

Your name: _____ Feeder # _____ Date of setup _____

School: _____ Teacher: _____

OCSHP Hummingbird Feeder Protocol

Mixing sugar solution:

SAFETY Precautions: Wear goggles, apron, and gloves. Handle boiling water with caution.

Sugar solution is 4 parts water and 1 part sugar by volume (no food coloring is necessary).

- Boil water for sterile solution
- Measure out desired amount of water
- Add measured amount of sugar to water
- Mix with a spoon until all the sugar has completely dissolved.
- Let cool in the fridge until cool to the touch

NOTE: Any leftover solution can be stored in your fridge up to one week.

Filling the feeder:

SAFETY Precautions: Wear appropriate field attire (closed-toed shoes, long sleeves, layers, hat/sunscreen), use common sense and awareness when in the field.

- Fill the feeder with 45 ml of the sugar water solution.
 - *Plug the bottom hole with your finger until you put the cap on.*
- Twist the cap on firmly making sure that as little spills as possible
 - *Check to make sure you are still at 45ml. Add more solution if needed.*
- Hang the feeder upright, making sure that it is not dripping!
 - *If it is dripping, reseal the cap and make sure you are still at 45ml.*
 - *Choose location visible and mimicking a flower's location, 1-2 m above ground.*

Checking the feeder:

SAFETY Precautions: Wear appropriate field attire (closed-toed shoes, long sleeves, layers, hat/sunscreen), use common sense and awareness when in the field.

- After filling feeder, leave it out for 2 weeks to allow hummingbirds to locate new nectar source.
 - *Periodically check feeder and add more sugar water solution if it dips below 10ml.*
- After this initial 2 weeks, refill the feeder back to 45 ml and record the amount of sugar water solution in the feeder, along with the time and day, on the Data Sheet.
- After three days, revisit the feeder and record the amount of sugar solution left in the feeder (in ml)
- Fill the feeder back to 45ml and repeat this process every 3 days or less if the solution disappears

-Enter data in Google form (see link on Sisters Hummingbird Project website:
<http://sistershummingbirdproject.wordpress.com/about/>)

-Collect data for at least one month, and longer if possible.

10-minute hummingbird counts:

SAFETY Precautions: Wear appropriate field attire (closed-toed shoes, long sleeves, layers, hat/sunscreen), use common sense and awareness when in the field.

After each feeder check or at least once per week, observe the feeder and surrounding site for 10 minutes. Record:

- The number of **visits to the feeder** by Rufous hummingbirds and other hummingbird species. If one hummingbird visits the feeder more than once in the 10 minutes, record all the visits. You can record the number of individual hummingbird sightings in a separate column (see below).
- The number of **individual Rufous and other hummingbirds observed** during the 10-minute period. This number includes the hummingbirds that visit the feeder and those who do not visit the feeder.
- The number of other birds that are in the area (only if you can keep track at the same time).

Cleaning the feeder:

-Empty and wash the feeder with soap and water about every two weeks or if the nectar looks cloudy or has anything floating in it.

Comments:

Please use the comments section of the data sheet to make a note about anything that may have affected the data or anything that stands out to you. Examples include (but are not limited to):

- Note if the feeder was disturbed in any way during the 3 days such as falling down or obviously leaking.
- Weather for the three-day period.
- General hummingbird or other bird sighting information, especially for those days that you do not do the 10-minute counts.

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Rufous Hummingbird Project: Plant survey

1. About how many flowering plants are there within 50 meters (165 feet) of the feeder in all directions? Make an estimate at each visit to the feeder and mark in datasheet, as the plants will flower at different times throughout the season.

There were _____ flowering plants the first time I set up the feeder.

- a. zero b. 1-9 c. 10-50 d. 50-100 e. >100

2. If there are trees around, how much of the area around the feeder (50 meters [165 feet]) do they cover? How much of the cover is made up of deciduous trees and how much is made up of conifers? Answer this question only one time.

Circle one: 10 20 30 40 50 60 70 80 90 % Deciduous cover

Circle one: 10 20 30 40 50 60 70 80 90 % Conifer cover

3. If you are in or next to a forest, about how old is the forest? Circle one. Answer this question only one time.

A. Most trees are young: you can fit one or both hands around the stem.

B. The stems of the largest trees are about as thick as your head.

C. There is a lot of space between the trees. You may just be able to fit your arms around the largest of the trees.

D. The largest trees have trunks that you cannot fit your arms around. It is hard to see their tops.

Hummingbird Project: Location, Interference, and Species

1. Where did you set up the feeder? Please tell us the address, or nearest intersection, or the approximate latitude and longitude. Location will be plotted on a GIS map to be used for research purposes and not tied to your name. OSU will not have the names of the people who participated. **Without information about location, the data you collect cannot be used for this research.**

2. Did you already have a hummingbird feeder before setting up this one? Have you had one before?

3. Do you see any hummingbird feeders in neighbors' yards? If so, how many, and how far away?
