

Upland Invasive Exotic Plant Control Projects

Fiscal Year 2009-2010

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 2010 was around \$63 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 2010. Forty percent (601,980 acres) of the affected area is currently under maintenance control. The Uplands Program expended approximately \$7 million controlling 199,430 acres of upland weeds on over 100 publicly managed areas during fiscal year 2010. The Uplands Program also provided herbicide to assist public land managers with maintenance control treatments on 81,940 acres for a cost of \$760,000.

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 \$101 million to treat invasive plants on over 1.5 million acres. Cooperating agencies contributed over \$37 million in matching funds and in-kind services towards projects funded by the program.

IPMS FY2009-10 Uplands Project Acres and Dollars by Managing Agency

Agency	Acres	Funds
Coastal and Aquatic Managed Areas	455	\$57,891
Division of Forestry	54,856	\$643,055
Division of Recreation & Parks	18,991	\$1,451,387
Fish & Wildlife Conservation Commission	47,576	\$1,420,884
Governor and Cabinet	600	\$113,211
Office of Greenways & Trails	35,855	\$191,806
Water Management Districts ¹	58,497	\$1,635,371
Department of Defense	72	\$151,946
National Park Service	15,297	\$227,376
US Fish & Wildlife Service	7,792	\$310,498
US Forest Service	312	\$44,700
Local government agencies	43,201	\$1,466,199
TOTAL	283,505	\$7,714,325

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

IPMS Uplands Program Projects for Fiscal Year 2009-10

Abbreviations used in following table.

MGR	manager (managing agency)
BOT	Board of Trustees of the Internal Improvement Trust Fund (the Governor and Cabinet)
CTY	county government agency
CAMA	Office of Coastal and Aquatic Managed Areas, Department of Environmental Protection (DEP)
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
IPMS	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 [Note: A number of HB projects show \$0. This is because the Uplands Program purchased a large amount of glyphosate at the end of FY09, which was then distributed to projects during FY10.
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
Sanibel Island (x2) -- HB	Cty	LEE	SW-078		665	\$6,240	
Lake Jesup WA	CTY	SEMI	EC-070	475		\$86,443	
Spring Hammock Preserve	CTY	SEMI	EC-072	130	14	\$65,389	
Orange County/UCF Lands	CTY	ORAN	EC-073	648	380	\$108,150	
Monroe County 2010	CTY	MONR	FK-090		2,500	\$172,170	\$96,868
Danforth Creek maint	CTY	MART	LY-006		8	\$2,400	
Delaplane Park maint	CTY	MART	LY-006		5	\$1,500	
Lake Alto Alachua Co.	CTY	ALAC	LY-006	2		\$1,000	
Oxbow Park maint	CTY	MART	LY-006	2		\$1,000	
Palm City Parkway maint	CTY	MART	LY-006		9	\$2,700	
Peck Lake maint	CTY	MART	LY-006		5	\$1,500	
Phipps Park maint	CTY	MART	LY-006		3	\$1,000	
Polk Co. Correctional	CTY	POLK	LY-006	47		\$14,100	
Scrub Oak Creek maint	CTY	MART	LY-006		10	\$3,000	
Archie Carr NWR -- HB	CTY	BREV	MC-077	10	350	\$4,245	
Brevard Co EEL -- HB	CTY	BREV	MC-077		300	\$1,525	
South Lake CA -- HB	CTY	BREV	MC-086		13	\$1,940	
Pine Island Conservation Area	CTY	BREV	MC-104		100	\$129,929	
Tree Hill Nature Center -- HB	CTY	DUVA	NE-021		10.5	\$0	
St. Johns County Parks (x4) -- HB	CTY	STJO	NE-056	39	21	\$1,190	
Leon Co. Greenways -- HB	CTY	LEON	PH-039	27		\$13,200	
Wolf Branch Nature Preserve	CTY	HILL	SC-107		680	\$137,963	\$87,349
Hillsborough County Parks (x3) -- HB	CTY	HILL	SC-1079	4,240	1,978	\$31,400	
Joe's Creek Greenway	CTY	PINE	SC-109	35		\$94,715	\$154,382
Carlton Reserve	CTY	SARA	SC-110		1,905	\$32,560	\$30,000
Pinellas County Parks (x8) -- HB	CTY	PINE	SC-2089		2,263	\$56,888	
Miami-Dade County Parks (x2) -- HB	CTY	DADE	SE-074		40	\$7,560	
SE-147, SE-149 Miami-Dade FY11 -- HB	CTY	DADE	SE-074	*	*	\$6,442	
Pine Glades Palm Beach Co.	CTY	PALM	SE-146	6,500		\$200,000	
Riverbend Park Eastern Slough	CTY	PALM	SE-148		388	\$107,004	
Lumnitzera Miami-Dade Fairchild	CTY	DADE	SE-152	30		\$9,264	
Lee County Parks (x8) -- HB	CTY	LEE	SW-122	175	1,375	\$18,133	
Martin County	CTY	MART	TC-126		1,240	\$84,000	\$15,289
Bluefield Lygodium	CTY	STLU	TC-127		24	\$33,613	
LCWA -- HB	CTY	LAKE	WC-026		6,500	\$3,946	
Alachua County Parks (x7) -- HB	CTY	ALAC	WR-052		9,900	\$1,824	
Fickett Hammock -- HB	CTY	HERN	WR-066	15	75.8	\$325	
Loblolly Woods	CTY	ALAC	WR-116		64	\$21,944	
TOTAL LOCAL AGENCIES				12,375	30,826	\$1,466,199	\$383,888
Babcock Ranch Head of Cypress	BOT	CHAR	SW-129		600	\$113,211	
Total Board of Trustees				0	600	\$113,211	
GTMNERR -- HB	CAMA	STJO	NE-066	20		\$440	
Rookery Bay Power Line Road East	CAMA	COLL	SW-130		435	\$57,451	
Total Coastal and Marine Areas				20	435	\$57,891	

