How to Create a Site Boundary Graphic and GeoFile

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SARG guide on how to create a site boundary file

1. Introduction

1.1. Determining the extent of a site boundary is an important first step when considering reptile survey. Often, refugia (tins) are required to support the survey effort, and land manager permissions must be granted before any tins are laid. The site boundary helps us to determine the site owner.

1.2. Determining the extent of the site is also necessary for the habitat assessment part of the survey planning. We need to be able to know where one site ends, and another starts, so we can obtain the right permissions, and can optimise the benefits of survey deductions by informing the right land manager.

1.3. This short guide will walk through the steps of *one* means of easily generating a site boundary. This approach is free and open source, and will create a KML geofile, which can be used with Google Maps, Google Earth or other Graphical Information Systems (GIS).

1.4. Overall, it should take you no more than 10 minutes to create a site boundary geofile using the following guide.

2. Google Maps Account

2.1. Your first step is to navigate to the Google Maps web page. You can either use a web search engine (such as Google or Bing), searching for 'Google Maps', or click on the following link: http://maps.google.co.uk/

2.2. You will need to create a free Google Account, or to log in if you already have an account.

2.3. On the Google Maps page click the 3-bar icon at the top left of the screen, then click on the 'Your Places' link.
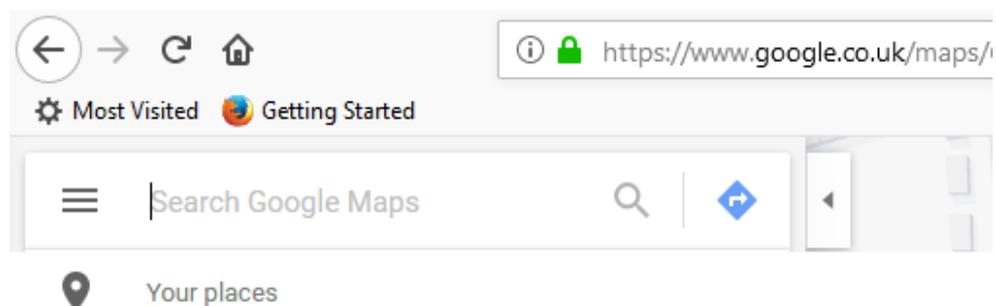
2.4. From the top menu, click on the MAPS link, and then click on the CREATE MAP link at the bottom of the page.

