



Common Name: PRAIRIE PURPLE CONEFLOWER

Scientific Name: *Echinacea simulata* McGregor

Other Commonly Used Names: wavy-leaf purple coneflower

Previously Used Scientific Names: *Echinacea pallida* (Nuttall) Nuttall var. *simulata* (McGregor) Binns, B. R. Baum, & Arnoson

Family: Asteraceae/Compositae (aster)

Rarity Ranks: G3/S2S3

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial **herb** with stems up to 3 feet (100 cm) tall and usually unbranched. **Leaves** 2 - 16 inches (5 - 40 cm) long and ¼ - 1½ inches (0.5 - 4 cm) wide, mostly basal with a few smaller leaves on the lower stem, alternate, often hairy, not toothed. **Leaf stalk** up to 8 inches long. **Flower head** solitary at the top of the stem, with a central, rounded or cone-shaped,

disk. **Ray flowers** 1½ - 3½ inches (4 - 9 cm) long, strap-shaped, drooping, pink to pale purple. **Disk flowers** purple, with yellow pollen, flowers surrounded by sharply pointed, maroon **bristles** (chaff or pales) up to ½ inch (1.4 cm) long. **Fruit** about ³/₁₆ inch long, dry and seed-like, 4-sided.

Similar Species: Pale purple coneflower (*Echinacea pallida*) closely resembles prairie purple coneflower but has white pollen; it is probably not native to Georgia but has escaped from gardens.

Related Rare Species: Purple coneflower (*Echinacea purpurea*, Special Concern) is widely planted in gardens but, because it requires basic soils, is rare in the wild in Georgia; it occurs in open woodlands in several north Georgia counties. Its leaves are oval, rough or hairy on both surfaces, with toothed edges and long leaf stalks; its stems are hairy; the purple ray flowers are 1 - 3 inches (3 - 8 cm) long, only slightly drooping; the chaff bristles are orange with straight tips. Also see smooth coneflower (*E. laevigata*) on this website.

Habitat: Coosa Valley prairies, with scattered, stunted red cedar in clayey soils over calcium-rich bedrock (such as limestone or calcareous shale); roadsides and utility rights-of-way through this habitat.

Life History: The flowers of prairie purple coneflower are pollinated by a variety of butterflies, moths, beetles, bees, and other insects. Seeds are dispersed by gravity and by birds and small mammals. Prairie purple coneflower will hybridize with other coneflowers, such as pale purple coneflower (*Echinacea pallida*) and sanguine purple coneflower (*E. sanguinea*).

Survey Recommendations: Surveys are best conducted during flowering (May–June).

Range: Georgia, Tennessee, Kentucky, Indiana, Illinois, and Missouri.

Threats: Conversion of habitat to pine plantations. Logging, clearing, fire suppression. Use of herbicides in rights-of-way. Poaching.

Georgia Conservation Status: Approximately 6 prairie sites and 5 roadside sites are known, most protected by a conservation easement.

Conservation and Management Recommendations: Apply prescribed fire frequently. Avoid logging, and mechanical clearing and site preparation. Avoid herbicide use along roadsides. Protect plants from poaching.

Selected References:

Binns, S.E., B.R. Baum, and J.T. Arnason. 2002. Taxonomic revision of *Echinacea* (Asteraceae: Heliantheae). Systematic Botany 27(3): 610-632.

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

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

Horn, D., T. Cathcart, T.E. Hemmerly, and D. Duhl. 2005. Wildflowers of Tennessee, the Ohio Valley, and the southern Appalachians. Lone Pine Publishing, Auburn, Washington.

McGregor, R.L. 1968. Taxonomy of the genus *Echinacea* (Compositae). University of Kansas Science Bulletin 48(4): 113-142.

McKeown, K.A. 1999. Review of the taxonomy of the genus *Echinacea*. In, J. Janick, Perspectives on new crops and new uses. ASHS Press, Alexandria, Virginia.

