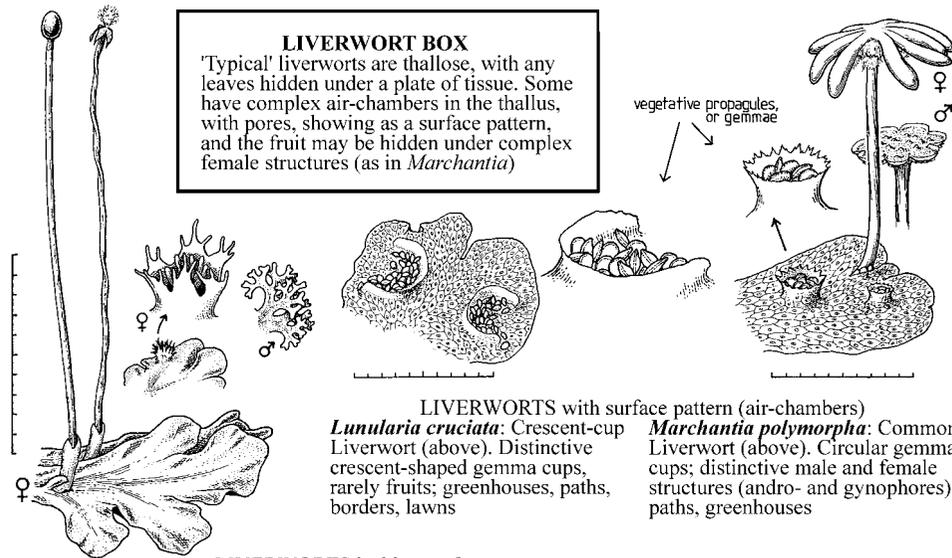


MOSSES AND LIVERWORTS

OF TOWN AND GARDEN

identification of some commoner species with a hand-lens

This leaflet introduces the hidden world of mosses and liverworts. 🍷 They are everywhere but they are small, so you need an 8× (or more) hand-lens to see the details. 🍷 You should be able to recognize many of the species that surround you, and learn about this abundant but unknown green carpet. 🍷 **HINTS WHEN EXAMINING:** mosses may alter unrecognisably when dried, and moistening them may help; also because of the range of sizes, plants are not all drawn to the same scale – pay particular attention to the scale bars (units: 1 mm). 🍷 Your plant may not be one of the 46 species illustrated (plus 10 mentioned) here: see back page for: **MORE ABOUT MOSSES**



LIVERWORT BOX
 'Typical' liverworts are thallose, with any leaves hidden under a plate of tissue. Some have complex air-chambers in the thallus, with pores, showing as a surface pattern, and the fruit may be hidden under complex female structures (as in *Marchantia*)

LIVERWORTS with surface pattern (air-chambers)
Lunularia cruciata: Crescent-cup Common Liverwort (above). Distinctive crescent-shaped gemma cups, rarely fruits; greenhouses, paths, borders, lawns
Marchantia polymorpha: Common Liverwort (above). Circular gemma-cups; distinctive male and female structures (andro- and gynophores); paths, greenhouses

LIVERWORTS lacking surface pattern
Pellia epiphylla: Overleaf Pellia (above left). Flap-shaped female involucre (to left of captive calyptral tube).
Pellia endiviifolia: Endive Pellia (3 drawings inset). Fringed tubular involucre (don't confuse with gemma-cups of *Marchantia*), and male thallus frilly in autumn. Both on moist shaded soil (*P. endiviifolia* more base-rich)

MORE ABOUT MOSSES ?

WHAT IS A BRYOPHYTE ?

There are about 1,000 species of bryophytes (mosses and liverworts) in the British Isles, and about 20,000 in the world. They are flowerless plants, reproducing by spores, and they range from being nearly microscopic to over a metre tall; they may be upright, or creeping and much branched. They may grow in streams or deserts, on mountain tops or in sea spray, from the antarctic through tropical rain forests to the arctic, and in fact just about anywhere, though hardly in the sea itself. They clothe our landscape, but few naturalists get to know them.

Do I need a microscope?

Not necessarily – a good hand-lens is a good start. But a microscope will open many further fascinating doors, and costs no more than a microwave or a television. Advice on buying and using a microscope should be found from your local Museum, or the BBS (see below).

Two books for beginners

Watson EV. 1981 (3rd edition). *British mosses and liverworts*. Cambridge.

Jahns HM. 1983. *Collins guide to the ferns mosses & lichens of Britain and northern and central Europe*. Collins

BRITISH BRYOLOGICAL SOCIETY

Objectives

The Society exists to promote a wider interest in all aspects of bryology. It provides tuition, organizes meetings, facilitates research and aids measures for conservation.

