Loess Plateau, Ordos	more sand/gravel, gentle hilly	BS	members: 0- 0.2, 0.2-3.5,	3	elevation outside range; mean of 4
Zhu-Lin et al. 2016	Medicago sativa	alfafa, lucerne	Perennial forb, legume						0.47	0.47	Hillslope position-3 (high), Yanchi, Ningxia Prov. CN	37.8679	107.4690	1328	7.70	higher topo position		Highland, Mu Us desert	more sand/gravel,	BS	3.5-4.5m (GW)	3	samples; >3.5m assumed GW
Zhu-Yajuan et al. 2016	Salix psammophila	sand willow	Deciduous broadleaf shrub			0.13			0.14	0.27	Qinghai Gonghe Desert	36.2729	100.2658	2874	<5m		inter-dune, access to WT	high inter-	inter-dune sandy loam	BS	U+H, IsoSource, 7 members:	4	GW from 5m
Zhu-Yajuan et al. 2016	Salix cheilophila	black willow	Deciduous broadleaf tree,			0.30			0.15	0.45	Qinghai Gonghe Desert Ecosys Res Sta, Qinghai	36.2729	100.2658	2874	<5m		inter-dune, access to WT	mountain valley oasis	inter-dune sandy loam	BS	0.1, 0.25, 0.5, 0.75, 1,	4	deep well; deep soil = >1.5m
		1	small								Prov. CN										1.5m, GW		

Zunzunegui et al. 2017	Argania spinosa	Argan, endemic	Evergreen broadleaf tree, small, small-leaf	0.92	0.56	0.74	0.74	inland-site, near Agad city, Morocco	r 30.3377	-9.4691	37	50.00	dry river terrace		terrace of broad alluvial valley	limestone	BS	O only; MixSIAR in R, 4	(10	authors xcluded GW Im deep); dry-
Zunzunegui et al. 2017	Argania spinosa	Argan, endemic	Evergreen broadleaf tree, small, small-leaf	0.96	0.31	0.64	0.64	coastal site, near Agadir city, Morocco	30.6021	-9.7760	8	15.00		coastal dune	coastal dunes	0.5m coarse soil on limestone		members: P, 0.25+0.5, 1, 1.5m	su	eason from ummer, wet rom spring.
528 measurements	>331 speices in >228 genera																11 water- stress types			