

Table S1: Monthly variations of rainfall, relative humidity in the study area. The data were extracted from the Jeddah meteorological station (Saudi Arabia).

	Temperature °C			Relative Humidity (%)			Precipitation (ml)
	Mx	Mn	M	Mx	Mn	M	
January	26.8	18.2	22.3	81	8	46	0
February	28	19.6	23.6	87	14	53	1
March	30.5	20.7	25.3	95	9	55	6.2
April	32.8	23.2	27.8	83	17	53	0
May	35.9	26.8	31.2	84	8	49	0
June	37.9	27.3	32.3	86	5	52	0
July	38.5	29.1	33.6	93	12	49	2
August	38.7	30	34.2	81	19	52	0
September	38.7	30	33.9	88	5	58	TRACE
October	39.2	27	32.4	89	3	49	3.8
November	33.1	25.3	28.8	88	23	57	19
December	31.9	22.4	26.6	84	8	53	8

Table S2: List of the recorded species with their, families, relative densities (RD) and frequencies (F) in the different sites.

families	Species	S1		S2		S3		S4		S5	
		RD	F	RD	F	RD	F	RD	F	RD	F
Aizoaceae	<i>Blepharis attenuate</i> Napper	2.7	15.6	0	0	0	0	0	0	0	0
	<i>Aizoon canariense</i> L.	1.3	8	0	0	0	0	0	0	0	0
Aizoaceae	<i>Sesuvium portulacastrum</i> L.	0	0	1.2	15	7.3	65	9.5	83	10.3	100
	<i>Trianthema portulacastrum</i> L.	1	0	6.7	25	3	8.6	2	13	0	0
Asclepiadaceae	<i>Calotropis procera</i> (Aiton) W.T.Aiton	1.9	15	1.2	3	0	0	0	0	0	0
Boraginaceae	<i>Heliotropium bacciferum</i> Forssk.	0	0	1	5	1.2	13	1	11	0	0
	<i>Mareua oblongifolia</i> (Frossk.) A.Rich.	1.5	6	0	0	0	0	0	0	0	0
Capparaceae	<i>Diptergium glaucum</i> Decne.	1.3	11	0	0	0	0	0	0	0	0
	<i>Cadaba glandulosa</i> Frossk.	0	0	0	0	0	0	1.1	0	0	0
Chenopodiaceae	<i>Salsola tetrandra</i> Forssk	0	0	1	7	1.1	9	1	9	0	0
	<i>Suaeda monica</i> Frossk.ex J.F. Gmel.	1.5	12	1.3	21	0	0	0	0	0	0
	<i>Acacia hamulosa</i> Benth.	4.3	27	0	0	0	0	0	0	0	0
Fabaceae	<i>Acacia tortilis</i> (Forssk.) Hayne	3.2	16	0	0	0	0	0	0	0	0
	<i>Prosopis Juliflora</i> (Sw.) DC.	0	0	1.5	11	1.9	12	2.4	85	3.5	90
Malvaceae	<i>Abutilon pannosum</i> (G. Forst.) Schltldl.	1.1	3	0	0	0	0	0	0	0	0
	<i>Cynodon dactylon</i> (L.) Pers.	1.5	7	0	0	0	0	0	0	0	0
	<i>Echinochloa colona</i> (L.) Link	0	0	7.4	45	6.8	24	8.9	50	0	0
Poaceae	<i>Leptochloa fusca</i> (L.) Kunth	0	0	0	0	5.7	19	1	4	9.1	60
	<i>Phragmites australis</i> (Cav.) Trin ex Steud	0	0	0	0	2.3	14	21	63	11	14
	<i>Stipa capensis</i> Thunb.	1.3	12	0	0	0	0	0	0	0	0
Portulacaceae	<i>Portulaca oleraceae</i> L.	0	0	6.2	14	5.9	19	0	0	0	0
Solanaceae	<i>Solanum incanum</i> L.	3.4	16	0	0	0	0	0	0	0	0
Tamaricaceae	<i>Tamarix nilotica</i> (Ehrenb.) Bunge	0	0	0	0	2.1	13	1	3	1.1	12
Zygophyllaceae	<i>Fagonia mollis</i> Delile.	2.7	5	0	0	0	0	0	0	0	0

Table S3: Redox status of ASC (ASC/TASC, ASC/DHA) and GSH (GSH/TGSH, GSH/GSSG) of *S. portulacastrum* grown in different control site (Site 1) and contaminated sites (Site 2-5). Data are mean values \pm SE (n=4). Different letters represents the significant differences between the effect of heavy metal stress in the different target sites (Tuckey test ($P < 0.05$)).

	S1		S2		S3		S4		S5	
	Root	Shoot	Root	Shoot	Root	Shoot	Root	Shoot	Root	Shoot
ASC/TASC	67.3 \pm 3.9 ^a	54.6 \pm 0.3 ^a	53.9 \pm 0.2 ^{ab}	41.6 \pm 2.5 ^b	43.2 \pm 0.4 ^b	30 \pm 1.4 ^c	42.3 \pm 9.1 ^{ab}	31 \pm 0.5 ^d	33.3 \pm 4.1 ^c	27.9 \pm 0.1 ^d
ASCH/DHA	0.86 \pm 0.04 ^a	0.91 \pm 0.07 ^a	0.69 \pm 0.05 ^b	0.73 \pm 0.1 ^b	0.42 \pm 0 ^c	0.53 \pm 0.03 ^c	0.34 \pm 0 ^d	0.39 \pm 0.02 ^d	0.24 \pm 0.09 ^e	0.32 \pm 0.01 ^d
GSH/TGSH	50.9 \pm 1.9 ^a	47.6 \pm 2.9 ^a	40.2 \pm 2.1 ^{ab}	26.9 \pm 1.6 ^b	15.9 \pm 1.3 ^c	25.5 \pm 0.4 ^b	24.9 \pm 0.3 ^b	22 \pm 0.6 ^b	17.3 \pm 1.6 ^c	13.3 \pm 1.7 ^c
GSH/GSSG	0.53 \pm 0.07 ^a	0.44 \pm 0.07 ^a	0.25 \pm 0.04 ^b	0.34 \pm 0.09 ^b	0.21 \pm 0.01 ^b	0.34 \pm 0.07 ^b	0.262 \pm 0.06 ^b	0.36 \pm 0.02 ^b	0.162 \pm 0.1 ^c	0.18 \pm 0.05 ^c