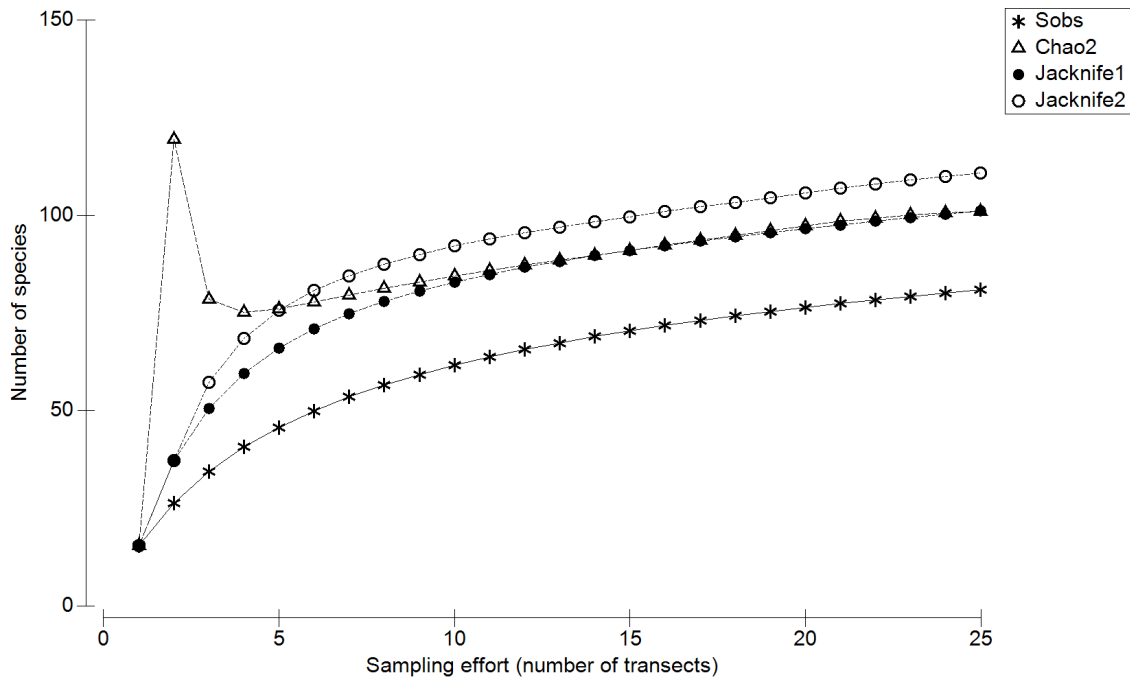
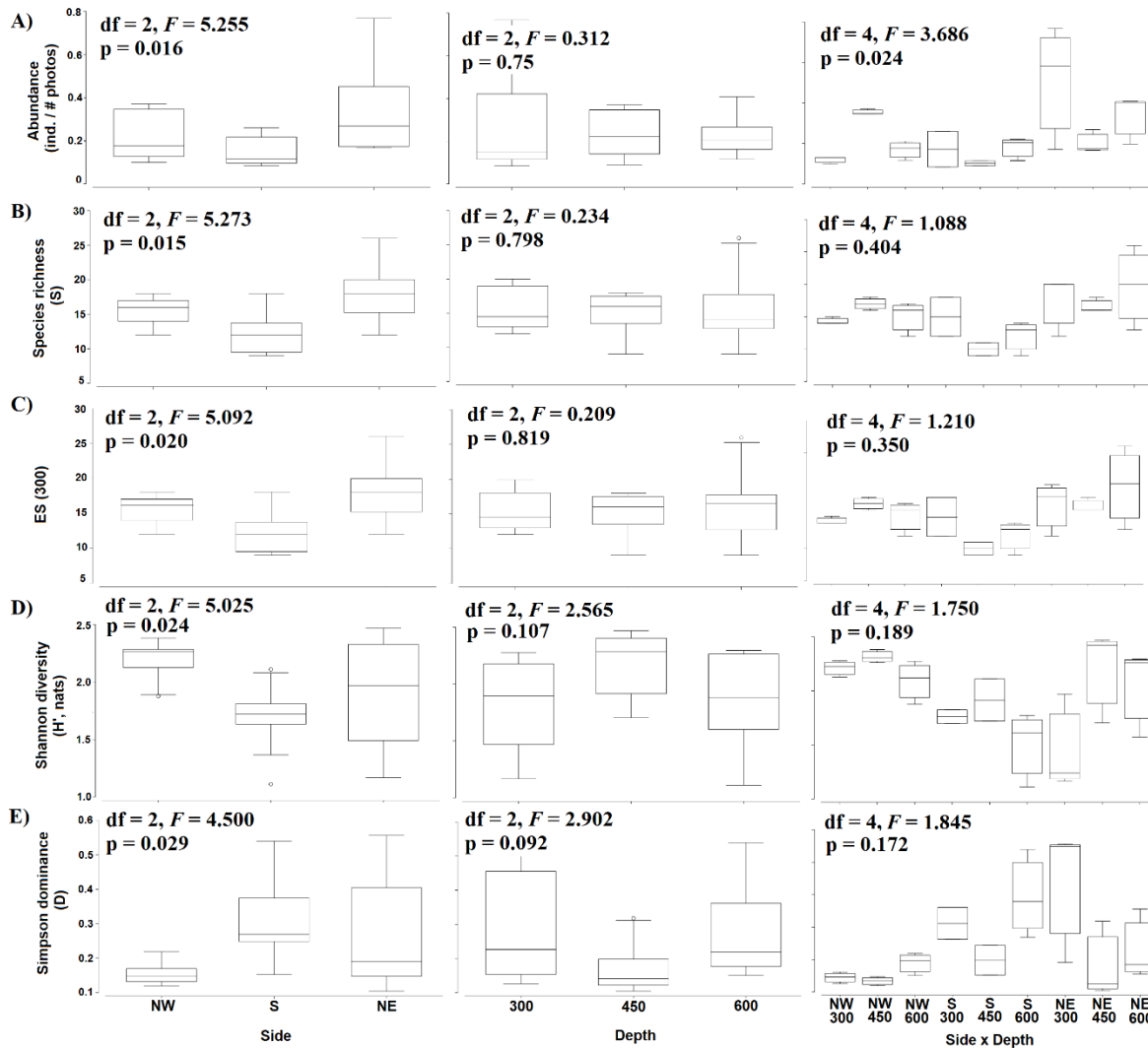


