

APPENDIX A

FIGURES



Figure 1. Locations of sample sites in the Maine Healthy Beaches Program. Site OG-5 was added in 2006. Base image from MEGIS (2003).

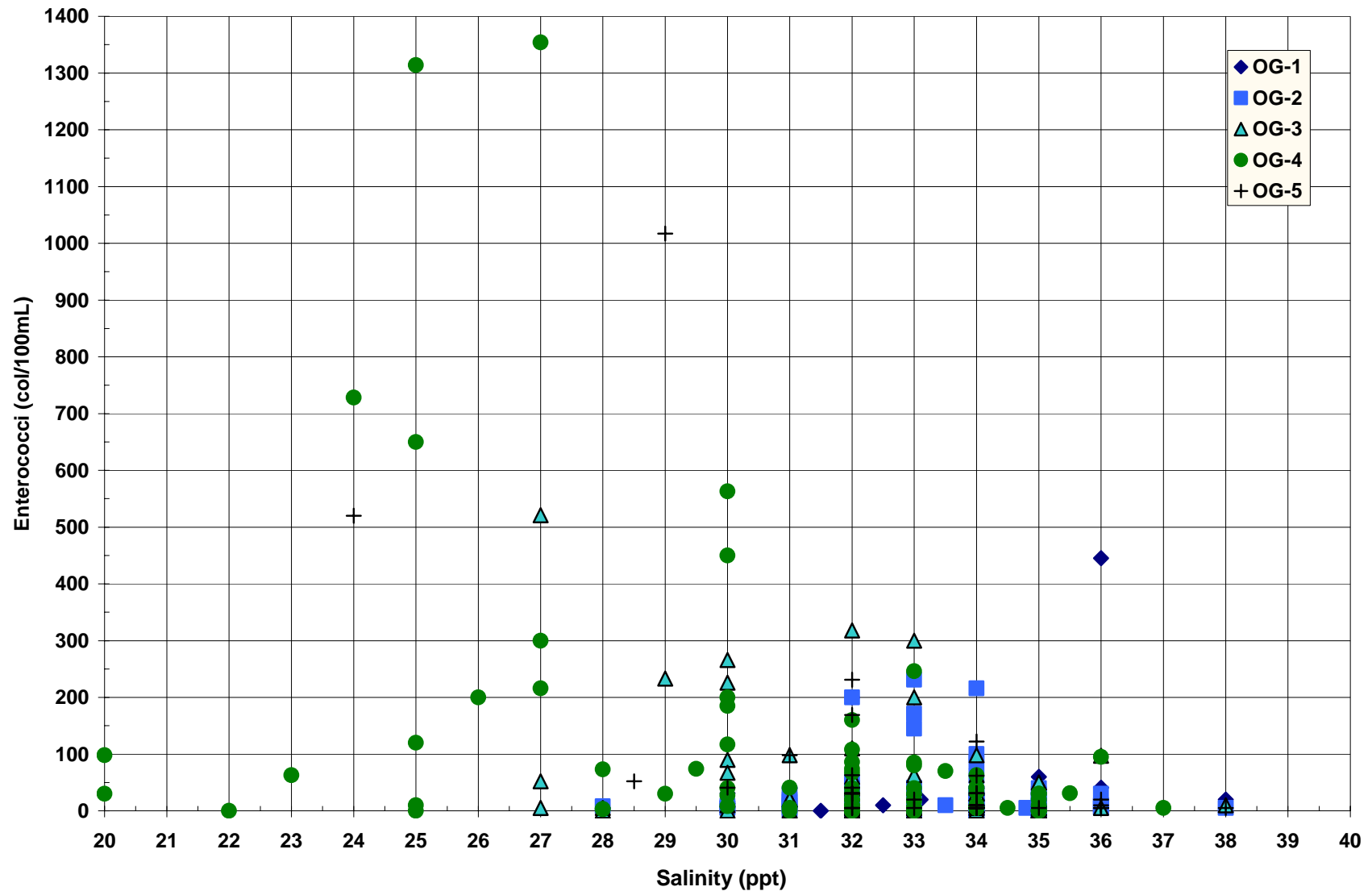


Figure 2. Salinity values for days that samples were recorded. It appears that the highest bacteria levels correspond with lower salinities. *Enterococci* levels are in colonies (col) per 100 mL. Salinity data from Maine Healthy Beaches Program.

