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Supplementary material

Appendix S1. Literature data of mean $\delta^{13}\text{C}$ in leaves of C_3 vegetation for 86 sites across the tropics and the boreal zone.

Site name	Lat. (deg. sec.)	Lon. (deg. sec.)	Alt. (m)	Ann. mean temp. ($^{\circ}\text{C}$)	Ann. preci. (cm)	Vegetation type	Mean $\delta^{13}\text{C}$ ratio (‰)	SD	Ref.	Notes
Rainfall gradient in Hawaiian Islands, USA										
1			1370	16	220	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-29.5	1.73	26	The average is for 4 dominant tree species
2			1370	16	245	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-29.3	1.51	26	The average is for 4 dominant tree species
3			1370	16	275	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-29.1	1.47	26	The average is for 4 dominant tree species
4			1320	16	335	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-29.7	1.39	26	The average is for 4 dominant tree species
5			1300	16	405	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-29.5	1.59	26	The average is for 4 dominant tree species
6			1270	16	505	Tropical montane <i>Metro-</i> <i>sideros</i> forest	-28.7	1.27	26	The average is for 4 dominant tree species
Rainfall gradient in Hawaiian Islands, USA										
Kaniku			700	19	50	Tropical <i>Metrosideros-</i> <i>Diospyros</i> forest	-25.6	0.52	1	The average is for 7 dominant tree species
Kaupulehu			680	19	90	Tropical <i>Diospyros</i> forest	-25.4	0.33	1	The average is for 6 dominant tree species
Manuka			710	19	150	Tropical <i>Metrosideros-</i> <i>Nestigs</i> forest	-28.4	0.66	1	The average is for 7 dominant tree species
Kaloko			705	19	200	Tropical <i>Metrosideros-</i> <i>Psychotria</i> forest	-29	0.5	1	The average is for 5 dominant tree species
Waiakea			710	19	550	Tropical <i>Metrosideros-</i> <i>Acacia</i> forest	-29.9	0.75	1	The average is for 6 dominant tree species
The Ituri River Basin, east Democratic Republic of Congo	N 01 23	E 28 35	700-850	25	170	Tropical Ituri forest	-30.86	2.59	7	The average is for 39 tree/liane species
Rondonia, Brazil	S 08 45	W 63 23		26	230	Tropical forest	-32.1	1.5	19	The average is for 208 trees from ca 100 species
Western Mexico, USA	N 10 30	W 105 03		74.8		Tropical dry forest	-27.1	1.2	22	The average is for trees and shrubs from 20 species

Dinghushan, south China	N 23 08	E 112 35	320	21.4	192.7	Subtropical monsoon evergreen forest	-30.85	0.9	10	The average is for closed canopy leaves from 4 dominant tree species
San Carlos do Rio Ne- gro, Venezuela	N 01 54	W 67 06	50-100	26	356.5	Tropical rainforest (pod- sol site)	-30.5	1.4	20	The average is for upper canopy leaves from 4 dominant tree species (>20 m)
Paracou, west Kourou, French Guiana	N 05 02	W 53 00	40	25	316	Tropical rainforest	-30.87	2.72	6	The average is for upper and middle canopy leaves from 10 tree species
Paracou, French Guiana	N 05 20	W 52 50	40	25.8	300	Tropical rainforest	-30.88	1.32	2	The average is for 64 plant species
St-Elie DVD, French Guiana	N 05 18	W 53 30	40	25.8	290	Tropical rainforest	-30.58	1.54	2	The average is for 46 plant species
St-Elie SLD, French Guiana	N 05 18	W 53 30	40	25.8	290	Tropical rainforest	-30.38	1.47	2	The average is for 54 plant species
San Emilio forest, Area de Conservation de Guanacaste, northwest- ern Costa Rica			300		150.3	Tropical dry forest	-29.94	1.1	16	The average is for 23 tree species
Barito Ulu Base Camp, central Kalimantan, Indonesia	S 00 04	E 114 01	50	28.1	370	Tropical heath forest	-30.74	0.55	23	The average is for 8 tree species
Barito Ulu Base Camp, central Kalimantan, Indonesia	S 00 04	E 114 01	50	28.1	370	Tropical rainforest	-30.82	0.95	23	The average is for 7 tree species
Ducke Forest Reserve, north Manaus, Brazil	S 03 09	W 59 59	150	26.6	260	Tropical rainforest (closed reserve)	-30.35	0.65	9	The average is for upper and middle canopy leaves
Ducke Forest Reserve, north Manaus, Brazil	S 03 09	W 59 59	150	26.6	260	Tropical rainforest (open reserve)	-29.99	0.52	9	The average is for upper and middle canopy leaves
Manaus, Brazil	S 02 19	W 60 19	120	26.6	220.9	Tropical rainforest	-30.8	0.51	14	The average is for 2 dominant tree species across four sites
Luquillo, Puerto Rico	N 18 19	W 65 45	450	22.7	381	Tropical rainforest	-29.6	1.88	21	The average is for canopy trees or saplings with height of >3 m from 10 species. Climate data obtained from Lugo et al. (1999), 18
Luquillo, Puerto Rico	N 18 18	W 65 47	725	20.8	372.5	The Colorado forest (montane rainforest)	-30.5	0.2	30	Climate data obtained from Lugo et al. (1999), 18
Luquillo, Puerto Rico	N 18 18	W 65 47	1000	19	450	The Dwarf forest (mon- tane rainforest)	-29.8	0.4	30	Climate data obtained from Lugo et al. (1999), 18

