Florida Native Plant Society

Native Plant Owners Manual

Erythrina herbacea – Coral Bean

Mark Hutchinson

For Your Information

All date and seasonal references are applicable to the eastern panhandle of Hernando County where the plants portrayed in this presentation grow, and this manual was created. This area happens to be a cold spot in central Florida due to the Brooksville Ridge and approximates a Hardiness Zone of 8a or 8b, average annual low temperatures ranging between 10 and 20 °F.

Please note that any reference to medicinal or culinary use of plants or plant parts should in no way be considered an endorsement by the Florida Native Plant Society of any sort of experimentation or consumptive use.

Please do not attempt to rescue any native plants without first reviewing the FNPS Policy on Transplanting Native Plants

Feedback is welcome: mhutchinson10@tampabay.rr.com


Coral Bean
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Erythrina herbacea

Coral Bean, Cherokee bean, cardinal spear, red cardinal

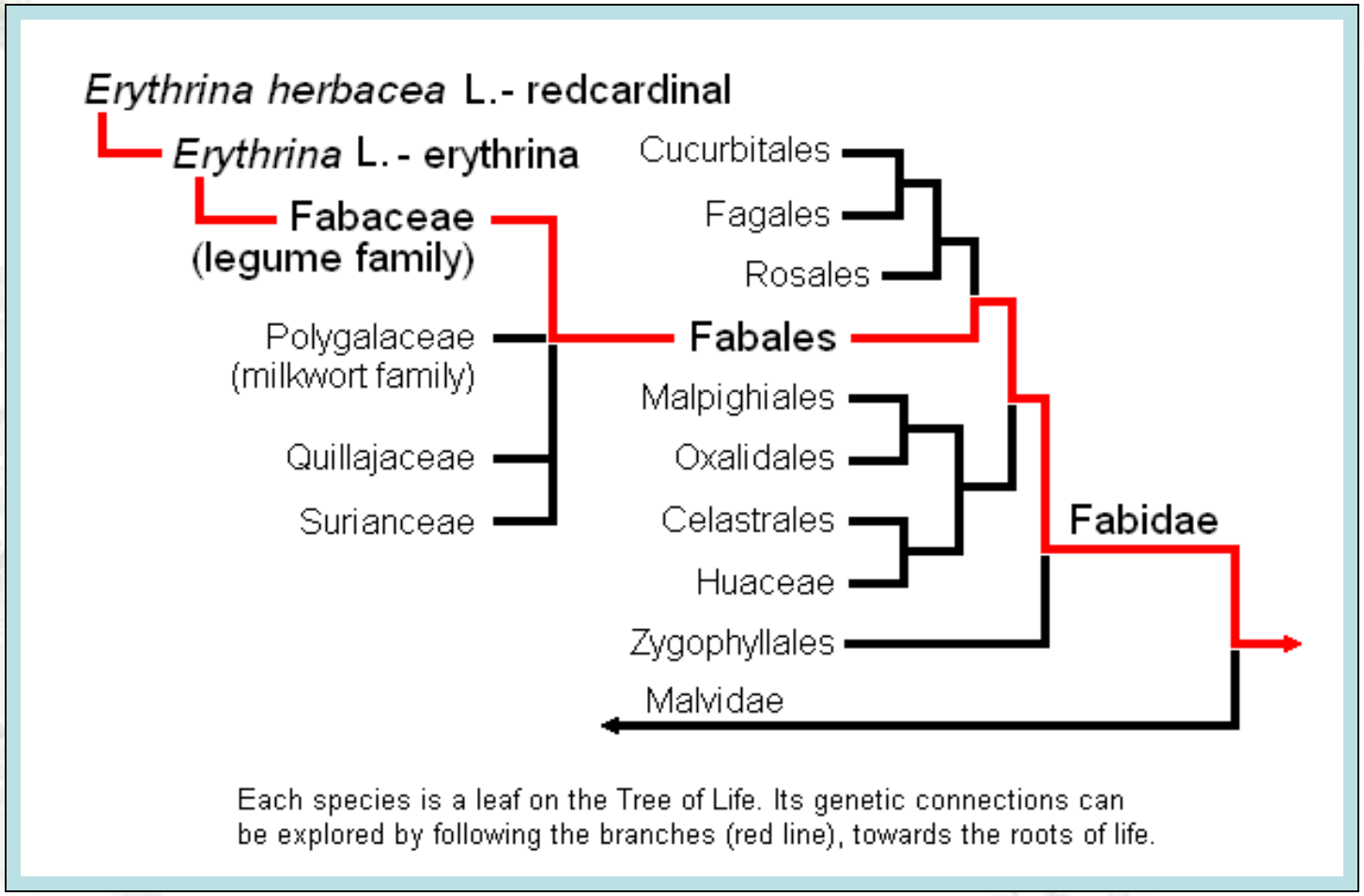
Erythrina (er - ith - RY - nuh)

