Supplemental Information for "Sulphur Isotopes in the central Namib Desert ecosystem"
Soderberg et al., Transactions of the Royal Society of South Africa

This supplemental set of data includes all of the sample data depicted in Figures 2 and 3 as well as information for samples that did not have quantitated $\delta^{34}\text{S}$ values. It comprises four tables, one for each sample type: aerosols, soils, plants, and water.

Table S1: Aerosol samples. All samples were collected at Gobabeb (-23.560504 S Latitude, 15.037733 E Longitude), 1.5 m above ground with a ground surface elevation of 395 m above mean sea level.

Sample Set	Start Date and Time	End Date and Time	Duration [hours]	Volume Pumped [m ³]	Cascade Impactor Stage ¹	$\delta^{34}\text{S}$ [‰]	Total S Flag	Sample Number	Wind Direction ²	Conditions	Average Wind Speed ³ [m/s]	Maximum Wind Speed [m/s]
HC-N1	6/21/2009 17:45	6/22/2009 6:00	12.22	767.7	3	NQ	T	A157	233	Clear	2.8	5.4
HC-N1	6/21/2009 17:45	6/22/2009 6:00	12.22	767.7	4	1.7	T	A155	233	Clear	2.8	5.4
HC-N1	6/21/2009 17:45	6/22/2009 6:00	12.22	767.7	5	11.3		A156	233	Clear	2.8	5.4
HC-D1	6/22/2009 7:35	6/22/2009 18:15	5.86	366.8	1	NQ	T	A162	178	Rain	1.5	5.8
HC-D1	6/22/2009 7:35	6/22/2009 18:15	5.86	366.8	3	8.4		A161	178	Rain	1.5	5.8
HC-D1	6/22/2009 7:35	6/22/2009 18:15	5.86	366.8	4	NQ	T	A160	178	Rain	1.5	5.8
HC-D1	6/22/2009 7:35	6/22/2009 18:15	5.86	366.8	5	4.1		A159	178	Rain	1.5	5.8
HC-N2	6/22/2009 19:00	6/23/2009 6:30	11.49	722.9	1	NQ	U	A166	236	Fog	2.5	6.3
HC-N2	6/22/2009 19:00	6/23/2009 6:30	11.49	722.9	3	NQ	NA	A165	236	Fog	2.5	6.3
HC-N2	6/22/2009 19:00	6/23/2009 6:30	11.49	722.9	4	NQ	NA	A164	236	Fog	2.5	6.3
HC-N2	6/22/2009 19:00	6/23/2009 6:30	11.49	722.9	5	NQ	NA	A163	236	Fog	2.5	6.3
HC-D2	6/23/2009 7:20	6/23/2009 18:00	10.67	669.1	1	NQ	T	A170	248	Fog	0.4	4
HC-D2	6/23/2009 7:20	6/23/2009 18:00	10.67	669.1	3	13.7		A169	248	Fog	0.4	4
HC-D2	6/23/2009 7:20	6/23/2009 18:00	10.67	669.1	5	12.6	T	A167	248	Fog	0.4	4
HC-N3	6/23/2009 18:40	6/24/2009 6:50	12.15	766.6	1	NQ	T	A174	245	Clear	3.1	8.9
HC-N3	6/23/2009 18:40	6/24/2009 6:50	12.15	766.6	3	NQ	T	A173	245	Clear	3.1	8.9
HC-N3	6/23/2009 18:40	6/24/2009 6:50	12.15	766.6	4	13.2	U	A172	245	Clear	3.1	8.9
HC-N3	6/23/2009 18:40	6/24/2009 6:50	12.15	766.6	5	NQ	U	A171	245	Clear	3.1	8.9
HC-D3	6/24/2009 7:35	6/24/2009 17:40	9.98	626.2	1	8.4	T	A178	180	Clear	1.2	4
HC-D3	6/24/2009 7:35	6/24/2009 17:40	9.98	626.2	3	9.3		A177	180	Clear	1.2	4
