

Appendix F – Using digital maps

Knowing where you are as precisely as possible is critical for the atlas. Luckily there are many tools available to help with navigating while atlassing.

If you will be navigating and recording coordinates primarily by using a printed copy of a 10-km square map, read below about how to print the map from the web site, then read [Appendix M](#) for more details on determining UTM coordinates using the map.

Types of data available

There are two main types of location data available to atlassers.

Point Count locations

Each square has a number of predefined point count locations located along roadsides (see the Point Count manual for more details – Coming Soon). These data can be downloaded in a variety of formats. Because conducting point counts requires excellent birding by ear skills, many atlassers will not be completing point counts and thus can ignore the points when atlassing.

Point count location data can be downloaded in a variety of formats from the [Atlas Square Resources page](#). Simply zoom in to the square in question (or use the “Find Square” option or choose from your personal list) and when you’re in close enough the square name, square boundary, and point count locations will all appear. At the same time, the list of “Tools available for this square” will appear on the right side.

You have four options for downloading point count location information:

Download PDF map – A digital map of the square with topographic features such as habitats and roads, plus point count locations and the square boundary.

Download Point Count Coordinates (CSV format) – list of point count coordinates in a spreadsheet.

Download Point Count Coordinates (GPX format) – list of point count coordinates that can be opened by many handheld GPS devices.

Download Point Count Coordinates (Google Earth KML/KMZ format) – list of point counts and square boundary that can be loaded into Google Maps/Google Earth as well as some other programs/apps.

Square boundaries

Like point count locations, you can access the boundary of a square by going to the [Atlas Square Resources page](#) and zooming in until the square and point counts appear. Once that happens the “Tools available for this square” will appear.

Two options will give you the square boundary:

Download PDF map – A digital map of the square with topographic features such as habitats and roads, plus point count locations and the square boundary.

Download Point Count Coordinates (Google Earth KML/KMZ format) – list of point counts and square boundary that can be loaded into Google Maps/Google Earth as well as some other programs/apps.

Viewing tools

Printing/viewing

The PDF map can be opened by a wide variety of computer programs and smartphone apps. If you're unable to open the PDF map, contact the [Atlas Office](#). They are designed to fit on a standard 8.5 x 11 sheet of paper if you choose to print it. Most print shops will be able to print from the PDF file if you bring it in on a USB stick. Most print shops also have an option to email or upload your file in for printing.

NatureCounts App

When using the NatureCounts App on your phone, you can access the built-in map within the app. The map here will show you all square boundaries, but you have to be sufficiently zoomed in before they will appear. To view the map before you start a checklist, click the "Edit Location" button. Point count locations will appear on the map if you select "Atlas Point Count" as the protocol type and then click the "Edit Location" button. To view the map while you have a checklist in progress, just click the "Map" button; if you have your track log turned on it will also show that.

NatureCounts website

As mentioned above, if you head to the [Atlas Square Resources](#) page and you zoom in, the square boundary and point count locations will eventually appear. You can also access square boundaries by going to the [Coverage Map](#) and sufficiently zooming in.

Avenza Maps

[Avenza Maps](#) is a free app available for [Android](#) and [iOS](#) devices. This app lets you import PDF maps and if they are "georeferenced", which the Atlas-3 maps are, you'll be able to see your position on the map (Note that the Atlas-2 maps currently available are not georeferenced, so can't be used for this purpose). You can also add notes, like waypoints and track logs to keep track of your effort over time. This app works completely offline, so even if you don't have cell service or a data plan you'll have full functionality – you just have to make sure you download the map onto your device before you lose service/data.

The Avenza website has an excellent [help section](#) but the basics are covered in this Atlas-3 video tutorial (Coming Soon).

The main catch is the free version of Avenza maps only lets you have three maps loaded at a time so you might find yourself deleting and loading maps frequently if you're atlassing in multiple squares.

Google Maps/Google Earth

This option from the [Atlas Square Resources](#) page will download a KMZ file which can be opened in Google Earth or Google Maps. If you have a Google account and want to create an online map, go to [Create a Map](#) (make sure you're logged in to Google) and then click the "Import" button and then find the KMZ file you just downloaded.

That will create a map with the square boundary and point count locations in it. You can customize the appearance of the map including toggling the base map between topographic and satellite view. You can also download and add multiple other square files to the same map.

The basics of creating a Google Map for atlassing is covered in this Atlas-3 tutorial video (Coming Soon).

Once you're happy with the map you can access it from an Android or iOS device with the Google Maps app by clicking "Saved" at the bottom of the screen, then scrolling down to "Maps" and finding your map in the list. Note that these maps require a data connection to work properly (you can [download the base map for offline use](#) but this will not save your custom features). Using this method (assuming you have a data connection) will enable "routing" along roads to point count locations.

Other mobile mapping apps

There are many other mapping apps available, and many will allow you to import the various file formats available from the [Atlas Square Resources](#) page. One very handy one that is available for free for Android and iOS devices is [Maps.me](#). This app is very similar to Google Maps but uses [OpenStreetMap](#) data and can have the base map data downloaded for offline use. If you install this app on your device and then download and open the Google Earth KML/KMZ format file, it will import the point count locations as "bookmarks". Like Google Maps, you'll then be able to use the app to route you between locations. Just be sure to download the base map data before leaving a data connection behind.

GPS units

If you use a handheld GPS unit, you should be able to import the GPX file format or some of the other options onto it for use in the field. Please refer to your GPS user manual for more instructions. Depending on your device type, special software and a cable may be necessary. If you're really stuck, contact the [Atlas Office](#) for assistance.