Common Name: LARGE-FLOWERED SKULLCAP

Scientific Name: *Scutellaria montana* Chapman

Other Commonly Used Names: none

Previously Used Scientific Names: *Scutellaria serrata* Andrzejowski var. *montana* (Chapman) Penland

Family: Lamiaceae/Labiatae (mint)

Rarity Ranks: G3/S2S3

State Legal Status: Threatened

Federal Legal Status: Threatened

Federal Wetland Status: FACW

Description: Large-flowered skullcap is a perennial **herb** with erect, 4-sided **stems**, 1 - 2 feet (30 - 60 cm) tall, covered with soft, gland-tipped hairs. Its **leaves** are 2 - 4 inches long, opposite, with rounded or truncate bases, pointed tips, toothed margins, and leaf stalks; the leaves are hairy on both surfaces. **Flower clusters** have 2 - 20 paired flower stalks and are held at the top of the stem, or in smaller clusters arising from the junction of leaf and stem. The **flowers** are 1 - 1⅜ inch (2.6 - 3.5 cm) or longer (flower size is important to identification), with a white, erect tube; a hood-like, pale blue upper lip; and a spreading, pale blue lower lip with 2 white streaks bordered by dark blue lines and splotches. A small green cup (**calyx**) with a bump (the **scutellum**) on the upper side surrounds the base of the flower. **Fruits** mature in late June–July and consist of 4 nutlets contained within the calyx which springs open and expels the nutlets when ripe.

Similar Species: False-teeth skullcap (*Scutellaria pseudoserrata*) also has large flowers but its leaves are covered on the upper surface with shining glandular dots and have hairs only on the veins on the lower surface.

Related Rare Species: See Altamaha skullcap (*Scutellaria altamaha*), Ocmulgee skullcap (*S. ocmulgee*), and showy skullcap (*Scutellaria serrata*) elsewhere on this website. Five other species of skullcap are of Special Concern in Georgia: *S. arenicola*, *S. leonardii*, *S. mellichampii*, *S. nervosa*, and *S. saxatilis*.

Habitat: Moist hardwood and hardwood-pine forests with few shrubs.

Life History: Large-flowered skullcap is a long-lived perennial herb that reproduces sexually. Plants do not flower until they are several years old and often fail to produce viable fruit. The flowers have long tubes and produce nectar with a sucrose-hexose ratio near 50%, indicating that this species evolved in the presence of pollinators such as moths or long-tongued bees, but hummingbirds, butterflies, and wasps have also been observed visiting their flowers. However, visits by any pollinator are infrequent, and, as a result, large-flowered skullcap flowers are either not pollinated, resulting in no seed production, or are self-pollinated which carries the possibility of the negative long-term effects of inbreeding. In spite of this, studies have shown that large-flowered skullcap has relatively high levels of genetic variation when compared to similar herbaceous perennials. This may be due, in part, to high rates of gene flow because its pollinators can fly long distances.

Survey Recommendations: Surveys are best conducted during flowering (mid-May–early June). Flower size is important to identification.

Range: Ridge and Valley physiographic province of northwest Georgia and southeast Tennessee. Populations are concentrated on Lookout and Signal Mountains in Tennessee and in Floyd County, Georgia.

Threats: Quarrying, logging, cattle grazing and trampling, clearing for residential and commercial development, overbrowsing by deer, and competition by exotic pest plants such as Japanese honeysuckle.

Georgia Conservation Status: Fifty-three populations are known, 12 on conservation land.

Conservation and Management Recommendations: Large-flowered skullcap is not a vigorous competitor and is not found in areas with a dense herbaceous layer. It is quickly overcome by exotic pest plants, such as Japanese honeysuckle, that invade following disturbance. Avoid logging, trampling, and mechanical clearing. Control deer browsing.

