

Distribution of plants at Mer Bleue

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**BIO1130 Section B11**

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## **HYPOTHESIS:**

*Based on the observations plotted on your graph, what type of habitat(s) is your plant adapted to?*

Based on the observations recorded in Figure 1, the plant *Silene vulgaris* is better adapted to environments with lower moisture levels. Higher incidence levels for *Silene vulgaris* can be seen in the Old Field and Forest stations, both of which are located on a sand dune, and are the driest of the five stations.

## **PREDICTION:**

*a) What would happen to the preferred habitat of your plant in case of partial water drainage of the Mer bleue marsh (e.g the water level would go down half the depth of the marsh)?*

The preferred habitats of *Silene vulgaris* are the driest ones: Old Field and Forest. The moisture levels of these habitats are solely dependant on precipitation, not on the marsh. Therefore, no change would occur in the preferred habitat of the plant.

*b) Based on your answers to 1) and 2a), what is your prediction regarding the consequence of the drainage on your plant regarding its abundance in its preferred habitat as well as its distribution in the Mer Bleue site?*

Seeing as the Old Field and Forest are not impacted by the partial drainage of the marsh, no change in the abundance of *Silene vulgaris* is expected in these habitats. However, the other stations would experience a reduction in their moisture levels as a result of the marsh drainage, which would render them drier than they initially were. The Ecotone, which is the next driest region after Forest, may then become a suitable habitat for *Silene vulgaris*. Therefore, the incidence of *Silene vulgaris* in the Ecotone will likely increase, as the dry conditions are favourable for the plant.