

Regional Science Consortium

Buoys and Weather

Background

The Regional Science Consortium operates multiple buoys and weather stations in Erie, PA which provide information on various parameters such as wind speed, wave height, air temperature, rainfall, etc. This data is then used in predictive modeling, weather, forecasting, and numerous research projects.

Objective

Students will apply their knowledge of buoy and weather data by analyzing data from the Regional Science Consortium's Walnut Creek Buoy. Utilizing this data, students will gain a better understanding of the relationship between different variables such as wave height, air temperature, and wind speed.

Instructions

1. Using the figures included below, answer the questions on the Student Worksheet.

Figure 1: Average daily **air temperature** as measured by the Regional Science Consortium's Walnut Creek buoy for the months of May, June, July, and August in 2019.

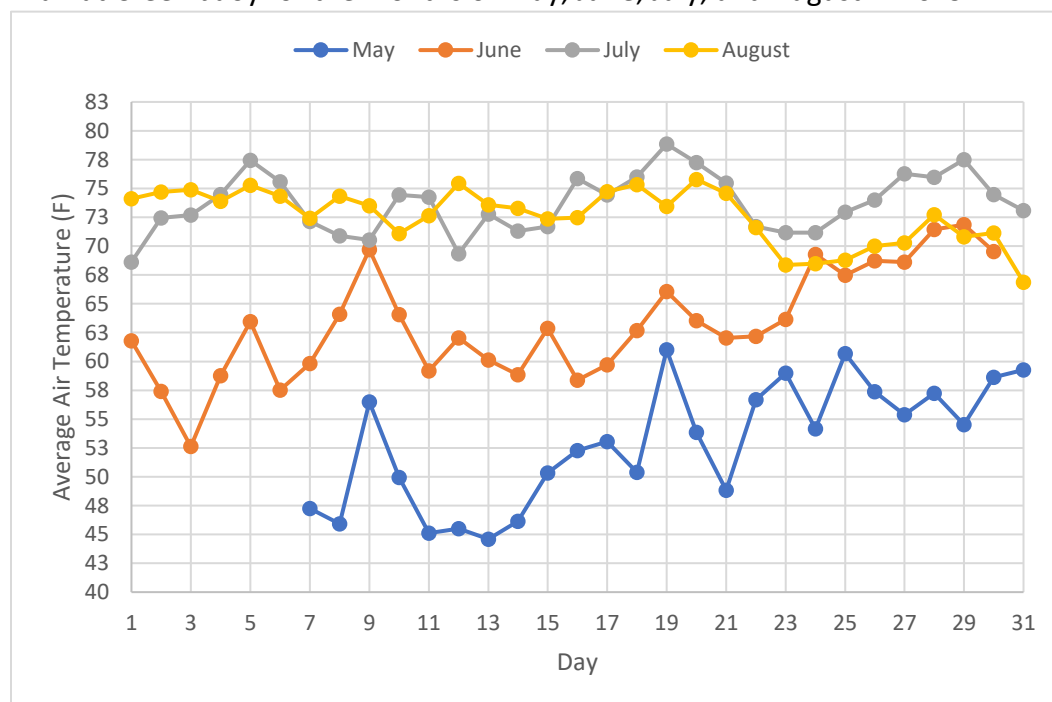


Figure 2: Average daily **wind speed** as measured by the Regional Science Consortium's Walnut Creek buoy for the months of May, June, July, and August in 2019.

