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## Supplementary Material

### Application of the Gini Index on the Evaluation of the Environmental Heterogeneity and Habitat Suitability Index for Larval Gobies

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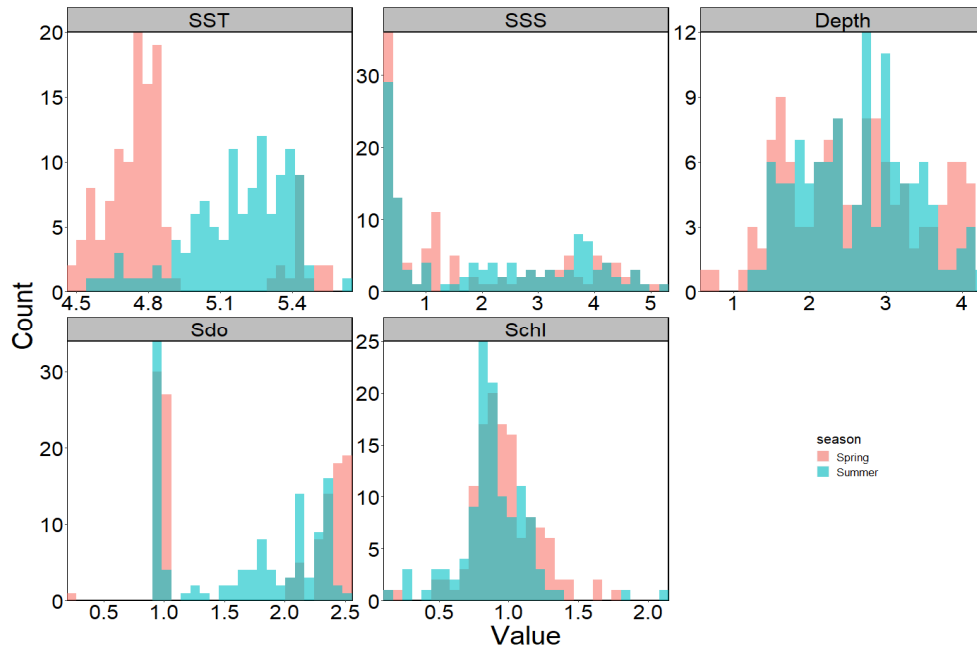


Figure S1. Histogram of environmental factors in the spring and summer in the Yangtze Estuary (2018–2020).

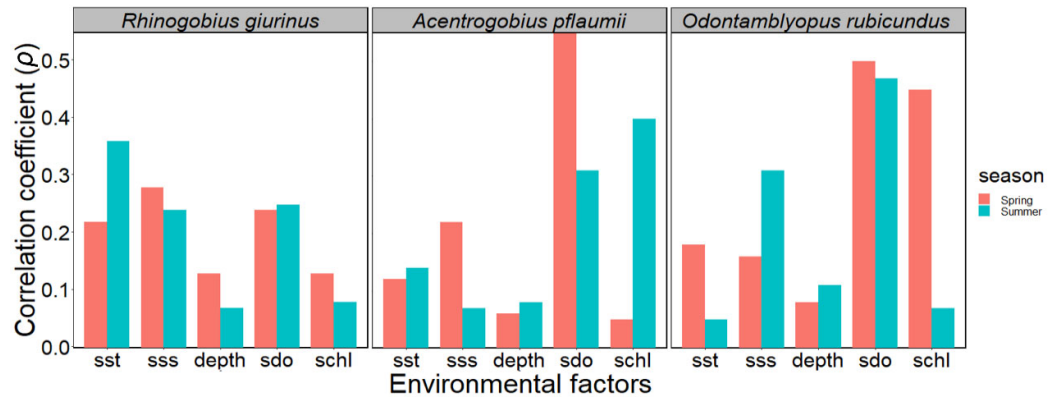


Figure S2. The correlation coefficient ( $\rho$ ) of gobies and each environmental factor in the spring and summer in the Yangtze Estuary (2018–2020).