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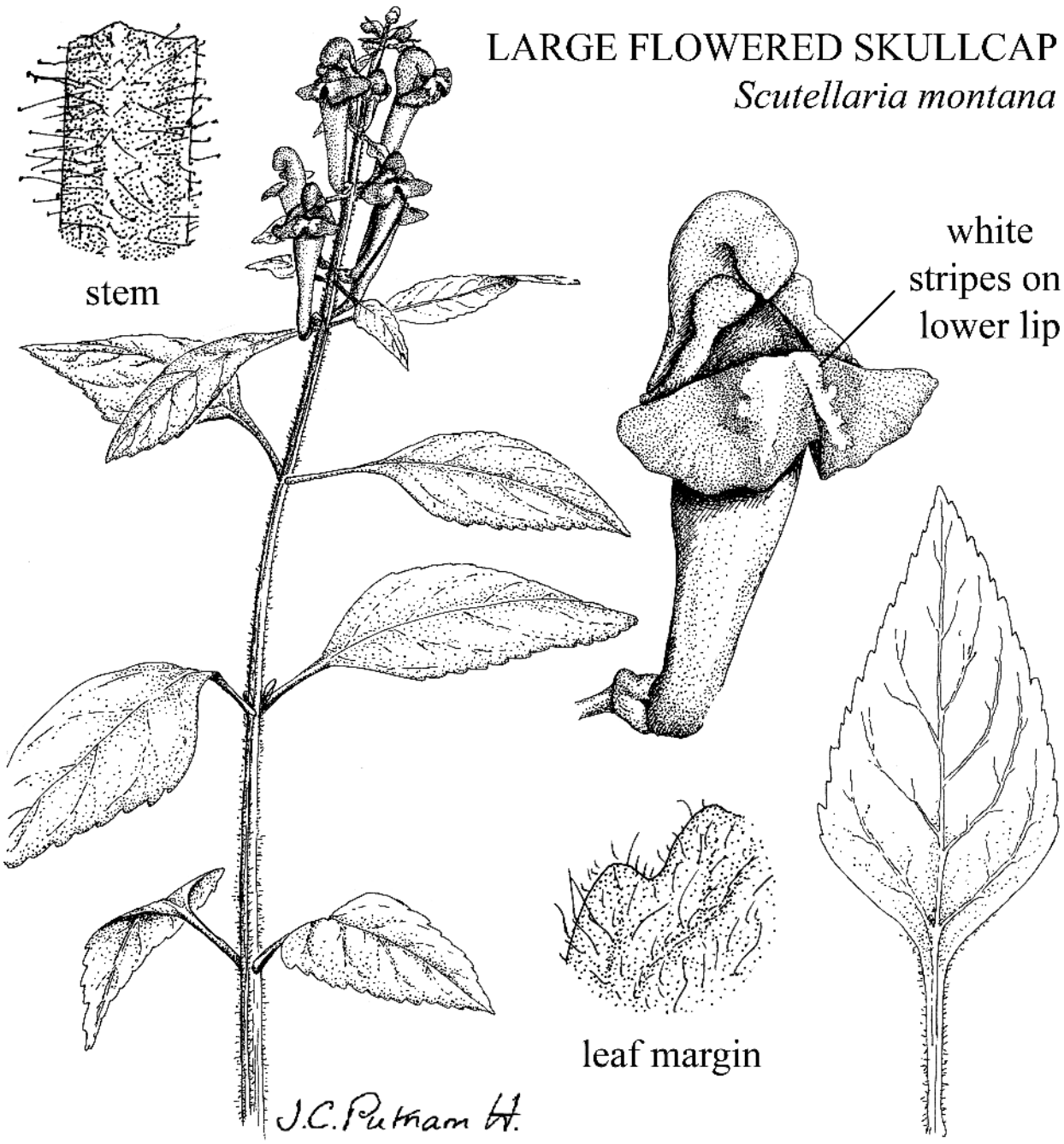
LARGE FLOWERED SKULLCAP
Scutellaria montana
stem
white
stripes on
lower lip
leaf margin
J.C. Putnam H.