



We want YOU to be a Community Scientist!

Document the local species in your area by uploading pictures online. Practice your identification skills and field note-taking, and support community-driven environmental data collection. Every observation counts!

WHAT is Community Science?

Volunteer-powered science! Community science (also called citizen science) is when public volunteers participate in collecting data for scientific research.

WHY is it important?

Scientists can't be everywhere all the time! By sharing photographic evidence, you can help scientists learn where different species are located and if they are spreading or moving. This can be especially important for tracking *invasive species* and *species at risk*. This data can be used to support timely conservation actions.

Invasive species: an introduced organism that can cause harm to a new area

Species at risk: an organism that is in danger of disappearing

HOW do you do Community Science?

The "iNaturalist" platform is a great tool you can use to identify and record all kinds of living things around you. By taking a picture of a particular organism, like a plant or animal, and uploading it to iNaturalist, you can contribute to a worldwide network of observations.

WHO can do it and **WHERE?**

Anyone and anywhere! You don't need an environmental background or scientific knowledge. There are lots of resources online and on iNaturalist to help you learn. You just need an interest in discovering the world around you. You can explore a local park, a forest trail, a nearby waterbody, your schoolyard, your neighbourhood, or anywhere else you are able to visit.

WHEN should you do Community Science?

Anytime of the year! In fact, it's very useful to make observations throughout the year to notice which species or types of animals are present at each time of year.



VOLUNTEER HOURS

For high school volunteer hours, submit the following to erteens@earthrangers.com upon completion:

- Volunteer hours log
- Pictures & field notes
- Field summary

READY TO GO?

Here's how the project works:

- 01** Create an iNaturalist account or log in if you already have one. [Here's how to get started.](#)
- 02** Join the **ER Teens Community Science Project** on iNaturalist, or search for it under *Community > Projects* in the navigation bar
- 03** Determine if you would like to focus on one or two specific groups of organisms, like plants, insects, birds.
» Try giving yourself a unique Mission! For example, find only invasive species in your area, or yellow birds, weird looking insects, pollinators, forest friends, or purple flowers (not in your neighbours garden!)
- 04** Do some initial research online or through local guide books to learn about the species found in your area. This way, you will have an idea of what you might find. There are plenty of provincial and local resources online.
- 05** Decide on your observation locations. **Complete at least 4 observation sessions (min. 1/2 hour)** over the course of your project.
- 06** Photograph the species you find, or record audio clips of birds or other animals. Collect observations of **at least 10 different species**.
» Try focusing on species unique to your local area.
- 07** Record field notes as you go using the template on page 5. Print or copy into your notebook to keep all the important information scientists need.
- 08** Upload your best observations to iNaturalist. *Once you've joined the ER Teens Project, your observations will automatically be put into the project. It may take a couple minutes to appear.*
- 09** Submit your field notes, hours, and any additional photos by email.
- 10** Complete your final Field Summary on [page 6.](#)

SOME DETAILS

Volunteer hours you can gain: 4-8 volunteer hours

Materials needed: Phone with camera or digital camera, internet, notebook and pen for field notes. *Optional:* ruler for measuring, binoculars, magnifying glass



QUESTIONS?

Email erteens@earthrangers.com

Don't forget to take pictures of you in the field too!

SAFETY INFO

- Only go on public properties, or private properties you have permission to be on. If you are unsure, ask!
 - If you plan to go to an unfamiliar location, bring someone with you. Always let someone know where you are going and when you plan to return. Have a fully charged phone, or other communication device.
 - Be aware of the risks of the areas you are exploring, like if there are ticks or other hazards present.
- Tick Safety**
- Dress appropriately for the weather, including close-toed shoes, long socks, long sleeves, and a hat. Bring plenty of water and sunscreen if it's going to be a hot day.
 - Use caution when handling plants! Plants, like stinging nettle and poison ivy cause skin irritation. Others like giant hogweed cause much more serious effects. If you are unsure, don't touch it! Never eat any unknown berries or mushrooms you find the wild.



Stinging Nettle



Poison Ivy



Hogweed

TIPS

- Geotag your photos so that they have a GPS location (open your phone's camera settings, then enable 'location tags'). Write down your locations in your field notes too, just in case.
- If you're unsure of the species name, upload it anyway! Use your resources to help you make a guess. The iNaturalist app and community will make suggestions.
- When taking a picture of a plant, make sure to take multiple photos which include the key ID features (leaves, flowers, stem, overall plant).
- Try observing at different times of the day. You may notice that certain species are more active in the morning or evenings.
- Take videos of moving subjects like flying insects – you can get screenshots from them afterwards.

RESOURCES

Guides

[Species at risk in Canada](#)

[Birds in Your Region](#)

[Identify a Broadleaf Tree](#)

[Invasive Species](#)

FREE APPS



Seek: Great for identifying species on the go just by pointing your phone camera at it! No internet required.



Merlin Bird ID by Cornell Lab: Often you hear birds more than you see them. Record bird calls on this app and get real-time suggestions of which species it might be.

FIELD NOTES GUIDE

Location Description: Provide details about where you are doing your observations.

- What type of site/ecosystem are you observing? (A forest, a neighbourhood park, a waterbody, a parking lot). Write a description about it.
- Is this a protected area? (Ex. A National Park). If you're unsure, do some research online to find out!
- Are there a lot of people around?

Observations

- Provide details about the organism you are taking pictures of, especially any special behaviours. Refer to these notes later when you're trying to identify it.
- Look up the status after you've identified the species if you're not sure.
- Rename photos on your phone in the photo details (on the photo, click the menu or swipe up)

Here's some examples:

Organism Type: Animal - Reptile

Description: Yellow throat, domed shell with light spots. Adult turtle sat on a log in a wetland. When it heard me, it went into the water and swam away.

Species: Blanding's Turtle

Status: Species at Risk (Threatened)

Photo reference ID:

Blandings_Turtle_7July



Organism Type: Plant

Description: Small green jagged leaves. White flower with five petals. Field Guide says the plant has red berries, but they are not currently on the plant.

Species: Wild Strawberry

Status: Common

Photo reference ID:

Wild_Strawberry_9July



Happy Exploring!

Name: _____ **iNaturalist username:** _____

Date: _____

Location (be specific): _____

Start time: _____ **End time:** _____

Weather: Temperature _____°C **Cloudiness** _____% **Is it rainy?** Y / N

Location Description:

Species Observation

Type: Plant Animal Fungi Unknown

Description:

Species (if known):

Status: Species at Risk Invasive Common Unknown

Species At Risk Categories (circle if applicable): Special Concern Threatened Endangered Extirpated

Photo reference ID:

To complete your project, share your experience with ER Teens by answering the questions below. Email your responses, make a video, post on social media, or hop on a Zoom call with us (schedule [here](#)). Be creative in telling your story as a Community Scientist!

1. What did you like about this experience? What skills did you develop?
2. What did you learn about the species you observed?
3. What's your advice for other young community scientists?
4. What's the next thing you plan to do to help the environment?

VOLUNTEER HOURS LOG

Follow this template to keep track of how and when you're actively working on your project.

ACTIVITY DESCRIPTION	DATE	# OF HOURS	PHOTO

Thank you for your participation!