

Erythrina crista-galli

RODERICK CAMERON, Staff author, Trees and Shrubs Online, Uruguay



RODERICK CAMERON

Erythrina crista-galli flowers profusely in spring. Montevideo, Uruguay

Introduction

When the Yearbook Editor invited me to write a *Tree of the Year* article, *Erythrina crista-galli* sprang immediately to mind. It is a plant I have known for as long as I can remember, ever since learning about the national flower at primary school in Argentina in a rural school whose yard was graced by a *ceibo*, as it is known there. It has continued to accompany me on my life's journey: when I moved to Uruguay, I found it once again elevated to national symbol. The species is exceptional in many respects: its phylogeny, ecological role, horticultural history and potential, and its medicinal properties, which are likely still underexplored. It also occupies a central place in popular culture and the arts. And, in an era of accelerating climate change, *E. crista-galli* is a tree that seems poised to become even more widely known and cultivated across the world.

Erythrina crista-galli, commonly known as the cockscomb coral tree, belongs to the pea or legume family – traditionally called Leguminosae, but more recently designated Fabaceae to conform with the rule that family names must be based on a genus within the group (in this case, *Faba*); both names are accepted. The genus *Erythrina* is placed in the tribe Phaseoleae within the subfamily Papilionoideae, the most species-rich tribe of the family and one that includes several taxa of major importance as food crops. Krukoff and Barneby (1974) divided *Erythrina* into five subgenera, each further subdivided into sections. Of these, subgenus *Micropteryx*, comprising six South American species, is regarded as the basal lineage of the genus, branching off from the evolutionary tree earlier than the remaining subgenera. *Erythrina crista-galli* belongs to this subgenus and, together with *E. falcata*, another species native to southern South America, constitutes section *Cristae-galli*. Within Phaseoleae, *Erythrina* is unusual in being more highly derived (i.e. further evolved from its ancestral state) than most other genera in the tribe; conversely, *E. crista-galli* is distinctive within *Erythrina* for being comparatively less derived, with most other species in the genus representing more evolutionarily advanced lineages. It is further set apart by having the southernmost natural distribution of any species in the genus, reflecting adaptation to temperate rather than strictly tropical conditions. The species is also intermediate in its pollination biology: it is visited by both bees and hummingbirds, marking a transition between the predominantly insect-pollinated members of Phaseoleae and the largely bird-pollinated species of *Erythrina*.

Description

Erythrina crista-galli L., Mant. Pl. 99 (1767)

Synonyms: *Coralodendron crista-galli* (L.) Kuntze, *Micropteryx crista-galli* (L.) Walp., *Erythrina fasciculata* Benth., *Erythrina graefferi* Tineo, *Erythrina laurifolia* Jacq., *Erythrina pulcherrima* Tod., *Erythrina speciosa* Tod., *Micropteryx fasciculata* (Benth.) Walp., *Micropteryx laurifolia* (Jacq.) Walp.

Medium to large tree, often becoming stout with age, usually 5–10 m tall but reaching 15–20 m in humid conditions; trunk up to 80 cm diameter or more, sometimes shrubby. Wood white and soft. Bark corky, deeply furrowed, grey to brown, persistent. Branches arching, smooth, with slender tips that often dry out. Young twigs slender and frequently spiny, bearing scattered, curved prickles. Leaves deciduous, thin and papery, smooth, composed of three leaflets. Stipules narrow, deciduous, 5–10 mm long. Leaf stalks 3.5–13 cm long, often with one or two recurved prickles and a swollen base; the short central axis bears small glands that soon fall. Leaflets oval to lance-shaped, with smooth margins, pointed or blunt tips, and rounded to slightly pointed bases. They are paler beneath than above and faintly waxy below. The terminal leaflet measures 6–10 × 2.5–5 cm, with the side leaflets slightly smaller. The lower



PHOTOS RODERICK CAMERON

Above left and centre: the flower consists of five petals – the large standard or banner, two fused keel petals, which enclose the ten stamens (one free) and the style, and two small wing petals mostly concealed within the calyx; right: the fruit usually contains 1–6 seeds, but on occasion up to double that number or more.

Opposite, below: flowers can be variable in colour, sometimes appearing pink (left), or white before opening (right), or almost orange, as in the specimen at the Babylonstoren wine estate in South Africa (centre).

surface midrib may occasionally have tiny spines, and there are usually 9–12 pairs of side veins. Inflorescences are leafy or sometimes leafless, 20–60 cm long and bearing 12–80 flowers. Flowers occur singly or in small clusters. Flower stalks slender, 2–4 cm long, sometimes hairy when young but usually smooth at flowering, with a small disc at the tip. Flowers large (3–6 cm long), fleshy, smooth, and inverted in orientation. The calyx is short and bell-shaped, with two small teeth, hairy in bud but mostly smooth when open. Petals are strongly veined and commonly bright red, though shades of pink or purple occur, sometimes with contrasting inner and outer surfaces. The standard petal is large and strongly bent backward; the wing petals are very small and mostly hidden; the keel petals are fused to form a boat-shaped structure enclosing the stamens. The ovary is densely hairy and contains several ovules; the style is smooth. The fruit is a long pod, straight or curved, 10–20 cm long, usually containing 1–6 seeds, sometimes up to 13. Seeds are kidney-shaped, dark brown to black with lighter markings, and bear a pale scar along one side. (Description modified from Izaguirre & Beyhaut 1997.)

Distribution and habitat

Erythrina crista-galli is native to Uruguay, south-western Brazil, central and northern Argentina, southern Paraguay, and south-eastern Bolivia. Its centre of distribution lies within the Paraná–Uruguay river system of south-western Brazil, Uruguay, and eastern Argentina. The species typically grows along rivers and streams, in wetlands and marshy grasslands, where it may form pure stands and, in long-established wetlands, reach large dimensions (Izaguirre & Beyhaut 1997). In the Paraná River delta it contributes to island

consolidation, forming monospecific stands known as *ceibales* in flood-prone interiors (Burkart 1987). In Brazil it occurs mainly in secondary grass–shrub formations (*capoeiras*), and is rarely found in dry sites or within primary forest (Ramalho Carvalho 2006). In Bolivia it inhabits humid montane forests (Killeen, García E. & Beck 1993).