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Tiger Bay/Lake George SF -- HB	DOF	VOLU	MC-070	86	29	\$512	
Twin Rivers Blue Springs	DOF	HAMI	NE-062		2,081	\$43,679	
JAX District DOF -- HB	DOF	DUVA	NE-067		25	\$0	
Lake Talquin et al SFs -- HB	DOF	GADS	PH-014	90		\$0	
Pt Washington/Pine Log SF -- HB	DOF	BAY	PH-047	40		\$0	
Blackwater River SF -- HB	DOF	OKAL	PH-049	1,500		\$14,540	
Blackwater River SF	DOF	OKAL	PH-091		2,800	\$125,000	
Picayune Strand SF -- HB	DOF	COLL	SW-082		108	\$5,940	
Picayune Strand SF	DOF	COLL	SW-132		518	\$106,446	
LWRSF/KICCO	DOF	POLK	WC-077	400		\$204,229	
OK Slough SF/WMA	DOF	HEND	WC-089		1,969	\$119,500	
Withlacoochee SF -- HB	DOF	HERN	WR-063		650	\$7,725	
Goethe State Forest	DOF	LEVY	WR-111		44,560	\$15,485	
Total State Forests				2,116	52,740	\$643,056	
Upper Keys State Parks Crew	DRP	MONR	FK-089		605	\$195,628	
Collier-Seminole SP	DRP	COLL	LY-006	10		\$4,950	
Rainbow Springs	DRP	MARI	LY-006	6		\$2,310	
San Felasco Hammock PSP	DRP	ALAC	LY-006	5		\$1,485	
Tomoka/Bulow et al SP -- HB	DRP	VOLU	MC-024	18		\$0	
Gamble Rogers SP -- HB	DRP	FLAG	MC-066	107.5		\$1,040	
Blue Springs SP -- HB	DRP	VOLU	MC-067	302		\$9,435	
IRLPSP/Sebastian Inlet -- HB	DRP	BREV	MC-068	6	70	\$4,400	
Tomoka Basin Parks -- HB	DRP	VOLU	MC-074		112	\$2,640	
De Leon Springs SP -- HB	DRP	VOLU	MC-080	15		\$374	
Blue Springs SP	DRP	VOLU	MC-098	49		\$19,001	
St. Sebastian River PSP	DRP	INDI	MC-105	63		\$68,184	
Anastasia/Ft Mose State Parks	DRP	STJO	NE-060		1,686	\$41,982	
Ichetucknee Springs SP	DRP	COLU	NE-061		120	\$55,010	
Topsail Hill -- HB	DRP	WALT	PH-024	300		\$205	
Falling Waters et al -- HB	DRP	WASH	PH-064		570	\$0	
Tarkiln Bayou Preserve SP	DRP	ESCA	PH-095	12		\$5,910	
Myakka River SP -- HB	DRP	MANA	SC-063	33	60	\$1,550	
Little Manatee River SP -- HB	DRP	HILL	SC-067		600	\$0	
Honeymoon Island et al SP (x4) -- HB	DRP	PINE	SC-068	100	709	\$1,700	
Little Manatee River SP -- HB	DRP	HILL	SC-076		600	\$3,875	
Alafia River SP -- HB	DRP	HILL	SC-082	35	75	\$2,308	
Lake Manatee SP -- HB	DRP	MANA	SC-083	21		\$0	
Myakka River State Park	DRP	MANA	SC-108	60		\$41,471	\$53,954
Alafia River State Park	DRP	HILL	SC-111		90	\$26,722	\$34,258
Bill Baggs SP -- HB	DRP	DADE	SE-018		75	\$686	
Oleta River SP -- HB	DRP	DADE	SE-069		40	\$2,126	
Charlotte Harbor PSP -- HB	DRP	CHAR	SW-048	245	1,970	\$6,600	
Collier-Seminole SP -- HB	DRP	COLL	SW-059	11.3		\$3,510	
Fakahatchee Strand PSP -- HB	DRP	COLL	SW-060	520		\$0	
Estero/Koreshan SP -- HB	DRP	LEE	SW-080		1,300	\$0	
Collier-Seminole Royal Palm Trail	DRP	COLL	SW-133	30		\$42,000	
St Sebastian River PSP -- HB	DRP	INDI	TC-082		505	\$1,694	
Avalon SP -- HB	DRP	STLU	TC-084	27		\$6,705	

