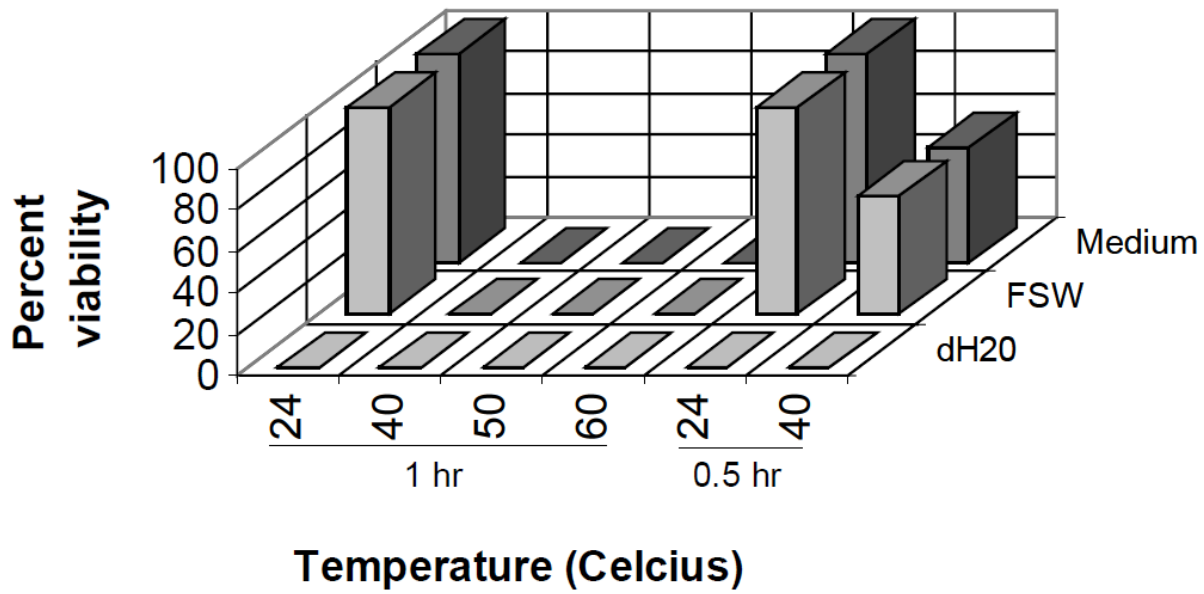

Figure 1: The viability of in vitro Perkinsus marinus cultures following combinations of osmotic and thermal shocks induced by varying the culture medium (Medium = DME/Ham's Medium, FSW = filtered sea water, dH_20 = deionized H2O) or the temperature and treatment duration. Holding the cultures at 40, 50, and 60 ºC for an hour consistently killed all Perkinsus marinus cells *[13]*.

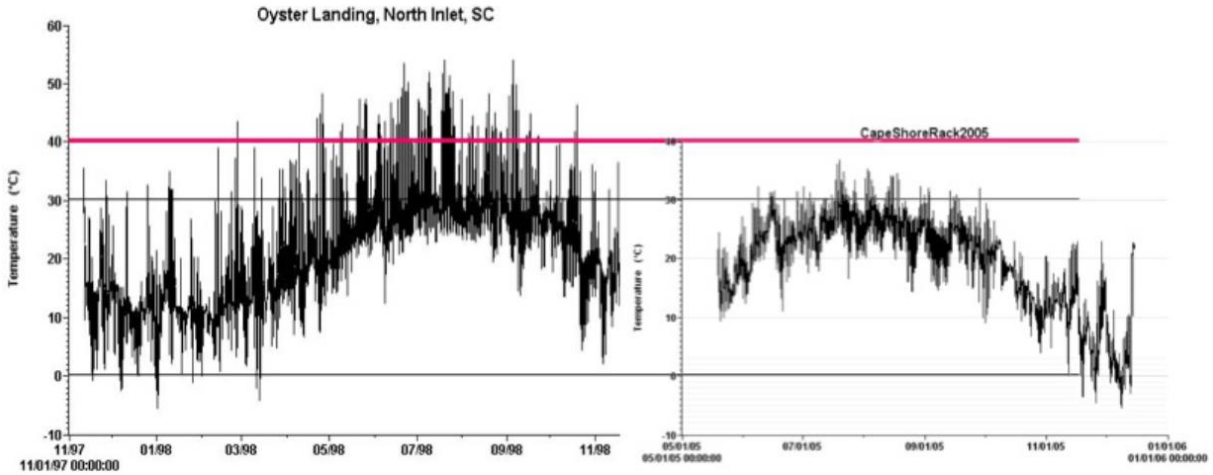

Figure 2: (left panel) intertidal temperatures on a South Carolina oyster reef showing temperatures to routinely exceed 40ºC, but not at an aquaculture site in New Jersey (right panel).

