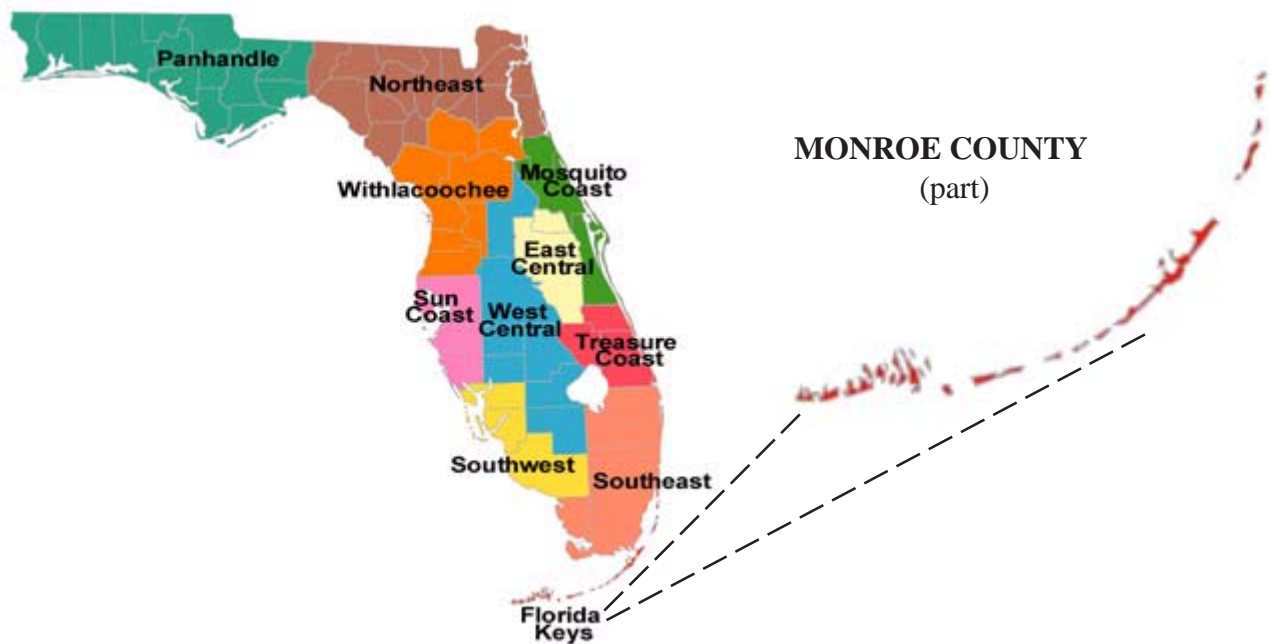


Florida Keys Regional Working Group



The Florida Keys Regional Working Group liaison is Mr. Chris Bergh, The Nature Conservancy, P.O. Box 420237, Summerland Key, Florida, 33042, phone: 305-745-8402, fax: 305-745-8399, e-mail: cbergh@tnc.org. Projects completed in the Keys involved partnerships with local, state, and federal conservation agencies, as well as the U.S. Navy, and non-profit conservation groups.

