

**Table S1:** Eigen analysis of PCAstress and PCArecovery correlation matrix

		Eigenvalue	Percentage of variance	Cumulative percentage of variance
<b>PCAstress</b>	<b>PC1</b>	5.68	25.83	25.83
	<b>PC2</b>	5.18	23.56	49.39
	<b>PC3</b>	2.85	12.97	62.36
<b>PCArecovery</b>	<b>PC1</b>	5.46	24.83	24.83
	<b>PC2</b>	3.80	17.28	42.11
	<b>PC3</b>	2.32	10.55	52.67

**Table S2.** Correlation coefficients between the first three PCs (PC1, PC2, PC3) and the quantitative variables traits (fresh weight (FW), shoot water content (SWC), plant height (PH), number of branches (No.B), chlorophyll a (Chl.a), chlorophyll b (Chl.b), carotenoids (Caro), root sodium concentration (Na(r)), shoot sodium concentration (Na(s)), root chloride concentration (Cl(r)), shoot chloride concentration (Cl(s)), root potassium concentration (K(r)), shoot potassium concentration (K(s)), root calcium concentration (Ca(r)), shoot calcium concentration (Ca(s)), glycine betaine (GB), proline (PRO), total soluble sugars (TSS), malondialdehyde (MDA), hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), total phenolic compounds (TPC), total flavonoids (TF). The PCs were computed using 22 input data. Significance codes: ns, (+), \*, \*\*, and \*\*\* mean, respectively, not significant and significant at  $p \leq 0.1$ ,  $p \leq 0.05$ ,  $p \leq 0.01$  and  $p \leq 0.001$

	<b>PCAstress</b>			<b>PCArecovery</b>		
	<b>PC1</b>	<b>PC2</b>	<b>PC3</b>	<b>PC1</b>	<b>PC2</b>	<b>PC3</b>
<b>FW</b>	0.62***	0.56***	0.01 ns	0.67***	0.06 ns	0.37*
<b>SWC</b>	0.51**	0.43**	-0.40*	0.62***	-0.07 ns	0.29(+)
<b>PH</b>	0.20 ns	0.57***	0.02 ns	0.20 ns	0.84***	0.01 ns
<b>No.B</b>	-0.24 ns	0.02 ns	-0.54***	-0.34*	-0.44**	0.33(+)
<b>Chl.a</b>	0.29 ns	0.83***	-0.15 ns	-0.10 ns	0.63***	0.64***
<b>Chl.b</b>	0.57***	0.75***	0.01 ns	0.22 ns	0.44**	0.57***
<b>Caro</b>	0.32(+)	0.84***	0.03 ns	0.22 ns	0.78***	0.37*
<b>Na(r)</b>	0.87***	-0.34*	0.16 ns	0.81***	-0.13 ns	0.01 ns
<b>Na(s)</b>	0.85***	-0.39*	0.00 ns	0.78***	-0.42*	0.06 ns
<b>Cl(r)</b>	0.79***	-0.37*	0.25 ns	0.22 ns	0.16 ns	-0.22 ns
<b>Cl(s)</b>	0.82***	-0.39*	0.03 ns	0.68***	-0.51**	0.23 ns
<b>K(r)</b>	-0.07 ns	0.46**	0.20 ns	-0.55***	0.01 ns	0.42*
<b>K(s)</b>	-0.63***	0.28 ns	0.43**	-0.36*	0.61***	-0.35*
<b>Ca(r)</b>	0.75***	-0.29(+)	0.33*	0.75***	-0.18 ns	-0.27 ns
<b>Ca(s)</b>	0.49**	-0.26 ns	0.42*	0.79***	0.23 ns	-0.14 ns
<b>GB</b>	0.02 ns	-0.35*	-0.51**	-0.06 ns	-0.52**	0.38*
<b>PRO</b>	-0.56***	-0.20 ns	0.54***	-0.27 ns	-0.48**	0.26 ns
<b>TSS</b>	-0.20 ns	-0.03 ns	0.78***	0.44**	0.05 ns	-0.12 ns
<b>MDA</b>	0.18 ns	0.51**	0.52**	0.77***	0.07 ns	0.11 ns
<b>H<sub>2</sub>O<sub>2</sub></b>	-0.05 ns	0.69***	-0.25 ns	0.02*	0.26 ns	0.37*
<b>TPC</b>	-0.23 ns	0.11 ns	0.42*	0.32(+)	0.44**	-0.49**
<b>TF</b>	0.07 ns	0.70***	0.33*	0.07 ns	0.06 ns	0.12 ns