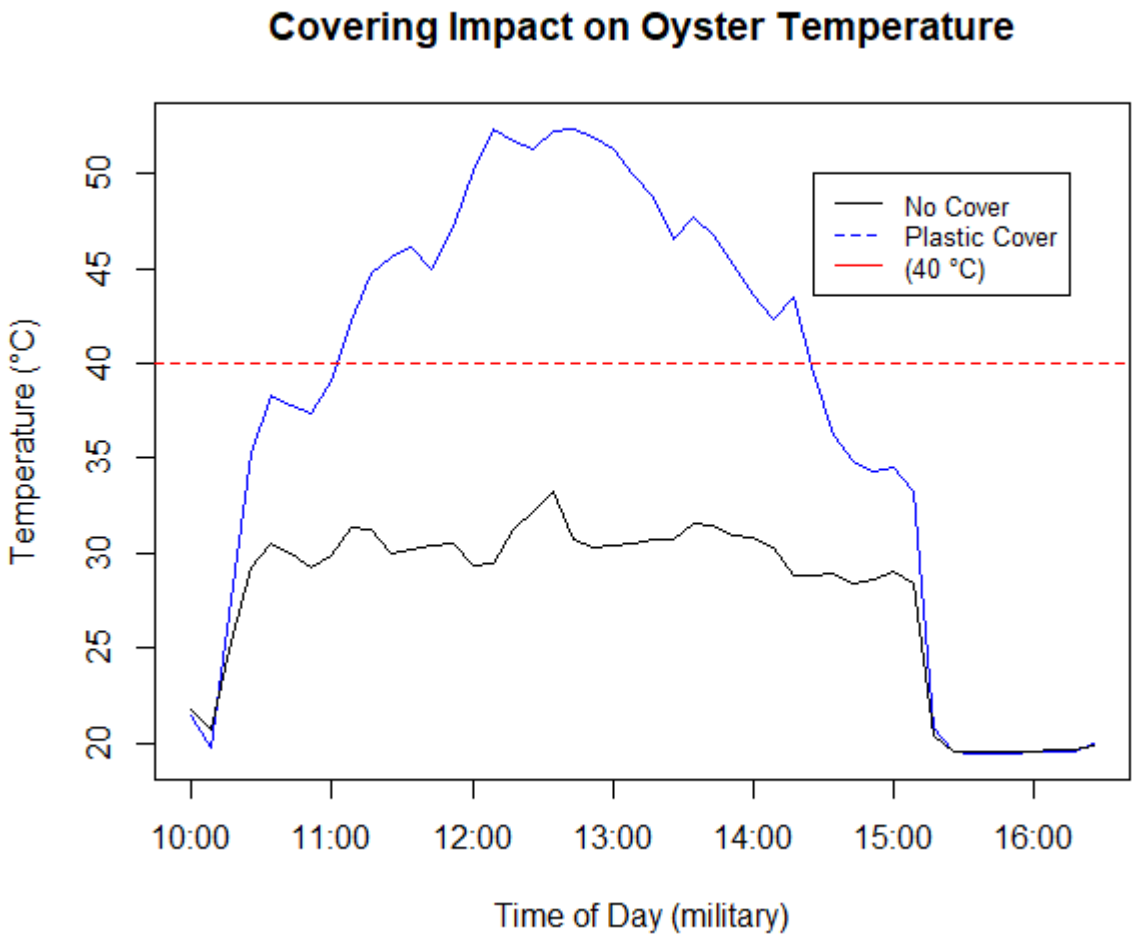

Figure 3: Thermal spike achieved by covering oyster bags in plastic on a moderately warm (high of 81 ºF day) and sunny day, with the thermal threshold for Perkinsus marinus elimination after one hour of in vitro exposure indicated in red.

