Cold Hardiness Report on TROPICAL NATIVE PLANTS

by Steve Farnsworth

The freeze of January 20-22, 1985, was a traumatic event for most of Florida's flora, especially for plants of tropical origin. While our tropical native species generally did not suffer much damage in the remnants of their natural habitats, the same species grown outside of their historic ranges often suffered severe injury.

Unfortunately, as the urbanization and drainage of south Florida continues inland, more and more tropical natives will be used in areas where nature never intended them to be.

Despite claims that the climate is changing in Florida, evidence of this is lacking except for the loss of temperature moderation formerly provided by pre-drainage wetlands. Instead, it appears that freezes tend to occur in clusters here. The years 1886-1909 saw 14 freezes that killed the citrus industry in the Ocala, Daytona, and Jacksonville areas and forced its relocation to central Florida. This cluster was followed by only 8 freezes in the period 1910-1939. Currently, we are probably in another freeze cluster that may still have years to go before dissipating, and may force yet another relocation of the citrus industry. But it is important to determine the cold hardiness of Florida's native palnts, as well as its citrus trees.

One of the positives to come out of this freeze was a chance to determine this hardiness. The plants evaluated were exposed to eight hours below 32°F and a minimum temperature of 27°F, as measured by a maximum-minimum thermometer mounted in the standard fashion to give accurate readings. The plants were in the open in nursery rows and were not irrigated during freezing temperatures. Evaluations were supplemented by additional observations in a 12-year-old native planting in a nearby park, and in another nursery where 26°F was the minimum temperature and freezing temperatures were of longer duration.

Many surprising facts came to light in this freeze. Supposedly cold-sensitive plants limited to the Keys, such as lignum vitae, joewood, Florida boxwood, and cinnamon bark were undamaged. Although typically sensitive plants like geiger tree, cocoplum, and paradise tree suffered their expected damage, they were joined by normally tougher plants like gumbo-limbo, satinleaf, and wild coffee, which usually are untouched by less severe freezes. Shrubs and herbs native to tropical pineland habitats were generally badly damaged. The ratings are as follows:

Little or None (less than 10% of plants hurt; damage limited to loss of a few leaves)

Acacia pinetorum, Pineland Acacia
Acoelorrhaphe wrightii, Paurotis
Achras emarginata, Wild Dilly
Amyris spp., Torchwood
Anemia adiantifolia, Pine Fern
Ateramnus lucida, Crabwood
Bumelia celastrina, Saffron Plum
Canella winterana, Cinnamon Bark
Capparis spp., Jamaica, Limber Capers
Chiococca alba, Snowberry
Coccothrinax argentata, Silver Palm
Crossopetalum rhacoma, Rhacoma
Dipholis salicifolia, Bustic
Forestiera segregata, Florida Privet
Guaiacum sanctum, Lignum Vitae
Guettarda elliptica, Everglades Velvetseed
Ilex krugiana, Krug's Holly
Jacquinia keyensis, Joewood
Krugiodendron ferreum, Black Ironwood
Lysiloma latisiliqua, Lysiloma
Myrcianthes fragrans, Simpson Stopper
Myrsine floridana, Myrsine
Nectandra coriacea, Lancewood
Pithecellobium spp., Blackbead, Catsclaw
Prunus myrtifolia, West Indies Cherry
Randia aculeata, Randia
Reynosia septentrionalis, Red Ironwood
Savia bahamensis, Maidenbush
Schaefferia frutescens, Florida Boxwood
Sophora tomentosa, Necklace Pod
Suriana maritima, Bay Cedar
Swietenia mahagoni, Mahogany
Thrinax morrisii, Keys Thatch Palm
Ximenia americana, Tallowwood
Zanthoxylum fagara, Wild Lime

Moderate (less than 50% of plants affected; damage limited to leaf loss and small twig kill)

Acrostichum danaeifolium, Leather Fern
Ardisia escallonioides, Marlberry
Blechnum serrulatum, Swamp Fern
Calyptranthes pallens, Spicewood
Casasia clusiifolia, Seven-year Apple
Cassia spp., Cassias
Citharexylum fruticosum, Fiddlewood
Coccoloba diversifolia, Pigeon Plum
Colubrina elliptica, Soldierwood
Cordia globosa
Dodonea viscosa, Varnishleaf
Drypetes lateriflora, Guiana Plum
Erithalis fruticosa, Black Torch
Eugenia spp., Stoppers
Exothea paniculata, Inkwood
Guapira longifolia, Blolly
Hymenocallis spp., Spider Lilies
Lantana involucrata, White Lantana
Mastichodendron foetidissimum, Mastic
Nephrolepsis spp., Sword Ferns
Picramnia pentandra, Bitterbush
Peperomia spp., Peperomias
Pseudophoenix sargentii, Cherry Palm
Psidium longipes, Long-stalked Stopper
Pteris longifolia, Pine Brake Fern
Sapindus saponaria, Soapberry
Thelypteris spp., Shield Ferns
Zanthoxylum coriaceum, Biscayne Prickly-ash

Severe (more than 50% of plants hurt; killed back to major branches or down to the ground)

Alvaradoa amorphoides, Alvaradoa
Amphitecna latifolia, Black Calabash
Annona glabra, Pond Apple
Bourreria ovata, Strongbark
Bursera simaruba, Gumbo-limbo
Byrsonima lucida, Locustberry
Calyptranthes zuzygium, Mrytle-of-the-River
Chiococca pinetorum, Pineland Snowberry
Chrysobalanus icaco, Cocoplum
Chrysophyllum oliviforme, Satinleaf
Coccoloba uvifera, Seagrape
Colubrina arborescens, Coffee Colubrina
Conocarpus erectus, Buttonwood
Cordia sebestena, Geiger Tree
Croton linearis, Pineland Croton
Ctenitis sloanei, S. Fla. Tree Fern
Ernodea littoralis, Golden Creeper
Ficus spp., Strangler, Shortleaf Figs
Guettarda scabra, Rough Velvetseed
Hamelia patens, Firebush
Lantana depressa, Pineland Lantana
Licaria triandra, Licaria
Piscidia piscipula, Fishfuddle
Psychotria spp., Wild Coffees
Roystonea elata, Fla. Royal Palm
Simarouba glauca, Paradise Tree
Tetrazygia bicolor, Tetrazygia
Thrinax radiata, Fla. Thatch Palm
Trema spp., Trema
Scaevola plumieri, Inkberry
Zanthoxylum flavum, Yellowheart

NOTES

If your city, town, or county has a tree or native plant ordinance, please send a copy of it to David Drylie, 8100 Curry Ford Rd., Orlando 32822.

Linda Duever is moving to Micanopy, and will resume her Florida Natural Communities articles in the next **Palmetto.**