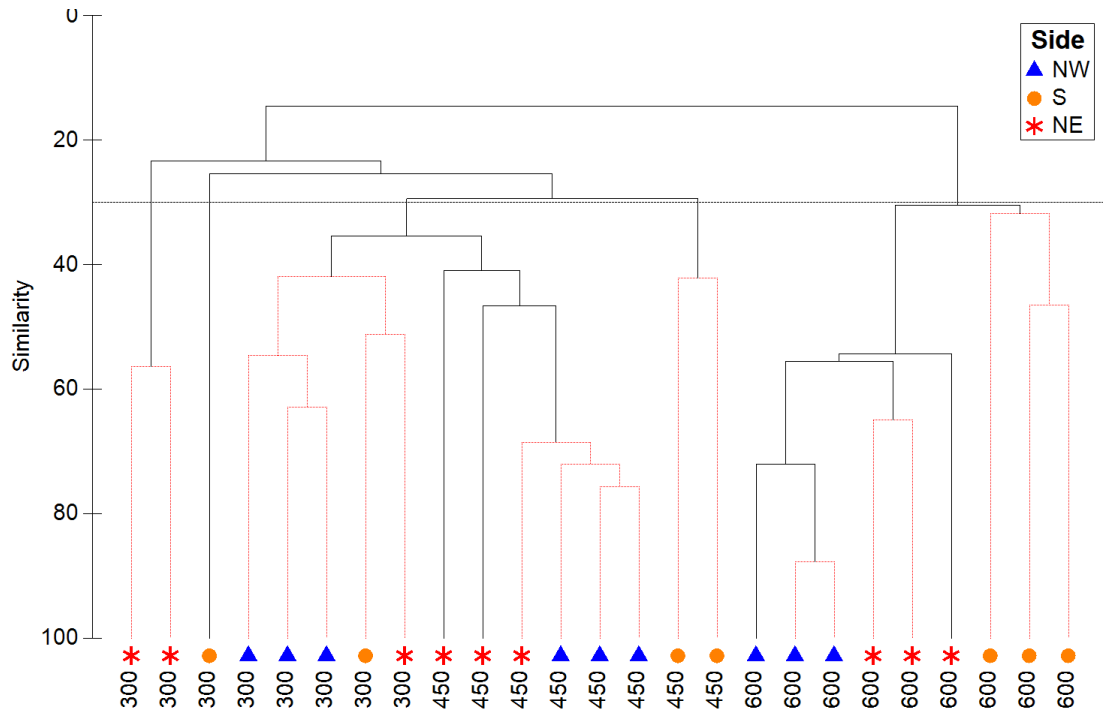
**Supplement 2.** Additional data on species accumulation curves, univariate analyses and bubble plots



