

The following supplement accompanies the article

Importance of the spring transition in the northern Gulf of Mexico as inferred from marine fish biochronologies

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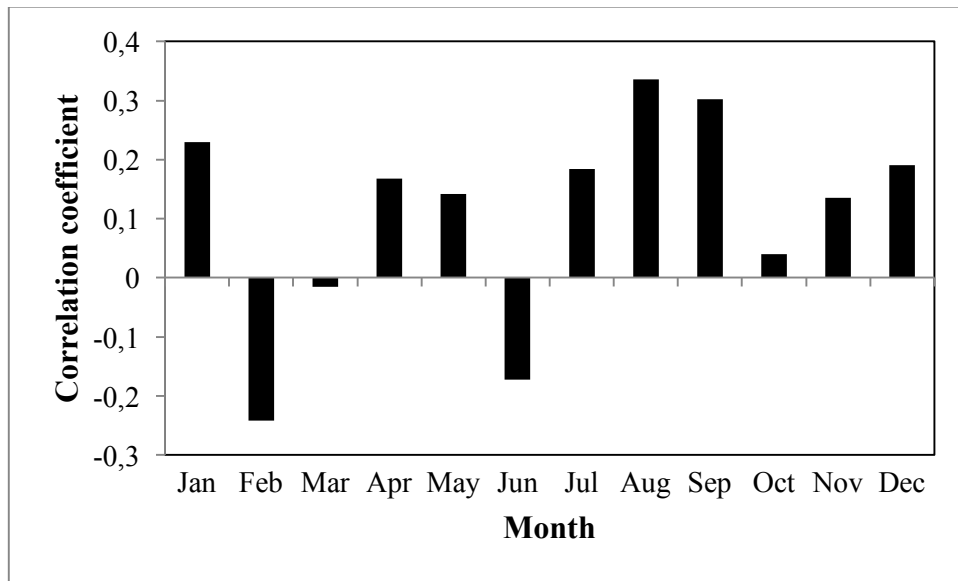


Figure S1. Correlation coefficients between PC1_{fish} and mean monthly Mississippi River discharge. No correlation coefficients are significant at the $p < 0.05$ level.

Table S1. Shapiro-Wilk test (W) for normality (with p-value) as calculated for each fish growth-increment chronology data as well as March climate (MC) variables. Also shown are Henze-Zirkler's Test (HZ) for multivariate normality and p-value as calculated for PCA_{fish} and PCA_{MC} .

Dataset	p-value
Gray snapper	W = 0.943 p = 0.366
LA Red snapper	W = 0.975 p = 0.909
Black drum	W = 0.93 p = 0.226
TX red snapper	W = 0.966 p = 0.752
King mackerel	W = 0.953 p = 0.52
PCA_{fish}	HZ = 0.679 p = 0.455
March SST	W = 0.976 p = 0.908
March SLP	W = 0.945 p = 0.379
March U wind	W = 0.968 p = 0.784
March V wind	W = 0.971 p = 0.839
PCA_{MC}	HZ = 0.718 p = 0.687

Table S2. Results of linear regressions and the associated Shapiro-Wilk normality test, Breusch-Pagan test for homoscedasticity, and Durbin-Watson test for autocorrelation.

Linear Regression	R^2 and p-value	Normality (Shapiro-Wilk)	Homoscedasticity (Breusch-Pagan)	Autocorrelation (Durbin-Watson)
Mackerel~ $PC2_{fish}$	$R^2 = 0.81$ p < 0.001	W = 0.957 p = 0.574	BP = 1.91 p = 0.167	DW = 2.46 p = 0.412
$PC1_{fish}$ ~ $PC1_{MC}$	$R^2 = 0.51$ p = 0.001	W = 0.946 p = 0.4	BP = 1.42 p = 0.233	DW = 1.9 p = 0.6
Mackerel~ AMO	$R^2 = 0.42$ p < 0.002	W = 0.971 p = 0.646	BP = 0.469 p = 0.493	DW = 1.65 p = 0.33
$PC1_{fish}$ ~ $PC1_{climate}$	$R^2 = 0.36$ p < 0.011	W = 0.962 p = 0.677	BP = 1.07 p = 0.301	DW = 2.68 p = 0.176