

Collecting Rare Plants from the Wild

A Threat to Conservation Efforts

by Mike Schwartz and Jora Young

Those of us interested in Florida's native plants owe a debt of gratitude to our botanical forebears such as J.K. Small. These pioneer botanists found and gathered new specimens for scientific description and study. Part of the activity of these early botanists was to propagate these specimens.

One of the unfortunate consequences of those collectors' forays into southern Florida, however, was a dramatic reduction in populations of orchids and bromeliads. Today it is difficult to find any but the most common species of this once rich native flora. For fear of plant collectors, information on the locations of rare orchids is no longer given even to those who may legitimately want to view them in the wild.

The surge of interest by hobbyists and entrepreneurs in rare plants in particular is putting additional pressure on already threatened species. While some would argue that collecting rare plants helps to insure the survival of endangered species, most of us would prefer to save them within their natural habitat through preservation of land. Endangered plants are not merely for display, like paintings in a museum.

Unfortunately, plants are not always safe even in preserves. In the past year, several preserves belonging to The Nature Conservancy have been vandalized by plant collectors stealing seeds, cuttings, and occasionally entire plants. Perhaps the most flagrant of these transgressions happened in northern Florida last fall. A native nursery operator (not an FNPS member) was found to have collected endangered plants from an experimental plot on one preserve. Not only did this collector break the law, but also destroyed two year's worth of research directed toward saving an imperiled species from extinction in the wild.

Illegal collection of rare plant material is exceedingly damaging to efforts to save species. Any activities that decrease population size, seed pool, or the health of individual plants



Scrub habitat on the Lake Wales Ridge, one of the communities The Nature Conservancy is trying to preserve.

increases the probability of extinction.

The most harmful activity is, of course, digging up whole plants. The likelihood of extinction is related to population size, and removal of plants results in a decrease in the size of the local population.

Many threatened plants rely on episodic reproduction, yet we usually cannot predict which years will be good for reproduction. Thus, each year's seed production is important to the health of the population.

Also, many rare plant species are under physiological stress. Extracting cuttings can further endanger the health of the individual plant. The collection of plant material from rare plants in the wild needs to be conducted under carefully controlled conditions where the health of the entire natural population is being monitored.

Rare plants that are targeted by collectors, are, in turn, integral to complex natural communities. Sadly, researchers still have only rudimentary understanding of the complexity of the interactions within natural communities. But we do know that extirpation of one species will affect the ability of other species in the ecosystem to survive. By jeopardizing the continued existence of one species in the native flora, we likely are jeopardizing other species as well.

If populations of rare species become extinct despite efforts to save

them, we may try to restock these species back into the wild. To do this, we must, of course, have plant material in cultivation. Native nurseries and personal collections won't help in this effort, however, because a sound restoration plan must include documentation of source material, which is usually lacking in commercially available material. Reconstruction of habitats without a plan is of questionable conservation value.

Bok Tower Gardens and Fairchild Tropical Garden have organized and documented collections that allow tracking of material from different populations. These two Florida institutions are members of the Center for Plant Conservation, a private, non-profit organization of botanical gardens that oversees the systematic collection of our most threatened species. Restocking the wild with endangered species from these collections can be done with a sound, scientific plan that includes consideration of genetic variability.

Federal, state, and private conservation organizations, such as The Nature Conservancy (TNC), also are doing what they can to protect Florida's rich natural heritage. Over the last 40 years TNC has worked to create the highest quality private preserve system possible. TNC's purpose in owning and managing these sanctuaries is — above all else — to protect the native biota.

Recently these preserves have become a magnet for illegal collectors



Guzmania monostachya, an endangered bromeliad of the tropical hammock, has been collected nearly to extinction.

D. Kogut

Dennis Hardin

of native plants. Besides being explicitly against the regulations of preserve lands to collect anything, it is illegal to collect any species protected by the state anywhere without express written permission of the landowner. Illegal collection of protected plants is prosecuted under state trespass laws. Anyone found in violation of state law for illegally collecting federally protected plants is also subject to further penalties under federal law.

The problem of illegal collecting of rare plants is no longer an occasional event, and it appears to be escalating. Preserve and park managers are becoming increasingly alarmed, and illegal plant collecting has become a management issue on natural lands.

Unfortunately, the state agency charged with protecting native flora, the Florida Division of Plant Industry, does not have the resources to be everywhere at once. As concerned citizens, it is our responsibility to step up our vigilance in protecting native flora.

