**Introduction**

Several factors can influence the abundance of small plastic pieces in coastal sediment. Proximity to dense populations and transport of plastic via currents are both possible influencers of plastic pollution\(^1\). This study aims to determine what factors contribute most to the concentration of small plastic pieces (1-3 mm) in coastal sediment of South Florida Beaches.

**Methods**

- 20L sand samples were collected in triplicate from the strand line of 6 beaches in South Florida
- Sand was sieved to remove sediment < 1mm
- Large plastic pieces were removed via physical identification and density separation
- Potential plastic pieces will be confirmed as plastic via IR spectroscopy as the next phase of the project

**Results**

![Average 1-3 mm Plastic Concentrations per 20L](Figure_1.png)

**Discussion**

While the range of concentrations on the east coast of Florida is higher than the west coast the difference is not significant, indicating the higher concentrations of plastic in ocean water may not be the most important factor contributing to the beach contamination. The highest concentrations on both coasts are immediately down current of the largest metropolitan areas of each coast, indicating debris from these cities carried by currents and deposited on the strandline by wave and tides may be the most important factor contributing to plastic abundance.

**Works Cited**