

Native Aquatic and Wetland Plants: Duck Potato, *Sagittaria lancifolia*¹

Kimberly A. Moore, Luci E. Fisher, Carl J. Della Torre III, and Lyn A. Gettys²

Introduction

Duck potato, or lanceleaf arrowhead, is an herbaceous, aquatic, native, monocotyledonous perennial plant that commonly grows in swampy ground or standing water in ponds, lakes, streams, and ditches and typically blooms in the spring. The large lance-shaped leaves grow from underground rhizomes and are 4 inches wide and up to 2 feet long (Figure 1). Duck potato flowers grow on stalks that are taller than the leaves. The showy flowers have three white petals and three green sepals (Figure 2). This plant is commonly referred to as duck potato because of its large potato-like corms that form underground. The fruit is a greenish-blue achene, and the fruiting heads contain many small, hooked seeds. This plant can be used as an emergent along pond and lake edges or in aquatic gardens. It is not considered salt-tolerant; instead, it prefers sand, loam, or organic soil.

Classification

Common Names

duck potato, lanceleaf arrowhead, bulltongue arrowhead

Scientific Name

Sagittaria lancifolia L.



Figure 1. Duck potato leaf.
Credits: Lyn Gettys, UF/IFAS

Related Species

Sagittaria latifolia Willd.

Family

Alismataceae (Water-Plantain family) (USDA NRCS 2015)

Description and Habitat

Duck potato is an obligate wetland plant (USDA NRCS 2015). It is very common in all Florida counties and is widely distributed throughout the southeastern US.

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2. Kimberly A. Moore, professor, Department of Environmental Horticulture; Luci E. Fisher, biological scientist, UF/IFAS Fort Lauderdale Research and Education Center; Carl J. Della Torre III, graduate assistant, UF/IFAS Fort Lauderdale REC, Aquatic Plant Science Lab; and Lyn A. Gettys, assistant professor, Department of Agronomy, Fort Lauderdale REC, Aquatic Plant Science Lab; UF/IFAS Extension, Gainesville, FL 32611.

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Populations have been reported in Georgia, South Carolina, North Carolina, Virginia, Maryland, Louisiana, Mississippi, Alabama, and Texas (USDA NRCS 2015). The species' native habitats are marshes, wetter portions of wet prairies, swamps, and marsh-like roadside ditches (USDA NRCS 2015). Plants are hardy in USDA Zones 4 through 11 (Figure 3).



Figure 2. Duck potato inflorescence.
Credits: Lyn Gettys, UF/IFAS

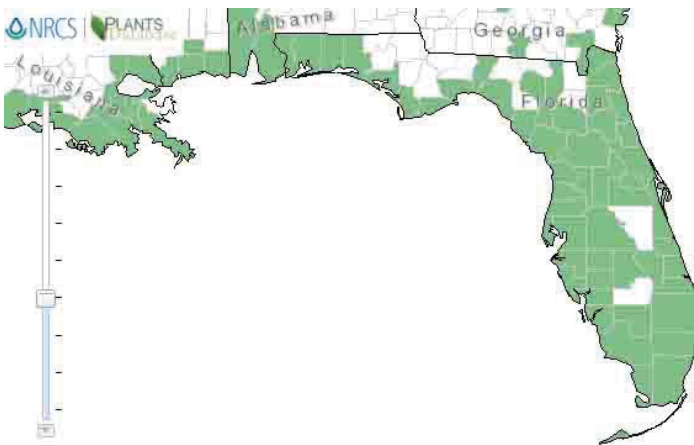


Figure 3. Distribution of duck potato in Florida.
Credits: USDA NRCS

Propagation

Duck potato can be propagated from bare root stock, corm transplanting, or direct seeding in wetland soil. Transplanting bare root stock or corms is the preferred revegetation method in areas of moving water. This also provides quicker results because seeds can take up to two years to germinate. Transplant success is often greater with corms than it is with bare root stock. Corms should be separated from the parent plant, collected, and planted when the plants are dormant in the fall, winter, and early spring. Once collected, the corms or potatoes should be kept moist and cool, preferably in moist peat moss, until planting. During transplanting, corms are planted in shallow, wet soil approximately 10 to 12 inches apart. Soil should be

kept saturated with approximately 0.5 inches of water over the surface. Many surface waters are rich in nutrients. That said, adding fertilizer will speed up revegetation if the water lacks nutrients (Figure 4). Duck potato should be planted no deeper than 12 inches in a water garden and remain in full sun.