Ancient Greek for red colored

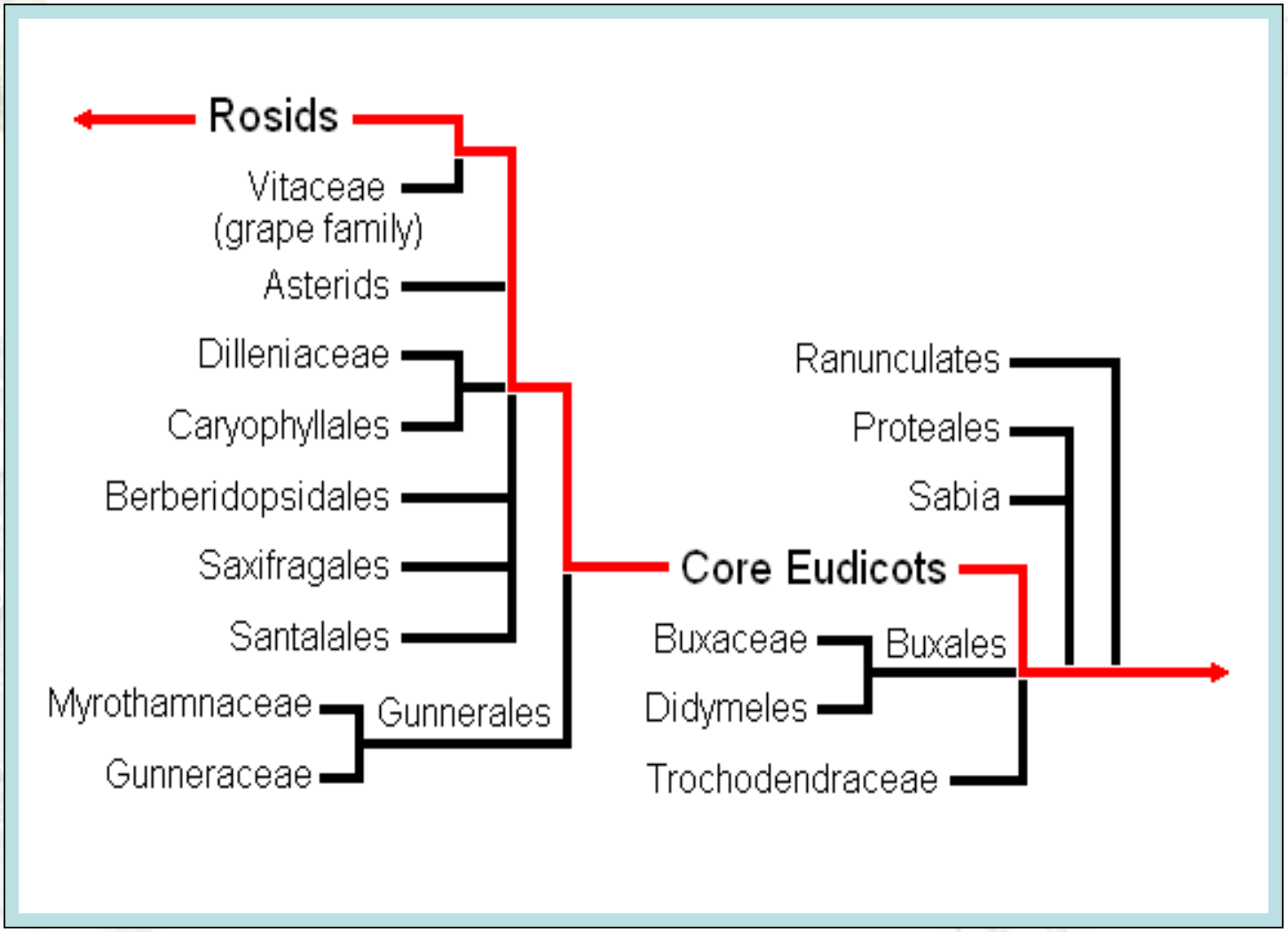
herbacea (her - buh - KEE - uh)

