

FISC Information Booklet 2023

Everything you need to know about FISCs

(Field Identification Skills Certificates)



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Acknowledgements

This booklet was originally compiled by Sarah Whild and Sue Townsend, and they are grateful to everyone who provided input and comments, especially the [BSBI's Skills & Training Committee](#), and John Martin and Alex Prendergast from Natural England.

BSBI would like to thank [CIEEM](#), [FPCR Consultancy](#) and [TEP Consultancy](#) for their input into the development and review of FISCs. We would also like to thank all previous FISC Providers, Assessors and candidates for their feedback over the years.

This booklet is reviewed and updated annually by BSBI's FISC Development Working Group, which reports to BSBI's Skills and Training Committee.

The Botanical Field Skills Pyramid

BOTANICAL FIELD SKILLS PYRAMID



Introduction

This guide to Field Identification Skills Certificates (FISCs) is aimed at anyone wanting to take a FISC, and also for anyone interested in running a FISC. The first half of the guide runs through what you should expect as a candidate, with a list of Frequently Asked Questions.

The second part of the guide provides the FISC protocols – the standards by which FISCs are set and marked, so there is full transparency for all, on how FISCs are run and what to expect.

Why do a FISC?

- Does your work or your voluntary activities include field botany and plant recording?
- Do you want to quantify your plant ID skills?
- Do you know where you are on the plant ID skills pyramid (see p4)?

Many ecological consultancies and statutory agencies such as Natural England recognise FISCs as an empirical assessment of your skill and your employability as a botanist. We are enormously grateful that we have been able to work with CIEEM (Chartered Institute for Ecology and Environmental Management), FPCR Consultancy and TEP Consultancy. These three organisations have been active in helping BSBI develop our protocols and review the FISCs.

What does a FISC entail? In 2006, the BSBI trialed a new system for assessing skill levels for vascular plant identification and the first FISCs were launched in 2008.

There are usually three parts to a FISC and sitting the test takes the best part of a day. There are two lab tests where a number of specimens are laid out for identification: the easier ones without books and keys, the more difficult with books and keys. After lunch there is a visit to a site where candidates record everything that they can see for roughly 1½ to 2 hours.

FISCs are now run by a range of local BSBI approved FISC Providers. BSBI sets the overall standards and maintains the quality assurance process to ensure consistency across all FISCs.

FISC FAQs

How much does it cost?

In 2023, new flexible pricing is being introduced for FISCs, with no standard price. This is to ensure the costs associated with running FISCs (by local providers) and coordinating and maintaining FISC standards (by BSBI) can be fully covered. Full cost recovery will help encourage expansion of FISC provision to meet the high demand. Please contact your local FISC Provider for details of pricing and any discounts they may provide e.g. for students or volunteers. The pricing will be reviewed annually by BSBI in consultation with local FISC Providers, taking into account feedback from FISC candidates.

When and where do the FISCs run?

Check bsbi.org/field-skills – for locations and the dates of FISCs, which are usually run from late April to early September. We have enquiries from various new FISC Providers and Assessors and are aiming to add new Providers and locations so it's always best to check the [FISC page on the BSBI website](#) for the latest FISC locations.

How do I book?

Check on the [BSBI FISC webpage](#) for details of local FISC Providers and the locations and dates available – there will be a link taking you to their booking form and / or contact for further information.

What time does it start and end?

Check with the FISC Provider that you are booked with, but you will need to set aside a whole day, with a start between 10 to 11am, finishing around 5.00pm.

How many tests?

There are three separate elements to a FISC. There are two lab tests, the first of which is ten specimens that should be identified without using any books or keys. Then there are twenty specimens that may be identified using any books or keys, but no reference collections or on-line resources may be used.

The third test is in the field – after lunch you will spend approximately two hours surveying a small site and recording the vascular plant species.

What equipment do I bring?

