Recording the county boundary: Field Survey Guidance

(updated 2nd Feb 2015)

1 Introduction

Making an accurate and accessible record of our findings whilst walking the boundary is an obvious prerequisite to any analysis of our observation. To aid this and to help standardise our records we have devised a form – the hercological record form (HRF) – for use on field trips. These notes elaborate on the information we intend to collect and how to record it.

Some boxes on the form must be filled in and is best done at the start of the day: the length surveyed, grid reference, date of the record etc. Other information is optional or can be filled in later. The Dorset Environmental Records Centre (DERC) is also interested in our activities and would like as full a record of the fauna and flora as we can manage. This may not be something everyone feels comfortable with, so it is entirely optional.

It is of course possible that there will be more than one survey of the same length, either accidentally or deliberately. A second survey may be to improve the level of detail or at a later date to record changes, or simply that the second surveyor was unaware of the earlier work. It will help if subsequent surveys use the same base map, or if this is not possible, at least record lengths with the same start and end points.

The historic record will probably have been researched before venturing into the field. How to do this is a subject in itself and not discussed in these notes, which focus on recording what can be seen in the field. It is however important to know the status of the boundary being surveyed: whether this is the current county boundary, and if not, when the boundary moved and the current status of the boundary (e.g. parish boundary, field boundary, estate boundary etc.).

The Land Boundary Classification (LBC) is a used to summarise the broad character of each length of boundary. It has five primary divisions or aspects: purpose, age, natural features, earthworks and structures. Whilst the codes can be assigned later, it is best to decide the last three aspects in the field. Although devised for county and parish boundaries, there is no reason why this form and classification cannot be used for other types of boundary.

2 Method

Field trips will normally be by a small party of members. One participant will have researched the stretch to be surveyed (see below) and will probably lead the day. It is best to appoint in individual as a ‘scribe’ to note down all the findings and observations on maps and forms. A ‘rapporteur’, should be appointed to write up a general account of the day (see 4 below). The party should also ensure that someone will take photographs where appropriate.

Before setting out, review the hazards that could be encountered during the day and ensure that everyone is aware of the risks and is suitably equipped. If the survey is being carried out alone, leave details of where you will be going and the likely time of return. Carrying a mobile phone in case of emergencies is obviously sensible, but be aware signal strength is likely to be low in the border regions.

The field work will run more smoothly by making basic checks on OS maps and aerial photographs of the proposed route beforehand. This is best done by using the Boundary layer on the Dorset Explorer (DE) website (see ‘Using the Dorset Explorer’, JH & NJC, Jan 2012). If wishing to depart from the rights of way and access land, the owner or agent should be contacted for permission. It is often worth contacting these people anyway for local knowledge. When taking a party or proposing to use the results of your survey in a publication, the owner’s permission is vital. The related question of copyright a tricky subject, but it cannot be ignored.

Divide the boundary into lengths that have a fairly uniform character and use a separate form for each. It is important that the ends can be easily identified on the ground and on a map. Sections can be of any length, but a few hundred metres would be likely.

Use the base map available from DE for the modern parish with the boundary you want to survey. These should be printed at standard scales of 1: 1000, 1:1250 or 1:1500 (up to 1:1800 if you need to retain the meresmen's notes) Larger scales such as 1:2500 may be useful for long lengths of uniform boundaries. The 100 m grid line layer and the BoundaryLine layers should be added before printing. You may find it easier to print off the aerial photograph for the field work. It is easier to write notes on it if printed in draft mode (this is available with most printers and their drivers. On my HP printer there is a button 'Properties' to give you the option). One map may cover more than one survey length.

In addition to the relevant forms and maps it is useful to have a 30 m measuring tape. This is useful for measuring tree circumference at breast height. Ranging rods may be taken (if available). If it is necessary to measure ground profiles accurately, a portable laser level and a measuring stick may also be needed. A gps should also be taken if available.

