

*Cotinus coggygia* [简体中文](#) [正體中文](#)

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Sapindales	Anacardiaceae

**Common name** wig tree (English), smoke bush (English), smoke tree (English), European smoketree (English), young fustic (English), Hungarian fustic (English), Venetian-sumac (English), fustet (English), festete (Spanish)

**Synonym** *Rhus cotinus*

**Similar species** *Cotinus obovatus*

**Summary** Native to Asia and southeastern Europe, *Cotinus coggygia* is a shrub that occurs naturally in areas with rocky soil and poor soils.



[view this species on IUCN Red List](#)

## Species Description

*Cotinus coggygia* is a deciduous shrub with a rounded or irregular shape. It generally grows to 3.6-4.6 metres tall and 2.4-4.3 metres wide. In the summer, *C. coggygia* exhibits simple, alternate, bluish-green leaves of oval or obvate shape, ranging in size from 3.8cm-8.9cm. In the fall, *C. coggygia* foliage changes to an attractive mix of yellow, orange, and red. *C. coggygia* begins to flower in June, exhibiting small yellow-green flowers with panicles ranging from 15.2cm-20.3cm (UConn, undated). UConn (undated) notes that the trees' characteristic look is derived "from plumy hairs on the sterile flowers." *C. coggygia* stems are smooth and purple or brown in colour. The older bark is light grey (UConn, undated).

## Lifecycle Stages

The panicles of *Cotinus coggygia* change colour as they age between June and September. At their peak, the panicles cover the plant in a smokey pink plume, an aesthetically pleasing arrangement from which *C. coggygia* derives its common name of 'smoketree' (UConn, undated).

## Uses

*Cotinus coggygia* is valuable to humans in a variety of ways. An orange dye can be rendered from the roots and stems of *C. coggygia*, and its leaves and bark are a good source of tannins. As a medicinal plant, the yellow wood of *C. coggygia* can be steeped and used as a coagulant, fever reducer, or as a treatment for eye ailments (PFAF, 2004). Ivanova (2004) investigated medicinal uses of Bulgarian plants and found *C. coggygia* to have antioxidant capabilities greater than those of black, green, and rooibos teas. Famine Foods (1998) notes that in times of distress, the shoots and ripe fruits of *C. coggygia* is used as an emergency food source in China and the Garwhal Himalyas of India, respectively. As a landscaping plant, *C. coggygia* is touted for its ability to thrive in dry, difficult conditions, as well as its attractive, late summer flowering (UConn, undated). Because it has little need for pruning or maintenance, it is recommended extensively for urban uses such as parking lot island and median strips (Gilman and Watson, 1993). *C. coggygia* also transplants well, due to its fibrous root system (PFAF, 2004).



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FULL ACCOUNT FOR: *Cotinus coggygia*

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## Habitat Description

*Cotinus coggygia* tolerates a broad range of soil types, from light sandy soils to heavy clays. (Floridata, 2007). *C. coggygia* also tolerates a wide range of soil ph, from 3.7-6.3. *C. coggygia* can grow in partial shade to full sun, and it tolerates wet, moist or dry soils. (VCE,1989). When occurring naturally, *C. coggygia* frequently grows on gravely, dry soils, particularly on south-facing limestone slopes (Illyes, undated).

## Reproduction

For *Cotinus coggygia* to produce seeds, sexual reproduction is necessary. *C. coggygia* can also be propagated from cuttings, although some cultivars are difficult to root (Floridata, 2007). Floridata (2007) recommends taking heel or nodal cuttings in late summer and treating them with rooting powder.

## General Impacts

In oak forests of Slovenia where it has been introduced *Cotinus coggygia* frequently acts as a substrate species for the insect Neuroptera (Devetak,2002).

## Management Info

**Biological:** Although specific research related to control of *C. coggygia* has not been carried out, the plant may be affected by rusts, leafspot, verticillium wilt, or San Jose scale (Floridata, 2007) These agents could be employed as a biological control mechanism. Floridata (2007) notes that *C. coggygia* is largely resistant to honeydew fungus.

## Pathway

Likely introduced to US as result of 19th century trade with China.

**Principal source:** [University of Connecticut \(Uconn\). Undated.](#) *Cotinus coggygia*; [Floridata. 2007.](#) Online database. *Cotinus coggygia*

**Compiler:** National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

## Review:

**Publication date:** 2007-08-03

## ALIEN RANGE

[1] CZECH REPUBLIC  
[1] UNITED KINGDOM

[1] GERMANY  
[7] UNITED STATES

## BIBLIOGRAPHY

13 references found for *Cotinus coggygia*

### Managment information

[Gilman, E and Watson, D., 1993. \*Cotinus coggygia\* Smoketree. University of Florida, 1993.](#)

**Summary:** This website provides details on all aspects of the plant, including physical descriptions of the trunk, branches, foilage, flowers. It also discusses diseases and pest issues.

