

EXERCISE 3

Editing Existing Data in Collector



Introduction

The SPB Spots for Collector app is a useful tool to help streamline data collection in the field. There are two main tasks that you will undertake with Collector. The first is editing and adding data about a SPB infestation (spot) that has already been detected. The second is to collect your own data related to spots you discover in the field. This exercise will focus on the first of those tasks. You'll learn to open the Collector app, conduct a field evaluation gathering spot attributes (data), suggesting a recommended treatment, as well as add other metadata to spots.

Requirements

- An Android device
- Access to the SPB Spots for Collector maps
- BadElf Bluetooth GPS Device (An external GPS will be required for field work, however it is *not* required for this exercise)



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Part 1: Visiting a Spot Collected From Aerial Survey

Recently an aerial survey was flown over your district. During this aerial survey SPB Spots were detected from the plane. One of the spots was the image below.



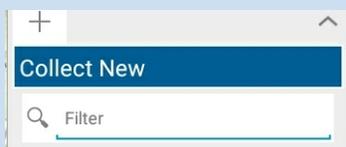
When spots are detected from an aerial survey they appear as red spots in the collector map (you'll see this later). Part of your job while using SPB Spots for Collector data collection will be to collect new data. However, it will also be your job to revisit spots that have already been visited or already been detected which is what you're going to learn about in this exercise. In the steps below you're going to walk to that spot that was detected in an aerial survey (of course for this training you won't be literally visiting the site).

A. Finding a Spot on Your Map

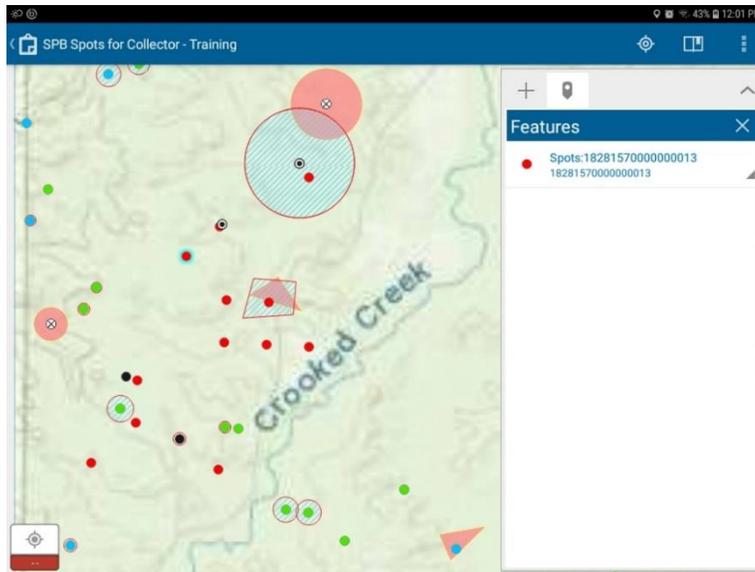
You're setting out to visit the spot shown above previously collected via aerial survey. Later you'll be collecting new spots but before you do you're going to visit some areas that have already been detected to gather information about the SPB activity in those spots and provide an update to the map in Collector.

1. On your android tablet open the **Collector** app.
2. **Sign in** using your organizational AGOL account if you're prompted.
3. Like you learned in the last exercise open the **On Device** page to open the maps you have downloaded to your device. Tap **SPB Spots for Collector-Training**.
4. **Zoom** to an area on the map with points which have been collected on the map.

Note: In the Field Service version of SPB Spots for Collector you can search in the map for a spot if you know the 4-digit spot ID by tapping the Filter menu next to the magnifying glass and enter the spot ID. This option is not available in the Training Service.

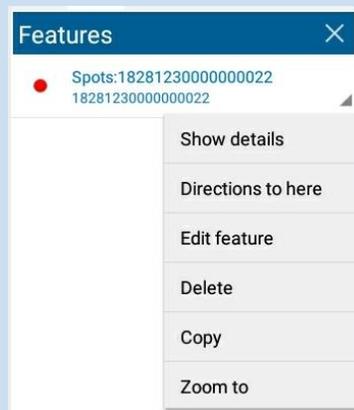


5. All spots that were detected via aerial survey will appear red in the map. Tap a **red spot** on the map. You'll see the point pop up in the features panel on the right.