Florida Keys Wildlife and Environmental Area

County: Monroe

PCL Size: 1,809 acres

Project ID: FK-034 55.0 acres \$5,985.00

Project ID: FK-039 7.6 acres \$58,000.00

Project ID: FK-041 40.0 acres \$18,143.43

Site Manager: Florida Fish and Wildlife Conservation Commission

Randy Grau

P.O. Box 430541, Big Pine Key, Florida 33043

Phone: 305-872-0022

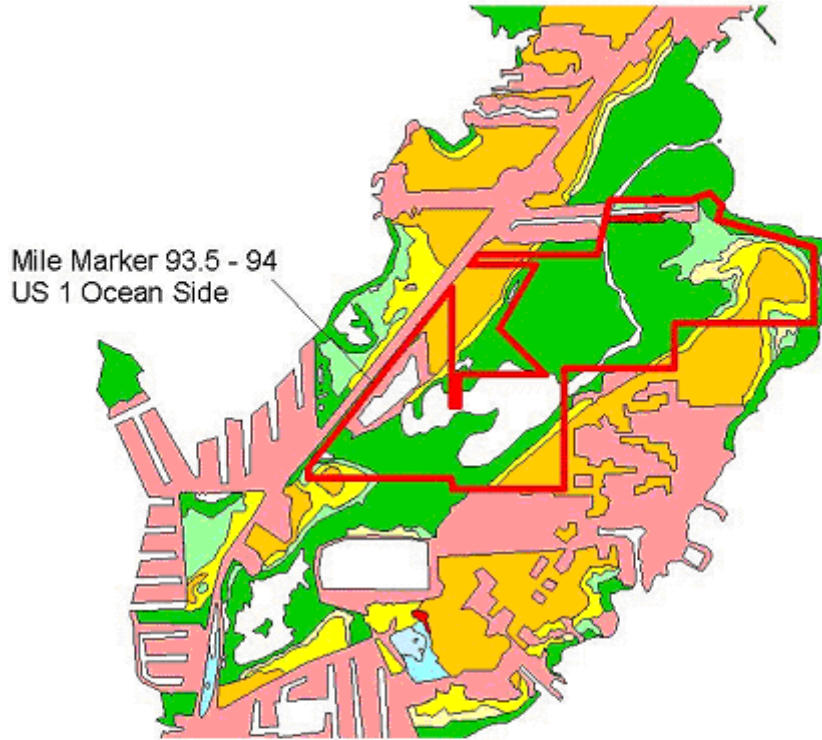
E-mail: graur@fwc.state.fl.us

The Dove Creek Hammocks unit of the Florida Keys WEA is located at the southern end of Key Largo. The Blue Water Borrow Pit parcel comprises approximately 47.3 acres within Dove Creek Hammocks. This parcel contains approximately 5 acres of hardwood hammock, 16 acres of mangrove forest, 1 acre of saltmarsh/buttonwood, 19 acres of open water, and 6 acres of disturbed area. Some of the disturbed areas have been restored to saltmarsh and mangrove habitat. Portions of this site were heavily infested with lead tree. Other exotics found on the site included latherleaf, Brazilian pepper, Australian pine, seaside mahoe, umbrella tree, beach naupaka, and other ornamental species. A majority of the exotics were found east of the borrow pit, where approximately 4 acres were heavily infested.

The Lake San Pedro Hammocks unit on Key Largo harbors rare and endemic species of plants and animals. The project site was a recent addition purchased from the Monroe County Land Authority. The site consists of 6.3 acres of tropical hardwood hammock, 0.5 acres of buttonwood/salt marsh association, and 0.8 acres disturbed area. Brazilian pepper, Australian pine, seaside mahoe, lead tree, and other ornamental species infested the site.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Albizia lebeck</i>	woman's tongue	Category I	basal/girdle	Garlon 4+Stalker
<i>Casuarina equisetifolia</i>	Australian pine	Category I	basal/girdle	Garlon 4+Stalker
<i>Colubrina asiatica</i>	latherleaf	Category I	basal	Garlon 4+Stalker
<i>Macfadyena unguis-cati</i>	cat's claw vine	Category I	girdle	Garlon 4+Stalker
<i>Schefflera actinophylla</i>	schefflera	Category I	basal/girdle	Garlon 4+Stalker
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	cut stump	Garlon 3A
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal/girdle	Garlon 4+Stalker
<i>Thespesia populnea</i>	seaside mahoe	Category I	girdle	Garlon 4+Stalker
<i>Tradescantia spathacea</i>	oyster plant	Category I	basal	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	basal	Garlon 4
<i>Sansevieria hyacinthoides</i>	bowstring hemp	Category II	foliar	Roundup+2,4-D
<i>Oeceoclades maculata</i>	ground orchid	n/a	hand pull	n/a

Florida Keys Wildlife and Environmental Area



- █ DOVE CREEK BOUNDARY
- HABITAT DELINEATION
- █ Hammocks
- █ Ridge/Hammock
- █ Hammocks (CRB)
- █ Dune
- █ Buttonwoods
- █ Salt Marsh
- █ Scrub Mangroves
- █ Mangroves
- █ Freshwater Marsh
- █ Freshwater Hardwoods
- █ Developed
- █ Exotics



Florida Keys Wildlife and Environmental Area

Australian pines don't make good neighbors.



