



Setting up a Reptile Survey Transect

ARGWEB – Reptile Survey



Reptile Surveys on ARGWEB

Currently, ARGWEB supports four types of reptile survey

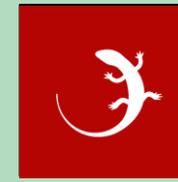
- Refugia Transect Survey (the most common and typical survey)
- Visual Transect Survey (where refugia are not appropriate)
- Emergence Surveys (to detect hibernacula locations)
- Burrow Surveys (for sand lizards)

This guide will deal with setting up a Reptile Survey Refugia Transect and provide advice on planning, procuring refugia, liaising with land managers and directing surveyors.

Initially, you may find an ARG is in the position where it has to appeal to land managers for permission to survey. ARGWEB is a well proven method for instilling confidence and enthusiasm with land managers, and in a short period of time, as word spreads, it will be land managers coming to you, requesting survey on their sites.



ARGWEB – Reptile Survey Planning



Planning – first steps

Before you can start planning a Refugia Transect, you must have a clear idea of how the results are to be exploited. Generally, this is to determine the site distribution, presence or probable absence for each species.

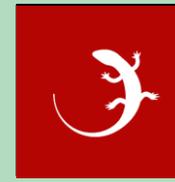
You also need to be clear about the geographic scope. By far the best approach to discuss the area to be surveyed is an aerial photograph of the site with a clear boundary drawn. This provides you with an idea on the hectares to be covered, and allows the land manager to confirm that his survey permission covers the entire area, and can highlight any hazardous areas or sensitive areas (such as ground nesting birds).

Google Maps (My Maps) offers a free and intuitive service where you can draw a boundary on a Google Map. There is a guide specifically devoted to drawing up boundary files.

[Drawing Site Boundaries Guide](#)



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Planning – Site size

From analysis of more than one thousand reptile surveys, it is clear that there is a three hour limit to the duration for a survey that volunteers will tolerate. Surveys which take longer than three hours to complete suffer from dramatic under-survey.

Although there is no fixed requirement for refugia density, experience has shown that one tin per hectare of suitable reptile habitat is close to the sweet spot. This provides a good resolution for species distributions, and is not so dense that it compromises the area to be covered.

Assuming surveyors are searching the undergrowth for open sightings (essential for legged lizards), then the three-hour-limit turns out to be a maximum of thirty refugia per site. Typically, suitable reptile habitat comprises around 60% of the site area (excluding open fields, dense woodland and inaccessible areas), so a typical site size is often around fifty hectares.

Refugia density: **1 per hectare of suitable habitat**

Maximum number of refugia per site: **30**

Maximum duration for a site: **3 hours**

Typical site size: **50 hectares**

These figures are not mandatory requirements, and are for guidance only, all sites are different. If a site is significantly larger than 50ha, you might consider dividing it into two sub-sites, or risk it becoming an unpopular survey site.

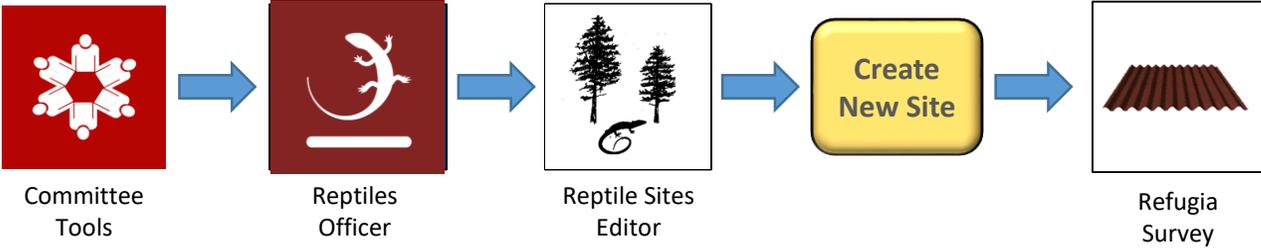
ARGWEB – Reptile Survey Planning



Planning – Site Creation in ARGWEB

So, you're at the stage of early discussions with the land manager, you understand the site boundary and what the purpose of the survey is, and you're ready to start planning a laydown.

In ARGWEB, using the **Reptile Sites Editor** app, click the **'Create New Site'** button, then select **Refugia Survey**. Enter the site name (and subsite if divided), and OS grid reference. You need to make up a three-letter code for the site, it doesn't matter which letters, but they will become part of the tin reference number, so for *Frensham Great Pond*, you might want to choose 'FGP'. The software will tell you if the code is unique or already in use. Click **'Create New Site'**.

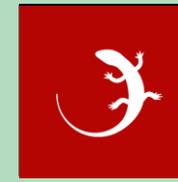


You will now see the site editable form, where you can add contacts and information. You can upload a boundary file created in Google Maps. For now, leave the 'Publish' button unticked (invisible on the website).

You can enter the location details, and also select data partners (You must have already created the data partner). This page defines the data portals created, and who sees the site data outside of ARGWEB. You can change the content later.

County:	<input type="text" value="Surrey"/>	<input type="button" value="v"/>
District:	<input type="text" value="Elmbridge"/>	<input type="button" value="v"/>
Vice County	<input type="text" value="Surrey"/>	<input type="button" value="v"/> No. 17
Site Owner:	<input type="text"/>	
Site Manager:	<input type="text"/>	
Site Stakeholder:	<input type="text"/>	
Site Centroid:	<input type="text" value="TQ 16553 62111"/>	(e.g. SU 43761 76254)

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Planning – Refugia Laydown Plan

Once you are happy with the site information details (for now), click on the **'Edit Refugia'** button at the bottom of the page.