Meetings

Field meetings, paper-reading sessions, workshop weekends, symposia, etc.

Publications include:

Journal of Bryology, containing original research papers, book reviews, etc.

The Bulletin, giving news and articles of general interest.

Projects for members

Recording of bryophyte distribution in Great Britain and Ireland, and many other projects

Services to members

- A panel of referees to help in identifications
- A herbarium of voucher specimens
- A collection of colour transparencies and jpegs
- An extensive library of bryological books
- The Reading Circle

Membership

Membership is open to anyone interested in bryophytes. Detailed knowledge of the subject is not required and there is no entrance fee.

Annual subscriptions are as follows:

Ordinary membership: £20.00 (includes entitlement to *Journal of Bryology* and *BBS Bulletin*, as well as other services provided by the society.)

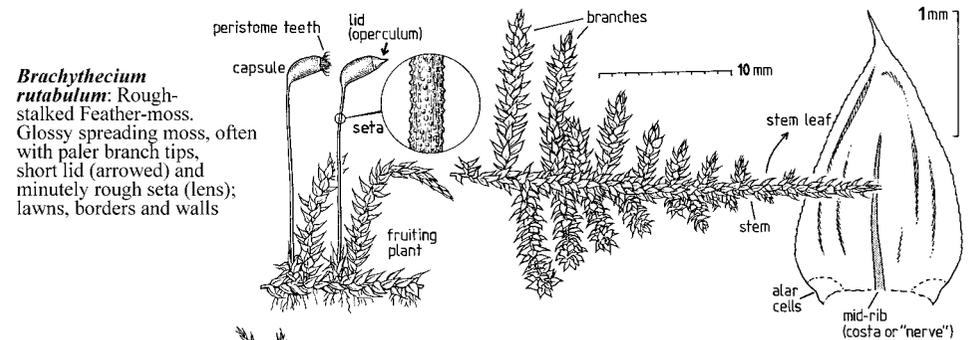
Junior Members (under 21) and Student Members: £10.00

Family membership: £1.00 (For any of the family who resides with an Ordinary or Junior member. Family members do not receive the *Journal of Bryology* but have all other rights and privileges of membership.)

Further information

about the Society and its activities is available from: Mike Walton (Hon. General Secretary), Ivy House, Wheelock Street, Middlewich, Cheshire, CW10 9AB.

BBS website: <http://www.britisshbryologicalsociety.org.uk>

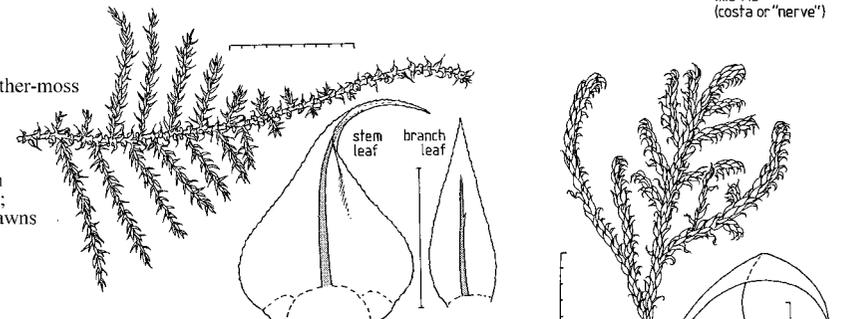


Brachythecium rutabulum: Rough-stalked Feather-moss. Glossy spreading moss, often with paler branch tips, short lid (arrowed) and minutely rough seta (lens); lawns, borders and walls

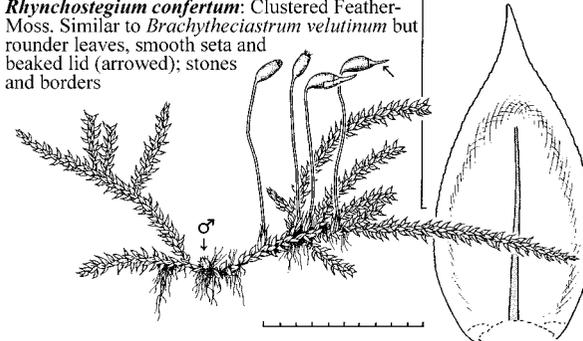
Kindbergia praelonga

Common Feather-moss

Straggling moss with recurved stem-leaves, different from branch leaves; borders and lawns

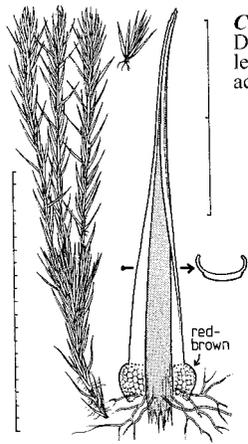


Rhynchostegium confertum: Clustered Feather-Moss. Similar to *Brachythecium castrum velutinum* but rounder leaves, smooth seta and beaked lid (arrowed); stones and borders

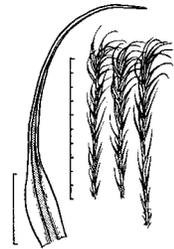


Hypnum jutlandicum: Heath Plait-moss. Leaves turned downwards, giving plaited appearance from above, silvery when dry; acid lawns.

