

Upland Invasive Exotic Plant Control Projects

Fiscal Year 2010-2011

Over one-and-one-half million acres of Florida's public conservation lands have been invaded by alien (exotic, nonnative, nonindigenous) plants such as melaleuca, Brazilian pepper, cogon grass, and climbing ferns. However, invasive alien plants respect no boundaries and millions of acres of agricultural and private land are also affected. Florida's nearly 11 million acres of public conservation land support a nature-based tourism economy valued at \$8 billion annually (total tourism spending in 2011 was around \$57 billion).

The Fish and Wildlife Conservation Commission's Invasive Plant Management Section (IPMS) is the designated lead entity in Florida responsible for coordinating and funding the statewide control of invasive aquatic and upland plants in public waterways and on public conservation land. The Upland Invasive Exotic Plant Management Program was established in 1997 to address the need for a statewide coordinated approach to the terrestrial (vs. aquatic) invasive exotic plant problem. The "Uplands Program" incorporates place-based management concepts, bringing together regionally diverse interests to develop flexible, innovative strategies to address weed management issues at the local level. The Uplands Program (a subsection of IPMS) funds individual exotic plant removal projects statewide on public conservation land. Projects are considered for funding based upon recommendations from eleven Regional Invasive Plant Working Groups.

The mission of the Uplands Program is to achieve maintenance control of invasive exotic plants like cogon grass (*Imperata cylindrica*), melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), Old World climbing fern (*Lygodium microphyllum*), and Japanese climbing fern (*L. japonicum*) on public conservation land. Once invasive plants become established in native habitats, eradication is difficult, if not impossible to achieve; therefore, continuous maintenance of invasive nonnative plants is needed to sustain wildlife habitat and recreational opportunities while preserving native plant communities on public conservation land.

Upland invasive plants infested approximately fifteen percent of public conservation land statewide in 2011. Forty-one percent (610,916 acres) of the affected area is currently under maintenance control. The Uplands Program expended nearly \$7 million controlling 72,628 acres of upland weeds on over 75 publicly managed areas during fiscal year 2011. The Uplands Program also provided herbicide to assist public land managers with maintenance control treatments on 22,874 acres for a cost of \$720,000¹.

Funding for the Uplands Program is provided through the Invasive Plant Control Trust Fund as set forth in Section 369.252(4), Florida Statutes, which reads: "use funds in the Invasive Plant Control Trust Fund as authorized by the Legislature for carrying out activities under this section on public lands. A minimum of 20 percent of the amount credited to the Invasive Plant Control Trust Fund pursuant to Section 201.15(6), F.S., shall be used for the purpose of controlling nonnative, upland, invasive plant species on public lands."

Since 1997, the Uplands Program has expended over \$108 million to treat invasive plants on over 1.6 million² acres. Cooperating agencies contributed almost \$39 million in matching funds and in-kind services towards projects funded by the program.

¹Includes FY10 cost of chemicals that were distributed in FY11.

²Annual maintenance figures include areas that were re-treated in previous years, so the cumulative acreage is greater than the estimated total area infested.

IPMS FY2010-11 Uplands Project Acres and Dollars by Managing Agency

Agency	Acres	Funds
Division of Forestry	5,683	\$223,701
Division of Recreation & Parks	12,526	\$1,660,412
Fish & Wildlife Conservation Commission	45,844	\$1,483,300
Office of Greenways & Trails	391	\$127,324
State Universities	116	\$64,751
Water Management Districts ¹	11,007	\$1,094,387
Department of Defense	758	\$52,247
National Park Service	2,394	\$375,913
US Fish & Wildlife Service	2,671	\$193,095
US Forest Service	450	\$52,338
Local government agencies	13,902	\$1,575,938
TOTAL	95,741	\$6,904,857

¹Includes \$1 million Melaleuca Program, as required by §206.606(1)(a), Florida Statutes.

IPMS Uplands Program Projects for Fiscal Year 2010-11

Abbreviations used in following table.