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Ft Pierce/Avalon SP -- HB	DRP	STLU	TC-084		150	\$3,960	
JD/AR/Sv/FPI/Sb SPs -- HB	DRP	MART	TC-098	305		\$0	
JDSP/Seabbranch SP -- HB	DRP	MART	TC-119		400	\$1,025	
Kissimmee Prairie PSP	DRP	OKEE	TC-122		415	\$88,258	
Jonathan Dickinson State Park	DRP	MART	TC-129	743		\$258,442	
Seabbranch Preserve	DRP	MART	TC-130		142	\$149,744	
Highlands Hammock SP -- HB	DRP	HIGH	WC-003	99	466	\$4,198	
Lake Kiss/Catfish Creek -- HB	DRP	POLK	WC-062	250		\$5,391	
Colt Creek SP -- HB	DRP	POLK	WC-068		10	\$0	
Colt Creek SP	DRP	POLK	WC-086	948		\$164,392	
Paynes Creek Historic SP	DRP	HARD	WC-091		36	\$12,425	
Highlands Hammock SP	DRP	HIGH	WC-093	130		\$18,018	
Silver River SP -- HB	DRP	MARI	WR-049		227	\$615	
Salt Springs SP -- HB	DRP	PASC	WR-054		2,818	\$11,309	
Cedar Key Museum SP -- HB	DRP	LEVY	WR-058	14		\$0	
DRP District 2 Parks (x10) -- HB	DRP	ALAC	WR-072		135	\$0	
Paynes Prairie PSP North Rim	DRP	ALAC	WR-113		290	\$137,431	
Rainbow Springs SP	DRP	MARI	WR-114	25	182	\$37,570	
Fort Cooper SP	DRP	CITR	WR-115		9.2	\$4,128	
Weeki Wachee Springs SP -- HB	DRP	HERN	WR-117	35		\$981	
Total State Parks				4,524	14,467	\$1,451,387	
Triple N Ranch WMA -- HB	FWC	OSCE	EC-026	20	500	\$0	
Three Lakes WMA -- HB	FWC	OSCE	EC-044	50	30	\$0	
Tosohatchee WMA/Orlando Wetlands	FWC	ORAN	EC-074	230		\$84,612	
USFWS FWC Keys	FWC	MONR	FK-088		700	\$178,185	
Lake Wales Ridge WEA	FWC	HIGH	LY-006	4		\$1,980	
Three Lakes WMA	FWC	OSCE	LY-006	14		\$7,425	
Guana River WMA -- HB	FWC	STJO	NE-051	50		\$440	
Caravelle Ranch WMA -- HB	FWC	PUTN	NE-058		1,449	\$3,690	
Big Bend WMA -- HB	FWC	DIXI	NE-059	60		\$0	
Apalachee WMA -- HB	FWC	JACK	PH-078	8	50	\$343	
Apalachicola River WEA	FWC	GULF	PH-093	610		\$163,977	
Apalachee WMA Zone A	FWC	JACK	PH-094		350	\$66,644	
Aucilla WMA -- HB	FWC	JEFF	PH-096	63		\$0	
Corbett WMA East Section	FWC	PALM	SE-144		9,790	\$151,583	\$31,536
JW Corbett WMA -- HB	FWC	PALM	SE-144	3,205	9,000	\$179,880	
Corbett WMA Central Section	FWC	PALM	SE-145	3,355		\$209,352	
Babcock-Webb/Yucca Pens WMAs -- HB	FWC	CHAR	SW-098	200		\$0	
Dinner Island/Spirit Wild/FE Creek -- HB	FWC	HEND	TC-093		2,330	\$52,010	
Hungryland WEA	FWC	MART	TC-128		2,143	\$65,401	
Tenoroc FMA -- HB	FWC	POLK	WC-053	500		\$0	
Lake Wales Ridge WEA -- HB	FWC	HIGH	WC-057	400		\$0	
KICCO WMA -- HB	FWC	POLK	WC-070		1,500	\$0	
Lake Wales Ridge WEA	FWC	HIGH	WC-090		9,600	\$236,004	
Chisegut et al (x4) -- HB	FWC	HERN	WR-041	1,080	250	\$3,120	
Little Gator Creek WEA -- HB	FWC	HERN	WR-118	10		\$2,696	
Total Wildlife Areas				9,859	37,692	\$1,407,342	