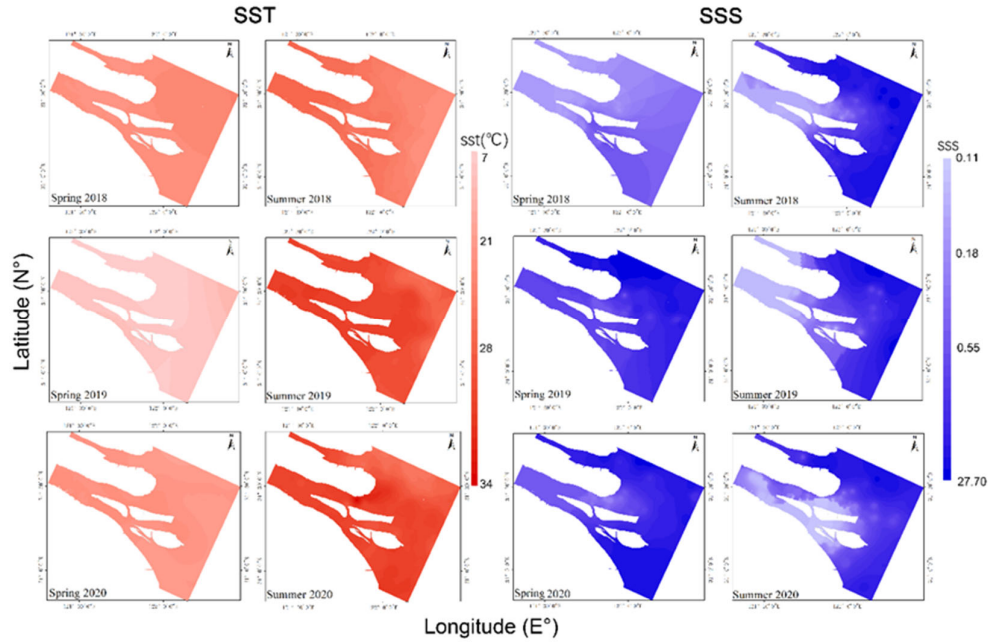


Figure S3. The spatial distribution of the sea temperature and salinity in the spring and summer in the Yangtze Estuary (2018-2020).