A hand lens and ID books – [Stace: New Flora of the British Isles](#) plus a picture guide such as [Rose: The Wild Flower Key](#) is an appropriate combination. [Poland: The Vegetative Key to the British Flora](#) can also be a useful resource for plants not in flower. Some FISC Providers arrange transport but do bring wet weather gear including boots/wellies, a clipboard, and possibly a grapnel (although there will be a few to share in case of aquatic plants survey sites). Bring a packed lunch and a drink, a notebook, a [recording card](#) if you are using one and be prepared for any weather for the field test.

What sort of plants will there be to identify?

A wide range from a variety of habitats. The lab test will contain species that can potentially come from anywhere in the UK but they will all be vascular plants.

How do I write the names?

Scientific names *should* be used but **unambiguous** common names can be accepted.

How high a grade will I get?

Look at the Skills Pyramid on p4 for a clue BUT even very good botanists don't usually score more than a Level 5 – this is the highest practical level to which we can usually assess and is equivalent to what you would expect from a very competent professional field botanist (at Accomplished-level competence for botanical ID in CIEEM's Competency Framework for professional ecologists), but we can detect Level 6 botanists – although they are a rare breed!

How are the tests marked?

In the two lab tests, you are given a mark for each correct identification. Marks are totalled and scores awarded from 1-5. Lab test species lists may be shared with candidates upon completion, but Assessors are not encouraged to share the marks obtained at this stage.

In the field test, your list is compared with that of the Gold Standard Surveyor who will be surveying alongside you and a mark from 1-5 is awarded depending on the proportion of the number of species you identified correctly against the Gold Standard Surveyor total. Species you identify, which are not recorded by the Gold Standard Surveyor, but which might reasonably be present will contribute to your score. However, species recorded which are not likely to be present, perhaps due to geography or habitat constraints, will be totalled and may count against your final FISC score. The Gold Standard Surveyor's species list may be shared with candidates after the assessment is complete at the FISC Provider's discretion.

All test papers are kept by the FISC Provider and/or BSBI, as in formal exams.

Will I pass?

You can't fail! The FISC test allows a skill level to be allocated to you. See the Botanical Skills Pyramid on page 4 for the Skill Levels. You are awarded a certificate stating your skill level. You may wish to come back in a few years to take the FISC again to see how you have progressed.

When will I know the results?

You can usually expect to receive an email with your provisional result within 8 weeks of taking a FISC. BSBI undertakes quality assurance checks on all FISC provisional results at the end of the season (October-November) to ensure consistency of tests and marking across all FISC Providers. Certificates with final results are sent out by BSBI in December, when this QA process is complete. Provisional results may be moderated and revised during the QA process to ensure all results meet consistent standards. We send you a covering letter with your certificate with generic descriptors for the level you are at, with suggestions of what to address to go to the next level, but we are not able to provide individual detailed feedback for each test paper.

Who runs the FISCs?

The Botanical Society of Britain and Ireland awards the FISC, and the FISC tests are run by third parties (FISC Providers) working closely with, and accredited by BSBI, such as local Wildlife Trusts, environmental consultancies, Natural England, Field Studies Council and others.

Is a FISC for life?

If you are working your way up the skills pyramid, it is recommended that you take a FISC every two years, if you are working on your botanical skills. If you are at Level 5, you should take a FISC every

three years – at the moment there is not an expiry date on a FISC but this is something we may consider at the next review.

The heavy bit - malpractice

Malpractice is the use of unfair means to influence the outcome of a FISC test. 'Unfair means' include any form of cheating such as use of not allowed equipment (e.g. mobile phone), collusion, impersonation, deliberately running over time in the field test. Anyone found cheating in a FISC will be disqualified. If you have concerns about malpractice, please contact fisc@bsbi.org.

Can I appeal my result?

If you have a valid reason to suspect that the provisional FISC level you have received is inaccurate due to there being perceived procedural irregularities during the assessment, you can appeal following the BSBI appeals process (see information from your FISC Provider or contact fisc@bsbi.org for more information). You must register your appeal within 21 days of receiving your provisional FISC result. Final moderated FISC results following the end of year QA process are not open to appeal.