Luquillo, Puerto Rico	N 18 18	W 65 47	750	20	372.5	The Palm forest (montane rainforest)	-29.3	0.2	30	Climate data obtained from Lugo et al. (1999), 18
Luquillo, Puerto Rico	N 18 18	W 65 47	350	22.7	381	The Tabonuco forest (montane rainforest)	-30.7	0.2	30	Climate data obtained from Lugo et al. (1999), 18
Southwest Hokkaido, Japan	N 43 00	E 141 24	110-260	7.6	113	Temperate deciduous forest	-28.4	1.11	12	The average is for tree leaves in lower and upper canopies
Near Oak Ridge, east Tennessee, USA	N 35 58	W 84 17	14.2	14.2	140	Temperate deciduous forest	-28.81	0.71	11	Mean foliar $\delta^{13}\text{C}$ values pooled across species and sites, obtained from the text
Dongling Mt, Beijing, China	N 40 00	E 115 26	1150	4.8	61.2	Temperate deciduous forest	-26.55	1.11	31	The average is from measurements in July and August from 5 dominant tree/shrub species
Rainfall gradient in western Oregon, USA										
B	N 44 07	W 124 07	300	12.5	193	Temperate evergreen conifers	-30.25	0.5	3	The average is from measurements in sun and shade needles from 5 dominant tree species
C	N 44 35	W 123 35	290	12.5	168	Temperate evergreen conifers	-29	0.6	3	The average is from measurements in sun and shade needles from 5 dominant tree species
E	N 44 30	W 121 37	941	8.4	60.2	Temperate evergreen conifers	-27.15	0.4	3	The average is from measurements in sun and shade needles from 5 dominant tree species
F	N 44 18	W 121 20	930	8.4	21.7	Temperate evergreen conifers	-26.15	0.5	3	The average is from measurements in sun and shade needles from 5 dominant tree species
Prince Albert, Saskatchewan, Canada			600	-0.5	42	Boreal forest	-26.53	1.11	4	The average is from measurements in different leaf age classes of two dominant conifers
Thompson, Manitoba, Canada			200	-3.4	51.3	Boreal forest	-27.32	0.66	4	The average is from measurements in different leaf age classes of two dominant conifers
Unita Mts, east Salt Lake, Utah, USA	N 40 39	W 110 54	2800	1.5	91.6	<i>Pinus contorta</i> forest	-26.58	1.92	5	The average is for 3 tree species across stand sites with tree height of >2 m. Climate data obtained from US National Climate Data Center
Unita Mts, east Salt Lake, Utah, USA	N 40 34	W 111 02	2400	3.5	78.2	<i>Populus tremuloides</i> forest	-26.28	0.9	5	The average is for one tree species across stand sites with tree height of >2 m. Climate data obtained from US National Climate Data Center
Red Butte Canyon, east Salt Lake, Utah, USA	N 40 47	W 111 46	1700	9	51.3	<i>Acer</i> spp. forest	-27.59	1.6	5	The average is for 2 tree species across stand sites with tree height of >2 m. Climate data obtained from US National Climate Data Center
Bonner, Montana, USA	N 46 51	W 113 53	1158	6.8	43	Boreal conifers	-26	0.89	15	Climate data obtained from US National Climate Data Center

