

Ghost Orchid

Dendrophylax lindenii

The Ghost Orchid was first discovered by Jean Jules Linden, who observed this amazing orchid in the forests of Cuba in September, 1844. It wasn't until 1880 that the Ghost Orchid was discovered in Florida by A.H. Curtiss in Collier County.

The range of the Ghost Orchid includes humid areas in the Fakahatchee, Big Cypress, and Corkscrew areas in Southwest Florida and also in Cuba. It might possibly exist on other nearby Caribbean islands, but it has not been found there.

When not in bloom, the Ghost Orchid is a leafless spider web of green, gray, and white roots growing epiphytically on a host tree.

The Ghost Orchid begins its life as a dust-like seed after being released from the seed pod of a mature orchid. The seed drifts slowly

in the swamp air, and if it is lucky, it lands upon a host tree.

Host trees for the Ghost Orchid include Pop Ash, Pond Apple, Bald Cypress, Red Maple, and sometimes Royal Palm. It is common to see Ghost Orchids growing near or in moss on the trunks of trees.

If the seed lands upon a suitable habitat, it may germinate. It is theorized that a specific fungus is required for the mycorrhizal relationship in order to keep the Ghost Orchid alive, particularly when it is young.

When the young seed germinates, it will grow only one or two roots, at which time vestigial leaves may form on some plants, and possibly not on others. These tiny vestigial leaves contain chlorophyll which converts sun light into energy to help the young plant grow.

As the Ghost Orchid grows, it will lose these leaves within the first year, and the orchid depends solely upon chlorophyll in its roots for energy from the sun. The orchid's roots, when moist, are



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green with dashed lines. Ghost Orchids also receive nutrients by absorbing water that drains down the host plant.

After many years have passed, the Ghost Orchid will reach blooming size, and it will begin to send out a flower spike. The flower spike will grow to an average of about four inches, and usually a single flower bud will form on the end of the spike. Several weeks later, the bud will begin to form a tail.

About two weeks after the tail begins to form, the Ghost Orchid opens to reveal its unmistakable shape.

The Ghost Orchid contains three sepals and three petals. The third petal is highly modified and gives the Ghost Orchid its unmistakable shape of a white frog with long extended legs. The uniquely shaped third petal (labellum) has two relatively long, twisted legs hanging vertically down and give it another of its common names: the Frog Orchid.

Ghost Orchid blooms usually open in succession, one or two at a time, and

each bloom typically lasts 10-14 days. Its peak blooming period is July and August, at which time a very vigorous plant can have multiple blooms.

During this time, the Ghost Orchid emits a mild, clean, soap-like aroma at dusk and night that attracts its only known pollinator, the Giant Sphinx Moth (*Cocytius antaeus*). It is the only moth with a proboscis long enough to fit inside the orchid to get nectar.

The Ghost Orchid at Corkscrew was first seen during the summer of 2007 by a group of four birders looking for a Barred Owl that had been calling in the area. While scanning the trees for the owl, one of the birders spotted the blooming orchid and fortunately knew what she had found.

It is estimated that Corkscrew's Ghost Orchid is 30-35 years old.

It is growing approximately 45-50 feet above the ground on a 400-500 year old Bald Cypress tree.

Prior to the discovery of Corkscrew's Ghost Orchid, the highest known location of any Ghost Orchid was about 23 feet in Fakahatchee.

Ghost Orchid populations have dropped, possibly drastically, in the last century due to weather patterns, changes in the natural water flow in South Florida, poachers, and sloppy logging of unspoiled forests.

The Ghost Orchid is listed on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and is listed as an endangered species on the Florida state list of threatened and endangered plants. It is a felony to remove one from the wild.

For more information about the Ghost Orchid and a link to a video of a Giant Sphinx Moth pollinating a Ghost Orchid in Fakahatchee, please visit www.corkscrew.audubon.org and click on the Ghost Orchid link.