Introduction

The American Eel (Anguilla rostrata) is the only catadromous fish in North America. Born in the Sargasso Sea in the Atlantic Ocean, young eels then swim up rivers, and upon reaching maturity, adult eels return to the Atlantic where they spawn and die. The American Eel functions as both a predator and prey to other organisms living in North American riparian ecosystems; specifically, the American Eel preys on smaller animals such as macroinvertebrates and small fish, while also serving as a key prey species to larger aquatic organisms. These key roles that the American Eel plays in the regulation of both oceanic and riparian ecosystems make it an important species to study. However, due to its unique migration patterns and variation in habitat, it has been difficult for researchers to study the American Eel, resulting in a lack of information about its life cycle and the factors affecting its recently declining populations.

Methods

Eels- We used traps made from unravelled rope to mimic the aquatic plants that act as a habitat for eels. Three traps were stationed at each of our three sites (Twin Dams, E. 182nd street, and Hutchinson River). We used a YSI 2030 PRO Dissolved Oxygen/Conductivity Meter to take measurements of Salinity, Conductivity, Temperature, and Dissolved Oxygen at each site. We used traps made from unravelled rope to mimic the aquatic plants that act as a habitat for eels. Three traps were stationed at each of our three sites (Twin Dams, E. 182nd street, and Hutchinson River). We used a YSI 2030 PRO Dissolved Oxygen/Conductivity Meter to take measurements of Salinity, Conductivity, Temperature, and Dissolved Oxygen at each site.

Discussion

Our research suggests that due to its complex life cycle, the American Eel is sensitive to the impacts of physical and chemical changes to rivers caused by humans. As explained above and supported by other studies, the American Eel tends to be more abundant further downstream in rivers, likely a result of the impediment of their migration patterns by obstacles such as dams. Additionally, as our research showed eels to be sensitive to water quality factors such as dissolved oxygen, the American Eel may also be affected by pollution from humans, especially in highly urbanized areas such as the Bronx. We hope that our research, alongside further work studying the American eel, can spread awareness from humans, especially in highly urbanized areas such as the Bronx. We hope that our research, alongside further work studying the American eel, can spread awareness from humans, especially in highly urbanized areas such as the Bronx. We hope that our research, alongside further work studying the American eel, can spread awareness.