Lost Creek, Montana, USA	N 47 55	W 113 49	1012	5.8	72.6	Boreal conifers	-26.95	0.31	15	Climate data obtained from US National Climate Data Center
Savage Lake, Montana, USA	N 48 25	W 115 48	706	7	45.2	Boreal conifers	-27.93	0.41	15	Climate data obtained from US National Climate Data Center
Carlton Ridge, Montana, USA	N 46 42	W 114 10	2130	0.7	112.5	Boreal conifers	-26.24	0.86	15	Climate data obtained from US National Climate Data Center
Lake Tomahawk, Wisconsin, USA	N 45 46	W 89 34	482	4	81.5	Boreal conifers	-27.74	1.46	15	Climate data obtained from US National Climate Data Center
Fredericton, Canada	N 45 56	W 66 38	72	5.2	113.1	Boreal conifers	-27.06	2.16	15	Climate data obtained from the National Climate Data Archive of Canada
Candle Lake, Canada	N 52 00	W 105 00	556	0.8	40.1	Boreal conifers	-27.52	0.71	15	Climate data obtained from the National Climate Data Archive of Canada
Thompson, Canada	N 56 00	W 98 30	213	-3.4	53.6	Boreal conifers	-27.88	0.83	15	Climate data obtained from the National Climate Data Archive of Canada
Telnak, Russia	N 69 29	W 88 23	75	-9.8	96.2	Boreal conifers	-26.37	2.04	15	Climate data obtained from Global Historical Climatology Network (GHCN)
Norilsk, Russia	N 69 24	W 88 17	75	-10	98	Boreal conifers	-26.23	1.19	15	Climate data obtained from Global Historical Climatology Network (GHCN)
Rainfall gradient in Mallorca, Spain										
Caimari			350		84.1	Mediterranean shrubs	-27.77	0.3	13	Mean precipitation during 1993–1994 in the literature
Bimifaldo			600		84.1	Mediterranean shrubs	-27.54	0.51	13	Mean precipitation during 1993–1994 in the literature
Son Roca			200		60.9	Mediterranean shrubs	-27.5	0.29	13	Mean precipitation during 1993–1994 in the literature
Son Serra			100		60	Mediterranean shrubs	-26.36	0.13	13	Mean precipitation during 1993–1994 in the literature
Son Muleta			100		52.5	Mediterranean shrubs	-26.56	0.49	13	Mean precipitation during 1993–1994 in the literature
Cabo Capdepera			50		51.7	Mediterranean shrubs	-26.99	0.37	13	Mean precipitation during 1993–1994 in the literature
Lloret			150		47.6	Mediterranean shrubs	-25.62	0.15	13	Mean precipitation during 1993–1994 in the literature
Cabo Blanco			25		37.5	Mediterranean shrubs	-26.31	0.27	13	Mean precipitation during 1993–1994 in the literature
Cabo de Salinas			10		35.2	Mediterranean shrubs	-27.77	0.23	13	Mean precipitation during 1993–1994 in the literature
Rainfall gradient in southern France										
La Cadiere	N 43 35	E 03 58	250	14.2	96.1	Mediterranean shrubs	-27.9	0.92	8	The average is for two dominant shrub species
Vailhan	N 43 35	E 03 58	186	13.1	73.9	Mediterranean shrubs	-27.7	0.78	8	The average is for two dominant shrub species
Saint Martin	N 43 35	E 03 58	250	12.5	87.9	Mediterranean shrubs	-27.3	0.98	8	The average is for two dominant shrub species
Beziers	N 43 35	E 03 58	25	14.3	68.9	Mediterranean shrubs	-26.7	0.92	8	The average is for two dominant shrub species
Salt Lake, Utah, USA	N 40.8	W 111.9	1515–1650	9.5	51.3	Temperate grassland	-27.45	0.96	27	The average is for 42 grassland species
Namibia transect	S 20.1	E 18.05			45	C3 grass	-26.77	0.76	24	The average for all annual and perennial C3 grasses
Namibia transect	S 20.1	E 18.05			55	C3 grass	-27.2	1.37	24	The average for all annual and perennial C3 grasses

Haibei, north Qinghai, China	N 37.37	E 101.23	3200	-1.7	58.9	Alpine meadow	-26.51	0.87	32	The average is for 102 plant species
Maduo, southeast Qinghai, China	N 35	E 98.5	4300	-4.3	30.8	Alpine steppe	-26.75	0.72	17	The average is for 62 plant species
Rainfall gradient in southern Africa										
Lukulu	S 14.42	E 23.52		20	97	C3 vegetation	-28	1.1	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Senanga	S 15.86	E 23.34		20	81	C3 vegetation	-26.9	1.9	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Maziba	S 16.74	E 23.61		20	74	C3 vegetation	-27.8	1.8	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
KNP	S 25.17	E 31.27		20	65	C3 vegetation	-25.7	1.8	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Rustenburg	S 25.60	E 27.20		20	65	C3 vegetation	-26.7	1.8	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Maun	S 19.92	E 23.59		21	46	C3 vegetation	-26.8	1.9	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Sanveld	S 22.02	E 19.17		21	41	C3 vegetation	-26.2	0.3	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Okwa	S 22.41	E 21.71		21	40.7	C3 vegetation	-27.2	1.3	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >
Grooфонтеин	S 19.16	E 18.10		21	39	C3 vegetation	-26	1.3	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >

