Caterpillars Count!

ESTABLISH THE MONITORING AREA

- 1. Choose an area that contains representative vegetation of the common shrubs and trees at your location. (Woody vegetation only, no herbaceous plants.)
- 2. Survey branches will be arranged in groups of 5 called "circles."
- 3. Each of the circles will be centered on a representative bush or small tree that has leaves available for inspection.

If working with a small area, it is okay for the circles to be close together. These circles may be arrayed in a loose grid, a line, or some combination depending on the configuration of vegetation at the site.

4. Choose a survey method.

Decide whether participants at your site will primarily use visual or beat sheet surveys. Whichever type of survey you choose, we ask that you be consistent and conduct all surveys in the same manner.

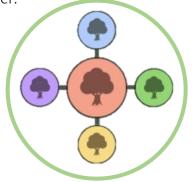


Figure 1. Example of a survey circle. Each circle consists of 5 survey locations.

SELECT TREES WITHIN THE MONITORING AREA

Before you head out, you might want to bring these materials:

- Compass (to find cardinal directions)
- Internet connected **smartphone or tablet** to use in tandem with the <u>Arbor Day Foundation's Tree ID Guide</u>

Each circle will consist of 5 survey locations.

While the center point for a survey circle may be chosen based on subjective criteria (seems like a good general location for surveys, vegetation is representative, etc), the other 4 survey locations should ideally be located in each of the 4 cardinal directions from the center point, location A.

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TO SELECT THESE SURVEY POINTS

1. Select the center survey tree (red in the diagram above).

When selecting the center survey, it is important to choose a tree that can be easily surveyed. You are in search of a tree that has at least 50 leaves that measure at least 5cm (~2in.) in length (or if a conifer, a branch with at least 100 cm of linear branch length).

If finding 50 leaves to survey proves to be a challenge then you are probably better off choosing another tree. It is also important that the leaves are at a height that is easily accessible. Using a ladder is not a practical way to gather data, so these should be leaves that you can see at eye-level.

- 2. **Identify the 4 satellite survey trees.** Once you have selected the center (red) survey, walk 5 yards (approximately 6-7 steps) in one of the cardinal directions. The first plant with 50 leaves that are at least 5cm (~2in.) in length is the plant that you should survey. If there is not a plant directly in front of you, then you can use a plant that sits within 10 feet of your transect line. If there is no suitable vegetation at 5 yards and within 10 feet, continue walking along your transect line away from the center point until you find a tree with 50 leaves. Repeat this process until you have picked out all 4 satellite trees (blue, green, yellow, purple in the diagram). The colors of the 4 satellite trees can be arranged in any order.
- 3. **Identify survey trees.** See the <u>Identification Skills</u> page for resources to help identify your survey trees to species. Species names can be entered through the <u>Manage My Sites</u> page.
- 4. **Mark survey trees.** After creating a site, you'll receive an email with a link to print survey tags for that site. If you cannot find that email, retrieve and print the tags from the Manage My Sites page. One cheap method of weather-proofing tags is to "laminate" them with packing tape. Hang tags on the relevant survey branches in a visible location.

Repeat these steps for each survey circle.



Figure 2. Sample survey tags; when the 3-letter code is entered on the app, the site, circle, and species information associated with the survey are filled in automatically.

NOW YOUR SITE IS READY TO BE SURVEYED!