MGR	manager (managing agency)
CTY	county government agency
DOD	U.S. Department of Defense
DOF	Division of Forestry, Florida Department of Agriculture and Consumer Services
DRP	Division of Recreation and Parks, DEP
FWC	Florida Fish and Wildlife Conservation Commission
FWS	U.S. Fish and Wildlife Service
IPM	Invasive Plant Management Section, FWC
NPS	National Park Service
OGT	Office of Greenways and Trails, DEP
UNV	public university
USFS	U.S. Forest Service
WMD	water management district
CNTY	county where project located (4-letter code)
TA#	task assignment number (project identifier)
WG	working group (first two letters in TA#)
EC	East Coast
FK	Florida Keys
MC	Mosquito Coast
NE	Northeast
PH	Panhandle
SC	Sun Coast
SE	Southeast
SW	Southwest
TC	Treasure Coast
WC	West Central
WR	Withlacoochee River
I-AC	initial control acres; first time control of established plant populations
M-AC	maintenance control acres; retreatment of areas where initial control was previously conducted
HB	Herbicide Bank, only chemical was provided to agency.
PRJ COST	IPMS funds expended
COOP COST	funds or in-kind time and materials expended for project by managing agency

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Lake Lotus Park	City	SEMI	EC-079		13	\$20,690	
Gee Creek Sub-Basin CA	City	SEMI	EC-081	76	10	\$24,751	
City of Marathon	City	MONR	FK-100	3		\$24,918	
Samson's Island	City	BREV	MC-116	52		\$24,475	
Long's Landing - HB	City	VOLU	MC-117	1		\$377	
Angus Gholson Nature Park - HB	City	GADS	PH-079		50	\$1,204	
Mackay Gardens	City	POLK	WC-099	12		\$5,337	
Loblolly Woods	City	ALAC	WR-124		79	\$24,609	
Cofrin Nature Park	City	ALAC	WR-126		9	\$13,527	
Monroe County Maintenance	CTY	MONR	FK-095		50	\$96,000	\$55,124
Monroe County Mechanical	CTY	MONR	FK-097	7		\$50,000	\$25,444
South Lake CA - HB	CTY	BREV	MC-086		5	\$369	
Pine Island CA	CTY	BREV	MC-114	3	3	\$14,641	
Bradford Soil & Water - HB	CTY	BRAD	NE-065		100	\$1,070	
Vilano Nature Greenway	CTY	STJO	NE-068	4		\$13,815	
Alpine Groves Park	CTY	STJO	NE-070	2	9	\$8,377	
Leon County Greenways - HB	CTY	LEON	PH-039		1,400	\$13,200	
Sarasota County - HB	CTY	SARA	SC-110		2,070	\$1,948	
Anderson Park	CTY	PINE	SC-113		136	\$4,174	
Hillsborough County FY12 - HB	CTY	HILL	SC-13.2		*	\$102,752	
Miami-Dade County FY12 - HB	CTY	DADE	SE-074		*	\$15,239	
Riverbend Park FY12 - HB	CTY	PALM	SE-126		*	\$7,864	
Matheson Hammocks	CTY	DADE	SE-147		68	\$203,973	
South Dade Wetlands	CTY	DADE	SE-149		2,595	\$269,500	
Lumnitzera Miami-Dade Fairchild	CTY	DADE	SE-152	18		\$11,027	
Riverbend Park	CTY	PALM	SE-153		705	\$41,596	
Matheson Hammocks Vines	CTY	DADE	SE-154		68	\$118,794	
Eastern Loxahatchee Slough	CTY	PALM	SE-156		1,750	\$100,000	
Cypress Creek	CTY	PALM	SE-159		1,601	\$100,000	
Hungryland Slough	CTY	PALM	SE-161		1,176	\$100,000	
Palm Beach County FY12 - HB	CTY	PALM	SE-165		*	\$59,300	
Charlotte County - HB	CTY	CHAR	SW-121		50	\$810	
Deep Lagoon Preserve - HB	CTY	LEE	SW-122		55	\$1,640	
Caloosahatchee Regional Park	CTY	LEE	SW-134		60	\$6,092	
Alva Scrub Preserve	CTY	LEE	SW-138		83	\$13,633	
Martin County	CTY	MART	TC-132		1,230	\$80,000	
Alachua County - HB	CTY	ALAC	WR-052		350	\$240	
TOTAL LOCAL AGENCIES				176	13,726	\$1,575,938	
Little Big Econ/Bronson SF - HB	DOF	SEMI	EC-059	26		\$612	
Tiger Bay/Lake George SF - HB	DOF	VOLU	MC-070		110	\$3,155	
Matanzas/Watson SF - HB	DOF	STJO	NE-039	5	17	\$306	
JAX Forestry District - HB	DOF	DUVA	NE-067		211	\$2,531	
Timberlane Ravine Reserve - HB	DOF	LEON	PH-014		55	\$1,087	
Myakka SF - HB	DOF	SARA	SC-106		230	\$615	
Myakka SF	DOF	SARA	SC-119		215	\$12,380	
Picayune Strand SF - HB	DOF	COLL	SW-082		615	\$24,739	
Seminole SF	DOF	LAKE	WC-092		325	\$17,686	
OK Slough SF - HB	DOF	HEND	WC-055		2,937	\$8,594	
OK Slough SF	DOF	HEND	WC-094		936	\$151,765	
Etoniah/Duval Moore SF - HB	DOF	PUTN	WR-074	2		\$231	
Total State Forests				32	5,651	\$223,701	

