



COTONEASTER

There are over 70 species of *Cotoneaster* Medik. naturalised in Britain, though many only rarely so which can be named from the multi-access key in Stace's *New Flora*. A full monograph is given by Fryer & Hylmö (2009).

Specimens should, if possible, consist of both flowering and fruiting sprays, always from the same bush. Note the colour and orientation of the petals, the number of stamens and styles or nutlets, as well as the colour, size and shape of fruit. Also collect a vegetative shoot, and note the height of the bush and whether it is evergreen or deciduous.

The following indented key (note some of the couplets have up to five leads) to the 20 most likely species to be found in Britain has been updated from Fryer (1990), who also provides a Table listing all the characters. This work has been checked with all the relevant original descriptions, plus herbarium type specimens, and living material in arboreta and specialist collections. Many species are apomictic and vary little; others are out-breeding and more variable (noted in key).

- 1 Petals erect, pink-red, obovate; filaments pink; flowering of inflorescence extended (i.e. flowers open in turn)
(Sect. *Cotoneaster*) 2
- 2 Stamens 10-13(-18)
(Subsect. *Adpressi*) 3
- 3 Flowers usually solitary, nodding; leaves leathery, semi-evergreen
(Series *Distichi*)
C. nitidus Jaques [Up to 2(-4) m tall, stiffly erect, distichously branched; leaves 8-13 mm, sub-orbicular; fruits 9-11 mm, red, obovate to sub-globose; nutlets 3]
- 3 Flowers 3-4; leaves membranous, deciduous
(Series *Adpressi*) 4
- 4 Fruits to 9 mm, ovoid-ellipsoid, dark rich-red; height 1-2 m, spreading, branchlets often all in same plane 45-60°; leaves 8-20 mm, elliptic-ovate; nutlets 2
C. divaricatus Rehder & E. H. Wilson
- 4 Fruits to 12 mm, sub-globose, fleshy, red; height to 1 m × 2 m wide; branches creeping, arching outwards; leaves 12-25 mm, orbicular, undulate; petals fringed; nutlets 2
C. nanshan M. Vilm. ex Mottet
- 4 Fruits to 5 mm, sub-globose, orange-red; height in open to 1 m, often several times as wide; branchlets herringbone; leaves 5-15 mm, sub-orbicular, broad elliptic; nutlets 3
C. horizontalis Decne.
(Subsect. *Cotoneaster*) 5
- 2 Stamens 20
(Series *Bullati*) 6
- 5 Leaves to 15 cm, bullate; fruits red or black; nutlets 4-5
(Series *Bullati*) 6
- 6 Fruits currant red; leaves 3.5-7 cm, petioles 3-6 mm; height 2.5-4 m, broad open habit; branches black-brown; leaves elliptic to ovate, acuminate; calyx hairy; fruits sub-globose to ovoid
C. bullatus Bois
- 6 Fruits blood red; leaves 5-15 cm, petiole very short, 1-3 mm; height to 4.5 m; calyx glabrous except on margins, otherwise similar to *C. bullatus*
C. rehderi Pojark.
- 6 Fruits purplish-black; leaves 4-10 cm; height to 3 m; branches often sprawling to 4 m wide; leaves elliptic-ovate to ovate, acuminate; fruits obovoid to sub-globose
C. moupinensis Franch.
- 5 Leaves to 7 cm, flat, shining; fruits black; nutlets (2-)3
(Series *Lucidi*) 7

