

# Invasive Exotic Species Strategic Action Framework Update

South Florida Ecosystem Restoration Task Force  
December 17, 2013



Photo courtesy of Larry Perez, ENP

# 2013 Task Force Direction

- July 9, 2013 Task Force Meeting
  - The Working Group recommended the development of a Comprehensive Invasive Species Strategic Action Framework (2013) that includes a cross cut budget (2010)
  - Provide coordination support for federal invasive species efforts (2010)



Burmese Python photo from NPS

# SFERTF 2013 Invasive Exotic Species Progress to Date

- Developing *Strategic Action Framework*
- Enhancing Federal coordination
- Growing the partnership
- Integrating invasive exotic species more holistically into OERI's website



Air Potato: Photo courtesy of Matt Hamm

# Strategic Action Framework

Brief Review

# What Might a Strategic Action Framework Provide?



Photo courtesy Bob Fewster, UF

**Greenhouse Frog**

- Recommends a governance structure
- Helps decision-makers understand the connections between goals, strategies, tactics
- Defines success and provides for accountability
- Maximizes the extent to which the current capacity for partnership is leveraged to meet common goals
- Helps decision-makers make wise and timely investment decisions in the battle against invasive exotics



# Strategic Planning in General

- Long-term
- Future-oriented
- Includes:
  - Assessment (of current issues, capabilities, and needs)
  - Vision Development (of desired future)
  - Goal Setting
  - Strategy Building
- Can lead to priority-based resource allocation and other decisions

# Strategic Action

## Framework - Status

Draft Vision, Goals, and Case Studies

# Strategic Action Framework - Progress to Date

- Two meetings held
  - September 17, 2013
  - November 13, 2013
- Developed drafts of:
  - Table of Contents
  - Vision/Goal Statements
  - Case Study List