**Table S3.** Coordinates of the barycentres of the supplementary categorical variables in PCAstress and PCArecovery biplots, respectively.

	Supplementary categorical variables	PC1	PC2	PC3
PCAstress	<i>S. europaea</i>	0.059	0.291	0.893
	<i>S. veneta</i>	0.434	0.936	0.760
	<i>S. fruticosa</i>	-0.493	-1.227	-1.653
	Ctrl	-0.416	2.479	-0.600
	SS	2.892	-1.488	0.232
	WS	-2.476	-0.990	0.368
PCArecovery	<i>S. europaea</i>	0.972	1.975	-0.396
	<i>S. veneta</i>	0.485	-0.349	-0.086
	<i>S. fruticosa</i>	-1.457	-1.625	0.482
	Ctrl	-1.104	0.571	1.019
	SS	2.506	-1.236	-0.158
	WS	-1.402	0.665	-0.860

**Table S4:** Two-way analysis of variance (ANOVA) of stress treatments (ST), harvesting time (HT), and their interactions (STxHT) for the three halophyte species, for the 22 measured traits (fresh weight (FW), shoot water content (SWC), plant height (PH), number of branches (No.B), chlorophyll a (Chl.a), chlorophyll b (Chl.b), carotenoids (Caro), root sodium concentration (Na(r)), shoot sodium concentration (Na(s)), root chloride concentration (Cl(r)), shoot chloride concentration (Cl(s)), root potassium concentration (K(r)), shoot potassium concentration (K(s)), root calcium concentration (Ca(r)), shoot calcium concentration (Ca(s)), glycine betaine (GB), proline (PRO), total soluble sugars (TSS), malondialdehyde (MDA), hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), total phenolic compounds (TPC), total flavonoids (TF)). Significance codes: <sup>ns</sup>, <sup>(+)</sup>, \*, \*\*, and \*\*\* mean, respectively, not significant and significant at  $p \leq 0.1$ ,  $p \leq 0.05$ ,  $p \leq 0.01$  and  $p \leq 0.001$

