

Table S1. Progress towards completion of oyster reef restoration projects in no-take oyster sanctuaries in three Choptank River, Maryland tributaries at the time of sampling in 2017. Note that “restored” is defined as the completion of construction of restoration reefs, but not necessarily that the oyster populations on those reefs are self-sustaining (Maryland Oyster Restoration Interagency Workgroup 2019).

Sanctuary	Hectares restored	Restoration goal (hectares)
Harris Creek	142	142
Tred Avon River	33	51
Little Choptank River	115	179



Figure S1. Video and photo system used to record oyster habitat images. The base of the frame was a 0.5 x 0.5 m quadrat and the frame was 0.5 m tall. Two GoPro™ Hero 5 cameras were mounted with a horizontal orientation and set to record video of the reef. A third camera was mounted at the top facing down and set to take still images (photoquadrats) at 30 sec intervals at the highest resolution. The quadrat was filled with sand to add weight and holes were drilled in the vertical pieces to allow water to enter/exit. Dive weights were attached to each corner for added weight.

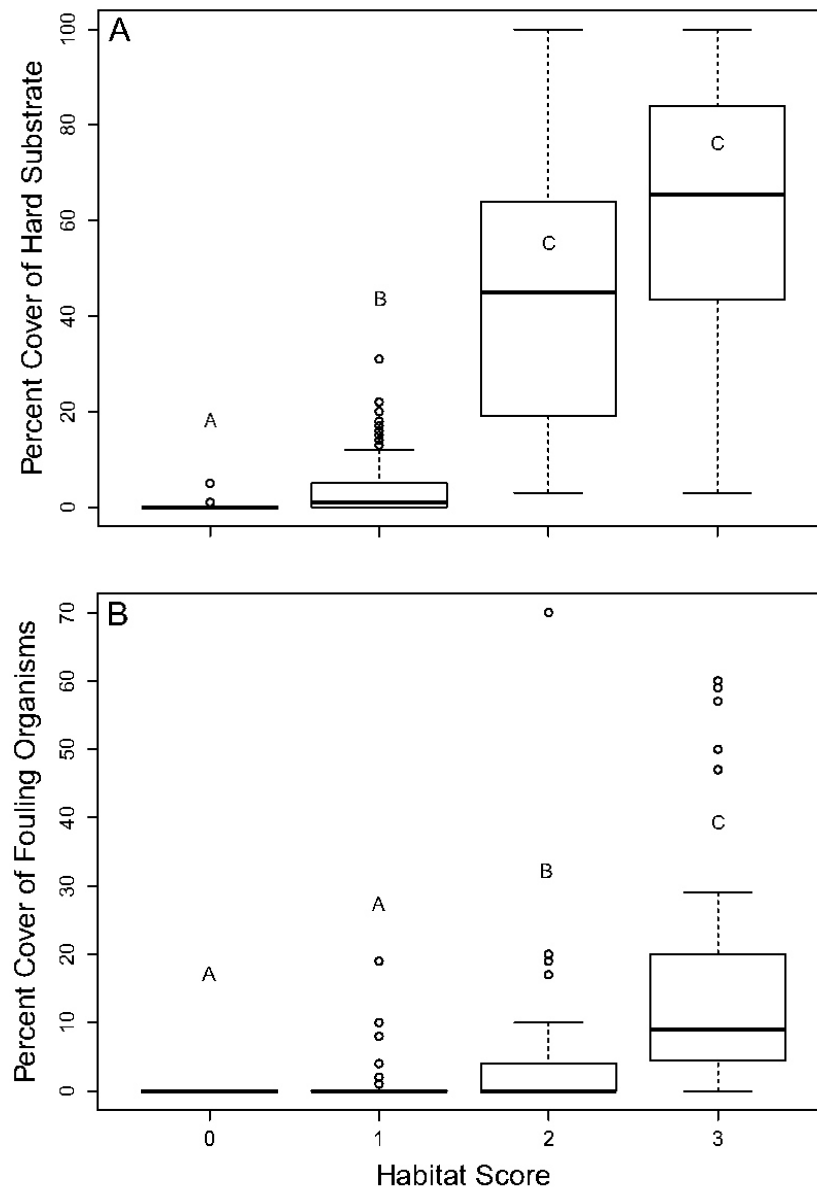