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Wekiva River Parks - HB	DRP	SEMI	EC-024		95	\$1,836	
FL Keys State Parks A	DRP	MONR	FK-098		270	\$99,654	
FL Keys State Parks B	DRP	MONR	FK-099		239	\$99,870	
North Peninsula/Rogers SP - HB	DRP	FLAG	MC-066	16	340	\$2,105	
Sebastian River/IRL SP - HB	DRP	BREV	MC-068		125	\$3,015	
DeLeon Springs SP - HB	DRP	VOLU	MC-080		4	\$175	
Indian River Lagoon SP	DRP	BREV	MC-111	42	225	\$19,871	
Anastasia SP - HB	DRP	STJO	NE-038		40	\$4,304	
Pumpkin Hill/Ft George SP - HB	DRP	DUVA	NE-054		10	\$1,214	
Parks District 3 FY12 - HB	DRP	multi	RP-300		*	\$53,667	
Honeymoon Island SP - HB	DRP	PINE	SC-068	15	100	\$3,975	
Alafia River SP - HB	DRP	HILL	SC-082		123	\$648	
Myakka River SP	DRP	MANA	SC-112	35	128	\$18,038	
Alafia River SP	DRP	HILL	SC-116		41	\$18,285	
Caladesi Island SP	DRP	PINE	SC-117		140	\$26,598	
Honeymoon Island SP	DRP	PINE	SC-118		111	\$57,875	
FPS District 5 FY12 - HB	DRP	multi	SE-163		*	\$20,378	
Collier-Seminole/Koreshan SP - HB	DRP	COLL	SW-059		55	\$6,429	
Fakahatchee Strand PSP - HB	DRP	COLL	SW-060		116	\$1,710	
Estero Bay PSP - HB	DRP	LEE	SW-080		32	\$1,170	
Gasparilla Island SP - HB	DRP	LEE	SW-123		37	\$5,490	
Fakahatchee Strand PSP	DRP	COLL	SW-135		27	\$28,848	
Collier-Seminole SP	DRP	COLL	SW-137	11		\$9,301	
Charlotte Harbor PSP	DRP	CHAR	SW-139		500	\$74,380	
Mound Key Archaeological SP	DRP	LEE	SW-140		77	\$22,986	
Cayo Costa SP Phase III	DRP	LEE	SW-142	60	166	\$83,864	
Savannas PSP - HB	DRP	MART	TC-079		*	\$2,154	
St. Sebastian River PSP - HB	DRP	INDI	TC-082		15	\$880	
Avalon State Park - HB	DRP	STLU	TC-084		92	\$13,747	
Jonathan Dickinson SP - HB	DRP	MART	TC-129		60	\$376	
Jonathan Dickinson SP	DRP	MART	TC-131	5,881		\$420,800	
Atlantic Ridge SP	DRP	MART	TC-138	1,063		\$293,078	
North Fork St. Lucie River PSP	DRP	STLU	TC-139		156	\$27,557	
Lake Kissimmee SP - HB	DRP	POLK	WC-004	74		\$3,106	
Lake Louisa SP - HB	DRP	LAKE	WC-009		411	\$470	
Highlands Hammock/Paynes Creek - HB	DRP	HIGH	WC-013		643	\$4,369	
Paynes Creek SP	DRP	HARD	WC-096		42	\$15,350	
Highlands Hammock SP	DRP	HIGH	WC-097		289	\$43,880	
Colt Creek SP	DRP	POLK	WC-098		100	\$47,165	
Crystal River PSP - HB	DRP	CITR	WR-042		8	\$800	
Salt Springs SP - HB	DRP	PASC	WR-054		60	\$525	
Rainbow Springs SP	DRP	MARI	WR-120		288	\$58,300	
Waccasassa Bay PSP	DRP	LEVY	WR-121	4	34	\$10,472	
Fort Cooper SP	DRP	CITR	WR-123		10	\$6,644	
Crystal River PSP	DRP	CITR	WR-127		117	\$45,054	
Total State Parks				7,201	5,325	\$1,660,412	