Using the Google Map

2.5. The best Base map to use is the Satellite map. Click on the Base map link, then on the Satellite map tile (second on the list).
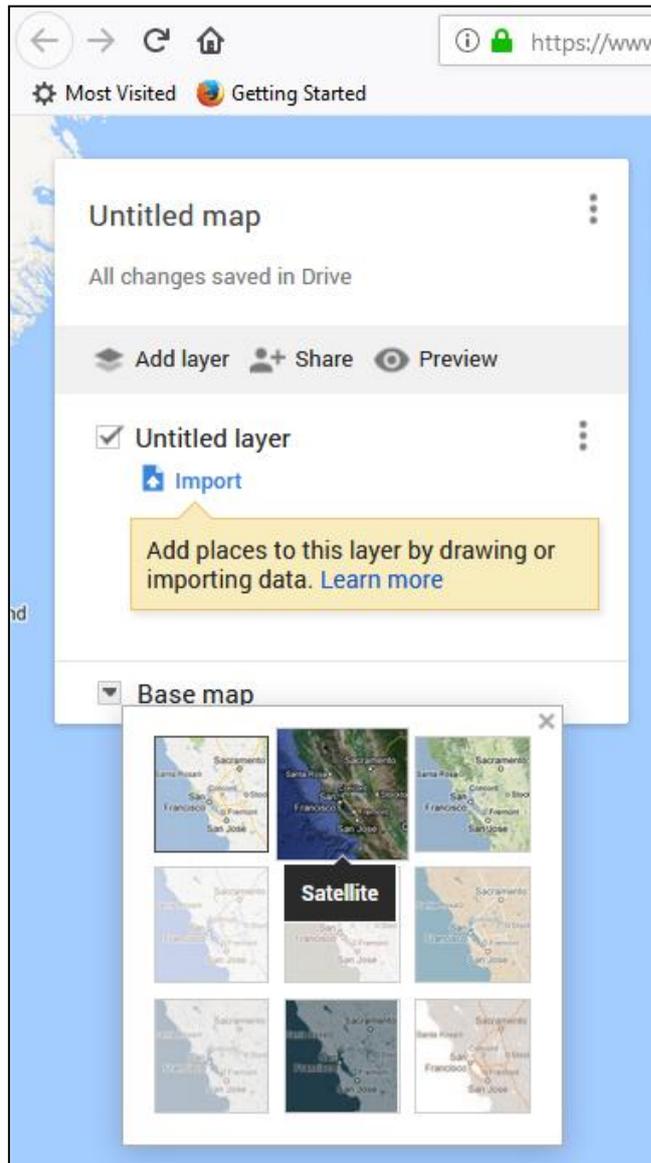
2.6. Use your mouse to zoom into your site area. Double-clicking zooms in, and click-and-drag moves the map. Arrange the map so that you can see the entire target site, as large as possible on the screen.
