

eBird 101: just the basics (sort of!)

Introduction to eBird

Many club members will by now have heard talk of eBird (www.ebird.ca). For those of you who haven't, eBird is an online checklist program where anyone is free to join and submit their observations. Everything that is submitted is added to this permanent database and archived for use now and in the future. eBird provides a great tool for individuals, organizations, researchers, conservations, and land managers to access a huge amount of information about the distribution and abundance of the world's birds.

Before we get going, a bit of history is in order. eBird was launched in 2002 by the Cornell Lab of Ornithology with the hypothesis that everyday observations by birders could make a big difference to our understanding about birds. Initially, take-up was slow by birders because there wasn't much in the way of incentives for people to contribute. However, when eBird began to offer incentives (more on those later) participation grew steadily and in the last several years growth has been amazing, growing exponentially in many places. Beginning in 2006, Bird Studies Canada partnered with Cornell to launch eBird Canada, which is a Canadian-specific "portal" to the site which features Canadian news and features. In Canada, as of November 2015, we had seen over 20 million observations submitted! Ontario leads the way accounting for just under half of the Canadian total. In fact, only California, New York, and California have submitted more data to eBird than Ontario!

In this, the first instalment of a three part series, we'll give you all the information you need to understand how to not just participate but to make the most out of eBird.

Registering for eBird

The first step to using eBird is to find the website. You can get to eBird by opening up your web browser (Google Chrome is recommended as you may experience technical issues with other browsers) and then going to eBird. Type www.ebird.ca into the address bar of your web browser and you'll be taken to the eBird Canada homepage. You can use most of the features without registering but to submit data you'll have to



Figure 1: The eBird Canada homepage

The eBird Canada homepage (Figure 1) has regular news features that are specific to Canada and cover a range of topics from new eBird features, helpful hints, and general bird-related news. There are five tabs across the top of the page (Home, Submit Observations, Explore Data, My eBird, and Help) that will take you to different parts of eBird. eBird divides states and provinces by counties (in Ontario we use Census Districts which can be counties, regions, and districts) to display some information and in this vein the right-hand margin of the homepage lists the top “counties” for the current month, listed by the number of checklists that have been submitted – check it out and you’ll see that certain Ontario counties are usually topis in Canada. There is also a feed of rarity photos from around Canada that are fun to look at.

At this point, we’ll ignore most of the information that is available on the homepage and register as a new user. To do this, click “Submit Observations” or “My eBird” to bring up the login screen. If you already have an account for another project like the Great Backyard Bird Count or Project Feederwatch you can use that same login information for eBird. If you can’t remember your login information you can click the “forgot username” link under the blue “sign in” button and then enter your email address. If you don’t yet have an account, you’ll have to register for free by clicking the “Create Account” button. When creating your account it will first ask you to enter your name and email address and to pick a username and password. It is important to use an email address that you regularly check since volunteer reviewers may want to contact you for more information about a sighting in the future. Your username should be something easy to remember but be sure not to pick something you might be embarrassed to share with others in the future since you’ll give it out to people you go birding with.

Tip: If you’re uncomfortable having your name appear on the internet associated with your bird records you can adjust your preferences to appear as anonymous to the public

Tip: You can have as many accounts registered to one email address as you like, and eBird will double-check with you if you ask to create a second (or third) account associated with a single email address.

Once you've created your account eBird will ask for a bit more information about you for the record – if you're uncomfortable filling out that information just check the “Skip this” button at the bottom. However, filling in the information helps eBird better understand the types of people that are using it.

Tip: When you sign in to eBird you can click the “stay signed in box” before you click the “sign in” button. That will save you from having to sign in each time you go to eBird.

Success! That's it; you've registered for a free eBird account! Keep your username and password somewhere safe (but you can request it if you ever forget it).

Submitting a checklist

When you sign in to eBird you'll be taken straight to the start of the checklist submission page. If you've already signed in and are somewhere else on eBird you can start the checklist submission by clicking the “submit observations” tab at the top of the screen. Submitting data to eBird is centred on the idea of a checklist. Each checklist represents a list of birds (could be zero species right on up) from a specific location and date. Submitting a checklist is quick and easy and gets simpler each time you've done it. There are three steps to submitting a checklist:

Step 1: Where did you bird?

