

HORNWORTS

Anthoceros punctatus L.

Rare; the species was first recorded in 1999 when it appeared in considerable quantity on disturbed ground in an abandoned sewage works at Daveyhulme.

Anthoceros agrestis L.

Rare. Two records, 2004 and 2014.

Phaeoceros laevis (L.) Prosk.

Recorded once, on set-aside arable land.

LIVERWORTS

Haplomitrium hookeri (Sm.) Nees

Very rare. One record, from Pendle.

Blasia pusilla L.

Generally scarce, more frequent in old colliery workings.

Lunularia cruciata Adans.

Common in ruderal habitats and by rivers and streams.

Marchantia polymorpha subsp. *polymorpha* L.

Occasional, mostly in aquatic habitats in the hills.

Marchantia polymorpha subsp. *ruderalis*

Bischl. & Boisselier

Common in ruderal habitats, much less so in natural environments.

Preissia quadrata (Scop.) Nees

Scarce. On basic ground in Pendle, elsewhere on old lime tips.

Reboulia hemisphaerica (L.) Raddi

Formerly in Pendle and the Sefton coast-last recorded there in 1945.

Conocephalum conicum agg.

Common. Recently split into *C.conicum* S.S. and *C.salebrosum*. Records are as very inadequate but the former is undoubtedly common and the latter at least occasional.

Riccia beyrichiana Hampe ex Lehm.

Travis cites a record from Hale (1911).

Riccia cavernosa Hoffm.

Rare in the Sefton dune slacks.

Riccia fluitans L.

Occasional in ponds and canals, sometimes in considerable quantity.

Riccia glauca L.

Frequent in stubble fields, occasional elsewhere.

Riccia huebeneriana Lindenb.

A nationally scarce species, occurring on exposed mud at Anglezarke and Rivington reservoirs.

Riccia sorocarpa Bisch.

Frequent in stubble fields.

Pellia endiviifolia (Dicks.) Dumort.

Frequent.

Pellia epiphylla (L.) Corda

Very common.

Pellia neesiana (Gottsche) Limpr.

Occasional, mostly in the hills.

Petalophyllum ralfsii ((Wilson) Nees & Gottsche

A nationally scarce species, well protected in the Sefton dune slacks.

Fossombronia caespitiformis De Not. ex Rabenh.

Extinct. Formerly at Taunton and Clifton according to Travis.

Fossombronia incurva Lindb.

Scarce in dune slacks and bare ground elsewhere.

Fossombronia pusilla (L.) Nees

Quite frequent in arable fields, occasional elsewhere.

Fossombronia wondraczekii (Corda) Lindb.

Quite frequent on reservoir mud. Rarely in stubble fields.

Moerckia flotoviana (Nees) Schiffn.

Long known on the Sefton coast. Probably declining and last recorded in 2001.

Pallavicinia lyellii (Hook.) Carruth.

Extinct. Last record from Trafford Moss, 1838.

Metzgeria consanguinea Schiffn.

Sparse. Easily overlooked as *M. violacea* and perhaps under-recorded.

Metzgeria furcata (L.) Dumort.

Frequent. Possibly decreasing due to competing *M.violacea*.

Metzgeria violacea (Ach.) Dumort.

Not recorded before 1996 but now very common.

Aneura pinguis (L.) Dumort.

Occasional or frequent in suitable habitat, particularly dune slacks and old colliery workings.

Riccardia chamedryfolia (With.) Grolle

Quite frequent in wet places.

Riccardia incurvata Lindb.

Very scarce, confined to the coast.

Riccardia multifida (L.) Gray

Scarce, possibly decreasing.

Riccardia latifrons (Lindb.) Lindb.

Two current (2017) sites, both recent.

Probably in the early stages of colonisation.

Porella platyphylla (L.) Pfeiff.

Probably native in Pendle. Elsewhere largely ruderal, on rockeries etc.

Radula complanata Gottsche ex C.Hartm.

Frequent. A recent colonist very rare before 1990.

Frullania dilatata (L.) Dumort.

Common, formerly sparse.

Frullania tamarisci (L.) Dumort.

Scarce. Much less frequent than *F. dilatata* and has not shared its expansion.

Cololejeunea calcarea (Lib.) Schiffn.

Recorded from Pendle, but not seen since the early 20th century.

Cololejeunea minutissima (Sm.) Schiffn.

Occasional and probably increasing; not recorded before 2009.

Cololejeunea minutissima (Sm.) Schiffn.

One record, from Ings Beck in 2017.

Colura calyptrifolia (Hook.) Dumort.

Probably increasing rapidly. First recorded in 2004, there are now around a dozen sites.

Lejeunea cavifolia (Ehrh.) Lindb.

Very rare. One recent record.

Lejeunea lamacerina (Steph.) Schiffn.

Very rare. One recent record. Old records from Pendle.

Microlejeunea ulicina (Taylor) A. Evans

Occasional, probably increasing. Not recorded between 1867 and 1998.

Ptilidium ciliare (L.) Hampe

Sparse but widespread.

Ptilidium pulcherrimum (Weber) Vainio

Occasional. More frequent than *P. ciliare*.

Bazzania trilobata (L.) Gray

Old records from Rivington and Cliviger. Last seen in 1936 and probably extinct.

Kurzia pauciflora (Dicks.) Grolle

Old records from the mosslands. Last recorded from Risley Moss in 1976.

Kurzia trichoclados (Müll.Frib.) Grolle

Only one site, Rowley Moor, but frequent there in 2012.

Lepidozia pearsonii Spruce

The only record is for Pendle Hill, 1913.

Lepidozia reptans (L.) Dumort.

Common in areas above 100m., rather sparse elsewhere.

