Selbyana 26(1,2): 326-327. 2005.

GRASSROOTS ORCHID CONSERVATION IN FLORIDA

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ABSTRACT. The Native Orchid Restoration Project (NORP) includes a southwestern Florida branch, a new southeastern Florida branch, and the Central Florida branch featured in this poster presentation. NORP members are working together to further research on the natural propagation of native orchids and to share three problems—financing, facilities (laboratory and greenhouse areas), and an adequate number of volunteers to accomplish tasks in a timely manner.

Key words: Native Orchid Restoration Project, buffer zone, native orchids

INTRODUCTION

The Native Orchid Restoration Project (NORP), established in 1999–2000, includes a southwestern Florida branch in Naples, a new southeastern Florida branch in the Dade County area, and the Central Florida branch in Orlando, which is featured in this article. The volunteers in these NORP branches have begun working together to promote further research on the natural propagation of Florida's native orchids. They share three problems. First, financing; then, facilities including laboratories and greenhouses, and finally, an adequate number of volunteers to accomplish orchid restoration tasks in a timely manner.

CENTRAL FLORIDA NATIVE ORCHID RESTORATION PROJECT

Central Florida is experiencing the same problems that all developing areas have to combat. The area surrounding Disney World has grown at an exponential rate during the past 35 years, growth that has "cost" native epiphytes considerable habitat. Areas of lost habitat exceed developed areas, because frequent cold nights, below freezing, can damage epiphytes that lack a buffer zone around their native habitat to protect against low temperatures.

Of the three epiphytic genera and four species that survive in Central Florida, all are endangered. Among these are *Harisella porrecta* (leafless), *Habenaria repens* (which grows aquatically, terrestrially, and epiphytically), *Encyclia tampensis* (100+ color forms), and *Epidendrum magnoliae* (syn. *E. conopseum*) in two forms, var. *magnoliae* (green color) and var. *mexicanum* (bronze color).

Terrestrial orchids, although highly disturbed, are able to survive along roadsides, in pastureland not yet developed, and in lightly weeded areas. Native orchids survive, as long as such areas are not mowed early in the orchid's growth season to keep highways "beautiful" or sprayed with herbicide and pesticide to control mosquitoes. New residents moving to the state consider these chemical aides a necessity, but Florida Crackers (descendants of early settlers) did well without chemicals. "Controlled" burns to prevent wildfires from damaging new home sites that encroach on forestland create many problems for nature, both flora and fauna.

In the east central ridge area, native orchid populations of long standing are becoming nearly extinct. Again the cause is low temperature. During the winter season, the prevailing wind is from the northwest, producing a chill factor and drying effect when temperatures drop below $32^{\circ}F$ (0°C). In areas with natural windbreaks of 200 yards (or meters), epiphytes can survive, growing and reproducing in natural colonies. This applies not only to native orchids but also to an endemic bromeliad and an epiphytic fern.

Over the years, the Native Orchid Restoration Project (NORP) of Central Florida has tried many methods to reintroduce epiphytic orchids. A "sticker solution" of soap has been used to increase water absorption by plants. Production methods include raising protocorms in lab flasks with standard media and nutrients and placing seedlings of various sizes-all with minimal success. Currently the group is attempting to develop natural symbiotic media for seed development to increase survival rates by inoculating young plants against many of the problems they will face in nature but do not experience in the lab. Such inoculation, conducted on a mass scale, will strengthen the gene pool and allow for the sale of plant material from a legal source, which will slow or stop poachers from being the only source.

CONCLUSION

The group has short and long-term goals: producing strong plant material to improve the gene pool on installation; providing a legitimate source of native species for the public market place, with strong, new plants for future breeding stock; and educating the agricultural and governmental sectors, along with the general public on what is happening to native habitats in Florida and on ways to prevent further loss. Education is the key to correcting the damage that has resulted from years of misinformation about native plants at all levels. A balanced conservation effort is needed rather than a continual one-upmanship to be the final preserver of nothing.