Invasive exotic plants are often found along the edges of conservation land, an area more prone to disturbance.



When working in residential areas, contractors are required to inform neighbors about the control operation, to avoid a different sort of disturbance.

Dagny Johnson Key Largo Hammocks Botanical State Park

County: Monroe

PCL Size: 2,415 acres

Project ID: FK-040 10 acres \$46,000

Project Manager: Florida Park Service (DEP)

James G. Duquesnel, Park Biologist

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Public conservation lands comprise a significant amount of Key Largo. The native vegetation of Key Largo derives primarily from West Indian and Caribbean origin. This project included two adjacent sites, both part of an acquisition known as Ocean Forest Estates. The larger tract contained Burma reed, Australian pine, Brazilian pepper, and latherleaf along a filled shoreline on the east side of Key Largo. A few minor populations or individuals of incidental invasive species such as night-blooming cereus and Norfolk island pine also occurred. Immediately offshore of the first site is a dredge spoil island where contractors last year removed an infestation of Australian pine and Burma reed, but left behind several pockets of Brazilian pepper. The removal of these trees completed the preliminary vegetative work on this island.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Casuarina equisetifolia</i>	Australian pine	Category I	cut stump	Garlon 3A
<i>Casuarina equisetifolia</i>	Australian pine	Category I	mechanical	n/a
<i>Colubrina asiatica</i>	latherleaf	Category I	cut stump	Garlon 3A
<i>Eugenia uniflora</i>	Surinam cherry	Category I	mechanical	n/a
<i>Neyraudia reynaudiana</i>	Burma reed	Category I	foliar	Roundup
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	mechanical	n/a
<i>Flacourtia indica</i>	governor's plum	Category II	mechanical	n/a
<i>Leucaena leucocephala</i>	lead tree	Category II	cut stump	Garlon 4
<i>Ptychosperma elegans</i>	solitaire palm	Category II	mechanical	n/a
<i>Araucaria heterophylla</i>	Norfolk Island pine	n/a	mechanical	n/a
<i>Cocas nucifera</i>	coconut palm	n/a	mechanical	n/a
<i>Hylocereus undatus</i>	night-blooming cereus	n/a	hand pull	n/a

John D. Pennekamp Coral Reef State Park

County: Monroe

PCL Size: 2,350 acres

Project ID: FK-042 5.8 acres \$36,648.34

Project Manager: Florida Park Service (DEP)

James G. Duquesnel, Park Biologist

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The native vegetation of Key Largo derives primarily from West Indian and Caribbean origin. The state purchased the park largely to provide habitat for migratory birds, including the state-listed white-crowned pigeon, and to protect nearby marine communities from shoreline development. The park also holds a large number of state-listed plants, especially the endangered Keys' Indigo (*Indigofera keyensis*) and wild cotton (*Gossypium hirsutum*). The project area comprised three park sites, referred to as Key Largo Narrows, Madiera Village, and Dynamite Docks.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Albizia lebbek</i>	woman's tongue	Category I	cut stump	Garlon 4
<i>Colubrina asiatica</i>	latherleaf	Category I	basal	Garlon 4
<i>Manilkara zapota</i>	sapodilla	Category I	cut stump	Garlon 4
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal	Garlon 4
<i>Hibiscus tiliaceus</i>	mahoe	Category II	cut stump	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	basal	Garlon 4



Florida Keys Overseas Heritage Trail

County: Monroe

PCL Size: 95.8 acres

Project ID: FK-035 42 acres \$90,545

Project Manager: Office of Greenways and Trails (DEP)