The first step to submitting an eBird checklist is to tell eBird where you were. There are a few different ways you can do this:

The screenshot shows the 'Where did you bird?' step of the eBird checklist submission process. At the top, there are three numbered tabs: 1 (selected), 2, and 3. Below the tabs, the title 'Where did you bird?' is displayed. The main content area is titled 'Identify the location where you made your observations.' It features a dropdown menu with 'Kingston--Lemoine Point CA' selected, a 'Continue' button, and a link to 'Edit "My Locations" list'. Below this, there are four options: 'Find it on a Map' (with a description: 'Select existing personal locations and hotspots, or plot a new location.'), 'Use Latitude/Longitude' (with a description: 'Create a new location using latitude and longitude.'), 'Select an entire city, county, or state' (with a description: 'If you were birding across a very large area (e.g., an entire state, county, or city) select this option. Please consider using more precise locations when reporting to eBird so that your observations are more valuable for analysis'), and 'Import Data' (with a description: 'Import data from a spreadsheet, database, or birding program. Learn how').

Figure 2: Options for choosing your checklist location

My Locations List: If you've submitted a checklist in the past from a location it will appear in the dropdown list of “my locations” – this is the simplest option to use, but obviously if this is your first checklist or your first checklist from this location you'll have to use one of the other options.

Find it on a Map: The next easiest option, and probably the one that gets the most use, is the “Find it on a map” option. This option will take you to a map where you can plot your location. Before you get to the map you'll be asked to at least specify which state or province you were in and then the map will

automatically zoom to that area. Figure 3 is an example where the map has been zoomed in towards the City of Kingston.

On the map you can navigate by clicking and dragging to move around and you can zoom in by clicking the '+' and '-' buttons on the left hand side. If your mouse has a wheel on it, you can also use that to zoom in or out. As you navigate the map you'll see pushpins that are orange and you might see some that are blue.

Orange markers represent "eBird hotspots" – these are locations that are likely to be used by several different birders; they could be city parks, conservation areas, sewage lagoons, etc. Take advantage of the hotspots because someone else has already gone through the trouble of plotting and naming the location. The blue markers are your "personal" locations – locations that you might use (your yard, roads you regularly drive, etc.) but that are unlikely to have many other people submitting information for. If there is already a marker for the location you want, click it and the name will show up to the right (above the green "continue" button; see figure 3).

Tip: If you click the little magnifying glass icon below the zoom bar on the map you can click and drag a box on a part of the map and zoom in to that area.

Tip: At the top of the map is the "zoom to" box – you can type in a town or park here and it will zoom the map to that area.