All measurements must be metric (quotations from historic documents may be in other units so long as that is explicit). Ideally km, m or mm should be used for distances. In the field these will usually be estimated by eye or by pacing. Distances more than a few metres can also be estimated by using the measuring function on Dorset Explorer.

In an attempt to standardise nomenclature the following terms should be used:
Share – the portion of boundary dividing Dorset and a single neighbouring county
Section – a part of the county boundary bordered by a single Dorset parish.
Length – a shorter part of the boundary under discussion. For instance, a sample studied, a portion that is of a uniform construction or the portion between two points.

3 Filling in the form

The form may be filled in by hand in the field. However, the text on the final version of the form should be completed on the computer, to ensure legibility and to facilitate searching the text as needed.

3.1 First page

Site
For the length use a name that is on the 1:25000 OS map. Enter the modern parishes either side of the boundary, or just a single parish if it is not a parish boundary. Add the date of the boundary. If the boundary is no longer the current boundary, indicate what kind of boundary it is now, Several types of boundary can be coincident; the 'largest' should be circled (or underlined if working on the computer), but there is no harm in circling others that apply. The vice-county boundary (vc) is of relevance for biological recording and is essentially the county boundary as it was circa 1850.

Reference number
This will be created from the Share and Section with a sequential number for each surveyed length and take the form: C-Pp-xxx
where C is the neighbouring county, Pp is the parish code and xxx is the sequential number assigned when the record is added to the database. The codes for the share and sections are to be found in the spreadsheet: Dorset County Boundary parishes v2, April 2011.

Grid reference etc.
Enter the grid ref. of the two ends of the section surveyed, to at least 6 figure (100m) accuracy. This can be done with a gps in the field or one of the map programs on the internet. The length can be measured on a map (some of the map programs on the internet have this facility and save working out the scale of a paper map) or by calculation from the grid references if it is straight and you remember Pythagoras' theorem.

Your name and the date of the survey are essential; the time spent on the survey and the weather are optional.

Owners details
Circle 'y' if permission was obtained to go onto private land. If you know the name, address, telephone or email of the land owners either side of the boundary, be sure to retain this information, although this does not

necessarily need to be on the form. The inclusion of such details in publically available databases is the subject of the Data Protection Act, and at the time of writing we are uncertain of the implications.

Profile Summary
The type of barrier: a hedge, wall, fence, bank etc may be relevant to the antiquity of the boundary and its general character is of interest. The presence of banks and ditches is particularly informative and some typical profiles are offered. Circle the nearest of the cross-sections drawn on the sketch map and transferred to the third page of the form.

Mark on the map where a cross-section is drawn using C - C', D – D' *et seq.* (A and B are used to mark the beginning and end of the length recorded on the form).

Species
This block is optional, but the main trees and shrubs should be listed. It is split into lists for the woody species, the other plants and the animals that can be identified. The latter are likely to comprise incidental observations of a butterfly, bird or rabbit. Burrows and badger setts can be marked on the sketch map. If you are not happy with identifying trees, plants or animals, leave out this section.

Prominent trees should be identified and the girth at breast height measured where possible. The position of these trees should be marked on the map and the grid ref. recorded (they should stand out on the aerial maps). The diameter at breast height (dbh) calculated (d = girth / π) and the result included on the map.

Summary Description
Write a summary of the main features of the boundary not captured elsewhere on the first page. The intention is that the front page will be an executive summary of the salient points of the length surveyed. The detail is recorded in subsequent pages.

3.2 Second page

Map
Draw a map of the section or annotate a pre-printed large scale map, noting all significant features. Use colour where this adds clarity. Mark the ends A and B as per the grid references at the top of the form. Include a scale and put in an arrow to indicate north.

