Sources of Small Plastics Delineated on Florida Beaches
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Introduction
Previous research has shown concentrations of plastic particles >1 mm in diameter may be higher in the Atlantic Ocean than the Gulf Mexico (Figure 1, Law, et al., 2010). This study aims to determine how the concentration of plastics in ocean water affects the flux into coastal sediment. 10L sand samples were collected in triplicate from the strandline of the east and west coasts of Florida (Figure 1), separated by size using sieving and from sand via density separation, and the plastic content >1 mm compared.

Types of Plastics Observed
The five types of marine plastic in literature described in previous research were all found in these samples. Photographs are from the site Eastern Coast of Florida.

Results
Preliminary results of the Boca and IRB sites indicate there are statistically higher concentrations of plastic pieces on the east coast than the west coast, with pellets only present on the east coast. The most abundant size fraction was 1-3mm (47 pieces total) compared to all other fractions combined (3 pieces).

Figure 2: Plastic concentrations were significantly higher (t-test, p < 0.05) on the east coast.

Figure 3: Plastic pellets were only found on the west coast, while all other types were found on both coasts.

Works Cited