

## Caloplaca aurantia



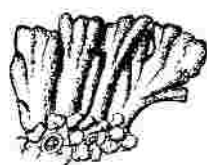
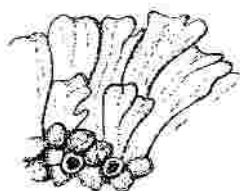
Overall appearance: A rounded crustose lichen, up to 12 cm across; pale egg-yellow to golden-yellow in colour, with a lighter yellow zone set back from the outer margin. The centre is darker and looks like crazy paving (= areolate). The outer part of the thallus comprises flat radiating lobes as shown in the upper right figure.

Fruiting bodies: When present, the fruiting bodies (= apothecia) are darker orange-brown discs, up to 1.5 mm diameter, with a slightly lighter margin. They occur towards the centre and can be numerous.

Habitat: Grows on (nutrient-enriched), calcareous rocks (limestones), in sunny situations, such as walls and gravestones. It is a southern species, much more common in England and parts of Wales than in Scotland or Northern Ireland.

Notes: *Caloplacas* are crustose lichens and cannot be lifted off the rock they are growing on. This is in contrast to the superficially similar *Xanthorias*, which are foliose lichens, in which the outer margin can be lifted up with a fingernail.

*Caloplaca aurantia* and *Caloplaca flavescens* are superficially similar. They differ in details of the shape of the outer lobes. In the case of *C. aurantia* the lobes are flat (as seen in the lower left diagram), while in *C. flavescens* they are convex, (see lower right hand diagram). *Caloplaca aurantia* has a distinctive egg-yellow colour.



## Caloplaca flavescens



Overall appearance: A rounded crustose lichen, up to 10 cm across; pale to deep orange, sometimes with a paler zone inside from the outer margin. The centre looks like crazy paving (= areolate), but is often missing, leaving only an outer ring or arc, see lower figure. The outer part of the thallus comprises radiating convex lobes.

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Habitat: Grows on (nutrient-enriched), calcareous rocks (limestones), in sunny situations, such as walls and gravestones.

Notes: *Caloplacas* are crustose lichens and cannot be lifted off the rock they are growing on. This is in contrast to the superficially similar *Xanthorias*, which are foliose lichens, in which the outer margin can be lifted up with a fingernail.

*Caloplaca aurantia* and *Caloplaca flavescens* are superficially similar. They differ in details of the shape of the outer lobes. In the case of *C. aurantia* the lobes are flat, while in *C. flavescens* they are convex, see above.



## Evernia prunastri



Overall appearance: A bushy (=fruticose) lichen, with a dividing, strap shaped, pendent thallus. The characteristic feature of this lichen is the yellowish to green-grey colour of the upper surface and the mostly white under surface.

Fruiting bodies: Very rarely fertile.

Habitat: Found on branches, twigs and the stems of deciduous trees. Very common throughout the British Isles and is moderately tolerant to pollution.

Notes: The colour contrast between the upper and lower surface is characteristic. Other bushy lichens with a strap shaped thallus have different colour schemes. *Ramalinas* have approximately the same colour on both surfaces, and *Pseudevernia furfuracea* which has a grey-black under surface and feels much more brittle.

## Flavoparmelia caperata



Overall appearance: A large, up to 20 cm across, leafy (= foliose) lichen. It is a distinctive apple-green when wet becoming yellow-grey when dry. Individual lobes can be up to 1 cm across, wrinkled towards the centre and expanding outwards. Coarse powdery soredia develops in the centre of the thallus. Lobe margins are light brown with white hairs (= rhizines) that turn black as they mature. The under surface is black with occasional un-branched rhizines, becoming brown towards the margin with lighter hairs.

Fruiting bodies: Very rare.

Habitat: Common on well-lit acid barked deciduous trees, but is also found on conifers, fence posts, rock including gravestones etc. It is moderately sensitive to sulphur dioxide pollution and is commonest in the south and west of the British Isles, but appears to be re-colonising previously industrialised areas.

Notes: The apple-green colour and broad lobes are characteristic.

## Diploicia canescens



Overall appearance: A rounded, white to very pale grey, crustose lichen up to 6 cm diameter. Well defined, upwardly bulging lobes, in direct contact with each other, are conspicuous towards the margin of the thallus. The central part of the thallus is darker and is covered in 'flour-like' (= farinose) green-white soralia. Green algae, which have nothing to do with the lichen symbiosis, are sometimes found growing on the central part of the thallus.