We will produce much neater maps if we start from an OS type base map. You are encouraged to print off a set of maps for your planned sections to mark up in the field, to be scanned and then cut and pasted into the recording sheet or inserted as page 2. Printing the map can be done easily from Dorset Explorer. Generally a scale of between 1:1000 and 1:1800 is about right with the 100m grid lines layer. It is often easier to use the aerial photo in the field, especially if it is printed in draft mode so that the colours are faint enough to write over. Aerial maps can be printed at scales of up to 1:18000. Remember to enter the reference number in the header of the page any additional pages

It is helpful if the habitat either side of the boundary is described in simple terms such as woodland, arable, grassland, tarmac, buildings and so on (use the 'phase 1' system if you are familiar with it). Any notable boundary posts, trees, buildings or marks on a wall should be noted on the map as accurately as possible. It may be possible to identify the position from the aerial photo and the grid reference read from Dorset Explorer. Use a gps if you have one and record the grid reference for points of interest to at least 8 figures.

The width of boundary to be recorded must be decided in the field. Be sure to cover a band which will contain all possible positions of the line of the boundary. The boundary printed on OS maps can only be accurate to ±2m so at least 4m should be covered by the survey.

3.3 Third page

Profiles
This sheet has been squared to permit accurate plotting of measured sections. The squares can be deleted in the report if they are not needed, so that it can be used to draw neat sketches of other features.

3.4 Fourth page

Photographs

Pictures should be taken of notable features (trees, banks, etc.) as well as pictures which give an impression of longer lengths of the boundary. The position where the photograph is taken together with the direction should be marked on the map in the field. The extent of the photographic record is at the discretion of the surveyor.

Relevant photographs should preferably be included in the form. These should be annotated as necessary. The line of the boundary should be shown as a stippled coloured line. (This can be done using a variety of different programmes; details are not given here). Other relevant features may also be marked on the photo. In the report the photographs should be given an individual reference number included the survey reference number, date and sequential number (west to east). A short text explaining each photograph should also be included in the report. Alternatively, this page of the form should include a map with the position and direction of any photographs taken marked and cross referenced to the archive.

3.5 Fifth page

Additional Notes & Comments
The final page is for any additional information, Comments and questions that have arisen during the survey can be recorded here so long as it is clear these are not facts. Continue on more sheets or reference a separate report if appropriate.

The information on this page should be summarised on the first page in the form of an abstract.

4 Field meeting reports

At the end of a field meeting time should be made available for the participants to review the day and ensure those writing reports on the day have all they need. The day's 'scribe' should write the data collected into a fair copy of the Hercological Record Form and plot or annotate the maps. The photographer should geotag the photographs for the archive (see guidance in Adding tags to pictures.v7) and provide them to the scribe to cross reference on the form. Copies of the geotagged photographs (including any additional photographs not included in the report) should also be sent to Mark Ford as described in the guidance for inclusion in the archive. The 'rapporteur' should write a short summary of the outing covering the general aspects that would be suitable for inclusion in the DNHAS Proceedings, either in full or as a précis. The leader may find it appropriate to write up the historical research at this point, with reference to the findings on the survey. See Suggested Headings for documenting the County boundary rev.docx v.2.

All write-ups and forms will be completed assuming the survey was in a clockwise (predominantly west to east on the terrestrial boundary) even if, for convenience it was not actually surveyed in this direction.

5 References

- Dorset Explorer 2.5 (http://195.49.180.76/dorsetexplorer/?&ref=redirect), maps and aerial photos at all scales and several dates, parishes and other local information
- Using the Dorset Explorer, revised Jan 2012. Jim Hart and Natividad Jimenez,. Under Digital Recording and Dorset Recorder on the DCBS Common Room.
- Dorset County Boundary parishes v2, April 2011. JH & NJC. Under Reports, and Notes for Field trips on the DCBS Common Room.
- Where's the path (http://wtp2.appspot.com/wheresthepath.htm), map and aerial photo set side by side with a synchronised pointer. Useful for finding grid references and measuring distances.
- Adding tags to pictures.v7, 22 April 2011. Mark Ford. Under Digital recording and Dorset Explorer in the DCBS Common room
- Suggested Headings for documenting the County boundary rev.docx v.2 2 February, 2012. Jim Hart, Under Hercological Record Form on the DCBS Common Room.

First drafted by R.M.Walls, 18 March 2011
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