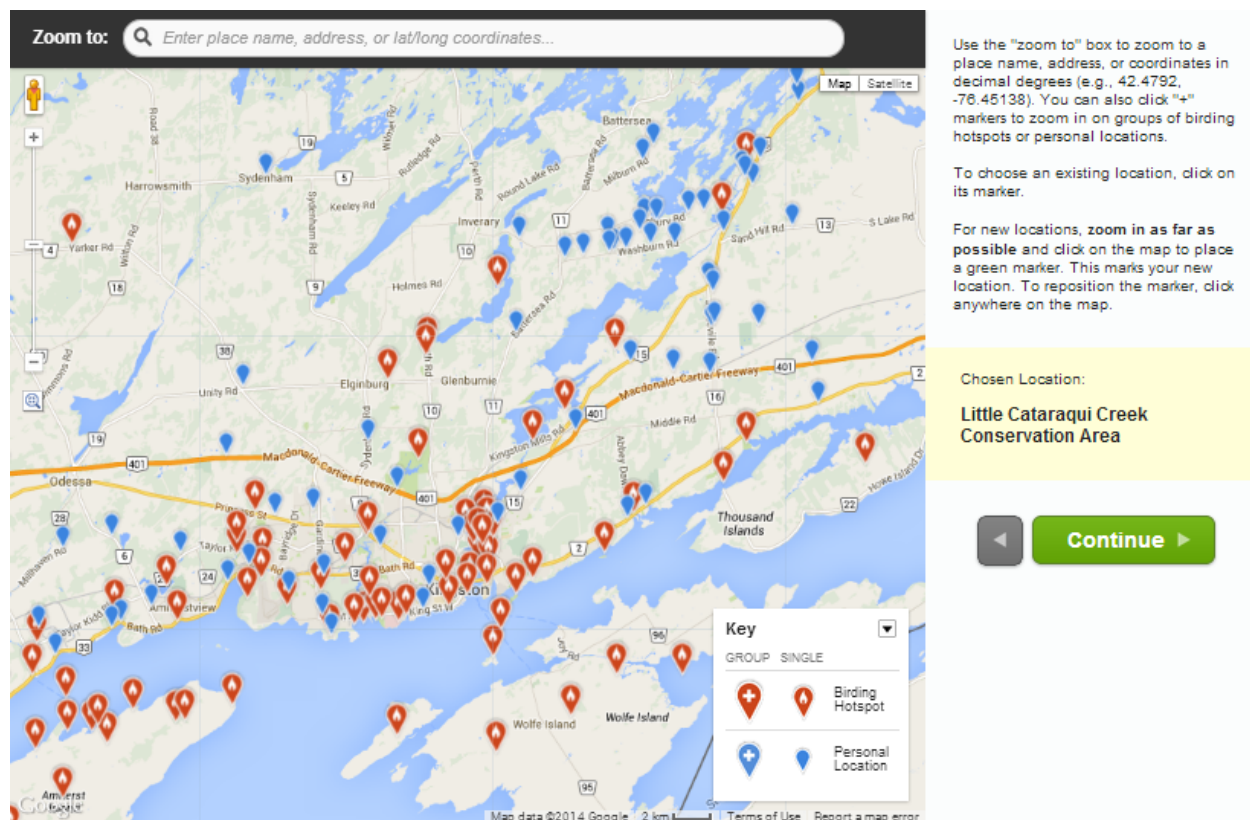


Figure 3: Using the map to choose your location

If there is no marker yet for your location, zoom in as close as possible and then click the map where the marker should be – a green pushpin will appear and the box to the right (above the green "continue"

button) will open up for you to give your location a meaningful name. Once you've plotted a location once it will appear on the map and in your list of "my locations" in the future.

Use Latitude/Longitude: If you know the coordinates of the location you visited you can just enter that directly using this option.

Select an entire city, county, state, or country: It is possible to submit eBird information at a coarser level than an exact location, though it really makes the information much less valuable. However, this option is often useful for older records that lack the required level of detail to use an exact location. Note that if you are recording a large travelling count (like a whole day driving around Frontenac County) this is a good option to use. Otherwise, it is best to use one of the other options.

Step 2: Date and Effort

Once you've told eBird where you were, it's time to give some information about what you were doing.

1 2 3 **Date and Effort** Little Cataraqui Creek Conservation Area, Frontenac ... [Change](#)

* **Observation Date:** Nov --- 2015 * = Required

* **Observation Type:**

| | | |
|----------------------------------|--|------------------------------|
| <input type="radio"/> Traveling | You traveled a specific distance — walking a trail, driving a refuge loop, field birding. | More Info... |
| <input type="radio"/> Stationary | You stayed at a fixed location — watching from a window, hawkwatching, seawatching. | More Info... |
| <input type="radio"/> Historical | Birding was your primary purpose , but you cannot estimate start time, duration, and distance; use Traveling or Stationary if you can estimate these. | More Info... |
| <input type="radio"/> Incidental | Birding was not your primary purpose — noting a bird while driving or gardening. | More Info... |
| <input type="radio"/> Other | <input type="text" value="Choose..."/> | |

[◀](#) [Continue ▶](#)

Figure 4: The data and effort options

Observation Date: pick the date of the observation using the dropdown menus. You can currently pick any date from 1 January 1800 to present. You have to specify an exact date.

Observation Type: There are five options to choose from here. Basically you are telling eBird what you were doing when you were out birding. We'll ignore the "other" category for now. The other four are quite straightforward and are your main choices. There is a description of what they mean beside them and if that's not enough there is also a "More info" button that you can click to get a full description. Depending on the protocol you choose you'll be required to enter more or less information. For example, if you choose "Travelling" you'll be required to enter how long and how far you travelled. The basic option is "Incidental" and "Historical" for which you aren't required to input any further information. The difference between those two is that "Historical" indicates you were actually birding, while "incidental" indicates you were doing something else but happened to notice birds while you were at it.