Fruiting bodies: Apothecia less than 1 mm diameter are rare except in the south.

Habitat: Found on nutrient-enriched trees, rocks and walls. Very common in England and Wales, less so in Northern Ireland and Scotland.

Notes: *Solenospora candicans*, which is found on vertical faces of hard limestones, is similar in appearance. It lacks soralia, and has black apothecia.

## Lecanora muralis



Overall appearance: A greenish-grey to yellowish-grey, crustose lichen, forming circular patches up to 10 cm across. It can have a somewhat shiny appearance becoming darker centrally. Individual lobes, 1-2 mm wide, are obvious around the margin of the thallus and often have a pearly white appearance (= pruinose).

Fruiting bodies: Usually fertile, with numerous closely packed apothecia, often angular, towards the centre of the thallus. The surface of the apothecia is yellow-brown to red-brown. Margin of the apothecia is like the thallus.

Habitat: Very common in lowland Britain on man-made surfaces such as paving stone, asphalt, brick, tiles etc., but can be found on trees and sawn timber, usually on horizontal surfaces..

Notes: A highly pollution tolerant species. Often mistaken for chewing gum on pavements in towns.

## Ochrolechia parella



Overall appearance: An irregular, crustose lichen forming thick, grey-white, patches up to 20 cm across. The margin may show evidence of a peripheral algal-free zone (= prothallus) which in this species is white. The margin may be thickened when in contact with other lichens and concentric 'growth rings', see figure, are often present. The centre of the thallus is thick and warty.

Fruiting bodies: Usually abundantly fertile; apothecia 2-3 mm in diameter, with thickened swollen margins the same colour as the thallus. The surface of the centre of the apothecia is flesh-coloured to pink, but when growing on rock the surface may be covered in a white deposit (= pruina).

Habitat: very common on hard, smooth, non-calcareous rocks, such as sandstone, brick, slates etc.

## Parmelia saxatilis



Overall appearance: Irregular in appearance, can be large (up to 20 cm across) grey-white to grey-green, foliose lichen, with brownish tips. The lobes have oval grey-white structures (= pseudocyphellae) which can fuse to form an almost white network on the lobes. Small peg-like to coral-shaped propagules (= isidia) develop on the lobes. Since these isidia retain a coating of the outer layer of the lichen (= cortex) they are the same colour as the lobes, at least initially, but tend to become brownish, and may occur in large numbers in the centre of the thallus, as in the above figure. The under surface is black becoming brownish towards the margin, often with large numbers of un-branched hairs (= rhizinae).

Fruiting bodies: Rare.

Habitat: Very common on trunk and branches of acid-barked trees, and on sandstone, granite, brick etc. It is tolerant to sulphur dioxide pollution.

Notes: This lichen can sometimes be confused with *Parmelia sulcata*. However, *P. saxatilis* and *P. sulcata* have different types of propagules. *P. saxatilis* has isidia, either the colour of the lichen thallus or brownish, whereas, *P. sulcata* has granular soralia.

A red fungus often parasitizes *C. saxatilis*.

## Parmelia sulcata



Overall appearance: An orbicular, grey-white to grey-green, foliose lichen, up to 20 cm across. The lobes have brownish tips and have irregularly shaped grey-white structures (= pseudocyphellae) which fuse to form a discontinuous white network. Small pale granular propagules (= soralia) develop on the lobes. They tend to form from the pseudocyphellae and become more common in the centre of the thallus, as in the figure. The under surface is black becoming brownish towards the margin, often with un-branched or forked hairs (= cilia).

Fruiting bodies: Rare.

Habitat: Very common on the trunks and branches of trees and on sandstone, granite, brick etc. It is less tolerant to sulphur dioxide pollution than *Parmelia saxatilis*.

Notes: This lichen can sometimes be confused with *Parmelia saxatilis*. However, *P. saxatilis* and *P. sulcata* have different types of propagules. *P. saxatilis* has isidia, either the colour of the lichen thallus or brownish, whereas, *P. sulcata* has granular soralia.

## Physcia aipolia



Overall appearance: A white to pale grey, orbicular, foliose lichen, up to 6 cm across, with distinct pale mottling. This is due to the presence of pseudocyphellae and is best seen when the lichen is wet. The under surface is whitish to pale tan or pale grey with numerous un-branched or branched, whitish to dark brown or grey hairs (=cilia).

Fruiting bodies: Abundant apothecia, up to 3 mm with dark brown to black discs with a thick grey margin.

Habitat: Common on well-light nutrient-rich trees, often in the forks between twigs. On the increase as pollution levels drop.