Outside its native range, *E. crista-galli* has become naturalised in coastal Queensland and New South Wales, Australia, where it is listed as a noxious weed (Weeds Australia 2024), and in New Zealand, where it was declared naturalised in 1994 (New Zealand Plant Conservation Network 2025). In the United States, occasional spontaneous plants have been recorded, but their limited spread suggests the species is better regarded as persistent in cultivation or as a casual waif rather than fully naturalised (Nesom 2015).

An ancestrally tropical species that has expanded into subtropical and temperate regions, *E. crista-galli* is sensitive to frost. It copes with cold by shedding not only its leaves but also the current year's twigs, which die back in winter and resprout from older wood in spring. A pioneer species, it plays an important role in recolonising disturbed habitats. Its ability to fix nitrogen confers a competitive advantage on poor soils and initiates ecological succession by improving site conditions for other plants (González & Cadenazzi 2015).

Most *Erythrina* species are pollinated primarily by birds, including hummingbirds (Trochilidae) and passerines, a trait that distinguishes the genus from other members of the Phaseoleae. However, Galetto et al. (2000) showed that *E. crista-galli* is pollinated chiefly by bees, with hummingbirds playing a secondary role. Native bumblebees (*Bombus morio*), carpenter bees

RODERICK CAMERON



GUILLAUME MANDY



RODERICK CAMERON





RODERICK CAMERON

An *Erythrina crista-galli* in habitat, surrounded by *Eryngium pandanifolium*, and in the background a *ceibal* (pure stand of *ceibos*). Maldonado, Uruguay

(*Xylocopa nigrocincla* and others), and the introduced honey bee (*Apis mellifera*) are the most frequent visitors. Floral morphology is key: the horizontally oriented standard petal allows access to nectar by insects and hummingbirds, in contrast to the erect standards of other *Erythrina* species adapted mainly to passerine pollination. Carpenter bees have even been observed prying open partially closed flowers by forcing their way between the standard and the keel.

Nomenclature

Coral trees (genus *Erythrina*) were first encountered and named by Europeans in the late 16th or early 17th century. The term 'coral tree' first appeared in print in Latin, when Clusius (1601) described what would later be known as *Erythrina corallodendron* as *Coral arbor*, a name coined by Simon de Tovar. Tournefort (1700) established the genus *Corallodendron*, including the original *Coral arbor* and four additional species, deriving the name from the Greek *korállion* (coral) and *déndron* (tree), 'a tree emulating coral because of the colour of the flower'. *Corallodendron* would be the accepted genus name, had not Linnaeus stuck his nose in.

Linnaeus initially adopted *Corallodendron* in the first edition of *Systema Naturae* (1735), but in *Critica Botanica* (1737) relegated it to a list of genera he found objectionable ('*non placent*', because they were derived from other

generic names). The criticism is unconvincing in this case, as *Corallodendron* was a long-established descriptive name rather than a variation on another genus. Nonetheless, Linnaeus replaced it with *Erythrina*, from Greek *erythrós* (red), referring to the predominantly red flowers. Otto Kuntze later proposed reinstating *Corallodendron*, arguing that Linnaeus had arbitrarily replaced a well-known name and violated the principle of priority (Kuntze 1891). Although Kuntze's sweeping nomenclatural revisions are often dismissed as 'the deed of a crank' (Weatherby 1949), they helped clarify the need for a fixed starting point for priority. In this instance, his criticism was sound, but *Erythrina* remains the accepted name.

Erythrina crista-galli was described by Linnaeus in *Mantissa Plantarum* (1767). The epithet *crista-galli* ('cock's comb') derives from Latin *crista* ('crest') and *gallus* ('cock'), and was taken from James Petiver's 1695 account of a 'Crista di Gallo' coral tree cultivated in Lisbon, based on material sent by Jezreel Jones (Petiver 1695). Linnaeus credited Vandelli with a polynomial description and cited Brazil as the origin.

Domenico Vandelli, an Italian naturalist working in Portugal, corresponded extensively with Linnaeus and in 1765 sent him specimens and detailed descriptions, including for *E. crista-galli*. Linnaeus reproduced Vandelli's polynomial and description almost verbatim, suggesting Vandelli could reasonably be regarded as the author, though Linnaeus chose the epithet. The name almost certainly refers to the resemblance of the red flowers to a cock's comb; later suggestions that it alludes to the fan-like arrangement of the exerted anthers (e.g. Bean 2008) seem too subtle for a vernacular-derived epithet. Linnaeus did not designate a type specimen beyond citing Vandelli. Claims that the material was collected by Vandelli in Brazil (Guedes-Oliveira et al. 2023) are incorrect, as Vandelli never set foot in Brazil; the specimen was almost certainly cultivated in Portugal. Krukoff and Barneby (1974) located a specimen in the Linnaean herbarium consisting of a drawing and a single flower annotated 'Vandelli', which was later designated as the lectotype by Howard (1988).

Synonymy

Erythrina crista-galli has two homotypic synonyms (based on the same type). One arose from taxonomic opinion: Walpers transferred *E. crista-galli* and five other species to a new genus, *Micropteryx*, 'small wing' in ancient Greek, referring to reduced wing petals (Duchassaing & Walpers 1851). Though *Micropteryx* was accepted as a genus by subsequent authors, Krukoff and Barneby (1974) retained Walpers's name at subgeneric rank for the group that includes *E. crista-galli*. The second synonym resulted from Otto Kuntze's nomenclatural rebellion, when he published *Corallodendron crista-galli* in 1891.

Heterotypic synonyms (based on different types but regarded as the same taxon) include *E. fasciculata*, described by Bentham in 1849. Other synonyms

are based on cultivated plants, and several varieties were described under *E. crista-galli*. None are currently accepted by Plants of the World Online (POWO 2025), presumably following Guedes-Oliveira et al. (2023), but two merit closer examination.

Lozano and Zapater (2010) described var. *longiflora*, distinguished by larger flowers with a long, curved keel, mostly elliptic leaves, and petioles usually lacking prickles. The flowers typically have long pedicels, giving inflorescences a lax, pendulous appearance. The variety has a distinct regional distribution in north-western Argentina. Guedes-Oliveira et al. (2023) treated var. *longiflora* as a synonym, arguing that its traits fall within variation, but this overlooks the variety's coherent distribution supporting varietal rank. The taxon is accepted by Flora del Cono Sur (2025), and following the assessment of local botanists familiar with these populations seems appropriate.

