Quick Start Guide to Living England Ground Data Collection

1.1 Introduction

Please ensure when going out to survey that you:

- Collect Living England data using the Esri ArcGIS Field Maps app. The Field Maps app has specifically been designed to be light-touch and easy to use when in the field.

- When going out to collect data for LE you may pass other habitats which are not under-recorded, it is still acceptable to collect data for them. What we need to avoid is specifically going out to undertake LE surveys on habitats we already have sufficient data for.

Surveys should be targeted at specific Biogeographic Zones (BGZs) and at the habitat classes that are currently under-recorded in these BGZs. This will optimise the usefulness of the ground data for LE. **Surveyors should prioritise under-recorded habitat classes.**

The **annual** requirement to sustain LE is **50 ground data points per habitat class in each BGZ**. Habitats where > 50 points have been recorded in a BGZ should not be targeted unless all habitat classes in that BGZ have had at least 50 points collected.

To clarify access and data collection permissions for LE surveys:

- You ***do*** need to get permission from the landowner/occupier to carry out stand-alone LE surveys, even if it is on publicly accessible land.

- You ***do not*** need to get permissions to carry out stand-alone LE surveys on NE-owned NNRs, or in areas that have agreed permissions with major landowners (although you ***do*** need to check for any actions required prior to visiting these sites).

- You ***do not*** need to get extra permission to carry out LE surveys on land that you already have permission to survey (landowners/occupiers have already granted this permission).

1.2 In this Quick Start Guide

- Finding out which habitats to target in each BGZ.

- Locating these habitats in your BGZ.

- Obtaining access and data collection permissions for LE specific surveys.

1.3 LE Materials Library

You can find the main **LE Specification for Ground Data Collection** document within the provided information pack for full details on the UKBAP classification framework, planning LE surveys, using the ArcGIS Field Maps app, and recording LE points in the field.

2 Finding Out Which Habitats to Target

2.1 Priority 1: Target habitats & areas

For Phase 5 of LE (2022-23) the focus is to address issues in the training dataset used in the Phase 4 map. These have been identified by the LE team as specific habitat types to target in various BGZs to correct habitats that are over/under-classifying in the map or show low confidence in the classification. These are listed below and will be updated throughout the year.

- BGZ 1 – "Fen, Marsh and Swamp" over-mapping on a range of habitats, in particular "Acid, Calcareous and Neutral Grassland" in the Cumbria Fells and "Bog" in the North Pennines.
- BGZ 2 & 4 – All habitats required as the EES team have been targeting surveys on the other zones.
- BGZ 3 – Requires targeting of the North Pennines / Yorkshire Dales to distribute points more evenly across the zone.
- All BGZs – Acid, Neutral and Calcareous Grassland and Improved Grassland.
- All BGZs – Fen, Marsh and Swamp (as it is a fairly broad classification covering various wetland habitats).

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2.2 Priority 2: Annual LE requirements

The **ArcGIS Online (AGOL) LE Dashboard** (Figure 1) contains all the information needed to find out which habitat classes are under-recorded in each BGZ and is updated automatically as new points are uploaded from the ArcGIS Field Maps app. Use this to identify which habitats are below the minimum requirement of 50 points per habitat class in each BGZ. The progress wheels on the Dashboard show this visually and turn from orange to green when the count reaches 50 and will show a complete wheel when the count reaches 100.

Not all LE habitats are required for ground data collection. The number of ground data points that are required for each habitat are indicated in Table 1. Some habitats ("Bare Soil/Peat", "Coastal Saltmarsh" and "Inland Rock") have a lower requirement of 25 points per year in each BGZ; this is because they are classified differently in LE and only use the data for validation. Habitats that do not require any ground data are either classified differently in LE or they have sufficient ground data points from a reliable source.

Some BGZs do not contain all the required habitats e.g., "Coastal Sand Dunes" is not present in land locked BGZs. If a habitat is not present, or if ***all viable segments*** in the BGZ have been surveyed, then please report this to the Living England team. These habitats are then exempt from the fieldwork targets in these BGZs.

Any feedback on the Living England Ground Data Collection Tool would be appreciated. This is collated here: https://forms.office.com/r/uJjQ3LhX8B and please state your organisation under additional notes.