Available from: <http://hort.ufl.edu/trees/taxon.htm> [Accessed 9 April 2007]

[USDA, ARS, 2007. Online database. \*Cotinus coggygia\* National Genetic Resources Program. Germplasm Resources Information Network - \(GRIN\) \[Online Database\]. National Germplasm Resources Laboratory, Beltsville, Maryland](#)

**Summary:** This website provided detailed description related to the worldwide distribution of the plant.

Available from: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?11697> [Accessed 9 April 2007]

## General information

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[Devetak, D. Neuroptera in Oak Forests in the Submediterranean District of Slovenia. Acta Zoologica Academiae Scientiarum Hungaricae 48 \(Suppl. 2\), pp. 67-73, 2002](#)

**Summary:** This journal article discusses the habits of the insect neuroptera and investigates its relationship with *Cotinus coggygia*. Available from: <http://www.nhms.hu/publication/actazool/48Suppl2/devetak.pdf> [Accessed 9 April 2007]

[Famine Foods. 1998. Online database. \*Cotinus coggygia\*](#)

**Summary:** This website provided information on plant species that are eaten in times of distress. The species listed on this site are consumed only in times of famine. The exhaustive list incorporates plants from all over the world.

Available from: [http://www.hort.purdue.edu/newcrop/faminefoods/ff\\_families/ANACARDIACEAE.html](http://www.hort.purdue.edu/newcrop/faminefoods/ff_families/ANACARDIACEAE.html) [Accessed 9 April 2007]

[Floridata. 2007. Online database. \*Cotinus coggygia\*](#)

**Summary:** This detailed website lists common names, offers physical descriptions of the plant and its cultivars, and outlines specific soil, nutritional, and light needs. It also outlines possible horticultural and ornamental uses for the plant and discusses pest issues.

Available from: [http://www.floridata.com/ref/C/coti\\_cog.cfm](http://www.floridata.com/ref/C/coti_cog.cfm) [Accessed 9 April 2007]

[ITIS \(Integrated Taxonomic Information System\). 2005. Online Database \*Cotinus coggygia\*](#)

**Summary:** An online database that provides taxonomic information, common names, synonyms, and geographical jurisdiction of a species. In addition, links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and Bioscience from BioOne journals.

Available from: [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=28800](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=28800) [Accessed 9 April 2007]

[Ivanova et al. . Polyphenols and antioxidant capacity of Bulgarian medicinal plants. Journal of Ethnopharmacology Volume 96, Issues 1-2, pp 145-15, 2005.](#)

**Summary:** This journal article investigates the antioxidant abilities of traditional Bulgarian medicinal plants. *Cotinus coggygia* was found to have strong antioxidant capabilities.

[Plants for a Future. 2004. Online database \*Cotinus coggygia\*](#)

**Summary:** This website provides general information about the plant, common names, and discusses various food, medicinal, and traditional uses for the organism.

Available from: <http://www.pfaf.org/database/plants.php?Cotinus+coggygia> [Accessed 9 April 2007]

[Pysek et al. 2002. Catalogue of alien plants of the Czech Republic Preslia, Praha, 74: 97-186, 2002.](#)

**Summary:** This article catalogues non-native plants found in the Czech Republic.

Available from: [http://www.ibot.cas.cz/personal/pysek/pdf/catalogue\\_preslia%202002.pdf](http://www.ibot.cas.cz/personal/pysek/pdf/catalogue_preslia%202002.pdf) [Accessed 9 April 2007]

[Schlueter, H. On the naturalization of \*Cotinus coggygia\* Scop. to a xerothermic shell limestone near Jena in Thuringia. Phytocoenologia. Vol. 23, pp. 637-650. 1993.](#)

**Summary:** This article discussed the natural habitual preferences of the plant.

[University of Connecticut \(Uconn\). Undated. \*Cotinus coggygia\*](#)

**Summary:** This website gives a general overview of the plants habits, physical appearance, uses, and methods of cultivation.

Available from: <http://www.hort.uconn.edu/plants/c/cotcog/cotcog1.html> [Accessed 9 April 2007]

[USDA, NRCS. 2007. The PLANTS Database. National Plant Data Center, Baton Rouge, LA 70874-4490 USA. \*Cotinus coggygia\*](#)

**Summary:** Available from <http://plants.usda.gov/java/profile?symbol=COCO10> [Accessed 9 April 2007]

[Virginia Cooperative Extension. 1989. Online database \*Cotinus coggygia\*](#)

**Summary:** This website provides a brief detailed description of cultural needs of the organism. It mentions specific acceptable pH ranges for the plant.

Available from: <http://www.ext.vt.edu/departments/envirohort/factsheets/shrubs/smkbsh.html> [Accessed 9 April 2007]