

©Hugh and Carol Nourse

Common Name: SMITH'S SUNFLOWER

Scientific Name: *Helianthus smithii* Heiser

Other Commonly Used Names: none

Previously Used Scientific Names: *Helianthus parviflorus* Bernhardt ex Sprengel var. *attenuatus* A. Gray

Family: Asteraceae/Compositae (aster)

Rarity Ranks: G2Q/S1

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial **herb** with a smooth, waxy, erect, purplish stem up to 5 feet (150 cm) tall, branched near the top. **Leaves** 2¾ - 7 inches (7 - 18 cm) long and ⅜ - ¾ inch (1 - 1.8 cm) wide; lance-shaped with tapering bases, finely toothed or inrolled margins, a single raised midvein on the upper surface, and golden gland dots on the lower surface (may disappear by late summer); both upper and lower surfaces are rough-hairy; leaves opposite except near the top of the plant, where they may become alternate; **leaf stalks** up to ½ inch (1.3 cm) long. **Flower heads** 1 - 5 per plant, each head with 6 - 10 yellow **ray flowers**, up to ½ inch (1 - 1.5 cm) long; many yellow **disk flowers**; and a whorl of 15 - 20 green, lance-shaped **bracts** surrounding the lower part of the head. **Fruit** dry, seed-like, dark brown, about ⅛ inch (3 mm) long.

Similar Species: Small-headed sunflower (*Helianthus microcephalus*) leaves have 3 conspicuous veins and leaf stalks usually longer than ½ inch (1.3 cm); its heads have 5 - 8 ray flowers. Smith's sunflower hybridizes with small-headed sunflower when both grow together in disturbed areas, making positive identification difficult. White-leaf sunflower (*H. glaucophyllus*) leaves have whitish lower surfaces and 3 conspicuous veins. Roughleaf sunflower (*H. strumosus*) leaves have 3 conspicuous veins and are roughly hairy on the upper surface, with leaf stalks often up to 2 inches long; the heads have more than 10 ray flowers.

Habitat: Sunny gaps in dry, upland oak-hickory-pine woodlands.

Life History: Smith's sunflower is a perennial herb that reproduces sexually as well as vegetatively by sprouting from crown buds and rhizomes. Its flower heads are composed of sterile ray flowers and fertile disk flowers. The flowers are pollinated by bees and a variety of other insects. Smith's sunflower produces fertile hybrids as a result of crossing with several other sunflower species, including *Helianthus decapetalus*, *H. hirsutus*, and *H. strumosus*.

Survey Recommendations: Surveys are best conducted during flowering (August–October).

Range: Georgia, Alabama, and Tennessee.

Threats: Conversion of habitat to development and pine plantations; fire suppression.

Georgia Conservation Status: Three populations have been observed, one on national forest land. Plants in Rabun County have not been seen since the late 1800s.

Conservation and Management Recommendations: Protect wooded slopes and bluffs from clearing and development. Maintain forest openings with fire or hand-clearing.

Selected References:

Cronquist, A. 1980. Vascular flora of the southeastern United States, Vol. 1, Asteraceae. University of North Carolina Press, Chapel Hill.

FNA. 2006. Flora of North America, Vol. 21, Magnoliophyta: Asteridae, Part 8: Asteraceae, Part 3. Oxford University Press, New York.

Heiser, C. B., D. M. Smith, S. Clevenger, and W. C. Martin. 1969. The North American sunflowers (*Helianthus*). Memoranda of Torrey Botanical Club 22(3).

Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. Technical Publication R8-TP2. United States Forest Service, Atlanta.