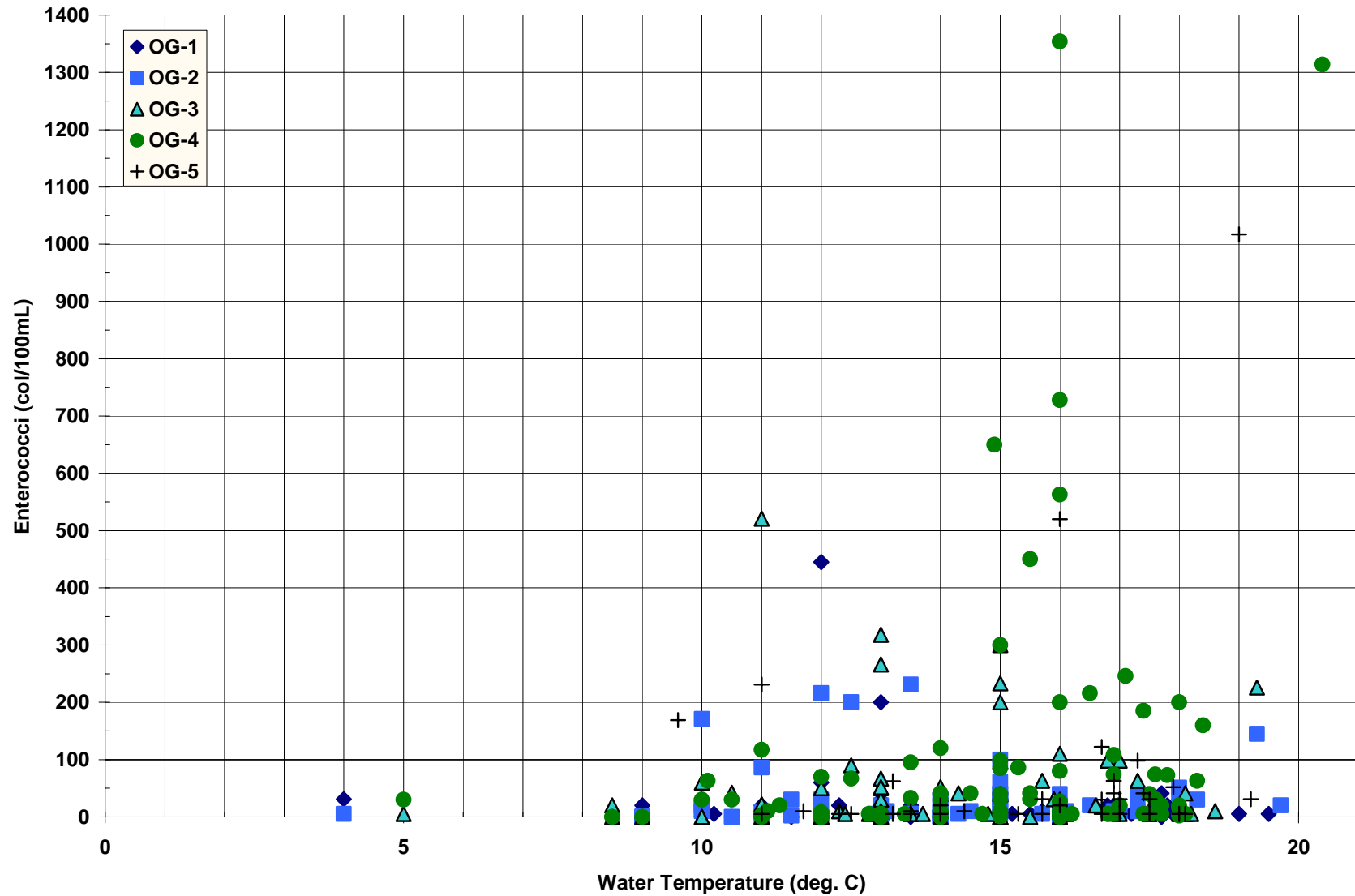


Figure 3. Water temperature values for days that water quality samples were collected. It appears that the highest bacteria levels correspond with temperatures around 15-16°C. Temperature data from Maine Healthy Beaches Program.

