Vaccinium myrtillus or European blueberry is a holarctic species of shrub with edible fruit of blue color, known by the common names bilberry, blaeberry, wimberry, and whortleberry.[2] It is more precisely called common bilberry or blue whortleberry to distinguish it from other Vaccinium relatives.

Vaccinium myrtillus is a small deciduous shrub that grows 4–18 in (10–46 cm) tall. It has light green leaves that turn red in autumn and are simple and alternate in arrangement.[3] Leaves are 0.4–1.2 in (1.0–3.0 cm) long and ovate to lanceolate or broadly elliptic in shape.[3]

Regional names include blaeberry (Scotland), urts or hurts (Cornwall and Devon),[4] hurtleberry,[5] myrtleberry,[6] wimberry, whinberry, winberry,[7] and fraughan.[8]

Vaccinium myrtillus is a Holarctic species native to continental Northern Europe, the British Isles, north and central Asia, Japan, Greenland, Iceland, Western Canada, and the Western United States. It occurs in the acidic soils of heaths, boggy barrens, degraded meadows, open forests and parklands, slopes, and moraines.[9][10]

The fruits will stain hands, teeth and tongue deep blue or purple while eating and so it was traditionally used as a dye for food and clothes in Britain.[11]

Vaccinium myrtillus has been used for centuries in traditional medicine, particularly in traditional Austrian medicine as a tea or liqueur in attempts to treat various disorders.[12] Bilberry dietary supplements are marketed in the United States, although there is little evidence these products have any effect on health or diseases.[2]

In cooking, the bilberry fruit is commonly used for pies, tarts and flans, cakes, jams, muffins, cookies, sauces, syrups, juices, and candies.[2]

In traditional medicine, bilberry leaves were used mainly for treating skin disorders.[2] Consuming the leaves may be unsafe.[2]

Although bilberries are in high demand by consumers in Northern Europe, the berries are harvested in the wild without any cultivation. Some authors state that opportunities exist to improve the crop if cultivated using common agricultural practices.[13][better source needed]

Bilberry and the related V. uliginosum both produce lignins, in part because they are used as defensive chemicals.[14] Although many plants change their lignin production – usually to increase it – to handle the stresses of climate change, lignin levels of both Vaccinium species appear to be unaffected.[14]

V. myrtillus contains a high concentration of triterpenes which remain under laboratory research for their possible biological effects.[15]