PROJECT NAME	MGR	CNTY	TA#	I-AC	M-AC	PRJ COST	COOP COST
Mimosa Pigra Project	IPM	multi	SE-150		25	\$13,542	
Total IPM Uplands				0	25	\$13,542	
Blackwater Heritage ST -- HB	OGT	SANT	PH-027		100	\$3,653	
OGT -- HB	OGT	CITR	WC-025		5	\$224	
Cross-FL Greenway	OGT	CITR	WR-112		35,750	\$187,929	
Total Greenways and Trails				0	35,855	\$191,806	
UF NATL -- HB	UNV	ALAC	WR-052	1		\$0	
Total Universities				1		\$0	
Leonhardt SRWMD	WMD	HAMI	LY-006	5		\$2,475	
Tyree, Osteen, Alapaha SRWMD	WMD	HAMI	LY-006	10		\$3,850	
Twin Rivers State Forest	WMD	HAMI	NE-063		293	\$70,547	
Lake Rowell SRWMD	WMD	BRAD	NE-065		610	\$169,069	
SFWMD maintenance (x5) -- HB	WMD	multi	SE-136		4,135	\$194,945	
SFWMD Melaleuca Program	WMD	multi	SE-150		51,282	\$994,485	\$1,000,000
Kissimmee River Lygodium	WMD	HIGH	TC-125		2,162	\$200,000	
Total Water Management Districts				15	58,482	\$1,635,371	
TOTAL STATE AGENCIES				16,535	200,296	\$5,513,605	\$1,119,748
Key West Naval Air Station	DOD	MONR	FK-091		32	\$149,246	
Tyndall AFB WMA -- HB	DOD	BAY	PH-097	40		\$2,700	
Total Department of Defense				40	32	\$151,946	
Hobe Sound NWR maint	FWS	MART	LY-006		32	\$9,600	
Pelican Island NWR -- HB	FWS	INDI	MC-004		360	\$1,425	
MINWR/Lake Woodruff NWR -- HB	FWS	BREV	MC-028	660	1,500	\$0	
MINWR -- HB	FWS	BREV	MC-0708		1,600	\$39,744	
MINWR 2010 Lygo-potato	FWS	BREV	MC-102		210	\$74,752	
St. Marks NWR	FWS	JEFF	PH-092		30	\$36,750	
FL Panther NWR	FWS	COLL	SW-128		3,400	\$148,227	
Total Fish and Wildlife Service				660	7,132	\$310,498	
CNS -- HB	NPS	VOLU	MC-074		1,500	\$3,300	
CANA 2010 Maintenance	NPS	VOLU	MC-103		4,100	\$178,782	\$100,000
ENP (East) -- HB	NPS	DADE	SE-081		9,540	\$10,362	
Big Cypress National Preserve	NPS	COLL	SW-131		157	\$34,932	
Total National Parks				0	15,297	\$227,376	
Apalachicola NF	USFS	LIBE	PH-096	72	240	\$44,700	
Total National Forests				72	240	\$44,700	
TOTAL FEDERAL AGENCIES				772	22,701	\$734,521	\$100,000
TOTAL ALL PROJECTS				29,682	253,824	\$7,714,325	\$1,603,636