

## SKILLS AND KNOWLEDGE FOR LICHENOLOGISTS

Sue Knight

To be a proficient lichenologist you have to develop a wide range of skills which may take a number of years to acquire. This may take the form of formal courses, workshops, field meetings and mentoring. To help you make the most of the support on offer and to identify areas where additional knowledge will be helpful the Education and Publications Committee has produced a list of skills and knowledge for lichenologists.

In addition, this list may be used by tutors when designing courses aimed at students at Beginner, Intermediate and Advanced stages, although the BLS does not recognise this as a formal accreditation scheme.

The list of skills and knowledge is given below and a pdf proforma for use by course tutors is available on the BLS website.

### **Beginner stage students should:**

Understand the concept of lichen symbiosis and how lichens are named

Understand basic lichen morphology e.g. crustose, foliose and fruticose

Be familiar with terminology associated with asexual reproduction

Be familiar with terminology associated with sexual reproduction

Use FSC identification guides

Use "Dobson" for species identification purposes

Use a hand lens

Use the C and K chemical tests

Use appropriate collecting and storage techniques and protocols

Be aware of the BLS website and local groups/meetings

### **Intermediate stage students should:**

Understand the meaning of the terms associated with lichen structure and be able to recognise these structures

Understand the meaning of the terms associated with asexual reproduction and be able to recognise these structures

Understand the meaning of the terms associated with sexual reproduction and be able to recognise these structures

Use "The Flora" (The Lichens of Great Britain and Ireland)

Use the BLS and other websites to aid lichen ID

Use the Pd chemical test

Use a UV lamp

Recognise acidic and basic rocks

Recognise acidic and basic barked trees

Use a dissecting microscope

Use a compound microscope

Prepare a slide for microscopy e.g. squashes and sections

Calibrate a microscope and measure dimensions

Be familiar with recording procedures using the BLS database and spreadsheets

Understand the concept of environmental drivers of lichen distribution

Assist in the surveying of specific lichen habitats e.g. using Scheidegger quadrats

**Advanced stage students should be able to:**

Develop and demonstrate confidence in the identification of specific genera

Be confident in setting up a compound microscope

Use oil immersion

Prepare slides of key lichen structures to aid identification, including the use of stains e.g. for asci and spores

Identify lichen communities

Recognise habitats and key indicator species

Be able to access and use "grey literature"

Make up chemicals for ID purposes

Carry out advanced survey techniques using quadrats and relevés

Be familiar with the conservation status of lichens

Plan and effectively carry out a lichen survey

Write up the findings of a lichen survey in report format

Undertake both generic and dynamic risk assessments