A white-flowered form was described by Atilio Lombardo in 1961 as *E. crista-galli* var. *leucochlora*, based on a cultivated plant propagated from a spontaneous tree in north-eastern Uruguay near Brazil. The name was published in a 1961 book on shrubs of Montevideo, with a Spanish description and a brief Latin diagnosis, as required at the time. Lombardo noted the white petals with a greenish base and the glaucous leaves and cited a type specimen at the Montevideo Botanic Garden herbarium. The variety was reported from the wild near the Cebollatí River at 'La Charqueada' in Treinta y Tres Department. Lombardo retained the variety in his 1964 *Flora arbórea y arborescente del Uruguay*. Krukoff and Barneby (1972) cited this treatment and suggested the form was comparable to albino mutants in other *Erythrina* species, mentioning other white-flowered specimens of *E. crista-galli* from Brazil and Argentina. The Brazilian specimen, however, bears a label noting red buds, indicating an error, and the Argentine record could not be confirmed. Izaguirre and Beyhaut (1997) later reported additional distinguishing characters, including larger calyx teeth and differently shaped wing petals.

Subsequent evidence suggests that var. *leucochlora* does not represent a naturally occurring regional population. All cultivated plants appear to derive from a single wild tree found near 'La Charqueada', spared during forest clearing. No other white-flowered individuals have been documented in the wild, though many clones have been propagated and planted in Uruguay and elsewhere. It is rumoured that seed collected from white-flowered trees may in turn produce white-flowered forms, but most seedlings will revert to standard colours. White-flowering plants are best obtained from cuttings.

Guedes-Oliveira et al. (2023) incorrectly treated Lombardo's 1964 publication as the protologue and designated an unnecessary lectotype based on a (black and white!) illustration of the typical form. Given its origin from a single wild individual and its persistence mainly in cultivation, the white-flowered form is best treated as a cultivated variety (see Cultivars below).

Common names

Many common names exist for this species, particularly in the languages of its native range. In Brazilian Portuguese, the most widely used name is *corticeira* ('cork tree'), from *cortiça* ('corky bark'), derived from Latin *cortex*, as in English 'cork'. In Brazil, the wood and bark of *E. crista-galli* are used to make cork floats for buoys, fishing nets, and life jackets. The name most often appears in the compound *corticeira-do-banhado* ('cork tree of the wetlands'). Another common Portuguese name is *crista-de-gallo* ('cock's comb'), likely the name in use when the species first entered cultivation in Brazil and Portugal. This name was reported by Jezeel Jones to Petiver (1695), who appears to have Italianised it. Indigenous names are also used in Brazil, notably *sananduva*, from Tupi.

In Spanish, the most common name is *ceibo*, derived from the Taíno *ceiba*, meaning 'boat', originally applied to species of *Ceiba*, used by Taínos to construct canoes (from Taíno *kanowa*). Spanish colonisers encountered these large, bottle-trunked trees in northern South America and later transferred the name to *E. crista-galli* in the south. In Argentina, additional indigenous names occur, especially *zuinandí*, from the Guaraní *suiñandy* or *cyiñandy*.

In English, the most common name is cockscomb coral tree, a direct translation of the scientific epithet and original generic name. Cockspur coral tree or cockspur tree is also widely used, though it is unclear what cockspur could refer to. While some sources suggest the name refers to the shape of the flower buds, it is more likely due to confusion between *crista-galli* ('cock's comb') and *crus-galli* ('cock's spur'). Less common English names include cry baby tree, referring to the copious nectar exuded by the flowers, and fireman's cap tree. Common names in other European languages are generally straightforward translations of cockscomb tree or cockscomb coral tree.

Hybrids

Erythrina species hybridise readily, producing vigorous plants with intermediate morphology (Neill 1988). For *E. crista-galli*, only one named hybrid is known, *E. × bidwillii*. Its origin is colorfully recounted by Plant Delights Nursery, which describes an early-1840s cross at Camden Park, Australia, between *E. herbacea* and *E. crista-galli* as the result of 'unsafe sex... back when international treaties still allowed such debauchery. What they were doing there together is still an untold story, but what resulted is one helluva offspring' (Plant Delights Nursery 2025). The hybrid was raised under the supervision of William Macarthur, who initially named it *Erythrina* 'Camdeni' and later 'Camdenensis'.

The plant was later sent by John Carne Bidwill, Government Botanist of New South Wales, to William Herbert in England, who forwarded a description and illustration to John Lindley. Lindley published it as *Erythrina bidwillii* in *Edwards' Botanical Register* (1847), and the name became established, although

Bidwill was probably not involved in the hybrid's creation. Bidwill reportedly preferred the name *E. macarthuri* (Mills 2009a). This publication represents the first illustrated description of an ornamental garden plant raised in Australia (Clough 1992).

Erythrina × bidwillii is a shrub or small tree up to 5 m tall, though usually about 2.5 m. It flowers continuously on new growth from spring through winter, with a summer peak (San Marcos Growers 2025a). The dark red flowers, about 5 cm long, are borne in arching terminal racemes up to 60 cm long on stems reaching 2 m. The floral form resembles *E. herbacea*, with a tubular, downward-facing banner petal adapted for hummingbird pollination; the plant is notably attractive to these birds (Reeve 2020).

Two cultivars are recognised. 'Camdeni' tends to form a taller, tree-like plant. A second seedling from the same cross was named 'Blakei' after Edmund Blake, a gardener at Camden Park. 'Blakei' is lower growing and more herbaceous, and is reported to flower more profusely, while 'Camdeni' produces fewer flowers over multiple flushes (Read 2012; Mills 2009a).

Cultivars

Few selections of *E. crista-galli* are currently offered by nurseries or in cultivation. One is 'Compacta', apparently a dwarf form, by one account still 80 cm tall after 10 years (Plantetuin Esveld 2025), though by others up to 1.5 or 2 m tall (RHS 2025). In all other aspects it appears to be like the species. It was first described in 1871 under the name *Erythrina Compacta* as 'the best and most useful in every respect of all the Erythrinæ', distinguished by its compact bushy growth and its tendency to bloom freely while still small. It was said to have originated in the United States and introduced to the UK by Mr. R. Buist of Philadelphia (Bull 1871).

Old names can be found in the literature, among them *E. 'Marie Belanger'*, 'Madame Belanger', 'ruberrima', and 'Hendersoni' (Robinson 1889). 'Hendersoni' is listed (as *E. crista-galli 'Hendersonii'*) in *Horticultural Flora of South-eastern Australia*, with a note that the flowers are 'two-toned in red and salmon pink' (Hortflora 2025). Plants by that name are at Royal Botanic Garden Sydney, and photos on the Garden's website shows pink buds and open blooms with red banner and keel petals (Botanic Gardens of Sydney 2025).