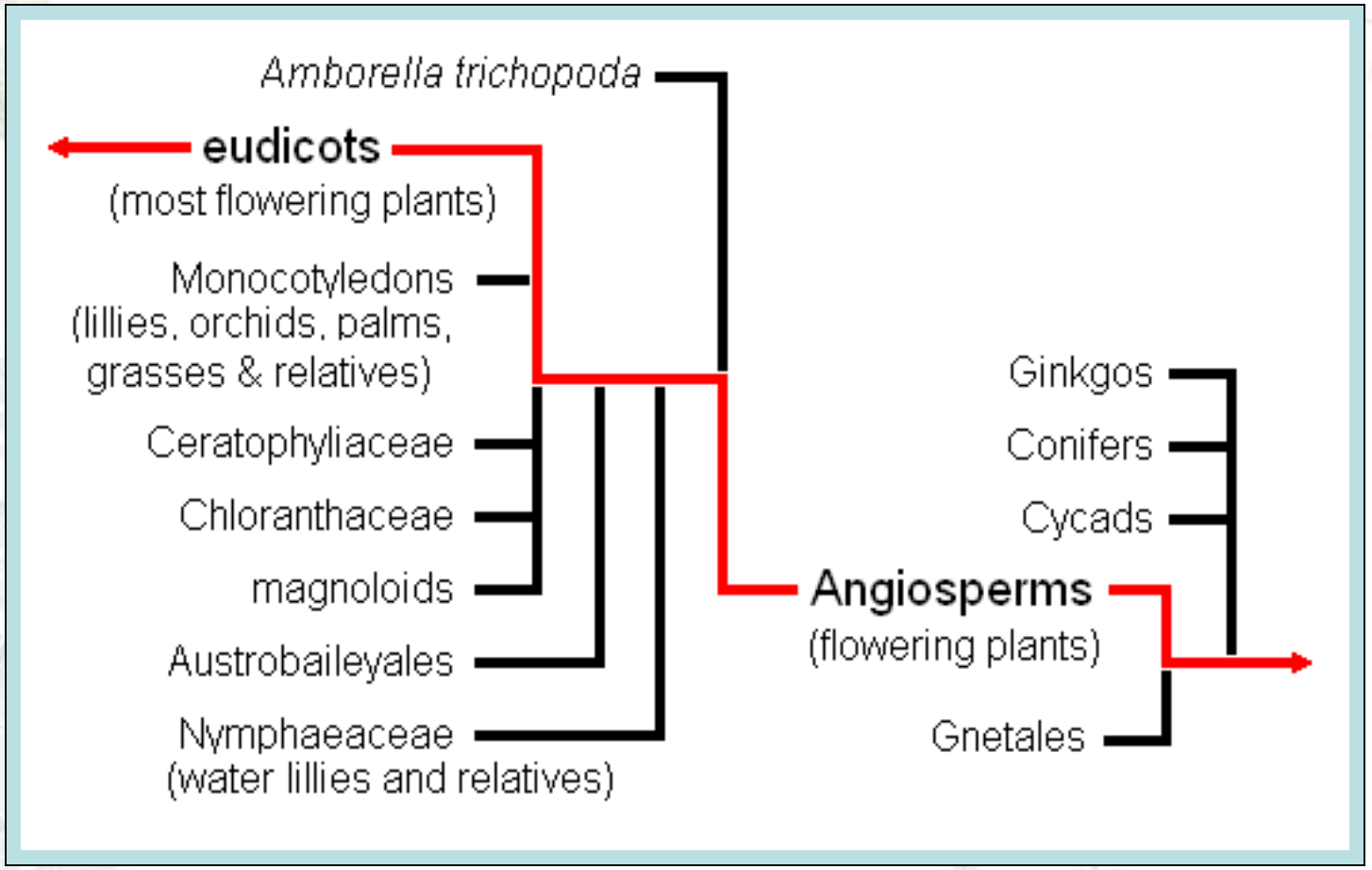
Derived from the Latin *'herb(a),'* meaning "grass, not woody"

Biological and Genetic Relationships



Each species is a leaf on the Tree of Life. Its genetic connections can be explored by following the branches (red line), towards the roots of life.