Notes: A very pretty and distinctive species.

## Physcia adscendens and Physcia tenella

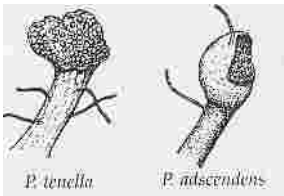


Overall appearance: A small, pale grey, leafy (= foliose) lichen, less than 4 cm across. Individual lobes are narrow and often dotted with white structures (= pseudocyphellae). The ends of the lobes are raised with long marginal dark-tipped hairs (= cilia), like eyelashes. and the lobe tips inflate and burst to reveal a mass of cream-coloured propagules (= soralia) underneath. The under surface is white, with scattered, dark-tipped hairs (= cilia).

Fruiting bodies: Uncommon, with a black disc and grey margin.

Habitat: Common on a wide range of well-lit, nutrient-enriched substrates where birds perch, including tree trunks and twigs, limestone, cement, asbestos, etc. This lichen appears to be increasing.

Notes: The soralia at the end of the lobes appear in two forms, see lower diagrams. In some instances the soralia have burst through part of the lobe end, leaving a 'hood' of cortex; in the other form the soralia have burst through over the entire lobe end. These two forms have been named *Physcia adscendens* and *Physcia tenella* respectively but it is uncertain how different these species are.



## Placynthium nigrum



Overall appearance: A dark-blue to jet-black, less commonly dark brown, 'crustose' lichen, with a distinctive blue-black non-lichenised outer zone (= prothallus), although this is not always well developed. The thallus comprises very small granules which can appear smooth, minutely coralloid, or separated into irregular patches (= areoles) as in the figure above.

Fruiting bodies: Apothecia can be found. They are less than 1 mm in diameter, black rim and centre, with a glossy surface.

Habitat: Very common, especially on calcareous rocks such as limestone, cement etc., usually on horizontal surfaces.

Notes: There are a number of dark-brown to black crustose lichens. However, *Placynthium nigrum* is distinctive with its blue-black margin (= prothallus) and there is often blue sheen to the black thallus.

## Platismatia glauca



Overall appearance: A medium to large, 1-15 cm across, foliose lichen. Individual lobes are large, thin, wavy, and indented along the margin, where there may be clusters of small propagules (both isidia and soralia). The upper surface is dull grey, but often has a brownish tinge. The under surface is black, becoming paler brown towards the margin, and has scattered, un-branched or branched hairs (= cilia).

Fruiting bodies: Very rare.

Habitat: Very common on acid-barked trees, and less commonly on rocks and soil. Especially common in upland areas.

Notes: This lichen has a crisped and somewhat untidy appearance and is papery thin.

## Ramalina fastigiata



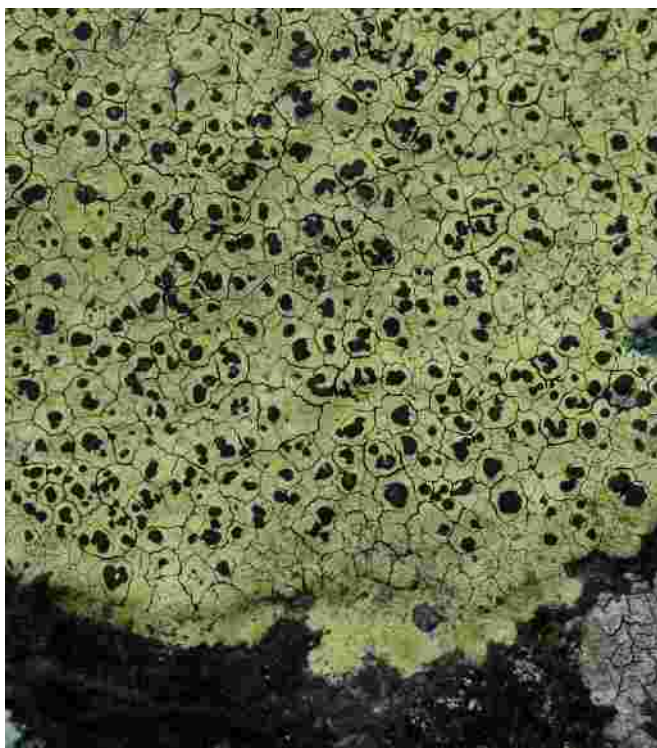
Overall appearance: Upright bushy (= fruticose), pale to dull grey-green thallus, up to about 5 cm high. Individual lobes are branched, rounded or flattened, hollow, sometimes inflated. The characteristic feature is the rounded terminal apothecia, which can dominate the appearance of the thallus.