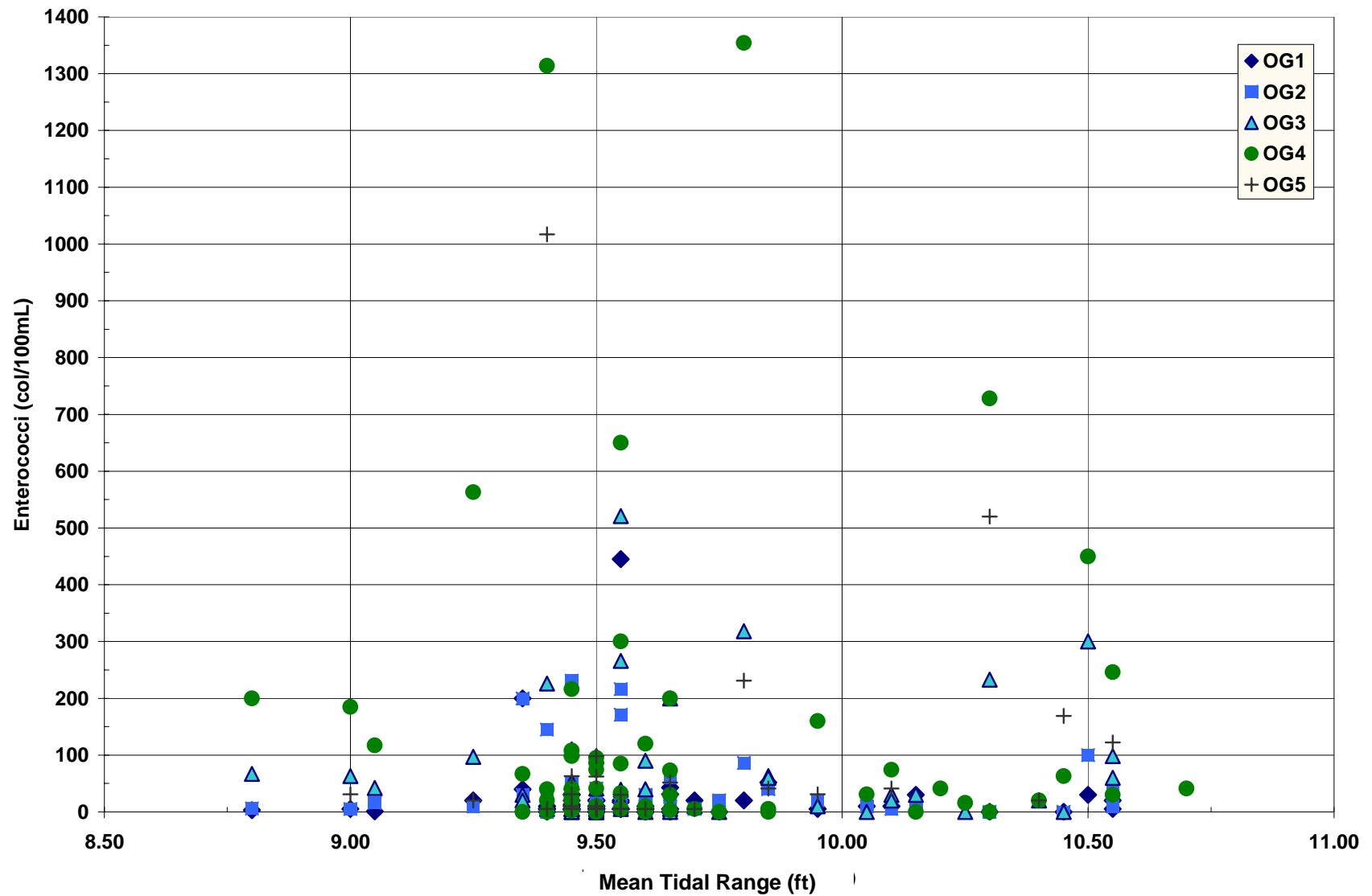


Figure 4. Total tidal range (swing) averaged for daily conditions that samples were recorded. There is a bimodal distribution at around 9.6 feet, and near 10.5 feet. Tidal data source: Portland Tide Gauge, NOAA CO-OPS, <http://tidesandcurrents.noaa.gov/H>.