BSBI protocols for running a FISC

These protocols were first written in 2006, and were updated following a review in 2017 that included consultants, conservation agencies, CIEEM, and voluntary botanists. These are the protocols used by all FISC Providers, and the protocols are provided here for transparency, so candidates can see how their marks are calculated. Further updates have been added in 2022-23 to take account of revisions of the quality assurance process to improve consistency and the introduction of an appeals process.

The BSBI Field Identification Skills Certificate (FISC) is intended to test the complete range of botanical field competencies. BSBI works with a number of approved FISC Providers and is working to train and approve more. These protocols act as a guide for current FISC Providers and those wishing to become approved to run or assess a BSBI FISC in future.

It is important to note that FISCs should not be offered as the culmination of a taught course. FISCs are intended to test existing inherent and permanent botanical field skills so hot-housing through a course related to the FISC and/or providing coaching just prior to a FISC could invalidate the result. FISC assessments associated with a botany course need to have either a temporal gap (at least 2 months) or geographic gap (different site for plant identification) between the field course and the assessment, so some species will be “unknown” compared to those studied on the course, plus an independent FISC Assessor.

Who's Who in a FISC

The Botanical Society of Britain and Ireland (BSBI) facilitates a **FISC Development Working Group**, that reports to the BSBI Skills and Training Committee. This working group, along with BSBI's Training Coordinator, updates the FISC Provider's Pack documents each year and provides support, training and information for FISC Providers, Assessors and candidates, and carries out quality assurance of FISC marking sheets to maintain consistent standards.

A FISC Providers' Pack is sent to FISC Providers each year and includes the following:

1. FISC Provider Memorandum of Agreement
2. FISC Information Booklet (this booklet)– with a) information for candidates and b) FISC protocols)
3. FISC Assessor Training Powerpoint (including an annual update slide)
4. FISC Appeals Process
5. FISC Marking Template (marking spreadsheet)
6. BSBI FISC Quality Assurance Process

FISC Provider – these are the organisations (or individuals) responsible for delivering FISCs, taking FISC bookings and providing facilities and a FISC Assessor (see below). FISC Providers must sign an annual agreement with BSBI to ensure FISC follows consistent standards and protocols. Providers must have an agreement in place with a FISC Assessor and a Gold Standard Surveyor (see below) which outlines their respective responsibilities. The Provider should also ensure they have sufficient professional indemnity and public liability insurance in place. Example FISC Providers include environmental consultancies, local Wildlife Trusts or Natural England. As a FISC Provider you will

need to be able to provide suitable personnel, facilities and equipment (see list below) and good communication with FISC candidates. Taking a test is stressful enough; it is important to provide a supportive atmosphere.

FISC Assessor - FISCs must be run and assessed by someone who is an excellent botanical recorder/ecologist at or above FISC Level 5. The FISC Assessor is contracted by the FISC Provider and is responsible for following BSBI protocols in setting and marking the tests, collecting and coordinating specimens for the tests, and checking out a suitable field site. The FISC Assessor is also responsible for organising a **Gold Standard Surveyor** for the field element of the test. In some circumstances, the FISC Assessor may also be the Gold Standard Surveyor.

FISCs are not regional so there are no English, Scottish, Irish or Welsh FISCs – there are BSBI FISCs that are intended to run in different locations. The lab tests must include specimens from many different regions.

There are three separate tests for a BSBI FISC.

- Lab test of ten specimens
- Lab test of twenty specimens
- Field test lasting around two hours

Personnel required

1. FISC Assessor and a Gold Standard Surveyor, both of whom are at least FISC Level 5 (see above)
2. Bookings contact to take bookings and provide information to FISC candidates before and after their test day.

