

# Supplementary Materials

**Table S1.** ANOVA results applied on linear models (Df = degrees of freedom, F value = F statistic,  $P$  = p value) testing the effect of hydroperiod and plant community on key traits of *Limonium narbonense* and *Sarcocornia fruticosa*, i.e. above- and belowground biomass and plant height. \*\*\* for  $P < 0.001$ , \*\* for  $P < 0.01$ , \* for  $P < 0.05$ , • for  $P < 0.07$ .

	Df	F value	$P$	
<b>RPEI Aboveground biomass ~ Hydroperiod x Plant community</b>				
<i>Limonium narbonense</i>				
Hydroperiod	1	7.76	0.009	**
Plant community	1	4.93	0.035	*
Hydroperiod:plant community	1	2.63	0.117	
Residuals	26			
<i>Sarcocornia fruticosa</i>				
Hydroperiod	1	0.15	0.70	
Plant community	1	0.77	0.39	
Hydroperiod:plant community	1	0.15	0.70	
Residuals	27			
<b>RPEI Belowground biomass ~ Hydroperiod x Plant community</b>				
<i>Limonium narbonense</i>				
Hydroperiod	1	15.1	<0.001	**
Plant community	1	0.40	0.533	
Hydroperiod:plant community	1	0.69	0.415	
Residuals	25			
<i>Sarcocornia fruticosa</i>				
Hydroperiod	1	0.08	0.777	
Plant community	1	1.87	0.183	
Hydroperiod:plant community	1	0.21	0.648	
Residuals	26			
<b>RPEI Plant height ~ Hydroperiod x Plant community</b>				
<i>Limonium narbonense</i>				
Hydroperiod	1	8.20	0.009	**
Plant community	1	7.47	0.012	*
Hydroperiod:plant community	1	0.63	0.434	
Residuals	24			
<i>Sarcocornia fruticosa</i>				
Hydroperiod	1	0.09	0.762	
Plant community	1	8.46	0.007	**
Hydroperiod:plant community	1	0.34	0.567	
Residuals	28			

**Table S2.** ANOVA results applied on linear models (Df = degrees of freedom, F value = F statistic, *P* = p value) testing the effect of species (*Limonium narbonense* and *Sarcocornia fruticosa*), hydroperiod and soil properties (clay or organic C) on RPFI calculated on aboveground biomass. Differences in slopes were further analysed using the *emtrends* function. \*\*\* for *P* < 0.001, \*\* for *P* < 0.01, \* for *P* < 0.05, • for *P* < 0.07.

	Df	F value	<i>P</i>	
<b>RPFI Aboveground biomass ~ Hydroperiod x Clay x Species</b>				
Hydroperiod	1	2.15	0.16	
Clay	1	1.84	0.19	
Species	1	22.0	<0.001	***
Hydroperiod:clay	1	2.36	0.14	
Hydroperiod:species	1	0.57	0.46	
Clay:species	1	0.09	0.76	
Hydroperiod:clay:species	1	6.47	0.02	*
<i>Residuals</i>	21			
<i>Emtrends - Limonium narbonense</i>				
	Df	estimate	<i>P</i>	
20.77-30.76	21	-0.06	0.73	
20.77-40.74	21	-0.11	0.73	
30.76-40.74	21	-0.06	0.73	
<i>Emtrends - Sarcocornia fruticosa</i>				
20.77-30.76	21	0.07	0.03	•
20.77-40.74	21	0.14	0.03	•
30.76-40.74	21	0.07	0.03	•

**Table S3.** ANOVA results applied on linear models (Df = degrees of freedom, F value = F statistic,  $P$  = p value) testing the effect of species (*Limonium narbonense* and *Sarcocornia fruticosa*), hydroperiod and soil properties (clay or organic C) on RPFI calculated on belowground biomass. Differences in slopes were further analysed using the *emtrends* function. \*\*\* for  $P < 0.001$ , \*\* for  $P < 0.01$ , \* for  $P < 0.05$ , • for  $P < 0.07$ .

	Df	F value	$P$	
<b>RPFI Belowground biomass ~ Hydroperiod x Clay x Species</b>				
Hydroperiod	1	0.01	0.91	
Clay	1	0.12	0.73	
Species	1	1.42	0.25	
Hydroperiod:clay	1	3.90	0.06	•
Hydroperiod:species	1	0.33	0.57	
Clay:species	1	0.59	0.45	
Hydroperiod:clay:species	1	0.91	0.35	
<i>Residuals</i>	21			
<b>RPFI Belowground biomass ~ Hydroperiod x Corg x Species</b>				
Hydroperiod	1	0.03	0.86	
Corg	1	33.8	<0.001	***
Species	1	1.71	0.20	
Hydroperiod:Corg	1	0.14	0.71	
Hydroperiod:species	1	2.31	0.14	
Corg:species	1	0.16	0.69	
Hydroperiod:Corg:species	1	1.33	0.26	
<i>Residuals</i>	21			

**Table S4.** ANOVA results applied on linear models (Df = degrees of freedom, F value = F statistic, *P* = p value) testing the effect of species (*Limonium narbonense* and *Sarcocornia fruticosa*), hydroperiod and soil properties (clay or organic C) on RPII calculated on plant height. Differences in slopes were further analysed using the *emtrends* function. \*\*\* for *P* < 0.001, \*\* for *P* < 0.01, \* for *P* < 0.05, • for *P* < 0.07.

	Df	F value	<i>P</i>	
<b>RPII Plant height ~ Hydroperiod x Clay x Species</b>				
Hydroperiod	1	0.73	0.40	
Clay	1	3.43	0.08	
Species	1	14.9	<0.001	***
Hydroperiod:clay	1	0.18	0.67	
Hydroperiod:species	1	3.52	0.07	•
Clay:species	1	0.96	0.34	
Hydroperiod:clay:species	1	3.94	0.06	•
<i>Residuals</i>	21			
<i>Emtrends Lim</i>				
	Df	estimate	<i>P</i>	
20.77-30.76	21	-0.04	0.33	
20.77-40.74	21	-0.08	0.33	
30.76-40.74	21	-0.04	0.33	
<i>Emtrends Sar</i>				
20.77-30.76	21	0.07	0.08	•
20.77-40.74	21	0.14	0.08	•
30.76-40.74	21	0.07	0.08	•
<b>RPII Plant height ~ Hydroperiod x Corg x Species</b>				
Hydroperiod	1	0.77	0.39	
Corg	1	0.75	0.40	
Species	1	16.5	<0.001	***
Hydroperiod:Corg	1	0.003	0.95	
Hydroperiod:species	1	2.48	0.13	
Corg:species	1	8.29	0.009	**
Hydroperiod:Corg:species	1	1.34	0.26	
<i>Residuals</i>	21			
<i>Emtrends Corg</i>				
Lim-Sar	21	0.055	0.019	*