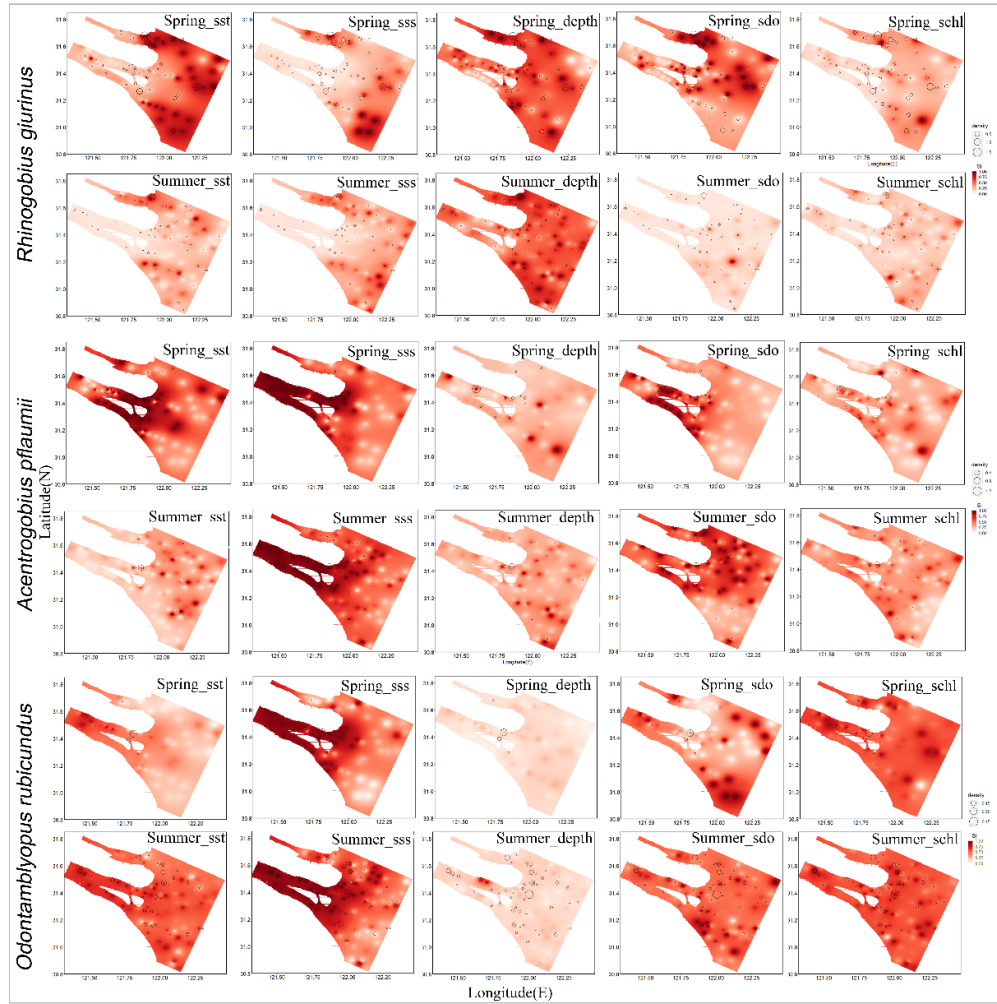


Figure S4. The spatial distribution of SI of environmental factors for three larval gobies in the Yangtze Estuary.