HC-D3	6/24/2009 7:35	6/24/2009 17:40	9.98	626.2	4	NQ	U	A176	180	Clear	1.2	4
HC-D3	6/24/2009 7:35	6/24/2009 17:40	9.98	626.2	5	19.6	T	A175	180	Clear	1.2	4
HC-N4	6/24/2009 19:15	6/25/2009 7:05	11.77	744.3	1	13.6		A186	147	Clear/Windy	2.6	9.8
HC-N4	6/24/2009 19:15	6/25/2009 7:05	11.77	744.3	3	13.8		A185	147	Clear/Windy	2.6	9.8
HC-N4	6/24/2009 19:15	6/25/2009 7:05	11.77	744.3	4	14.9		A184	147	Clear/Windy	2.6	9.8
HC-N4	6/24/2009 19:15	6/25/2009 7:05	11.77	744.3	5	3.0	T	A183	147	Clear/Windy	2.6	9.8
HC-D4	6/25/2009 8:15	6/25/2009 17:55	9.74	610.4	1	22.1	T	A190	157	Clear/Windy	2.3	9.4
HC-D4	6/25/2009 8:15	6/25/2009 17:55	9.74	610.4	3	NQ	T	A189	157	Clear/Windy	2.3	9.4
HC-D4	6/25/2009 8:15	6/25/2009 17:55	9.74	610.4	5	NQ	T	A187	157	Clear/Windy	2.3	9.4
HC-N5	6/25/2009 20:45	6/26/2009 7:05	10.31	650.2	1	14.8	T	A195	171	Clear/Windy	3.1	10.7
HC-N5	6/25/2009 20:45	6/26/2009 7:05	10.31	650.2	3	15.9		A194	171	Clear/Windy	3.1	10.7
HC-N5	6/25/2009 20:45	6/26/2009 7:05	10.31	650.2	4	15.2		A193	171	Clear/Windy	3.1	10.7
HC-N5	6/25/2009 20:45	6/26/2009 7:05	10.31	650.2	5	NQ	T	A191	171	Clear/Windy	3.1	10.7
HC-D5	6/26/2009 8:00	6/26/2009 18:20	10.31	631.6	1	NQ	T	A101	149	Clear/Windy	1.9	6.3
HC-D5	6/26/2009 8:00	6/26/2009 18:20	10.31	631.6	3	25.1	T	A100	149	Clear/Windy	1.9	6.3
HC-D5	6/26/2009 8:00	6/26/2009 18:20	10.31	631.6	4	NQ	U	A198	149	Clear/Windy	1.9	6.3
HC-D5	6/26/2009 8:00	6/26/2009 18:20	10.31	631.6	5	15.5	T	A196	149	Clear/Windy	1.9	6.3
HC-N6	6/26/2009 19:30	6/27/2009 7:55	12.47	785.9	1	NQ		A105	171	Clear/Windy	2.1	8
HC-N6	6/26/2009 19:30	6/27/2009 7:55	12.47	785.9	3	24.4		A104	171	Clear/Windy	2.1	8
HC-N6	6/26/2009 19:30	6/27/2009 7:55	12.47	785.9	4	6.3		A103	171	Clear/Windy	2.1	8
HC-N6	6/26/2009 19:30	6/27/2009 7:55	12.47	785.9	5	15.0		A102	171	Clear/Windy	2.1	8
HC-D6	6/27/2009 8:40	6/27/2009 19:25	10.77	660.7	1	8.7	T	A109	143	Clear/Windy	4	9.8
HC-D6	6/27/2009 8:40	6/27/2009 19:25	10.77	660.7	3	14.2	T	A108	143	Clear/Windy	4	9.8
HC-D6	6/27/2009 8:40	6/27/2009 19:25	10.77	660.7	4	6.6	T	A107	143	Clear/Windy	4	9.8
HC-D6	6/27/2009 8:40	6/27/2009 19:25	10.77	660.7	5	5.9		A106	143	Clear/Windy	4	9.8
HC-N7	6/27/2009 21:05	6/28/2009 7:35	10.53	652.4	1	NQ	T	A113	89	Clear/Windy	4.9	12.5
HC-N7	6/27/2009 21:05	6/28/2009 7:35	10.53	652.4	3	6.8	T	A112	89	Clear/Windy	4.9	12.5
HC-N7	6/27/2009 21:05	6/28/2009 7:35	10.53	652.4	4	8.1	T	A111	89	Clear/Windy	4.9	12.5
