

Common Name: VARIABLE-LEAF INDIAN-PLANTAIN

Scientific Name: Arnoglossum diversifolium (Torrey & Gray) H.E. Robinson

Other Commonly Used Names: none

**Previously Used Scientific Names:** Cacalia diversifolia Torrey & Gray; Mesadenia difformis Small; Mesadenia diversifolia (Torrey & A. Gray) Greene

Family: Asteraceae/Compositae (aster)

Rarity Ranks: G2/S2

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

**Description:** Perennial **herb** with **stem** to 6½ feet tall (200 cm), slightly grooved and angled. **Lower leaves** with blades up to 4 inches (10 cm) long, heart- or lance-shaped with rounded or squared-off bases, and shallowly lobed or coarsely toothed margins; leaf stalks 4 - 8 inches (10 - 20 cm) long. **Upper stem leaves** are smaller and more deeply toothed, with short or no leaf stalks; green on both surfaces. **Flower heads** about ½ inch (1.25 cm) high, held at the tips of small branches in a large, open cluster at the top of the stem; each head surrounded by small, greenish-white, winged **bracts**. **Flowers** 5 per head, white to lavender.

**Similar Species:** Broadleaf Indian-plantain (*Arnoglossum ovatum*) has a round (not angled) stem, leaves whitened on the lower surface, and pale yellow flowers. Pale Indian-plantain (*A. atriplicifolium*) is an upland plant with a waxy stem, leaves whitened on the lower surface, and white flowers.

**Related Rare Species:** Grooved-stem Indian-plantain (*Arnoglossum sulcatum*, Special Concern) occurs in sphagnum bogs and wet woodlands in Early, Decatur, and Lee counties. It resembles variable-leaved Indian-plantain but it has yellow flowers, and its lower leaves are oval, tapering gradually to the base and forming wings on the leaf stalk.

**Habitat:** Openings in floodplain forests over limestone with clayey, basic soils and a canopy of hardwood trees and bald cypress.

**Life History:** Little is known about pollination and seed dispersal in variable-leaf Indian-plantain; it is likely pollinated by bees and other insects, and its seeds are probably dispersed by a combination of wind, gravity, and a variety of insects and small animals. Each fruit is surrounded by a whorl of fine bristles, the pappus, which aids in wind dispersal. Plants probably flower the second year following seed germination.

**Survey Recommendations:** Surveys are best conducted during flowering (May–August) and fruiting (July–September).

Range: Georgia, Florida, and Alabama.

**Threats:** Ditching, draining, and filling in wetlands. Clearcutting in bottomlands and floodplains. Impounding streams to form ponds and lakes.

**Georgia Conservation Status:** Nine populations are known, none on conservation lands.

**Conservation and Management Recommendations:** Avoid logging, ditching, and draining in wetlands. Avoiding stream impoundment.

## **Selected References:**

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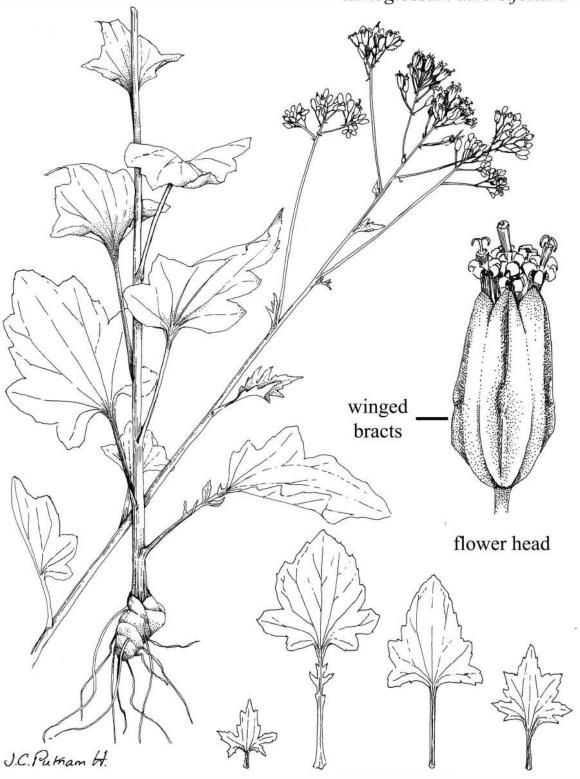
## **Date Compiled or Updated:**

L. Chafin, Sept. 2007: original account

K. Owers, Jan. 2010: updated status and ranks, added pictures

## VARIABLE-LEAF INDIAN-PLANTAIN

Arnoglossum diversifolium



upper stem leaves



Inflorescence