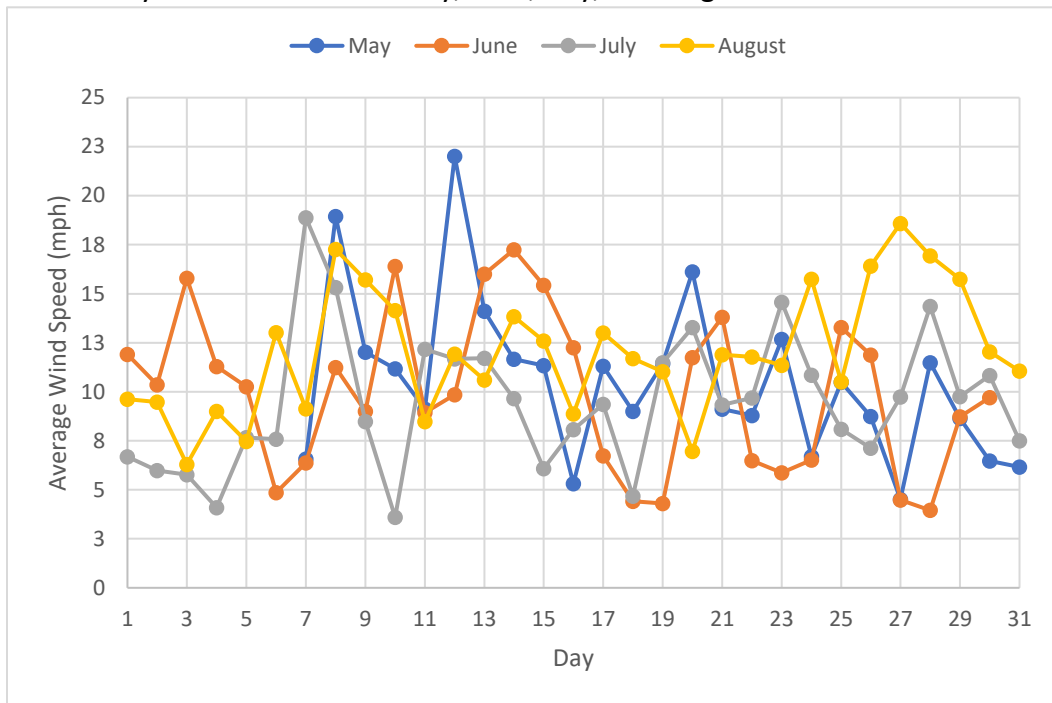


Figure 3: Average daily **wave height** as measured by the Regional Science Consortium's Walnut Creek buoy for the months of May, June, July, and August in 2019.

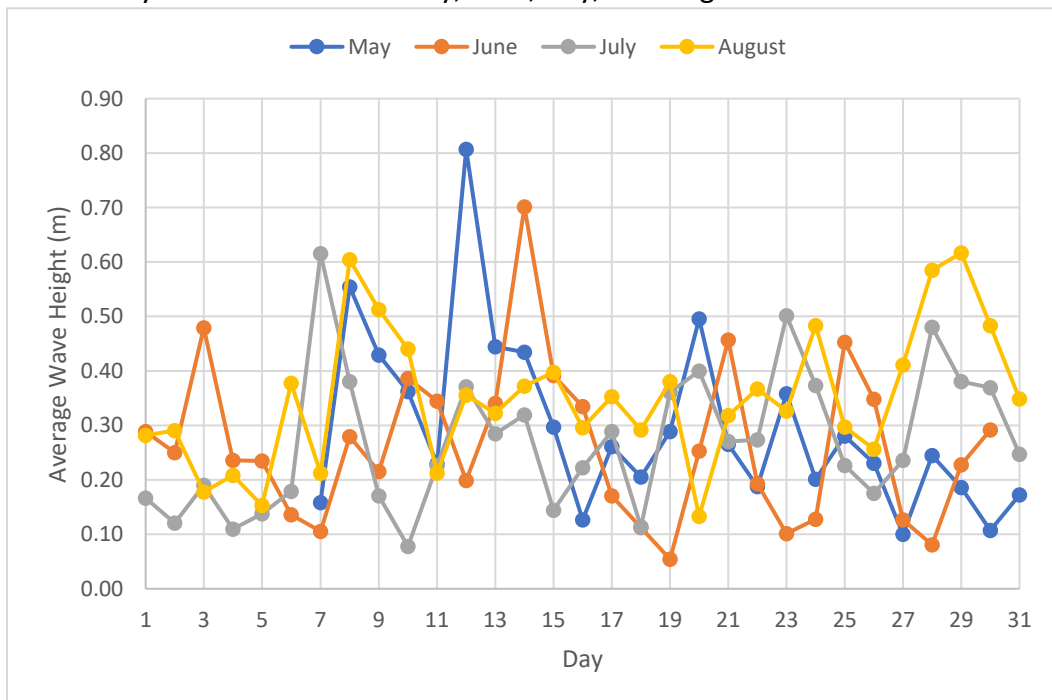


Figure 4: Average wave height vs average air temperature as measured by the Regional Science Consortium's Walnut Creek buoy for May 2019.

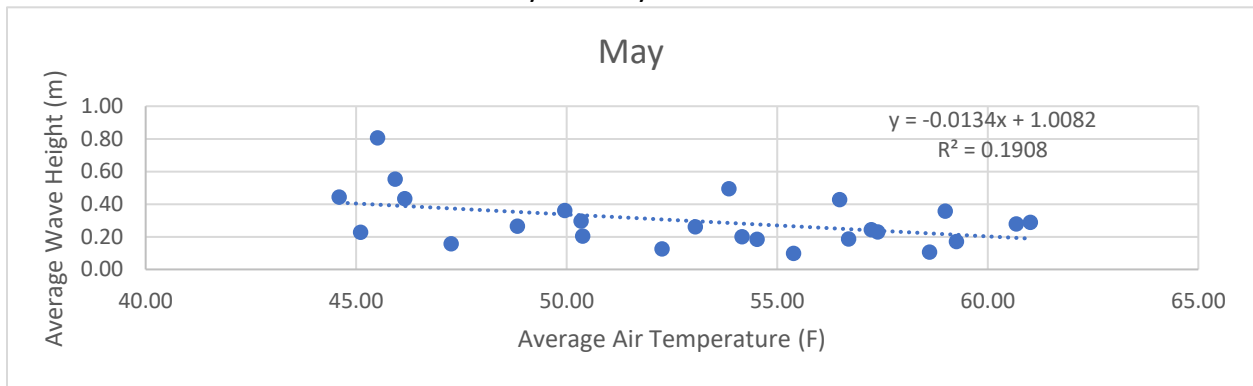


Figure 5: Average wave height vs average wind speed as measured by the Regional Science Consortium's Walnut Creek buoy for May 2019.