6. Tap the **spot** in the panel on the right to open the details on the point.

Note: You can also tap the drop down menu in the lower right corner of the spot in the Features panel and it will give you more options, including Direction to here, Edit feature, Delete, etc.



Tapping the spot itself will open the spot details, the same as tapping "Show details" in the dropdown menu will. Tapping "Directions to here" will allow AGOL to use the map to help give you directions to the spot. Otherwise you can delete the feature, or copy it if you know the information in another spot will be similar and doesn't need to be reentered.

7. Certain parameters such as the USFS Spot ID, User ID, and Detection Date will be visible. Before you visit the point it is a good idea to read through these details. Whoever collected this point may have left some useful notes such as "rough ground" or "recent burn" which lets you know what sort of terrain you might run into.

Using the location on your Collector app you will begin to walk towards the red spot. You can use the base map to plan your route. After walking through the forest you reach the red spot and you see the following trees:



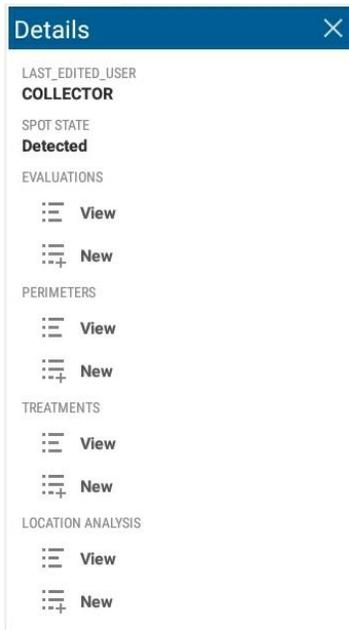
This is the site which was marked by the red dot. This is a group of loblolly pines. You look around and see that in addition to the trees with faded yellow crowns there are many green trees which have fresh attacks. Remember this information. Now you'll begin to use Collector to evaluate the spot activity. Look back at your tablet.

B. Edit Spot Evaluation

1. You have a red spot selected on the map. If you haven't already tapped the spot in the features panel on the right tap the **red spot** to open the details panel for that spot.

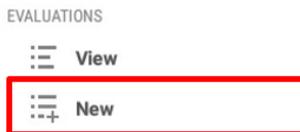


2. With the spot selected tap and drag on the screen to **scroll down** in the details panel. At the bottom of the panel you'll see Evaluations, Perimeters, Treatments, and Location Analysis. Notice that the Spot State is "Detected".



3. First you'll need to add a new evaluation. An evaluation is where most of the information about the spot itself will be recorded. This is used in decision making concerning potential suppression needs or actions (such as the type of treatment and priority for treatment) which are collected following spot detection.

Tap **New**.



4. In the new window that opens in the detail pane add the following information:
 - i. **User ID.** Tap the text line under User ID to open Enter your organizational AGOL username (e.g. ncate_usfs). Tap **Evaluation Date** below.
 - ii. **Evaluation Date:** You must enter a date that the evaluation was taken. Because you're currently "in the field" you can tap the **Use Current** button to enter the current date. Tap **Next**.
 - iii. **Evaluation Type:** You need to indicate if this evaluation is coming as a result of an aerial survey, or if you're examining remotely sensed imagery, or if you're on the ground next to the point. Tap **Ground**. Now to go to the next attribute tap **Next**.
 - iv. **Observed Market Size Class:** Your options here are Pulpwood, Sawtimber, or Mix. For this site tap **Pulpwood**. Tap **Next**.
 - v. **Room to Grow:** Because you can see that this spot does have room to expand type **yes** into the box. Tap **Next**.
 - vi. **Recommended Treatment:** As you enter the Recommended Treatment field a dropdown menu with available treatments appears. Here is where you will need to use your expertise to determine what treatment needs to be applied to this area. If there were no infested green trees you could tap Monitor and not choose to apply a suppression

treatment. But recall that when you got to the site you noticed many green trees which were infested so you will want to recommend a suppression treatment based on the site and location. Tap **C&L** to indicate the treatment should be Cut and Leave. Tap **Next**.

