

Table S1. Relative importance of each variable in the final models calculated using the *relaimpo* package in R (Grömping 2006). The lmg metric is calculated based on sequential R^2 but takes care of the dependence on orderings by averaging over orderings.

Species	Habitat	Model terms	lmg
<i>Z. marina</i>	seagrass	1. CR : F=12.74 ; RSE= 1.19; adj. R^2 =0.74	
		Water temperature*	0.53
		Salinity*	0.19
		Leaf biomass	0.08
		Root biomass	0.04
		% organic matter*	0.06
		Density of endofauna *	0.10
<i>Z. marina</i>	bare	2. CR : F=13.93 ; RSE=1.62 ; adj. R^2 =0.73	
		Water temperature*	0.46
		Algae biomass*	0.51
		% organic matter	0.03
<i>Z. marina</i>	seagrass	3. GCP : F=7.81 ; RSE=3.42 ; adj. R^2 =0.52	
		Water temperature*	0.48
		Salinity	0.11
		Shoot density	0.14
		Leaf biomass*	0.26
<i>Z. marina</i>	bare	4. GCP : F=4.941 ; RSE=4.785 ; adj. R^2 =0.36	
		Water temperature	0.42
		Salinity*	0.58
<i>N. noltei</i>	seagrass	5. CR : F=19.15 ; RSE= 1.091; adj. R^2 =0.83	
		Water temperature*	0.56
		Leaf area index*	0.27
		Algae biomass*	0.08
		% organic matter	0.02
		Density of endofauna	0.04
		AFDM endofauna	0.03
<i>N. noltei</i>	bare	6. CR : F=4.81 ; RSE=0.83 ; adj. R^2 =0.47	
		Water temperature*	0.48
		Density of endofauna	0.29
		AFDM endofauna	0.23
<i>N. noltei</i>	seagrass	7. GCP : F=12.9 ; RSE=2.92 ; adj. R^2 =0.67	
		Water temperature*	0.40
		Leaf area index*	0.23
		Algae biomass*	0.05
		Leaf biomass*	0.31

*significant at level $p < 0.05$ in the global model (Table 2)

Grömping, U. (2006). Relative Importance for Linear Regression in R: The Package relaimpo. *Journal of Statistical Software*, 17(1), 1–27. <https://doi.org/10.18637/jss.v017.i01>