Rosids
Vitaceae
(grape family)
Asterids
Dilleniaceae
Caryophyllales
Berberidopsidales
Saxifragales
Santalales
Myrothamnaceae
Gunneraceae
Gunnerales
Core Eudicots
Ranunculates
Proteales
Sabia
Buxaceae
Buxales
Didymeles
Trochodendraceae



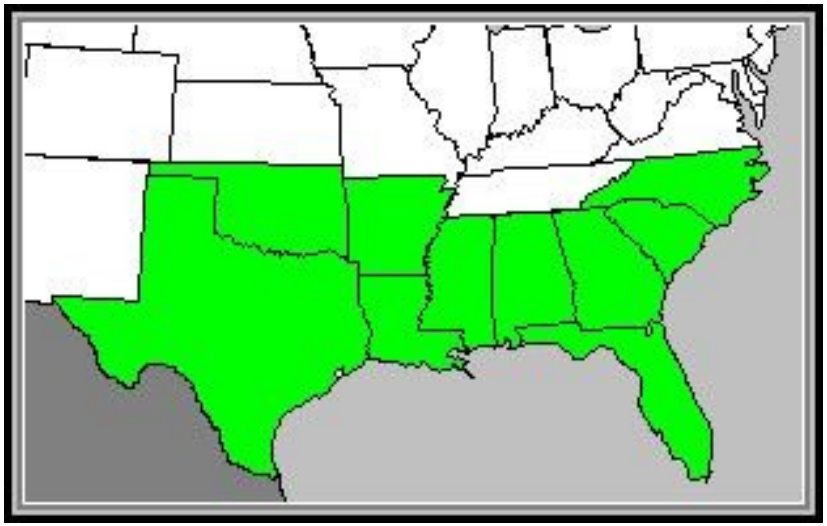
There is still more to go, follow this link to explore more of the University of Arizona's Tree of Life.

- The United States Department of Agriculture, NRCS, lists a total of 13 species of the genus *Erythrina* L. in the United States.
- Cherokee or Coral Bean is the only species of this genus native to Florida.

R.K.Godfrey Herbarium (FSU) #162526 Jackson Co., 5/6/1982

Species Distribution in the United States

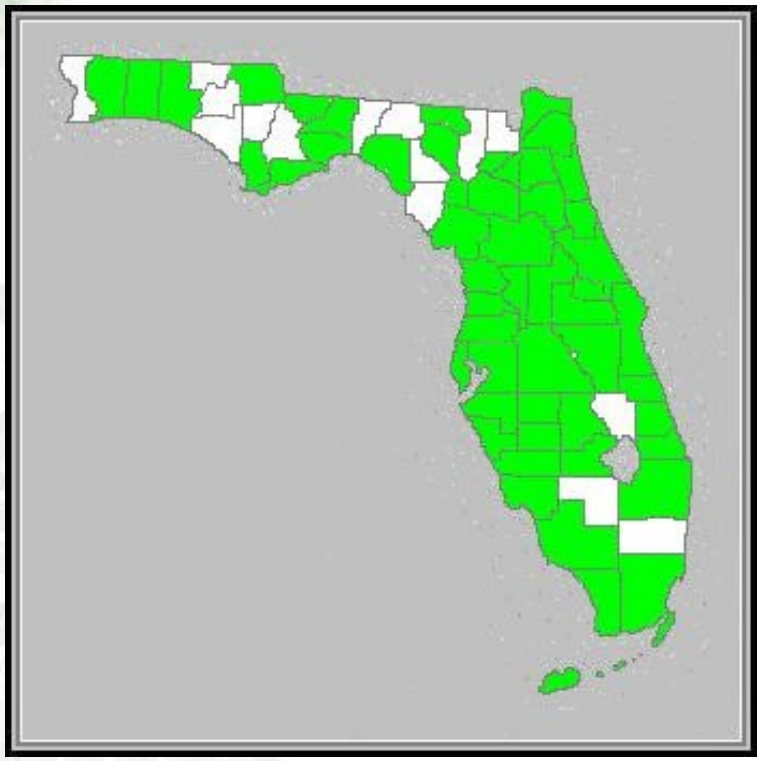
Coral Bean, native to North America, is endemic to the southeastern United States. Its growing range extends from eastern and coastal Texas to the most southern counties of North Carolina.



(For specific distribution within any of the shaded areas go to the USDA link provided on the reference page, and click the shaded area of interest.)

Erythrina herbacea is a salt tolerant species and favors coastal areas in most of its growing range.

Species Distribution within Florida



(*vouchered – indicates that a fully documented dried specimen has been deposited in an approved herbarium)

- Coral Bean, a perennial deciduous shrub to small tree, is *vouchered in approximately fifty-two counties in Florida, favoring the central peninsula.
- *Erythrina herbacea* prefers understory areas of open woods, hardwood hammocks and disturbed areas.