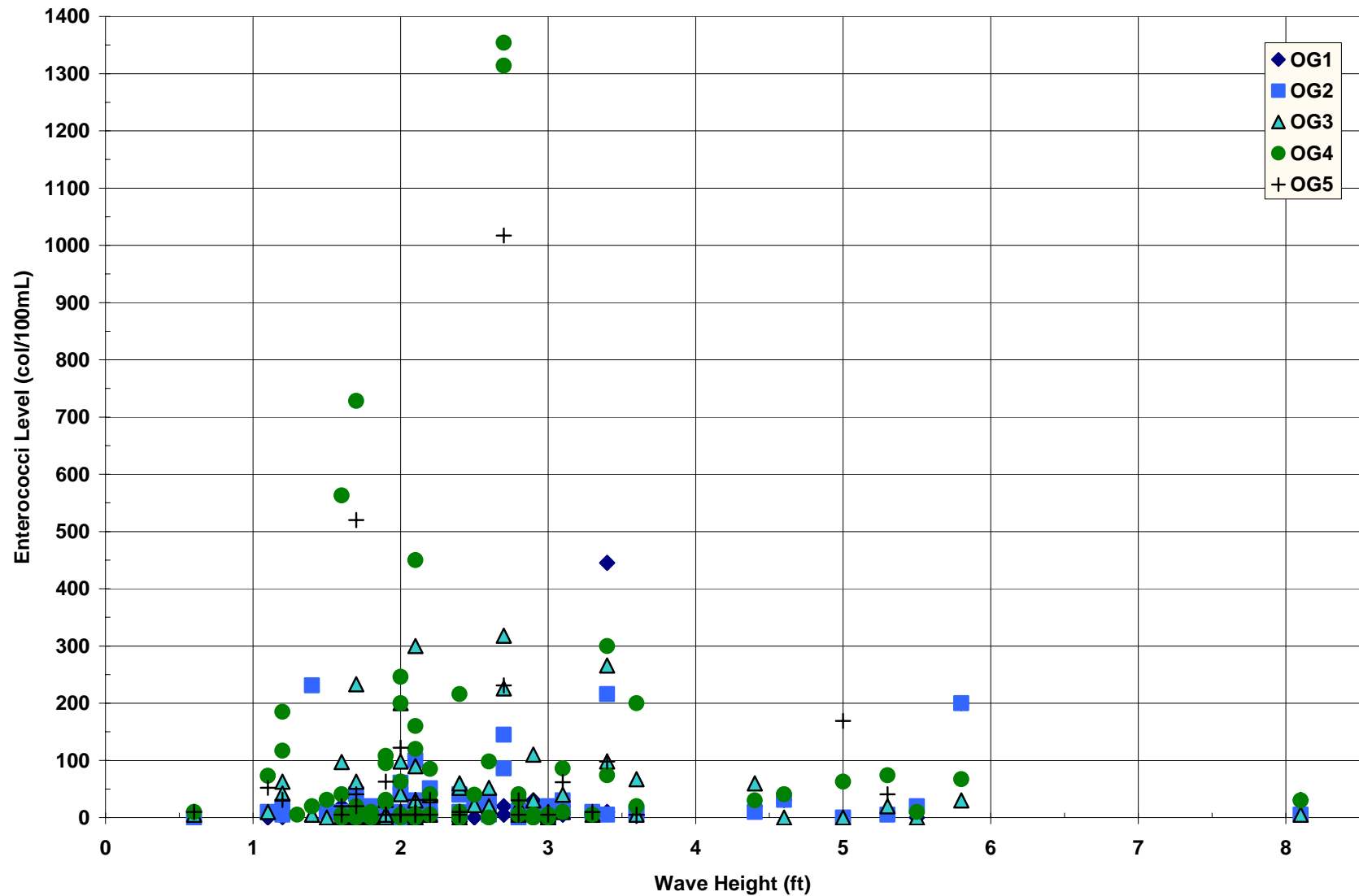


Figure 5. Averaged daily wave heights for days that samples were recorded. It appears that if waves are four feet or greater, bacteria levels tend to be lower. Wave data source: GoMOOS Buoy B, <http://www.gomoos.org/H>

