

Table S1. Species list including presence (+) and absence (-) at bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE) for each sampling date (month/year). Feeding type associated to each species (D = deposit feeder, S = suspension feeder, O = omnivore, G = grazer and P = predator) is shown in the last column.

Taxa	BB				TE				NE				Group
Month	09	11	05	08	09	11	05	08	09	11	05	08	Feeding type
Year	18	18	19	19	18	18	19	19	18	18	19	19	
<b>Polychaeta</b>													
<i>Alitta succinea</i>	-	+	+	+	+	+	+	+	+	+	+	+	O
<i>Alitta virens</i>	-	-	-	-	+	-	-	+	+	-	+	-	O
<i>Arenicola marina</i>	+	+	+	+	-	+	+	+	+	-	+	-	D
<i>Capitella capitata</i>	+	+	+	+	+	+	+	+	+	+	+	+	D
<i>Goniada maculata</i>	-	-	-	-	-	-	+	-	-	-	-	-	P
<i>Harmothoe imbricata</i>	-	-	-	-	-	-	-	-	+	+	+	+	P
<i>Hediste diversicolor</i>	-	-	-	-	-	-	-	-	-	-	-	+	O
<i>Heteromastus filiformis</i>	+	+	+	+	+	+	+	+	+	+	+	+	D
<i>Lepidonotus squamatus</i>	-	-	+	-	-	-	-	-	-	-	+	-	P
<i>Marenzelleria viridis</i>	+	+	+	+	+	-	+	+	+	+	+	+	D
<i>Polydora cornuta</i>	-	-	-	-	-	+	+	+	+	+	+	+	D
<i>Pygospio elegans</i>	-	-	+	+	+	-	+	+	+	-	+	+	D
<i>Scoloplos armiger</i>	+	-	-	-	+	-	-	-	-	-	+	+	D
<b>Bivalvia</b>													
<i>Barnea candida</i>	-	-	-	-	-	-	-	-	+	-	-	-	S
<i>Cerastoderma glaucum</i>	-	-	+	-	+	+	+	+	-	-	-	-	S
<i>Ensis ensis</i>	-	-	-	-	+	+	-	-	+	-	-	-	S
<i>Ensis leei</i>	-	-	+	-	-	-	-	-	-	-	-	-	S
<i>Ensis sp.</i>	+	+	+	-	-	-	+	+	-	-	-	-	S

<i>Macomangulus tenuis</i>	-	-	+	-	+	-	-	-	-	-	-	-	S
<i>Modiolus modiolus</i>	-	-	-	-	-	-	-	+	-	-	-	+	S
<i>Mya arenaria</i>	-	-	-	-	+	-	+	+	+	+	-	+	S
<i>Mytilus edulis</i>	-	-	-	-	-	-	-	+	+	-	+	+	S
<i>Venerupis corrugata</i>	-	-	-	-	-	-	-	-	-	-	-	+	S
<b>Gastropoda</b>													
<i>Bittium reticulatum</i>	-	-	-	+	-	-	-	+	-	-	-	-	G
<i>Crepidula fornicata</i>	-	-	+	+	-	-	+	+	-	-	-	+	G
<i>Littorina littorea</i>	-	-	+	+	-	-	+	+	-	+	+	+	G
<i>Marshallora adversa</i>	-	-	-	-	-	-	+	-	-	-	-	-	G
<i>Peringia ulvae</i>	-	-	-	-	-	+	-	+	-	-	-	+	G
<i>Pusillina inconspicua</i>	-	+	-	-	+	+	+	+	+	+	-	+	G
<i>Tritia reticulata</i>	-	+	+	+	-	+	+	+	-	+	+	+	P
<b>Crustacea</b>													
<i>Amphibalanus improvisus</i>	-	-	-	+	-	-	+	+	-	-	+	+	S
<i>Corophium volutator</i>	-	-	-	-	+	+	+	+	+	+	+	+	D
<i>Microdeutopus gryllotalpa</i>	-	-	-	+	+	+	+	+	+	+	+	+	D
<b>Others</b>													
<i>Asterias rubens</i>	-	-	-	-	-	-	-	+	-	-	-	+	P
<i>Boreochiton ruber</i>	-	-	-	-	-	-	-	-	+	+	+	-	G
<i>Tubificoides benedii</i>	-	-	-	-	+	-	+	+	-	-	+	+	D