Growing Conditions

 to 

• Cherokee Bean prefers broken to partial shade

• Coral Bean favors sandy well-drained soil with a high organic content and is salt tolerant

• Acidic to slightly alkaline soil – 5.4 to 7.6 pH

• Good drought tolerance

• Hardiness: USDA Zone 7b: to –14.9 °C (5 °F)
to USDA Zone 11: above 4.5 °C (40 °F)

• Flowering and seed production occur in spring and early summer

• Height: 3 -16 feet (1-5 meters)

Plant Structure and Life Cycle

First emerging in April or May in warmer regions, the yellowish- green alternating pinnately trifoliate leaves have three deltoid or arrowhead-shaped leaflets.

Small curved thorns protrude from the junction of the stem and leaf petiole and extend towards the leaflets, helping to provide protection for small birds and animals.

Coral Bean has a taproot system that has many hair-covered fibrous roots, extending from the primary taproot.

As *Erythrina herbacea* matures this taproot continues to grow in length as well as girth, both offering protection from drought and giving the plant the ability to recover quickly from insect damage or the effects of brush fire, once common to open woods.

Initially in spring, Cherokee Bean sends up a series of stems that will flower. These stems are quite different from the leaf- bearing stems, having a greener and smoother appearance, as shown below, at left, compared to a primary leaf stem, at right.

The bright red tubular flowers of *Erythrina herbacea* attract butterflies and hummingbirds as pollinators.

Once fertilization has occurred, the immature green seedpod begins to emerge from the flower before the petals have had a chance to drop.

The flower petals quickly fall away and the fruit continues to develop losing its sleek initial appearance, becoming protuberant.

As the seeds mature the pod dries, contracting and twisting somewhat, turning a dark brown. The pods then split open, revealing the bright red seeds from which Coral Bean gets it’s most popular name.

The seeds of *Erythrina herbacea* are very poisonous and are used for rat poison in Mexico, while a fish poison can be made from the bark and leaves. Interestingly enough, Native Americans used other parts of the plant for medicinal purposes, including tea made from the root for bowel trouble, and an extract from the seeds to make a topical rub.

Seed Collection and Propagation

Seed collection is very easy once the seedpods have split, revealing the bright red seeds. Some experts recommend fumigating the seeds before storage.

Scratching the seeds, or rubbing them with a slight abrasive, prior to planting in the spring is recommended, wear gloves to avoid the poison from these seeds.

Semi-hardwood cuttings can be rooted. Dusting the exposed cutting with root hormone, and keeping the planting moist are standard procedures.

Maintenance and Care

The brilliant green protective thickets and striking crimson flowers of Coral Bean make it an ideal addition to the right native landscape. Once opened, the showy pods display their strikingly beautiful seeds for weeks, sometimes extending to months – eye candy.

To get the most from this wonderful plant requires a minimal amount of work. Once the flower bearing stems have dropped their seed pods, these stems will dry up and can be cut down to the ground. When re-growth starts back in Spring examine the plant looking for noticeably dry and wilted stems. If dead, they should be cut back to solid, live stem.

Presentation References

- Biological and genetic relationships

  University of Arizona Tree of Life

- United States distribution

  USDA - Natural Resource Conservation Service

- Florida distribution

  Atlas of Florida Vascular Plants

- Herbarium specimen

  FSU Robert K Godfrey Herbarium

- Native American Ethnobotany

  University of Michigan

Presentation References (cont.)

- Growing conditions and general information

  Wikipedia *Erythrina herbacea*

  University of Florida IFAS Extension

  Dave's Garden

- FNPS – Plants in your area

FNPS.org This Link will take you to a map of Florida. Click your county on the map to see if Coral Bean can be found there.

- Florida Plants by zone and habitat, use your county name or zip-code to see native habitat classifications and appropriate plants.

- For more in-depth study:

Xeric Landscaping with Florida Native Plants. Michael Jameson and Richard Moyroud, editors. 1991. San Antonio, FL: Association of Florida Native Nurseries. No ISBN.

Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens. Douglas W. Tallamy. 2009. Timber Press. ISBN 978-0881929928.

Gardening for Florida's Butterflies. Pamela F. Traas. 2000 (2nd edition). St. Petersburg: Great Outdoors Publishing Co. ISBN 0820004200.