

Differences between *Conocephalum conicum* and *Conocephalum salebrosum*
(as identified by the BBS *Conocephalum* survey, 2005)

| Character | <i>C. conicum</i> | <i>C. salebrosum</i> | Notes |
|--|--|--|---|
| Size of plant | Usually large, 50-110 (-135) mm long 8-12(-16) mm wide | Somewhat smaller, (20-)30-60(-190) mm long 5-10.5(-12.5) mm wide | Genetically dwarf plants of <i>C. conicum</i> with thalli sometimes as short as 20 mm and only 2-4 mm wide occur rarely e.g. the Isle of Man plant discussed by Paton (1999) |
| Texture and pattern of dorsal surface of thallus | Shiny, with pores conspicuous but borders between air chambers inconspicuous | Dull, with borders of air chambers more conspicuous than pores so thallus has a reticulate pattern | <i>C. salebrosum</i> may appear shiny when wet because of rain or spray. Droughted plants and dried herbarium specimens of <i>C. conicum</i> are dull but do not develop conspicuous borders to air chambers |
| Smoothness of dorsal surface of thallus | Smooth, with junctions of air chambers flush with surface | Undulating, with junctions of air chambers in shallow 'valleys' in thallus | Most clearly seen in cross-sections, but can be detected in field |
| Number of air chambers between midrib-like elongated chambers in centre of thallus and the edge | Usually 5-8(-9) | 3-5(-6) | The 'Isle of Man' variant of <i>C. conicum</i> has fewer (3-4) |
| Number of rows of +/- elongated hyaline cells at margin of thallus | (2-)3-4(-5) | 2-3 | Szweykowski <i>et al.</i> (2005) give 1-2 for <i>C. salebrosum</i> but their figure illustrates 2-3 and the latter accords with our limited experience. Occasional irregularities of margin (including deeper 'bays' of hyaline cells) should be disregarded. |
| Junction of air chamber wall with dorsal epidermis | Highest cell of air chamber wall reaches dorsal epidermal cells but is not inserted between them | Highest cell of air chamber wall is inserted between dorsal epidermal cells | Most clearly visible in cross section |
| Shape of hyaline cells in layer immediately below pores | Flask-shaped | Pyriiform | |
| Stomata on archegoniophore heads | 66-121 µm long x 33-77 µm wide | 99-165 µm long x 44-88 µm wide | We have not yet examined fertile material |