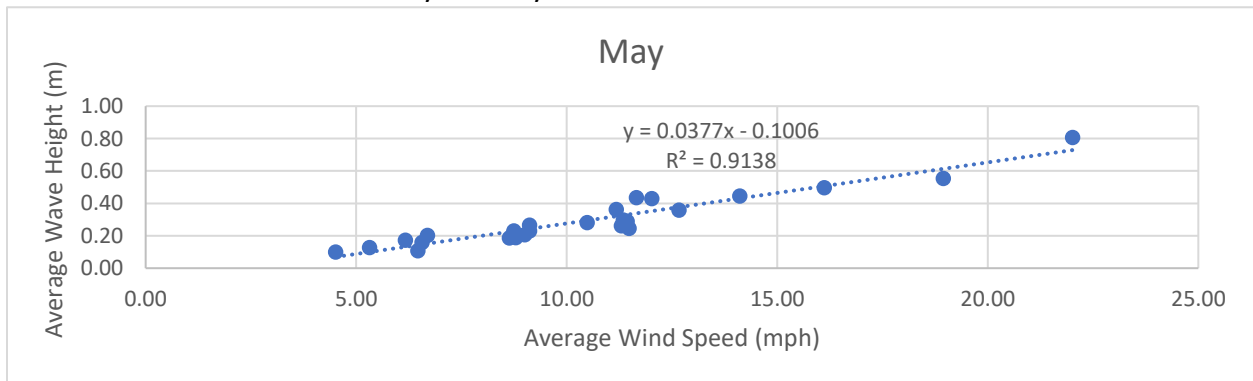


Figure 6: Average wave height vs average wind speed as measured by the Regional Science Consortium's Walnut Creek buoy for June 2019.

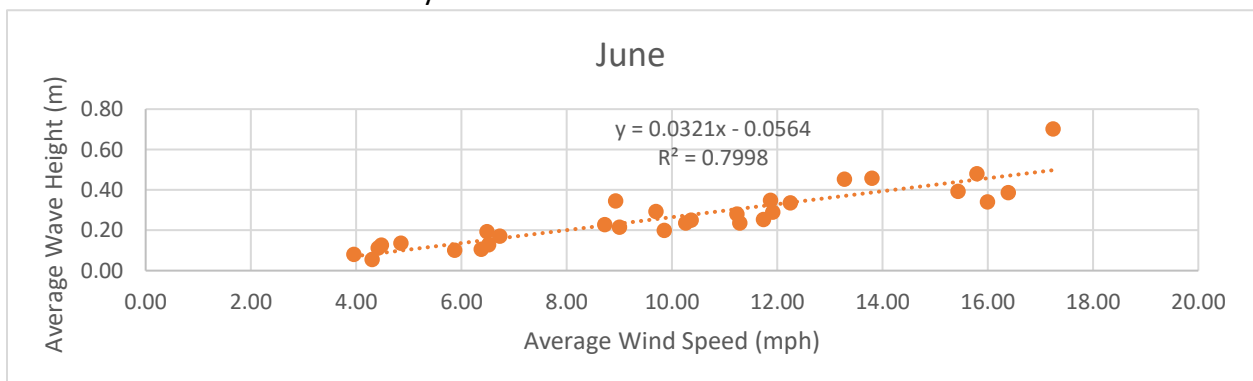


Figure 7: Average wave height vs average wind speed as measured by the Regional Science Consortium's Walnut Creek buoy for July 2019.

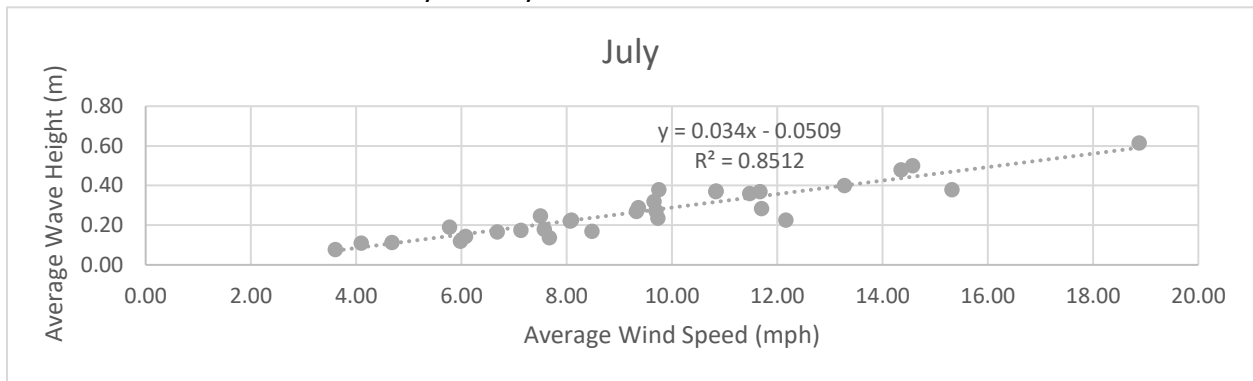


Figure 8: Average wave height vs average wind speed as measured by the Regional Science Consortium's Walnut Creek buoy for August 2019.