HC-N7	6/27/2009 21:05	6/28/2009 7:35	10.53	652.4	5	14.7		A110	89	Clear/Windy	4.9	12.5
HC-D7	6/28/2009 8:20	6/28/2009 19:05	10.74	647.3	1	NQ	NA	A117	125	Clear/Windy	4.7	9.4
HC-D7	6/28/2009 8:20	6/28/2009 19:05	10.74	647.3	3	17.4		A116	125	Clear/Windy	4.7	9.4
HC-D7	6/28/2009 8:20	6/28/2009 19:05	10.74	647.3	4	9.6		A115	125	Clear/Windy	4.7	9.4
HC-D7	6/28/2009 8:20	6/28/2009 19:05	10.74	647.3	5	13.4		A114	125	Clear/Windy	4.7	9.4
HC-N8	6/28/2009 19:45	6/29/2009 7:25	11.63	723.0	1	12.3	T	A121	140	Clear/Windy	2	6.7
HC-N8	6/28/2009 19:45	6/29/2009 7:25	11.63	723.0	3	17.7		A120	140	Clear/Windy	2	6.7
HC-N8	6/28/2009 19:45	6/29/2009 7:25	11.63	723.0	4	14.1		A119	140	Clear/Windy	2	6.7
HC-N8	6/28/2009 19:45	6/29/2009 7:25	11.63	723.0	5	17.8		A118	140	Clear/Windy	2	6.7
HC-D8	6/29/2009 8:05	6/29/2009 18:45	10.67	659.1	1	8.4	T	A125	120	Clear/Windy	3.6	9.8
HC-D8	6/29/2009 8:05	6/29/2009 18:45	10.67	659.1	3	22.6		A124	120	Clear/Windy	3.6	9.8
HC-D8	6/29/2009 8:05	6/29/2009 18:45	10.67	659.1	4	8.9		A123	120	Clear/Windy	3.6	9.8
HC-D8	6/29/2009 8:05	6/29/2009 18:45	10.67	659.1	5	2.7		A122	120	Clear/Windy	3.6	9.8
HC-N9	6/29/2009 19:35	6/30/2009 6:00	10.42	662.8	1	14.8	T	A129	130	Clear/Windy	3.7	11.6
HC-N9	6/29/2009 19:35	6/30/2009 6:00	10.42	662.8	3	17.9		A128	130	Clear/Windy	3.7	11.6
HC-N9	6/29/2009 19:35	6/30/2009 6:00	10.42	662.8	4	9.8		A127	130	Clear/Windy	3.7	11.6
HC-N9	6/29/2009 19:35	6/30/2009 6:00	10.42	662.8	5	4.3		A126	130	Clear/Windy	3.7	11.6
HC-D9	7/1/2009 7:45	7/1/2009 19:00	11.15	676.5	1	NQ	T	A137	113	Clear/Windy	2.4	9.8
HC-D9	7/1/2009 7:45	7/1/2009 19:00	11.15	676.5	3	6.0	T	A136	113	Clear/Windy	2.4	9.8
HC-D9	7/1/2009 7:45	7/1/2009 19:00	11.15	676.5	5	5.1		A134	113	Clear/Windy	2.4	9.8
HC-N10	7/1/2009 19:45	7/2/2009 8:00	12.19	761.3	1	20.9	T	A153	164	Clear/Windy	4.1	9.8
HC-N10	7/1/2009 19:45	7/2/2009 8:00	12.19	761.3	3	6.8		A152	164	Clear/Windy	4.1	9.8
HC-N10	7/1/2009 19:45	7/2/2009 8:00	12.19	761.3	4	9.3		A151	164	Clear/Windy	4.1	9.8
HC-N10	7/1/2009 19:45	7/2/2009 8:00	12.19	761.3	5	2.5		A150	164	Clear/Windy	4.1	9.8
HC-D10	7/2/2009 8:45	7/2/2009 18:45	9.98	607.7	1	15.6		A141	133	Clear/Windy	2.6	8
HC-D10	7/2/2009 8:45	7/2/2009 18:45	9.98	607.7	3	12.6 (11.5,13.7) ^a		A140	133	Clear/Windy	2.6	8
						9.3 (9.9,8.7)						
HC-D10	7/2/2009 8:45	7/2/2009 18:45	9.98	607.7	4			A139	133	Clear/Windy	2.6	8
HC-D10	7/2/2009 8:45	7/2/2009 18:45	9.98	607.7	5	4.5		A138	133	Clear/Windy	2.6	8

