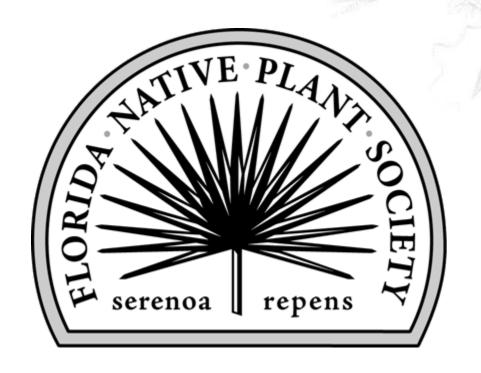
# Florida Native Plant Society



**Native Plant Owners Manual** 

Passiflora incarnata - Purple Passionflower

Mark Hutchinson

## Putting things in perspective

All seasonal references are applicable to the eastern panhandle of Hernando County where the plants portrayed in this presentation grow. 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.

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 <u>FNPS Policy on Transplanting Native Plants</u>

Special thanks to Lucille Lane and Shirley Denton







#### **Navigation Links**

(for use in open discussion)

What's in a Name?

Biological Classification – Tree of Life

Where does this plant grow?

- In North America
- In Florida

What this plant needs to -

- Thrive
- Pollinate
- Propagation
- Live a long life

Life Cycle

<u>References</u>





Throughout this presentation, clicking this symbol will return you to this page.

Purple Passionflower, maypop, apricot vine, wild passion flower, Holy-Trinity flower, passion vine, maracoe, maycock, sarsaparilla, molly-pop, granadilla

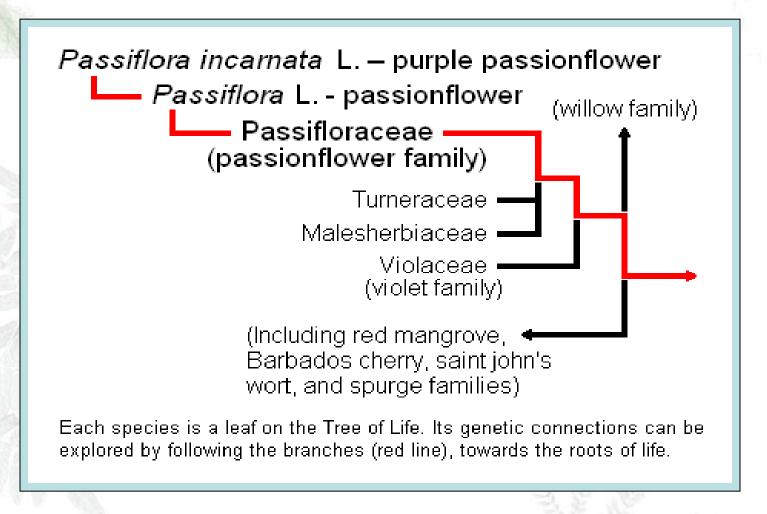
Passiflora (pass - iff - FLOR - uh)

From the Latin for passion, because of the flower's fancied numerological association with the crucifixion of Christ.

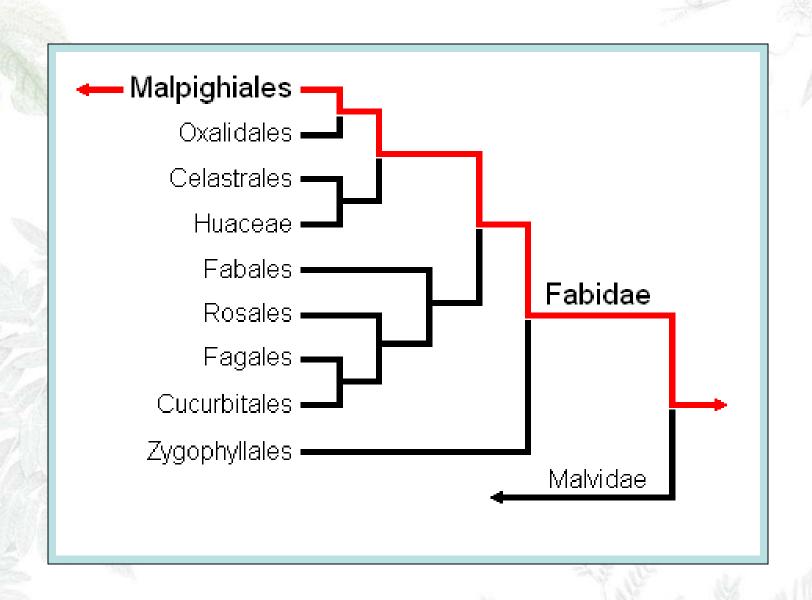
Incarnata (in - kar - NUH - tuh)