Table 1: LE habitats required for ground data collection per year in each BGZ.

	LE Habitat	Number of Ground Data Points Required	Justification
1	Arable and Horticultural	**0**	External dataset used
2	Bare Sand	**50**	
3	Bare Soil/Peat	**25**	Separate LE algorithm
4	Bog	**50**	
5	Costal Sand Dunes	**50**	
6	Coastal Saltmarsh	**25**	External dataset used
7	Dwarf Shrub Heath	**50**	
8	Fen, Marsh and Swamp	**50**	
9	Acid, Calcareous and Neutral Grassland	**50**	
10	Improved Grassland	**50**	
11	Inland Rock	**25**	Separate LE algorithm
12	Bracken	**50**	
13	Scrub	**50**	
14	Built-up Areas and Gardens	**0**	Separate LE algorithm
15	Water	**0**	Separate LE algorithm
16	Broadleaved, Mixed and Yew Woodland	**0**	Sufficient ground data
17	Coniferous Woodland	**0**	Sufficient ground data

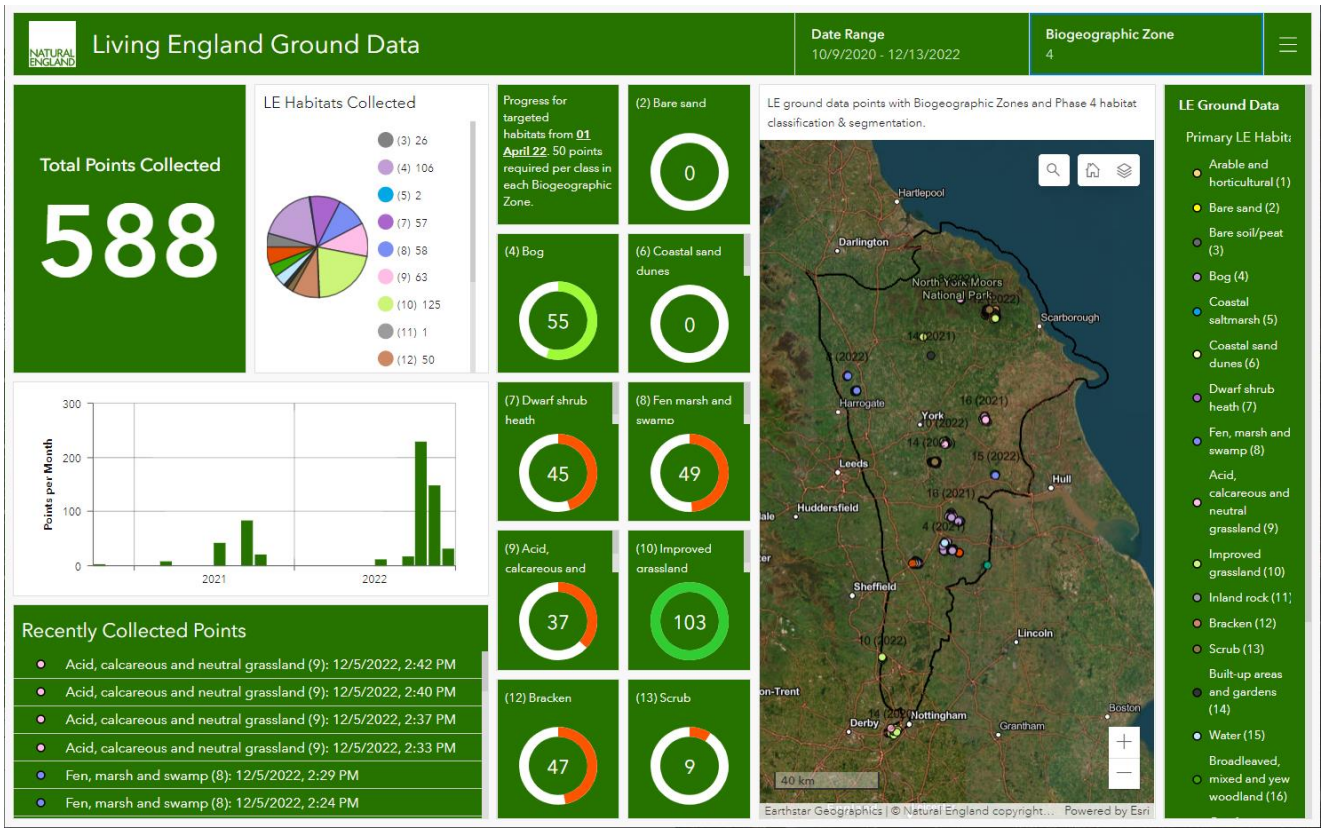

Figure 1: LE dashboard showing the total number of LE ground data points recorded in BGZ 4 and the progress towards ground data collection targets. Data correct as of 12/12/2022. Background source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Open Street Map.

3 Locating Under-Recorded Habitats

3.1 Using the Phase IV Habitat Probability Map

The Living England Phase IV Habitat Probability Map is displayed in the ground data dashboard as well as being available at Living England Habitat Map (Phase 4) (arcgis.com).

This is a modelled probability map which predicts the most likely habitat present within a segment (A_pred) as well as stating the modelled probability (A_prob) and providing a secondary prediction (B_pred). The ground data dashboard will display the predicted habitats against where ground data points have already been collected, and can help to indicate the possible location and extent of those habitats with fewer ground data points collected.

Other supporting habitat datasets which could support in targeting likely locations of under-recorded habitats such as:

- Priority Habitats Inventory: Priority Habitat Inventory (England) - data.gov.uk
- CASI and LIDAR Habitat Map: CASI and LIDAR Habitat Map - data.gov.uk

3.2 Using the Rural Payments Agency land parcels data

This data will be supplied by the Living England team and can provide useful information on land ownership. Once you have found habitat locations you wish to survey, this data should be overlaid either with software locally or within the AGOL environment, to select land parcels covering these areas. The selected land parcel information can then be used to inform the collation of access permissions, in order to survey the habitats of interest.

4 Access and Data Collection Permissions for LE Specific Surveys

4.1 LE Surveys on Sites with Previously Agreed Permissions

