

Table S1. Relative content of the phenolic compounds (%) in *Sarcocornia* and *Arthrocnemum* samples by GC-MS. Legend: nd: not detected. Numbers 1–20 refer to the materials shown in Table 3.

ID	Coumaric Acid	Salicylic Acid	Veratric Acid	Caffeic Acid	Trans-cinnamic Acid	Ferulic Acid
1	10.05 (0.01)	nd	39.11 (0.02)	10.22 (0.01)	38.90 (0.03)	nd
2	nd	nd	nd	nd	98.65 (0.02)	nd
3	nd	nd	nd	nd	97.24 (0.04)	nd
4	nd	nd	nd	nd	96.17 (0.02)	nd
5	9.88 (0.19)	nd	38.17 (0.07)	11.78 (0.02)	41.65 (0.03)	nd
6	nd	nd	39.65 (0.01)	nd	61.12 (0.01)	nd
7	4.81 (0.01)	57.22 (0.05)	nd	nd	31.66 (0.07)	nd
8	nd	nd	31.23 (0.03)	16.34 (0.02)	44.68 (0.01)	nd
9	4.92 (0.03)	58.77 (0.05)	nd	nd	29.21 (0.02)	nd
10	4.87 (0.08)	56.04 (0.05)	nd	nd	30.17 (0.02)	nd
11	nd	nd	30.06 (0.02)	nd	62.71 (0.04)	nd
12	nd	31.09 (0.05)	nd	nd	67.12 (0.01)	nd
13	nd	30.77 (0.01)	nd	nd	64.19 (0.03)	nd
14	nd	32.05 (0.02)	nd	nd	65.35 (0.03)	nd
15	20.60 (0.03)	nd	13.47 (0.01)	6.58 (0.01)	nd	59.89 (0.07)
16	11.07 (0.03)	30.85 (0.01)	30.75 (0.04)	12.02 (0.01)	10.09 (0.02)	nd
17	19.80 (0.03)	nd	15.67 (0.01)	5.44 (0.01)	nd	56.40 (0.04)
18	11.63 (0.03)	29.88 (0.07)	32.81(0.04)	10.34 (0.01)	10.12 (0.03)	nd
19	10.34 (0.03)	28.19 (0.04)	31.64 (0.04)	11.10 (0.01)	10.87 (0.05)	nd
20	10.81 (0.03)	27.66 (0.01)	31.08 (0.04)	11.90 (0.01)	11.77(0.03)	nd

Table S2. Relative content of the fatty acids (%) in *Sarcocornia* and *Arthrocnemum* by GC-MS. Legend: lauric acid (C12:0); myristic acid (C14:0); palmitic acid (C16:0); stearic acid (C18:0); oleic acid (C18:1); linoleic acid (C18:2); linolenic acid (C18:3); arachidonic acid (C20:0); behenic acid (C22:0); lignoceric acid (C24:0); SFAs (saturated fatty acids); MUFAs (monounsaturated fatty acids); and PUFAs (polyunsaturated fatty acids). nd: not detected. Numbers 1–20 refer to the materials shown in Table 3.

I D	C12: 0	C14: 0	C16: 0	C18: 0	C18: 1	C18: 2	C18: 3	C20: 0	C22: 0	C24: 0	Total SFA s	Total MUFA s	Total PUFA s
1	nd	nd	35.90	5.11	11.83	24.88	nd	3.15	5.09	nd	49.25	11.83	24.88
2	9.45	nd	32.29	9.28	14.39	19.75	nd	5.10	4.44	nd	60.56	14.39	19.75
3	8.69	nd	33.24	10.14	13.90	18.60	nd	5.30	4.69	nd	62.06	13.90	18.60
4	9.33	nd	35.01	10.43	12.55	20.33	nd	4.90	4.28	nd	63.95	12.55	20.33
5	nd	nd	37.85	5.08	10.28	23.12	nd	4.32	4.11	nd	51.36	10.28	23.12
6	nd	nd	28.77	5.44	10.67	nd	nd	15.55	16.72	17.24	83.72	10.67	nd
7	8.73	12.09	28.64	18	16.21	16.18	nd	nd	nd	nd	67.48	16.21	16.18
8	nd	nd	27.33	9.29	9.43	nd	nd	14.12	17.63	14.11	82.55	9.43	nd
9	9.39	11.29	20.11	5.81	18.19	16.94	nd	nd	nd	nd	66.03	18.19	nd
10	9.82	11.44	20.71	17.76	20.96	17.33	nd	nd	nd	nd	59.73	20.96	17.33
11	nd	nd	29.12	9.16	9.22	nd	nd	15.44	17.87	14.62	82.21	9.22	nd
12	15.75	14.55	40.06	7.11	nd	nd	22.40	nd	nd	nd	77.97	nd	22.40
13	nd	nd	38.71	5.91	14.20	21.02	13.70	3.09	2.75	2.59	53.05	14.20	34.72
14	nd	nd	39.12	5.04	15.52	17.80	14.30	2.14	2.80	3.1	52.20	15.52	32.10