T = Trace (total sulphur of the analysed sample aliquot was between 2.15 and 3.43 ug)

U = Below detection (total sulphur of the analysed sample aliquot was below 2.15 ug)

NA = Total sulfur not determined

NQ = $\delta^{34}\text{S}$ not quantitated

1 - The corresponding mean aerodynamic particle diameters are 7.6, 1.5, 1.0, and 0.5 μm for Stages 1, 3, 4, and 5, respectively

2 - mean of 30-minute average wind direction (degrees, with North=0 and East=90)

3 - mean of 30-minute average wind speed (m/s)

a - The reported value is the mean of replicates shown in parentheses

Table S2: Soil Samples.

Location	Location Description	Sample Depth [cm]	Date Sampled	Longitude [decimal degrees]	Latitude [decimal degrees]	Ground Surface Elevation [mamsl]	$\delta^{34}\text{S}$ [‰]	Total S [mg/kg]	Total S Flag	Sample Number
Gobabeb	Dune	1 to 3	4-Jul-2008	15.012265	-23.565859	401	17.2	70	T	B87
Gobabeb	Dune	0 to 2	20-Oct-2007	15.018116	-23.562896	479	17.7	67		B27
Gobabeb	Dune	1 to 3	4-Jul-2008	15.018116	-23.562896	479	22.0	59	T	B88
Gobabeb	Dune	1 to 3	5-Jul-2008	15.018196	-23.563048	474	NQ	<64	U	B98
Gobabeb	Dune	0 to 2	20-Oct-2007	15.018270	-23.563883	467	15.6	41	T	B24
Gobabeb	Dune	1 to 3	4-Jul-2008	15.020251	-23.561799	471	NQ	<67	U	B93
Gobabeb	Dune	50 to 55	29-Jun-2008	15.020359	-23.561859	469	20.1	NA		B54
Gobabeb	Dune	1 to 3	4-Jul-2008	15.020359	-23.561859	469	NQ	<62	U	B91
Gobabeb	Interdune Valley	0 to 2	20-Oct-2007	15.035108	-23.564640	400	23.2	46	T	B25
Gobabeb	Interdune Valley	1 to 3	2-Jul-2008	15.035108	-23.564640	400	25.6	48	T	B70
Gobabeb	Kuiseb Riverbed	0 to 2	7-Oct-2007	15.036984	-23.561536	397	18.1	78	T	B14
Gobabeb	Kuiseb Riverbed	0 to 2	7-Oct-2007	15.036984	-23.561536	397	10.9	78	T	B6
Gobabeb	Kuiseb Riverbed	0 to 2	21-Oct-2007	15.037926	-23.562228	395	5.4	184		B31
Gobabeb	Kuiseb Riverbed	8 to 12	21-Oct-2007	15.037926	-23.562228	395	4.9	182		B32
Gobabeb	Kuiseb Riverbed	1 to 3	2-Jul-2008	15.037926	-23.562228	395	7.8	105		B69
Gobabeb	Kuiseb Riverbed	1 to 3	4-Jul-2008	15.037926	-23.562228	395	6.3	70		B80
Hope Mine	Gravel Plains	20 to 25	13-Jul-2007	15.258720	-23.571420	587	12.4 (11.1,13.6) ^a	97		B302
Hope Mine	Gravel Plains	50 to 60	13-Jul-2007	15.258720	-23.571420	587	16.5	116		B303
Hope Mine	Gravel Plains	100 to 110	13-Jul-2007	15.258720	-23.571420	587	14.7 (14.8,14.6)	177		B304
Hope Mine	Gravel Plains	20 to 25	10-Oct-2007	15.259960	-23.569830	594	17.2 (18.7,15.8)	158		B309
Ubib ¹	Gravel Plains Playa	20	20-May-2007	15.186211	-23.119736	582	15.2 (13.9,16.4)	35100		B313
Swartbankberg	Gravel Plains Inselberg	0 to 2	18-Dec-2007	14.810159	-23.318287	328	14.6	237		B42
Swartbankberg	Gravel Plains Inselberg	0 to 2	18-Dec-2007	14.812594	-23.320394	386	16.0	1420		B44
Swartbankberg	Gravel Plains Inselberg	0 to 2	18-Dec-2007	14.812843	-23.319219	361	17.7	191		B45
Swartbankberg	Gravel Plains Inselberg	0 to 2	18-Dec-2007	14.813155	-23.319070	354	12.3	293		B46
Swartbankberg	Gravel Plains Inselberg	0 to 2	18-Dec-2007	14.818315	-23.325624	356	15.6	98		B43