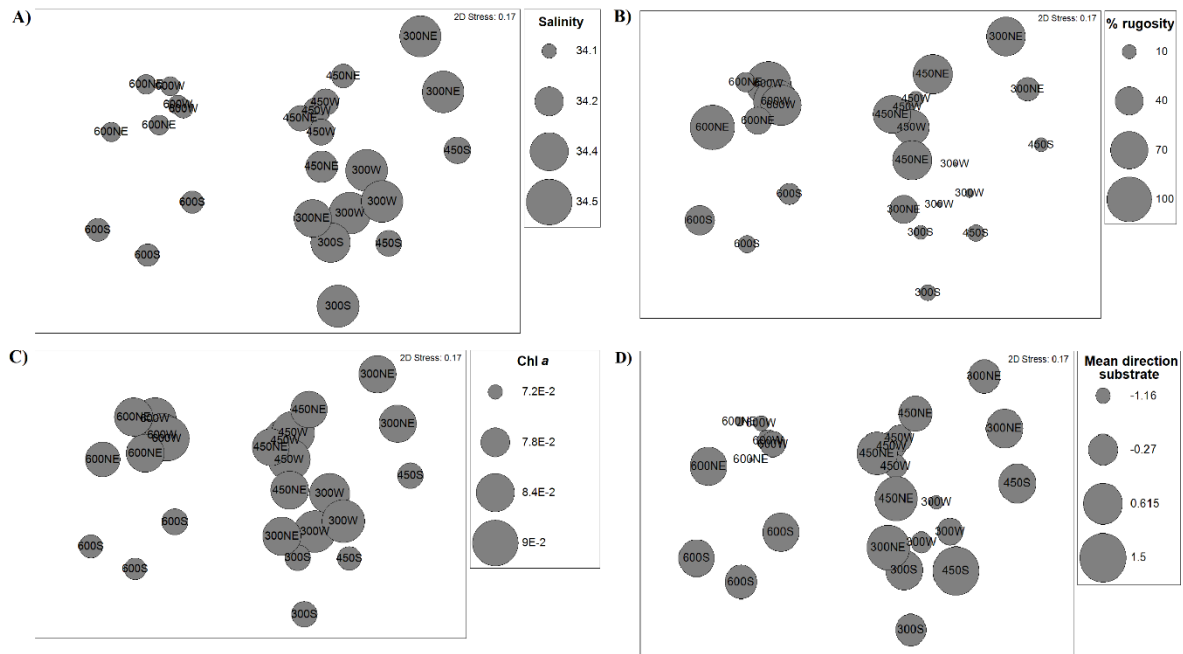
**Fig. S1.** Observed (Sobs) and expected fish species accumulation curves in Pioneer Bank, with nonparametric indices Chao 2, Jackknife 1, and Jackknife 2. Plots were constructed with 10,000 non-replacement iterations.



**Fig. S2.** Box plots of the A) relative abundance of fishes, B) species richness (S), C) estimated species richness-  $E_{S(300)}$ , D) Shannon diversity ( $H'$ ), and E) Simpson dominance (D) indices. Data are shown by side of the bank (NW, S, and NE) and depths sampled (300 m, 450 m, and 600 m) at Pioneer Bank. The solid line is the median; the boxes show the 25 and 75% percentiles; the error bars are the 5 and 95% percentiles; the dots correspond to outliers. Permutational ANOVA was used to compare each variable among dive sites and depths with  $p \leq 0.05$  and using Euclidean distance as observed in Table 4.



**Fig. S3.** Dendrogram of transects produced by hierarchical clustering and group average of Bray-Curtis similarities calculated on the fourth root transformed relative abundance data of Pioneer Bank. Black lines denote significantly different clusters (SIMPROF,  $P < 0.05$ ). Colored symbols correspond to sides and labels on individual transects indicate transect depth.



**Fig. S4.** NMDS from Fig. 3 with bubble plot overlays for A) salinity, B) % rugosity, C) chl *a* (extracted from NESDIS), and D) mean direction of substrate included in the top model in the DistLM analysis. Bubble sizes are proportional in each figure to the value of the environmental variable average by transect, and each point is an Autonomous Underwater Vehicle (AUV) transect represented by its depth and side.