

## Lab: Predator-Prey Relationships Sundew vs. Pitcher Plant

Name \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_

Purpose: to determine the capture rate of sundews versus pitcher plants.

Materials: 2 or more potted sundews and pitcher plants, clear cup covers, wingless fruit flies.

Procedure:

1. Place the cup cover over the potted plants and check for a tight fit, so that fruit flies will not escape.
2. Remove the cover from the potted plant. Using care, add an equal number (up to a dozen) of fruit flies into the cover for each plant, and place it back onto the pot. Hint: work quickly. Gently tap the fruit fly vial to knock the flies to the bottom, and sprinkle the flies into the cover. Gently tapping the cover on the tabletop will help keep the flies in the bottom of the cover.
3. Record the number of flies added to the set-up in the data table under Total Flies Start.
4. Optional. Repeat this set up for 2 or more plants.
5. Place the plant set-up in bright indirect light for a day and a night.
6. After 24 hours count the number of flies that have been trapped. Record your results, along with data from any other groups. Assume the plants have trapped any unseen flies.
7. Using the data table, determine totals and calculate the % of fruit fly captured for the sundew(s) and the pitcher plant(s).

Results:

Group #	1	2	3	4	5	Total Flies Captured	Total Flies Start	% Flies Captured
Sundew								
Pitcher Plant								

Graph:

Prepare a bar graph of Carnivorous Plant Type vs. % Capture.

Questions:

1. Does the Sundew or the Pitcher Plant catch the most flies? Explain.
2. What might explain why the “winner” was able to capture more flies? Explain.
3. Did you conduct a fair test? Explain.
4. List several characteristics of each plant type that may affect the efficiency of prey capture.
5. Describe another question you could explore with a similar set-up and how you could go about testing it.