T = Trace (total sulphur of the analysed sample aliquot was between 2.15 and 3.43 ug)

U = Below detection (total sulphur of the analysed sample aliquot was below 2.15 ug)

NA = Total sulfur not determined

NQ = $\delta^{34}\text{S}$ not quantitated

1 - Gypsum sample collected with and identified by F. Eckardt; the location is a large playa approximately 4 km southwest of the Ubib East location of Eckardt and Spiro (1999)

mamsl = meters above mean sea level

a - The reported value is the mean of replicates shown in parentheses

Table S3: Plant Samples

Location	Location Description	Plant Species	Plant Part	Date Sampled	Longitude [decimal degrees]	Latitude [decimal degrees]	Ground Surface Elevation [mams]	$\delta^{34}\text{S}$ [‰]	Total S [mg/kg]	Total S Flag	Water Content [%] ^a	Sample Number
Gobabeb	Riverbed	<i>Acacia erioloba</i>	Stem ¹	9-Oct-2007	15.036984	-23.561536	397	11.8	NA		40%	V69
Gobabeb	Riverbed	<i>Acacia erioloba</i>	Stem ¹	21-Oct-2007	15.036984	-23.561536	397	8.9 (8.2,9.5) ^a	1380		42%	V109
Gobabeb	Riverbed	<i>Acacia erioloba</i>	Stem ²	25-Jun-2008	15.034697	-23.564470	394	11.4	NA		41%	V371
Gobabeb	Gravel Plains	<i>Acacia erioloba</i>	Stem ²	29-Jun-2008	15.058692	-23.558591	420	15.5 (15.4,15.5)	773		49%	V407
Gobabeb	Riverbed	<i>Acacia erioloba</i>	Stem ²	1-Jul-2008	15.048243	-23.565294	399	7.5	NA		41%	V528
Swartbank	Riverbed	<i>Acacia erioloba</i>	Stem ¹	10-Nov-2007	14.815818	-23.348808	263	12.2 (13.2,11.2)	1720		41%	V124
Swartbank	Riverbed	<i>Acacia erioloba</i>	Stem ¹	19-Dec-2007	14.815818	-23.348808	263	15.2	1690		41%	V298
Swartbank	Riverbed	<i>Acacia erioloba</i>	Stem ²	1-Jul-2008	14.764096	-23.323107	238	13.9	NA		39%	V439
Gobabeb	Dune	<i>Acanthosicyos horridus</i>	Leaf	13-Nov-2007	15.035108	-23.564640	400	18.2	6440		70%	V202
Gobabeb	Dune	<i>Acanthosicyos horridus</i>	Leaf	13-Nov-2007	15.034614	-23.564819	402	15.8 (14.6,17.0)	4970		71%	V203
Gobabeb	Dune	<i>Acanthosicyos horridus</i>	Leaf	3-Jul-2008	15.035108	-23.564640	400	14.6 (12.8,16.4)	NA		72%	V484
Swartbank	Dune	<i>Acanthosicyos horridus</i>	Leaf	1-Jul-2008	14.762970	-23.323392	238	15.0	NA		72%	V441
Swartbank	Dune	<i>Acanthosicyos horridus</i>	Stem ²	1-Jul-2008	14.761111	-23.323516	250	14.6 (14.9,14.4)	1650		76%	V418
Swartbank	Inselberg	<i>Arthroa leubnitziae</i>	Leaf	10-Nov-2007	14.810159	-23.318287	328	16.4	2430		71%	V116
Swartbank	Inselberg	<i>Arthroa leubnitziae</i>	Stem ¹	10-Nov-2007	14.810159	-23.318287	328	16.5	8320		50%	V115
Swartbank	Inselberg	<i>Arthroa leubnitziae</i>	Stem ¹	18-Dec-2007	14.813215	-23.320630	403	16.1	NA		42%	V264
Swartbank	Inselberg	<i>Arthroa leubnitziae</i>	Stem ¹	18-Dec-2007	14.813458	-23.321740	422	15.1	6100		43%	V260
Gobabeb	Gravel Plains	<i>Calicorema capitata</i>	Leaf	29-Jun-2008	15.060155	-23.558401	426	14.1 (14.3,13.9)	1210		59%	V415
Gobabeb	Gravel Plains	<i>Calicorema capitata</i>	Stem ²	29-Jun-2008	15.060155	-23.558401	426	13.7 (13.9,13.5)	662		42%	V436
Gobabeb	Riverbed	<i>Faidherbia albida</i>	Leaf	21-Oct-2007	15.037649	-23.562182	397	9.9	NA		62%	V107