When in the editor, you can zoom into the site, and overlay a hectare grid. Clicking the 'Add Tin' button will create a tin on the map, which can be dragged to an approximate position. Repeat this until you are happy with the provisional laydown. This map (or the KML file) can be used in discussions with the land manager, to agree the transect, and to make you aware of any hazard or sensitivities for the site. You can rework the map until you are both agreed.

As you have not yet published the site, only Admins can see it on the survey site list. You can download the GPX file for the site, which is compatible with handheld GPS units or mobile phones.

You can use this information to guide you when deploying the tins. Obviously you may need to adjust for micro-habitat when on site, you can change the actual grid references on the system later, but remember to record changes in location.

[Refugia Specification Guide](#)

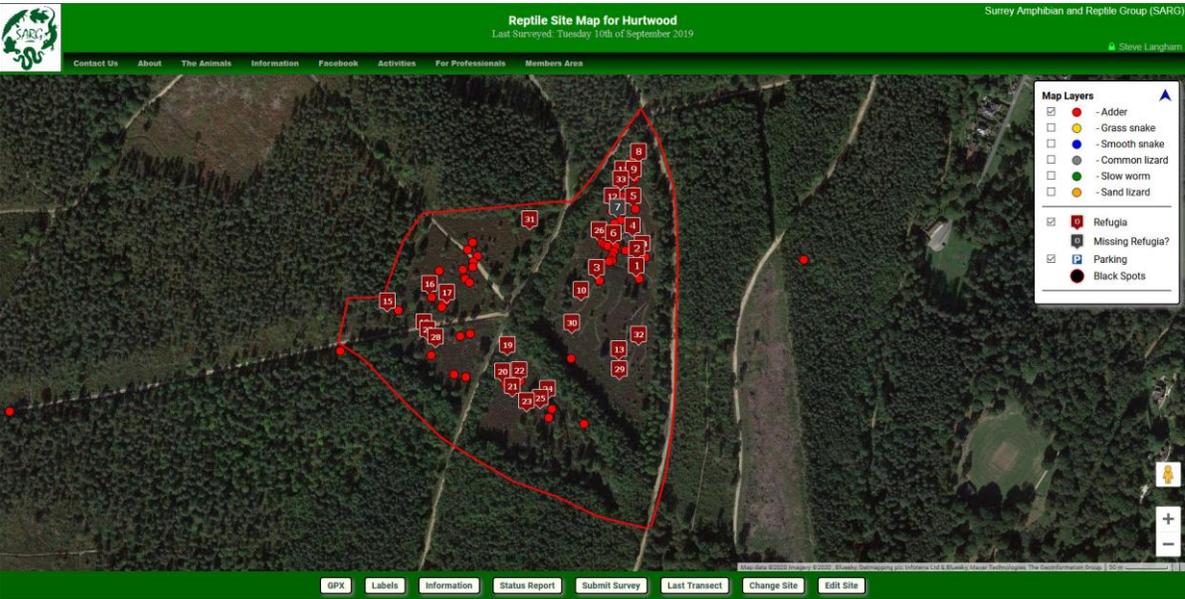
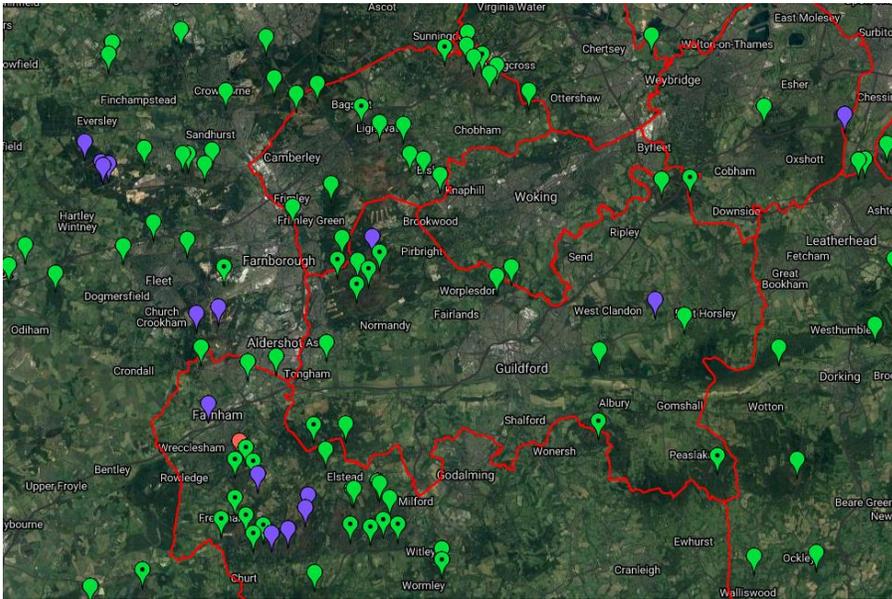
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Planning – Surveyor Direction

Once you are happy with the laydown, mapping and site information, you can click the ‘Publish’ button in the Reptile Site Editor. This will allow your surveyors to see the site and start surveys.

In the Members Area, you can click on the Reptile Surveyors icon, and then the Survey Sites icon. This app shows a map of all reptile survey sites (text-searchable). Green icons require survey (have not been surveyed within 30 days), and dots are EPS species sites (only visible to licence holders). Clicking a map icon provides the surveyor with the site dashboard.



All information a surveyor needs is provided by this dashboard.

The site is now completely set up on ARGWEB.