Figure S2. (A) Percent cover of hard substrate and (B) percent cover of fouling organisms compared by habitat score. Sites with habitat scores of 0 have sand or mud only, sites scored as 1 have sand or mud with hard substrate covering <50% of the bottom, sites scored as 2 have hard substrate covering >50% of the bottom with reef height less than the height of an adult oyster, and sites scored as 3 have hard substrate covering >50% of the bottom with reef height greater than the height of an adult oyster (approximately 75 mm shell height). Boxplots indicate the median (black line), 25<sup>th</sup> to 75<sup>th</sup> percentiles (box), 10<sup>th</sup> and 90<sup>th</sup> percentiles as (whiskers), and outliers (black dots). Different letters indicate significant differences among groups based on Kruskal-Wallis analysis of variance on ranks and post hoc Dunn tests.

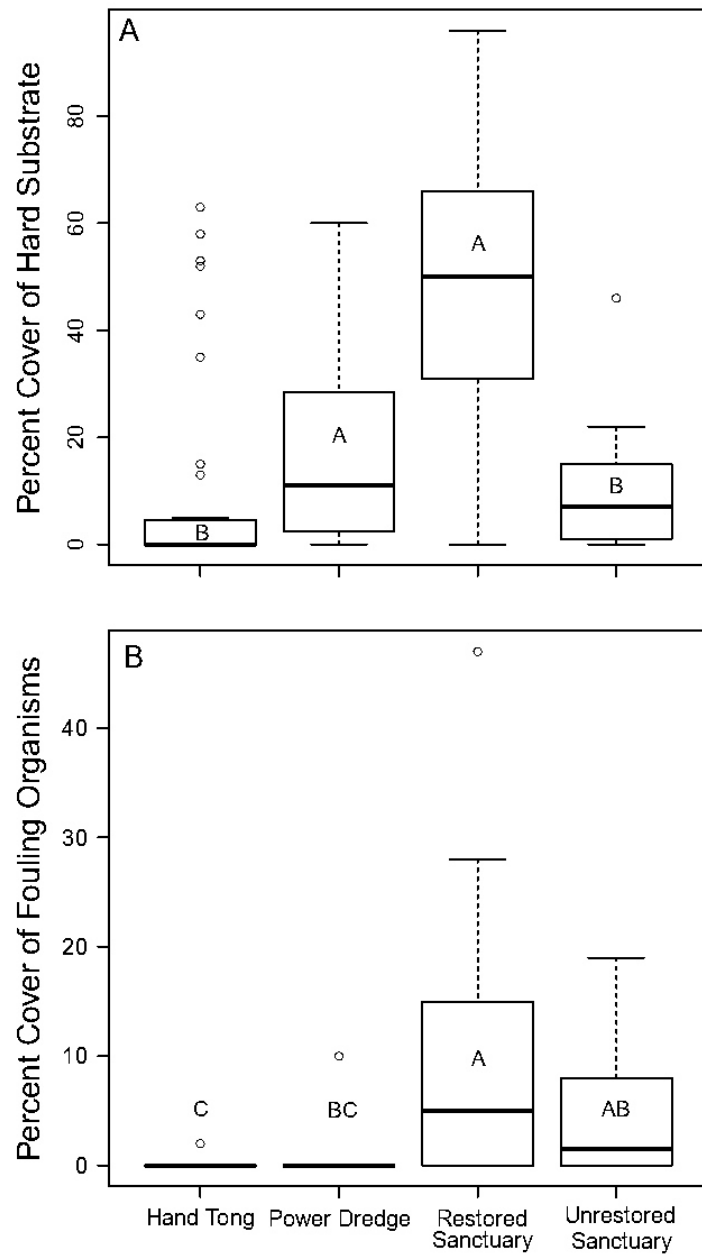


Figure S3. (A) Percent cover of hard substrate and (B) percent cover of fouling organisms compared by oyster management practice. Boxplots indicate the median (black line), 25<sup>th</sup> to 75<sup>th</sup> percentiles (box), 10<sup>th</sup> and 90<sup>th</sup> percentiles as (whiskers), and outliers (black dots). Different letters indicate significant differences among groups based on Kruskal-Wallis analysis of variance on ranks and post hoc Dunn tests.