Debra Stucki, Trail Manager

#3 La Croix Court, Key Largo Florida 33037

Phone: 305-451-3005, Fax: 305-853-3553

E-mail: debra.stucki@dep.state.fl.us

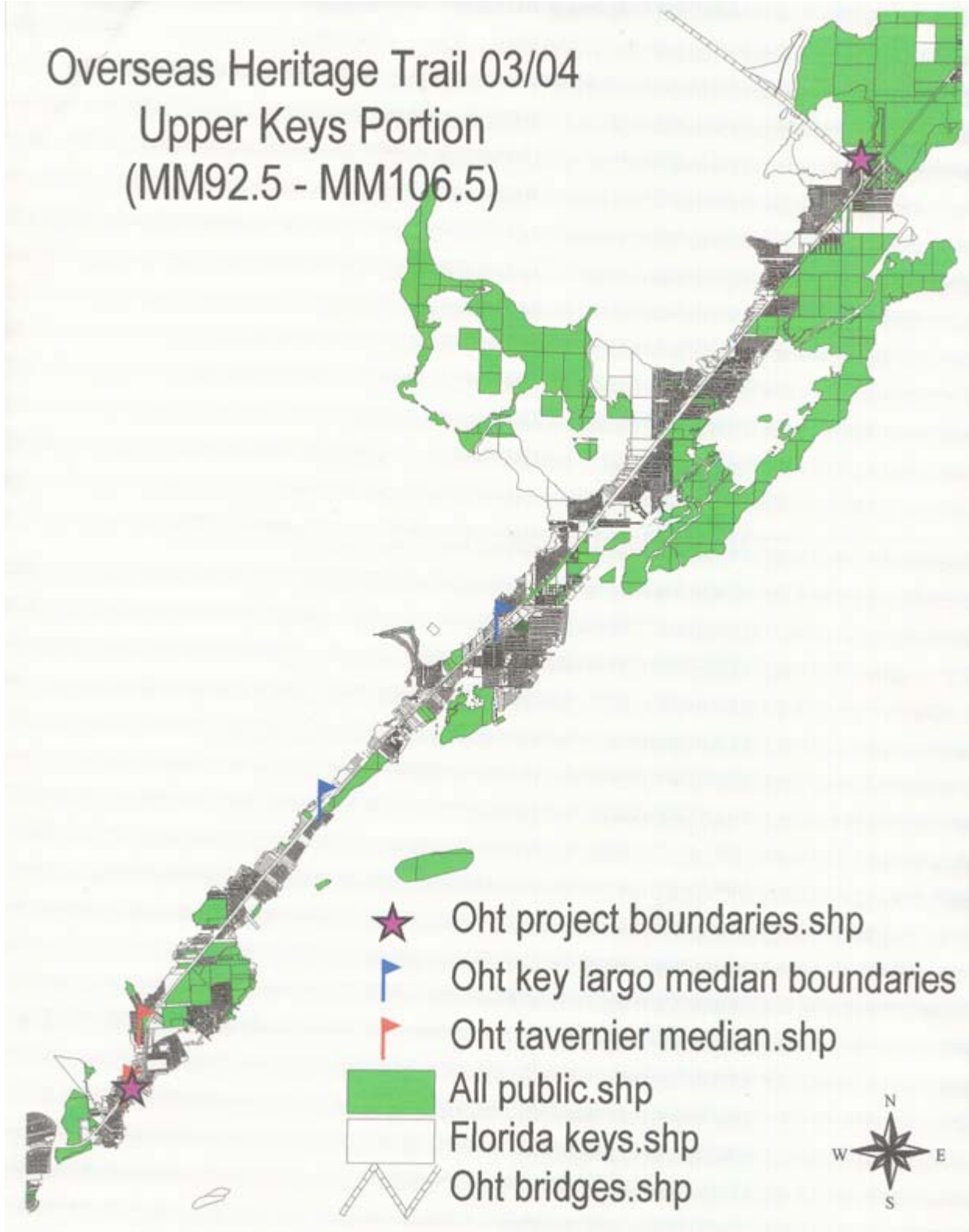
The project was located entirely within the bounds of the Overseas Heritage Trail portion of the Florida Department of Transportation's US Highway 1 right-of-way. There were two distinct sections of Trail covered by this project; "Lower" = Mile Marker (MM) 56-71 and "Upper" = MM 92.5-106.5. The Trail is located in the Florida Keys portion of Monroe County and includes land within unincorporated Monroe County, the City of Marathon, and the City of Layton.

