

Invasive Exotic Species Strategic Action Framework Update

South Florida Ecosystem Restoration Task Force
May 20, 2015



As of 2013...

The Challenge

* 50 Plants (Category I Invasive)

* 34 Invertebrates

* 12 Mammals

* 4 Amphibians

* 38 Reptiles

* 11 Birds

* 20 Fishes



Pictured above**Feral Hog (Pig) *Sus scrofa*, the Purple Swamphen (*Porphyrio porphyrio*), Cuban Treefrog *Osteopilus septentrionalis*, Catfish *Pterygoplichthys disjunctivus*, Sailfin, the Redbay Ambrosia Beetle, *Xyleborus glabratus*), Nile Monitor - *Varanus niloticus*



We have been responding to the problem for years:

- Heavy emphasis on plants in the 1990s and 2000s (For example: Melaleuca, Brazilian Pepper, Lygodium, Australian Pine), with some important success
- ECISMA formed and is working very well
- Governments are spending millions every year to control invasives that are already established
- We are not spending very much to prevent the “next big invasion”
- We do not have as good a handle on invasive animals as we do on invasive plants



However, the problem is only getting worse...

- Florida is the most vulnerable mainland state in the USA for invasive pest introduction and establishment
- **On average Florida receives one new pest every month**
- 85% of the plant material entering the US comes through the Port of Miami
- Agricultural trade & pest interceptions at ports of entry have been doubling every 5-6 years
- With increased trade liberalization and as east – west trade has increased many invasives now come from Asia

The South Florida Ecosystem
Restoration Task Force asked,
“Can we do better?”

