

## Observe and Report! Contribute to Community Science

### TEACHER TIPS ON COMMUNITY SCIENCE

#### Comparisons of Community Science Platforms

Name of Program & Links	Purpose	Usage Notes	Data Entry Notes
<a href="#">Report Invasives BC</a>	<p>Report invasive plants and animals in BC.</p> <p>Sightings are confirmed by and go directly to Provincial specialists who can mobilize management action on priority invasives.</p>	<p>Free app on Google Play or App Store</p> <p>You will need to be able to ID the species yourself; a digital field ID guide to common invasive plants and animals in BC is included. You can sort plants by flower colour.</p>	<p>The teacher should create the account.</p> <p>Data entry: Photo with geolocation at the time the photo was taken, Species ID, Approximate area infested</p> <p>You can enter all the information when outdoors without data. It will save and automatically submit later when connected to the internet.</p>
<p><a href="#">iNaturalist</a></p> <p>“iNat”</p> <p>For detailed tips on usage, see the <a href="#">iNaturalist Educator's Guide</a></p>	<p>Make observations on any living organism. Join projects in your region and connect with a network of people who are observing nature.</p> <p>Over 3.5 million people use iNat worldwide, with currently more than 236 million observations of more than half a million species, contributing to conservation and scientific knowledge.</p> <p>Join the <a href="#">I Spy and Identify Invasives</a> iNaturalist project to have your observations contribute to the knowledge and management of invasive species in Canada.</p>	<p>Free app on Google Play or App Store; also available on web browsers at <a href="http://www.inaturalist.org">www.inaturalist.org</a>. iNaturalist Canada is available in English and French at <a href="https://inaturalist.ca/">https://inaturalist.ca/</a></p> <p>iNat will offer an ID based on your photos and location. Then, other iNaturalist users will verify the ID.</p> <p>iNat is interested in observations of wild organisms. Photos of beings that are not wild (garden plants, zoo animals, pets) should be marked as “Captive/Cultivated” before uploading and won’t be “Research Grade” / won’t contribute to community science.</p>	<p>Must be 13+ years old to create an account. Teacher should create an account that all students can use instead.</p> <p>Geolocation should be turned on, or the location of observations afterwards.</p> <p>Upload (up to 8) photos or sound files of the organism outdoors or later, from the Photo Library. Sketches can be submitted instead of photos, but they won’t be “Research Grade” (meaning they won’t be included in projects or contribute to community science initiatives).</p>

Name of Program & Links	Purpose	Usage Notes	Data Entry Notes
<a href="#">Seek by iNaturalist</a> <a href="#">Seek User's Guide</a>	<p>Seek can help identify species. It is safe for student use because no registration is required, and no user data is collected. Although location services should be turned on to help with species identification, your precise location is never stored and is obscured to protect privacy.</p>	<p>A free app available on Google Play or the App Store. It is not available on web browsers.</p> <p>Seek does not contribute to community science, and observations aren't submitted to the public or a database.</p> <p>It is possible to link a Seek to an iNaturalist account to have observations contribute to community science.</p>	<p>The app is similar to iNaturalist in that it can help identify species based on your photographs and even do so when the internet is unavailable.</p> <p>Seek includes challenges and badges that are motivating and appealing to youth.</p>
<a href="#">ISCBC Website</a> <p>Scroll to the bottom of the webpage to "Report through this Website," then click "Go."</p>	<p>Used to report invasive species to the Invasive Species Council of British Columbia (ISCBC)</p>	<p>A simple form to fill out on the ISCBC website; not available as an app.</p>	<p>Data entry: your contact information, the location where you saw the species, the date when observed, and up to 3 photographs.</p>

## Identification Tools – Suggestions based on Internet Access

Internet connectivity	Recommended Tools for Outdoor Species Identification	Process
Indoors and outdoors	Digital cameras, ID apps (Seek, iNaturalist, Report Invasives BC), field guides (digital and/or hard copy)	Take photos and upload to apps to ID species. Use field guides to support ID. Report invasives while in the field.
Indoors only	Digital cameras, field guides (hard copy).	Take photos while outdoors. Use field guides to support ID. Option to upload photos to ID apps when outdoors (final upload/synching will occur when internet is available back indoors), or upload when back indoors. Use the ISCBC website to help research, identify and/or report invasive species when indoors.
None	Digital cameras, field guides (hard copy), apps that provide automated species ID even when offline, such as Seek.	Use field guides or apps that work offline (e.g., Seek) to help identify plants. Note: Some apps, such as Google Lens, can give incorrect and confusing ID results because they are based on visual cues only and not geographical/biological data.

## Photography Tips for Community Science

- » **Turn on the location services** for your camera so photos are georeferenced or be prepared to enter coordinates manually.
- » **Get closer!** Zoom in and have the subject fill the frame. Make sure photos have decent lighting and are in focus.
- » **Show different scales and viewpoints.** Take multiple photographs of organisms that show multiple views and angles, such as leaf margins and leaf arrangement on the stems or a single flower and how flowers appear on the plant. Also, take a picture of the whole organism to show its form. For example, a photo of the entire tree from afar shows its shape and size; a close-up photo of the tree's bark colour and texture; zoom into a single leaf to show its shape and texture – both upper and underside; be sure to include any flowers or fruits, which sometimes are the key to being able to ID a species. For invertebrates or other animals, show the body and a close-up of the head or other parts that may help with identification.
- » **Provide a size reference.** Try to include something in the photo, such as a coin, ruler, or your finger, to show size and scale.
- » **Focus on the wild and the weeds.** iNaturalist is interested in animals and plants that are not captive or cultivated. Discuss the difference between wild and cultivated. To learn more, read [What Does Captive/Cultivated Mean?](#). If students do make observations of garden plants or other non-wild organisms, remind them to make sure to mark those observations as "Captive/Cultivated" before uploading them to iNaturalist. However, many invasive plants are cultivated in gardens and are also important to capture in reporting!
- » **Guide students and review their photos before uploading.** Unfortunately, the majority of unsuitable photos, selfies or copyright infringements, and inappropriate comments on iNaturalist come from students. Photos uploaded must be ones that students took themselves!
- » For more tips and tricks on how to take photos so that your observations can be identified, check out the [iNaturalist Photo Guide](#) and the [iNaturalist Educator's Guide](#).

## Reporting Invasive Species Tips

- » Choose an app to use to report and contribute to community science. See the [Community Science](#) table above for descriptions and comparisons.
- » If using **iNaturalist**, make an account in advance and join the [I Spy and Identify Invasives iNaturalist Project](#) to contribute to invasive species monitoring in Canada.
- » If you have more confidence in species identification, consider using [Report Invasives BC](#) to have your report go directly to provincial specialists.
- » A simple, web-based option to report invasive species without using an account or app is to upload photos and information to the ISCBC reporting form located at the bottom of this webpage: <https://bcinvasives.ca/take-action/report/>.
- » Remember that Seek is a tool for identifying and learning more about species observed, but it isn't a reporting/community science app, unless linked to an iNaturalist account.