Once you've chosen your observation type a comments box will appear. This is referred to as the "checklist comments". This is a good space to record any notes about the outing such as the route/trails you were on, names of other people in your party, what the occasion was, the weather, or interesting aspects about the birds you saw. By default, the checklist comments remains private but this can be changed in your preferences.

Once you've entered all of your Date and Effort information you can click the green "continue" button to move on to the last step.

Step 3: What did you see or hear?

The final step of entering a checklist is the best part – it's your actual list. Here you can go through the list and enter the number seen or heard on your outing. What you'll see is a list of expected species and hybrids (and "sphuhs" [e.g. warbler sp.; to be used if you had a warbler but weren't sure which one] and "slashes" [e.g. American Black Duck/Mallard; to be used if you saw a duck that was one of the two species but you weren't sure which one]) based on the location and date you specified earlier.

Tip: You can enter an "x" instead of a number if you don't have a count or estimate for that species.

The screenshot shows the 'What did you see or hear?' stage of a data submission form. At the top, there are navigation tabs (1, 2, 3) with tab 3 selected. The title 'What did you see or hear?' is followed by location and date information: 'aa_South Frontenac--Washburn Road yard, Frontena...' and 'Wed Jun 18, 2014'. Below this is a list of species under the heading 'WATERFOWL'. Each species has a corresponding input field for counting or marking. The species list includes: Canada Goose (*Branta canadensis*), Cackling/Canada Goose (*Branta hutchinsii/canadensis*), Branta sp. (*Branta sp.*), goose sp. (*Anser/Chen/Branta sp.*), Mute Swan (*Cygnus olor*), Trumpeter Swan (*Cygnus buccinator*), swan sp. (*Cygnus sp.*), Wood Duck (*Aix sponsa*), Gadwall (*Anas strepera*), American Wigeon (*Anas americana*), American Black Duck (*Anas rubripes*), Mallard (*Anas platyrhynchos*), Mallard (Domestic type) (*Anas platyrhynchos (Domestic type)*), American Black Duck x Mallard (hybrid) (*Anas rubripes x platyrhynchos*), American Black Duck/Mallard (*Anas rubripes/platyrhynchos*), Blue-winged Teal (*Anas discors*), Northern Shoveler (*Anas clypeata*), Northern Pintail (*Anas acuta*), and Green-winged Teal (*Anas crecca*). On the right side, there are several controls: a search bar labeled 'Jump to Species...', buttons for 'Add Species' and 'Alphabetic', checkboxes for 'Show Rarities', 'Show Subspecies', and 'Group by Most Likely', links for 'Shortcuts' and 'Preferences', a question 'Are you submitting a complete checklist of the birds you were able to identify?' with 'Yes', 'No', and '?' radio buttons, and a large green 'Submit' button.

Figure 5: What did you see and hear; the final stage of data submission

As you go through the list you might notice that a species you observed is missing; keep in mind that the default is to show only the expected species for that location and time of year. If there is a species missing try clicking the "Show Rarities" checkbox in the right-hand margin. If you still can't find the species (should only happen for really rare species) try clicking the "Add Species" button in the top right of the screen.

Tip: Though it is encourages, you don't have to enter every species you encountered.

Once you've finished your list you need to answer one question for eBird – “Are you submitting a complete checklist of the birds you were able to identify?” Basically this is eBird's ways of asking you if you are only submitting a partial list (i.e. just the highlights) or a full list of everything from starlings to King Eiders. Choose your answer above the green “Submit” button and then click “Submit” to finish up.

If you entered a count that eBird considers as a high count or for a species that eBird considers rare for that location/date then you'll be asked to confirm what you saw and include some details (this acts as a good way to catch typos but also to encourage more details for less expected sightings).

Once you've finished that up you're done your first checklist and are ready to do it again!

What's in it for me?

Besides getting that warm tingly feeling inside knowing that you're contributing to a project that is greatly increasing our understanding about bird distribution and abundance patterns, there are tons of great incentives for submitting your observations to eBird.

One of the best incentives is My eBird. The more information you put in, the more you'll get out of using the features of My eBird. You can get to My eBird by clicking the “My eBird” tab along the top menu in eBird.



Figure 6: My eBird "dashboard"

When you get to My eBird (Figure 6) you'll see all sorts of stats that eBird automatically calculates for you including life, year, and month lists for all of the counties, states/provinces, countries, continents,

and the world. You can click on any of the numbers in blue to bring up the list which will show where and when the first time you reported each species was. It's a really handy way to look up your bird records and for those of us who like to count but don't like to spend a lot of time doing that eBird saves you the effort.

