

# ST. MARY'S PARK INVASIVE SPECIES INVESTIGATION

What's In Your Neighborhood? Afiwa Flora Afandalo, Andrew Shillingford, Yannelly Perez Mentor; Patricia Pena Carty University Heights High School



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### Abstract

The specific goal of this experiment is to find if any plants have been brought in from other countries. Because of the high immigrant population in the Bronx, we think that there is a high chance of finding some trees that have been brought here from overseas. Also to see if the plants coming from overseas is doing positive or negative harm to our community.

### Introduction

New York City is a very diverse place, it's basically one big melting pot. The Bronx is a city of immigrants that is just as diverse as NYC. A big part of the Bronx is the plant and animal life that can be found here because the plant and animal life is just as diverse as the people. Since the population around St. Mary's park is highly diverse and full of immigrants we want to find out if there are any ground level plants that have also come from other countries that aren't the United States. Invasive species are non-native species. We are very excited to see what our experiment will prove.





## Materials and Methods

All samples were collected in the months of September, October, November from St. Mary's Park. A permit for sample collection was obtained from the NYC Parks Department. Samples were stored in ziploc bags, labeled with the GPS coordinates of where the sample was collected, and stored in a freezer. The standard DNA extraction method was utilized, using footlocker materials for the Cold Spring Harbor Laboratory PCR DNA extraction protocol lent out by the Harlem DNA Learning Center. Samples from the DNA extraction were mailed to a lab for sequencing. Results from those DNA sequences were

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Q55N-0 05	Polygonum Avioulare (knotgrass)	Eurasia, North America	Yes	Non-invasive						
QSN-0 06	Pstygorum Avioulare (knotpissk)	Eurasia, North America	Yes	Non-invasive						
Q5N-0 08	Pstygorum Avioulare (hnolgrass)	Eurasia, North Americo	Yes	Non-invasive						
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#### Tables and Figures

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#### Discussion

Three of the samples revealed barcodes for invasive plant species, QSM-002, -010, and -011. These plants were Taraxacum officinale (dandelion) and Artemisia sp. (mugwort). All plants were native to New York.

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