Each stretch of trail had different species of concern, but Brazilian pepper, Australian pine, latherleaf, lead tree, seaside mahoe, and non-native scaevola were the most abundant. Some stretches of trail are bridges with no attention required and others have been partially treated by other means. The project consisted of treating all EPPC-listed invasive exotic species in the linear 14 and 15 mile project sub areas.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Colubrina asiatica</i>	latherleaf	Category I	cut stump	Garlon 4
<i>Manilkara zapota</i>	sapodilla	Category I	cut stump	Garlon 4
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal/cut stump	Garlon 4
<i>Hibiscus tiliaceus</i>	mahoe	Category II	cut stump	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	basal/cut stump	Garlon 4
<i>Sansevieria trifasciata</i>	mother-in-laws tongue	n/a	cut stump	Garlon 4



Overseas Heritage Trail 03/04
Upper Keys Portion
(MM92.5 - MM106.5)



A good GIS map is useful for planning and conducting any control project.

National Key Deer Refuge

County: Monroe

PCL Size: 8,649 acres

Project ID: FK-033 3 acres \$100,000.00

Project Manager: U.S. Fish and Wildlife Service

William G. Miller

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E-mail: william_g_miller@fws.gov

The National Key Deer Refuge includes habitat critical to survival of the endangered Florida key deer. Natural communities within the refuge include tropical hardwood hammock, pine rocklands, freshwater wetlands, and mangrove swamp. The refuge is home to a number of rare plants and animals, five of which are found nowhere else in the world. The project area consisted of a number of former subdivision lots located on Big Pine and No Name Keys, and sites on Snipe and Sawyer Keys, two islands in the backcountry of the Lower Florida Keys. Rapidly expanding populations of invasive exotic plant species, primarily Brazilian pepper, Australian pine, latherleaf, and to a much lesser degree, bowstring hemp infested the project area.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	cut stump	Garlon 4

Project ID: FK-036 123 acres \$54,103.75

Project Manager: U.S. Fish and Wildlife Service

Phil Frank

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Phone: 305-872-2239, Fax: 305-872-3675

E-mail: phil_frank@fws.gov

This project consisted of maintenance control treatment of Australian pine, Brazilian pepper, and other invasives throughout land managed by USFWS on Big Pine, Cudjoe, Little Torch, and West Contact Keys. Two plant control technicians funded by BIPM performed the work. The refuge provided cost-share funds for herbicide, equipment, and a vehicle, which equaled \$10,600 of the total project cost. BIPM provided additional herbicide through its Herbicide Bank.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Casuarina equisetifolia</i>	Australian pine	Category I	basal	Garlon 4
<i>Colubrina asiatica</i>	latherleaf	Category I	basal/cut stump	Garlon 4
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal/cut stump	Garlon 4
<i>Solanum viarum</i>	tropical soda apple	Category I	basal	Garlon 4
<i>Thespesia populnea</i>	seaside mahoe	Category I	basal	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	basal	Garlon 4
<i>Terminalia catappa</i>	tropical almond	Category II	basal	Garlon 4
<i>Euphorbia tirucalli</i>	pencil tree	n/a	basal	Garlon 4

Lignumvitae Key Botanical State Park

County: Monroe

PCL Size: 10,480 acres

Project ID: FK-032 41 acres \$122,808.77

Project Manager: Florida Park Service (DEP)

Pat Wells, Park Manager

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Two additions to Lignumvitae Key Botanical State Park; the Choate Addition on Upper Matecumbe Key, and the Klopp Addition on Lower Matecumbe Key, comprised the project area. Mostly intact tropical hardwood hammock makes up the interior of the two properties, with the exception of the western end of the Choate Tract and some patches of hemp interior to the Klopp Tract. The Choate Tract encompasses 108 acres of mangrove wetlands and 35 acres of mature hammock. The Klopp Tract includes 17.31 acres of mangrove wetland and approximately 5.72 acres of mature hammock. Tropical hardwood hammock is home to several threatened and endangered species.

