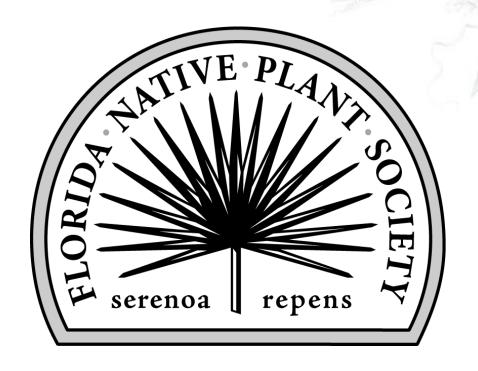
Florida Native Plant Society



Native Plant Owners Manual

Melanthera nivea - Snow Squarestem

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.

Snow Squarestem

Aster family







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
- Propagation
- Pollination

Life Cycle References 'View/Full Screen Mode' recommended

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



Snow Squarestem, cat's tongue, pineland squarestem, snow melanthera, salt and pepper

Melanthera (mel - ANTH - er - uh)

Ancient Greek meaning black anther

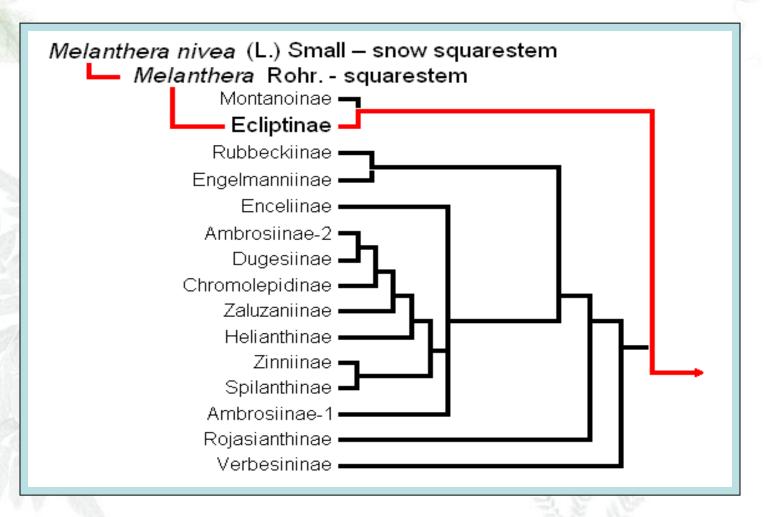
nivea (niv - EE - AH)

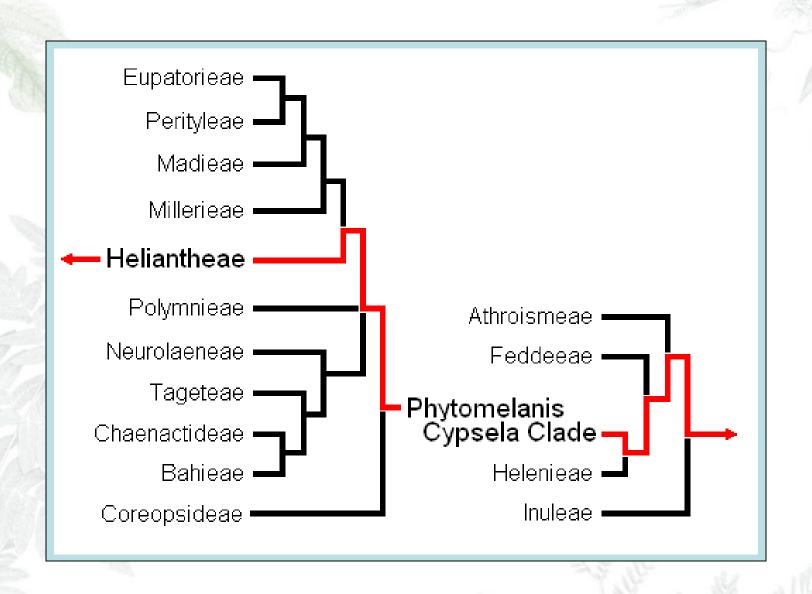
From the Latin 'niveus' or 'nivosus' meaning of snow, or full of snow