ENP	S 19.00	E 16.00	21	34	C3 vegetation	-24.6	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >	
Vastrap	S 27.75	E 21.42	20	23	C3 vegetation	-23.2	29	Precipitation data are from the literature. Temperature data 1961–1990 obtained from South African Weather Service online at < http://www.weathersa.co.za/climstats/lange-baan_stats.html >	
Rainfall gradient in southern Queensland, Australia									
Currawinya NP	S 28.8	E 144.6	21.1	29.4	Mulga <i>Acacia aneura</i>	-26.6	1.3	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Idalia NP	S 24.5	E 145.0	22.8	45	Brigalow <i>Acacia harpophylla</i>	-25.6	1.3	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Bell/Jandowae	S 26.8	E 151.5	17.6	67.2	Open savannah woodland	-28	1.5	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Mt Berriman	S 27.7	E 152.4	19.9	83.6	Dry rainforest/vine thicket	-28.9	1.3	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Gambubal SF	S 28.2	E 152.5	18.8	119.9	Subtropical rainforest	-30	1.9	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Coominya	S 27.2	E 152.5	19.8	82.2	<i>Eucalyptus</i> spp. Open forest	-27.2	1.1	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Mt Glorious	S 27.3	E 152.7	17.3	168.7	Subtropical rainforest	-30.6	1.8	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Pine Mountain	S 27.5	E 152.8	20.4	88.2	Dry rainforest	-27.3	1.7	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Mt Coot-tha	S 27.5	E 152.9	20.4	124.6	<i>Eucalyptus</i> spp. Open forest	-28.7	0.5	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Beerwah SF	S 26.9	E 152.9	18.9	161.6	Wet coastal heath land	-29.3	1	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Loganholme	S 27.8	E 153.1	19.5	124.4	<i>Melaleuca</i> sp. Swamp	-28.9	1.3	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology

Lamington NP	S 28.3	E 153.2	19.3	164.5	Subtropical rainforest	-31.2	2.1	28	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Rainfall gradient along Northern Australian Territory Transect									
Melville	S 11 46	E 130 52	27.2	180.1	Tall open forest/plantation	-27.46	1.39	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Darwin	S 12 25	E 130 52	27.5	169.3	Plantation	-27.26	1.25	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Kapalga	S 12 41	E 132 23	27	134.4	Open forest	-27.27	1.2	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Katherine	S 14 18	E 132 05	27.2	97	Open forest	-26.31	1.43	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Victoria R.	S 15 35	E 131 06	28.1	80.3	Woodland	-26.57	1.81	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Kidman Springs	S 16 07	E 130 55	27.1	59	Open woodland	-27.11	1.24	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Mr Sanford	S 17 18	E 130 45	26.5	47.2	Spinifex woodland	-27.17	1	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Tennant Creek 1	S 17 44	E 133 38	26.8	48.5	Spinifex woodland	-27.72	0.45	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Tennant Creek 2, 3	S 20 21 to S 21 08	E 134 14 to E 134 09	25.4	34.2	Spinifex woodland	-26.67	0.85	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Sandy Blight Jct. and Kintore	S 23 13 to S 23 22	E 129 53 to E 129 22	22.9	32.9	Spinifex woodland	-26.08	1.19	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Tyler Pass	S 23 40	E 132 21	20.7	21.6	Spinifex woodland	-24.88	0.97	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology
Giles and Giles Jct.	S 25 02 to S 25 08	E 128 18 to E 128 33	22.6	24.5	Spinifex woodland	-25.35	1.31	25	Precipitation data are from the literature. Temperature data estimated from long-term observations in nearest stations, Australian Bureau of Meteorology

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Appendix S2. Satellite-based annual total NPP (MODIS NPP, including aboveground and belowground) for 46 sites obtained from the MOD17 product by Running et al. (2002). The related latitudes, longitudes, and mean foliar $\delta^{13}\text{C}$ (‰) are available from Appendix S1 according to the reference no. The annual C-mass unit of MODIS NPP was converted into annual dry matter NPP using a carbon/biomass ratio of 0.5.

