



INTRODUCTION TO PLANT IDENTIFICATION

Syllabus & schedule

2022

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INTRODUCTION TO PLANT IDENTIFICATION, 2022

Summary

This course is intended for people who would like to begin or develop their plant identification skills. Classes take place in both the laboratory and the field, and involve hands-on experience with living plants. Microscopes are provided for lab sessions, but emphasis is on field identification. Discussion is encouraged throughout in order to help consolidate understanding of key concepts and terminology. As well as whole-class teaching, you will also receive individual instruction and help. The course begins with an overview of plants and the evolutionary relationships of the major groups. After this, the focus is on common species which are used to teach how to use the different types of identification key and to illustrate the diagnostic features of selected families, chosen to account for more than 85% of our native flora. The topic material is set in an evolutionary and ecological context, in order to help you develop an understanding of species relationships and habitat preferences.

Teaching staff. Dr Richard Gornall (Director of the University of Leicester Botanic Garden), assisted by Russell Parry (Leicestershire & Rutland vascular plant joint recorder).

Pre-requisites. None: come as you are!

Time and place. End March to June 2022, usually fortnightly at the University of Leicester Botanic Garden (exact venue to be confirmed): a total of nine sessions.

Cost. £65 per class. Participants will gain the greatest skill and understanding in linking species with genera and families by attending the entire course. However, classes can be taken in any number and any combination. Discounts are available to anyone who books the whole course (£500) or to members of the Friends of the Garden or LRWT for individual classes (£60 per class).

Booking. Book online via our website www.le.ac.uk/botanic-garden/adult-courses-and-workshops or [the University Shop](#).

Intended learning outcomes. By the end of the module, students should be able to:

- be familiar with the 40 plant families which together account for c. 85% of the native species in our flora;
- identify important genera by sight and by the use of keys;
- identify at least 350 species by sight or key;
- prepare botanical specimens and make botanical records;
- know many of the plant species typical of a given habitat.

Teaching and learning. Classes are held in the lab and in the field.

Student work load. 9 x 5-hour classes. No compulsory homework but additional private study would make a huge difference in helping you develop and retain your ID skills.

Assessment Scheme. None, although an optional lab and field-based exam held at the end of the course is under consideration.

Equipment. You will need:

- a hand lens for plant identification; x10 is fine for most purposes, and is an essential part of a botanist's kit, although a x20 lens can be handy sometimes, and some lenses now come with a built-in light which is useful. You can buy good quality lenses starting at around £5, via Amazon or Summerfield Books;
- at least one field guide to the British flora. *Collins Flower Guide* is well illustrated, has identification keys and is the most comprehensive of the books available. You may also find *The Vegetative key to the British flora, 2nd ed.* by J.Poland & E.Clement useful.
- clothing, footwear & refreshment suitable for outdoor study.

Reading list

- Beentje, H.J. 2010. *The Kew plant glossary: an illustrated dictionary of plant identification terms*. RBG, Kew. [Does what it says in the title.]
- Poland, J. & Clement, E.J. 2020. *The vegetative key to the British and Irish flora*, 2nd ed. [A brilliant book for when you don't have flowering material; excellent keys but very few illustrations and related species not necessarily next to each other.]
- Streeter, D. et al. 2016. *Collins wild flower guide*, 2nd ed. Collins. [Without most of the errors that were in some keys in the first ed. Has the great advantage of being a near-comprehensive guide to the native vascular plants of the British Isles: only the apomictic microspecies are omitted.]

Other titles that may be of interest

- Atherton, I.D.M., Bosanquet, S.D.S. & Lawley, M. 2010. *Mosses and Liverworts of Britain and Ireland: A Field Guide*. British Bryological Society.
- Harrap, S. 2013. *Harrap's wild flowers*. A & C Black Publishers. [Some good photos and maps but not comprehensive.]
- Mabberley, D.J. 2008. *Mabberley's plant-book: a portable dictionary of plants, their classifications, and uses*, 3rd ed. Cambridge Univ. Press. ISBN 9780521820714. [A catalogue of the world's plants at the genus level, arranged alphabetically; contains useful information on uses as well as short descriptions and comments.]
- Rose, F. & O'Reilly, C. 2006. *The wild flower key - how to identify wild plants, trees and shrubs in Britain and Ireland* (Paperback). Revised ed. Frederick Warne. [Omits ferns, conifers, grasses, sedges and rushes, for which you need a separate guide: see below.]
- Rose, F. 1989. *Colour identification guide to the grasses, sedges, rushes and ferns of the British Isles and northwestern Europe*. Viking.
- www.bsbi.org.uk -- the website of the Botanical Society of Britain & Ireland.