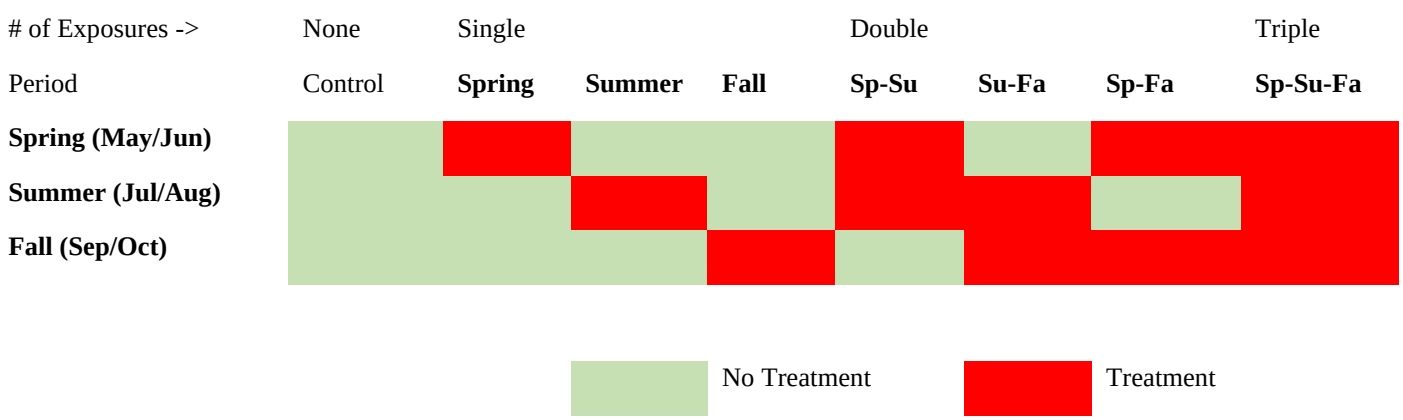

Figure 4: Gantt chart representation of 8 different treatments that test both frequency and seasonality of thermal shock treatments to control Dermo disease and monitor subsequent impacts on the bacterial microbiome and biofouling. “Sp” = spring, “Su” = summer, “Fa” = fall.

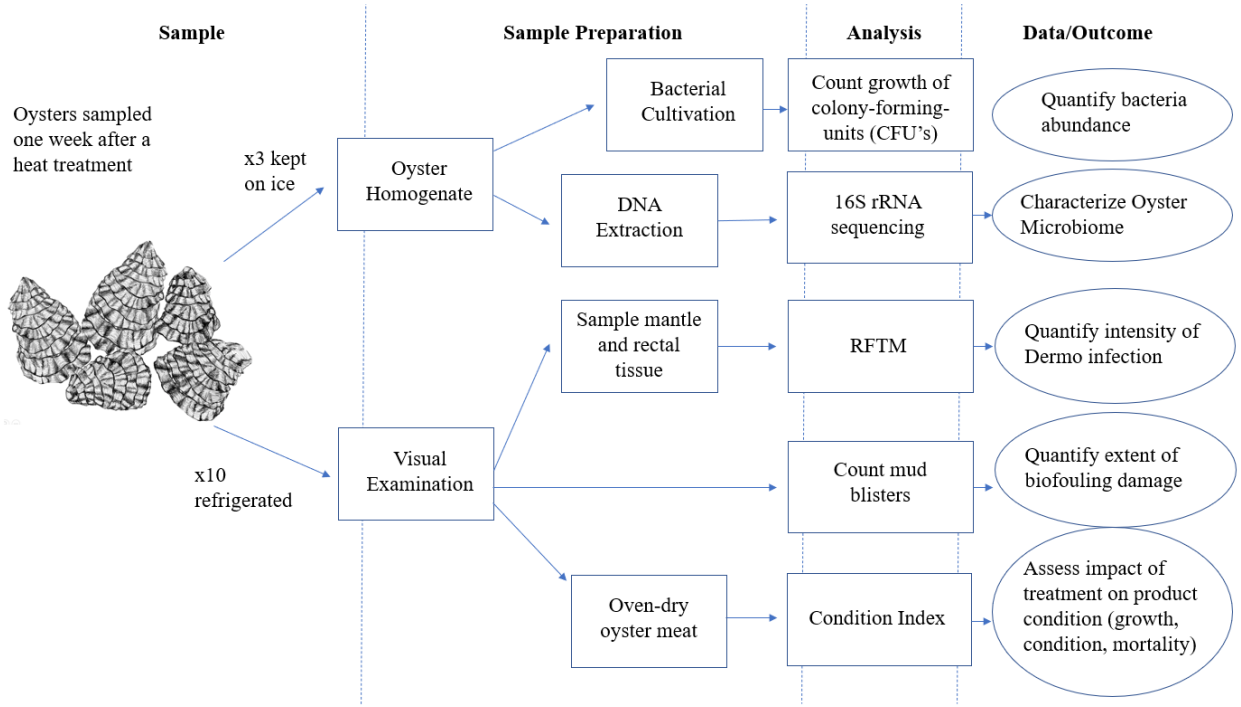

Figure 5: Flow chart of sample analysis of oysters collected from the experiment described in figure 4 to determine bacteria quantity and composition, as well as Dermo infection intensity of oyster subjected to thermal shock.