Title: Plastic, Plastic Everywhere, Nor a Piece to Be Seen: Does the Amount of Microplastic in Rivers Affect the Amount of Microplastic on Adjacent Beaches?
Presenter: Alexis Rodriguez, El Camino College
Mentor: Karla Villatoro

As of 2015, 80% of the plastics produced (5,000 metric tons) are found in landfills or the natural environment. If this trend continues, it is expected that the amount will double by the end of the middle of this century (Geyer, et al., 2017). As plastics degrade, they create “crumbs” called microplastics: plastics less than 5 mm in length (Arthur, et al., 2009). A recent study concluded that the waters of the Los Angeles River carry ten times more microplastics than the San Gabriel River (Wiggin, 2019). Does the concentration of microplastics in a river affect the microplastic debris on adjacent beaches? A study carried out by the National Oceanic and Atmospheric Administration found that the presence of plastics on beaches and even remote areas, like Alaska, was widespread. This study, however, found no connection with the amount of plastics and proximity to urban areas or rivers (Whitmire, 2017). This study aims to deepen our understanding of river and beach connection by comparing the amount of microplastics present in the Los Angeles and San Gabriel River to that of the sand samples from their adjacent beaches. Recently, microplastics have been recognized as emerging pollutants and represent a great risk for marine biodiversity worldwide (Guzzetti, 2018). These risks are not only associated with the immediate effect of microplastic ingestion, but with their ability to be passed down the food chain. Understanding the movement of microplastics in the environment will help to clarify the exposure and risk to wildlife in the future.

Works Cited

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