NatureServe. 2007. NatureServe Explorer. Arlington, Virginia.
<http://www.natureserve.org/explorer>

Weakley, A.S. 2007. Flora of the Carolinas, Virginia, Georgia, 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, Oct. 2007: original account

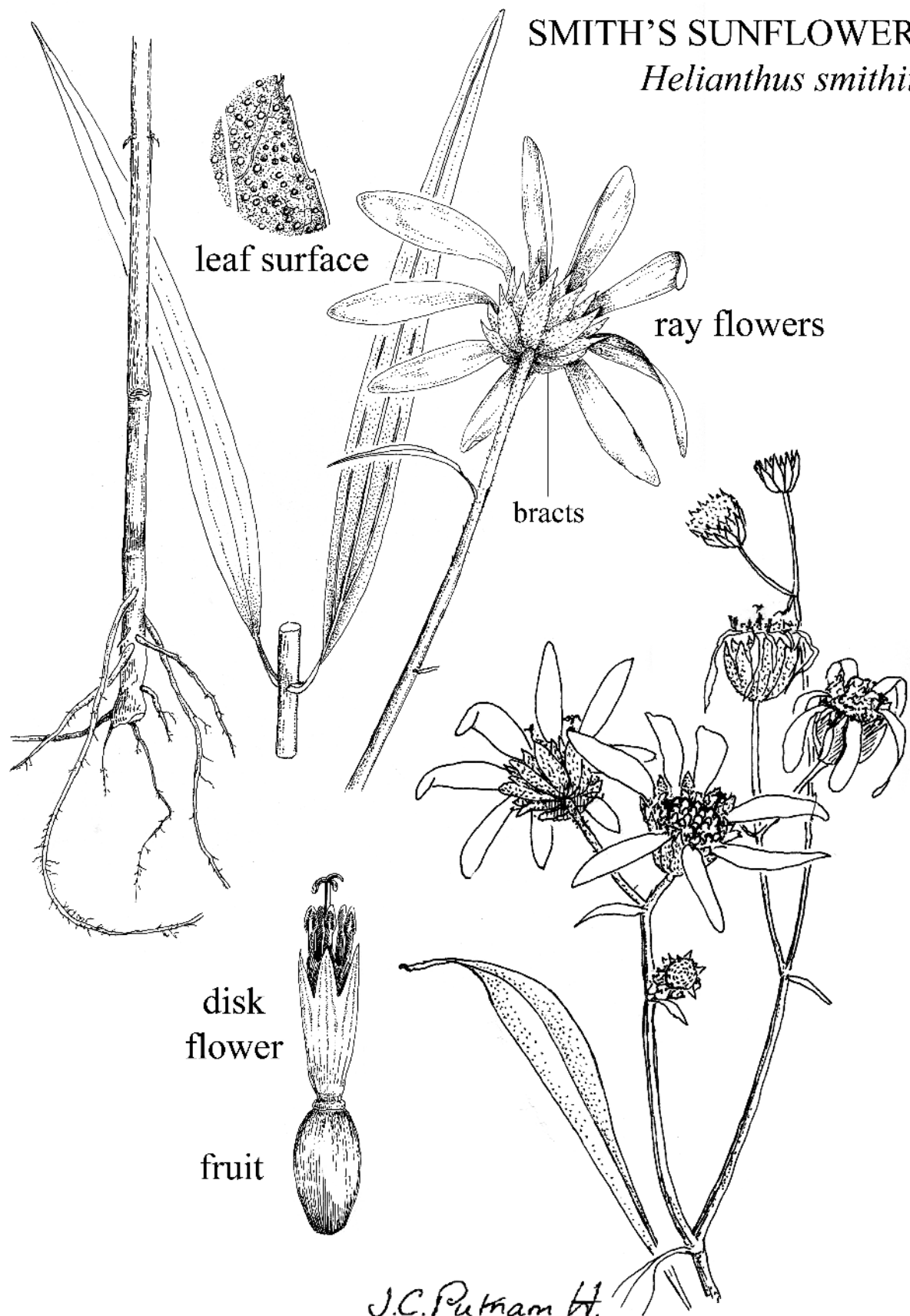
K. Owers, Feb. 2010: added pictures



©Hugh and Carol Nourse

SMITH'S SUNFLOWER

Helianthus smithii





©Hugh and Carol Nourse



©Hugh and Carol Nourse