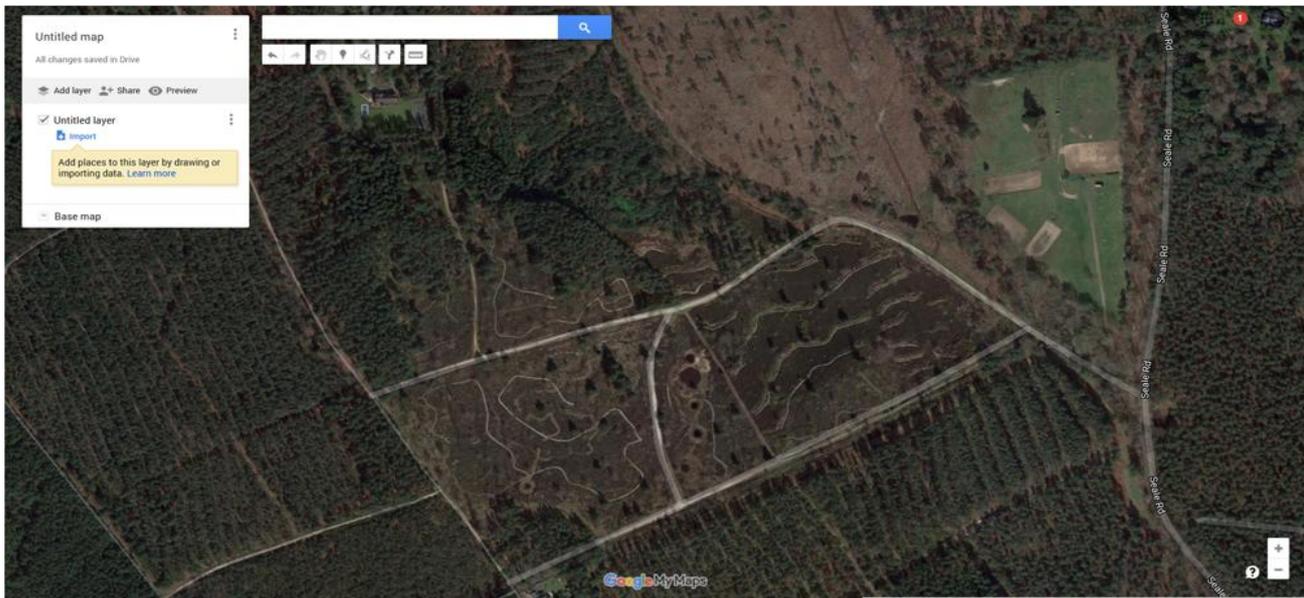
2.7. Click on the 'Line Draw' icon in the menu below the search bar. Then click around the site border, creating a polygon. Finish the polygon by clicking onto the first marker you created.
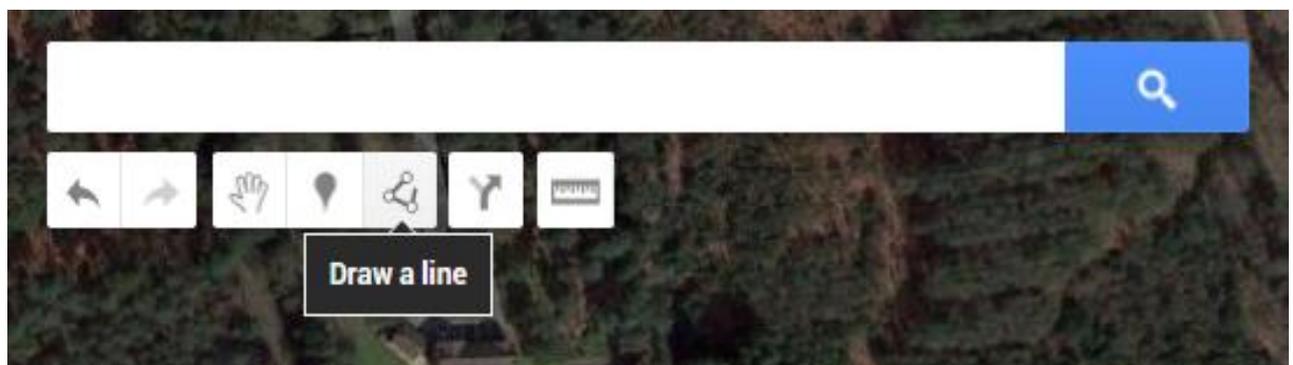