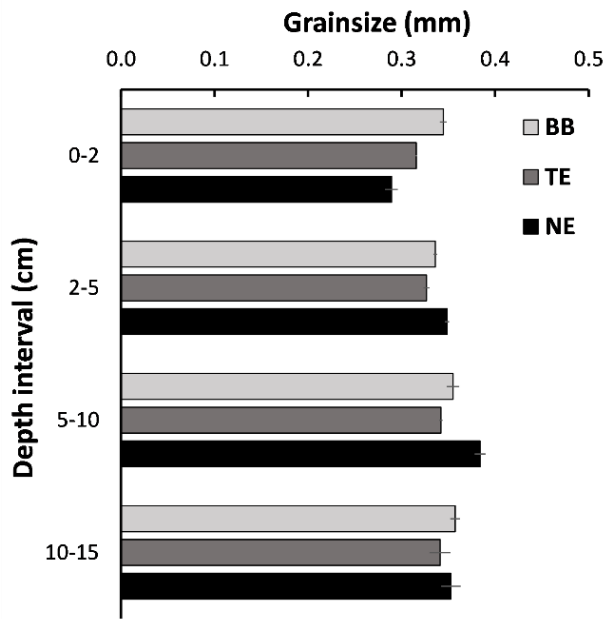


Figure S1. Median grain size ( $\mu\text{m}$ ) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE ( $n = 3$ ). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.

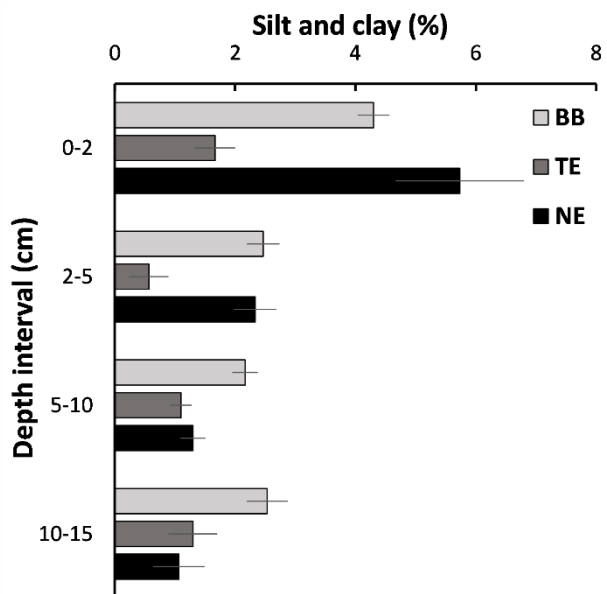


Figure S2. Silt and clay content (%) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE ( $n = 3$ ). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.

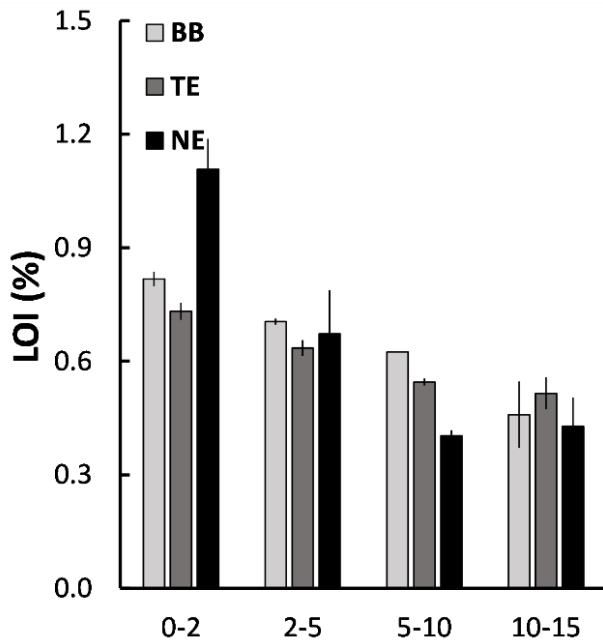


Figure S3. Loss on Ignition (LOI) (%) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE (n = 3). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.