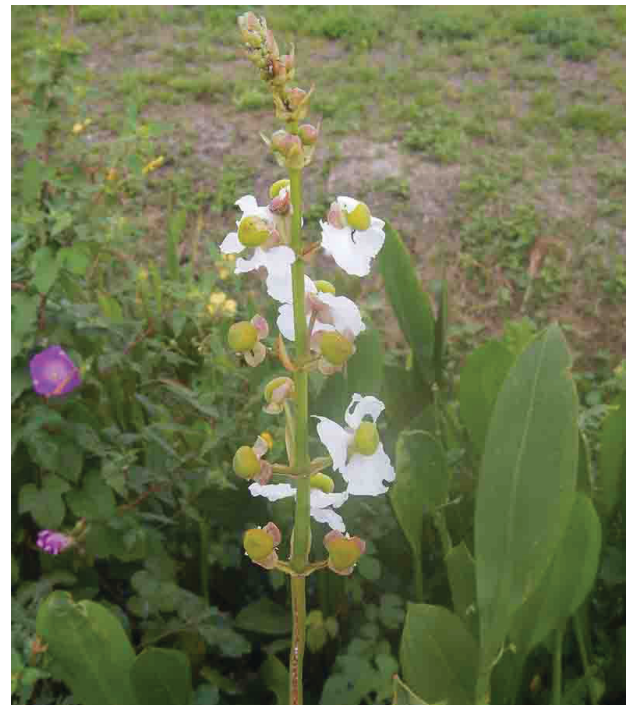


Figure 4. Duck potato in the field.
Credits: Lyn Gettys, UF/IFAS

Other Uses

Duck potato had a long history as a food and medicine source for Native Americans, especially tribes living on Lake Okeechobee, before the arrival of the Europeans. Native Americans would locate and harvest the corms between late summer and fall. They would pull plants from their canoes or wade into shallow waters and loosen the roots with their toes. As the roots rose to the top of the water, the corms were gathered and collected into floating baskets. Corms were baked in embers, boiled, or roasted in the ashes. They were then skinned and eaten whole or mashed. The Native Americans also used duck potato to clean and treat wounds, relieve several ailments such as headaches, indigestion, rheumatism, constipation, and skin irritations, and bathe feverish babies.

Duck potato was also used in Jamaica to treat wounds; in Cuba and Haiti, the roots were used to stop toothaches. In Panama, the crushed leaves were used as poultice for infected sores, chronic itch, and insect bites.

You should never eat field-collected plants, because many species have similar appearances. You could collect something that is extremely toxic and deadly (Austin 2004).

Summary

Duck potato is an obligate wetland species that can be useful in the landscape along pond and lake edges or in aquatic gardens. These plants are also reliable perennials to use in restoration areas.

References

Austin, D. F. 2004. *Florida Ethnobotany*. Boca Raton: CRC Press.

Florida Native Plant Society. 2015. “*Sagittaria lancifolia*, lance-leaved arrowhead, bulltongue arrowhead, Alismataceae.” Accessed May 13, 2015. <http://www.fnps.org/plants/plant/sagittaria-lancifolia>

Native Plant Database. 2015. “*Sagittaria lancifolia*, Lanceleaf arrowhead.” Accessed May 13, 2015. http://www.wildflower.org/plants/result.php?id_plant=SALA

USDA NRCS. 2015. “Plant guide for broadleaf arrowhead *Sagittaria latifolia* Willd.” Accessed May 13, 2015. <http://plants.usda.gov/core/profile?symbol=SALA2>.

Wunderlin, R. P., and B. F. Hansen. 2008. *Atlas of Florida Vascular Plants*. S. M. Landry and K. N. Campbell (application development), Florida Center for Community Design and Research. Tampa, FL: Institute for Systematic Botany, University of South Florida. <http://florida.plantatlas.usf.edu>.