Hurricanes Help Fight Invasive Trees

by Stuart Krantz

ocated in the northwest corner of Broward County, the City of Parkland is quite a "green" city. Originally built for people wanting to get away from the maddening crowds and live in the country, Parkland became horse country and its first two home developments still have agricultural zoning. Parkland's newer developments, numbering almost 30, moved away from the ranch/horse country style, but the city's density is still approximately one home per acre, on average, compared to densities in other south Florida areas such as Hialeah, with about 23 homes/acre; Miami Lakes, with about 12 homes/acre; and Coral Springs, with about six homes/acre.

Brazilian pepper trees (*Schinus terebinthifolius*) line several of our major eastern thoroughfares in Parkland and they are found within (and without) our city parks. Also growing throughout many city parks are Australian pines (*Casuarina* spp.). In the early 1990s, Parkland removed Australian pine from the city's nuisance plant list because it served as a buffer to a water treatment area behind Quigley Park. However, Hurricane Wilma took care of those Australian pines in October 2005, blowing down all save one in Quigley Park. The only one not blown down was a large tree sheltered behind a homeowner's residence.

Parkland's Riverglades Elementary School had their entire population of carrotwoods (*Cupaniopsis anacardioides*) removed, also with the help of Hurricane Wilma. Riverglades Elementary is a Broward County school that sits immediately north of the Broward County / Parkland Doris Davis Forman Preserve, and carrotwood saplings were starting to grow inside the fence line of the preserve. Four near-miss hurricanes in 2004 actually began the carrotwood removal by knocking down the first of 34 trees. Seventeen were



Carrotwood fruit.

knocked down by Hurricane Wilma in October 2005. After the Broward County School District realized that most of their Hurricane Wilma tree damage was from various invasive exotic species, as reported by Deputy Superintendent Mike Garretson, the district made a decision to remove invasive species from their properties. During the week of December 12, 2005, the district cleared out the last of the 34 carrotwood trees from Riverglades Elementary. Thus, Hurricane Wilma became the wake-up call for the Broward County Scool District. Recent reports state that the carrotwoods will be replaced with native live oaks and sable palms.

Hopefully, the City of Parkland will follow the excellent lead of Broward County Schools and begin removal of the remaining carrotwoods that continue to stand in our city. Carrotwoods can be seen in the medians of neighboring Coral Springs and around businesses in nearby Coconut Creek. Both of these cities are to be commended, however: Coral Springs for removing Australian pines, and Coconut Creek for becoming Broward County's first Community Wildlife Habitat. In the meantime, I can find new infestations of carrotwood on almost every street and berm in Parkland. They are attractive trees and it will take much effort to get the public interested in removing them.

THANKS again, Broward County.

CARROTWOOD, native to Australia, is a slender evergreen tree that can grow to 33 feet tall. It has dark gray outer bark and orange inner bark (hence the common name of carrotwood). The fruits are distinctly yellow-orange colored and contain three shiny, oval black seeds covered by a yellow-red crust. The seeds are dispersed by birds. Carrotwood flowers in late winter/early spring, with fruits maturing in late spring. The trees are tolerant of salt, full sun, full shade, poor soils, poor drainage, and dry areas, and can tolerate cold temperatures to 22° F.

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Carrotwoods were introduced for landscaping in the 1960s. By 1990, seedlings were established in various habitats on both coasts of Florida. The tree invades spoil islands, beach dunes, marshes, tropical hammocks, pinelands, mangrove and cypress swamps, scrub habitats, and coastal strands. It is now found in natural areas of 14 coastal counties in central and south Florida. So far, the greatest densities of seedlings and saplings have been found in mangrove forests, where they greatly alter the understory habitat. Carrotwood fares well even against other invasive, non-native species such as Brazilian pepper.

Carrotwood was listed by the Florida Department of Agriculture & Consumer Services as a Florida Noxious Weed (5b-57.007 FAC) in 1999. It has been a FLEPPC Category 1 species since 1995.

Text from Identification & Biology of Non-Native Plants in Florida's Natural Areas by K.A. Langeland and K. Craddock Burks, eds. (1998)

For information on native species to replace carrotwood trees and for herbicide and application methods to control carrotwood, please refer to University of Florida-IFAS Extension Publication SS AGR 165 by Dr. K.A. Langeland, available at the UF-IFAS EDIS web site: http://edis.ifas.ufl.edu

I wish to thank the following individuals for the help they extended in getting the Carrotwood trees removed: School Board Chairperson Stephanie Kraft; School District Superintendent Dr. Frank Till; Deputy Superintendent Mike Garretson; Environmental Manager Gary S. Hines; North Area Superintendent Joanne Harrison; North Area Deputy Superintendent Craig Anderson; Marci Lindemann (past Riverglades Elementary School Assistant Principal) & Coordinator, Interim Assistant Principal Program; Riverglades School Advisory Forum Chairperson 2003-2006 Tina Ronder; Roy Rogers, Past Vice President Arvida Corporation, Weston FL. – Contact Stuart Krantz at stuartkrantz@mindspring.com