Facilities, Equipment and Processes required (see also Provider checklist and agreement)

1. Sufficient Lab/work-room space for the appropriate number of candidates to undertake Lab Test 1 and 2 with specimens.
2. Clearly numbered labels for the specimens – these are easily printed off and laminated (this means they can be wiped clean and reusable).
3. Large plastic trays (cat litter trays are ideal!) to contain specimens.
4. It is useful to have some spare hand lenses for the candidates.
5. Test 1 (Lab): Ten relatively common and relatively easy to identify species, i.e. species that cannot be confused with anything else. These are the first ten species for identification without any books, ID guides or other aids (see Lab Test 1).
6. Test 2 (Lab): Twenty plant specimens already collected (or grown in pots), with a good proportion representing regions of the UK that are NOT represented by the field test location vegetation.
7. Not essential, but useful - lower power microscopes for dissection.
8. Test 3 (Field): A relatively small site where the candidates can record vascular plants for roughly two hours, complete with owner permissions and also legal permissions if SSSIs are used.
9. Ideally refreshments (e.g. water, tea and coffee) should be available

10. You will coordinate candidate's transport to the field site – this can range from providing directions to candidates travelling in cars, to hiring a minibus (especially for sites with restricted parking). If running more than one FISC per year, it is best to use different sites, and use different sites each year (or at least have a selection of sites that are used in rotation).
11. Risk assessment – there must be a risk assessment available for both the lab/work-room space and field site and there should be a nominated first aider on hand.
12. Booking system – a system for candidates to book places on a FISC plus provision of FISC dates and locations to BSBI's Training Coordinator for BSBI FISC promotion.
13. Advanced communication - provision of information to candidates about the FISC (including this booklet and the appeals process) and the arrangements and timings for the day.
14. Submit provisional marks, on the marking template, to BSBI's Training Coordinator for the annual QA process.
15. Provisional results communication - share provisional marks with candidates within 8 weeks of their FISC. This can be in line with the BSBI marking sheet, including a breakdown of their provisional scores by test (and a full list of the field site results by the Gold Standard Surveyor at your discretion). Please ensure you explain that: "These provisional marks will be quality assured by BSBI at the end of the field season to ensure consistency of tests and marking across all FISCs. Provisional marks may be moderated and revised during the QA process to ensure all results meet consistent standards. BSBI will send you your final score in your FISC certificate by December.
16. Cooperate with the BSBI QA process and appeals process, in a timely manner, as required.

Lab Test 1

The first lab test consists of ten specimens. These should be species that are completely uncontroversial to identify and should be reasonably widespread and common or at least very obvious (for example, Sea Holly, *Eryngium maritimum* is unlikely to be confused with anything else but is not necessarily widespread, being confined to coasts) or Daisy *Bellis perennis*. Grasses, sedges and rushes are probably best avoided unless very obvious and cannot be confused with anything else (a good example of flowering Cock's-foot *Dactylis glomerata* for example). Species such as Holly *Ilex aquifolium*, and Ivy *Hedera helix* can be included and other species should be in flower and/or fruit if possible so as to provide obvious features.

The aim of the first lab test is to provide appropriate marks for Level 1-3 candidates. Candidates at Levels 4-5 should get most, if not all, of Lab Test 1 right.

Lab Test 2

Twenty different species are provided. Material can be vegetative or flowering/fruitlet/sporing, but as books and keys can be used in Test 2, it's worth bearing in mind that most material should be able to be keyed out. [John Poland's Vegetative Key](#) has changed this part of the test – previously vegetative material of, for example, *Stellaria nemorum* had been used but no candidates were able to identify it (even Level 4 and 5 candidates) although this is a relatively easy species when flowering. At least one vegetative species should be included.

Roughly half the second test species should represent very specific regions or habitats (ie, distinctly southern, south-western, northern, montane, coastal, alpine, or saltmarsh species that do not occur in the test area). This can only practically be done by using collectors around the country. It is not sufficient to use, for example coastal species that also colonise inland – they should be specifically and exclusively coastal (i.e. not just *Puccinellia distans* or *Cochlearia danica*).

To use collectors, it is advisable to recruit three or four collectors well in advance, and to check the sort of species they can collect and also how many of each species. Specimens collected a few days beforehand, sealed in a plastic freezer bag and posted in a padded envelope first class, normally survive well if put in a fridge on receipt until the test (but check condition of specimens on receipt!). On past experience, Crown Vetch does not travel well, Boraginaceae wilt quickly and Geraniaceae drop their petals.

