

Removal of Non-Native Plants from John Williams Park in Hollywood, Florida

Story and photos by Sandy Koi

John Williams Park is a twenty-acre park operated by the city of Hollywood in Broward County, Florida. The Florida Exotic Pest Plant Council funded four exotic plant identification and removal programs during 2006-2007. Two additional identification and removal programs were scheduled during the year, as well as one native plant installation. Within John Williams Park (JWP) lies ten acres of natural area known as the Sheridan Oaks Forest Natural Area (SOFNA). I originally anticipated including this natural area in the plant workshops, but invasive non-natives had made access difficult for public participation. Consequently, we focused on the open, semi-cultivated area of the park until later (current programs are including the natural area).



Hollywood Hills High School volunteers: Kaydeen, Sophia, mom Lisa and Jessica

Members of the Broward County chapters of the Florida Native Plant Society (FNPS), North American Butterfly Association (NABA), and the University of Florida-IFAS Extension Master Gardeners (MG) were instrumental in instructing the participants and removing exotic plants. All three organizations also provided advertising through their websites and member meetings. The city of Hollywood provided trash bags, dumpsters, and advertising for the programs. Student volunteers from Hollywood Hills High School Ecology Club, Key Club, and several Girl Scout Troops also were involved in each workshop. Although public participation

was not as high as expected, people who attended one workshop usually returned for a later program.

The three most insidious invasive species in the park were chosen as primary targets for removal in the first workshop: rosary pea (*Abrus precatorius*), air potato (*Dioscorea bulbifera*), and Caesar's weed (*Urena lobata*). Other exotic species were removed as well. Participants received a brochure with photographs of the three targeted exotic species. Hundreds of bags of exotics were removed over the course of the workshops, and there were two newspaper articles written about the programs: one in the *South Florida Sun-Sentinel* and one in the *Miami Herald*.

Another workshop was held in September targeting air potato tubers. SOFNA was sprayed for exotics in 2006 as the infestation was too heavy for hand-removal (or access, as noted above). After the upper growth had been destroyed, the same volunteer corps focused on removing the roots and tubers of the plant from the newly-accessible natural area.

Primary non-native plants identified and removed at John Williams Park

- *Rosary pea (*Abrus precatorius*)
 - *Air potato (*Dioscorea bulbifera*)
 - *Caesar's weed (*Urena lobata*)
 - Asiatic dayflower (*Commelina communis*)
 - Asparagus fern (*Asparagus densiflorus*)
 - Balsam pear (*Momordica charantia*)
 - Brazilian pepper (*Schinus terebinthifolius*)
 - Elephant ear (*Xanthosoma sagittifolium*)
 - Firecracker plant (*Ruellia equisetiformis*)
 - Japanese glorybower (*Clerodendrum speciosissimum*)
 - Madagascar periwinkle (*Catharanthus roseus*)
 - Morning glories (*Ipomoea* spp.)
 - Mother-in-law's tongue (*Sansevieria hyacinthoides*)
 - Shoebuttan ardisia (*Ardisia elliptica*)
 - Oyster plant (*Tradescantia spathacea*)
 - Wild taro (*Colocasia esculenta*)
- * indicates the main target plants for exotics removal workshops

Identification of the native/non-native plants included learning to differentiate between similar leaf structures of the plants. Participants also learned to identify several native vines, such as *Smilax* species (*S. auriculata* and *S. bona-nox*) and *Passiflora* species (*P. incarnate* and *P. suberosa*), differentiated in particular from the non-native balsam pear vine (*Momordica charantia*).

Effective means of exotic plant removal also were covered, focusing on avoidance of inadvertent seed dispersal when removing the plant. For example, removing the burr-covered seeds of Caesar's weed required carefully cutting away the branches in smaller sections and disposing of them in wide-mouthed receptacles to keep the plant sections intact (as opposed to cutting the plant at the base and forcing them into a bag, thereby dispersing seeds). Root systems were destroyed after the upper foliage was removed. Removal of rosary pea seed-clusters and air potato tubers was accomplished in a similar manner to prevent further dispersal.