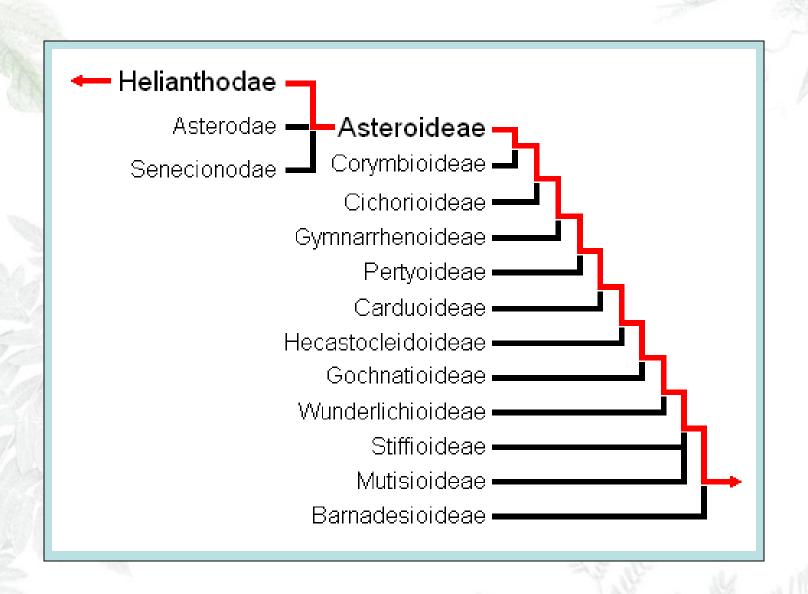


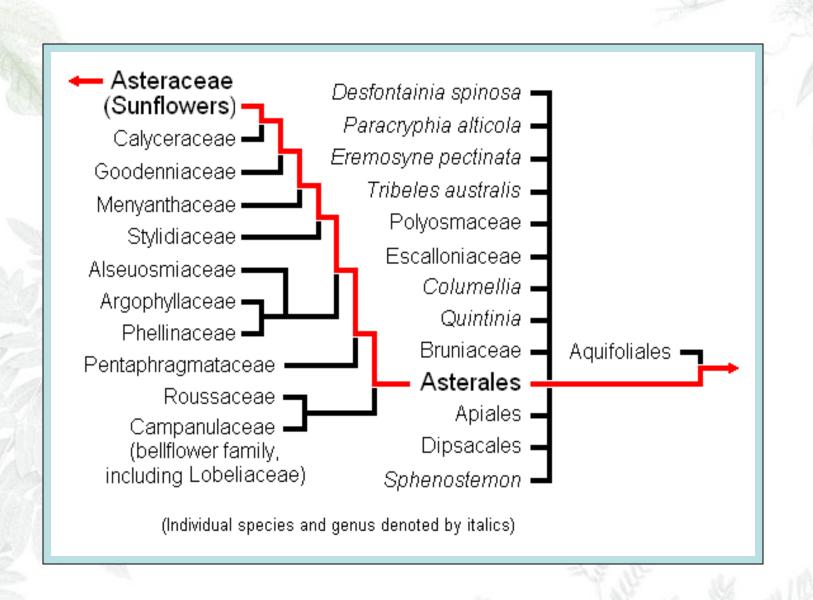


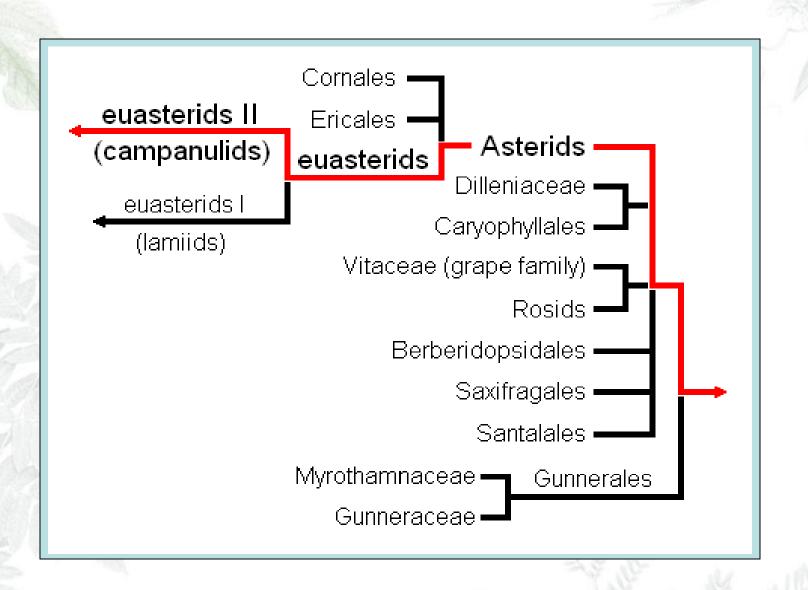
Biological and Genetic Relationships

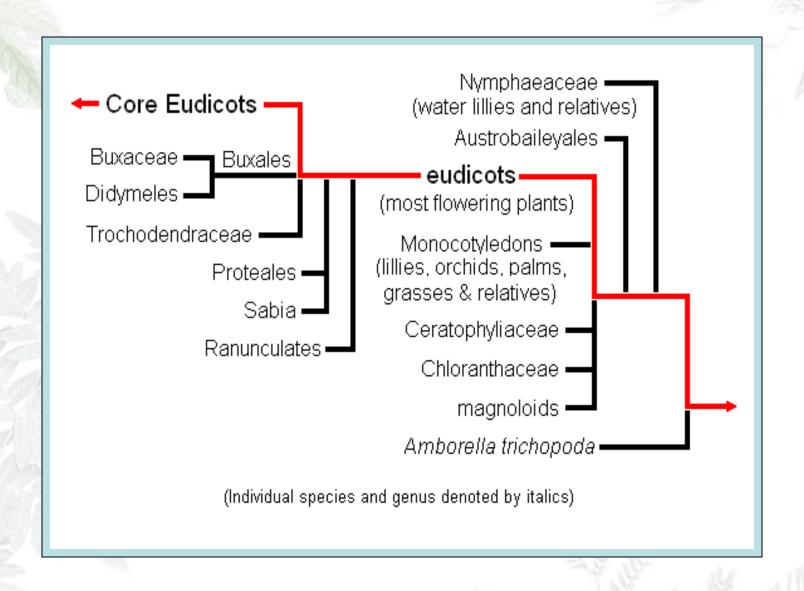


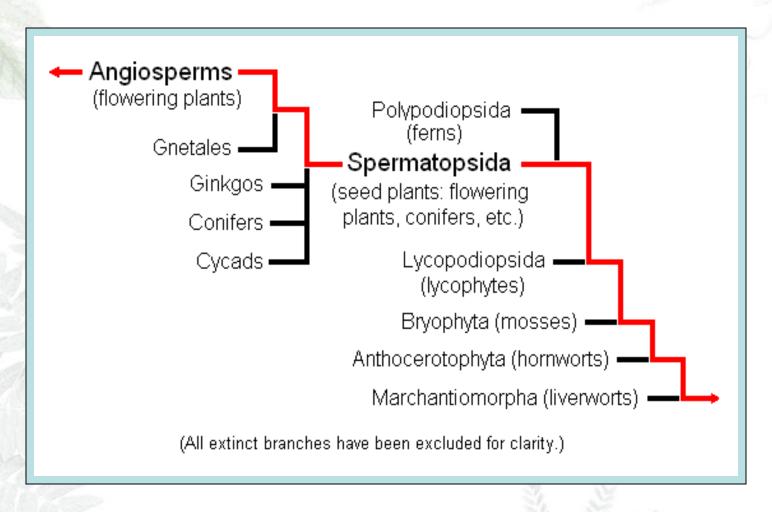










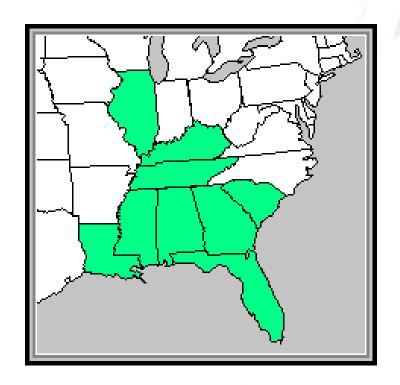


Link to the University of Arizona's Tree of Life.



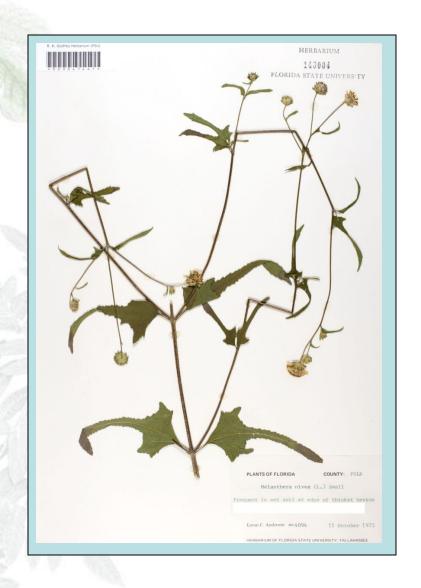
Species Distribution in the United States

Snow Squarestem is native to North America, and endemic to the coastal plains of the southeastern States. The current range of growth extends northward along the Mississippi River through Tennessee and Kentucky, into the southernmost counties of Illinois.