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Triple N Ranch WMA - HB	FWC	OSCE	EC-055		400	\$9,910	
Toshatchee WMA - HB	FWC	ORAN	EC-074		66	\$4,076	
Three Lakes WMA	FWC	OSCE	EC-077	23	46	\$27,622	
FWC Keyswive WEA	FWC	MONR	FK-094		345	\$74,994	
USFWS Maintenance	FWC	MONR	FK-096		818	\$99,869	
Big Bend WMA	FWC	DIXI	NE-064		40	\$21,995	
Big Bend WMA	FWC	DIXI	NE-071		40	\$18,153	
Apalachicola Box-R WEAs - HB	FWC	GULF	PH-057		5,000	\$48,638	
Apalachee WMA - HB	FWC	JACK	PH-094		500	\$1,244	
Apalachicola WEA Saul Creek Unit	FWC	GULF	PH-102		170	\$52,605	
Apalachicola River WEA River	FWC	GULF	PH-104	408		\$81,217	
JW Corbett WMA - HB	FWC	PALM	SE-115		*	\$496	
JW Corbett WMA East	FWC	PALM	SE-155		11,090	\$134,779	\$140,474
JW Corbett WMA West	FWC	PALM	SE-158		9,720	\$207,276	\$116,045
Holey Land WMA	FWC	PALM	SE-160		666	\$129,900	\$49,950
JW Corbett WMA West 2	FWC	PALM	SE-164		6,285	\$237,540	
Babcock-Webb/Yucca Pens - HB	FWC	CHAR	SW-143	200	400	\$72,360	
Dinner Island Ranch WMA - HB	FWC	HEND	TC-093		*	\$1,159	
Hungryland WEA East	FWC	MART	TC-134		3,808	\$85,676	
Hungryland WEA Units 38/39	FWC	MART	TC-140		829	\$35,483	
Lake Wales Ridge WEA - HB	FWC	HIGH	WC-057		900	\$3,804	
Fisheating Creek - HB	FWC	GLAD	WC-076		577	\$14,300	
OK Slough WMA	FWC	HEND	WC-095		3,000	\$68,440	
Chassahowitzka Area WEAs - HB	FWC	HERN	WR-013		220	\$8,717	
Chinsegut/Oldenburg WEAs - HB	FWC	HERN	WR-041		100	\$2,123	
Chinsegut WEA Big Pine	FWC	HERN	WR-122		187	\$31,962	
Total Wildlife Areas				631	45,206	\$1,474,336	
Mimosa Pigra Project	IPM	multi	SE-162		8	\$8,964	
Total IPM Uplands					8	\$8,964	
Cross Florida Greenway	OGT	CITR	WR-119		391	\$127,324	
Total Greenways and Trails					391	\$127,324	
UCF Conservation Lands - HB	UNV	ORAN	EC-071		70	\$2,904	
UCF Conservation Lands	UNV	ORAN	EC-080		36	\$48,316	
Pine Jog Env. Ed. Center	UNV	PALM	SE-157		10	\$16,435	
Total Universities					116	\$64,751	
SFWMD Melaleuca Program	WMD	multi	SE-151		11,007	\$1,094,387	\$1,000,000
Total Water Management Districts					11,007	\$1,094,387	
TOTAL STATE AGENCIES							
Eglin AFB - HB	DOD	OKAL	PH-031		120	\$846	
Eglin AFB	DOD	OKAL	PH-099	3	35	\$21,535	\$20,000
Tyndall AFB	DOD	BAY	PH-103		600	\$29,865	
Pelican Island NWR - HB	FWS	INDI	MC-004		150	\$513	
Archie Carr NWR - HB	FWS	BREV	MC-077		360	\$3,624	
Merritt Island NWR/Canaveral NS	FWS	BREV	MC-110		500	\$122,587	
St. Marks NWR	FWS	JEFF	PH-107		1,320	\$16,915	
Hobe Sound NWR	FWS	MART	TC-135		341	\$49,457	\$234,500
CNS-Mosquito Lagoon Islands	NPS	VOLU	MC-113	894	1,500	\$375,913	
Apalachicola NF	USFS	LIBE	PH-100		450	\$52,338	
TOTAL FEDERAL AGENCIES				897	5,376	\$673,592	
TOTAL ALL PROJECTS				8,937	86,804	\$6,904,857	\$1,641,537