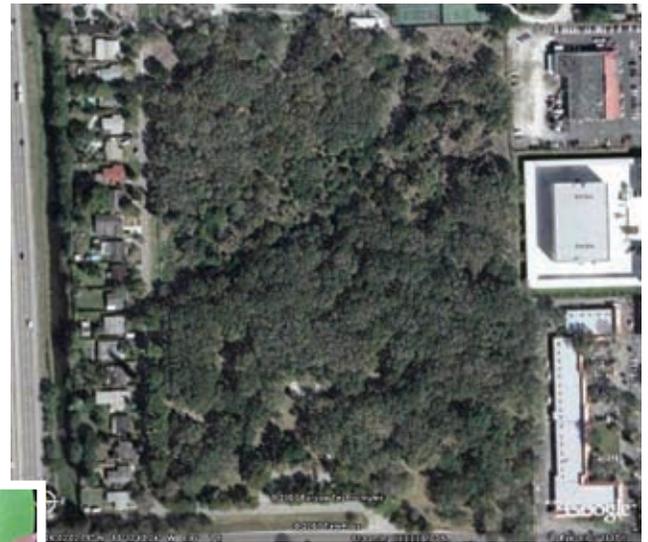
We made significant progress in the removal of the exotic plants in the public area, and monthly maintenance will keep the cleared areas free of invasive species. In addition, the park is already showing recovery by an increase in the growth of native plants, since they no longer have to compete within a non-native infestation. A complete assessment of native plants is still underway, but it includes many butterfly host and nectar plants. In fact, JWP/SOFNA currently provides habitat for many species of birds, butterflies, and moths. As one of the few remaining natural oak hammocks left in Broward County, this project has been of great importance for increasing the number of native plant corridors for wildlife.

Several aspects have made this program extremely successful. The students from Hollywood Hills High School not only participated in each workshop, but they have promised a monthly maintenance program. The city of Hollywood has contracted for monthly maintenance of SOFNA, as well. The volunteers from FNPS, NABA, and MG are not only highly knowledgeable, they are enthusiastic teachers who love what they are doing, and it shows in their continued support.

For more information, contact Sandy Koi at sandykoi@bellsouth.net



Nicole Bugay (left) and Haley Kennedy, both from Girl Scout Troop 501, with their day's reward.



Aerial photograph of John Williams Park, twenty acres. (Google Earth)
[left] Julia Heliconian (*Dryas iulia*), one of many butterfly denizens of John Williams Park, which provides ample nectar and caterpillar host plants. Julia caterpillars use *Passiflora* species as a host plant.

Native Plants identified in workshops at John Williams Park and Sheridan Oaks Forest Natural Area (partial list of species in the park):

- American beautyberry (*Callicarpa americana*)
- Bloodberry (*Cordia globosa*)
- Cabbage palm (*Sabal palmetto*)
- Cactus (*Opuntia humifusa*)
- Climbing hempvine (*Mikania scandens*)
- Coontie (*Zamia floridana=pumila*)
- Common wireweed (*Sida acuta*)
- Dahoon (*Ilex cassine*)
- Elderberry (*Sambucus canadensis*)
- Firebush (*Hamelia patens*)
- Gopher apple (*Licania michauxii*)
- Gumbo-limbo (*Bursera simaruba*)
- Jamaican capertree (*Capparis cynophallophora*)
- Live oak (*Quercus virginiana*)
- Marlberry (*Ardisia escallonioides*)
- Corkystem passionflower (*Passiflora suberosa*)
- Pond apple (*Annona glabra*)
- Poison ivy (*Toxicodendron radicans*)
- Pokeweed (*Phytolacca americana*)
- Red maple (*Acer rubrum*)
- Red-tipped cocoplum (*Chrysobalanus icaco*)
- Rougeplant (*Rivina humilis*)
- Saw palmetto (*Serenoa repens*)
- Smilax (*Smilax auriculata* and *S. bona-nox*)
- Spanish needles (*Bidens alba*)
- Squarestem (*Melanthera nivea*)
- Summer grape (*Vitis aestivalis*)
- Virginia creeper (*Parthenocissus quinquefolia*)
- Wild lime (*Zanthoxylum fagara*)
- Wild poinsettia (*Poinsettia cyathophora*)
- Wild coffee (*Psychotria nervosa*)
- Coastal plain willow (*Salix caroliniana*)