Gobabeb	Riverbed	<i>Faidherbia albida</i>	Leaf	3-Jan-2009	15.037649	-23.562182	397	10.9	NA		56%	V600
Gobabeb	Riverbed	<i>Faidherbia albida</i>	Stem ¹	15-Nov-2007	15.037649	-23.562182	397	9.2	3460		55%	V217
Gobabeb	Riverbed	<i>Faidherbia albida</i>	Stem ¹	1-Jul-2008	15.048843	-23.565569	387	11.8	NA		58%	V343
Gobabeb	Riverbed	<i>Faidherbia albida</i>	Stem ¹	3-Jan-2009	15.037649	-23.562182	397	11.6	NA		42%	V601
Swartbank	Riverbed	<i>Faidherbia albida</i>	Stem ¹	10-Nov-2007	14.815509	-23.346660	268	12.9 (15.2,10.5)	237	T	52%	V127
Swartbank	Riverbed	<i>Faidherbia albida</i>	Stem ¹	19-Dec-2007	14.815509	-23.346660	268	12.6	2070		57%	V301
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Lateral Root	20-Oct-2007	15.018270	-23.563883	467	13.4	NA		39%	V76
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Lateral Root	22-Jun-2008	15.012266	-23.565977	398	17.0	783		53%	V351
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Lateral Root	22-Jun-2008	15.014258	-23.565171	417	14.4	969		60%	V353
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Leaf	11-Nov-2007	15.020359	-23.561859	469	15.5	1340		49%	V142
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Leaf	2-Jan-2009	15.018196	-23.563048	474	15.0	1220		49%	V609
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ²	20-Oct-2007	15.018270	-23.563883	467	14.2	NA		52%	V77
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ¹	11-Nov-2007	15.020359	-23.561859	469	18.7	473		51%	V143
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ¹	11-Nov-2007	15.010005	-23.602854	451	13.1	422		55%	V152
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ²	17-Dec-2007	15.012265	-23.565859	401	16.8	1220		41%	V245
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ²	17-Dec-2007	15.020359	-23.561859	469	16.2	571		54%	V258
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ²	22-Jun-2008	15.012266	-23.565977	398	20.3	695		49%	V352
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ¹	22-Jun-2008	15.020359	-23.561859	469	19.3	499		51%	V349
Gobabeb	Dune	<i>Stipagrostis sabulicola</i>	Stem ¹	28-Jun-2008	15.012266	-23.565977	398	16.8	1300		41%	V385
Rooibank	Dune	<i>Stipagrostis sabulicola</i>	Leaf	12-Nov-2007	14.631063	-23.183734	117	13.8	1370		44%	V156
Rooibank	Dune	<i>Stipagrostis sabulicola</i>	Stem ¹	12-Nov-2007	14.631063	-23.183734	117	14.6	884		54%	V157
Gobabeb	Riverbed	<i>Tamarix usneoides</i>	Leaf	21-Oct-2007	15.037926	-23.562228	395	7.2	9760		57%	V104
Gobabeb	Riverbed	<i>Tamarix usneoides</i>	Stem ¹	21-Oct-2007	15.037926	-23.562228	395	11.0	5090		43%	V105
Gobabeb	Riverbed	<i>Tamarix usneoides</i>	Stem ²	25-Jun-2008	15.037926	-23.562228	395	2.4	2430		46%	V365
Gobabeb	Riverbed	<i>Tamarix usneoides</i>	Stem ²	25-Jun-2008	15.037926	-23.562228	395	0.6	1620		45%	V364
Gobabeb	Riverbed	<i>Tamarix usneoides</i>	Stem ²	29-Jun-2008	15.048973	-23.565202	398	2.7 (1.7,3.6)	5420		40%	V403
Swartbank	Riverbed	<i>Tamarix usneoides</i>	Leaf	19-Dec-2007	14.815358	-23.344646	266	15.7	21300		52%	V302
Swartbank	Riverbed	<i>Tamarix usneoides</i>	Stem ¹	19-Dec-2007	14.815358	-23.344646	266	9.5	10600		44%	V303
