



Common Name: SWEET PITCHERPLANT

Scientific Name: Southeast Georgia: *Sarracenia rubra* Walter *ssp. rubra*.
Southwest Georgia: *Sarracenia rubra* Walter *ssp. gulfensis* Schnell.

Other Commonly Used Names: Schnell's pitcher plant (*Sarracenia rubra* subsp. *gulfensis*); red pitcherplant (*Sarracenia rubra*)

Previously Used Scientific Names: *Sarracenia rubra* Walter

Family: Sarraceniaceae (pitcherplant)

Rarity Ranks: G3T3/S2

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: OBL

Description: Perennial **herb** with leaves modified into erect, tubular pitchers. **Pitchers** 3 - 28 inches (8 - 70 cm) tall, several per plant, red or green with a network of red veins, only slightly widening from base to opening; a narrow wing runs the length of the pitcher and a red, pointed hood curves over the opening. **Flower stalk** 5 - 30 inches (12 - 75 cm) tall, leafless. **Flower** with 5 drooping, dark red **petals**, 1 - 1½ inches (2.5 - 4 cm) long; 5 green to maroon **sepals**, up to 1⅜

inches (1.8 - 2.7 cm) long, held horizontally or curved backwards; a green, umbrella-shaped **style disk** in the center. Sepals and style disk persist on the plant long after the petals fall and after the **fruit**, a round, warty capsule up to ½ inch (0.6 - 1.2 cm) wide, develops.

Similar and Related Rare Species: All seven of Georgia's pitcherplants are state-protected and included on this web site: yellow trumpets (*Sarracenia flava*), hooded pitcherplant (*S. minor*), white-top pitcherplant (*S. leucophylla*), green pitcherplant (*S. oreophila*), parrot pitcherplant (*S. psittacina*), purple pitcherplant (*Sarracenia purpurea*), and sweet pitcherplant (*S. rubra*).

Habitat: Bogs, seepy stream banks, wet savannas, Atlantic white cedar swamps, wet pine flatwoods; powerlines and ditches through these habitats.

Life History: Pitcherplants capture and digest insects and other small animals in their pitchers. Nectar is produced by glands around the top of the pitcher, luring animals to the opening with its sweet smell. Stiff, down-pointing hairs line the pitcher, encouraging the animals to slide in and impeding their escape. Enzymes dissolved in water in the base of the pitcher digest the animals, making nutrients, particularly nitrogen, available for absorption by the plant. (Soils of bogs and other permanently saturated wetlands are typically low in nitrogen.)

Pitcherplants reproduce sexually and also vegetatively by spread of underground stems (rhizomes). The unusual shape of their flowers, with drooping petals and umbrella-like style disk, promotes cross-pollination by insects. When an insect, usually a bee, pushes its way past the petals to reach nectar on the interior of the flower, it brushes against one of the stigmas, which are at the pointed tips of the "umbrella," and deposits pollen gathered from a previously visited flower. Once inside the petals, it picks up pollen from the anthers and from the inner surface of the umbrella and then carries it to the next visited flower, usually avoiding the stigmas as it leaves the flower. Since it would be a disadvantage to the plant to "eat" its pollinators, most pitcherplants produce flowers before their pitchers are well developed or on tall stalks held well above the pitchers. Pitcherplants are usually 4 - 5 years old before they flower and may live to be 20 - 30 years old.

Survey Recommendations: Sweet pitcherplant blooms April–May, but its pitchers can be identified throughout the growing season.

Range: Subspecies *gulfensis*: southwest Georgia, Florida panhandle. Subspecies *rubra*: southeast Georgia and Coastal Plain of South Carolina and North Carolina. *Sarracenia rubra*, broadly defined to include all five subspecies, occurs in the Coastal Plain from North Carolina south to Florida and west to Mississippi.

Threats: Conversion of habitat to pine plantations, agriculture, and developments. Fire suppression, closure of canopy, and encroachment by woody plants. Poaching. Use of herbicides in rights-of-way. Off-road vehicle traffic. Digging by feral hogs.

Georgia Conservation Status: Approximately 40 populations have been seen in the last 20 years, but only 5 are protected on conservation lands.

Conservation and Management Recommendations: Apply prescribed fire every 2 - 3 years, or hand-clear to control competing vegetation. Limit access to prevent poaching and off-road vehicle traffic. Avoid ditching and draining wetlands and the use of soil-compacting equipment. Avoid use of herbicides and fertilizers in rights-of-way. Eradicate feral hogs.

Selected References:

Botanical Society of America. 2008. Carnivorous plants online.
http://www.botany.org/carnivorous_plants/Sarracenia_rubra.php

Case, F.W. and R.B. Case. 1976. The *Sarracenia rubra* complex. *Rhodora* 78: 270-325.

Chafin, L.G. 2007. Field guide to the rare plants of Georgia. State Botanical Garden of Georgia and University of Georgia Press, Athens.

Godfrey, R.K. and J.W. Wooten. 1981. Aquatic and wetland plants of southeastern United States, Vol. 2, dicotyledons. University of Georgia Press, Athens.

Godt, M.J.W. and J.L. Hamrick. 1998. Allozyme diversity in the endangered pitcher plant, *Sarracenia rubra* ssp. *alabamensis* and its close relative *S. rubra* ssp. *rubra*. *American Journal of Botany* 85(6): 802-810.

Honda, M. 2008. Insectivorous plants in the wilderness.
http://www.honda-e.com/IPW_3_Description/TX-1PitcherPlants.htm

International Carnivorous Plant Society. 2008. Carnivorous plant FAQ.
<http://www.sarracenia.com/faq/faq5544.html>

McDaniel, S. 1971. The genus *Sarracenia*. Bulletin 9, Tall Timbers Research Station, Tallahassee, Florida.

NatureServe. 2008. NatureServe Explorer. Arlington, Virginia.
<http://www.natureserve.org/explorer>

Patrick, T.S., J.R. Allison, and G.A. Krakow. 1995. Protected plants of Georgia. Georgia Department of Natural Resources, Natural Heritage Program, Social Circle.

Schnell, D.E. 1977. Intraspecific variation in *Sarracenia rubra* Walt.: some observations. *Castanea* 42: 149-170.

Schnell, D.E. 1978. *Sarracenia rubra* Walter: infraspecific nomenclatural corrections. *Castanea* 43: 260-261.

Schnell, D.E. 1979. *Sarracenia rubra* Walter ssp. *gulfensis*: a new subspecies. *Castanea* 44: 217-223.

Schnell, D.E. 2002. Carnivorous plants of the United States and Canada, 2nd edition. Timber Press, Inc. Portland, Oregon.

Weakley, A.S. 2008. Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas. University of North Carolina Herbarium, Chapel Hill.
<http://www.herbarium.unc.edu/flora.htm>

Author of Species Account: Linda G. Chafin

Date Compiled or Updated:

L.Chafin, Aug. 2008: original account

D.Weiler, Jan. 2010: added pictures



SWEET PITCHERPLANT
Sarracenia rubra