Site name	Latitude deg. sec.	Longitude deg. sec.	Altitude (m)	Mean foliar $\delta^{13}\text{C}$ (‰)	NPP (Mg DM ha ⁻¹ yr ⁻¹)	Ref.
San Carlos do Rio Negro, Venezuela	N 01 54	W 67 06	50–100	–30.5	18.56	20
Paracou, west Kourou, French Guiana	N 05 02	W 53 00	40	–30.87	22.76	6
Paracou, French Guiana	N 05 20	W 52 50	40	–30.88	22.98	2
St-Elie DVD, French Guiana	N 05 18	W 53 30	40	–30.58	22.50	2
St-Elie SLD, French Guiana	N 05 18	W 53 30	40	–30.38	22.50	2
Ducke Forest Reserve, north Manaus, Brazil	S 03 09	W 59 59	150	–30.35	19.10	9
Ducke Forest Reserve, north Manaus, Brazil	S 03 09	W 59 59	150	–29.99	19.10	9
Manaus, Brazil	S 02 19	W 60 19	120	–30.8	22.92	14
Luquillo, Puerto Rico	N 18 19	W 65 45	450	–29.6	10.58	21
Dongling Mt, Beijing, China	N 40 00	E 115 26	1150	–26.55	8.70	31
Rainfall gradient in western Oregon, USA:						
Site E	N 44 30	W 121 37	941	–27.15	4.78	3
Site F	N 44 18	W 121 20	930	–26.15	6.42	3
Unita Mts, east Salt Lake, Utah, USA	N 40 39	W 110 54	2800	–26.58	11.48	5
Unita Mts, east Salt Lake, Utah, USA	N 40 34	W 111 02	2400	–26.28	4.00	5
Red Butte Canyon, east Salt Lake, Utah, USA	N 40 47	W 111 46	1700	–27.59	11.46	5
Bonner, Montana, USA	N 46 51	W 113 53	1158	–26	9.84	15
Lost Creek, Montana, USA	N 47 55	W 113 49	1012	–26.95	11.70	15
Savage Lake, Montana, USA	N 48 25	W 115 48	706	–27.93	14.76	15
Carlton Ridge, Montana, USA	N 46 42	W 114 10	2130	–26.24	9.32	15
Lake Tomahawk, Wisconsin, USA	N 45 46	W 89 34	482	–27.74	8.06	15
Thompson, Canada	N 56 00	W 98 30	213	–27.88	9.02	15
Rainfall gradient in southern France:						
Beziers	N 43 35	E 03 58	25	–26.7	0.94	8
Salt Lake, Utah, USA	N 40.8	W 111.9	1515–1650	–27.45	10.96	27
Namibia transect	S 20.1	E 18.05		–26.77	3.48	24
Namibia transect	S 20.1	E 18.05		–27.2	3.48	24
Haibei, north Qinghai, China	N 37 37	E 101 23	3200	–26.51	12.44	32
Maduo, southeast Qinghai, China	N 35	E 98.5	4300	–26.75	11.46	17

Rainfall gradient in southern Africa:

Lukulu	S 14.42	E 23.52	-28	5.74	29
Senanga	S 15.86	E 23.34	-26.9	9.96	29
Maziba	S 16.74	E 23.61	-27.8	5.66	29
Maun	S 19.92	E 23.59	-26.8	5.76	29
Sanveld	S 22.02	E 19.17	-26.2	3.84	29
Okwa	S 22.41	E 21.71	-27.2	5.46	29
Grootfontein	S 19.16	E 18.10	-26	3.76	29

Rainfall gradient along Northern Australian Territory Transect:

Darwin	S 12 25	E 130 52	-27.26	0.22	25
Kapalga	S 12 41	E 132 23	-27.27	0.48	25
Katherine	S 14 18	E 132 05	-26.31	0.14	25
Victoria R.	S 15 35	E 131 06	-26.57	0.26	25
Kidman Springs	S 16 07	E 130 55	-27.11	0.44	25
Mt Sanford	S 17 18	E 130 45	-27.17	0.42	25
Tennant Creek 1	S 17 44	E 133 38	-27.72	1.66	25
Tennant Creek 2, 3	S 20 21 to S 21 08	E 134 14 to E 134 09	-26.67	4.92	25
Sandy Blight Jct. and Kintore	S 23 13 to S 23 22	E 129 53 to E 129 22	-26.08	4.38	25
Tyler Pass	S 23 40	E 132 21	-24.88	4.82	25
Giles and Giles Jct.	S 25 02 to S 25 08	E 128 18 to E 128 33	-25.35	5.08	25
Mt Miller, Olgas and Ayers Rock	S 25 04 to S 25 20	E 129 34 to 131 01	-25.59	6.62	25
