Daphne

See text

Daphne /■dæfni/[3] (Greek: Δ■φνη "laurel") is a genus of between 70 and 95 species of deciduous and evergreen shrubs in the family Thymelaeaceae, native to Asia, Europe and north Africa. They are noted for their scented flowers and often brightly coloured berries. Two species are used to make paper. Many species are grown in gardens as ornamental plants; the smaller species are often used in rock gardens. All parts of daphnes are poisonous, especially the berries.

Daphne species are shrubs, with upright or prostrate stems. Upright species may grow to 1.5 m (5 ft). Their leaves are undivided, mostly arranged alternately (although opposite in D. genkwa), and have short petioles (stalks). The leaves tend to be clustered towards the end of the stems and are of different shapes, although always longer than wide. The leaf surface may be smooth (glabrous) or hairy.[4][5][6]

Many species flower in late winter or very early spring. The flowers are grouped into clusters (inflorescences), either in the leaf axils towards the end of the stems or forming terminal heads. The inflorescences lack bracts. Individual flowers completely lack petals and are formed by four (rarely five) petaloid sepals, tubular at the base with free lobes at the apex. They range in colour from white, greenish yellow or yellow to bright pink and purple. Most of the evergreen species have greenish flowers, while the deciduous species tend to have pink flowers. There are twice the number of stamens as sepals, usually eight, arranged in two series. Stamens either have short filaments or lack filaments altogether and are usually held inside the sepal tube. The style is short or absent, and the stigma is head-shaped (capitate).[4][5][6]

The ovary has a single chamber (locule). The fruits are one-seeded, and are either fleshy berries or dry and leathery (drupaceous[6]). When ripe the fruit is usually red or yellow, sometimes black.[4][5]

The genus Daphne was first described by Carl Linnaeus in 1753 in Species Plantarum.[1] Linnaeus recognized 10 species, including Daphne mezereum, Daphne laureola and Daphne cneorum.[7] Some of his species are now placed in other related genera (e.g. Linnaeus's Daphne thymelaea is now Thymelaea sanamunda).[8] The number of species in the genus varies considerably between different authorities. The Flora of China states there are about 95 species, 41 of which are endemic to China. Some of these species were reduced to subspecies or varieties by Josef Halda in a series of papers from 1997 onwards,[9] culminating in a monograph on the genus.[10] Version 1.1 of The Plant List accepts 83 species.[11] The Flora of North America states there are 70 species.[6]

A 2002 study based on chloroplast DNA placed Daphne in a group of related genera; however there was only one species representing each genus.[12]

Edgeworthia

Wikstroemia

Stellera

Diarthron

Thymelaea

Daphne

A further study published in 2009 included an extra species of Wikstroemia and suggested that this genus was paraphyletic with respect to Stellera, but otherwise agreed with the cladogram above.[13] The distinction between Wikstroemia and Daphne is difficult to make; Halda included Wikstroemia within Daphne.[5] The cladogram shown above suggests that other genera would need to be included as well to make Daphne monophyletic.

As of January 2023[update], Plants of the World Online accepts the following species:[14]

Hybrids accepted by Plants of the World Online are:[14]

Numerous artificial hybrids are cultivated as ornamental plants. These include:

Daphne is a Eurasian genus, being native to central and southern Europe and Asia,[6] from Britain[20] to Japan.[21] Some species are also found in north Africa. Two species, D. mezereum and D. laureola, have been introduced into North America.[6]

Two species, Daphne bholua and Daphne papyracea, both called lokta, are sustainably harvested in Nepal and Bhutan for paper production.[22]

Many species are cultivated as ornamental shrubs in gardens.[23] The smaller species are used as rock garden plants or, in the case of those more difficult to grow, as plants for the alpine house. It is recommended that they are grown in well drained but moisture-retentive soil, avoiding strongly acid conditions. Most species prefer a sunny position, although some are woodland plants (e.g. D. mezereum and D. pontica). Propagation is by seed, cuttings or layering.[4]

The following species, hybrids and cultivars are recipients of the Royal Horticultural Society's Award of Garden Merit:

All parts of daphnes are toxic, the berries being particularly so. One active compound is daphnin, a glycoside, combining glucose with daphnetin. Some species have been shown to contain a further toxin, mezerein. Symptoms of ingestion include burning sensations and lesions of the mouth and upper digestive tract, gastroenteritis and diarrhoea, and in severe cases, damage to the kidneys (nephritis), irregular heart rhythm, and coma.[32][33]

Daphnes have an OPALS allergy scale rating of 5 out of 10, indicating moderate potential to cause allergic reactions, exacerbated by over-use of the same plant throughout a garden.[34] The sap and berry juice can cause dermatitis and the scent may affect the odor-sensitive.[34]

Daphne jezoensis

Daphne pseudomezereum

Daphne laureola

Daphne blagayana

Daphne glomerata

Daphne odora

Daphne petraea

Daphne mezereum – deciduous

Daphne giraldii – unripe fruits

Daphne gnidium – ripe fruits

Daphne jezoensis – ripe fruits

Daphne × transatlantica Eternal Fragrance = 'Blafra'