

## COASTAL SWEET PEPPERBUSH

*Clethra alnifolia* L.

Plant Symbol = CLAL3

Contributed by: USDA NRCS National Plant Data Center



Ducey, V. 2003.  
USF Herbarium Slide Collection.

### Alternate Names

*Clethra*, *Clethra alnifolia* var. *tomentosa*, *Clethra angustifolia*, *Clethra bracteata*, *Clethra incana*, *Clethra michauxii*, *Clethra paniculata*, *Clethra pubescens*, *Clethra pumila*, *Clethra scabra*, *Clethra tomentosa*, poorman's soap, summer sweet, sweet pepper bush, white alder.

### Uses

**Erosion control:** Coastal sweet pepperbush spreads by sending up new shoots, forming a thicket of low bushes. Growth from root suckering will provide moderate erosion control along streams and ponds.

**Garden and landscape:** The foliage and flowers of coastal sweet pepperbush make it an attractive garden shrub. It can be used in a mixed shrub hedge or border and pruned to maintain a small size. The lush green leaves turn to golden yellow in autumn. The fragrant flowers last up to 6 weeks or more during the middle of summer while other flowering shrubs are not blooming due to the heat.

**Utility right of ways:** Coastal sweet pepperbush is sometimes used to halt succession of tall trees along pathways. It has been planted following herbicide

application along electrical transmission, telephone, railroad, roadside, and pipeline right of ways. Its low stature does not interfere with the general operations around these utility areas.

**Wildlife:** The fragrant white flowers and nectar of coastal sweet pepperbush attract hummingbirds and butterflies. Deer eat it only when other forage vegetation is limited. Birds eat the fruit and aid in seed dispersal.

### Legal Status

Coastal sweet pepperbush is listed as a special concern species in Maine and as threatened in Tennessee. Please consult the PLANTS Web site (<http://plants.usda.gov>) and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description

**General:** White Alder Family (Clethraceae). Coastal sweet pepperbush is a large deciduous shrub that grows to 2.5 m tall. The bark is smooth, reddish-orange or gray in color, and 2 to 3 mm in diameter. Twigs are reddish-orange covered with dense white hairs. Leaves are alternate, simple, 5 to 8 cm long, and toothed toward their tips. They are medium to dark green, turn golden yellow in the fall and have appressed white hairs along the midvein. Flowers are up to 1 mm long and 0.8 mm wide, composed of 5 white fused petals. Seventeen to one hundred fragrant flowers form the bottlebrush-like inflorescences that are about 10 cm long and 2 cm wide. The fruiting stalk has many miniature oval 3-seeded capsules that are winter-persistent and are good identification features. Coastal sweet pepperbush produces leaves in late spring, flowers in July and August, and sets fruit in September and October. The yellow fall foliage persists for two to four weeks.

**Distribution:** This is the only species in the genus *Clethra* that is native to North America. It occurs from southern Maine and New Hampshire, south to eastern Texas and Florida. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site (<http://plants.usda.gov>).

**Habitat:** Coastal sweet pepperbush is found in wet woods, thickets, marshes, swales and bogs, along

lake and stream edges, and near rocks in water. It is typically not a dominant species in plant communities. Common overstory associates include cypress, Atlantic white cedar, coastal pine species, red maple, magnolias, and beech.

### **Adaptation**

The USDA hardiness zones for coastal sweet pepperbush are 4 to 9. It grows naturally in poorly drained, moist soils and will get larger and produce more suckers if provided plenty of water. Once established, it can also thrive on drier, well-drained soils. The optimum soil pH is approximately 4.5. Coastal sweet pepperbush is moderately salt tolerant and can be grown near, but not directly behind, beaches.

Coastal sweet pepperbush is a shade-tolerant understory shrub that grows under the canopy of old-growth trees. It will grow in full sun, but does best in a light, dappled shade.

### **Management**

Legginess occurs with age among coastal sweet pepperbush plants. Aggressive root suckering also occurs with age, which is an asset if naturalization or moderate erosion control is desired.

Coastal sweet pepperbush can build up and create a fire hazard. It can be controlled with regular prescribed burning. Most fires probably top-kill sweet pepperbush, but the plant can resprout from surviving stolons. Fires severe enough to consume the organic soil may kill stolons.

### **Pests and Potential Problems**

Damage caused by spider mites can be severe on plants in hot, dry locations.

### **Seeds and Plant Production**

Coastal sweet pepperbush can be propagated by seeds, summer cuttings, or sucker division. Seeds are cold stratified for 30 days and germinated under spring temperatures.