2.8. Once the polygon is completed, a pop-up window will appear. Type your site name into the 'title' box. You may choose to add an optional description.
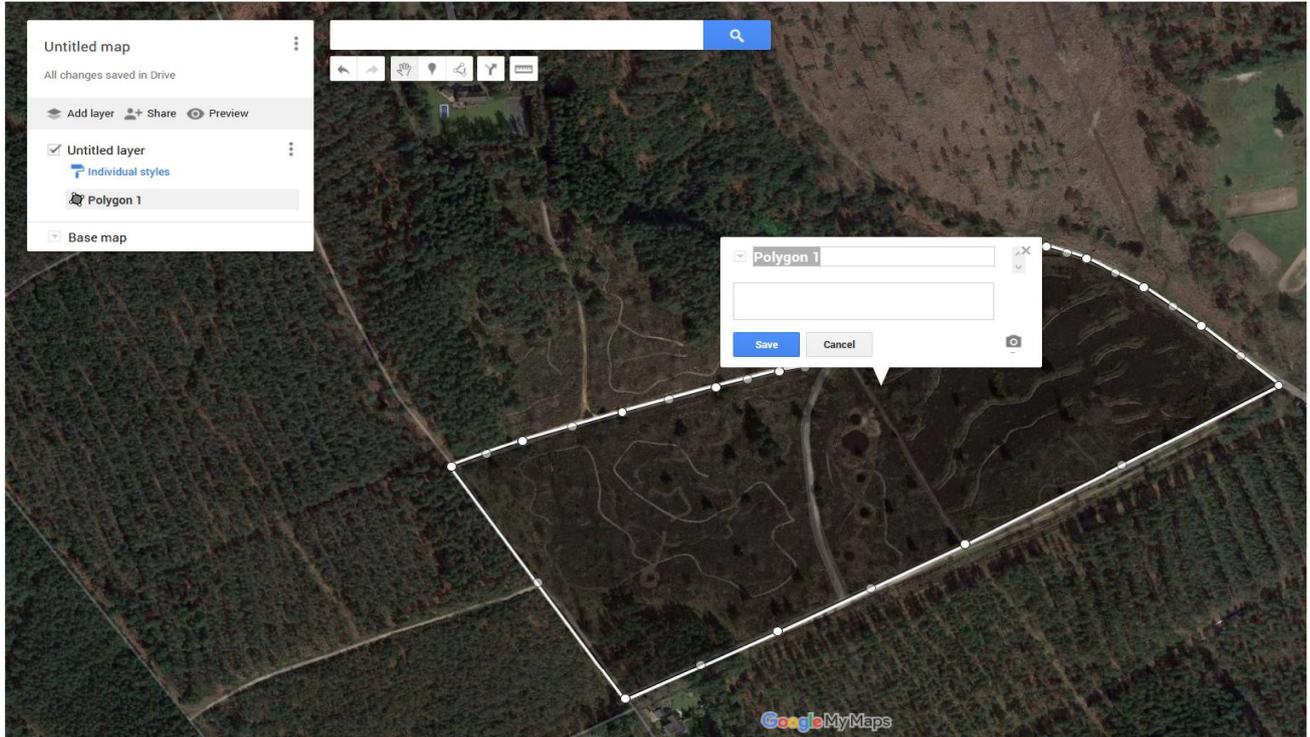
2.9. Once you have saved the name, click the style button on the pop-up window:
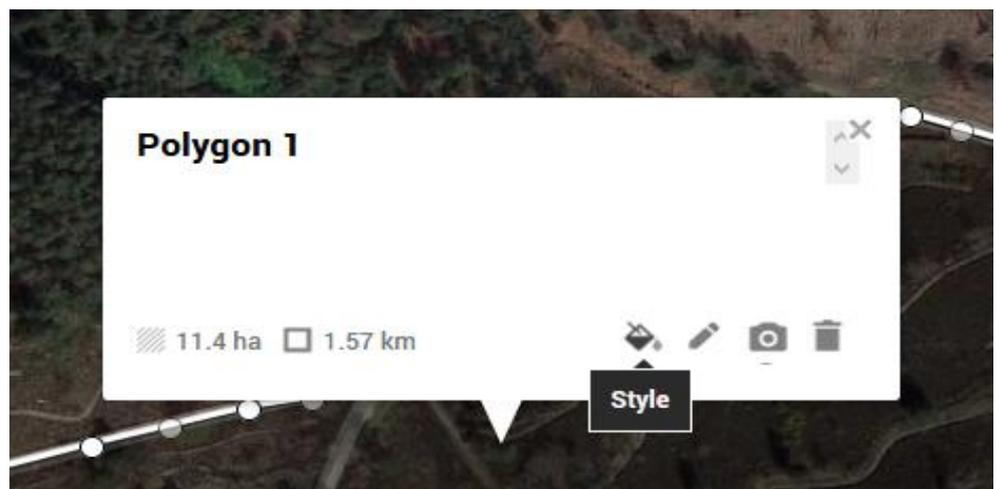
2.10.   For consistency, we recommend the following settings:

- Line colour: RED (RGB: 255, 82, 82),

- Polygon transparency 100% (all the way to the right).

- Border width about 3/10ths from the left.
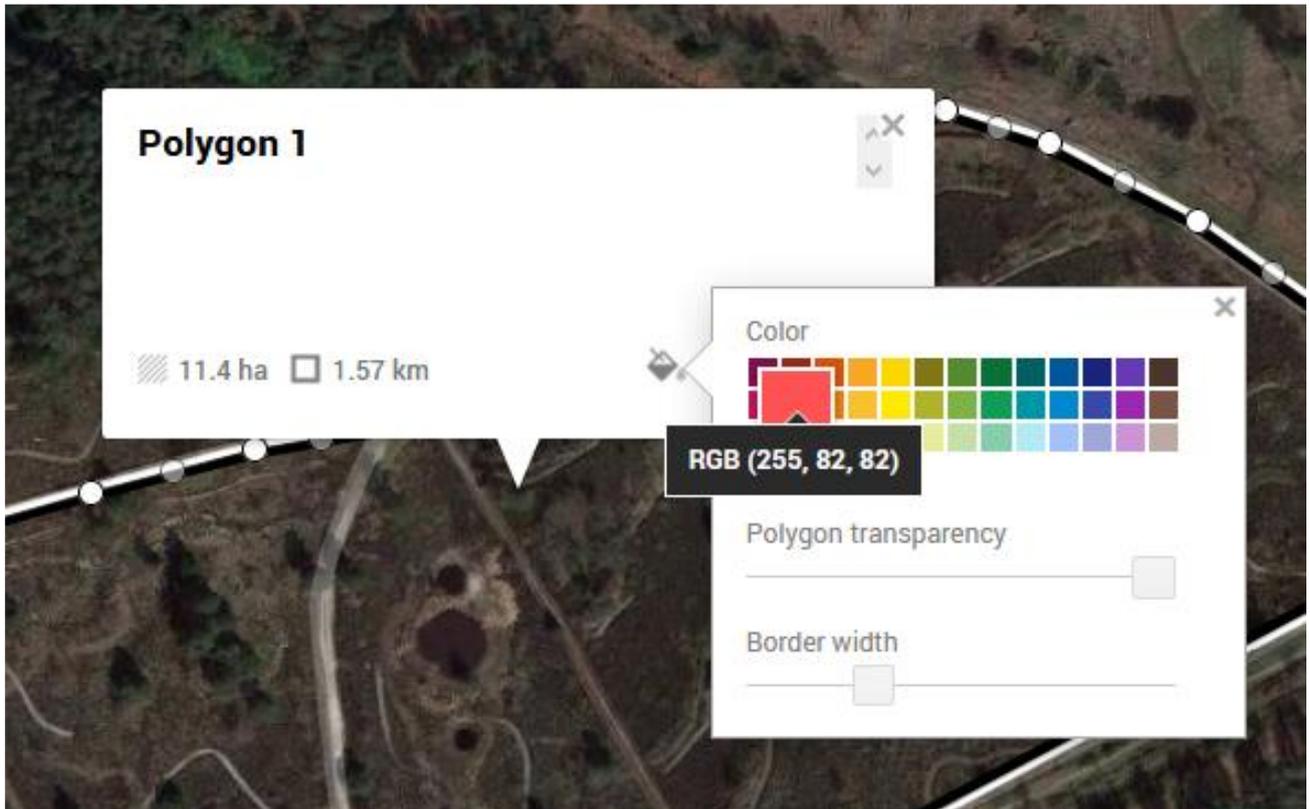
2.11. On the left-hand pane, type in the site name again over both the 'Untitled Map' and 'Untitled layer' fields. Both will pop up a window, then click the Save button.
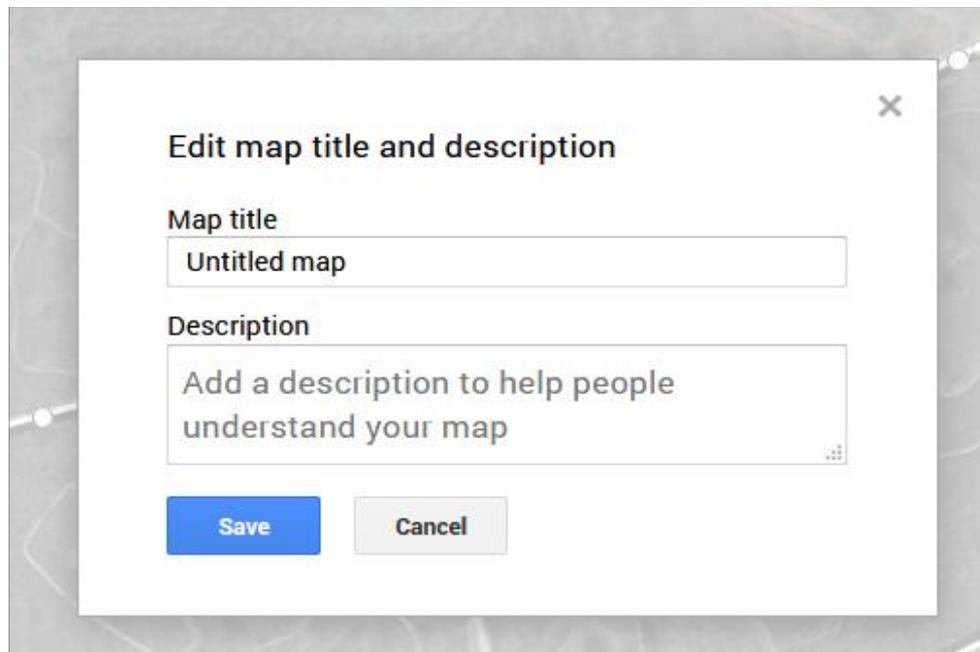
2.12.   Now, click the 3-dots next to the Map title (top of the map window), and click on the Export to KML/KMZ link.
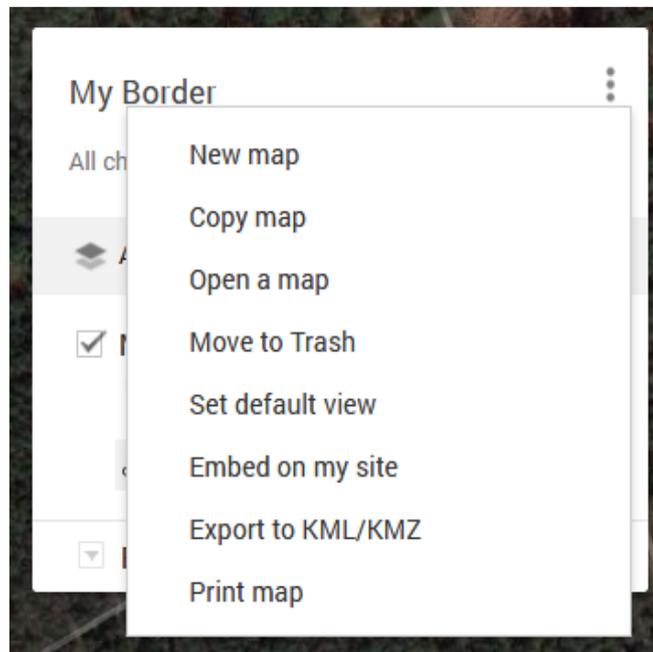