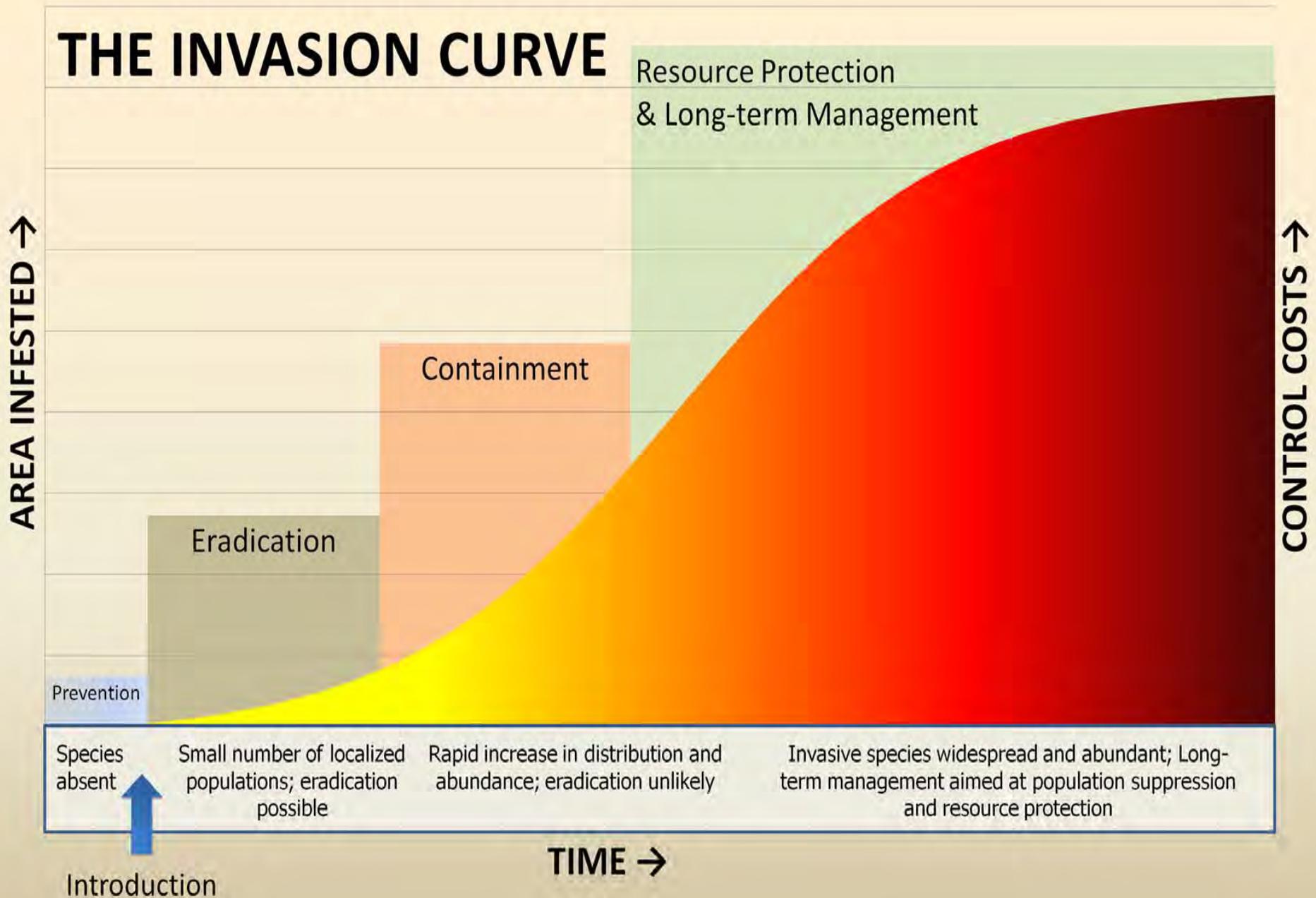




South Florida Ecosystem Invasive Exotic Species Strategic Action Framework

- 16 months of interagency/partner workshops
- Products:
 - Framework document
 - Prioritized list of strategies
 - Preliminary Action Assessment
 - South Florida Ecosystem IES Crosscut Budget

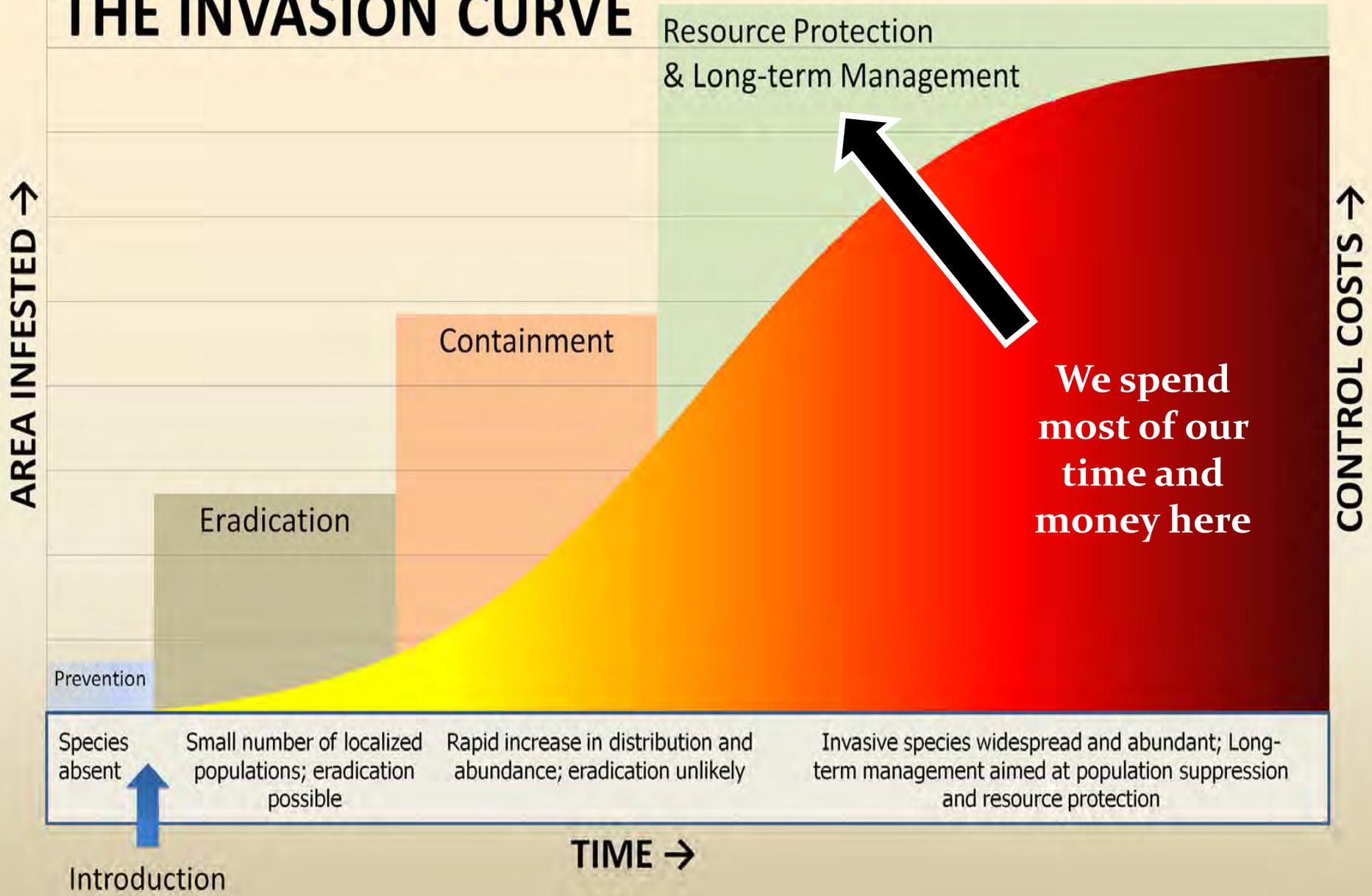
THE INVASION CURVE



“The Invasion Curve”