Invasive species were located primarily along the U.S. 1 road frontage, the western park boundary, and the northern transition zone. This project consisted of two phases, where one contractor removed the Australian pine, while a second contractor treated the other invasive species.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Albizia lebbbeck</i>	woman's tongue	Category I	cut stump	Rodeo+G4+2,4-D
<i>Casuarina equisetifolia</i>	Australian pine	Category I	cut stump	Garlon 3A
<i>Casuarina equisetifolia</i>	Australian pine	Category I	girdle	Garlon 4+Stalker
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	girdle	Garlon 4+Stalker
<i>Thespesia populnea</i>	seaside mahoe	Category I	girdle	Garlon 4+Stalker
<i>Leucaena leucocephala</i>	lead tree	Category II	girdle	Garlon 4+Stalker
<i>Sansevieria hyacinthoides</i>	bowstring hemp	Category II	girdle	Glypro+G3A+2,4-D
<i>Ficus</i> spp.	rubber plant	n/a	girdle	Garlon 4+Stalker
<i>Oeceoclades maculata</i>	ground orchid	n/a	hand pull	n/a

Plantation Key Conservation Lands – Keoskie Tract

County: Monroe

PCL Size: 15.1 acres

Project ID: FK-038 5.25 acres \$28,905.49

Project Manager: Islamorada, Village of Islands

Zully Williams

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The Keoskie property, a state-owned parcel on Plantation Key, is managed by the City of Islamorada as a conservation area. Rockland hammock, a rare natural community, makes up most of the Keoskie property. Approximately 10% of the site contained lead tree and Brazilian pepper, although lead tree was pervasive throughout the property. Native poisonwood trees on the parcel serve as food for a variety of species, including the threatened white-crowned pigeon. This project completed work begun in the previous fiscal year.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal/cut stump	Garlon 4
<i>Sansevieria hyacinthoides</i>	bowstring hemp	Category II	basal/cut stump	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	basal/cut stump	Garlon 4

Crocodile Lakes National Wildlife Refuge

County: Monroe

PCL Size: 6,688 acres

Project ID: FK-043 40 acres \$2,503.75

Project Manager: U.S. Fish and Wildlife Service

Steve Klett

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Crocodile Lakes National Wildlife Refuge was the site of seven projects conducted in 1998, the pilot year of the Upland Invasive Exotic Plant Control Program. Natural communities on the Refuge include tropical hardwood hammock, pine rocklands, freshwater wetlands, and mangrove swamp. The refuge is home to a number of rare plants and animals, including the Key Largo woodrat, one of the most endangered wildlife species in south Florida. BIPM provided only the herbicides for this project, through its Herbicide Bank.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	cut stump	Garlon 4
<i>Leucaena leucocephala</i>	lead tree	Category II	cut stump	Garlon 4

Curry Hammock State Park

County: Monroe

PCL Size: 665 acres

Project ID: FK-017 31 acres \$38,945.07

Project Manager: Florida Park Service (DEP)

Catherine Close, Park Manager

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The project sites were Long Point Key and Fat Deer Key, located within Curry Hammock State Park. Curry Hammock is the largest uninhabited terrestrial parcel between Key Largo and Big Pine Key, and the most complete remaining example of the natural heritage of the Middle Florida Keys. Natural communities in the project area included coastal berm, beach dune, tidal mangrove swamp, and tropical hammock. Brazilian pepper, seaside mahoe, and latherleaf were the primary targets for maintenance control work on the site.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal	Garlon 4+Stalker
<i>Casuarina equisetifolia</i>	Australian pine	Category I	basal	Garlon 4+Stalker
<i>Colubrina asiatica</i>	latherleaf	Category I	basal	Garlon 4+Stalker
<i>Thespesia populnea</i>	seaside mahoe	Category I	basal	Garlon 4+Stalker
<i>Leucaena leucocephala</i>	lead tree	Category II	basal	Garlon 4+Stalker
<i>Carica papaya</i>	papaya	n/a	basal	Garlon 4+Stalker