2.13.   On the export window, change the target from 'Entire Map' to the site name you typed in previously. Tick the 'Export to a .KML file' checkbox and click the 'Download' button.
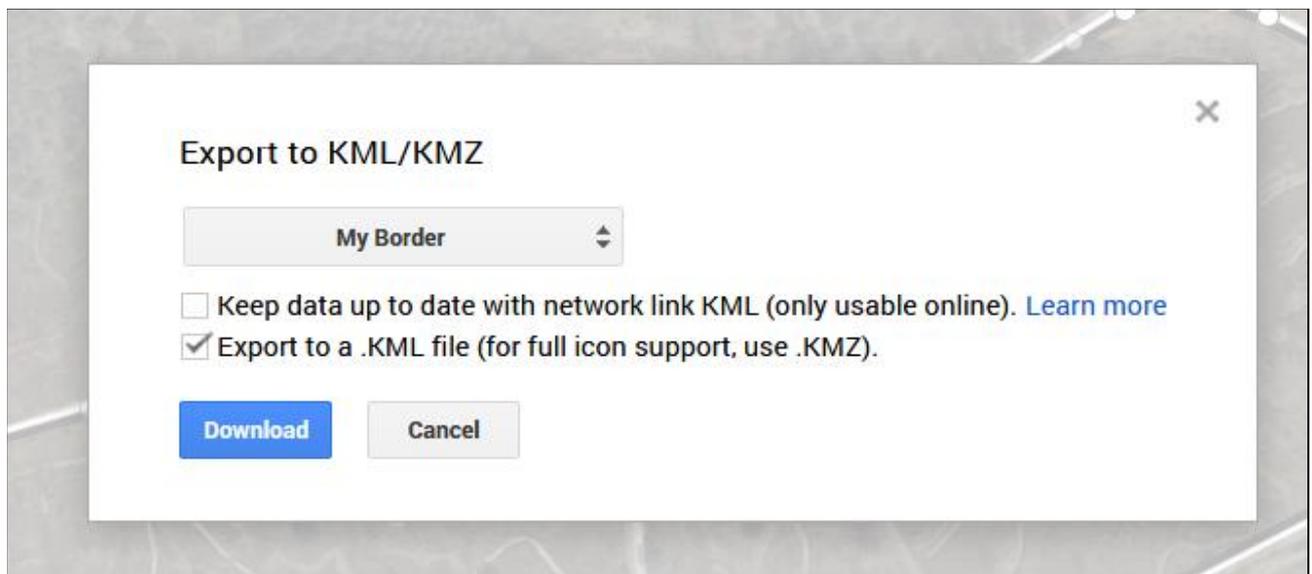
2.14.   Save the file to the location of your choice (but remember where you put it!).

2.15.   That's it, you have created and saved a boundary file. Clicking on your downloaded file in Windows Explorer will open it in Google Earth if you have that application installed on your computer.

2.16.   Clicking on your new boundary line, you can edit it by dragging points. If you refine your boundary, you will have to re-export it as a KML file following the procedure from paragraph 2.12.