Timetable*

CLASS	DATE	10--12: AM	1--4: PM
1	Tues, 22 Mar 2022	Introduction: overview of plant families	Identification keys
2	Thurs, 31 Mar 2022	lab	lab
3	Thurs, 7 Apr 2022	lab	excursion: Burbage Woods (woodland flora)
4	Thurs, 28 Apr 2022	excursion: Croft Hill & Pasture (one of the most diverse sites in Leics.)	excursion: Croft Hill & Pasture (one of the most diverse sites in Leics.)
5	Thurs, 5 May 2022	excursion: Merry's Meadow (calcareous grassland)	excursion: Cribb's Meadow (calcareous grassland)
6	Thurs, 19 May 2022	lab	excursion: t.b.a.
7	Thurs, 2 Jun 2022	lab	excursion: Claybrooke Marsh (ruderal flora)
8	Thurs, 16 Jun 2022	excursion: Sutton Park (acid grassland)	excursion: Sutton Park (acid grassland)
9	Thurs, 30 Jun 2022	excursion: Aylestone water meadows (aquatics & more!)	excursion: Aylestone water meadows (aquatics & more!)

* All sessions are on Thursdays, except the first, which is on a Tuesday. All lab classes are at the University of Leicester Botanic Garden, in Beaumont House.

Contact staff:

Richard Gornall: rjg@leicester.ac.uk

Plant families and other groups highlighted in the course

Selected on the basis of their native status, no. of species and distinctiveness; colour-coded by evolutionary lineage.

FAMILY/GROUP	SPECIES
Grasses -Poaceae	119
Sedges -Cyperaceae	108
Dandelions -Asteraceae	83
Peas -Fabaceae	67
Campions -Caryophyllaceae	65
Ferns (various families)	62
Roses -Rosaceae	58
Cabbages -Brassicaceae	51
Orchids -Orchidaceae	51
Carrots -Apiaceae	46
Broomrapes -Orobanchaceae	40
Buttercups -Ranunculaceae	38
Mints -Lamiaceae	35
Trees (various families)	35
Rushes -Juncaceae	34
Snapdragons -Plantaginaceae	31
Knotweeds -Polygonaceae	28
Heathers -Ericaceae	26
Pondweeds -Potamogetonaceae	23
Borages -Boraginaceae	20
Amaranths -Amaranthaceae	19
Bedstraws -Rubiaceae	17
Gentians -Gentianaceae	16
Primroses -Primulaceae	16
Saxifrages -Saxifragaceae	16
Willowherbs -Onagraceae	14
Asparaguses -Asparagaceae	13
Cranesbills -Geraniaceae	13
Violets -Violaceae	12
Bellflowers -Campanulaceae	11
St.John's Worts -Hypericaceae	11
Honeysuckles -Caprifoliaceae	10
Butterworts -Lentibulariaceae	10
Poppies -Papaveraceae	9
Figworts -Scrophulariaceae	9
Daffodils -Amaryllidaceae	8
Aroids -Araceae	7
Spurges -Euphorbiaceae	7

How to get to the Botanic Garden

All classes unless specified otherwise will take place in **Beaumont House** at the University of Leicester Botanic Garden. This is accessed by taking the *third* driveway on your left off Stoughton Drive South after leaving the A6/London Road. Note that this is NOT the public entrance but is a staff entrance and the best one for you. The post code is LE2 2NA. Park in the car park and follow the signs to the classrooms.

By bus: from campus, catch the Oadby Student Village shuttle bus and get off at the Beaumont House stop. Or from town, catch an Arriva 31/31A or Arriva 80/80A on the London Road, alight at Glebe Road, then walk round to the Beaumont House entrance.

