walks and defecate, lots of debris flies in from the construction zones adjacent that all have effects on the site. The entire area is regularly mowed close to the ground, which does not allow for a vast abundance of plants outside of common grass. Foot traffic from people, debris from the construction site, walking dogs and other human activity all contribute to increasing competitiveness in the plant species of our field site. These quadrants are also located beside busy streets, and throughout the day there is a lot of traffic in the area which means there is a high rate of pollution in that area. Furthermore a lot of people come to that part to play sports and use the fields which will impact the site. The usage of the fertilizers in the field would mean the run off will get in the water which can eventually cause eutrophication if not taken into account. In the second site some algae was seen on the water while it was not a large amount we know it can rapidly get out of control.

- In addition, the relationship between the different biodiversity indices (Shannon's index, Simpson's index, BIO2137 biodiversity of specimens index, BIO2137 biodiversity of area occupancy index) and the mean invasiveness index for each teams could have also been explored and conclusion from that could have been drawn.

- Lastly, more conclusions on the biodiversity of the studied sites could have drawn as additional biodiversity indices could have been easily calculated but were not considered. Information to do so such calculations were contained in the "Module 2 Summary Biodiversity Data" even though the formulas for those biodiversity indices were not provided. These include the Menhinick's index of species richness which simply measures the number of species present in a given site and the evenness[3] which basically informs us on how evenly distributed the species are for that given site.

Menhinick's richness index: $M = \frac{s}{\sqrt{N}}$
Shannon's index: $H = -\sum p_i \ln(p_i)$
Evenness: $E = \frac{H}{\ln(M)}$

Where: S = number of species, N = number of individuals, pi = the proportion of individuals.

- What would be your recommendations if you were hired as consultants by the city of Ottawa to promote the biodiversity of plants within the city area? Again, explicitly cite observed quantitative data to corroborate and explicit your reasoning.

  - Looking at all the results gained from all the groups in the "Summary Biodiversity Data Excel Sheet", it's evident that Bryophytes are seen the least around the city of Ottawa. This may be due to the fact that they are not true vascular plants as they do not have true vascular tissues meaning they need a lot of moisture to compat that and survive. At our site Bryophytes were seen adjacent to ponds/rivers and other water sources. As a consultant I would recommend using techniques to use the collected rainwater or stormwater to give moisture/ water dry areas. Furthermore it is evident that invasive species decrease biodiversity as they compete with native species for resources eventually altering the habitat and in some cases resulting in extinction of some native plants. In order to combat this issue, sites around Ottawa must be visited on a regular basis and data must be collected on the number of invasive species present in each site. This data can then be used to control the number of invasive species present and in the event that the invasive

[3] "How to Calculate Species Evenness - Sciencing." https://sciencing.com/calculate-species-evenness-2851.html. Accessed 20 Nov. 2020.