

Supplementary Materials

Table S1. Mean values and standard deviation of environmental parameters observed into the different macrophytic assemblages (i-iv), as well as the results of One Way ANOVA and LSD test.

	Assemblage i	Assemblage ii	Assemblage ii	Assemblage iv	F	Sig.
Depth (m)	0.98±0.26 a	0.68±0.26 bcd	0.61±0.16 bcd	0.58±0.1 bcd	620.3	.000
Transparency(m)	0.94±0.29 ad	0.63±0.26 bcd	0.55±0.12 bcd	0.58±0.1 abcd	134.1	.000
Temperature (°C)	24.2±3.4 abcd	23.6±3.66 abcd	24.13±3.62 abcd	23.78±2.16 abcd	2.12	.078
pH	8.18±0.24 a	8.44±0.28 bc	8.38±0.25 c	8.72±0.11 d	10.7	.000
D.O. (mg/l)	5.66±2.25 a	7.42±2.14 bcd	7.82±2.38 bcd	8.3±1.1 bcd	7.53	.000
Salinity (‰)	18.7±11.2 a	31.3±12.2 b	41.37±6.42 cd	41.74±3.65 cd	96.6	.000
PO ₄ -P (µg/l)	5.41±5.98 abcd	7.23±6.53 abcd	9.7±8.71 abcd	5.24±2.85 abcd	.708	.587
Total P (µg/l)	141.7±134.1 abcd	119.3±123.3 abcd	115.1±91.4 abcd	69.35±51.03 abcd	1.127	.344
NO ₂ -N (µg/l)	24.32±23.9 abd	18.96±40.2 abd	3.62±6.64 cd	2.99±2.97 abcd	4.782	.001
NO ₃ -N (µg/l)	369.02±494.6 a	202.0±286.2 bd	81.4±121.4 cd	76.97±76.6 bcd	7.462	.000
NH ₄ -N (µg/l)	141.4±100.4 abd	93.7±134.9 abd	31.9±51.9 cd	25.75±12.2 abcd	4.559	.001
DIN (µg/l)	534.8±488.1 a	314.67±333.6 bd	117.1±138.4 cd	105.7±84.8 bcd	9.57	.000
CO ₃ (mg/l)	18.68±7.82 ab	21.32±9.53 abcd	23.95±7.91 bcd	29.06±4.87 bcd	4.68	.001
HCO ₃ (mg/l)	101.7±48.5 abd	86.8±40.5 abcd	81.12±33.32 bcd	73.2±18.8 abcd	1.86	.118
Alkalinity (mg/l)	120.34±47.1 abcd	108.1±39.17 abcd	105.1±34.0 abcd	102.26±18.09 abcd	0.921	.452
Chl- <i>a</i> (µg/l)	1.05±0.93 abd	1.61±1.34 abd	2.35±2.52 cd	0.5±0.1 abcd	3.69	.006

Table S2. Summary on variable correlations to DCA axes based on species coverage (%).

	DCA axis 1	DCA axis 2
Depth (m)	-.300**	-.191*
Transparency (m)	-.183*	-.228**
Temperature (°C)	ns	ns
pH	.292**	ns
DO (mg/l)	.294**	ns
Salinity (‰)	.685**	.149*
PO ₄ -P (µg/l)	.240**	.160*
TP (µg/l)	ns	ns
NO ₂ -N (µg/l)	-.643**	ns
NO ₃ -N (µg/l)	-.574**	-.150*
NH ₄ -N (µg/l)	-.519**	-.199**
CO ₃ (mg/l)	.370**	ns
HCO ₃ (mg/l)	-.198**	ns
Chl- <i>a</i> (µg/l)	ns	.180*

Table S3. Intra-relationships of Correlation coefficients between the environmental variables and the principal component axes of Redundant Direct Analysis in three lagoon types.

Variables	Marginal effects	Conditional effects				
FR explained	Lamda 1	Lamda A	P	F	AX1	AX2
Eigenvalues					0.6690	0.1408
Salinity (‰)	0.11	0.11	0.002	23.37	71.292	-13.955
DO (mg/l)	0.03	0.03	0.002	6.35	38.849	44.573
Chl- <i>a</i> (µg/l)	0.03	0.02	0.002	4.56	25.482	27.694
Transparency (m)	0.04	0.02	0.002	3.72	0.9469	52.536
pH	0.02	0.01	0.004	3.11	-0.2707	-14.464
PO ₄ -P (µg/l)	0.03	0.01	0.010	2.31	0.1520	28.431
DIN (µg/l)	0.01	0.01	0.024	2.33	0.4905	19.379
Alkalinity (µg/l)	0.01	0.00	0.046	1.66	-0.9964	-27.938

Table S4. Results of mixed analysis of variance in three different coastal lagoon types of Western Greece showing the effects of the factors Season, Year, Station and their interactions (Season*Year*Station) on the univariate variables: (i) Number of species (S), ii) Margalef Species Richness (d), iii) Pielou Evenness (J), iv) Shannon Diversity Index (H).

