



LEGAL STATUS:

State: THREATENED

Federal: None

SYNONYMY:

Dracocephalum leptophyllum (Small) Small

Dracocephalum veroniciforme (Small) Small

Physostegia veroniciformis Small

RANGE: Coastal Plain of Florida and Georgia, north to southeastern Virginia. Recorded from five counties in Georgia (see map).

ILLUSTRATION: (A) plant habit, showing lowermost leaves stalked and the uppermost leaves clasping the stem, 0.5x; note the elongate, horizontal rhizomes; (B) flower, profile, 2x; (C) fruiting calyx, opened to show the 3-angled nutlets, 4x. Source: Godfrey and Wooten (1981), drawn by Melanie Darst and used with permission.

DESCRIPTION: Perennial herb. This showy herb has quadrangular stems up to 14 dm tall. The primary underground stem (rhizome) branches, producing numerous horizontal secondary rhizomes capable of producing plants asexually. The leaves are opposite in 7-15 pairs, with the margins wavy (undulate) or having low, rounded teeth. The lower pairs of leaves have longer leafstalks (to 6 cm long) and the expanded portion of the leaf (blade) is elliptic-lanceolate, 3-11 cm long and 1-3 cm

wide. The upper pairs of leaves clasp the stem and are narrowly lanceolate, 2-13 cm long, and 0.5-3.3 cm wide. The uppermost leaves are much longer than the flower bracts, which are 2-8 mm long and 1.2 mm wide. The numerous flowers are produced in showy terminal racemes that are finely hairy or downy, the hairs only 0.1 mm long. The corolla is deep lavender to reddish-violet with purplish splotches within, 14-30 mm long, and 2-lipped, the lower lip with three lobes. The calyx is densely fine-hairy, with a tube 3.5-6.0 mm long, and five lobes that are sharply pointed and 1-3 mm long. Each flower produces up to four fruits, which are nutlets, each 3-angled, brown, and 2.2-3.2 mm long. **Flowering period:** late April to early August; **fruiting period:** July to October. **Best search time:** during flowering, when plants are most conspicuous.

HABITAT: Found in wet muck or peat in shallow water of river swamp openings, and in the margins of both freshwater and brackish (tidal) marshes.

SPECIAL IDENTIFICATION FEATURES: Three obedient plants are found on Georgia's Coastal Plain, but only *Physostegia leptophylla* regularly inhabits river swamps and both freshwater and brackish marshes. Virginia obedient plant (*P. virginiana*) has leaves abruptly tapered to a point (acuminate) and occupies rocky or sandy streambanks, seasonally damp meadows, and moist, rocky openings in woods. Both narrowleaf obedient plant (*P. leptophylla*) and purple obedient plant (*P. purpurea*) have bluntly toothed to entire, sharply pointed to rounded (acute to obtuse) leaves. In *P. purpurea* the distance between the two uppermost pairs of leaves is more than twice their length, and the plant inhabits sloughs, ditches, and open pinelands. In contrast, in narrowleaf obedient plant (*P. leptophylla*) the distance between the two uppermost pairs of leaves is about as long or shorter than their length.

MANAGEMENT RECOMMENDATIONS: Avoid drainage of site.

REMARKS: John K. Small (1869-1938) described *Physostegia leptophylla* in 1899, based on plants collected along the Manatee River, in Florida. Four years later he described *P. veroniciformis*, based on an old collection from the vicinity of Sunbury, Georgia (Bryan County). *Physostegia veroniciformis* allegedly differed from *P. leptophylla* principally in having short corollas (<2 cm long) but long calyx tubes (8-9 mm long). The most recent monographer of the genus, Cantino (1982), placed *P. veroniciformis* in synonymy with *P. leptophylla* (i.e., he did not treat the former as distinct from the latter). He also apparently considered the plants treated as *P. veroniciformis* by Kral (1983) to represent *P. purpurea* instead. *Physostegia leptophylla* is rare throughout its range and has sustained significant habitat loss due to draining of its habitat for conversion to agricultural land.

SELECTED REFERENCES

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- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and Wetland Plants of Southeastern United States. Volume 2. Dicotyledons. University of Georgia Press, Athens. 933 pp.
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