It is surprising that modern cultivars have not been selected for the attractive variation in flower colour, which in my experience is considerable. Most plants in *ex-situ* cultivation are uniformly dark or bright red, whereas wild populations, particularly in eastern Uruguay and southern Brazil, show a wide range of appealing forms, including paler reds, pinks, salmon, or orangish-red tones, and bicoloured flowers. In the latter, the standard is often paler externally (visible in bud) than internally (revealed at anthesis), and keel petals may also differ in shade. Aside from 'Hendersonii', mentioned above, no cultivars appear to have been selected on this basis.



E. crista-galli 'Leucochlora', the white-flowered selection, in Montevideo, next to the statue of Luis Alberto de Herrera, leader of the Partido Blanco (White Party).

The most obvious candidate for horticultural promotion is the white-flowered form. Although it has been described as *E. crista-galli* var. *leucochlora*, it is clear that it should be treated as a horticultural selection, as all cultivated plants appear to descend from a single wild individual. White-flowered plants could in theory be treated as a Cultivar Group encompassing all such forms, whether raised from cuttings or seed. However, as there is no clear evidence that white-flowered plants can be raised from seed, and cultivated material appears uniform, it is more appropriate to treat this as a single cultivar. The name 'Leucochlora', respecting Lombardo's 1961 epithet, is therefore adopted here. To my knowledge, this has not previously been done, either in print or electronically, and it is established here:

Erythrina crista-galli L. 'Leucochlora'

Distinguished by flowers with white petals, greenish-white toward the base; calyx pale green, with teeth 6–8 mm long; wing petals acute at the apex. Leaves glaucous. The original (wild) source plant grew along the Cebollatí River at a locality known as Furado 'El Lavadero', approximately 3 km west of Gral. Enrique Martínez, Treinta y Tres Department, Uruguay. The taxon was named by Atilio Lombardo in 1961 as *Erythrina crista-galli* var. *leucochlora*. Etymology: from Ancient Greek *leukós* (white) + *khlōrós* (pale green). Standard

specimen: collected from a cultivated plant in a garden in Sayago, Montevideo, on 4 December 1961; Museo y Jardín Botánico, Montevideo (MVJB), No. 9952.

Cultivation

The *Hillier Manual of Trees & Shrubs* (Edwards & Marshall 2019) reveals its Anglocentric blinkers when it reports the date of introduction of *E. crista-galli* into Western gardens as 1771. It was certainly cultivated before that in Lisbon, at least by 1695, when Petiver described the specimen he had been sent from there by Jezreel Jones, and probably in other gardens on the European continent before it was introduced to Britain by Francis Bearslly in 1771 (Edwards 1818). It was introduced to California in 1853 (Butterfield 1964) and to Australia before 1843 (Mills 2009b).

Cockscomb coral tree is popular in cultivation worldwide where conditions allow – and sometimes even where they do not. It received an Award of Garden Merit in 2012 from the Royal Horticultural Society, which rates its hardiness as H3 (half hardy – unheated greenhouse/mild winter), considered equivalent to USDA Zone 9b/10a. Beyond the obvious appeal of its flowers in spring and early summer (and, in warmer climates, through summer and autumn), its dense trifoliate foliage adds ornamental value and welcome shade in regions with hot summers. In winter, however, its appearance is decidedly ungainly, with dry twigs protruding like the spines of a dishevelled porcupine. This wintry aspect has earned the tree at Royal Botanic Gardens Victoria in Melbourne the nickname ‘Whomping Willow’, according to Jenny Happell (pers. comm.), after the notorious tree in *Harry Potter* (Rowling 1998). The eyesore can be mitigated by removing dead wood in early winter,

effectively pollarding the tree. This practice produces prominent knobbly ‘knuckles’ at the ends of branches, from which vigorous new growth emerges in spring.

In its native range, horticulturists recommend it for wetlands, streams, and for the ornamental value of its flowers in parks and plazas. Janet Winter (pers. comm.) described a *ceibo* thriving on her property in Soriano, Uruguay, planted years ago on a small island in a pond, an ideal location. The soil is poor, known locally as *blanqueal* – shallow, saline, and unamended – and the site is exposed to eastern winds and cold, yet the plant rallies well after frosts.



E. crista-galli in an ideal location by a pond in Janet Winter's garden, Soriano, Uruguay.



Pollarded *Erythrina crista-galli* at the Royal Botanic Gardens Victoria, Melbourne, Australia.

Because young trees often have their new growth cut back by cold each year, protection is recommended even in relatively mild climates, allowing them to gain height incrementally (Beare and Cash 2025). In California it is regarded as one of the hardiest coral trees; once established, it tolerates temperatures down to -7°C with little dieback and is root-hardy to -9°C (San Marcos Growers 2025b). In Los Angeles, it sometimes flowers in winter months, especially in a warm spell following rain (W. Shapiro, pers. comm.).

In colder climates, such as the UK, it is best grown against a sunny wall where the roots benefit from reflected heat. Without this warmth, plants may die back in winter to a swollen, bulbous base, resprouting vigorously but often late, sometimes not until May or early June. A heavy mulch is recommended, whether under glass or outdoors, to protect the roots and stem base (Burncoose Nurseries 2025). The species is also widely used as a street tree and in smaller gardens in Uruguay, Argentina, and southern Brazil, where it proves adaptable to urban conditions and a range of soils. It is commonly planted in Mediterranean climates, with notable specimens in parks across southern Europe, in the United States in Florida and along the Gulf Coast to south Texas (Nesom 2015), and on the West Coast.

Jeff Layman described his experience growing *E. crista-galli* in the UK, highlighting the difficulties of cultivating it in cooler climates. He has grown the species for about 25 years in West Sussex and Hampshire, mostly in pots, with one attempt to plant it in the ground. A potted plant survived in a frost-free greenhouse but never flowered. When planted against a 50-cm south-facing wall, it produced several 3-m stems but still failed to flower and was eventually removed. It was then grown in a 45-cm pot against an 80-cm west-facing wall, where it grew well but again failed to flower and was



Annually replanted centenarian trees at Hermannshof Weinheim, Germany.

cut back each winter. Suspecting frost sensitivity, Jeff overwintered the plant dry in a frost-free garage. When returned outdoors in spring and watered, it flowered for the first time, producing buds in July and flowers in early August. The same treatment resulted in flowering again in 2024, though not in 2025, despite identical conditions (J. Layman pers. comm.).

