

## W-method Monitoring Protocol

### Data entry for Living Record

- If you have selected **Vascular Plants** and **Enter records** you can locate your marker on the map.
- Use a 1 m GPS reading for W7 (or the middle quadrat) to locate marker.
- You will need to add species records singly.
- Under **Method** choose **Quadrats 0.5x0.5 x 13 (W method)**.
- You can then complete the number of quadrats present for each species in the Set of Quadrats line.
- Don't forget to work within site boundaries or link your data to a Project (if appropriate).

The screenshot shows a software interface for adding a record. The title is "Add Record: Vascular plants at Bishops Court Dairy". The "Search for" field contains "arr ela" and the "Species" dropdown is set to "Arrhenatherum elatius (False Oat-grass)". The "Date" field is "23/06/2023" and "Certainty" is "Sure=5". The "Number of plants" field is empty. The "DAFOR scale" is a dropdown menu. The "Quadrat %" and "Area sq m" fields are empty. The "Set of Quadrats" field shows "4 out of 13 quadrats". Below this are fields for "Distinctive features" and "Evidence retained". The "Method" dropdown is set to "Quadrats 0.5x0.5m x13 (W method)". The "Note" field is empty. The "Recorder" and "Determiner" fields both contain "me". The "Project" dropdown is set to "Dorset Flora Group field meeting". Red arrows point to the "Date" and "Set of Quadrats" fields.

- Once you have entered all the species found in the quadrats you can add a list for the field. Use a new marker for 100m sq placed in the middle of the field.
- You can enter data either singly or as a list.
- If there are any DRPR species or other species of note, use a 10m sq marker.

### Background information

This method for monitoring is essentially the protocol devised by CEH and used for their surveys of restoration grasslands in 2021 (RRestEcol 07583 sampling protocol 2021 – Grasslands). The modifications are to suit Dorset Wildlife Trust and the National Trust in Dorset but nothing in the CEH version has been omitted and it can be used more widely.

If you have to modify the process, your field is too small for example, try and stick to the following principles:

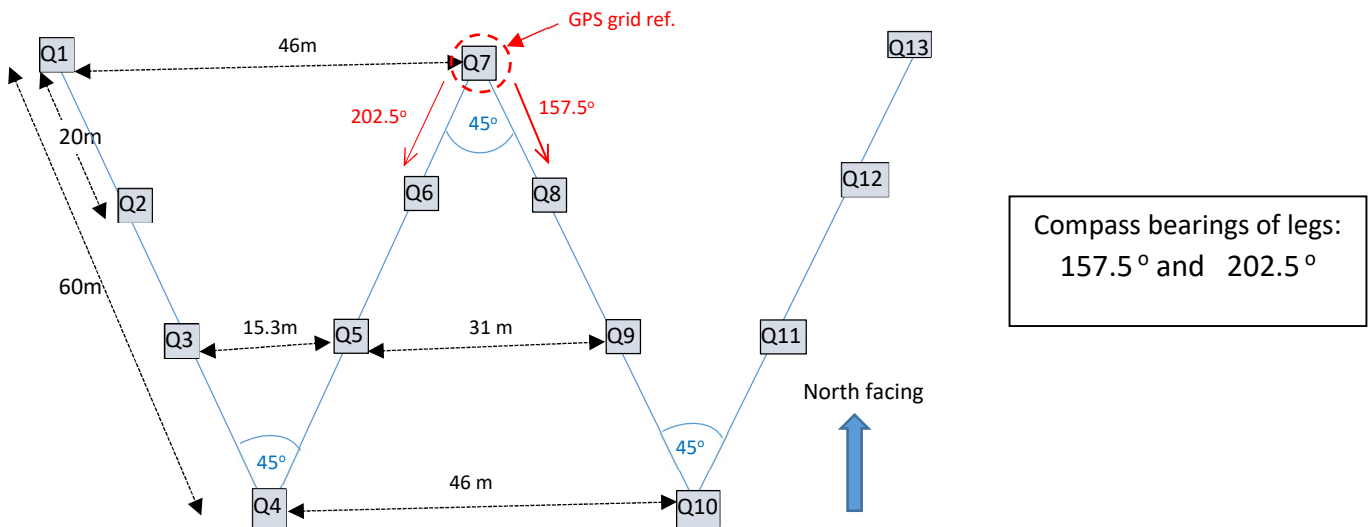
- Record within a stand of similar vegetation.
- Use 13 quadrats if you can, although you may have to shorten the distance between them.
- The W runs east-west, but you may need to orientate differently to fit within the field boundaries.
- The standard method uses a 0.5m quadrat.
- Field sheets may have extra information, eg sward height, bare ground etc. and should be returned to the project organiser.

## Site locations

Individual site maps will have been provided and access permission obtained. Follow H&S advice and landowner contact advice from the project manager.

If a site has been visited before, use the grid reference from the previous survey to locate W7.

### Overview of sampling 'W'



Compass bearings of legs: 157.5° and 202.5°

### Recording location of sampling 'W'

The first team to visit needs to establish the location of the sampling 'W' defined above. This is always orientated north unless impractical to fit into the field, and ideally covering the centre of the field. To allow the next team on site to go to the same location the grid ref needs to be taken and recorded on the sheet using a 10 fig grid reference.

### Odd-shaped sites

Some fields or vegetation stands are too narrow to use the standard W method in the usual way, for example the ramparts at Badbury Rings. The method can be adapted whilst sticking to the standard principles. At Badbury Rings, quadrats were set out in a zigzag up and down the slope, 20m apart. The site was recorded in Living Record as a linear stretch between two points.

### Plant quadrats

- Plant quadrats are best recorded in June prior to sward cuts or grazing.
- See above instructions on locating the sampling 'W'. The bearing of the legs and the E – W distance between quadrats has been added to aid location. The objective is to collect representative data from a uniform sward. So if 20 m takes you to a bush or otherwise different patch from what is typical of the field, move on another step to avoid it. Pacing is good enough accuracy; in my case 22 paces is about 20m.
- Suggested procedure:
  - Locate Q7, record the grid ref. and other data; complete quadrat 7.
  - Set a bearing 202.5° and walk 20 m to Q6 etc to Q 4.
  - Set back-bearing 157.5° for Q3 etc to Q1.
  - Return to Q7 which should now be due E and 46m away.

Use the same bearing to go to Q8 etc to Q13 and return due W to Q7.

Complete any notes and the site is completed.

- Thirteen **0.5 × 0.5 m** quadrats will be recorded in columns numbered as per the diagram from Q1 to Q13
- Species present in the field may be recorded in the first column headed '+'.
- Measure the average height of the sward in each quadrat to nearest cm.
- Record % bare ground and % bryophytes in the quadrat.
- Dung or other variables required for a project can be recorded if present in a quadrat.
- The presence of all vascular plant species found within the quadrat will be recorded.
- Bryophytes will be recorded as a group. Bryophytes may be identified to species if desired

### Labelling convention

Each data sheet will include the following:

- Date of recording
- Site location and field number or name
- List of recorders

Version control:			
6.0	Report prepared by:	Robin Walls	21/09/2022
7.0		Robin Walls and Carolyn Steele	18/07/2023