The incidence of *Rubus idaeus* at the different environments at Mer Bleue and the effects of the Mer Bleue marsh

By_____

BIO1130 Section C2

Demonstrators:
_____ and
_____

September 26th, 2017

Department of Biology

University of Ottawa

Figure 1. Incidence of *Rubus idaeus* at each of the different environments of Mer Bleue, oriented along a moisture gradient from dry to moist. A sample size, n= 26-35 was used to collect the data from the Mer Bleue site. The number of people who saw *Rubus idaeus* was collected and then divided by the sample size, to then show the incidence. The subscript represents the number of groups who observed the same incidence of *Rubus idaeus* at a specific station.

1. Based on the observations plotted on the graph, *Rubus idaeus* has adapted to the dry habitats, where they receive lots of sun. The plant clearly favours drier areas such as the Old Field and the Forest, which is indicated by the fact that the incidence significantly lowers in more moist environments.

2.a) If there was a partial drainage of the Mer Bleue marsh, then the field, where *Rubus idaeus* prefers to grow, wouldn't be affected. The Old Field has an elevation much higher than the marsh, so the water from the marsh doesn't interact with the field. These habitats are kept separated from each other because of their elevations. The field is already dry and doesn't rely on the marsh for its water supply. Therefore, the preferred habit of *Rubus idaeus* wouldn't be affected.

2.b) If there was a partial drainage of the marsh, then the abundance of *Rubus idaeus* in its preferred habitat, the field, wouldn't change. Less water in the marsh wouldn't affect the abundance of *Rubus idaeus* in the field. Any habitat that becomes more similar to the field due to the lack of water in the marsh, could see a greater abundance of *Rubus idaeus.* If the forest and the ecotone were to become drier, an increase in the abundance of this plant may occur in the areas with lots of sunlight. The forest is also located on a sandy dune much like the field. Even if the marsh was drained, most of the marsh environment would be too wet for the growth of *Rubus idaeus.* This would be very similar to what would happen in the Bog. Although, some areas may dry slightly, both the Bog and the Marsh are too wet, so the abundance of *Rubus idaeus* wouldn't be as high. Overall, *Rubus idaeus* prefers to live in dry and sunny areas and its abundance in certain habitats would be based on those characteristics.