Florida Native Plant Society

Native Plant Owners Manual

Berlandiera subacaulis – Florida Greeneyes

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 [FNPS Policy on Transplanting Native Plants](#)

Special thanks to Lucille Lane, Shirley Denton, Kari Ruder and Brooke Martin
Florida Greeneyes

Aster family
Berlandiera subacaulis
What’s in a Name?

Biological Classification – Tree of Life

Where does this plant grow?
  • In Florida

What this plant needs to -
  • Thrive
  • Propagate

Life Cycle

References
Florida Greeneyes, common greeneyes,
Florida dandelion, greeneyes
*Berlandiera* (ber - lan - dee - AIR - uh)

Named for Jean-Louis Berlandier (1805-1851), a French Naturalist who studied Botany in Switzerland. Made botanical collections in Mexico and Texas while studying Native American tribes, the Comanche in particular. In 1850 he served on the commission establishing a new border between the United States and Mexico.

*subacaulis* (sub - a - KAW - liss)

Without much stem, or less so than a similar plant.
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.
(Individual species and genus denoted by italics)
euasterids II (campanulids)

euasterids I (lamiids)

Cornales
Ericales

Asterids

Dilleniaceae
Caryophyllales
Vitaceae (grape family)

Rosids
Berberidopsidales
Saxifragales
Santalales

Myrothamnaceae
Gunnerales
Gunneraceae
Core Eudicots

Buxaceae → Buxales
Didymelidae
Trochodendraceae
Proteales
Sabia
Ranunculales

Eudicots

Nymphaeaceae (water lilies and relatives)
Austrobaileyales

Eudicots (most flowering plants)

Monocotyledons

Ceratophylaceae
Chloranthaceae
Magnolidae
Amborella trichopoda
Link to the University of Arizona’s Tree of Life.
• The United States Department of Agriculture, NRCS, lists a total of three species of the genus *Berlandiera* throughout the U.S.

• The Atlas of Florida Vascular Plants identifies three species occurring in Florida, all of which are native.

USF Herbarium #100751
Citrus Co., 4/11/1972
Species Distribution within Florida

• A perennial, endemic to the Florida peninsula. *Berlandiera subacaulis* is *vouchered in approximately thirty-three Florida counties and in no other State.*

• Florida Greeneyes prefers Sandy Oak and Pine flatwoods, Sandhill and disturbed areas.

(*vouched – indicates that a fully documented dried specimen has been deposited in an approved herbarium*)
Plant Structure and Life Cycle

This herbaceous perennial first emerges between March and May. It is unremarkable, resembling common dandelion.

Initially, the rough, hairy stemmed leaves are ovate to ovate with an acute tip, having scalloped edges and prominent veins. Leaves can be alternate or opposite, simple or compound.
Berlandiera subacaulis is supported and nourished by a sizeable taproot system. This one is approximately one inch in diameter at the top and is about ten inches in length.

This hardy root system helps the plant survive through periods of drought in the sandy soils of scrub and Flatwoods habitats that it has evolved with, and assures a quick recovery following wildfires.
As the plant matures, the leaves maintain a scalloped edge while assuming a lyrate form, no wonder a common name is Florida dandelion.
As Florida Greeneyes bloom, a cup of green bracts first appears. Then the yellow petals emerge from the circumference. The primary seed-producing flowers begin to develop in the central disc area.
As the petals extend and form a corolla, tiny florets start to mature and open into a multitude of tiny blooms in the disc.

The yellow of Florida Greeneyes corolla attracts both butterflies and bumblebees as pollinators.
The yellow rays and the smaller yellow, or red to maroon florets of the disc, are dropped as seed development progress.

The ray florets have fertile pistillate, while the disc florets, functionally staminate, have all that is needed for pollinators to facilitate fertilization.
The seeds develop in the cup of green bracts that initiated flower development. Seeds mature in plate-like structures that separate as the flower head dries out.

The seeds self-sow as the flower head falls apart, *Berlandiera subacaulis* flowers throughout the growing season from spring to the first frost, producing many seeds.
Growing Conditions

- Full sun to slight shade
- Florida dandelion prefers well-drained sandy soil.
- Acid to slightly alkaline soil – 5.1 to 7.5 pH
- Good drought tolerance
- Hardiness: USDA Zone 9a: to -6.6 °C (20 °F)
  to USDA Zone 11: above 4.5 °C (40 °F)
- Flowering and seed production occur year round
- Height: 12-18 inch (30-45 cm)
Propagation

Florida Greeneyes multiply by seed and self-sowing from spring to late fall.

By bagging the flower heads once the petals start dropping, seeds can be collected to sow as desired.
Presentation References

• Biological and genetic relationships
  University of Arizona Tree of Life

• Florida distribution
  Atlas of Florida Vascular Plants

• Growing conditions & general information
  Wildflower Center UTA
  Wikipedia genus Berlandiera
  Flora of North America
  Dave’s Garden
  ZipcodeZoo.com
Presentation References (cont.)

• FNPS – Natives for Landscaping

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

• For more in-depth study:


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