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:

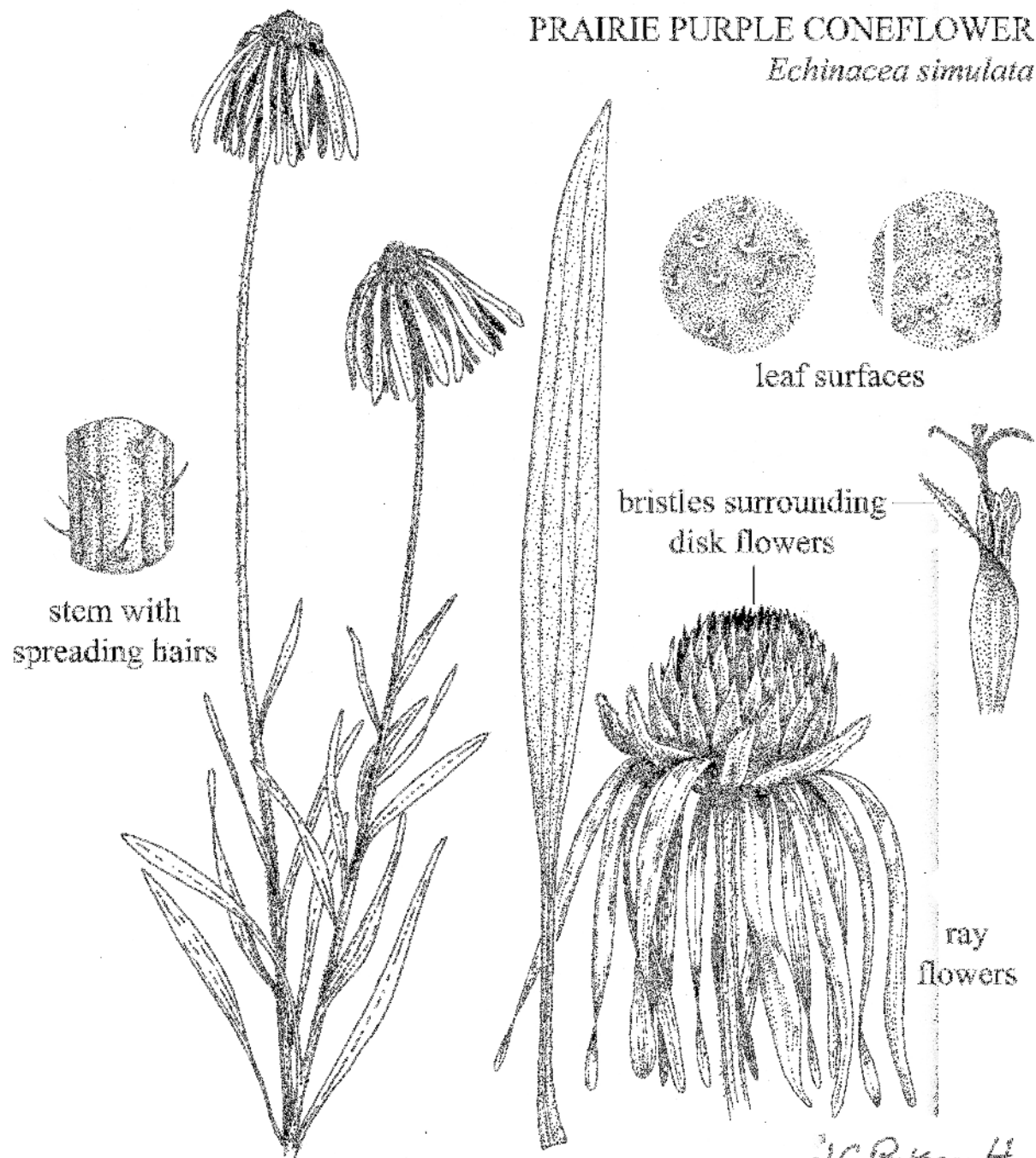
L. Chafin, Feb. 2007: original account

K. Owers, Jan. 2010: added pictures



PRAIRIE PURPLE CONEFLOWER

Echinacea simulata



J.C. Putnam H.



©Carol and Hugh Nourse