

Orkney Field Club

Founded in 1959



Aim: To encourage the study and conservation of the natural and cultural heritage of the County

Identifying lichens – notes written by Roger Davies for meeting of 21st November 2009

Chemical tests

These undoubtedly have a role in distinguishing between lichens and can involve simple, cheap chemicals such as thin household bleach. However we are not using them today – another time!

Physical features

I suggest that by looking at eight aspects of a lichen we have a good chance of identifying it [on the day Roger gave out sheets relating to the lichens expected to be seen and based on this – he will do similarly for the next event].

1, 2, 3: the “Thallus”

The **thallus** is the main body of the lichen.

1: Thallus “habit” or type

This is how the thallus grows, mostly the same for a whole genus:

Crustose: makes a crust, say like a covering of paint (or porridge!), across the rock

Placodioid: has **lobes** towards the margin

Foliose: leaf-like but fairly flat, close to the surface

Fruticose: like a small plant or tiny bush

Squamulose (rare and hard to define!): with little leaves growing upwards (I think!)

2: Thallus colour

No explanation needed, but may change when wet or growing in the shade

3: Thallus nature

The important visible characteristics of the individual lichen species. Here the technical terms come in with a vengeance!

Crustose lichens

The lichen may be continuous, cracked or “**areolate**” – separate islands (**areoles**)

The surface may be smooth or warty

There may be powdery or “**pruinose**” areas

Small “**isidia**” or “**soredia**” (not apothecia, see below) may stick up

Placodioid lichens

The lobes may have a characteristic shape, eg convex or “**terete**” (circular in section)

Foliose lichens

It will normally be possible to look at the undersurface colour as well; and here there may be little rootlike “**rhizines**” – “**simple**” rhizines are a single thread.

4: the Prothallus (if any)

This is a distinctively coloured growth border. It may be “**fimbriate**” (fringed). I’ve abbreviated it to **p/t**.

5, 6, 7, 8: the “Apothecia” (or Perithecia, etc)

These are the “fruiting bodies”, usually like little pots, which release spores for sexual reproduction.

5: Fertility

Some lichens have much greater densities of apothecia than others.

6: Mm

This is the maximum normal diameter of lichens

7: Apothecia (etc)

There will be a disc at the top of the fruiting body, with a margin; **lecanorine** apothecia usually have a separate **thalline margin** distinctively coloured from the disc; **lecideine** apothecia will have a single **proper margin**, normally the same colour as the disc.

Perithecia are also fruiting bodies but with less of a disc at the top, more of a flask shape with an opening called an **ostiole**.

Similar are **pycnidia**

The fruiting bodies may be contained within the surface – **innate** or **immersed**, or they may be **sessile** (sitting on the surface).

8: Apothecia disc margin: this may be **crenulate** (notched)