The LE, NCEA & NEFU field coordination team have also been able to get **blanket permissions** to collect LE data from selected major landowners. Refer to the LE MLG access permissions spreadsheet to find the status of landowners who have granted data collection permissions for LE surveys. You must abide by the information shown in the “Surveyor Action Required Prior to Visit” column before visiting a site. For Designated Sites, please contact site managers before visiting the site as discussed in Section 4.3.

4.2 LE Surveys on Designated Sites

For **Designated Sites** you can use the Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR) layers within the LE Field Maps app to identify the name of the SSSI or NNR site within the BGZ where under-recorded habitats are present.

For the 2023 survey season we have blanket permission to collect LE data from NE owned NNRs (not NNRs owned by other bodies). Please check for NNRs that are NE owned and contact the Reserve Managers before visiting the reserve when organising survey dates and assessing risks.

Using **Designated Sites View** you can then identify the Area Team Responsible Officer (RO) for the SSSI and NNR site who can be contacted to gain their local knowledge to help identify potential survey areas within these designated sites or NNRs or enquire about other potential local sites outside the designated sites network. The RO's should have good land manager relations and information on who to contact to gain survey permissions.

From these discussions you can also gather **risk assessment information** and advice on timings of surveys to ensure you are not affecting **land, game management practices** or key **ground nesting bird periods** for these sites.

https://designatedsites.naturalengland.org.uk/

4.3 Gaining Permissions on Other Sites Using the Standard Permissions Letter

If the under-recorded habitat types for your BGZ are not present within an NE owned NNR or blanket permission area, you can check the Rural Land Registry (RLR) Layer for landowner contact details (if you already know the owner/occupier/land manager details, or can easily find them yourself, you can skip this step).

You can provide land owners with the **External Guidance Note for Landowners** to explain what LE is and why we are carrying out surveys for ground truthing data collection.

Once you have land-owner/occupier/manager contact details, you **must** use the **LE Standard Format Permissions Letter** to ask for permission to carry out the survey. This has a return slip that can be attached to an email to enable easy auditing of the permission gained and ensure that the data points you collect can be used to inform the production of the LE Habitat Probability Map.