Lophocolea bidentata (L.) Dumort.

Very common.

Lophocolea heterophylla (Schrad.) Dumort.

Very common.

Lophocolea semiteres (Lehm.) Mitt.

Sparse but probably increasing, as it is nationally.

Chiloscyphus pallescens (Ehrh. ex Hoffm.)

Dumort.

Rare. possibly under-recorded as fruiting

Chiloscyphus is not often seen.

Chiloscyphus polyanthos (L.) Dumort.

Common in the upland streams.

Plagiochila asplenioides (L. emend. Taylor)

Dumort.

Occasional in the limestone areas, absent elsewhere.

Plagiochila porelloides (Torr. ex Nees)

Lindenb.

Frequent in the N.E. and occasional on the West Pennine Moors.

Cephalozia bicuspidata (L.) Dumort.

Common.

Cephalozia connivens (Dicks.) Lindb.

Rare. Diminished by habitat loss.

Cephalozia lunulifolia (Dumort.) Dumort.

Rare. Diminished by habitat loss.

Nowellia curvifolia (Dicks.) Mitt.

Occasional to frequent in shaded woodland.

Odontoschisma denudatum (Mart.) Dumort.

Rare; one recent record.

Odontoschisma sphagni (Dicks.) Dumort.

Rare. Diminished significantly by loss of lowland mire habitat.

Cephaloziella agg

Probably occasional. Not usually identified to species so not adequately recorded.

Gymnocolea inflata (Huds.) Dumort.

Common in the hills, sparse or rare elsewhere.

Barbilophozia atlantica (Kaal.) Loeske

Restricted to the hills, but not infrequent there.

Barbilophozia attenuata (Mart.) Loeske

Scarcer than the other members of the genus and like them rarely found below 100m.

Barbilophozia barbata (Schmidel ex Schreb.)

Loeske

Reported from Todmorden in 1863 but no subsequent records.

Barbilophozia floerkei (F.Weber & D.Mohr)

Loeske

Common above 100m., almost absent from the lowlands.

Tritomaria exsectiformis (Breidl.) Loeske

The Risley Moss (1871) record in Travis for

T. exsecta is probably referable to this species.

Lophozia excisa (Dicks.) Dumort.

Rare. Recent records from Sefton dune slacks and Ness gardens.

Lophozia incisa (Schrad.) Dumort.

Very scarce, in the Pennines.

Lophozia ventricosa (Dicks.) Dumort.

Frequent in peaty areas of the hills, very sparse elsewhere.

Diplophyllum albicans (L.) Dumort.

Common in the hills, very sparse below 100m.

Scapania aspera Bernet & M.Bernet

Locally frequent on the Pendle limestone.

Scapania gracilis Lindb.

Rare. Two recent localities.

Scapania irrigua (Nees) Nees

Scattered and occasional.

Scapania nemorea (L.) Grolle

Occasional in the N.E., rare elsewhere.

Scapania scandica (Arnell & H.Buch)

Macvicar

Occasional to frequent on the higher ground, absent from the lowlands.

Scapania umbrosa (Schrad.) Dumort.

Rare. A few sites above 200m.

Scapania undulata (L.) Dumort

Much the commonest species of the genus.

Common in upland streams but almost absent below 100m.

Mylia anomala (Hook.) Gray

Rare on peat in the Pennines; in quantity on decorticated logs in a Haslingden wood.

Mylia taylorii (Hook.) Gray

Very rare. two recent sites, but one at a slag heap at Greenheys was eradicated by development.

Calyptogeia arguta Nees & Mont.

Widespread and common in woodland shade.

Calyptogeia azurea Stotler & Crotz

Possibly extinct. Formerly in Pendle and Cliviger, last seen in 1973.

Calyptogeia fissa (L.) Raddi

Widespread and frequent.

Calyptogeia integristipula Steph.

Very rare (one locality).

Calyptogeia muelleriana (Schiffn.) Müll.Frib.

Widespread and common.

Calyptogeia neesiana (C.Massal. & Carestia)

Müll.Frib.

Rare. A few records from peat in the West Pennines.

Leiocolea badensis (Gottsche) Jörg.

Scarce. mostly in Pendle, a few records elsewhere on lime tips.

Leiocolea bantriensis (Hook.) Jörg.

Probably extinct. Formerly scarce in Pendle and Cliviger.

Leiocolea turbinata (Raddi) H.Buch

Scarce. mostly in Pendle, a few records elsewhere on lime tips.

Jungermannia atrovirens Dumort.

Quite frequent in Cliviger and the west Pennines.

Jungermannia exsertifolia subsp. ***cordifolia***

(Dumort.) Váňa

Two sites in Cliviger. Older records from Pendle.

Jungermannia pumila With.

Rather scarce.

Nardia compressa (Hook.) Gray

Locally abundant in faster streams in the hills.

Nardia scalaris Gray

Common in the hills, almost absent below 100m.

Solenostoma caespiticium (Lindenb.) Steph.

A nationally scarce species recently found near Rivington.

Solenostoma gracillimum (Sm.) R.M.Schust.

Frequent in hilly areas.

Solenostoma hyalinum (Lyell) Mitt.

Rare.

Solenostoma obovatum (Nees) C.Massal.

Rare. Two recent localities.

Solenostoma paroicum (Schiffn.)

R.M.Schust.

Recorded once (2006) at Anglezarke.

Solenostoma sphaerocarpum (Hook.) Steph.

Occasional in the Pennines and West Pennine Moors.

Saccogyna viticulosa (L.) Dumort.

Very rare. One recent record.

Marsupella emarginata var. ***emarginata***

(Ehrh.) Dumort.

Rare. A few records from the West Pennines.