Note: *If you need a more detailed list of treatments see the glossary in exercise 2.*

- vii. **Fresh Attacks Present:** Here is where you record whether or not you're seeing fresh SPB attacks in the spot. If you see no new fresh attacks you can enter no. But because the area we're at is currently under attack tap **Yes**. Tap **Next**.
- viii. **# Of Green Infested Trees:** This will be an estimate of how many green infested trees are in the area. Remember that because this is a ground survey you may not be able to see all the trees that are infested, so this is your best approximation. Type **20**. Tap **Next**.
- ix. **# Of Red/Fading Infested Trees:** Type **30**. Tap **Next**.
- x. **# Of Dead/Vacated Trees:** Type **10**. Tap **Next**.
- xi. **# Of Active Spot Heads:** Type **1**. Tap **Next**.
- xii. **Host:** When you open the Host attribute a list of possible hosts will open. You can tap your finger on the screen to scroll up and down on the list. Find **Loblolly Pine** and tap that option. Tap **Next**.

Note: *When the host field is selected a keyboard is opened. If you type "L" this will limit the dropdown menu to only the options containing an L. This may speed up your collection in the field.*

- xiii. **Damage Agent:** This attribute will record which agent has damaged this tree. Options are SPB, BTB, Ips, or Other. Because you've determined that these trees have been damaged by southern pine beetle, tap **SPB**.
 - xiv. **Pine BA:** Enter **100**, Tap **Next**.
 - xv. **Total BA:** Enter **120**. Tap **Done**. This will close the keyboard.
5. In the upper left corner of the window tap the **Check Mark** to save the evaluation. You'll see a grey banner that says "Stored on device" appear briefly on the screen.

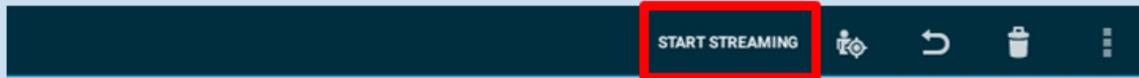
C. Add a Perimeter to the Spot

The spot perimeter outlines the actual spot. It defines what particular components of the spot are associated with the polygon that you'll create. Adding a perimeter to the observation will be your next step after the evaluation.

- 1. Below the Evaluation section in the details panel you'll see the Perimeters section. Like the other sections there are options to view existing perimeters or add a new perimeter. Tap **New**.
 - i. Before you begin collecting the perimeter you should enter the ancillary information like your username and the date. In the UserID section type you **AGOL organizational username**.
 - ii. In the Date_Created section tap **Use current** to enter the current date.

- iii. Tap the Area_Surveyed section to open the menu of available options. For this example you’re going to draw a perimeter around the whole area that this spot is representing. Tap **Entire Spot**.
- iv. For collecting the perimeter you have a few options. For this exercise you will use your finger or your stylus to draw the perimeter on the map. First read the note below about your other perimeter collection options.

Notice on the toolbar at the top there is a “Start Streaming” option.



This tells the app to use your location as the input to perimeter collection. Then you could physically walk the perimeter of the spot to store the perimeter instead of having to guess on the map where the edge is. When you're doing this you can pause streaming at any time needed for trouble areas. Then you'll need to remember to hit the start streaming button again to finish perimeter.

