

Common Name: DIXIE MOUNTAIN BREADROOT

Scientific Name: Pediomelum piedmontanum J.R. Allison, M.W. Morris, and A.N. Egan

Other Commonly Used Names: Georgia breadroot, Piedmont buckroot

Previously Used Scientific Names: none

Family: Fabaceae/Leguminosae (pea)

Rarity Ranks: G1?/S1

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial **herb** up to 3 feet (1 meter) tall with erect, branching stems covered with tiny, stiff hairs and glandular dots. **Leaves** with 3 (rarely 4 - 5) oval leaflets up to 2 inches (5 cm)

long and 1 inch (2.7 cm) wide, more than twice as long as wide; leaf stalks shorter than the leaflet stalks or lacking. **Flower clusters** about 1 - 2 inches (2.5 - 5.7 cm) long, crowded, held at the tips of branches. **Flowers** about ½ inch (1.4 cm) long, cream-colored with purple tinge, with an upper banner petal and 2 smaller wings enclosing the keel petals; calyx hairy, gland-dotted, with 5 long, pointed lobes and a rounded base. **Fruit** about ½ inch (1.5 cm) long, including a curved beak; covered with amber or brown gland dots. **Seed** about ½ inch (3.5 - 5 mm) long, smooth, slightly kidney-shaped, gray-brown.

Similar Species: Buckroot (*Pediomelum canescens*) occurs in dry, sandy soil in the Coastal Plain. Its leaves have 1 - 3 leaflets, and the pale yellow flowers are loosely arranged so the stem is easily seen within the cluster.

Related Rare Species: Nashville breadroot (*Pediomelum subacaule*, Special Concern) occurs on limestone glades in Catoosa and Walker Counties. It lacks an aboveground stem; its leaves have long stalks with 5 - 7 leaflets.

Habitat: Sunny openings in dry, rocky woods over serpentine, phyllite, or other rock high in magnesium (mafic rock); also in roadsides and rights-of-way through these habitats. Grows with blackjack and post oak, shortleaf and longleaf pine, little bluestem, and cream false indigo.

Life History: Dixie Mountain breadroot is a perennial herb adapted to living in a dry, fire-maintained habitat; it thrives in full sun and its large root provides stored resources for drought-resistance and quick re-sprouting after a fire. Dixie Mountain breadroot reproduces sexually; its flowers are visited by, and probably pollinated by, a variety of insects, including bees and butterflies.

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

Range: Endemic to 1 county in Georgia and 2 counties in South Carolina, just north of the Fall Line.

Threats: Conversion of habitat to pine plantations, pasture, and development; use of herbicides in utility rights-of-way; encroachment by woody plants in absence of fire or other management.

Georgia Conservation Status: One population is known; it occurs on private land. Two populations are known from South Carolina.

Conservation and Management Recommendations: Apply prescribed fire every 3 - 5 years, preferably during the growing season. Avoid use of herbicides in rights-of-way. Limit access to prevent over-collection. Prevent clearing and development.

Selected References:

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Isely, D. 1990. Vascular flora of the southeastern United States, Vol. 3, Part 2, Leguminosae (Fabaceae). University of North Carolina Press, Chapel Hill.

NatureServe. 2008. NatureServe Explorer. Arlington, Virginia. http://www.natureserve.org/explorer

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Date Compiled or Updated:

L. Chafin, July 2008: original account K. Owers, Feb. 2010: added pictures



Inflorescence

DIXIE MOUNTAIN BREADROOT Pediomelum piedmontanum