In northern Europe it can be grown well as a container plant but requires seasonal care and the container needs to be overwintered indoors. The botanical garden at Hermannshof in Weinheim, near Heidelberg in Germany, goes even further. Every year they plant out several *E. crista-galli*, which are over 100 years old. At the end of the season, they dig them back up and take them back to the greenhouse (V. Bouffier pers. comm.). This trick works so well that some visitors are convinced that the plants are in a permanent location there, and are able to survive due to the favourable regional climate! (Cruysmanns 2022). According to Abraham Rammeloo (pers. comm.), it is well known as an orangery plant in much of Europe and in warmer regions can grow outside. He has been growing one outside his house in Kalmthout, Belgium, unprotected yet surviving and flowering every year. If well positioned, he concludes, it is possible to grow *E. crista-galli* even in the climate of Belgium.

Cockscomb coral tree is easily propagated by seeds and from softwood cuttings taken in spring and early summer, semi-ripe wood taken in late summer or early autumn, or hardwood cuttings taken during the dormant season towards the end of winter.

Notable specimens

In its native range, notable cultivated specimens are distinguished by size, history, or prominence. In Buenos Aires, a well-known tree grows in the Rosedal of the Bosques de Palermo, while an even larger but little-known

specimen stands on nearby Avenida Tagle and is regarded by local botanists as one of the city's most robust (M. Sánchez pers. comm.). Large trees also occur in the Reserva Costanera Sur, an urban nature reserve that developed spontaneously on 1970s landfill along the Río de la Plata. Beyond the species' natural range, fine specimens grow further south in La Plata (Plaza San Martín) and in Mar del Plata, where an old tree stands beside the cathedral.

Elsewhere in the Southern Hemisphere, an outstanding tree grows at the Babylonstoren wine estate in South Africa, described as exceptional by Guillaume Mamdy (pers. comm.), with striking bicoloured flowers: salmon-pink externally and red within (see photo, p.21). In Australia, a prominent pollarded specimen at the Royal Botanic Gardens Victoria, Melbourne, dominates the forecourt of the herbarium (see photo, p.29). Planted by William Guilfoyle, probably before 1883, it is about 130 years old, 7 m tall, with an 80 cm dbh and a 10 m canopy spread (P. Berbee pers. comm.). Another celebrated tree grows beside Sydney Harbour Bridge, offering dramatic views with the Opera House in the background (HortFlora 2025). In New Zealand, a massive specimen at Unitec Institute of Technology in Auckland measured 16.7 m tall, with a 19 m crown spread and a 120 cm trunk diameter in 2011 (The New Zealand Tree Register 2011).

In Europe, some of the finest specimens are in Portugal. The most famous grows in the University of Coimbra Botanic Garden and was planted by Félix de Avelar Brotero around 1800 (Universidade de Coimbra 2025). Another prominent tree grows in central Braga (M. Stannard pers. comm.). Southern Europe's climate suits the species well, and notable specimens occur in Spain,



Buds are just as ornamental as the open flowers, often displaying a different colour or shade of red. Braga, Portugal



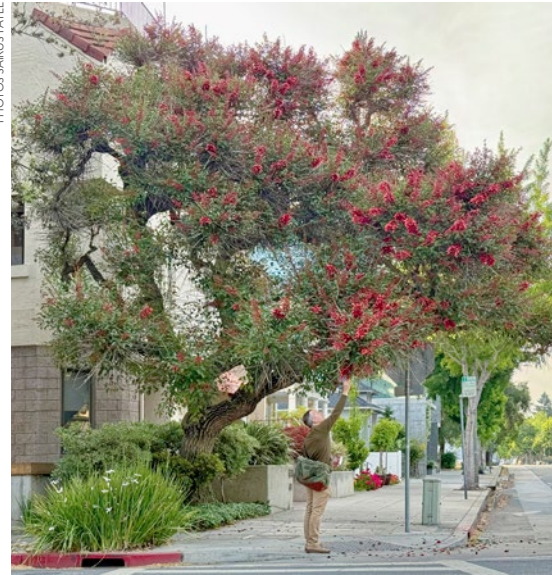
Opposite, left: as a street tree in Palo Alto, California.

Opposite, right: a pollarded tree just starting to resprout in April, Gamble Garden, Palo Alto.



Above left: the species grows well in the south of France: a fine specimen flourishes in Nice.

Left: at Domaine des Mourgues *E. × bidwillii* (*E. crista-galli* × *herbacea*) grows in the garden, and a tree has done well in a protected site (below).



including Seville (Hotel Alfonso XIII) and Barcelona (Monumental trees 2005; Barcelona.cat 2025). Morgan Santini (pers. comm.) shared images of a large specimen in Nice, which was the largest he had ever seen. The City of Nice has included the species in a list of recommended trees adapted to the future climatic conditions of the city (Ville de Nice 2025). Philippe de Spoelberch (pers. comm.) grows *E. crista-galli* in the south of France (Domaine des Mourgues), where he has enjoyed its flowering for over 15 years. Though hit by frost on late growth, it comes back and continues to grow well. Set against rocks and a wall, it is further protected by a building next to it.

Italy hosts several historically significant trees. The best known grows in the Vatican Gardens, modest in size but notable as a rare survivor of Leo XIII's late-19th-century exotic garden, standing near the Mater Ecclesiae monastery (Valiante 2008). Other distinguished specimens grow at Villa Argentina in Viareggio, planted by an Argentine owner as a reminder of home, and at Villa Ormond in San Remo, probably dating from around 1890. A particularly evocative tree grows at La Mortella on Ischia, raised from seed brought from Argentina by Lady Walton (born Susana Valeria Rosa María Gil Passo in Buenos Aires), who planted it among the first trees in the garden and regarded it as a favourite (Walton 2002).

In the United States, the best specimens appear to be in northern California. Sairus Patel (pers. comm.) shared details of a large pollarded tree at Gamble Garden in Palo Alto, planted around 1948; pollarding began after frost damage in 1990 and has since become routine (Trees of Gamble Garden 2025). Fine

unpollarded trees also line Palo Alto streets, and a smaller specimen grows at Stanford's Arizona Garden, with long, slender flower buds and petioles with no prickles, suggesting it may be var. *longiflora* from northern Argentina. Near Sacramento, an old tree in the grounds of the California State Capitol Museum is reported to be the largest in the state, measured in 1997 at 10.4 m tall, 110 cm dbh, and with a 30 m crown spread (California Big Trees 2025).