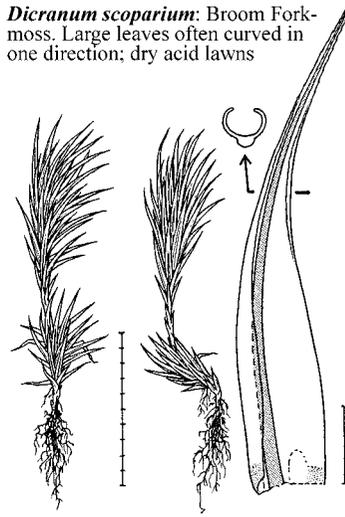
H. cupressiforme Cypress Plait-moss (walls), *H. tectorum* Roof Plait-moss (walls & roofs) and *H. andoi* Mamillate Plait-moss (wood) are similar but less branched



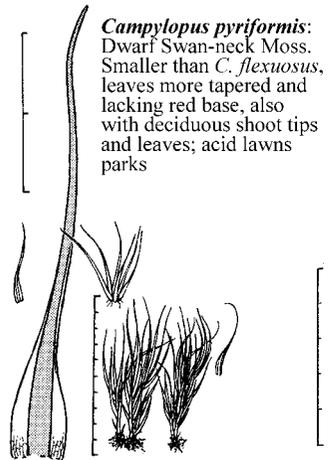
Campylopus flexuosus: Bandy-shanks. Dark moss with thick-nerved rigid leaves, deciduous shoot tips; dry acid lawns



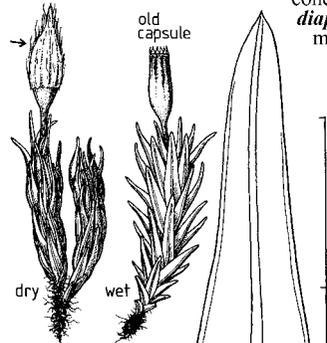
Dicranella heteromalla: Silky Forklet-moss. Leaves curved to one side, drawn to same scale as *Dicranum scoparium*; soil around tree and post bases



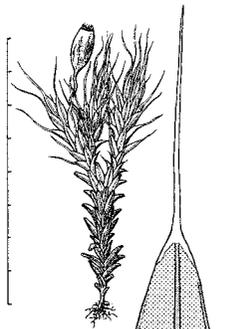
Dicranum scoparium: Broom Fork-moss. Large leaves often curved in one direction; dry acid lawns



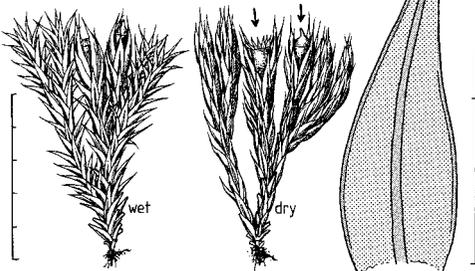
Campylopus pyriformis: Dwarf Swan-neck Moss. Smaller than *C. flexuosus*, leaves more tapered and lacking red base, also with deciduous shoot tips and leaves; acid lawns parks



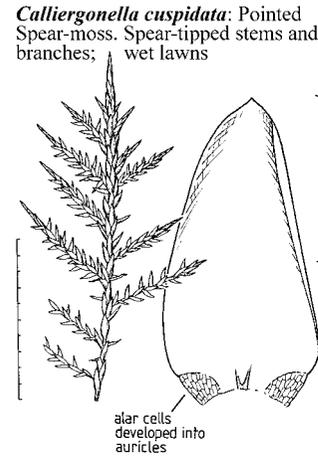
Orthotrichum anomalum: Anomalous Bristle-moss. Neat cushions, pale hairy calyptras (arrowed) in the spring; concrete and limestone walls. *O. diaphanum* White-tipped Bristle-moss has white-pointed leaves