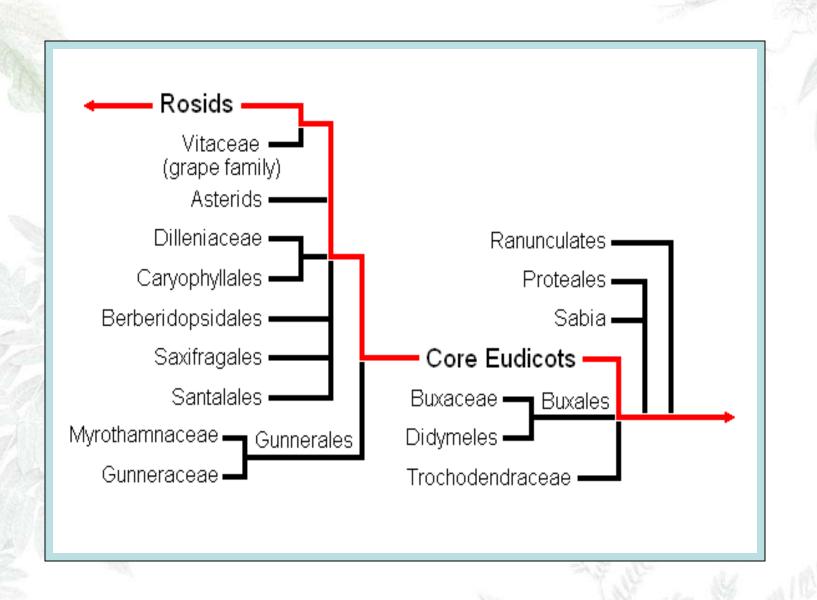
Possibly from the Latin 'incarnatus,' meaning invested with bodily, especially human, nature and form.

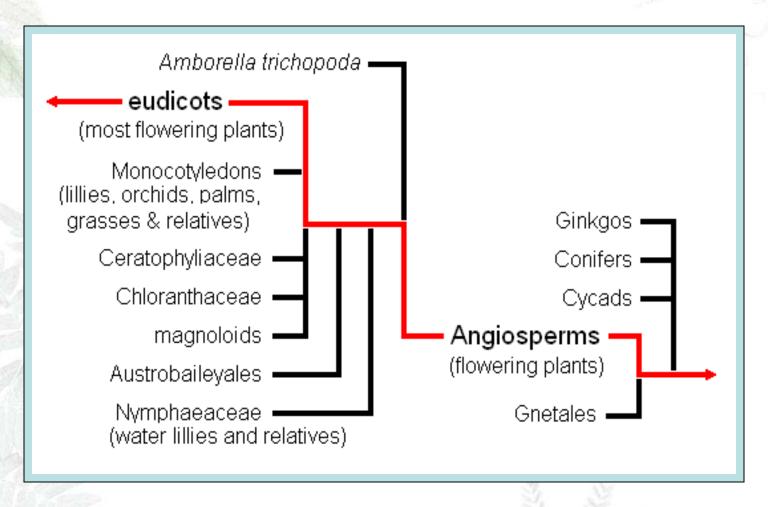
## Biological and Genetic Relationships









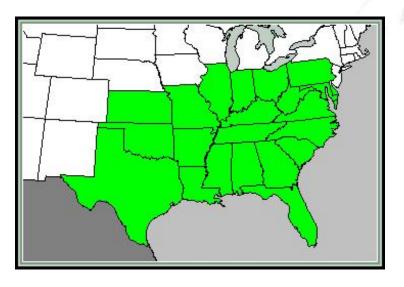


Link to the University of Arizona's Tree of Life.



## Species Distribution in North America

Passiflora incarnata is native to North America, endemic primarily to the southeast U.S. From a few eastern counties of Texas the occurrence of this species increases significantly as you move east, and decreases as you go



(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.)

north. The largest concentration being along the Atlantic seaboard, from Virginia to Florida.

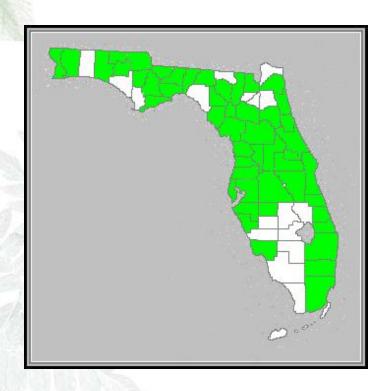


- The USDA, NRCS, lists a total of forty-six species of the genus *Passiflora* L. throughout North America.
- The Atlas of Florida Vascular Plants identifies twelve species of this genus occurring in Florida, six being native.