	<i>S. europaea</i>			<i>S. veneta</i>			<i>S. fruticosa</i>		
	ST	HT	STxHT	ST	HT	STxHT	ST	HT	STxHT
<b>FW</b>	<0.001***	0.070 <sup>(+)</sup>	0.095 <sup>(+)</sup>	<0.001***	0.003**	0.002**	0.002**	0.009**	0.897 <sup>ns</sup>
<b>SWC</b>	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	0.005**	0.002**	0.043*
<b>PH</b>	<0.001***	<0.001***	<0.001***	0.325 <sup>ns</sup>	<0.001***	0.182 <sup>ns</sup>	0.039*	0.420 <sup>ns</sup>	0.567 <sup>ns</sup>
<b>No.B</b>	0.008**	<0.001***	<0.001***	0.13 <sup>ns</sup>	0.002**	0.206 <sup>ns</sup>	0.224 <sup>ns</sup>	0.097 <sup>(+)</sup>	0.444 <sup>ns</sup>
<b>Chl.a</b>	<0.001***	0.454 <sup>ns</sup>	0.133 <sup>ns</sup>	0.011*	0.921 <sup>ns</sup>	0.376 <sup>ns</sup>	0.203 <sup>ns</sup>	0.605 <sup>ns</sup>	0.782 <sup>ns</sup>
<b>Chl.b</b>	0.001**	0.452 <sup>ns</sup>	0.006**	0.012*	0.232 <sup>ns</sup>	0.009**	0.873 <sup>ns</sup>	0.397 <sup>ns</sup>	0.881 <sup>ns</sup>
<b>Caro</b>	0.009**	0.005**	0.038*	0.046*	0.668 <sup>ns</sup>	0.176 <sup>ns</sup>	0.495 <sup>ns</sup>	0.294 <sup>ns</sup>	0.977 <sup>ns</sup>
<b>Na(r)</b>	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	0.790 <sup>ns</sup>	<0.001***	<0.001***	<0.001***
<b>Na(s)</b>	<0.001***	0.719 <sup>ns</sup>	0.143 <sup>ns</sup>	<0.001***	0.324 <sup>ns</sup>	0.101 <sup>ns</sup>	<0.001***	0.265 <sup>ns</sup>	0.041*
<b>Cl(r)</b>	<0.001***	0.005**	0.005**	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
<b>Cl(s)</b>	<0.001***	0.378 <sup>ns</sup>	0.056 <sup>(+)</sup>	<0.001***	0.195 <sup>ns</sup>	0.590 <sup>ns</sup>	<0.001***	0.579 <sup>ns</sup>	0.543 <sup>ns</sup>
<b>K(r)</b>	0.030**	<0.001***	0.056 <sup>(+)</sup>	<0.001***	<0.001***	0.304 <sup>ns</sup>	<0.001***	0.879 <sup>ns</sup>	<0.001***
<b>K(s)</b>	<0.001***	<0.001***	0.164 <sup>ns</sup>	<0.001***	0.908 <sup>ns</sup>	0.010*	<0.001***	0.916 <sup>ns</sup>	0.246 <sup>ns</sup>
<b>Ca(r)</b>	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
<b>Ca(s)</b>	0.281 <sup>ns</sup>	0.092 <sup>(+)</sup>	0.171 <sup>ns</sup>	<0.001***	0.314 <sup>ns</sup>	<0.001***	<0.001***	0.402 <sup>ns</sup>	0.620 <sup>ns</sup>
<b>GB</b>	0.349 <sup>ns</sup>	0.015*	0.501 <sup>ns</sup>	0.043*	0.459 <sup>ns</sup>	0.065 <sup>(+)</sup>	0.563 <sup>ns</sup>	0.827 <sup>ns</sup>	0.003**
<b>PRO</b>	<0.001***	<0.001***	<0.001***	0.002**	0.025*	0.014*	0.015*	0.240 <sup>ns</sup>	0.993 <sup>ns</sup>
<b>TSS</b>	0.080 <sup>(+)</sup>	0.696 <sup>ns</sup>	0.050 <sup>(+)</sup>	0.026*	0.278 <sup>ns</sup>	0.632 <sup>ns</sup>	0.508 <sup>ns</sup>	0.379 <sup>ns</sup>	0.009**
<b>MDA</b>	<0.001***	<0.001***	0.627 <sup>ns</sup>	0.002**	0.539 <sup>ns</sup>	0.039*	0.015*	<0.001***	0.005**
<b>H<sub>2</sub>O<sub>2</sub></b>	0.049*	0.007**	0.934 <sup>ns</sup>	0.083 <sup>(+)</sup>	0.420 <sup>ns</sup>	0.072 <sup>(+)</sup>	0.274 <sup>ns</sup>	0.021*	0.773 <sup>ns</sup>

<b>TPC</b>	0.479 <sup>ns</sup>	0.672 <sup>ns</sup>	0.737 <sup>ns</sup>	0.929 <sup>ns</sup>	0.446 <sup>ns</sup>	0.417 <sup>ns</sup>	0.181 <sup>ns</sup>	0.983 <sup>ns</sup>	0.319 <sup>ns</sup>
<b>TF</b>	0.176 <sup>ns</sup>	0.380 <sup>ns</sup>	0.993 <sup>ns</sup>	0.084 <sup>(+)</sup>	0.209 <sup>ns</sup>	0.777 <sup>ns</sup>	0.026 <sup>*</sup>	<0.001 <sup>***</sup>	0.516 <sup>ns</sup>