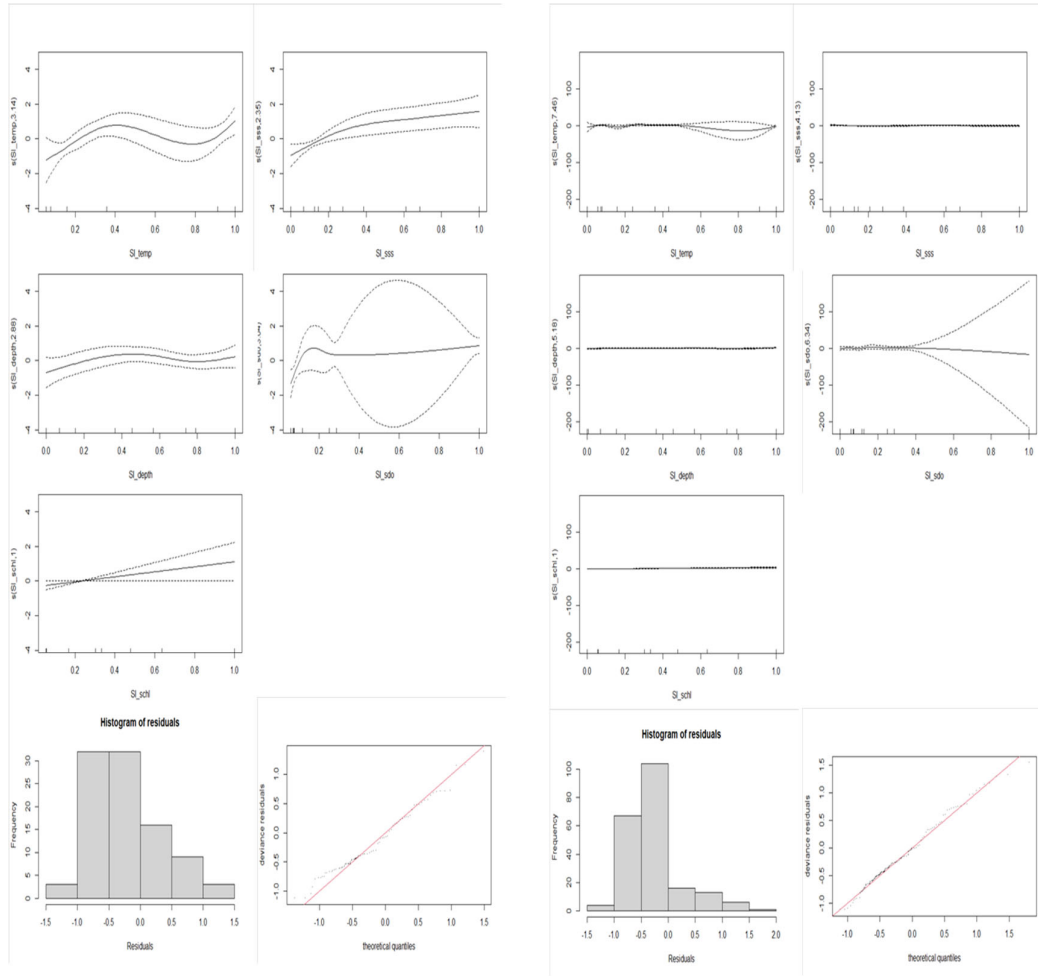


Figure S5. Results for *Rhinogobius giurinus* derived by GAM (left two panels: spring; right two panels: summer)

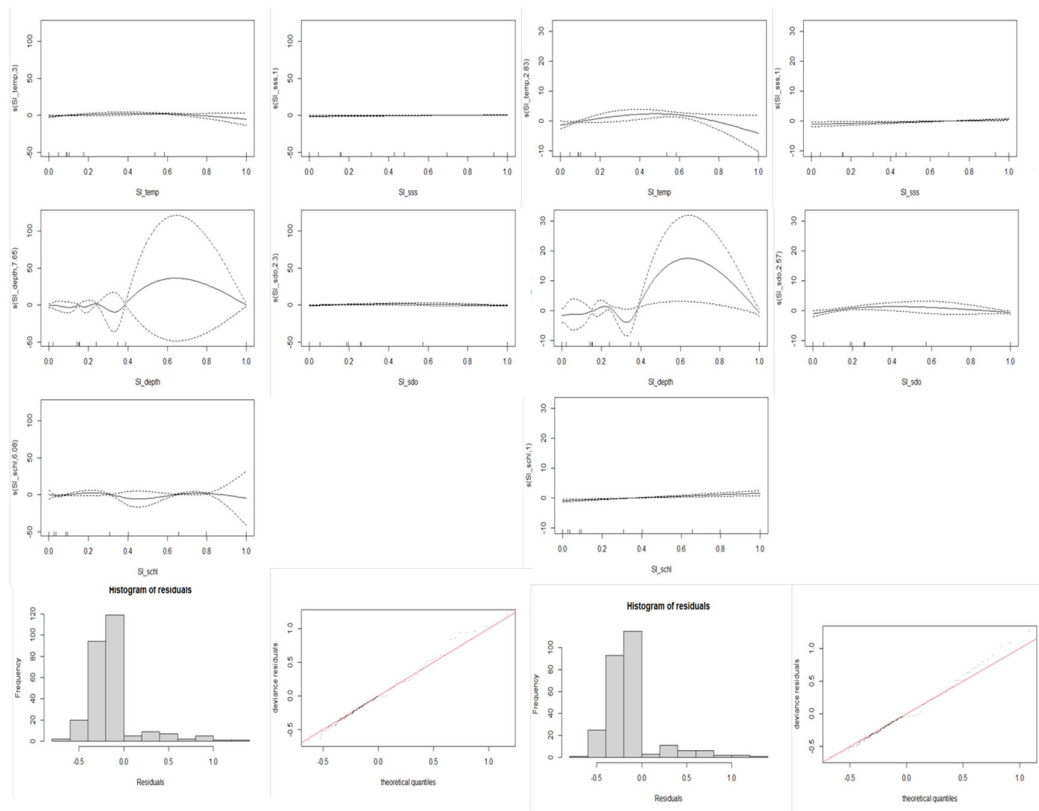


Figure S6. Results for *Acentrogobius pflaumii* derived by GAM (left two panels: spring; right two panels: summer)

