Do foraging beaked whales and sperm whales target the Gulf Stream frontal edge off Cape Hatteras?

*Using long term passive acoustic monitoring to explore habitat associations*

Joy Stanistreet, Douglas Nowacek, James Hench, Lynne Hodge, Sofie Van Parijs, Joel Bell, & Andrew Read
HARP

15m 5/16" Jacketed Wire Rope

Hydrophone

4m 3/8" Chain

HARP-M Instrument Package

35" MSI Syntactic Foam Buoy

4m 3/8" Chain

Dual EdgeTech PORT-Mid Frequency Acoustic Releases

4m 3/8" Chain

Steel Anchor
Xue et al. 2015. An integrated ocean circulation, wave, atmosphere, and marine ecosystem prediction system for the South Atlantic Bight and Gulf of Mexico. *Journal of Operational Oceanography* 8(1).
Environmental covariates
Gulf Stream position relative to HARP
Distance to front

Temporal index
Month (factor)

Species occurrence
Acoustic detections

GEE – GAM Model

Work in progress...