Plant Crib

- 7 Height 1.5-2 m, upright bushy habit; leaves 2-7 cm, ovate-elliptic, acute; fruits 8-10 mm sub-globose, black, glossy *C. lucidus* Schldl.
- 7 Height 2-4 m; leaves 8-10 cm, ovate to oblong-ovate, acute or acuminate, densely villous beneath; fruits 8-10 mm, sub-globose, black, somewhat pubescent
C. villosulus (Rehder & E. H. Wilson) Flink & B. Hylmö
- 5 Leaves felted beneath; flowers 4-15 (Series *Franchetioides*) 8
- 8 Flowers 5-15 on shoots to 4 cm; calyx villous, lobes acuminate; height 3 m; branches slender, arching; leaves 2-3.5 cm elliptic to oval-ovate, pale greyish yellow felting beneath turning silvery with age; fruits, 6-8 mm, oblong to ovoid orange-red; nutlets 2-3 *C. franchetii* Bois
- 8 Flowers 5-15 on shoots to 1.5 cm; calyx felted, lobes acute; rapidly growing to 3 m with stiff open spreading habit; leaves 2.5-6 cm, oval, rugose, thick silvery felting beneath; fruits 8-10 mm, sub-globose red; nutlets 3-4 *C. sternianus* (Turrill) Boom
- 8 Flowers 3-7 on shoots 2.5 cm; calyx pubescent, lobes acuminate with long mucro; height to 1.5-3 m; branches extremely slender and whip-like; pendulous; leaves 1.5-2.5 cm oval-ovate to obovate; fruits 6 mm, sub-globose blood-red; nutlets usually 3-4 *C. dielsianus* E. Pritz. ex Diels
- 5 Leaves tomentose beneath; flowers up to 7 (Series *Cotoneaster*)
C. cambricus J. Fryer & B. Hylmö (*C. integerrimus*) [Height to 1.5 m, bushy, arching habit; leaves 0.9-4 cm, broadly ovate to oblong-ovate; flowers in short, nodding, mostly glabrous panicles; fruits 8-11 mm, red, sub-globose; nutlets 3-4]
- 5 Leaves strigose beneath; flowers campanulate (Series *Mucronati*)
C. simonsii Baker [Height 2-5m, stiffly erect and sparingly branched; leaves 1.5-3 cm, orbicular-ovate; flowers 1-4 together on very short shoots; fruits obovoid to oblong, scarlet; nutlets 3-4]
- 1 Petals spreading, white, sub-orbicular; filaments white; flowering of inflorescence simultaneous (i.e. all flowers open together) (Sect. *Chaenopetalum*) 9
- 9 Leaves longer than 2 cm (Subsect. *Chaenopetalum*) 10
- 10 Leaves membranous, deciduous (Series *Chaenopetalum*)
C. frigidus Wall. ex Lindl. [Height to 18 m; leaves 6-12 cm, elliptic to oblong-obovate; corymbs many flowered, 4-6 cm across; fruits 5 mm, broad ellipsoid, light red; out-breeding, very variable]
- 10 Leaves leathery, evergreen 11
- 11 Upper surface of leaf shining; nutlets 3-5 (Series *Salicifolii*)
C. salicifolius Franch. [Height 2-5 m; leaves 3-8 cm, elliptic-lanceolate, rugose, margins and tips revolute, tomentose becoming glabrous beneath; many flowered corymbs 3-4 cm across; fruits 5 mm, sub-globose, bright red; out-breeding, very variable]
Hybrids between *C. frigidus* and *C. salicifolius* (*C. x watereri* Exell) are sometimes found naturalised. There are intermediate and variable, showing features from both parents.
- 11 Upper surface of leaf dull; nutlets 2 (Series *Pannosi*)
C. lacteus W. W. Sm. [Height 2-4 m about the same width; branches broadly arched, drooping; leaves 3.5-6 cm, elliptic, with thick yellowish down beneath, finally becoming greyish then glabrous in 2nd year; many flowered corymbs, 4-6 cm wide; petals milky-white; fruits 6 mm, ovate, red]
- 9 Leaves shorter than 2 cm (Subsect. *Microphylli*) 12
- 12 Fruits 7-9 mm, globose, shining scarlet; height 1 m; shoots grey strigose; foliage not spirally arranged; leaves 5-9 mm, mostly oblanceolate, rarely oblong; petioles 1-1.5 mm; calyx sparsely pilose, soon glabrous; fruits with 2 nutlets; out-breeding, extremely variable *C. conspicuus* C. Marquand
- 12 Fruits 6-10 mm, globose, carmine; height to 1 m; shoots yellowish-green, strigose; foliage spirally arranged; leaves 4-15 mm, mostly obovate- elliptic; petioles 1-4 mm; calyx strigose-pilose, soon glabrous; fruits with 2 nutlets; out-breeding *C. integrifolius* (Roxb.) G. Klotz
- 12 Fruits 5-7 mm, globose, carmine; leaves 5-8 mm, obovate, white-grey strigose-pilose below; petioles 1-2 mm; otherwise similar to previous species (it does not seem to naturalise so readily as *C. integrifolius*)
C. microphyllus Wall. ex Lindl.

Reference Fryer, J. (1990). *BSBI News* **54**: 9-13.
Fryer, J. & Hylmo, B. (2009). *Cotoneasters: Comprehensive Guide to Shrubs for Flowers, Fruit, and Foliage*. Timber Press.

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