

The Biology of Florida's Orchids

by John Beckner

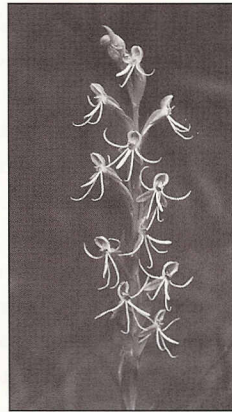
Florida has over one hundred species of wild orchids, representing more than forty genera. Major centers include the Dade County rocklands, the Cape Sable and Mangrove Coast region, the Big Cypress (especially the Fakahatchee — fifty species), Highlands Hammock, the hammocks of Hernando County and Citrus County, the pinelands north and east of Gainesville to Georgia, and the pitcherplant bogs of the Panhandle. But every county has some, probably at least a dozen or more.

Orchids probably attract more interest than any other native plant. Orchid growing is a hobby of perhaps a hundred thousand or more people in the state. I have heard of a marketing survey indicating that there are thirty-five thousand growers in the Miami area. Florida is one of the world's main centers for commercial orchid growing and hybridizing, judging, and for research. A substantial percentage of the world's major orchid researchers live in Florida. The American Orchid Society has its headquarters here and has over a hundred affiliated clubs. There are a number of excellent field guides and other books on our orchids, heavily illustrated and with informative texts.

Nevertheless, we know very little about Florida's orchids. Pollinators have never been identified for most species, and some have been studied only outside of Florida. The fruits and seeds of many species have never been illustrated in any publication. The mycorrhizal fungi and other ecological factors are poorly known for all species. Herbarium collections are very few for most species, and those that exist often have unsatisfactory and skimpy data. A number of other species are rumored to occur, but no specimens or other documentation exists.

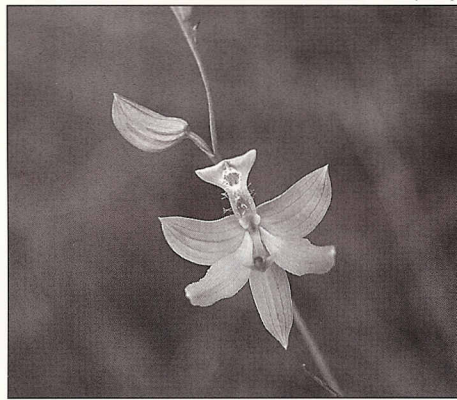
Florida is not a tropical lush Eden, unchanging until twentieth century civilization disrupted it. The number of orchid species is actually quite low, compared to most places in the real tropics. Probably not one of our orchids is endemic, although

one extends only into a few adjacent counties of Georgia and Alabama. While many of our orchids are quite local and rare, a large number are unusually widespread outside Florida. At least four species also occur in Africa; three are in eastern Asia, many extend



Roger Hammer

Habenaria quinqueseta. A plant of road shoulders, open damp meadows, and even dry pine rocklands, where it survives periodic fires.



Betty Wargo

Calopogon tuberosus, our most wide-spread native orchid. The "grass-pink" can be found in a variety of open sunny habitats.

south to Brazil or even Argentina, and others range north to Canada. This geography reflects a highly unstable, stressful, and fast changing orchid flora for at least the last hundred thousand years. Probably nearly all of the sixty tropical species migrated into Florida in just the last 6000 years or less. In fact, a number apparently have come in during the present century.

Besides the broader geographic patterns, many orchids form constantly changing local

populations. Each colony appears for a few years, then vanishes, while new colonies appear nearby. This phenomena, called metapopulations, poses obvious problems for conservation.

Florida, in only about a hundred years, has become one of the most environmentally ruined regions on the planet. Conservation efforts are needed everywhere and for most of the native biota. Orchids generally call for specialized approaches, but could be a rallying point for general conservation efforts. Saving and restoring orchids could result in saving the bulk of the terrestrial ecosystems (with the exception of sandpine scrub). Because orchids are so popular, they can be focused upon to motivate public campaigns.

In a small way, the effort is beginning to be made. The Orchid Conservation Committee, Inc. (TOCC), Marie Selby Botanical Gardens, several parks and nature preserves, orchid clubs, and many individuals are now working hard. There are plans for new major projects in places like the Big Cypress. A major international Conference, Orchid Conservation 97, is to be held at Selby Gardens in June (See Calendar on page 4—Ed.). It will focus upon a wide range of positive practical methods to carry out orchid conservation. Of course, if all of us had more volunteers, time, funds, and working space, much more could be done. We don't know a lot of the answers, but we could learn them. We need to record data on existing wild populations, propagate plants, restore them to suitable wild sites, aid the pollinators, and so forth. There are many ways we can move forward, but time is pressing. ✨

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