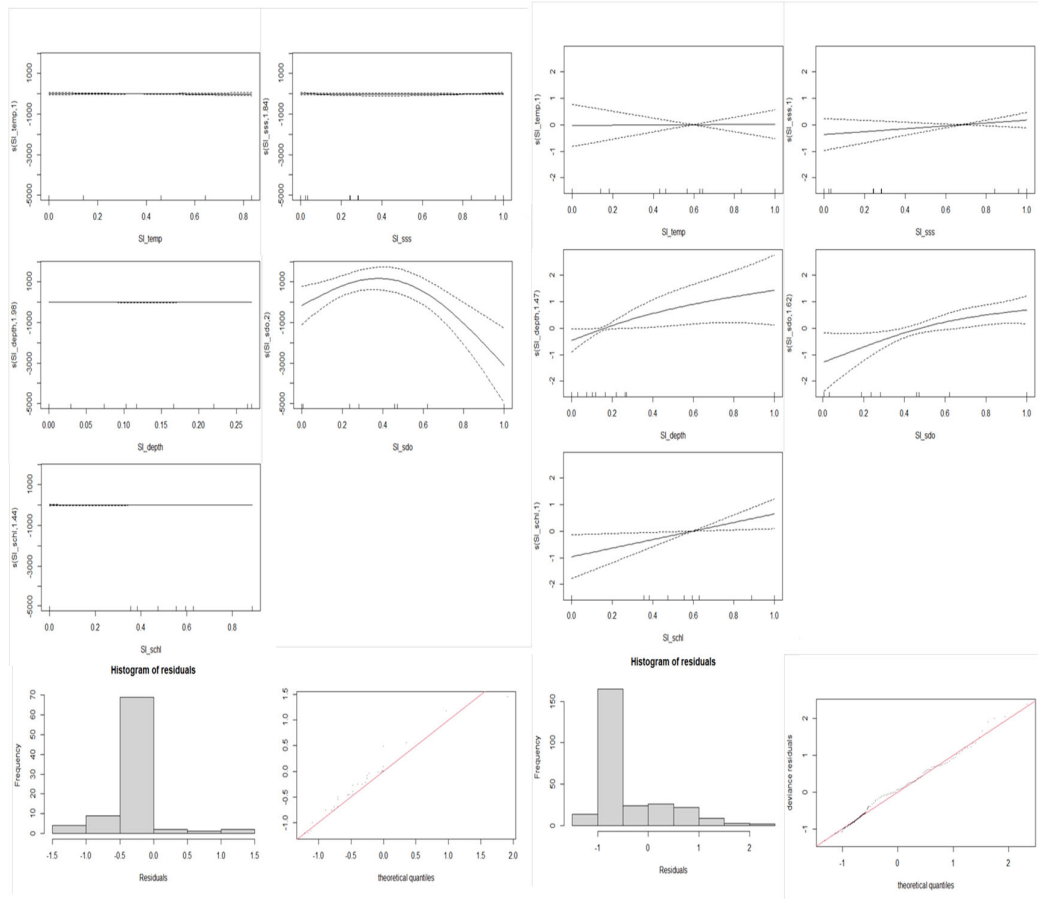


Figure S7. Results for *Odontamblyopus rubicundus* derived by GAM (left two panels: spring; right two panels: summer)

Table S1. Summary of environmental factors in the spring and summer in the Yangtze Estuary (2018–2020).

Season	Factors	SST	SSS	Dep	Sdo	Schl
Spring	Min	20.00	0.14	0.43	0.06	0.03
	Max	30.91	26.68	17.37	6.41	3.18
	Mean	23.42	5.78	7.56	3.50	0.98
Summer	Min	20.77	0.13	1.66	0.90	0.02
	Max	31.60	27.68	18.27	6.15	4.56
	Mean	26.79	6.58	7.48	3.17	0.86