Not only does eBird calculate all sorts of lists for you but it can then use those lists to see how you compare to other eBirders in the "Top 100" for a region and can also generate customized email alerts to let you know when something you haven't seen before shows up. We'll talk more about the Top100 and alerts next time but you can play around with them now by going to the "Explore Data" tab along the top of the screen.

Exploring eBird data

There are endless ways to explore the millions of observations in eBird and most of them can be found by clicking the "Explore Data" tab along the top of the screen (Figure 8).

A good place to start is with the **Bar Chart** tool. Clicking this option will let you specify a location (or a county, state/province, or country) to use and then eBird will automatically generate a bar chart for that area. Bar charts will be familiar to many people as they are often called seasonal checklists by birders as they show not just which species have been found, but what time of year you are more or less likely to find them. You can customize the date range and location (you can even create one for you backyard!) as much as you like.

View and Explore Data



[Explore a Region](#)

Recent sightings, checklists, birding activity, best hotspots, and top birders for a county, state, province, or country.



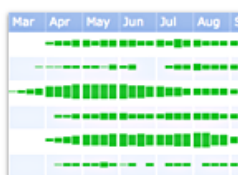
[Explore Hotspots](#)

Discover the best places for birding nearby or around the world.



[Species Maps](#)

Explore interactive range maps by species or subspecies — zoom in for details



[Bar Charts](#)

Find out what birds to expect throughout the year in a region or location



[Line Graphs](#)

Explore different metrics of species occurrence in a region or location

Your Totals

Track your totals and compare with other eBirders.

[Yard Totals](#)

How many species and checklists have you submitted for your yard?

[Patch Totals](#)

How many have you submitted for your favorite birding patches?

[Top 100](#)

Compare with the top eBirders in your region.

Species You Need

Tools to find species you haven't seen yet.

[Target Species](#) **NEW**

Prioritized list of county, state, or life birds that you can expect to find in a region

[Alerts](#)

Reports and email alerts for rarities and species you haven't seen

Figure 7: The View and Explore data page

In the bar chart (Figure 8) you can click on any of the species to bring up more details about them at the location you specified when you created the bar chart or you can click the “map” button to the right to see a map for that species (you can also create maps by selecting “**Range and Point Maps**” at the view and explore data homepage above (Figure 7).

