

BSBI Irish Species Project 2014-15: guidance on surveying sample populations



The Irish Species Project (ISP) is a new venture initiated by the Committee for Ireland and designed with the Irish membership and Irish flora in mind. We think you will enjoy taking part.

Aims of the Project

Our objective is to produce more up-to-date and reliable information on eight species of vascular plant. All of them are distinctive native plants that have been chosen because they are thought to be in decline in Ireland. We hope that this project will also encourage members to get out into the field and generate records that will contribute to the Society's Atlas 2020, thereby fulfilling a number of aims. The data generated will help to test and strengthen the BSBI's distributional database (DDb).

As in the BSBI's Threatened Plants Project, which has now come to an end, we have selected some sites where each of the species has been recorded in the period 1970 – 1999. We are asking you to consider revisiting these sites if it is feasible to do so. In addition – or instead (see below) – we are suggesting that you consider recording at other sites in your Vice-County (VC) for the species, or even going out to search for new sites if you think there are promising areas where they have not been seen.

Species to be covered

Moonwort	<i>Botrychium lunaria</i>
Cyperus Sedge	<i>Carex pseudocyperus</i>
Autumn Gentian	<i>Gentianella amarella</i>
Toothwort	<i>Lathraea squamaria</i>
Grass-of-Parnassus	<i>Parnassia palustris</i>
Cowslip	<i>Primula veris</i>
Common Wintergreen	<i>Pyrola minor</i>
Cranberry	<i>Vaccinium oxycoccos</i>

Choosing sites to survey

1. Pre-selected sites

Along with this guidance, you will receive details of some sites in your VC where these species have been recorded in the period 1970-1999. These sites have been selected by a partially randomised process from the records in the DDb. Ideally, we would like you to resurvey these sites and record certain information about them and the population of the target species. Usually, there are no more than two selected sites per species in each VC. We have selected up to 50 sites per species throughout Ireland, but as records for these species tend to be concentrated in certain areas, there are instances where 3 or more sites had to be selected within one VC.

2. Substitute sites, preferably with pre-2000 record

It is realised that revisiting old sites may sometimes not be practical or sensible, e.g. because the site has been destroyed, or access is no longer possible, or you cannot

locate the population, or because you have recorded at this site recently. In such cases, if at all possible, please substitute another population of your choosing and tell us why the selected one could not be surveyed. Ideally, these substitutes should be populations that have been known since before 2000, and if you have multiple options, please choose sites randomly.

3. Extra sites

As well as the selected sites or substitutes, it would enhance the value of the survey if you were able to record any additional populations of the target species in your VC. The more populations from which we receive data, the better the picture we will be able to build up of each of the species. However, we suggest you select populations not recorded recently and don't record more than 10 populations of one species in a VC.

Please note that it is **critically important to send in null returns** where either you knew in advance that the species was not present, or you looked for and failed to find it, and state why you think this might have been.

Recording the sample population

Some of the records in the DDb are localised to a 4-figure grid reference or better. Most of these should be relatively easy to re-locate. Many of the records, however, only have a hectad (2-figure) grid reference, and these could be more problematic. We believe that in many cases Vice-County Recorders (VCRs) will hold the details in their own records (or their heads!). Where this is not the case, we suggest you either take the opportunity to survey likely habitats within the hectad, or survey a substitute population in a different hectad.

If you know of more than one distinct population of the species within the selected site/hectad, simply select one of them for recording (or record them both but separately).

You have two years – 2014 and 2015 – to complete the recording, but you are strongly recommended to record more than half of the sites in the first year if possible.

VCRs are asked to co-ordinate recording on their patch, but not necessarily to do it all themselves. Offers of help from others can be made directly to the VCR or to the Irish Officer (Maria Long, maria.long@bsbi.org); they will be more than welcome!

Notes on what to record

Please use the ISP recording form. As well as the copies enclosed, you can download the form online at <http://bsbi.org.uk/ireland.html>.

We strongly recommend that, unless you have already done so recently, you take the opportunity to **record a full list of species present in the monad** (1km square) of your target population – this will maximise the contribution to Atlas 2020.