Collect 10 cm long softwood cuttings at the end of May or the beginning of June and strip the leaves from the lower two-thirds of the cutting. Wound the lower portion of the stem and apply a powder or liquid root hormone compound. Place cuttings in coarse sand that is 7 to 10 cm deep and lightly water at least every 2 hours. The medium can be any well-drained mixture that does not contain soil. Provide shade to the cuttings for the first 7 to 10 days to allow the cuttings to harden off before exposing them to

full sun. For best rooting results, place cuttings in an intermittent misting system.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

The USDA NRCS Plant Materials Program has not released any cultivars of coastal sweet pepperbush for conservation use.

Several ornamental cultivars are available through commercial nurseries. These cultivars include 'Anne Bidwell,' 'Creels Calico,' 'Hummingbird,' 'Paniculata,' 'Pink Spires,' 'Ruby Spice,' 'September Beauty,' and 'Summersweet Clethra.' These cultivars have been developed for flower size and color, foliage variegation and shine, plant stature, and extended bloom time.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

### **References**

- Agricultural Research Center. 2004. *GRIN taxonomy* (<http://www.ars-grin.gov/cgi-bin/npgs/html/index>, 17 May 2004). USDA, Beltsville.
- Baskin, C.C. and J.M. Baskin. 2002. *Propagation protocol for production of container Clethra alnifolia L. plants*. (<http://www.nativeplantnetwork.org>, 17 May 2004). Forest Research Nursery, College of Natural Resources, University of Idaho, Moscow.
- Brand, M. 2001. *Clethra alnifolia* (<http://www.hort.ucon.edu/plants/index.html>, 17 May 2004). University of Connecticut Plant Database, Storrs.
- Christman, S. 2003. *Clethra alnifolia* ([http://www.floridata.com/ref/c/clet\\_aln.cfm](http://www.floridata.com/ref/c/clet_aln.cfm), 17 May 2004). Floridata, Tallahassee.
- Clements, S. 1997. *New York metropolitan flora project* (<http://www.bbg.org/sci/nymf/index.html>, 17 May 2004). Brooklyn Botanical Garden, Brooklyn.
- Colandonato, M. 1991. *Clethra alnifolia*. (<http://www.fs.fed.us/database/feis/>, 17 May 2004). Fire Sciences Laboratory, Rocky Mountain Research Station, USDA Forest Service, Missoula.
- Department of Horticulture and Crop Science. 2002. *Plant facts* (<http://plantfacts.osu.edu/>, 17 May 2004). The Ohio State University, Columbus.

Ducey, V. 2003. *USF Herbarium slide collection*. (<http://www.plantatlas.usf.edu>, 17 May 2004). Institute of Systematic Botany, University of South Florida, Tampa.

Evans, E. 2001. *Plant fact sheets* (<http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/index.html>, 17 May 2004). North Carolina State University, Raleigh.

Koning, R.E. 1994. *Artificial plant propagation*. ([http://plantphys.info/Plants\\_Human/Vegprop/vegpropa.html](http://plantphys.info/Plants_Human/Vegprop/vegpropa.html), 24 May 2004). Eastern Connecticut State University, Willimantic.

Ultee, C.J. 2003. *Connecticut wildflowers* (<http://www.ct-botanical-society.org/galleries/galleryindex.html>, 17 May 2004). Connecticut Botanical Society, Glastonbury.

Virginia Tech Forestry Department. 2003. *Dendrology tree fact sheets* (<http://www.cnr.vt.edu/dendro/dendrology/factsheets.cfm>, 17 May 2004). Virginia Polytechnic Institute and State University, Blacksburg.

Wunderlin, R.P., and B.F. Hansen. 2003. *Atlas of Florida vascular plants* (<http://www.plantatlas.usf.edu>, 17 May 2004). Institute of Systematic Botany, University of South Florida, Tampa.

**Prepared By:**

*Sarah Wennerberg*  
Formerly USDA NRCS National Plant Data Center,  
Baton Rouge, Louisiana

**Species Coordinator:**

*Mark Skinner*  
USDA NRCS National Plant Data Center, Baton  
Rouge, Louisiana

Edited: 24May2004 sbw; 20Oct2004 rln; 06jun06 jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

information (Braille, large print, audiotape, etc.) should contact USDA's [TARGET Center](#) at 202-720-2600 (voice and TDD).

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Read about [Civil Rights at the Natural Resources Conservation Service](#).

*The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program*