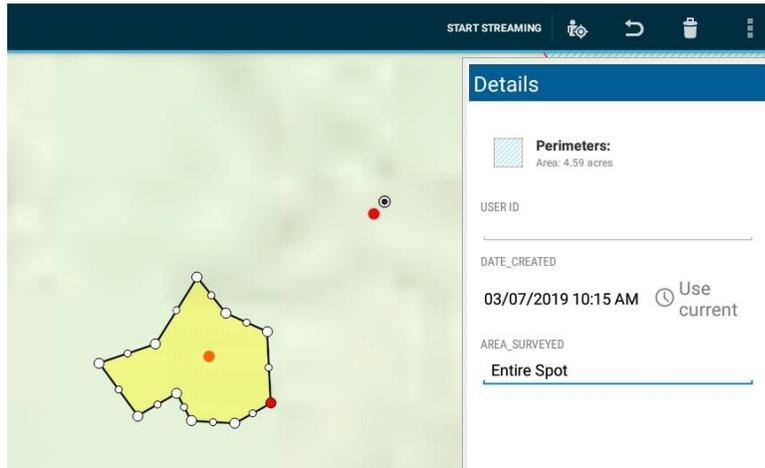
There are additional options you can adjust like the vertex spacing. Which can increase or decrease the distance you travel before the Collector drops a new vertex in the polygon. These options can be found in the more options menu:



However, using the default Collector options should work fine for SPB Spots for Collector applications. Now that you're aware of a good way to collect perimeters in the field, continue with the exercise by drawing a perimeter on the map, below.

Now tap **several vertices** on the map until you’ve created a polygon around the spot.

- v. Finally you should tap the **Area_Surveyed** field. This will open up a dropdown menu where you can indicate which portion of the spot the perimeter is outlining. Is the perimeter outlining the entire area damaged by SPB? Or is it just the trees which are still green but seem to be infested with SPB? For this example tap **Entire Spot**. Your perimeter collection should look similar to the image below.



2. In the upper left corner of the window tap the **Check Mark** to save the perimeter. You'll see a grey banner that says "Stored on device" appear briefly on the screen.

D. Add a Treatment Record to the Spot

1. Once a spot has been treated you'll need to add information about the treatment. Below the Evaluations and the Perimeters section you'll see Treatments. Tap **New**.
 - i. There are only 3 fields in the Treatment section. First tap the **User ID** field. The keyboard will open. Type in your organizational AGOL user ID into the box. Tap **Next**.
 - ii. The next field is the Treatment Type. A drop down menu will open with the available treatment options. The spot you're visiting has been treated by Cut and Leave. Tap **C&L**. Tap **Next**.
 - iii. For collecting the treatment perimeter you have a few options. For this exercise you will use your finger or your stylus to draw the perimeter on the map. First read the note below about your other perimeter collection options.

Notice on the toolbar at the top there is a "Start Streaming" option.



This tells the app to use your location as the input to perimeter collection. Then you could physically walk the perimeter of the spot to store the perimeter instead of having to guess on the map where the edge is. When you're doing this you can pause streaming at any time needed for trouble areas. Then you'll need to remember to hit the start streaming button again to finish perimeter.

There are additional options you can adjust like the vertex spacing. Which can increase or decrease the distance you travel before the Collector drops a new vertex in the polygon. These options can be found in the more options menu:



However, using the default Collector options should work fine for SPB Spots for Collector applications. Now that you're aware of a good way to collect perimeters in the field, continue with the exercise by drawing a perimeter on the map, below.

Now tap **several vertices** on the map until you've created a polygon around the area treated.

- iv. For the Treatment/Suppression Date tap **Use Current**, or known treatment date.
- 2. Tap the **Check Mark** in the upper left corner to save this recommended treatment.

E. Add a Location Analysis to the Spot

- 1. As an option you can enter additional site information for the spot using the Location Analysis section. This section lets you add information about the spot location that may prove useful when implementing a management strategy. In the Details panel tap **New** under the Location Analysis section.

