S4 Table. Significance values (p-values) of linear regression analyses between different abiotic parameters.

	latitude	cor	annual mean air temperature	cor	annual mean water temp	cor	annual mean precipitation	cor	grain size	cor
sal_S	**< 0.001**	neg	**< 0.001**	pos	**< 0.001**	pos	**< 0.001**	neg	**0.883**	
sal_P	**< 0.001**	neg	**< 0.001**	pos	**< 0.001**	pos	**< 0.001**	neg	**0.630**	
TA_S	**< 0.001**	neg	**< 0.001**	pos	**< 0.001**	pos	**< 0.001**	neg	**0.431**	
TA_P	**0.167**		**0.165**		**0.260**		**0.087**		**0.226**	
NH_4_S	**0.001**	neg	**0.001**	pos	**< 0.001**	pos	**0.004**	neg	**0.893**	
NH_4_P	**0.848**		**0.853**		**0.993**		**0.674**		**0.393**	
NO_2_S	**0.832**		**0.805**		**0.901**		**0.775**		**0.463**	
NO_2_P	**0.750**		**0.741**		**0.674**		**0.851**		**0.192**	
NO_3_S	**0.016**	pos	**0.017**	neg	**0.038**	neg	**0.003**	pos	**0.720**	
NO_3_P	**0.614**		**0.578**		**0.774**		**0.376**		**0.608**	
NO_X_S	**0.016**	pos	**0.016**	neg	**0.037**	neg	**0.003**	pos	**0.756**	
NO_X_P	**0.616**		**0.577**		**0.754**		**0.398**		**0.855**	
PO_4_S	**0.089**		**0.082**		**0.109**		**0.076**		**0.463**	
PO_4_P	**0.653**		**0.658**		**0.511**		**0.831**		**0.177**	

Salinity (sal), total alkalinity (TA) and nutrient concentrations (NH_4, NO_2, NO_3, NO_X, PO_4) in pore (P) and sea (S) water samples. cor = significant ($p < 0.05$) negative (neg) or positive (pos) linear correlation.