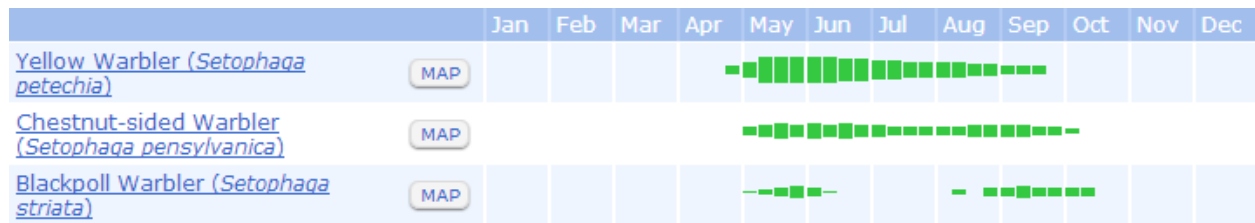


Figure 8: An excerpt from the Kingston area barchart

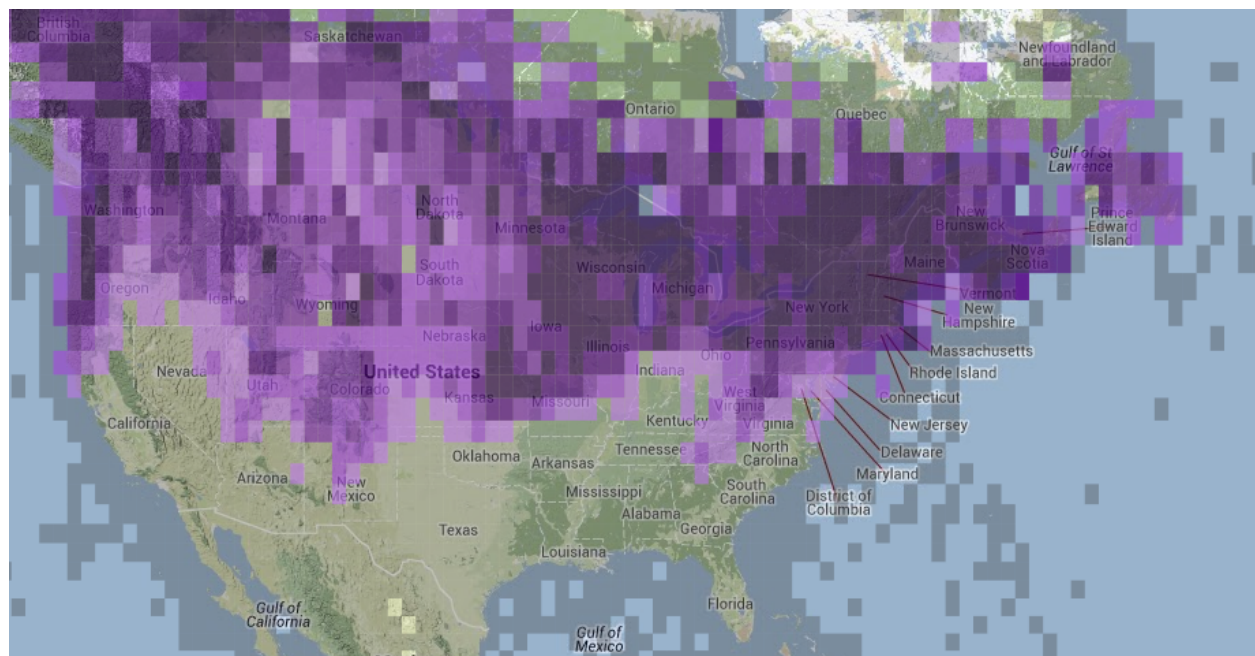


Figure 9: Part of the Black-capped Chickadee map

The map that is created for each species uses eBird data to calculate the frequency for each square on the map – that is, the percentage of checklists that reported the species (darker purple means reported on a higher frequency of eBird checklists). If you zoom in the squares get smaller and eventually you'll be able to see individual points on the map for each discrete location.

One of the newest ways to explore eBird data is to use the new **Explore a Region** or **Explore a Hotspot** options. In the first option, you can enter a county, state/province, or country and get information about that location like a species list, first and last dates, high counts, top contributors, top locations and more (Figure 11).

In the Hotspot Explorer, you get to a map of the world and when you zoom in you'll see the different hotspots for the area colour-coded for how many species have been reported (Figure 12). If you click on the marker for a hotspot you'll be taken to a page devoted to that location with many of the same details as is available on the Region Explorer.

Tip: You can change the timeframe on the hotspot explorer to a single or a range of months if you want to find out which places are best at a certain time of the year.

Between the Region and Hotspots Explorer tools you should never be at a loss to find out where to go birding next, whether it is locally or further afield!