Note: *Not every field in the location analysis section will be applicable to your spot, so not every field will need to have a value. For example if you find that there is no nearby stream you could leave those values blank.*

- i. Tap the first option, **Operable By Mechanized Equipment**. This will pull up a keypad where you can enter an estimate of the percent area of the spot where mechanized equipment could be useful for management. Let's say for this example 30% of the area could be managed using this sort of equipment. Tap **30** then tap **Next**.
- ii. **Width of Ridge** is a value in feet of how wide the ridge is which the spot lies on. Because this site isn't on a ridge you can leave the field blank. Tap **Next**.
- iii. **Slideslope (%)** Tap **Next**.
- iv. **Floodplain Width** should be a value in feet describing how large the floodplain is if a spot falls in a floodplain. Because this spot isn't in a floodplain you can leave the field blank and move to the next field. Tap **Next**.
- v. The next field is **Suitable Campsite?** You can enter yes or no from the dropdown if you think the spot could be developed into a campsite. Tap **Next**.
- vi. The next field is **Nearby Stream?** Like the last field this is a simple yes or no if the spot is near a stream or not. You look around and see that you're not near a stream so tap **No**. Then tap **Next**.
- vii. The **Stream Distance (FT)** field will bring up a number pad so that you can enter a distance in feet from the spot to the stream. Because you're not near a stream you can leave the field blank. Tap **Next**.
- viii. The **Stream Width (FT)** field will bring up a number pad so that you can enter a width in feet of the nearby stream. Because you're not near a stream you can leave the field blank. Tap **Next**.
- ix. The next field is **Stream Has Sandy/Gravel Substrate?** This is another yes no question that you'll have to answer about a stream that the spot is near. By default the value in the

field is <No value>. Because you're not near a stream you can leave the value as <No Value>. Tap **Next**.

- x. The next field is **Improvements? (e.g. Signs or Trails)**. Here you don't need to specifically list the improvements that you think could be made to the area. The field is just a yes or no to indicate if the spot could use some additional signage or trail development for example. Tap **Yes** then tap **Next**.
- xi. The final field is **Area in Burn Block?** Where you can indicate if the spot is in the burn block or not. Tap **No**.

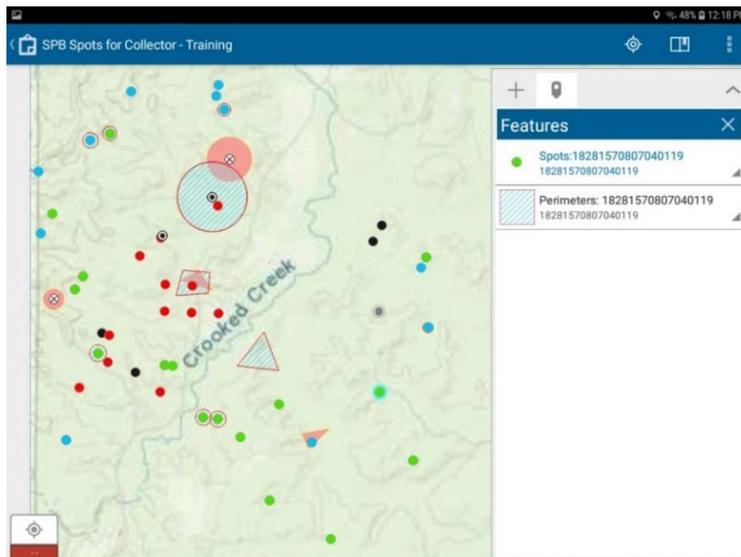
Note: Recall that red spots are spots that have been detected by aerial survey and green spots are spots that have a recommended treatment. Now that you've visited this red spot and given it a recommended treatment it seems that its color should be green. But the color of the spot will not change until you sync data back to AGOL and a script is run on the data you've collected on your device. It will remain red for now.

- 2. Tap the **Check Mark** in the upper left corner to save this location analysis.
- 3. Tap the second **Check Mark** in the upper left corner to exit this spot.

Part 2: Visiting a Previously Evaluated Spot

A. Locating a Previously Visited Spot

- 1. Return to the map where you can see all the points.
- 2. Tap a **green spot** on the map. You'll see the point pop up in the features panel on the right.



- 3. Tap the **green spot** in the Features panel (the top row in the panel on the right). Like you did with the red point you should read the information in the Details panel that appears after you tap the spot.

