

Parmelia saxatilis



Lichens are composite organisms. Basically this means that they are composed of both a fungal and an algal part living together in a symbiotic relationship. Lichens occur in some of the most extreme environments on Earth—arctic tundra, hot deserts, rocky coasts, and toxic slag heaps. Despite this many are also vulnerable to environmental disturbance, and may be useful to scientists in assessing the effects of air pollution, ozone depletion, and metal contamination.

Lichens have also been used in making dyes and perfumes, as well as in traditional medicines. The earliest documented use of lichens to dye clothing comes from ancient Rome where togas were dyed purple using *Rocella* species from rocks around the Mediterranean. *Parmelia saxatilis* is a common species in Ireland, growing on stone walls and rocks, particularly in the West where it prefers oceanic areas. It is common on base-poor rocks and frequent on acid-barked trees and on trees where the bark has been acidified by pollution.

Parmelia saxatilis have been used for generations in the Highlands and the West of Ireland, for dyeing wool brown. They are gathered off the rocks in July and August, dried in the sun, and used to dye wool, without any preparation. The lack of preparation means they are among the fastest natural dyes to produce. The dried lichen is bruised and put into water. The water is brought to boil and allowed to cool, then boiled up with the wool until the desired shade is achieved. This may take from one to three or four hours, as the dye is not rapidly taken up by the wool. The longer the concoction is left the deeper the dye will be.