Pests and diseases

Erythrina crista-galli is generally considered a resilient ornamental tree with few consistently serious pest or disease problems, although a range of organisms have been recorded as occasional pathogens. Seed and fruit predation by weevils is an issue, as it can substantially reduce natural regeneration (Ramalho Carvalho 2006). In landscape settings, insect pests are usually of secondary importance but may include twig and stem borers, thrips, and nematodes (Missouri Botanical Garden 2025). Diseases affecting *E. crista-galli* are typically minor but can be significant in propagation. The species remains relatively low-risk in cultivation, with most problems occurring under specific environmental or management conditions.

Medicinal properties and uses

The species has numerous medicinal properties and the bark and leaves have been used in traditional medicine in its native region: the crushed bark is applied to wounds as a healing agent, to heal sores and skin ulcerations; the leaves and flowers have narcotic and calming properties (Haene & Gómez 2025). The seeds have been found to contain curare-like alkaloids, a characteristic of the genus *Erythrina* (Burkart 1987). The wood of *E. crista-galli* is light and poorly lignified and has no industrial use. However, it is suitable for making buoys, fishing-net floats, life jackets, etc., in the manufacture of orthopaedic devices and also as stable floors and pegs, as its softness and smoothness prevent damage to the hooves of young foals (Ramalho Carvalho 2006; Benito 2012). In northern Argentina, the wood is used to make drums used in folk music, known as *bombos legüeros*, so called because they can be heard at a distance of a league (*legua*, i.e. 4.8 km). Though they are also made from other types of wood, the sound is not comparable to the sound of a *bombo* made of *ceibo*.

The flowers yield a natural red dye, while a decoction of the bark produces a light brown dye (Haene & Gómez 2025). The flowers are edible and seem to be particularly popular in Bolivia, where they are prepared in several ways, as part of a long gastronomic tradition. They have high protein content, so can be used as a meat substitute. A traditional spicy stew from the region of Arque in Bolivia, called *chiljichi*, takes its name from the common name for *E. crista-galli* (also applied to *E. falcata*), the principal ingredient (Gustro 2020). Other popular recipes include chutneys and vinaigrette.

Erythrina crista-galli in popular culture

The *ceibo*, particularly its flower, is culturally significant across its native range. It is the national flower of Uruguay and Argentina (claims that it also represents Peru, found in sources such as Nesom (2015), are incorrect; Peru's national flower is *Cantua buxifolia*). Although Uruguay's official national flower is *E. crista-galli*, an informal tradition holds that the white-flowered form (var. *leucochlora*) is the 'true' national emblem, distinguishing it from Argentina's symbol and making it uniquely Uruguayan. The *ceibo blanco* was adopted by Uruguay's Partido Nacional, whose colour is white, in contrast to its rival, the Partido Colorado (red). A notable specimen grows in Montevideo beside a statue of Luis Alberto de Herrera, the party's principal leader in the early 20th century (see photo, p.27). The *ceibo blanco* also features in the logo of Montevideo's Botanic Garden, named after Atilio Lombardo, who described it as var. *leucochlora*.

The *ceibo* is deeply embedded in regional folklore and literature. A Guaraní legend tells of Anahí, a young woman captured during the conquest of her people along the Paraná River. Condemned to a fiery death at the stake after attempting to escape, she was transformed by miracle into a *ceibo*, whose red flowers became a symbol of courage and endurance in the face of suffering (Portal oficial del Estado argentino 2025). In poetry and song, *ceibo* flowers symbolise passion, love, death, and blood – tropes traditionally associated with Río de la Plata culture – and often evoke longing for home among exiles. Uruguayan poet Esther de Cáceres (1907–1971) wrote:

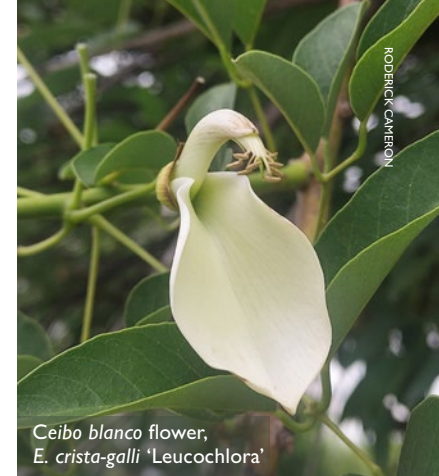
*Esta flor dice mi origen;
mi suelo, y el gran misterio
de mis huesos.*

This flower tells my origin;
my soil, and the great mystery
of my bones.

The tree is familiar to most children in Uruguay and Argentina, particularly in rural areas, where schools often have a *ceibo* in the yard. A popular pastime is making *patitos* ('little ducks') from the flowers, using the standard as the body, the keel petals as wings, the staminal sheath as the tail, and the calyx as the head (Bárbara @depunio 2025).

Conclusion

What does the future hold for this ecologically and horticulturally important species? A 2019 study by Luciano Moura de Mello and colleagues compared



Ceibo blanco flower,
E. crista-galli 'Leucochlora'

RODERICK CAMERON

past and present distributions of *Erythrina crista-galli* in South America and found a reduction in its potential range. However, they also suggested that the species could expand southwards if the natural dynamics of existing populations are maintained, recommending conservation efforts focused on allowing the expansion of native forest formations where it occurs (Moura de Mello et al. 2019). By contrast, another study by Moura de Mello and colleagues (2019) predicted that global warming may permit *E. crista-galli* to spread into newly suitable regions beyond South America, including southern Africa, Australia, New Zealand, and North America, where it already has a foothold in cultivation or is locally naturalised. This potential for invasiveness may pose risks to native species and could be a reason for concern.

Personally, I am more excited by the horticultural potential of the species, particularly the scope for selecting and promoting new cultivars. Beginning with 'Leucochlora', there is ample opportunity to select forms differing in flower colour and in the habit of the inflorescences, which I have observed to be highly variable both in cultivation and in the wild, ranging from stiff and nearly horizontal to markedly pendulous. From a horticultural perspective, the future of the cockscomb coral tree looks bright – or even rosy.