Note: A green spot is a site that has been visited and has a recommended treatment associated but the recommended treatment hasn't yet been applied.

B. Add a New Perimeter

1. Now you'll go through a similar process to what you did with the red spot. But there are some key differences. First, the red spot hadn't been evaluated yet. You added the evaluation. A green spot should already have an evaluation. Take a look around, if there are any changes to the spot add a new evaluation and perimeter. The new spot perimeter will allow a user to see how the spot has changed since its previous evaluation. In the panel on the right under perimeter tap **New**.
2. Before you begin collecting the perimeter enter the ancillary information like your username and the date. In the UserID section type you **AGOL organizational username**.
3. In the Date_Created section tap **Use current** to enter the current date.
4. Tap the **Area_Surveyed** section to open the menu of available options. For this example you're going to draw a perimeter around the whole area that this spot is representing. Tap **Entire Spot**.
5. Just like with the red spot you have a few options for collecting the perimeter. You can still use the "Start Streaming" option which tells the app to use your location as the input to perimeter collection. For now use your finger or your stylus to draw the perimeter on the map which is what you should do here. Tap several vertices on the map until you've created a polygon around the spot.
6. In the upper left corner of the window tap the **Check Mark** to save the new perimeter. You'll see a grey banner that says "Stored on device" appear briefly on the screen.

C. Updating Additional Spot Information

1. Before you move on from the green spot you can check to see if the rest of the information is up to date. Remember you've added a new evaluation and a new perimeter. But take a moment to look at the rest of the information.
2. In the panel on the right below Location Analysis tap **View**.
3. You take a moment to look at the Location Analysis and decide that there is some information that is incomplete and the site might need more notes. Tap the **Back Button** on your tablet.
4. Now in the panel on the right below Location Analysis tap **New**.
5. You learned to enter the Location Analysis when you learned about the red spot. Enter the location analysis in a similar way.

Part 3: Reading Information from Managed Sites

Recall the second example scenario from the previous exercise – the timber sales specialist example. This part of the exercise teaches you how to examine existing spots and read information such as the evaluation and applied treatment, which is something that you may do regularly as a timber sales specialist.

A. Reading Previous Treatments

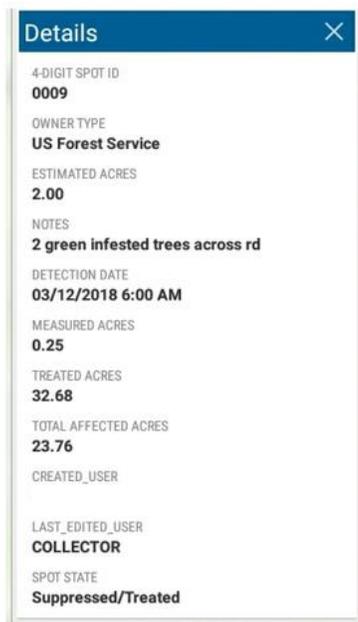


1. In your map **Pan and Zoom** to a white spot with a black X through it.

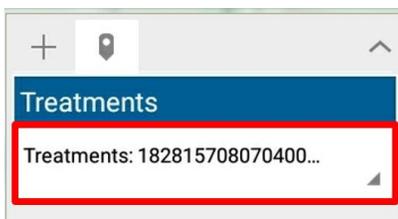


These spots are spots which have been previously treated. They may have been originally collected as red spots (from an aerial survey). Then a field team visited them and recommended a treatment which would have made them green spots. After a contractor visited the spot and applied a treatment they became the black X spot.

2. Tap the **spot**. You'll see it appear in the features panel on the right. Tap the **spot** again in the features panel to open the details panel.
3. In the details panel you'll be able to read information about who collected the spot, how large it is, and any notes the collector took. Take a moment to read this information.



4. Tap and drag your finder to **scroll to the bottom** of the details panel. Just like with the red and green spots you'll see there are Evaluations, Perimeters, Treatments, and Location Analysis.
5. Under Treatments Tap **View**. You should see that there is at least one treatment listed there because this spot is marked as one which has received treatment.



