



Common Name: INDIAN OLIVE

Scientific Name: *Nestronia umbellula* Rafinesque

Other Commonly Used Names: conjurer's nut, leechbrush

Previously Used Scientific Names: none

Family: Santalaceae (sandalwood)

Rarity Ranks: G3/S3

State Legal Status: Rare

Federal Legal Status: none

Federal Wetland Status: none

Description: Semi-parasitic **shrub** forming dense colonies 2 - 4 feet (60 - 130 cm) tall. **Stems** and branches smooth and dark purplish-brown; **winter buds** dark brown, pointing outward, often at right angles to the stem. **Leaves** 1 - 2½ inches (3 - 6 cm) long, opposite, deciduous, oval to

lance-shaped, upper surface dark yellow-green, lower surface pale green; leaves are deciduous and fall early. Female-flowered plants and male-flowered plants are in separate colonies; **flowers** are pale yellow-green, with 4 - 5 petal-like sepals and no petals; female flowers solitary, male flowers in clusters of 3 - 11 flowers. **Fruit** ½ inch (1.4 cm) wide, oval, fleshy, greenish-yellow.

Similar Species: Blueberry (*Vaccinium* spp.) and huckleberry (*Gaylussacia* spp.) often form low, shrubby colonies, but their leaves are alternate and their stems are green. Sweet-shrub (*Calycanthus floridus*) has opposite leaves, but it is a taller shrub and both leaves and twigs have a spicy smell.

Related Rare Species: None in Georgia.

Habitat: Dry, open, upland woods with mixed hardwood-pine canopy.

Life History: Indian olive is dioecious – female and male flowers occur on separate plants. Because female-flowered plants and male-flowered plants are often in widely separated colonies, sexual reproduction rarely occurs, and reproduction is largely vegetative through spread of rhizomes and sprouting. Indian olive forms colonies of plants that may be several decades old although individual stems probably live less than 7 years. The flowers are visited by bees, flies, and beetles, which are attracted to the nectar produced by a cushion-like nectary in the center of both female and male flowers and to the pollen presented by male flowers. However, pollination rarely occurs and fruits are seldom seen. Indian olive is a hemi-parasite; although it photosynthesizes, it extracts some nutrients from the roots of host plants, including oaks, pines, blackberries, and others.

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

Range: Georgia, Alabama, Mississippi, South Carolina, North Carolina, Tennessee, Kentucky, and Virginia.

Threats: Logging, clearing, conversion of habitat to pine plantations and developments.

Georgia Conservation Status: Plants occur at 45 sites, about half on public lands. Many of these populations are small and have either female-flowered plants only or male-flowered only, which limits reproduction to root-sprouting.

Conservation and Management Recommendations: Avoid logging and mechanical clearing. Use fire or hand-clearing to create sunny openings in woodlands.

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