Acknowledgements

I would like to thank the following IDS members who contributed information for this article: Abraham Rammeloo, Janet Winter, Jenny Happell, Mike Stannard, Guillaume Mamdy, Jeff Layman, Sairus Patel, Carlotta Lowe, Philippe de Spoelberch, Volker André Bouffier, Morgan Santini, Stuart Read, William Shapiro; and the following for their generous assistance in my research: Stefan Lura, Peter Berbee, Antonio Lambe, Allen Coombes, Kanchi Gandhi, Mauricio Bonifacio, Andrés González, Santiago Schneider, Rafaël Govaerts, Charles Snijders, Walter Acarino, Giovanni Araújo, Sean Cameron, Alejandro Carlevaro, Benjamin Ciancio, Marcela Sánchez, John Grimshaw, and Laura López.

References

- Bárabara@depunio. (2025) En el Día Nacional del Ceibo le dejo una guía práctica para hacer patitos con la flor del ceibo. https://www.instagram.com/p/DRXzEh_kXy7
- Barcelona.cat. (2025) Árbol del coral. <https://www.barcelona.cat/es/que-hacer-en-bcn/parques-y-jardines/arboles-de-interes-local/eritrina-del-carrer-enamorats-99400455039> [Accessed 30 December 2025]
- Bean, A.R. (2008) A taxonomic revision of *Erythrina* L. (Fagaceae: Faboideae) in Australia. *Austrobaileya* 7, no. 4: 641–658.
- Beare, J., and L. Cash. (2012) *Nativas ornamentales del Uruguay*. Montevideo: Editorial Hemisferio Sur.
- Benito, G. (2012) El ceibo. *Economía & Viveros*, 2012.
- Bentham, G. (1849) *Plantae Regnellianae - Leguminosae*. *Linnaea* 22(6): 511–531.
- Botanic Gardens of Sydney. (2025) *Garden Explorer*. <https://rbgsydney.gardenexplorer.org/taxon-84762.aspx> [Accessed 30 December 2025]
- Bull, W. (1871) *Catalogue of New Beautiful and Rare Plants*. London.
- Burkart, A. (1987) Leguminosae. Vol. 6, in *Flora Ilustrada de Entre Ríos*, by A. Burkart, edited by N. Troncoso de Burkart and N.S. Bacigalupo, 442–763. INTA, Buenos Aires.
- Burncoose Nurseries. (2025) *Erythrina - Growing Guide*. 2025. <https://www.burncoose.co.uk/site/content.cfm?ref=Erythrina++Growing+Guide>.
- Butterfield, H.M. (1964) *Dates of introduction of trees and shrubs to California*. Landscape Horticulture, Davis.
- California Big Trees. (2025) *Urban Forest Ecosystems Institute at Cal Poly*. <https://californiabigtrees.calpoly.edu/bt-tree-detail/31> [Accessed 30 December 2025]
- Clough, R. (1992). Mr Bidwill's *Erythrina*. *Australia Garden History* 3(4): 10.
- Clusius, C. (1601) *Rariorum plantarum historia*, Appendix 1. Ex officina Plantiniana Apud Ioannem Moretum, Antwerp.
- Cruysmanns, M.-N. (2022) L'automne au jardin de Hermannshof. Nouvelles de jardins. <https://nouvellesdejardins.be/visites/allemande/lautomne-au-jardin-de-hermannshof/> [Accessed 30 December 2025]
- Duchassaing, M., and G. Walpers. (1851) *Plantae novae et minus cognitae in isthmo Panamensi et in Insulis Guadeloupe et Sti. Thomae collectae*. *Linnaea* 23(7): 737–756.
- Edwards, D., and R. Marshall. (2019) *The Hillier Manual of Trees & Shrubs*. Royal Horticultural Society, London.
- Edwards, S. (1818) *Erythrina crista-galli*, Tab. 313. Vol. 4, in *The Botanical Register*. James Ridgeway, London.
- Flora del Cono Sur. (2018) <http://conosur.floraargentina.edu.ar/> [Accessed 30 December 2025]
- Galetto, L., G. Bernadello, I.C. Isele, J. Vesprini, G. Speroni, and A. Berduc. (2000) Reproductive Biology of *Erythrina crista-galli* (Fabaceae). *Annals of the Missouri Botanical Garden* 87: 127–145.
- González, S., and M. Cadenazzi. (2015) Recolonización natural por bosque ribereño en margen izquierda del embalse de Salto Grande. Identificación de especies pioneras. *Agrociencia Uruguay* 19(1): 1–13.
- Guedes-Oliveira, R., A.P. Fortuna-Perez, L. Cardoso Pedemeyras, and V. de Freitas Mansano. (2023) *Erythrina* L. (Phaseoleae, Papilionoideae, Leguminosae) of Brazil: an updated nomenclatural treatment with notes on etymology and vernacular names. *PhytoKeys* 232: 1–43.
- Gustro. (2020) Chilijchi uchu cocinando con una flor (flores de ceibo). <https://ablet1936blog.wordpress.com/2020/05/27/chilijchi-uchu-cocinando-con-una-flor-flores-de-ceibo/> [Accessed 30 December 2025]
- Haene, E. and D.A. Gómez. (2025) Ceibo – *Erythrina crista-galli*. Fundación Pablo Cassará. <https://www.fundacioncassara.org.ar/projects-1/ceibo> [Accessed 30 December 2025]
- Hortflora. (2025) *Horticultural Flora of South-eastern Australia*. <https://hortflora.rbg.vic.gov.au> [Accessed 30 December 2025]
- Howard, R.A. (1988) *Flora of the Lesser Antilles - Leeward and Windward Islands*. Vol. 4. Dicotyledonae - Part 1. Arnold Arboretum, Harvard University, Jamaica Plain.
- Izaguirre, P., and R. Beyhaut. (1997) *Las Leguminosae en Uruguay y regiones vecinas - Parte 1 Papilionoideae*. Hemisferio Sur, Montevideo.
- Killeen, T.J., E. García E., and S.G. Beck. (1993) *Guía de Árboles de Bolivia*. La Paz: Herbario Nacional de Bolivia, Missouri Botanical Garden.
- Krukoff, B.A., and R. C. Barneby. (1972) Notes on the Species of *Erythrina*. VI. *Phytologia* 25(1): 1–31.
- Krukoff, B.A., and R.C. Barneby. (1974) Conspectus of species of the genus *Erythrina*. *Lloydia* 37(3): 333–459.
- Kuntze, C.E.O. (1891) *Revisio Generum Plantarum*. Vol. 1. Leipzig: Arthur Felix.
- Lindley, J. (1847) *Erythrina Bidwillii*. *Edward's Botanical Register* 33: t. 9.
- Linnaeus, C. (1735) *Systema Naturae, sive regna tria naturae systematice proposita per classes, ordines, genera, & species*. Angelum Sylvium, Leiden.
- Linnaeus, C. (1737) *Critica Botanica*. Wishoff, Leiden.
- Linnaeus, C. (1767) *Mantissa plantarum: Generum editionis VI. et specierum editionis II*. Impensis direct. Laurentii Salvii, Stockholm.
- Lombardo, A. (1961) *Los arbustos y los arbustillos de los paseos públicos*. Concejo Departamental de Montevideo, Departamento de Arquitectura y Urbanismo, Montevideo.
- Lombardo, A. (1964) *Flora arborea y arborescente del Uruguay*. 2nd. ed. Concejo Departamental de Montevideo, Dirección de Paseos Públicos, Montevideo.
- Lozano, E.C., and M.A. Zapater. (2010) El género *Erythrina* (Leguminosae) en Argentina. *Darwiniana* 48 (2): 179–200.
- Mills, C. (2009a) *Erythrina × bidwillii* 'Camdeni'. Hortus Camdenensis. <https://hortuscamden.com/plants/view/erythrina-x-bidwillii-lindl.-var.-camdeni> [Accessed 30 December 2025]
- Mills, C. (2009b) *Erythrina crista-galli* L. Hortus Camdenensis. <https://hortuscamden.com/plants/view/erythrina-crista-galli-l> [Accessed 30 December 2025]