15	nd	nd	21.30	19.35	9.13	10.75	10.80	5.35	8.40	9.20	63.60	9.13	26.55
16	nd	nd	20.78	10.90	9.04	10.30	16.55	10.40	13.25	9.60	61.93	9.04	26.85
17	nd	nd	19.25	19.90	9.44	7.77	10.10	5.90	7.75	10.09	62.74	9.44	17.87
18	nd	nd	19.11	10.58	5.40	15.33	14.91	10.12	15.07	10.26	65.11	5.40	29.03
19	nd	nd	18.70	10.04	7.88	8.32	15.78	9.60	14.70	11.24	73.16	7.88	18.38
20	nd	nd	19.80	10.73	6.20	10.22	15.76	10.08	15.22	9.92	64.80	6.20	25.98

Table S3. Main tentative flavonoids and hydroxycinnamic acids in *Sarcocornia* and *Arthrocnemum* according to their retention time. Numbers 1–20 refer to the materials shown in Table 3. Legend: + = presence; in brackets, we show the retention times. . = absence.

ID	p-coumaroyl glucose	Cyanidin- 3-O- arabinoside	Luteolin-7-O- glucoside	Dihydroquercetin	p-coumaroyl tyrosine	Luteolin
1	.	+(21)	+(24.7)	.	.	+(37.2)
2	.	.	.	.	.	+(37.2)
3	.	.	.	.	.	+(37.2)
4	.	.	.	.	.	+(37.2)
5	.	+(21)	+(24.7)	.	.	+(37.2)
6	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
7	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
8	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
9	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
10	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
11	+(20.4)	.	+(24.7)	+(30)	+(32)	+(37.2)
12	.	.	.	.	.	+(37.2)
13	.	.	.	.	.	+(37.2)
14	.	.	.	.	.	+(37.2)
15	.	.	.	+(30)	.	+(37.2)
16	.	.	.	+(30)	.	+(37.2)
17	.	.	.	+(30)	.	+(37.2)
18	.	.	.	+(30)	.	+(37.2)
19	.	.	.	+(30)	.	+(37.2)
20	.	.	.	+(30)	.	+(37.2)

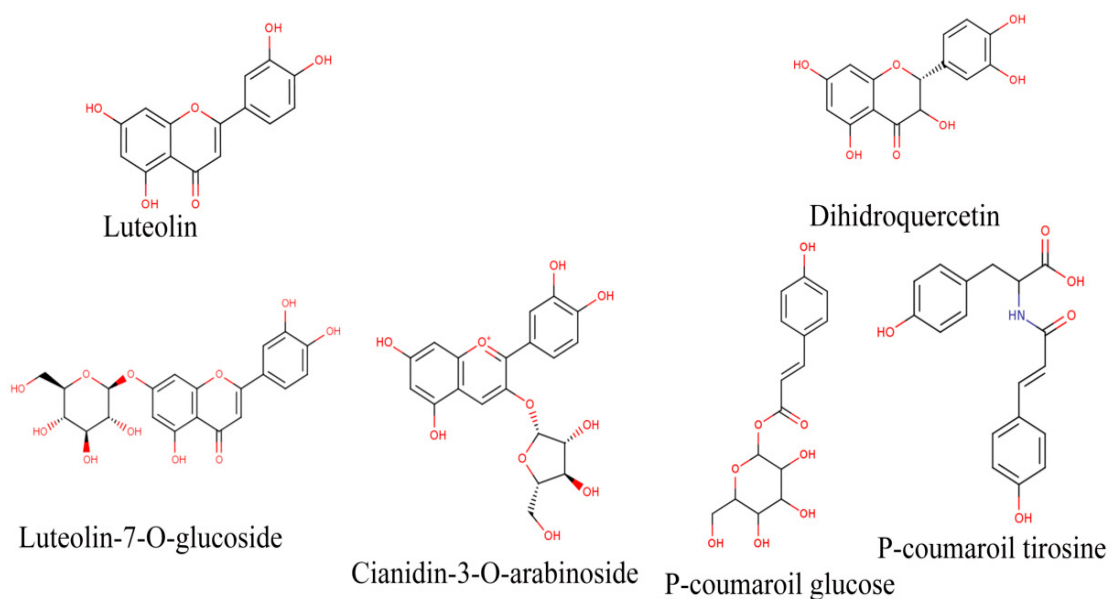


Figure S1. Tentative flavonoid compounds identified in *Sarcocornia* and *Arthrocnemum* extracts. All structures are based on Phenol Explorer.