

# Species & Habitat Survey: Freshwater Habitats

TEAM NAME: \_\_\_\_\_

DATE: \_\_\_\_\_



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Research Institute

## 1. PLACE

\* Without these data scientists can't use your observations.

Tell us where your study site is and what it looks like.

### STUDY SITE PHOTO \*

Check this box after you take the best wide-shot photo you can.

Take a photo that helps everyone see where you are doing your study. No faces. Just the scene, please.

### LOCATION OF STUDY SITE ON EARTH \*

Enter the geographic address of your study site in decimal degrees. Please triple-check your entry to make sure all digits are right.

Latitude: N

Longitude: W

Make sure you record your latitude and longitude in decimal degrees, like this:  
N 43.44712  
W -70.78105

### HABITAT \*

- In a pond or lake     On a wetland     In a developed area  
 In a stream or river     By water's edge

Choose the major habitat that best describes the place where you are doing your investigation. Where are the plants or animals you are looking for living?

## 2. FIELD NOTES

Use this space to tell us what happens while you are collecting data.

I am happy because...

Questions and problems I ran into...

I see, hear, and smell...

My drawings and sketches...

I am surprised by what I found or didn't find because...

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## 3. SPECIES

\* Without these data scientists can't use your observations.

Tell us how you are doing your study, what species you are looking for, and whether or not you find it.

### SAMPLING METHOD \*

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> Quadrat (user-placement)       | <input type="checkbox"/> Weed weasel |
| <input type="checkbox"/> Quadrat (randomized-placement) | <input type="checkbox"/> Trap        |
| <input type="checkbox"/> Transect                       | <input type="checkbox"/> Net         |
| <input type="checkbox"/> Time search                    | <input type="checkbox"/> Bucketscope |
| <input type="checkbox"/> Dock                           |                                      |

Choose the method you are using to do your study.

### SAMPLING METHOD PHOTO \*

- Check this box after you take the clearest photo you can

Take a photo that helps everyone see the method you are using to collect data. No faces. Just show off your method.

### WHAT SPECIES ARE YOU LOOKING FOR? \*

Scientific name: \*

Common name: \*

### Did you find it? \*

- I think I found it       I think I did not find it

Write the scientific name and a common name of the species you are looking for.

### Back up your claim with evidence

Use written and photo evidence to prove that you either **found** or **did not find** the species you are looking for. The more evidence you provide, the stronger your case will be. Note: If you **did not find** it, prove that you looked carefully and explain how you ruled it out.

Written evidence 1 \*

- Photo evidence 1 \*: Take the clearest photo you can.

Written evidence 2

- Photo evidence 2: Take the clearest photo you can.

Written evidence 3

- Photo evidence 3: Take the clearest photo you can.

Give one good reason you think you found or did not find the species you are looking for. Use your species identification resources to help you write your evidence statement.

Take a photo that supports your written evidence.

Make a stronger case for your decision. Give a second reason that supports your claim.

Take a photo that supports your written evidence.

Make the strongest case possible. Give a third reason that supports your claim.

Take a photo that supports your written evidence.

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## 3. SPECIES CONTINUED

### Additional species observations

If you found the species you are looking for, please tell us more about it.

### HOW MANY ARE THERE?

Count them.

- 1-10     10-20     20-50     50+

Or estimate coverage.

- Less than 1/4 covered     Between 1/2 and 3/4  
 Between 1/4 and 1/2     3/4 - Completely covered

Carefully count how many of this species is in your study area. For plants, count main stems. For animals, count each individual. Only count what is in the study area you defined. Choose the best number range.

**For quadrat studies only.** If there are too many individuals to count, estimate how much area they cover altogether. Choose the best fraction range.

### IS IT REPRODUCING?

- Flower (plants)     Pollinators (plants)  
 Fruit (plants)     Eggs (animals)  
 Vegetative structures (plants)

Look closely for these signs of reproduction. Choose as many as you see.

### HOW BIG IS IT?

- 0-2 cm     5-10 cm  
 2-5 cm     Greater than 10 cm

If you found an animal, measure it and choose the best size range.

### IS IT MALE OR FEMALE?

- Male     Female     Can't tell

If you found an animal, figure out whether it is male or female.

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## 4. HABITAT

Tell us more about the habitat you are studying.

### WATER QUALITY MEASUREMENTS

Measure the quality of the water using various tools and probes.

Water temperature:

Measure the temperature of the water. Use **Celsius**.

pH:

Measure the concentration of hydrogen ions in the water.

Dissolved oxygen:

Measure the amount of oxygen that is dissolved in the water and available for plants and animals to use. Measure in **mg/L**.

Salinity:

Measure how salty the water is. Measure in **ppt**.

### HOW MANY DIFFERENT SPECIES CAN YOU COUNT?

Species diversity

Look at *all* of the plants and animals in the area you are studying. Count and record the number of *different* species you see.

### WHAT SPECIES VECTORS DO YOU SEE?

- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> Boat ramp  | <input type="checkbox"/> Walking trail      |
| <input type="checkbox"/> Boats      | <input type="checkbox"/> People             |
| <input type="checkbox"/> Paved road | <input type="checkbox"/> Recent disturbance |
| <input type="checkbox"/> Dirt road  | <input type="checkbox"/> Construction       |

Other:

Look around for some of these common ways that species are moved by humans from one place to another, or given a new place to live.