



Common Name: EDNA'S TRILLIUM

Scientific Name: *Trillium persistens* W.H. Duncan

Other Commonly Used Names: persistent trillium

Previously Used Scientific Names: none

Family: Trilliaceae (trillium) or Melanthiaceae (bunchflower)

Rarity Ranks: G1/S1

State Legal Status: Endangered

Federal Legal Status: Endangered

Federal Wetland Status: none

Description: Perennial **herb** with erect stems up to 12 inches (30 cm) tall. **Leaves** 1 - 3³/₈ inches (3 - 8.5 cm) long and ½ - 1³/₈ inches (1.5 - 3.5 cm) wide, lance-shaped, dark green, in a whorl of 3 leaves at the top of the stem. **Flower stalk** ½ - 1¹/₈ inches (1.2 - 3 cm) long, rising from the center of the whorl of leaves. **Flower** with 3 **petals**, ⁵/₈ - 1¹/₄ inches (2 - 3.5 cm) long and ⅛ - ³/₈ inch (0.5 - 1 cm) wide, not overlapping at the base, delicate in texture with slightly wavy edges, white, turning pink-purple with age; 3 pale green **sepals**, slightly spreading, narrower than

the petals, with bluntly pointed tips and pale edges; and 6 straight **stamens** with white stalks (**filaments**) and yellow pollen sacs (**anthers**). **Ovary** greenish-white. **Fruit** an oval, fleshy capsule up to ½ inch (1.3 cm) long.

Similar Species: Large-flowered trillium (*Trillium grandiflorum*) flowers are 1½ - 3 inches (4 - 8 cm) long; the petals overlap at the base, forming a tube, then flare outward at the tips; leaves are up to 4¾ inches (12 cm) wide at midpoint. Catesby's trillium (*T. catesbaei*) has nodding flowers held below the leaves, with strongly recurved petals and twisted yellow anthers. Southern nodding trillium (*T. rugelii*) has nodding flowers held below the leaves, with purple anthers.

Related Rare Species: There are at least 22 species of trillium in Georgia, nine of which are of Special Concern. Five of these are included on this website: Chattahoochee trillium (*Trillium decipiens*), pale yellow trillium (*T. discolor*), Edna's trillium (*T. persistens*), least trillium (*T. pusillum*), and relict trillium (*T. reliquum*).

Habitat: Pine-hemlock-hardwood forests in ravines or along streams, often with rosebay or Carolina rhododendron or in lowbush blueberry thickets.

Life History: Trilliums are perennial herbs that send up stems, leaves, and flowers in early spring, after temperatures have risen but before the forest canopy has leafed out. After flowering and fruiting, the aboveground plant disappears, persisting through the late summer, fall, and winter as an underground rhizome. Seeds shed in the summer germinate the following spring and, within a year or two, send up a single, spatula-shaped seed leaf (cotyledon) for one year's growing season. The next year, a true leaf is produced and, in subsequent years, three-leaved plants appear. After 5 - 7 years (possibly fewer in the Coastal Plain), the plant produces a flowering stalk. Trillium seeds have small, fat-rich appendages called elaiosomes that are appealing to ants, yellow jackets, and other wasps, which carry the seed back to their nests, inadvertently dispersing the trillium seeds. Seeds are dispersed longer distances when the fruits are eaten by other animals such as deer and woodchucks. Mature trillium plants are very long-lived, perhaps living hundreds of years, since the rhizome continues to lengthen and produce shoots on one end, while the other end decays.

Survey Recommendations: Surveys are best conducted during flowering (mid-March–mid-April).

Range: Four square miles of the Tallulah -Tugaloo River system in Georgia and South Carolina (only one population is known in South Carolina).

Threats: Logging, clearing, trail construction, trampling, poaching, competition from invasive pest plants.

Georgia Conservation Status: Fewer than 12,000 plants in 6 populations are known, most on National Forest or state park land.

Conservation and Management Recommendations: Avoid logging, clearing, trail construction, or other mechanical disturbances. Protect plants from trampling and collecting. Eradicate invasive pest plants such as Japanese honeysuckle.

Selected References:

Chafin, L.G. 2007. Field guide to the rare plants of Georgia. State Botanical Garden of Georgia and University of Georgia Press, Athens.

Duncan, W.H. and M.B. Duncan. 1999. Wildflowers of the eastern United States. University of Georgia Press, Athens.

Duncan, W.H., J.F. Garst, and G.A. Neese. 1971. *Trillium persistens* (Liliaceae), a new pedicellate-flowered species from northeastern Georgia and adjacent North Carolina. *Rhodora* 73: 244-248.

Farmer, S.B. 2006. *Trillium* and the *Trillium* family (Trilliaceae).
<http://www.goldsword.com/sfarmer/Trillium>

Farmer, S.B. and E.E. Schilling. 2002. Phylogenetic analyses of Trilliaceae based on morphological and molecular data. *Systematic Botany* 27: 674-692.

FNA. 2003. Flora of North America, Vol. 26, Magnoliophyta: Liliidae: Liliales and Orchidales. Oxford University Press, New York.

Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. Technical Publication R8-TP2. United States Forest Service, Atlanta.

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

Patrick, T.S. 2007. Trilliums of Georgia. *Tipularia*, Journal of the Georgia Botanical Society 22: 3 - 22.

Patrick, T.S., J.R. Allison, and G.A. Krakow. 1995. Protected plants of Georgia. Georgia Department of Natural Resources, Natural Heritage Program, Social Circle.

USFWS. 1984. Persistent trillium (*Trillium persistens*) recovery plan. U.S. Fish and Wildlife Service, Atlanta, Georgia.

USFWS. 1991. Persistent trillium (*Trillium persistens*) – species account. U.S. Fish and Wildlife Service, Washington, D.C. <http://endangered.fws.gov>

Weakley, A.S. 2008. Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas. University of North Carolina Herbarium, Chapel Hill.
<http://www.herbarium.unc.edu/flora.htm>

Author of Species Account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, Jan. 2009: original account

K. Owers, Feb. 2010: added pictures

EDNA'S TRILLIUM
Trillium persistens

