



Common Name: FLORIDA ANISE

Scientific Name: *Illicium floridanum* J. Ellis

Other Commonly Used Names: anise-tree

Previously Used Scientific Names: *Badianifera floridana* (J. Ellis) Kuntze

Family: Illiciaceae (star anise)

Rarity Ranks: G3/S1

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: FACW

Description: Evergreen **shrub or small tree**, 5 - 26 feet (1.5 - 8 meters) tall. **Leaves** 2 - 8 inches (5 - 21 cm) long and $\frac{1}{2}$ - $2\frac{3}{8}$ inches (1.5 - 6 cm) wide, evergreen, smooth, leathery, with tapering bases and pointed tips; alternate or appearing whorled at the ends of branches; with a strong, spicy or pungent smell. **Leaf stalks** reddish, up to 1 inch (2.6 cm) long. **Flowers** 1 - 2

inches (2.5 - 5 cm) wide, maroon (rarely white), often hidden among the leaves, foul-smelling, with 20 - 33 narrow petals. **Fruit** 1 - 1½ inches (2.5 - 4 cm) wide, star-shaped, composed of 11 - 17 woody pods arranged in a circle. Although very rare in the wild in Georgia, Florida anise is widely used in landscaping.

Similar Species: Horse-sugar (*Symplocos tinctoria*) occurs in drier habitats and has rough-hairy leaves that smell like green apples when crushed. Wild olive (*Osmanthus americanus*) has similar leathery, evergreen leaves but they are opposite. Yellow star-anise (*Illicium parviflorum*) is similar but naturally occurs only in central Florida although it is widely used in landscaping throughout Georgia. Its spicy-smelling leaves are oval with bluntly rounded tips; its leaf stalks are green; and the flowers are small with 6 - 12 rounded, yellow petals. Both Florida anise and yellow star-anise are closely related to Chinese star anise (*Illicium verum*) whose fruits are used for spice and medicine.

Related Rare Species: None in Georgia. Yellow star-anise (*Illicium parviflorum*), which is endemic to and rare in Florida, has never been found in the wild in Georgia, though it is widely used in landscaping.

Habitat: Lower slopes and stream banks in moist wooded ravines and steepheads, often forming dense thickets in stream bottoms.

Life History: Florida anise produces an abundance of flowers, each of which opens only once; each flower remains open and receptive to pollination for 12 - 14 days. Flowers are pollinated primarily by flies, which are attracted to nectar secreted at the base of the stamens and by the pungent smell of the flowers. Unfortunately, much of the insect activity leads to self-pollination, and, since Florida anise is self-incompatible, self-pollination produces no fruit. Only flowers that are cross-pollinated with pollen from another plant will produce fruit. Florida anise plants reproduce primarily by root sprouting, forming large thickets of genetically identical plants (clones). As the size of a clonal thicket increases, the farther an insect pollinator must fly to reach a separate plant, thus further decreasing the chances that an insect will carry out cross-pollination and that fruit will be produced. The star-shaped fruits have an average of 13 segments, each with a single seed that is ejected explosively from the fruit for a short distance. The leaves and fruits of Florida anise are poisonous to cattle.

Survey Recommendations: Surveys are best conducted during flowering (late March–April) and fruiting (summer through early fall), although the leaves are recognizable by sight and smell all year.

Range: Coastal Plain of Georgia, Florida, Alabama, Mississippi, and Louisiana; one isolated population occurs in northeastern Mexico.

Threats: Logging and other clearing in ravines and wetlands; ditching and draining in streamside wetlands; impounding small streams.

Georgia Conservation Status: Only one population is known; it occurs on private land.

Conservation and Management Recommendations: Avoid clearcutting on slopes and in ravines. Avoid damming streams and draining wetlands. Preserve natural hydrology in surrounding uplands which supply water to steephead streams.

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Author of species account: Linda G. Chafin

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