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Leaf	11-Nov-2007	15.020251	-23.561799	471	14.3	2700		81%	V141
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Leaf	28-Jun-2008	15.020251	-23.561799	471	15.4 (12.3,18.4)	NA		88%	V392
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Leaf	8-Jul-2008	15.020251	-23.561799	471	14.0	NA		89%	V450
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Leaf	2-Jan-2009	15.018439	-23.564410	461	14.8	3190		72%	V607
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Stem ¹	11-Nov-2007	15.020251	-23.561799	471	15.3	995		54%	V140
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Stem ¹	11-Nov-2007	15.009991	-23.602902	454	14.9	800		53%	V150
Gobabeb	Dune	<i>Trianthema hereroensis</i>	Stem ²	2-Jan-2009	15.020251	-23.561799	471	15.4	NA		50%	V604
Rooibank	Dune	<i>Trianthema hereroensis</i>	Leaf	12-Nov-2007	14.631036	-23.183699	120	12.1	3980		77%	V154
Rooibank	Dune	<i>Trianthema hereroensis</i>	Stem ¹	12-Nov-2007	14.631036	-23.183699	120	15.9	1170		49%	V153
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Lateral Root	28-Apr-2007	15.258720	-23.571420	591	13.7	697		NA	V220
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Lateral Root	10-Oct-2007	15.259960	-23.569830	595	13.5 (15.9,11.1)	728		NA	V111
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ²	8-Jul-2008	15.254080	-23.574140	596	13.0	NA		NA	V829
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ³	8-Jul-2008	15.258480	-23.572130	586	12.4	NA		NA	V801
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ³	8-Jul-2008	15.259030	-23.571270	588	12.3	NA		NA	V806
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ³	8-Jul-2008	15.256500	-23.572520	592	11.1	NA		NA	V819
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ³	8-Jul-2008	15.258720	-23.571420	591	15.4	873		NA	V805
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Leaf ²	14-Jan-2009	15.259960	-23.569830	595	11.1	1170		NA	V839
Hope Mine	Gravel Plains	<i>Welwitschia mirabilis</i>	Stem ²	30-Jun-2009	15.259960	-23.569830	595	10.2 (11.8,8.6)	726		40%	V1001
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Leaf	25-Jun-2008	15.060176	-23.558419	416	12.4	52300		90%	V376
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Leaf	29-Jun-2008	15.060176	-23.558419	416	14.5	NA		NA	V410
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Stem ¹	10-Oct-2007	15.060176	-23.558419	416	12.0	1710		38%	V72
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Stem ²	25-Jun-2008	15.060176	-23.558419	416	17.1	1420		31%	V375
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Stem ²	29-Jun-2008	15.060176	-23.558419	416	15.7	NA		50%	V402
Gobabeb	Gravel Plains	<i>Zygophyllum stapfii</i>	Stem ²	29-Jun-2008	15.060076	-23.558339	423	21.7	NA		53%	V409
Hope	Gravel Plains	<i>Zygophyllum stapfii</i>	Stem ²	8-Jul-2008	15.259930	-23.570410	181	13.1 (10.6,15.6)	642		27%	V518
Rooibank	Riverbed	<i>Zygophyllum stapfii</i>	Stem ¹	12-Nov-2007	14.642183	-23.163765	114	12.1	1430		53%	V174