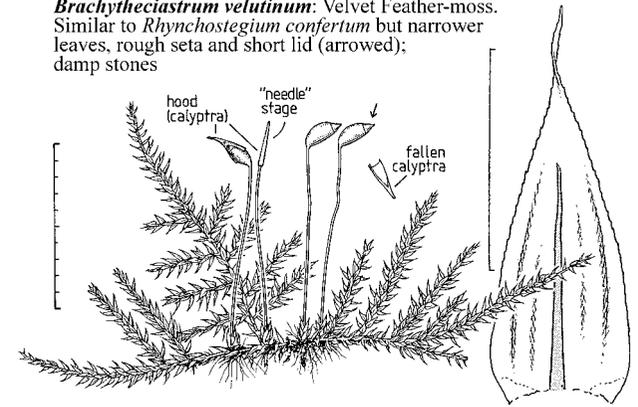
Schistidium apocarpum: Sessile Grimmia. Dark spreading cushions with orange-red capsules sunk amongst white-pointed leaves; concrete and limestone walls



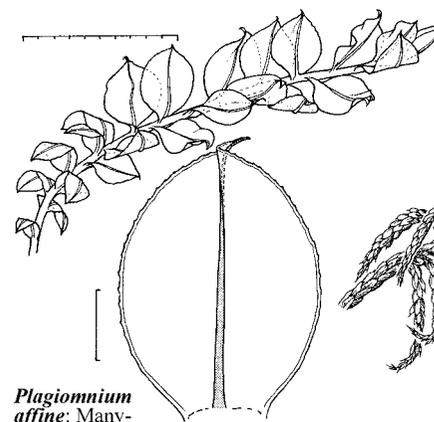
Grimmia pulvinata: Grey-cushioned Grimmia or Ostrich-moss. Hoary little cushions, with seta bent back when moist (burying capsules like ostrich heads); wall tops



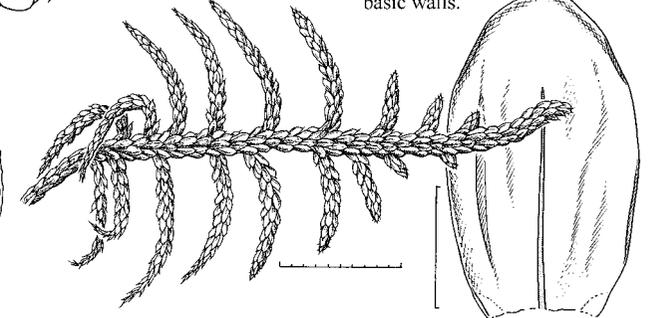
Calliergonella cuspidata: Pointed Spear-moss. Spear-tipped stems and branches; wet lawns



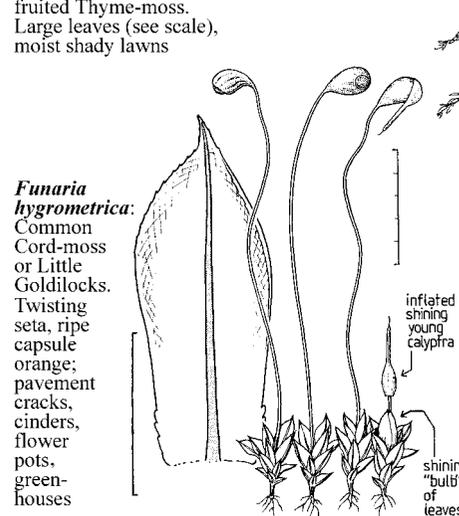
Brachythecium velutinum: Velvet Feather-moss. Similar to *Rhynchostegium confertum* but narrower leaves, rough seta and short lid (arrowed); damp stones



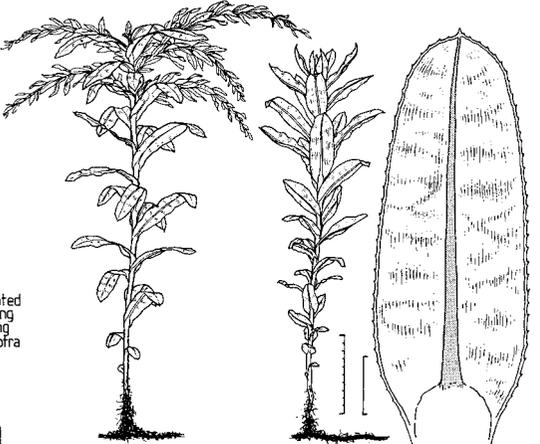
Plagiommium affine: Many-fruited Thyme-moss. Large leaves (see scale), moist shady lawns



Pseudoscleropodium purum: Neat Feather-moss or Worm-moss. Glossy worm-like appearance with blunt branches; damp shaded lawns. *Rhynchostegium murale* Wall Feather-moss is similar but much smaller, leaves only 1 mm long; basic walls.



Funaria hygrometrica: Common Cord-moss or Little Goldilocks. Twisting seta, ripe capsule orange; pavement cracks, cinders, flower pots, green-houses



Plagiommium undulatum: Palm-tree Moss. Very large undulate leaves (see scale), branched above like a palm-tree when well grown; moist shady lawns and rank grass