



Common Name: TENNESSEE LEAFCUP

Scientific Name: *Polymnia laevigata* Beadle

Other Commonly Used Names: smooth leafcup

Previously Used Scientific Names: none

Family: Asteraceae/Compositae (aster)

Rarity Ranks: G3/S1

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial or annual **herb** with hairless stems, 3 - 8 feet (1 - 2.5 meters) tall; upper branches are finely hairy. **Lower leaves** 6 - 12 inches (15 - 30 cm) long, opposite, deeply cut and lobed, hairless except on the veins. **Leaf stalk** of lower leaves $\frac{1}{4}$ - $\frac{1}{2}$ the length of the blade, often with leafy, toothed, semi-circular bracts (**stipules**) at the base of the stalk. **Upper leaves** decreasing in size up the stems, with few or no lobes, and with short or no leaf stalks, opposite or alternate near the top of the plant. **Flower heads** about $\frac{1}{4}$ inch (5 - 6 mm) high, with a cup-shaped whorl of small, leafy **bracts** surrounding the base of the head. **Ray flowers** $\frac{1}{8}$ inch (3 mm) long, 6 or fewer per head, white, 3-toothed, female only; **disk flowers** smaller, 12 - 30 per head, yellowish, male only. **Fruits** about $\frac{1}{8}$ inch (3 mm) long, 5 or fewer around the outer edge of the head, seed-like, thick and rounded, with 4 - 6 angles.

Similar Species: White-flowered leafcup (*Polymnia canadensis*) has hairy stems, ray flowers up to $\frac{3}{8}$ inch (1 cm) long, and fruits with only 3 ribs. Bear's-foot (*P. uvedalia*, synonym: *Smallanthus uvedalius*) has yellow ray flowers longer than $\frac{3}{8}$ inch (1 cm); its fruits have many fine, raised lines.

Related Rare Species: None in Georgia.

Habitat: Rocky, wooded slopes over limestone or sandstone.

Life History: Little is known about the biology of this species – it's not even clear if it's an annual, perennial, or biennial. Numerous species of insects have been observed visiting Tennessee leafcup and carrying away pollen, including bees, bugs, wasps, flies, and ants. It apparently also self-pollinates to a high degree, which may contribute to its rarity since self-pollination leads to lowered genetic diversity and decreased adaptability.

Survey Recommendations: Surveys are best conducted during flowering (July–frost).

Range: Georgia, Florida, Alabama, Tennessee, and Kentucky; populations in Missouri have been destroyed.

Threats: Logging, grazing, invasion by exotic pest plants.

Georgia Conservation Status: Five populations are known, 4 on state conservation lands.

Conservation and Management Recommendations: Protect rocky, wooded slopes from logging and grazing; eradicate exotic pest plants.

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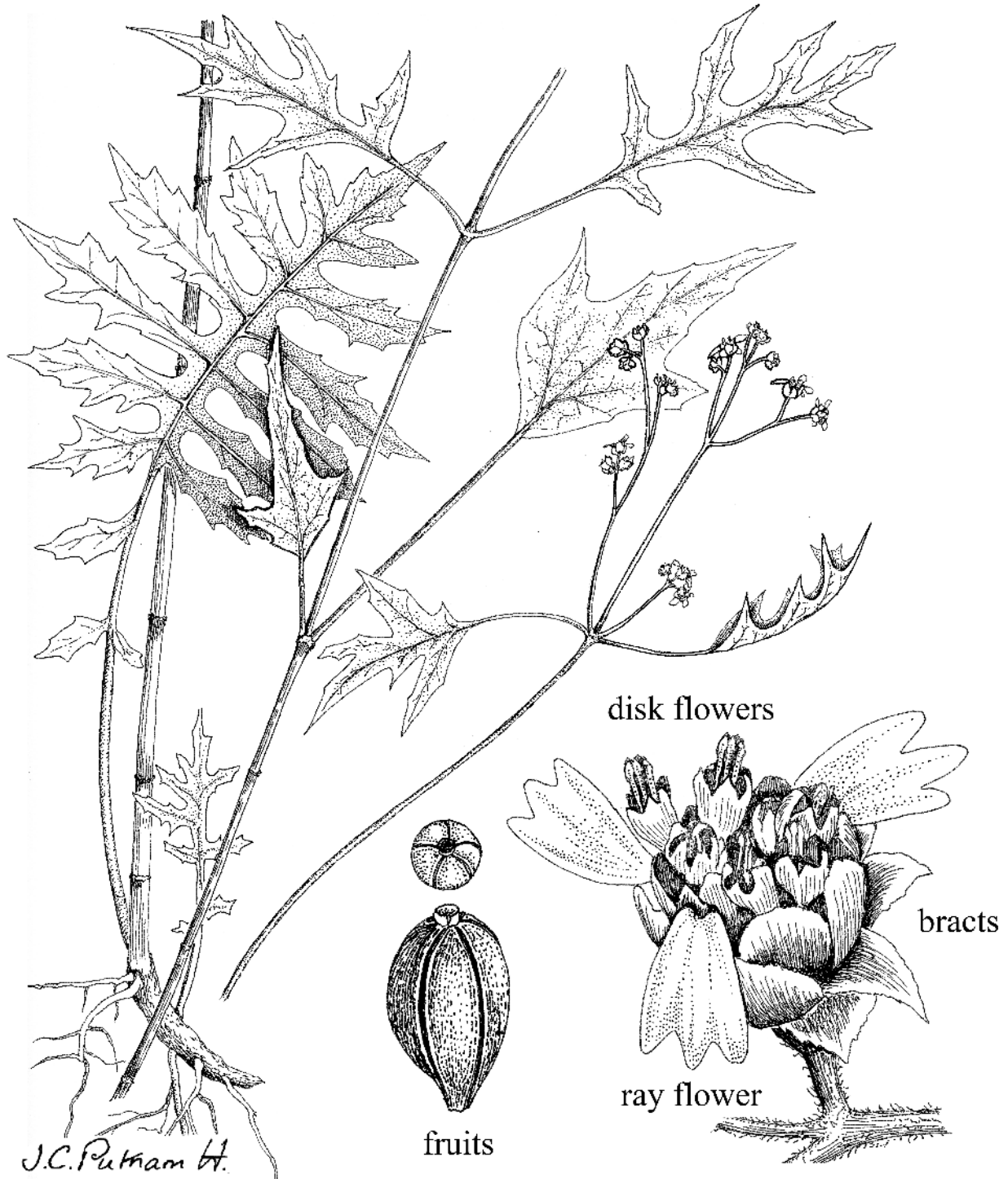
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L. Chafin, July 2008: original account

K. Owers, Feb. 2010: added pictures

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