Site details and grid references

When filling in the site name please indicate whether the site was pre-selected, substitute or extra. Eight-figure grid references, which define a location to the nearest 10m, are ideal for a localised population, but only practical if you use a GPS. For a more spread-out population, please consider giving multiple 6 or 8-figure grid references to indicate the extent; this is essential where it crosses monad (1km square) boundaries.

Aspect, altitude and slope may be recorded approximately.

Population size

The size of the population should be estimated using the categories on the recording form. Please give the actual number if known, and also specify the units you have counted (e.g. clumps, rosettes, flowering spikes, etc.). It would also be useful to know if regeneration is taking place.

Population extent

We would also like an estimate of how far the population extends (length and breadth, ignoring outliers), as well as the density and pattern of plants across the site (e.g. a few plants widely scattered, high density across the whole site).

Sketch map

The sketch map should provide an unambiguous record of the location and extent of the population (or sub-populations) in relation to permanent features such as roads, tracks, watercourses, walls, etc. This is important as it may provide a baseline to relocate the population.

Habitat details

Please give a brief description of the habitat(s) in which the species occurs. As a minimum please indicate the broad habitat (e.g. acid grassland, heathland, etc.). Further information on soil type, geology etc. is useful.

Management and habitat condition

Please note any obvious signs of management, past and present. Sward height and levels of grazing, shading and disturbance may be detailed in the boxes provided.

Threats and reasons for null records

Any perceived threats should be entered on the form. Please fill these in, **even for null returns**, as they are vital in helping us interpret the reasons for decline.

Site history

Please record any factors that may have influenced the abundance of a species on the site, such as changes in ownership/management, severe events such as fires,

floods, etc. It can also be used to provide information on population sizes in the past or, in the case of null returns, the year of the last record. Also please add the conservation designation of the site, if known.

Associated species

Associated species should be recorded as follows:

- Select a representative area of uniform vegetation where the target species is present
- Within this area, select an individual of the target species and list all vascular plant species **within a 1m radius**
- Record the abundance of all species **including the target species** in this 2m diameter circular plot using the DAFOR scale, where D = dominant (76-100% cover), A = abundant (41-75%), F = frequent (11-40%), O = occasional (3-10%), R = rare (<3%). The percentages are for guidance only.
- Record up to 2 extra plots where the species occurs over a large area or occurs in more than one vegetation type.
- Record a grid reference for each quadrat location, preferably to 1m, using a GPS if available.
- For *Lathraea*, note which species appears to be the host.

Please return completed forms by post or email to Maria Long **by the end of November** in the year of recording, and keep a copy for your own records.

After analysis, the data will be incorporated into the DDb, unless you request otherwise.

Notes on individual species

These species are for the most part relatively easy to identify with certainty, but there are some points worth noting as they may affect your surveying plans.

- *Botrychium lunaria* can be hard to find, even at its best in mid-summer. Take a second pair of eyes with you!
- *Carex pseudocyperus* is distinguished from other tall sedges by yellow-green colour and pendulous spikes bunched up towards top of the culm. If in doubt, send top 25cm of one inflorescence to John Faulkner.
- *Gentianella amarella* flowers Aug-Sept and has a 5-lobed calyx and corolla. *G. campestris* is 4-lobed.
- *Lathraea squamaria* is easiest to find in April and may disappear by the end of May.
- *Parnassia palustris* can be rather inconspicuous before its flowering time of late July onwards.
- *Primula veris* flowers in spring but the flower heads remain fairly conspicuous unless mown or grazed off.
- *Pyrola minor* is visible for most of the year, but you need to see its styles (1-2mm) to distinguish it from *P. media* (5mm), or else use the vegetative characters on p. 232 of Poland & Clement's key.
- *Vaccinium oxycoccos* is identifiable throughout the season.

Further information

Query:	Recording forms, data submission	Site selection, methodology
Name:	Maria Long	John Faulkner
Tel:	+353 (0)87 2578763	+44 (0)28 38891317
Email:	maria.long@bsbi.org	jsf@globalnet.co.uk
Postal:	BSBI Irish Officer, National Botanic Gardens, Glasnevin, Dublin 9	37 Old Road Loughgall, Armagh BT61 8JD