T = Trace (total sulphur of the analysed sample aliquot was between 2.15 and 3.43 ug)

U = Below detection (total sulphur of the analysed sample aliquot was below 2.15 ug)

NA = Total sulfur not determined

1 - The undifferentiated total stem was sampled including bark, phloem and xylem

2 - Only xylem was sampled (i.e. bark and phloem removed with a knife during sampling)

3 - The dried, fraying, non-green ends of *W. mirabilis* leaves were sampled

4 - The water content was determined by weight before and after vacuum distillation at 100 degrees C, and is expressed as a percentage of the original wet weight.

a - The reported value is the mean of replicates shown in parentheses

Table S4: Water samples.

Sample Type	Location	Location Description	Date Sampled	Collection Method	Sample Depth	Longitude [decimal degrees]	Latitude [decimal degrees]	Ground Surface Elevation [mamsl]	$\delta^{34}\text{S}$ [‰]	Sample Number
Fog	Gobabeb	Gravel Plains	21-Jun-2009	Standard Fog Collector	2 m above ground	15.041311	-23.560845	409	16.0	Q303
Groundwater	Gobabeb	Kuiseb Riverbed	28-Jun-2009	Valve at well head	8 m below ground ¹	15.039036	-23.563258	397	10.5	Q308
Groundwater	Hope Mine	Gravel Plains	30-Jun-2009	Bailer	25 m below ground	15.260078	-23.570001	593	16.5 (16.5,16.6) ^a	Q309
Groundwater	Nara Valley	Interdune Valley	1-Jul-2009	Bailer	17 m below ground	14.954601	-23.509235	366	14.9	Q310

1 - Not measured directly because the well was pumping at an unknown intake depth. Depth shown is the depth to groundwater for Borehole 1 of Schachtschneider and February (2010)

mamsl = meters above mean sea level

a - The reported value is the mean of replicates shown in parentheses