If you grow your own specimens, a species in a pot (unlabelled) is fine, but do check for horticultural varieties or sub-species if bought from a garden centre.

Guidance for choice of specimens

1. Across the two tests there should be a minimum of eight grasses, sedges and rushes, with at least one member from each family, as these families are crucial for identifying higher level candidates.
2. Ferns/horsetails/clubmosses should be included and there should be at least two over the two lab tests.
3. There should be a hybrid, or a sub-species where the sub-species is identifiable under test conditions.
4. There should be at least one true aquatic species.
5. There should be at least one non-native species.
6. There should be at least one Nationally Rare or Scarce species and the whole range of species across the two tests should not be all common and/or widespread.
7. This is probably the most difficult to specify but there should be at least one Level 6 species. Less common fine-leaved pondweeds (i.e. a bit more challenging than *Stuckenia pectinata*) are probably all Level 6; hybrid sedges, hybrid willow-herbs and sedges in a vegetative state (other than *Carex hirta*) are also appropriate.

Allow 1.5 hours for both Lab Test 1 and Lab Test 2 – there is no need to allocate a specific time to Lab Test 1 but candidates should hand in their papers before moving on to the second lab test as they can then have access to their books and keys.

Site survey test

Around 2-3 hectares of relatively safe (i.e. in health and safety terms) habitat is required, such as limestone grassland with some scrub areas, or short fen, or not too wet sedge swamp, or broad-leaved woodland. The area to be surveyed should be made very clear to the candidates – if using a small area within a larger reserve, it should be fenced or taped off clearly. It should be made clear whether or not hedges are to be surveyed – it is advised that boundary hedges are generally excluded from the surveys with just species growing within but not on the boundary to be recorded.

A relatively small more or less homogeneous site with fairly distinct boundaries is required. Points to consider include:

- Small enough to survey thoroughly within two hours
- Large enough for individual surveys to be carried out and for 'invigilation' to be effective.
- You will require a Level 5 (at least) Gold Standard Surveyor who records alongside the candidates for the same length of time. The list generated by the Gold Standard Surveyor is used to compare against the candidates' list.

Marking

A **FISC Marking Template** (marking spreadsheet) is provided, and scores should be entered against the candidate's code, with the FISC level for each part of the test being calculated automatically.

Lab Test 1

- Mark out of 10.
- One mark for every correct and completely unambiguous answer. Answers can be scientific names or common names but must be completely unambiguous.
- Half marks can be awarded for a correct genus name or ambiguous but partly correct common name but don't round up when awarding levels.

Examples:

1. The specimen is *Leucanthemum vulgare*. One mark is given for *Leucanthemum vulgare*. One mark is given for Ox-eye Daisy.
2. If spelling is a bit off, but still understandable, then award a full mark IN THE FIRST LAB TEST (not in the second when resources are allowed for checking spelling).
3. Half a mark is given in the unlikely event of *Leucanthemum* being the only answer given (or, for example *Leucanthemum superbum* being the answer).
4. Half a mark for Daisy.
5. Total up the marks and allocate a level.

Lab Test 1 Scoring

Level	Score include the half marks to avoid confusion
5	9+
4	7-8.5
3	5-6.5
2	3-4.5
1	0.5-2.5

Lab Test 2

As above, but spelling should be accurate as resources can be used (although the odd spelling mistake as long as still completely unambiguous is not an issue.).

Total up the marks and allocate a level.

Lab Test 2 Scoring

Level	Score
5	16+
4	13-15.5
3	9-12.5
2	5-8.5
1	0.5-4.5

Marking the site survey

This is the most difficult part of the FISC to mark and it generates two separate marks.

Let's assume for simplicity that the Gold Standard Surveyor records 100 species. This then makes a Level 5 pass for this section 70 species (70%) of the Gold Standard's total. Genus names can score a half mark ONLY if for example *Carex* sp. is written once (if there are three sedges on the site, three instances of *Carex* sp. does not get one and a half marks). Unambiguous scientific OR common names are acceptable.