- The Curve tells us that the longer we take to respond to an invasion:
 - The costs get bigger
 - The damage gets bigger
 - The chances of eradication get smaller

THE INVASION CURVE



Species absent

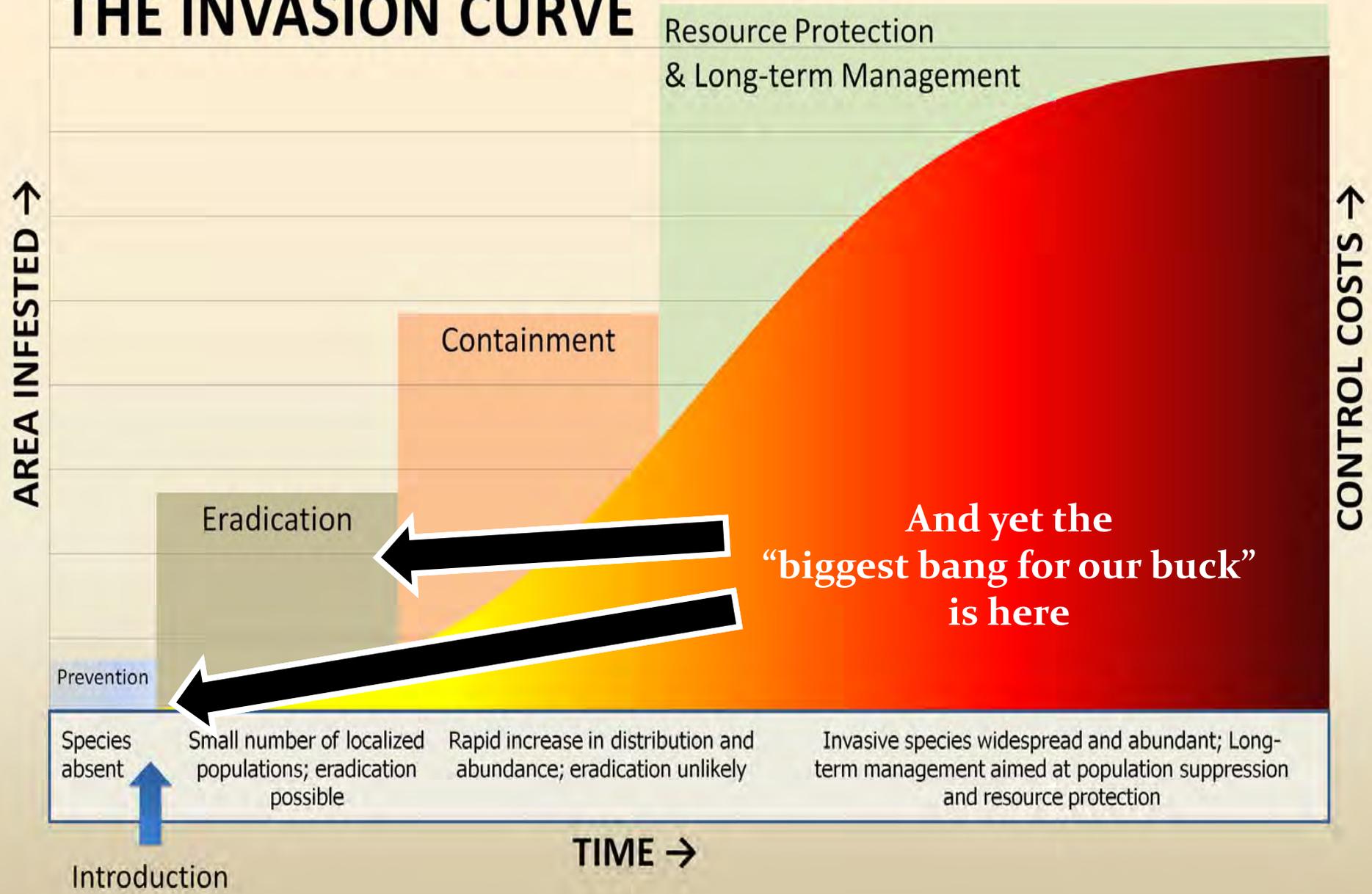
Small number of localized populations; eradication possible