Fruiting bodies: Apothecia, see photograph.

Habitat: Common on well-light, exposed twigs on trees and hedgerows. Found in lowland areas, but is sensitive to air pollution.

Notes: Bushy lichens with a strap shaped thallus have a number of different colour schemes. *Ramalinas* have approximately the same colour on both surfaces, whereas *Evemia prunastri* has a yellow to green-grey upper surface and paler under surface. *Pseudevernia furfuracea* has a grey-black under surface and feels much more brittle.

## Rhizocarpon geographicum



Overall appearance: A very distinctive, bright yellow-green and black crustose lichen, up to 15 cm across. The black is from the algal-free prothallus and can be seen around the margin of the thallus and in cracks in the green lichen thallus. The green thallus may appear as little 'islands' on a blackish background.

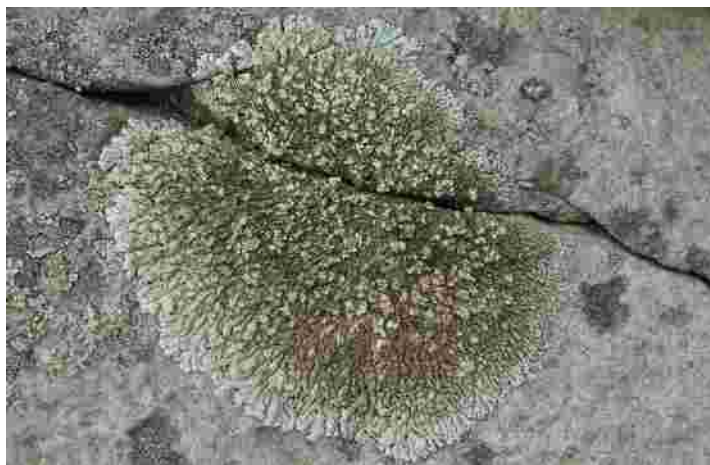
Fruiting bodies: Very common, black, irregular in shape, and do not rise above the thallus surface.

Habitat: Very common, characteristic of hard sandstone, granite etc., from coastal locations to mountain summits.

Notes: A beautiful lichen, which can be recognised from a distance. It often forms mosaics with itself and other crustose lichens. Sometimes called the map lichen.



## Xanthoparmelia mougeoti



Overall appearance: A foliose lichen that appears crustose, with a yellowish-grey, roundish thallus, usually 1-2 cm but up to 4 cm across. The centre appears darker grey-yellow. Individual radiating lobes are about 1 mm wide and usually remain separate from each other. Large, yellowish-grey, soralia are scattered over the surface. The under surface is black, paler towards the margins, with scattered un-branched hairs (= rhizines).

Fruiting bodies: Rare.

Habitat: Common on well-lit sandstone and granite gravestones, roofing tiles, slates etc., where it tends to be a pioneer species, usually on horizontal surfaces. Often on pebbles or gravel. It is increasing as pollution levels fall.

Notes: Despite first appearances, this is a leafy (= foliose) lichen. Using your fingernail you should be able to lift the edges of the thallus up from surface on which it is growing.

## Xanthoria parietina



Overall appearance: orbicular patches, in which the older central part is sometimes missing. Bright orange when growing in full sun to greenish grey when growing in partial shade.

Upper surface: made up of long, somewhat wrinkled, overlapping lobes.

Fruiting bodies: orange apothecia with a paler margin; especially common towards the centre of the lichen.

Lower surface: almost white with no hairs. The lichen attaches to the substrate with pads (= hapteres).

Habitat: Very common on nutrient rich trees, rocks and walls. The nutrient may be supplied by air pollution or by bird droppings etc, so the lichen is common on bird perches (tops of gravestones, on sea cliffs etc.).

Notes: Despite first appearances, this is a leafy (= foliose) lichen. Using your fingernail you should be able to lift the edges of the thallus up from surface on which it is growing. Compare this with the similarly coloured *Caloplaca aurantia* and *Caloplaca flavescens*, which are true crustose lichens, and cannot be separated from the surface they are growing on.

This lichen can be confused with *Xanthoria polycarpa*. However, *Xanthoria polycarpa* tends to grow in the angles between twigs, and has numerous, closely spaced, orange apothecia, which may almost hide the underlying lichen thallus. The lobes of this species are flattened, being round like pointed fingers.