

USING A PAPER DATASHEET *Caterpillars Count!*

If you do not have access to a mobile device, you can record your observations using the [Foliage Survey Datasheet](#).

(Note that even if there is no cell service at your site, you may still be able to use the mobile app—see the instructions at the end of [this document](#).)










EQUIPMENT NEEDED

- Clipboard
- Paper datasheet
- Digital Camera
- Pen/Pencil

1. Start by filling in all information the top of the datasheet (**SITE NAME**, **DATE**, **SURVEY TYPE** (beat sheet/visual), **OBSERVER** name, **TEMPERATURE** and any **NOTES** about the site (e.g. if it has recently rained and all of the leaves on the survey tree are very wet.).
2. **TIME**: Every time you start a new survey, enter the time.
3. **SURVEY CODE**: Record the 3-letter survey location code found on the branch tag.
4. **LEAF/NEEDLE LENGTH**: Record the length of a typical leaf for your survey branch (or for coniferous branches, record the average needle length). Use the ruler at the bottom of the datasheet to measure.
5. **LEAF COUNT/BRANCH LENGTH**: If using the beat sheet method, estimate the number of leaves on your survey branch and record the leaf count. You may leave this blank if conducting visual surveys, as it is understood that you examined 50 leaves. If your branch is coniferous, record the [linear branch length sampled](#).
6. **HERBIVORY**: Give your 50-leaf sample an herbivory score based on how much leaf damage there is present. Herbivory scores are as follows: 0 - none, 1 - trace (<5%), 2 - light (5-10%), 3 - moderate (10-25%), 4 - heavy (>25%). If you summed all of the observed leaf holes together and were able to cover 5 average leaves, you would record 10% or a score of 2. If leaf holes only sum to about 2 average leaves worth (~4%), you would record *trace* (score of 1), etc. Refer to the table below for a visual depiction of herbivory scores.

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Herbivory scores based on the average leaf examined.

0 - None	
1 - Trace, less than 5%	 to 
2 - Light, 5-10%	 to 
3 - Moderate, 10-25%	 to 
4 - Heavy, > 25%	 to 

- 7. ARTHROPOD GROUP:** When you find an arthropod, record the group or Order to which it belongs (e.g., beetle, caterpillar, fly, etc). Note: you will enter a separate record for each different combination of arthropod group and size you encounter. For example, if you conducted a survey and saw 5 ants, four of which were 3 mm and one of which was 10 mm, you would fill out two separate observation records: 1 for the ants of size 3 mm, and 1 for the ant of size 10 mm. If you are not sure what type of arthropod you observed, or if you are deciding between two orders, you may write **UNIDENTIFIED** and then describe any relevant aspects of its appearance in the **NOTES** section. Make sure to include key features, so that it may be identified later.
- 8. LENGTH:** Estimate the body length of the arthropod to the nearest millimeter, not counting antennae or legs that extend out in front or behind.
- 9.** Record the number of arthropods of that specific type and length that were found.
- 10. NOTES:** Record any notes about Notes, e.g. caterpillar features: (H)airy, leaf (R)oll, silk (T)ent. If you're not sure how to identify these features, please review our [Conduct a Survey](#) page.
- 11. IMPORTANT!** If you searched 50 leaves and did not find a single arthropod, we still want you to record that a survey was done! Write **NONE** under Order. Otherwise, we will never know the difference between a survey that was never conducted, versus a survey with 0 abundance. Write 0 for the Length and Count as well.
- 12. REPEAT** this method for each survey tree at your site.
- 13.** After completing your surveys, [enter your data through our website](#).

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Sample datasheet.

Site Name: NC Bot Garden Date: 5/29/17 Survey Type: Beat sheet / Visual
 Observer: AHH Temp (F) 75 Site Notes: Rainy last night, veg still wet

Time	Survey code	Survey plant			Arthropods			
		Leaf/needle length (cm)	# Leaves OR branch length*	Herbivory	Arthropod group	Length (mm)	#	Notes, e.g. caterpillar features: (H)airy, leaf (R)oll, silk (T)ent
930	AKC	13	70	2	caterpillar	25	2	H
"	"	"	"	"	caterpillar	40	1	geometrid
"	"	"	"	"	beetle	12	3	7-spot ladybird
940	AKD	22	45	0	aphids	2	26	
948	AKE	15	55	2	NONE			
955	AKF	15	50	1	caterpillar	10	1	R; green w yellow stripes
"	"	"	"	"	unknown	6	1	long antennae, narrow body, brownish-green
1005	AKG	10	60	1	ants	5	4	
"	"	"	"	"	fly	8	1	metallic yellow

SAMPLE