Rapid increase in distribution and abundance; eradication unlikely

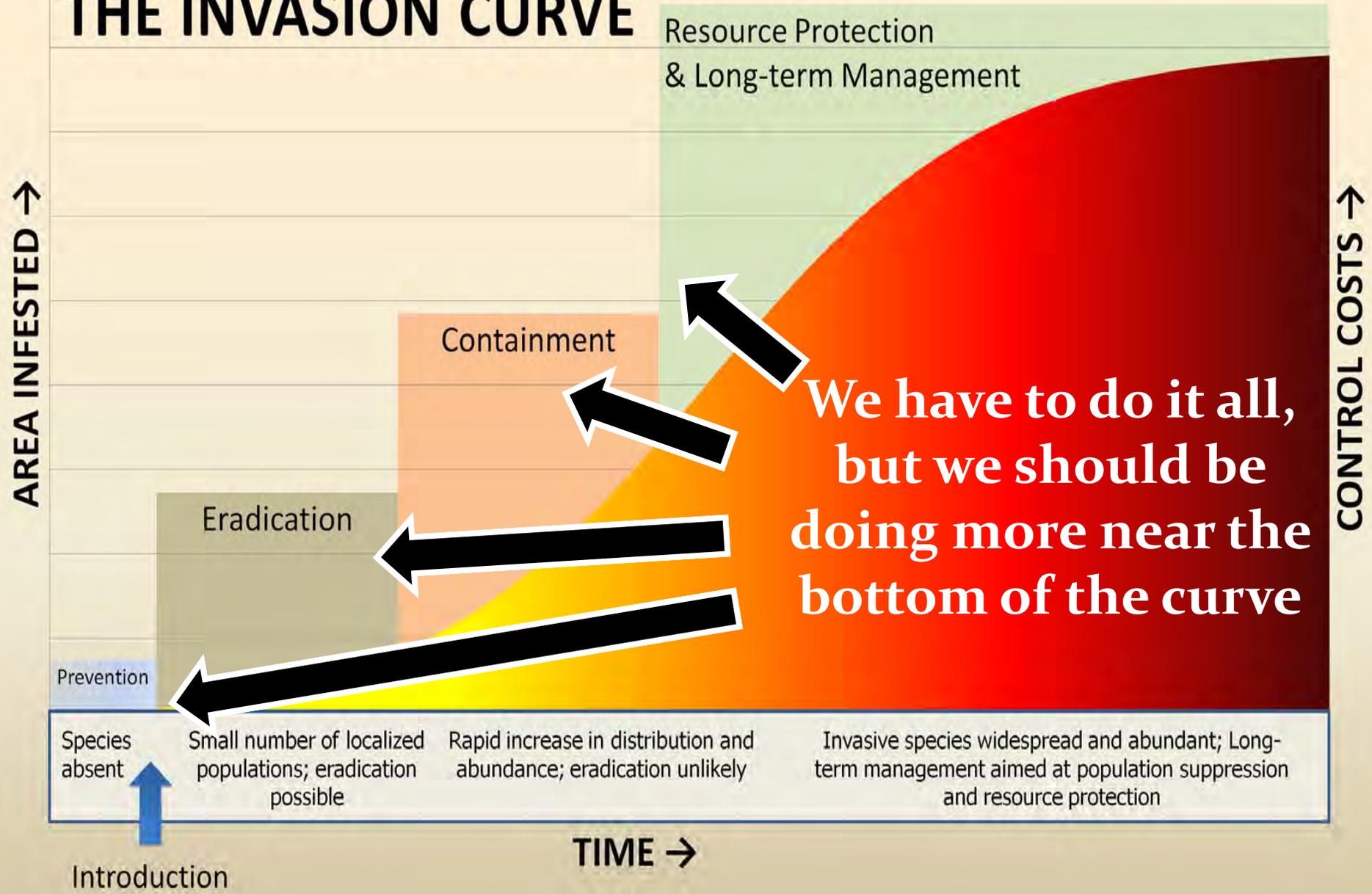
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection

We spend most of our time and money here

THE INVASION CURVE



THE INVASION CURVE



Invasive Animals

	USACE	*DOI	FDACS	FWC	SFWMD	Zoo Miami	Miami Dade EEL	Total
Prevention	0	67,438	1,224,139	116,523	0	1,737	0	1,409,837
Research	0	30,000	0	30,500	0	0	0	60,500
Outreach & Education	0	37,500	49,870	25,000	0	0	0	112,370
Prevention Total	0	134,958	1,274,009	172,023	0	1,737	0	1,582,707
Eradication (EDRR)	0	31,316	3,133,353	140,914	0	0	0	3,305,583
Research	0	20,000	0	46,200	0	0	0	66,200
Outreach & Education	0	0	91,667	0	0	0	0	91,667
EDRR Total	0	51,316	3,225,020	187,114	0	0	0	3,463,450
Containment	750	43,837	131,966	145,174	0	13,335	0	335,062
Research	0	31,780	0	0	0	800	0	32,580
Outreach & Education	0	27,610	0	0	0	1,737	0	29,347
Containment Total	750	103,227	131,966	145,174	0	15,872	0	396,989
Long-term Management	0	119,319	0	261,096	283,404	0	0	1,347,739
Research	0	953,630	0	0	40,000	0	0	993,630
Outreach & Education	0	126,274	0	0	0	0	0	126,274
Long-term Mgt. Total	0	1,199,223	0	261,096	323,404	0	0	2,467,643
TOTAL	750	1,488,702	4,630,995	765,407	323,404	17,609	0	7,910,787

* DOI Includes OERI, FWS Refuges, BNP, BICY, USGS, NPS Caribbean Network, FWS Vero and ENP totaling 3,114,665 acres of land

Invasive Plants

	USACE	DOI*	FDACS	FWC	SFWMD	Zoo Miami	Miami Dade EEL	Total
Prevention	34,105	21,438	1,022,720	0	0	0	0	1,078,263
Research	0	0	0	31,144	0	0	0	31,144
Outreach & Education	0	37,500	49,870	0	0	0	0	87,370
Prevention Total	34,105	58,938	1,072,590	31,144	0	0	0	1,196,777
Eradication (EDRR)	0	20,438	0	106,173	0	0	0	126,611
Research	0	0	0	0	0	960	0	960
Outreach & Education	0	0	0	118,485	0	0	0	118,485
EDRR Total	0	20,438	0	224,658	0	960	0	246,056
Containment	232,278	305,438	60,000	512,175	0	0	0	1,109,891
Research	0	0	0	0	0	0	0	0
Outreach & Education	2,000	0	0	0	0	0	0	2,000
Containment Total	234,278	305,438	60,000	512,175	0	0	0	1,111,891
Long-term Management	1,369,607	3,183,867	1,674,597	16,567,335	13,361,469	0	2,451,624	38,608,499
Research	50,000	0	0	907,020	100,000	65,000	0	1,122,020
Outreach & Education	20,000	78,394	22,336	360,378		0	45,903	527,011
Long-term Mgt. Total	1,439,607	3,262,261	1,696,933	17,834,733	13,461,469	65,000	2,497,527	40,257,530
TOTAL	1,707,990	3,647,073	2,829,523	18,602,71	13,461,469	65,960	2,497,527	42,812,252

* DOI Includes OERI, FWS Refuges, BNP, BICY, USGS, NPS Caribbean Network, FWS Vero and ENP totaling 3,114,665 acres of land

Measures of Success

- Long-term suppression of established species (\$\$\$\$)
- Containment of established but localized populations (\$\$\$\$)
- Detection and possible eradication of new invaders that pose a threat (\$\$)
- Prevention of new introductions of un-established species (\$)
- Effective coordination at every level (Free)



Gaps

- Adequate and predictable resources
- We have an incomplete toolbox
- We are not taking full advantage of outreach opportunities
- We are not maximizing coordination at the management and political levels
- We lack an effective EDRR system

Filling the Gaps

- Adequate resources:
 - Develop a cross cut budget
 - Design a more strategic and better integrated approach
 - Improve higher level coordination
 - Identify creative funding strategies
- Improve the toolbox:
 - Prioritize what is needed
 - Coordinate resources
- Increase outreach:
 - Local governments
 - Improve message coordination
 - Look for messaging partners to help reach the public
- Higher level coordination:
 - Build a governance structure around the IES Strategic Action Framework
- **EDRR: TOP IMPLEMENTATION PRIORITY**
 - Stand up a system for EDRR



Building an EDRR System

- September workshop on rapid risk screening tool
- Leadership briefings on Framework include focused conversations about EDRR
- The Dept. of Interior has issued budget development guidance for Bureau work in the Everglades
- We have plugged into the national IES EDRR development process
- Engaging our political leadership at the state and federal level to brainstorm funding ideas

Thank you