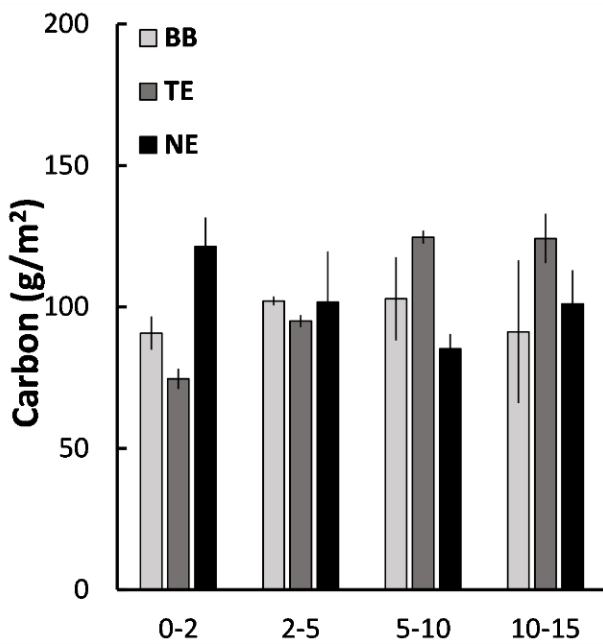


Figure S4. Total carbon (g m<sup>2</sup>) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE (n = 3). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.

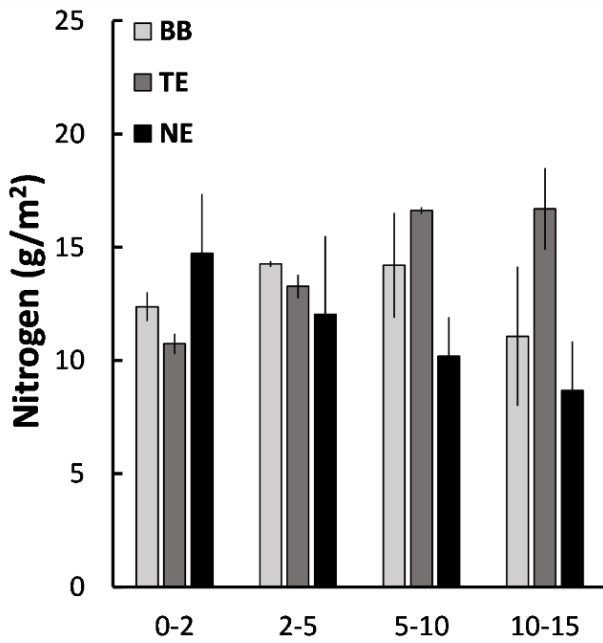


Figure S5. Total nitrogen ( $\text{g m}^{-2}$ ) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE ( $n = 3$ ). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.

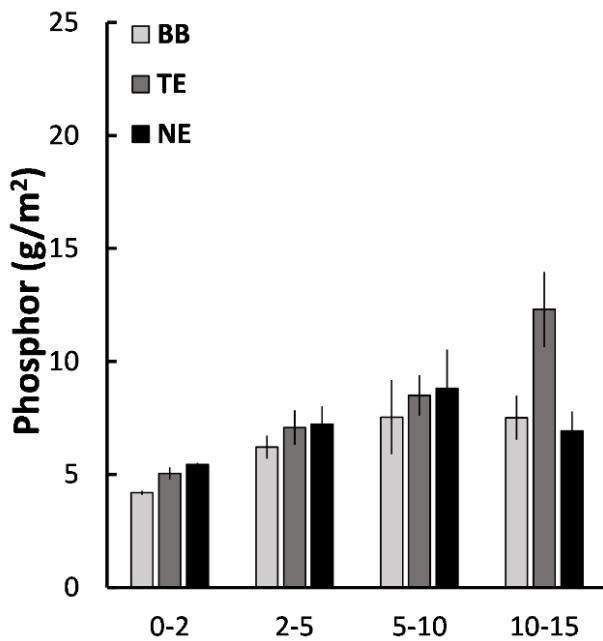


Figure S6. Total phosphorus ( $\text{g m}^{-2}$ ) at each station bare bottom (BB), transplanted eelgrass (TE) and natural eelgrass (NE)  $\pm$ SE ( $n = 3$ ). Cores sliced in depth intervals 0-2, 2-5, 5-10 and 10-15 cm.