

Know Your Stuff

The Alps are nearer than you think

There's a taste of the Alps closer to home in the British mountains than you might think. The British mountains are home to a range of alpine flowers and reveal Britain's alpine past. These hardy plants we commonly refer to as 'arctic-alpines' and form a record of our colder, glacial past.

You may be planning a summer alpine mountaineering trip this year, refreshing your alpine climbing techniques for moving together or perhaps thinking about heading to the Alps for the first time and getting fit in the British mountains. There are others familiarising themselves with flower guides ready for identifying alpine flowers as part of their IML assessment.

Whatever adventures you are planning as you head out into the British uplands you may well stumble upon one or several of these delicate, and often brightly coloured plants clinging onto a mountain ledge, hidden in loose scree or hiding amongst meadow plants in upland grasslands.

This relict community of plants, more at home in the cold and extreme conditions of the European Alps and across the Arctic, are a record of the conditions the British mountains experienced as the glaciers retreated some 10,500 years ago. The newly exposed bare ground was colonised by a group of superbly adapted plants, lichens, grasses and mosses.

Today we have isolated pockets of these plants, many at the edge of their world distribution, which manage to hang on to existence amongst the better suited and more competitive species of a warmer, temperate climate. These flowers are often colourful and come into their own from the end of May although there is a splash of colour from early flowering species such as Purple saxifrage from the end of February.

As delicate, specialist plants they are sensitive to the grazing mouths of sheep and the heavy tread of walkers' boots but can be seen quite close to paths and mountain ledges shared with climbers belay stances. Away from the bright sunlit grasslands, hidden on the shaded north facing cliffs are where many of these specialists find refuge. They also have specific needs for nutrients and are often, though not exclusively, found on base or lime rich rocks which are not overly common in the Britain mountains.

Below is a selection of several of the commoner arctic-alpine flowers you are likely to come across.

Mossy saxifrage – *Saxifraga bryoides*

This mat forming plant has a moss-like rosette of leaves. The flowers are whitish-yellow with a central yellow-orange spot. They can be seen as far south as the Mendip hills, across into Wales and Derbyshire and as far as northern Scotland. They flower in May and June and can be seen on base-rich screes and rock ledges. They have a circum-polar distribution found on arctic tundra and upto 4000m altitude in the central Alps.





Roseroot – *Rhodiola rosea*

This succulent, hairless plant forms a dense cluster of grey-green stalks bearing purple-tinged, and toothed, fleshy leaves. The flowers form in dense, flat-topped clusters of yellow-orange blossoms. They can be found flowering from May onwards and enjoy lime-rich rocks, meadows and screes. Roseroot is found in scattered places across the Alps to 3000m and also across the Arctic. In Britain it is found in Northern Ireland and from the Scottish Highlands to North Wales. Its roots have a rose-like fragrance and have been used as a perfume and also in medicine. Its reputation as 'natures viagra' increasing sexual vitality has made it popular and it is marketed in Finland as 'northern ginseng'.



Moss campion - *Silene acaulis*

This cushion forming plant is again found in base-rich habitats. The dense cushions thrive on inhospitable barren ground. The close knit, moss-like cushions keep low, away from the drying winds and a strong taproot anchors the plants to the ground. The pink flowers can be seen from May until August and its British distribution is confined mainly to Scotland although they cling on to a few high mountain ledges and screes in Snowdonia and in Cumbria. It is found at sea level on sandy shores in Orkney, and at 1305m on Ben Macdui! Like so many of the alpine flowers, Moss campion is found around the circum-polar arctic region and throughout the Alps.



Cowberry - *Vaccinium vitis-idaea*

Cowberry is a heath plant found throughout the upland areas of the British Isles. It has delicate white, open bell-shaped flowers from May onwards ripening to an edible, red berry from late August. This creeping, evergreen heath plant has dark green, glossy leaves and an extensive network of roots. It is a widespread shrub enjoying pine forests on acid soils and upland moors.



Globeflower – *Trollius europaeus*

The solitary golden spheres of glossy yellow flowers appear on top of straight stems. The leaves are lobed and palm-like. It is a striking plant and has a preference for shaded, damp habitats away from grazing sheep. Again like so many of our arctic-alpine species it is associated with base-rich soils. It can be seen across Wales, northern England and Scotland on upland wet meadows, mountain cliffs and mountain woodlands.



Mountain avens – *Dryas octopetala*

A hardy, evergreen pioneer plant with large white flowers with 8 petals. Its leaves resemble those of Oak and has given rise to its scientific name 'Dryas' after the Greek for Oak. It forms a ground-hugging carpet with leaves green on top and a woolly, white underside. The large flowers 'track' the sun's path in a process known as 'heliotropism'. This is thought to concentrate the sun's energy to help progress the seeds development during the short alpine summer. It is a less common arctic-alpine flower in the British mountains a rare sight in Snowdonia and northern England and in the Scottish Highlands.



Starry saxifrage – *Saxifraga stellaris*

A striking plant with a five-pointed star shaped flower with 2 yellow spots on each petal. This is a more common arctic-alpine plant found in the British mountains and can be seen in mountain flushes, wet ledges and along mountain streams. The term saxifrage derives from Latin Saxum – rock and Frangere – to break. The plants are able to survive on loose screes and utilise the nutrients released when the intense cold shatters the rocks so a true specialist of harsh mountain conditions.