(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.)





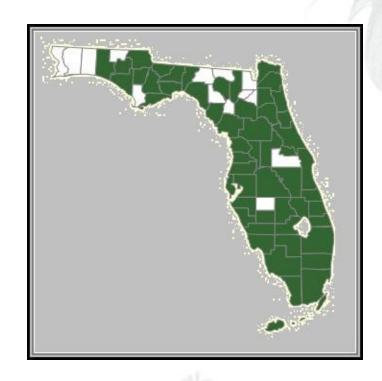
- The USDA, NRCS, lists a total of five species of the genus *Melanthera* Rohr throughout the United States.
- The Atlas of Florida Vascular Plants identifies only the species *M. nivea* as being native to Florida.

R.K.Godfrey Herbarium (FSU) #146004 Polk Co., 10/11/1975



Species Distribution within Florida

- Melanthera nivea, a
 perennial wildflower or
 shrub, is *vouchered in fifty three counties in Florida,
 most extensively in the
 peninsula.
- Snow Squarestem prefers moist, fertile, well-drained sometimes sandy soils in coastal plains, yet is tolerant of soils containing substantial amounts of clay.



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



Growing Conditions



to



- Melanthera nivea prefers direct sun to slight shade
- Snow Squarestem favors sandy or limestone, well-drained soil, moderate to low salt tolerance.
- Soil pH can vary considerably.
- Good drought tolerance.
- Hardiness: USDA Zone 6b: to –20.5 °C (-5 °F)
 to USDA Zone 11: above 4.5 °C (40 °F)
- Flowering and seed production occur from spring into late fall in central Florida.
- Height: 24 48 inches (60 120 cm.)



Plant Structure and Life Cycle

Come early spring, the first new growth of Melanthera nivea is hard to miss. The distinctive foliage is readily identifiable and remains so through the life cycle of the plant. A herbaceous, perennial wildflower, this plant's common name would suggest it is a member of the mint family, which usually have



geometric stems, however, Snow Squarestem is a member of the Aster Family.

As the plant extends itself from the ground, it will naturally assume a leggy appearance. If you want yours to be a little fuller and showy, just nip off the new growth at the end of the stems once the plant has reached a height of about two feet or better.

This will encourage the plant to fill out. As spring turns to summer, *Melanthera nivea* will start to flower quite prolifically when the growing conditions are right.



The flowers have no ray petals and the central disk is composed of white tubular blooms, each of which will eventually display the male part of the flower.





Once pollinated, the tubular flowers will dry up as seeds form in an achene. Once the entire flower head dries, the achene will drop to the ground, preparing to start a new cycle.

Pollinators and Wildlife

Melanthera nivea is a must for any butterfly garden. It is a larval host plant to the Florida White butterfly (Appias drusilla), and nectar host to numerous butterflies and skippers, including the Carolina Satyr (Hermeuptychia



sosybius), at right. Native bees and wasps also favor this flower. This species will keep your garden humming.

Seed Collection & Propagation

Once the tubular blooms of Snow Squarestem are fertilized by pollinators, the achene will form. The achene is actually a fruit that surrounds the seed, although many novice gardeners believe it is the seed. An example of an achene is a sunflower seed – the exterior shell is the achene and the much softer interior is the seed. The achene are released once the flower head dries.

Once the flowers start to dry, a fabric bag like those that garlic are sold in, can be used to cover the flower head and capture the seeds as they fall from the flower head.



Presentation References

Biological and genetic relationships

University of Arizona Tree of Life

Natives For Your Neighborhood

RegionalConservation.org

United States distribution

USDA - Natural Resource Conservation Service

Florida distribution

Atlas of Florida Vascular Plants

Herbarium specimen

FSU Robert K. Godfrey Herbarium



Presentation References (cont.)

Growing conditions & general information

Flora of North America

ZipCodeZoo.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.

Florida Plants for Wildlife: A Selection Guide to Native Trees and Shrubs. Craig N. Huegel. 1995. Orlando: Florida Native Plant Society. ISBN 1885258046.

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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