Site Survey Scoring

Level	Score
5	70+
4	55-69
3	40-54
2	20-39
1	<20

False-positives

This is arguably the hardest part of the marking. Every species that is recorded in the site survey **but does not appear on the Gold Standard Surveyor's list** should be scrutinised carefully. This is where it is very useful to have a full list of previous records for the site because it is possible that a Level 5 candidate will see something that the Gold Standard misses. A reasonable description of a false-positive is where there has been a blatant guess or hedging of bets.

Examples of false-positives include:

1. *Carex* sp. if a *Carex* has been recorded to species already and there is only one on the site.
2. *Stellaria palustris* is a common unreasonable in many areas. It has declined rapidly throughout the country, is much rarer than records suggest and is often put down because a *Stellaria* is seen in a fenny site.

3. If for example *Carex acutiformis* is present on the site and both *C. acutiformis* and *riparia* are recorded, *riparia* is a false-positive.

False- positive Scoring

Level	Score
5	5 or <5
4	6
3	7-8
2	9-12
1	12+

Totalling up the scores to allocate levels

You should now have four levels for each candidate. Total the levels and divide by 4 – don't round up – the whole number will be their level.

Example:

If a candidate scores 5 in Lab Test 1, 4 in Lab Test 2, 5 in the field test and 4 in false-positives, their total is 18 – divide by 4 which gives 4.5 therefore they are Level 4.

How to detect a Level 6

Level 6 candidates are VERY RARE so do not expect to find one – they are botanists usually operating at a national level. They will have scored 10 in Lab Test 1, at least 18 in Lab Test 2 and they will have scored the same or more than the Gold Standard Surveyor in the field test. They will have a false-positives score of 0 or 1.

Level 7

There is currently no process in place to determine Level 7s, so these should not be awarded as a provisional or final score.

Useful bits for running a FISC

Example pre-test talk to candidates:

“The FISC takes place under exam conditions.

Fire exits are here, loos are over there and Joe Bloggs is a trained first aider. Lunch is at this time and at this time you must meet at this place for transport to the field site.

Before we start, assign your Level (what you think you are) on the left-hand side of the Skills Pyramid – you will re-assess yourself at the end of the test.

During all tests please switch off mobile phones and other electronic resources – they must not be used in any way during any part of the tests.

In Lab Test 1 there are no books or keys allowed and no electronic resources. These are relatively straight forward specimens and you can write what they are using scientific or common names. If you need to take a specimen back to your desk and there is insufficient material in the tray, move on to the next specimen. Hand in your paper before you commence with Test 2.

In Lab Test 2 you can use books and keys but no reference collections and no electronic resources. There are 20 specimens and these will be more difficult than Test 1 but don't panic – do what you can then move on to the more difficult specimens and if in doubt, do write the genus even if you don't know the species.

There is 1 point for each correct answer and half for a correct genus.

In the field test, only write what you are sure of, as we count wrong answers including obvious guesses and species we know are absent from the site as 'false-positives' - these can count against you.

Anyone found cheating in a FISC (for example using non allowed equipment such as mobile phones, conferring, collusion, impersonation, deliberately running over time in the field test) will be disqualified immediately.

Any questions before we start?”

Before the field test:

- Health and safety talk
- Boundaries of the FISC site
- Phones and other devices off
- Timing – for example a whistle will be blown once ten minutes before the end of surveying, and twice at the end

Standard BSBI Feedback letter to candidates with the FISC certificate and final result

Dear _____

Field Identification Skills Certificate

Please find enclosed your certificate awarded by the Botanical Society of Britain and Ireland.

You have been awarded a FISC at Level X and the descriptor for this level is included on the certificate.

To progress to Level X, or higher, please download and read [So You Want to Know Your Plants](#) from the BSBI website.

The BSBI website has a list of providers of [training courses](#) on plant family groups and also on particular habitats and the BSBI offers [training grants](#) towards some of these courses. We should like to suggest that you return in two years to take another FISC to reassess your identification level.

May we take this opportunity to wish you good luck with all future botanical endeavours.

With all good wishes