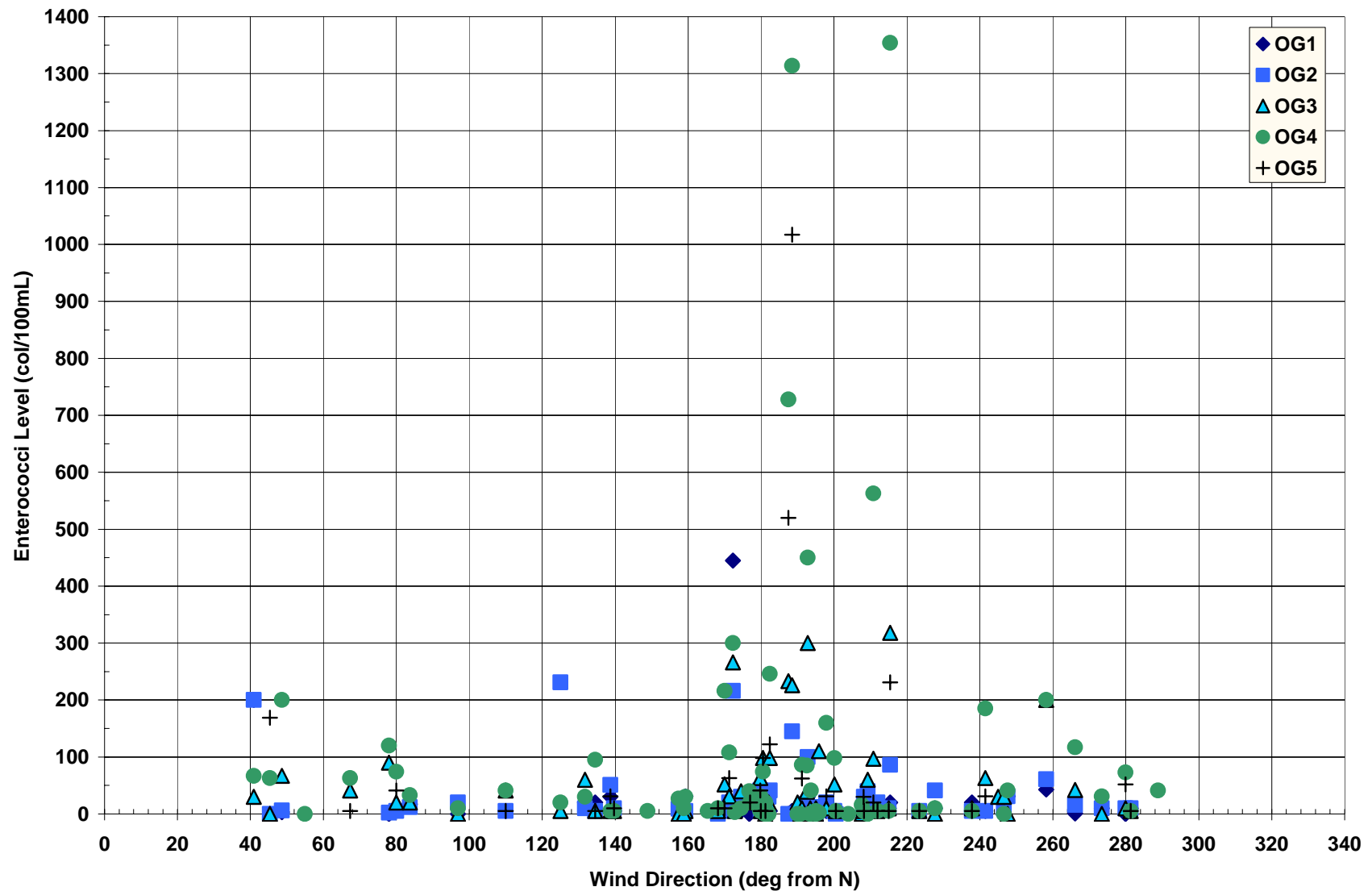


Figure 6. Averaged daily wind directions for days that samples were recorded. The highest bacteria levels were recorded during southerly directed winds (southeast to southwest). Wind data source: GoMOOS Buoy B, <http://www.gomoos.org/H>