- Missouri Botanical Garden. (2025) *Erythrina crista-galli*. <https://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=280318> [Accessed 30 Dec. 2025]
- Monumental trees. (2025) Cockspur Coral Tree on the grounds of Hotel Alfonso XIII, Calle San Fernando 2, Sevilla, Andalusia, Spain. <https://www.monumentaltrees.com/en/photos/186608/> [Accessed 30 December 2025]
- Moura de Mello, L., A. Alves Cantos, G. Eduardo Meneghello, and F. Amaral Villela. (2016) Superação de dormência e influência da temperatura, substrato e fotoperíodo na germinação de sementes de *Erythrina crista-galli* L. (FABACEAE). *Revista Thema* 13(3): 30–37.
- Moura de Mello, Luciano, R. Lemos, A. Marques, and V.M. Stefenon. (2019) Ancient and Current Distributions of *Erythrina crista-galli* L. (Fabaceae) in South America. *Floresta e Ambiente* 26(2): e11442017. <https://doi.org/10.1590/2179-8087.114417>
- Neill, D. A. (1988) Experimental studies on species relationships in *Erythrina* (Leguminosae: Papilionoideae). *Annals of the Missouri Botanical Garden* 75: 886–969.
- Nesom, G.L. (2015). Key to native and cultivated species of *Erythrina* (Fabaceae) in the USA and comments on naturalization. *Phytoneuron* 29 (2015): 1–8.
- New Zealand Plant Conservation Network. (2025) *Erythrina crista-galli*. <https://www.nzpcn.org.nz/flora/species/erythrina-crista-galli/> [Accessed 30 December 2025]
- Petiver, J. (1695) *Musei Petiveriani centuria prima(-decima) rariora naturæ continens*. S. Smith & B. Walford, London.
- Plant Delights Nursery. (2025) *Erythrina × bidwillii* – Bidwill’s Hybrid Coral Bean. <https://www.plantdelights.com/products/erythrina-bidwillii> [Accessed 30 Dec. 2025]
- Plantetuin Esveld. *Erythrina crista-galli* ‘Compacta’. <https://www.esveld.nl/htmlDia/e/erccom.htm> [Accessed 30 December 2025]
- Portal oficial del Estado argentino. (n.d.) *Decreto 13.847/42*. <https://www.argentina.gob.ar/sites/default/files/decreto-13847-42-ceibo-flor-nacional.pdf> [Accessed 30 December 2025]
- POWO. (2025) Plants of the World Online. Board of Trustees of the Royal Botanic Gardens Kew. <https://powo.science.kew.org/> [Accessed 30 December 2025]
- Ramalho Carvalho, P.E. (2006) *Espécies Arbóreas Brasileiras*. Vol. 2. Embrapa.
- Read, S. (2012) Bidwill of Wide Bay: A Botanist Cut Short. *Queensland Review* 19: 75–88.
- Reeve, S. (2020) *Erythrina × bidwillii* – One of my very favorite plants! *Life Goes Better with Plants*. <https://lifegoesbetterwithplants.blogspot.com/2020/05/erythrina-x-bidwillii-one-of-my-very.html>
- RHS. (2025) *Erythrina crista-galli*. <https://www.rhs.org.uk/plants/32582/erythrina-crista-galli/details> [Accessed 30 December 2025]
- Rowling, J.K. (1998) *Harry Potter and the Chamber of Secrets*. Bloomsbury, London.
- San Marcos Growers. (2025a) *Erythrina × bidwillii* – Shrub Coral Tree. https://www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=593 [Accessed 30 December 2025]
- San Marcos Growers. (2025b) *Erythrina crista-galli* – Cockspur Coral Tree. https://www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=589
- The New Zealand Tree Register. (2011). AR/0814. <https://www.treeregister.nz/tree/view/814>
- Tournefort, J.P. (1700) *Insittutiones rei herbariae*. Typographia Regia, Paris.
- Trees of Gamble Garden. (2025) Elizabeth F. Gamble Garden. <https://www.gamblegarden.org/trees-of-gamble-garden/> [Accessed 30 December 2025]
- Universidade de Coimbra. (2025) Quadrado Central. <https://www.uc.pt/jardimbotanico/colecoes/quadrado-central/> [Accessed 30 Dec. 2025]
- Valiante, F.M. (2008) Come sono verdi i giardini del Papa. *L’Osservatore Romano*, 22 October 2008.
- Walton, S. (2002) *La Mortella, An Italian Garden Paradise*. New Holland Publishers, London.
- Weatherby, C.A. (1949) Botanical Nomenclature since 1867. *American Journal of Botany* 36(1): 5–7.
- Weeds Australia. (2024) Cockspur Coral Tree....<https://weeds.org.au/profiles/cockspur-coral-tree/> [Accessed 30 December 2025]

Tree of the Year 2026

The chosen taxon for 2026 is *Betula lenta*, Betulaceae. Please send any information and photographs to Anthony Aiello at: aiello6915@gmail.com.