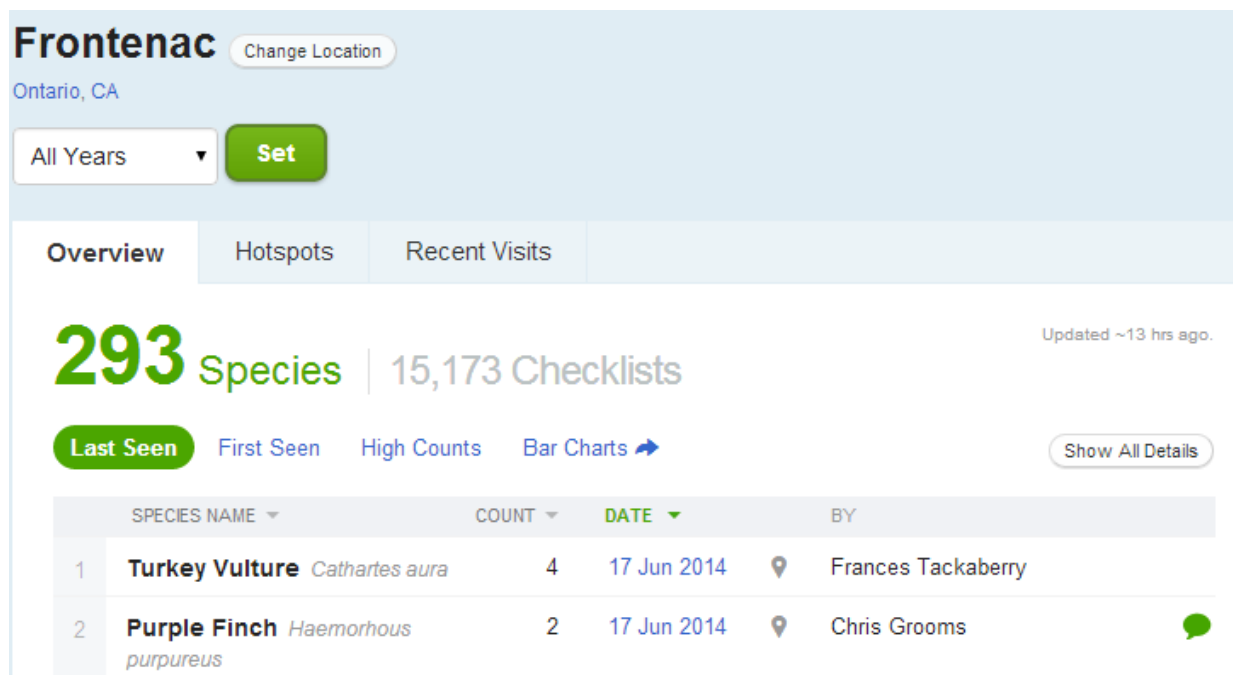


Figure 10: The location explorer set to Frontenac County

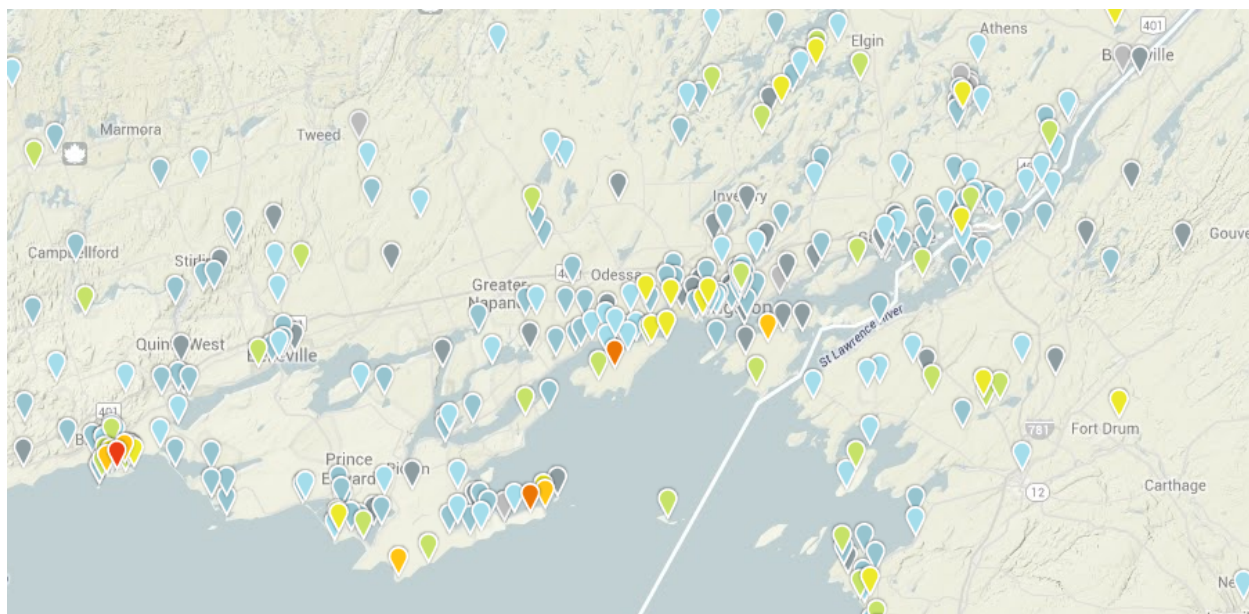


Figure 11: The hotspot map around Kingston

In this issue we've just scratched the surface of some of the most common ways people want to use eBird. In eBird 201 we'll get into some of the more advanced options to really squeeze as much out of eBird as possible.

In the meantime if you have any questions about using eBird don't hesitate to contact eBird Canada (ebird@birdscanada.org).