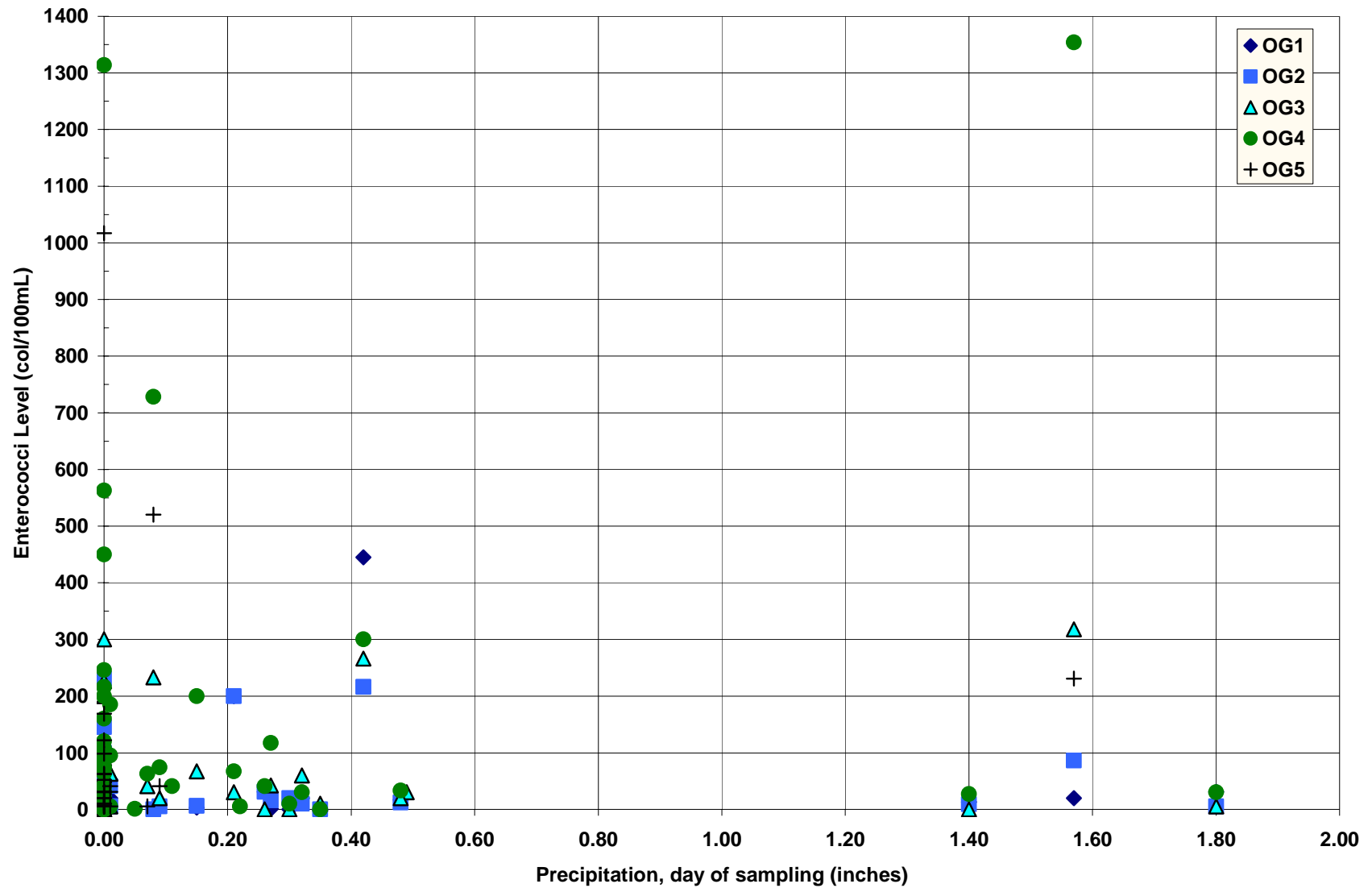


Figure 7. Cumulative daily precipitation for days that samples were recorded. There is no clear pattern. Precipitation data source: National Climate Data Center, <http://cdo.ncdc.noaa.gov/CDO/cdoH>

