

## Pollination Biology

Botany 400 - 2010

**The challenge...** In this exercise you will examine two modes of pollination biology. You will have the opportunity to design a flower and find an example of a similar flower from the Botany Greenhouse.

**The details...** You are a plant that has evolved to move your pollen in a very specialized way, effectively promoting outcrossing. Select TWO different pollen-moving vectors from the list below. For each example, *design a specialized flower* to attract/utilize the vector. Think about such things as flower size, shape, position, color, scent, nectar/pollen reward, presence or absence of floral structures, inflorescence structure, timing of anthesis, and any other specialized structures that may apply. Give a detailed description of your flower **AND** draw what your flower might look like (to the best of your ability). Be as complete and thorough as possible. Once you have an idea of the design and structure of your flower, try to find a similar example of this in the Botany Greenhouse (B2 level of Birge Hall, hours: M-F 8:00-4:00). Include the Species/Genus, common name, and Family of the plant. A warning - some plants in the greenhouse are not labeled, so you may need to a little more legwork with some. Note any similarities and differences between the flower that you designed and the example from the greenhouse.

**Pollination vectors...** select two different modes.

wind

water

beetle

bee

carrion fly

wasp

hummingbird

bat

butterfly

hawkmoth

Fill out the back of this document and turn it in by the due date listed below. This assignment is worth ten points and is due in lecture on Friday, November 19<sup>th</sup>.

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Name \_\_\_\_\_

**Vector #1** \_\_\_\_\_

Description and image:

Similar example from Botany Greenhouse and notes:

Genus \_\_\_\_\_ common name \_\_\_\_\_

Family \_\_\_\_\_

**Vector #2** \_\_\_\_\_

Description and image:

Similar example from Botany Greenhouse and notes:

Genus \_\_\_\_\_ common name \_\_\_\_\_

Family \_\_\_\_\_