R.K.Godfrey Herbarium (FSU) #1657 Jefferson Co., 5/24/90



# Species Distribution within Florida



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

- Purple Passionflower, a perennial, herbaceous vine, is \*vouchered in approximately forty-nine counties in Florida, heaviest along the Atlantic coast, but spread throughout the state.
- Found along edges of fields and ditches, any sunny moist area.

# Plant Structure and Life Cycle

Passiflora incarnata is a perennial, herbaceous vine that comes back from winter dieback once spring is in full stride. The large three- to five-lobed, serrated leaves are immediately recognizable. Arranged alternately on the stem, they remain consistent through the life



cycle of the plant, with both flowers and stems emerging from the leaf axils.

Purple Passionflower has a stoloniferous rhizome root system, with new plants arising from suckers coming off the underground runners. Once a plant is established in a healthy environment, numerous suckers will appear in adjacent areas. An aggressive grower and climber, in the right conditions, Passion Vine can get out of hand.



The first sign of emerging flowers, is the appearance of small, yellow-green, pentagonally shaped buds, with a 'horn' at the apex of each of the five segments.





As the bud enlarges, the distinctive purple color of this species' flower will begin to show through at the fissures as the bud morphs into the elaborate blossom.



The common name 'Passion' vine comes from a numerological association with the passion of Christ. From the ten tepals symbolizing the 12 apostles less the denier Peter and the betrayer Judas, to the three styles invoking the three nails used by the Roman Centurion, to the five stamens representing the five wounds suffered by the Messiah. A very colorful story for a very colorful flower.



Following pollination, a small fruit will replace the flower as it dries up. After several weeks, the fruit will approximate the size of a hen's egg – given the right environment they can become significantly larger. As the fruit becomes very ripe, it will shrivel. At this point the inside of the fruit can be cleaned of seeds and used in drinks. Hawaiian Punch is flavored by another species in the genus Passiflora.





# **Growing Conditions**



tc



- Passiflora incarnata prefers direct sun to light shade
- Passionflower favors sandy well-drained soil, from sand to clay loam
- Slightly acidic to slightly alkaline soil 6.1 to 7.8 pH
- Drought tolerant, and low salt tolerance
- Hardiness: USDA Zone 6b: to -20.5 °C (-5 °F)
   to USDA Zone 10b: above 1.7 °C (35 °F)
- Flowering occurs from spring into summer, while fruit and seed production occur from summer to fall
- Height: 15 30 feet (4.7 9 m.)



#### Pollinators and Wildlife

Passion vine is the larval host plant for numerous butterflies, including Gulf fritillary, (Agraulis vanillae), and the Zebra longwing (Heliconius charithonia), the state butterfly of Florida. ▶



Above: Gulf fritillary caterpillar



This plant is also host to the crimson patch longwing (*Heliconius erato*), red banded hairstreak (*Calycopis cecrops*) and Julia (*Dryas julia*), butterflies.

The young tendrils of Passionvine are eaten by wild turkey. Both the root and the fruit of this plant were used by the Cherokee tribe for medicinal and consumptive purposes.







# Seed Collection and Propagation

Maypop is the common name derived from the sound the hollow fruit makes when crushed. It takes about 2 to 3 months from fertilization for the fruit to fully mature. When the fruit begins to shrivel it can be harvested for seeds. Clean the pulp from the seeds, which are brown when fully mature. The seeds must be scarified – scrapped or scratched, before planting, which should be done immediately following collection.





#### Maintenance and Care

Always keep in mind that this is a native plant, not a hybrid. Think natural growing conditions and treatment. Ironically, too much nitrogen will inhibit flower production, so think twice before using chemical fertilizers. Too much shade will also hinder flowering. In natural settings the accumulation of leaves and other organic materials form a natural compost, so if you feel you have to feed the plant – use compost, or mulch. Where suitable you can provide a trellis or other structure for the plant to ascend. Use biodegradable ties to help the plant get started, and then let the tendrils take it from there.

#### **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 <u>Herbarium</u>
- Native American Ethnobotany

**University of Michigan** 



## Presentation References (cont.)

Growing conditions and general information
 <u>Wildflower Center</u> University of Texas – Austin
 <u>Floridata</u>

Larval Host Plants

Biospherenursery.com

FNPS – Natives for Landscaping

FNPS.org This Link will take you to the profile for this plant on the FNPS website

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



For more in-depth study:

Native Florida Plants: Low Maintenance Landscaping and Gardening. Robert G. Haehle and Joan Brookwell. 2004 (revised edition). Taylor Trade Publishing. ISBN 1589790510.

A Gardener's Guide to Florida's Native Plants. Rufino Osorio. 2001. Gainesville: University Press of Florida. ISBN 0813018528.

Grafting, Budding, Cutting, Layering & Other Ways of Propagating Fruit Plants in Florida. 1995. Gainesville: Institute of Food & Agricultural Science. ISBN 0916287092.

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