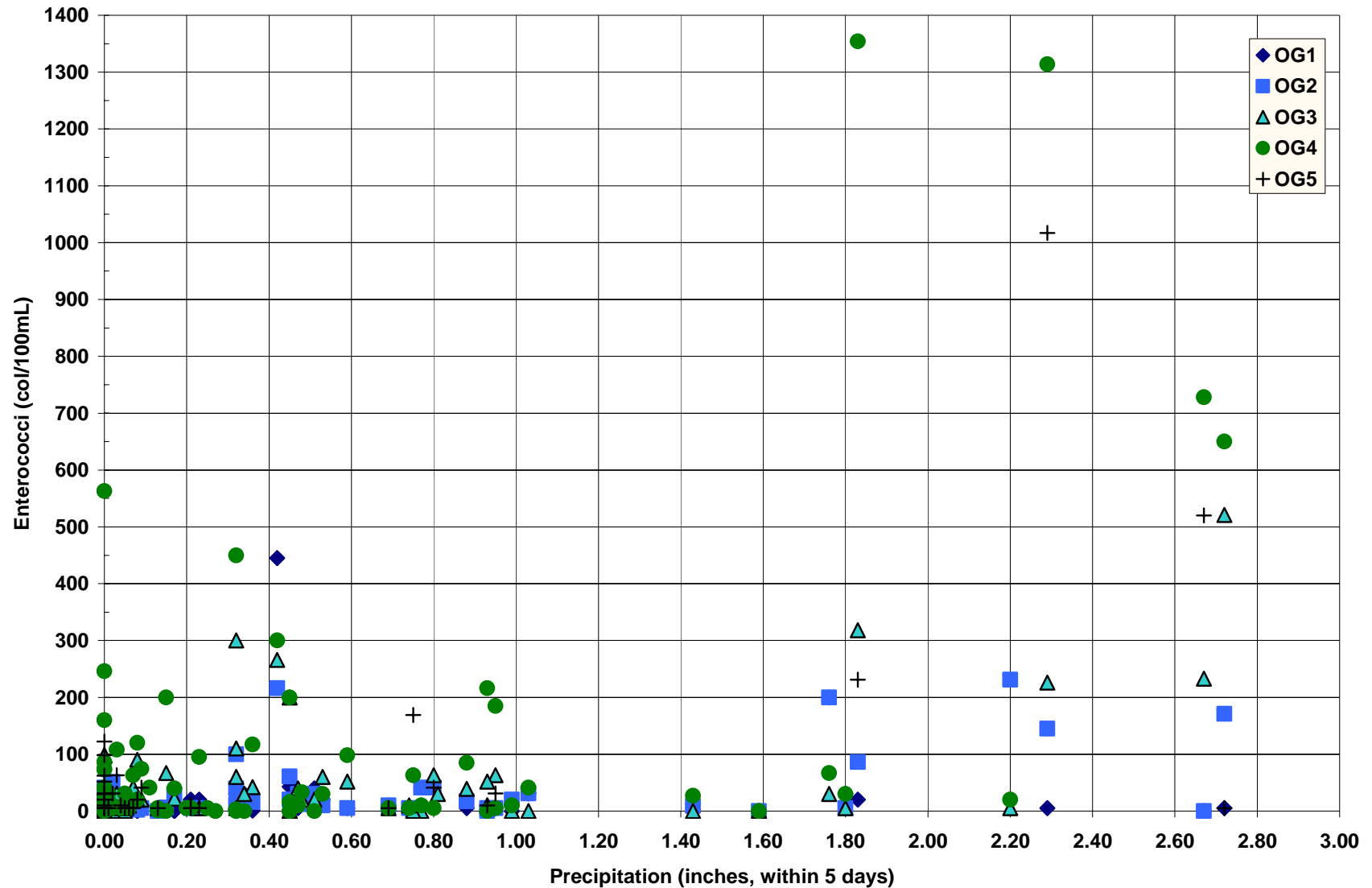


Figure 8. Cumulative precipitation data within 5 days preceding the day that samples were recorded. Although there are high bacteria values with less than 1 inch of precipitation, it is clear that 1 inch or more (specifically 1.8" or more) causes high bacteria values. Precipitation data source: National Climate Data Center, <http://cdo.ncdc.noaa.gov/CDO/cdoH>



Figure 9. Temperatures recorded by MGS (Slovinsky and Dickson, 2008) during the July 2007 ADP survey show a distinct cooler water mass that is located within a trough that is parallel to the beach, in relation to the locations of OG-3 and OG-4. The potential locations for OG-4A are also shown. Base image from MEGIS (2003).