	Type I						Type II						Type III						Interaction	
	Season		Year		Station		Season		Year		Station		Season		Year		Station		season*year*station	
	F	p	F	p.	F	p	F	p	F	p	F	p	F	p	F	p	F	p	F	p
Number of species	522.01	0.000	2.75	0.092	6.14	0.000	0.35	0.711	1.06	0.370	5.89	0.000	1.12	0.348	0.81	0.463	5.79	0.000	0.96	0.586
Margalef Species Richness d	451.03	0.000	2.50	0.112	4.91	0.001	0.06	0.946	0.58	0.568	4.72	0.001	0.48	0.628	0.44	0.650	4.66	0.001	0.81	0.759
Pielou Evenness J	1512.73	0.000	1.38	0.278	1.10	0.429	6.95	0.006	0.12	0.892	1.05	0.465	7.99	0.004	0.28	0.759	1.06	0.458	0.69	0.873
Shannon Index H	915.16	0.000	4.75	0.023	5.79	0.000	3.01	0.076	0.53	0.598	5.59	0.000	3.82	0.043	0.58	0.568	5.52	0.000	0.89	0.660

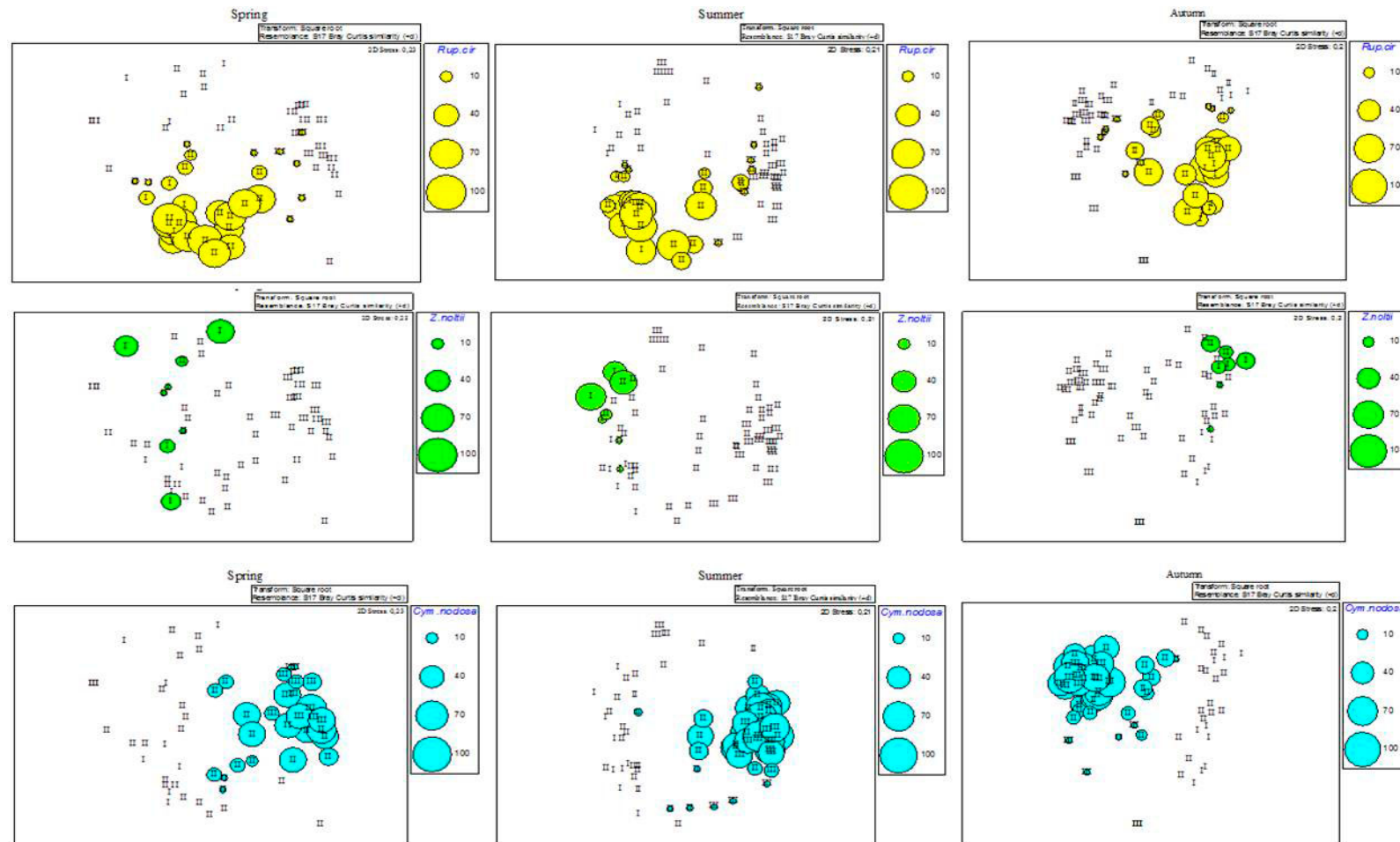


Figure S1. MDS analysis based on the seasonal variation of abundances of the angiosperms *Zostera noltii*, *Cymodocea nodosa* and *Ruppia cirrhosa* into the three different lagoon types of Western Greece.