All FNPS members can help. Each of us must resolve never to collect native plant materials from the wild without written permission of the owner. As consumers, assure yourself that any nursery from which you buy plants observes the highest ethical standards. Before you buy any plant, ask if the species is native, and if it is rare or endangered. (This information is available from the Florida Natural Areas Inventory in Tallahassee¹.)

If the species is protected by law, ask

for proof that the vendor legally acquired the plant material. The vendor should have two pieces of proof: written permission from the owner of the land from which the propagules were obtained, if the seed source was not on land owned by the nursery; and a permit issued by the Florida Division of Plant Industry to sell the species. If the vendor cannot provide this information, you may be contributing to the demise of a native species by purchasing the plant. Instead, report the vendor to the Florida Division of Plant Industry².

Share the responsibility for watching for illegal harvest of plant material. If you see anyone collecting plants on preserve lands, inform the manager as soon as possible. Be cautious about accosting anyone you think may be illegally collecting, for fear of possible retaliation and harm to yourself.

Florida requires everyone's dedication as stewards of its native flora. With the help of FNPS, The Nature Conservancy hopes to resolve the problem of illegal collecting so that its policy of open access to its preserves can continue.

¹ Florida Natural Areas Inventory
1018 Thomasville Rd., Suite 200-C
Tallahassee, FL 32303
904/224-8207, or 224-0626

² Florida Dept. of Agriculture & Consumer Services
Division of Plant Industry
P.O. Box 1269
Gainesville, FL 32602

Ten Suggestions for stopping illegal collection of Florida's native plants

(This list was developed by participants at Jora Young's presentation at the FNPS 1992 Annual Spring Conference.)

1. Launch an educational campaign.
2. Spearhead a task force of public and private agencies to recommend changes to strengthen existing laws.
3. Develop and disseminate lists of areas that have development permits so that collectors may focus attention on areas slated for destruction.
4. Write the Commissioner of Agriculture, urging that more resources be devoted to enforcement of existing laws.
5. Increase legitimate production of rare species in demand.
6. Establish a formal code of ethics for the Florida Native Plant Society and the Association of Florida Native Nurseries. (This was done by FNPS in 1988, and has been adopted by AFNN; see sidebar.)
7. Urge regulatory agencies, which mandate wetlands restoration, that as much material as possible from altered sites be used for re-stocking.
8. Request that government regulatory agencies require documentation of source material for all habitat restorations, creations, and enhancements.
9. As consumers, insist that nurseries indicate sources of all native material, particularly rare and endangered species.
10. Police each other.

FNPS Policy on Transplanting Native Plants from the Wild

(adopted by FNPS Board of Directors,
Nov. 19, 1988)

By promoting the use of native plants in landscaping, the Florida Native Plant Society has helped create a demand for native plants. This has prompted some individuals and companies to offer for sale native plants dug from the wild. Selling harvested plants avoids the time and expense of growing the plants under nursery conditions, but this harvest of native plants is, in most cases, not sustainable in the long run, and damages land that has potential for preservation.

FNPS does not approve of transplanting native plants from natural areas for landscaping, mitigation, or restoration purposes. Such transplanting is in direct conflict with the society's goal of preservation and conservation of native plants in their natural habitats.

From its beginning, the society has promoted the preservation of existing native plants in their natural habitats, while encouraging the planting of additional native plants grown under nursery conditions from seeds or cuttings. This position should result in a net gain of native plants. Transplanting from the wild merely transfers native plants from natural to manmade habitats, and results in a net loss of native plants because a good percentage of transplanted plants fail to survive the transplanting process.

The society recognizes that there should be an exception to this policy to allow the salvage of native plants from areas where land clearing activities are both imminent and assured. This type of transplanting saves plants that would otherwise be lost. It is expected, however, that salvage activities not take place until all planning approvals for the site have been obtained and all possibilities for preservation have been exhausted. Salvage and plant rescue operations should be undertaken only in compliance with all state and local native plant protection laws.

Members of the society are asked to abide by this policy as a matter of ethics. Specifically, members are asked to inquire about the origins of plant material and not buy plants that have been transplanted from the wild. Landscape architects and designers are asked, when writing plant material specifications, to specify only nursery-grown native plants. Government agencies with jurisdiction over landscaping, mitigation, and restoration projects are asked to require those projects to use only nursery-grown native plants or those from on-site or nearby salvage operations.

While it is unrealistic to think that FNPS can totally stop the practice of transplanting from the wild, it can supply needed leadership on this issue and, with the support of its members, help dry up the market for such plants. It is critical that native plant communities remain as undisturbed and undamaged as possible so that potential sites for preservation remain intact.