



Common Name: CRESTLESS PLUME ORCHID

Scientific Name: *Pteroglossaspis ecristata* (Fernald) Rolfe

Other Commonly Used Names: giant orchid

Previously Used Scientific Names: *Eulophia ecristata* (Fernald) Ames, *Cyrtopodium ecristatum* Fernald, *C. strictum* Grisebach, *Bletia verecunda* Chapman, *Triorchos ecristatus* (Fernald) Small

Family: Orchidaceae (orchid)

Rarity Ranks: G2G3/S1

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial **herb** with 2 - 4 basal **leaves** 6 - 28 inches (15 - 70 cm) long and $\frac{3}{8}$ - $1\frac{3}{8}$ inches (1 - 3.5 cm) wide, erect, pleated, with 3 - 5 conspicuous veins. **Flower stalk** 1 - $5\frac{1}{2}$ feet (30 - 170 cm) tall, leafless except for a few small bracts, with a cluster of 5 - 30 flowers at the top. **Flower** up to $\frac{3}{4}$ inch (1 cm) long, twisted inward to the stalk, with a stiff floral bract, $2\frac{1}{2}$ inches (6 cm) long, behind each flower. **Sepals and petals** yellow-green, folded forward over the lip; **lip** 3-lobed, the prominent central lobe is maroon with green margins but without a crest. **Fruit** an erect, rounded capsule up to $\frac{3}{4}$ inch long.

Similar Species: In flower, crestless plume orchid resembles no other species. Its leaves are similar to those of orchids such as grass pinks (*Calopogon* spp.) but are stiffer and occur in two's or three's instead of singly. The leaves also resemble those of saw palmetto seedlings but are softer and lack the woody leaf stalk of saw palmettos.

Related Rare Species: More than thirty orchid species are rare in Georgia.

Habitat: Longleaf pine sandhills and flatwoods.

Life History: Crestless plume orchid is a perennial herb that blooms only every few years, usually only after a fire. Often many flowers will bloom at once and remain open for about a week; they are probably pollinated by bees. Little else is known about the reproductive biology of this species; closely related species in the genus *Eulophia* are known to be both self- and cross-fertile.

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

Range: Coastal Plain of Georgia, Florida, Alabama, Mississippi, Louisiana, South Carolina, and North Carolina; Cuba.

Threats: Destruction of habitat by conversion to pine plantations, pasture, and development; fire suppression.

Georgia Conservation Status: Only 9 populations have been seen in recent years, about half on public or conservation lands. More populations are likely to be found as fire is increasingly used in land management.

Conservation and Management Recommendations: Use prescribed fire to create sunny openings and reduce competition from woody species. Avoid logging, bedding, and plowing fire lanes in sandhills and flatwoods. Eradicate cogon grass.

Selected References:

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Date Compiled or Updated:

L. Chafin, July 2008: original account

K. Owers, Feb. 2010: added pictures

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