6. Tap the **Treatment**.
7. In the panel that opens you'll be able to see details on the treatment.

Details

Treatments: 18281570807040009
 Area: 32.68 acres
 Edited by COLLECTOR on 7/24/18 at 11:37 AM

USFS SPOT ID
18281570807040009

FIELD SPOT ID
52

USER_ID
TB

TREATMENT TYPE
C&L

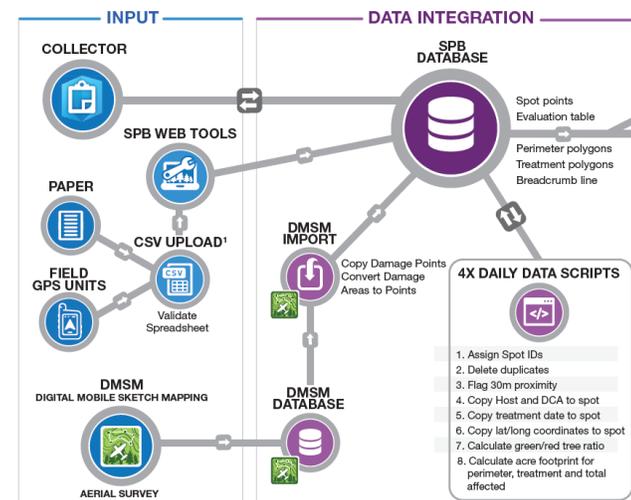
- The example above shows that the spot received the treatment C&L (Cut and Leave). Check treatment perimeter for breakouts. If there is no new activity associated with the spot, the spot has been successfully suppressed.

Part 4: Syncing Data

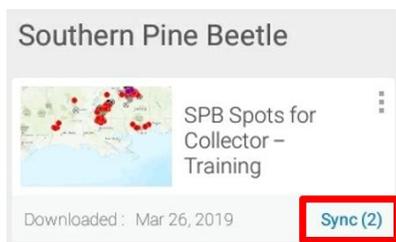
A. Sync Additional Features

Before you sync the data take a moment to remind yourself where you are in the process. Remember that the SPD Database is compiled from multiple sources including DMSM, paper sheets, and Collector. The figure below shows that Collector and the SPB Database have data that flows both directions. That is, data collected in Collector is added to the database, and data you saw on your map in Collector was downloaded from the database. Performing this sync which you'll do below will add the data back to the SPB Database so that it can be used by other users and can be used to create additional products and maps.

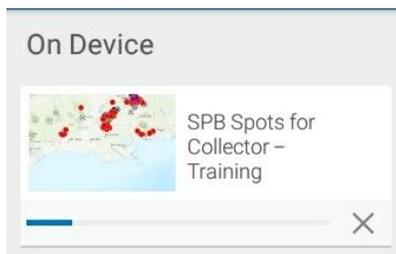
It is very important that you sync data often. Other users are adding data at any given time which you'll want when you're in the field, and those users need to have access to your data too. Make sure you sync data at the end of each day of field collection *when you have a stable Wi-Fi connection*. You'll re-download the maps each day before field work begins to make sure you have the most recent data.



1. To sync the data open the Collector app and navigate to the maps menu (either All Maps or On Device should work).
2. Just like when you first opened the map you'll see the SPB Spots for Collector –Training map. But now you'll see that instead of a download option you have a Sync option. After the Sync button there will be a number in parenthesis telling you how many updates you've made that you're about to sync back to AGOL. Tap **Sync**.



3. After you tap sync you'll see a blue loading bar appear at the bottom of the map as the updates sync back to AGOL.



4. When the sync is finished you'll be done. The map that you've downloaded will remain on your device so you can open it again and add more features. But all the features you added in the map are back in the geodatabase online.

Congratulations! You've learned important skills in Collector such as assigning evaluations and recommending treatments on various types of spots. You've also learned to sync data back to AGOL. In the next exercise you'll continue this day of field work and learn to collect new spots and other field information called breadcrumbs.