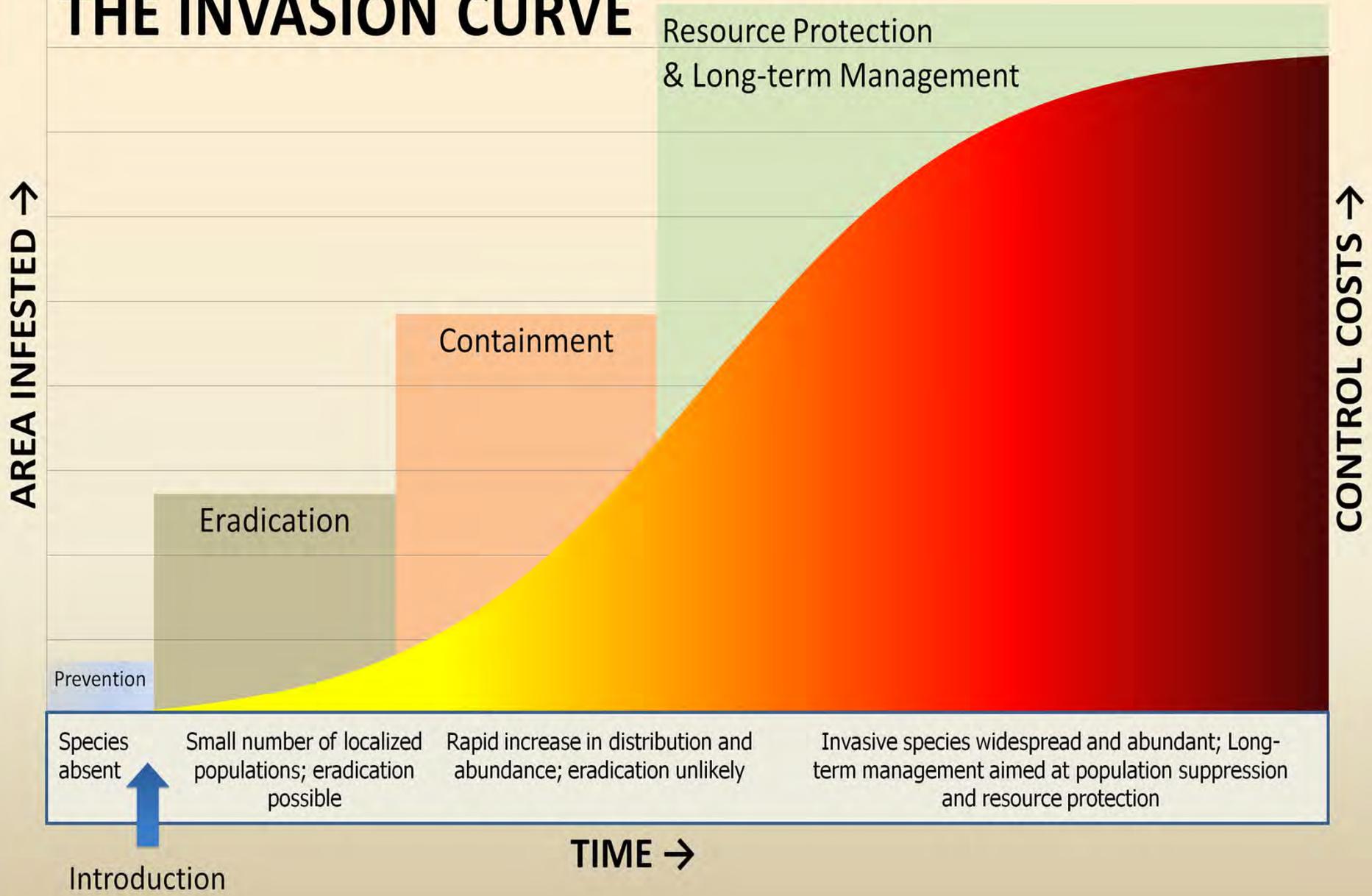


Photo courtesy of *Jess Van Dyke*

# Strategic Action Framework - Progress to Date

- Agreement on Terminology
  - Consistent with EO 13112
  - Invasive-Nonnative-Exotic-Nonindigenous-Nuisance-Alien-Species-Oh-My
  - “Invasive Exotic Species”
- Agreement on Geography
  - “South Florida Ecosystem including America’s Everglades”
  - Defined as the SFWMD boundary plus Florida Bay and the reef tract
- Agreement on Invasion Curve as organizing principle

# THE INVASION CURVE



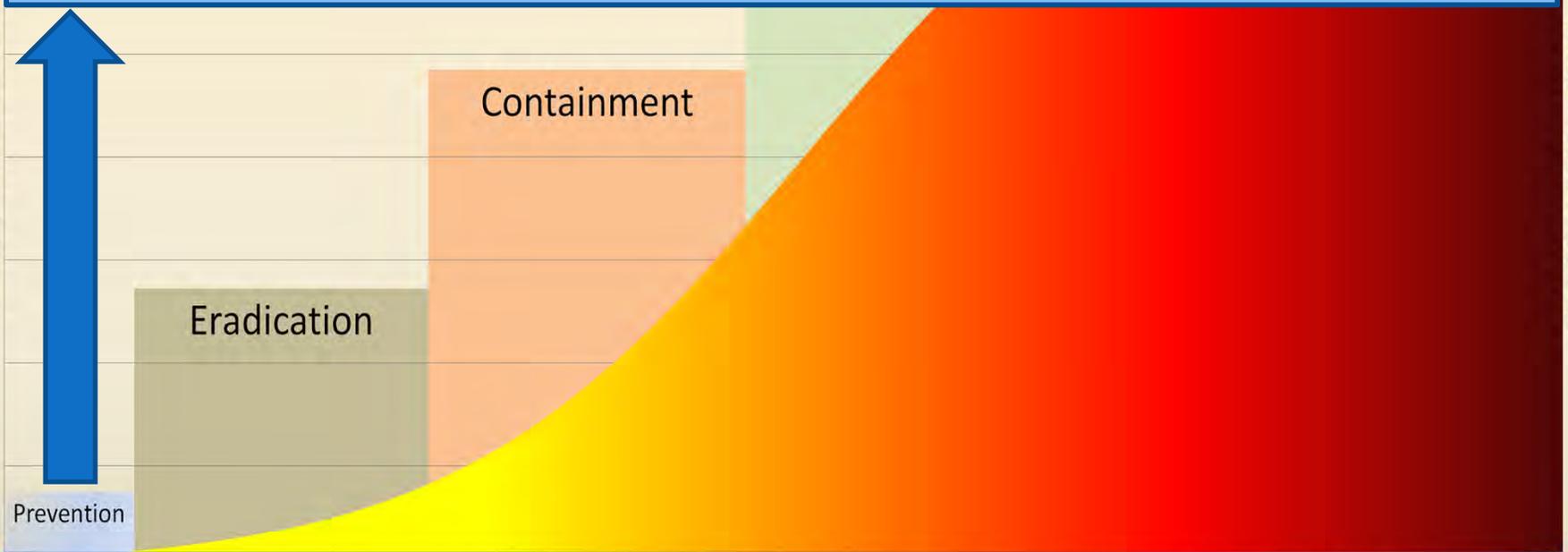
# THE INVASION CURVE

Resource Protection  
& Long-term Management

**Goal 1: Prevent the introduction of invasive exotic species into the South Florida Ecosystem**

AREA INFESTED →

CONTROL COSTS →



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
----------------	---	--	--

Introduction

TIME →

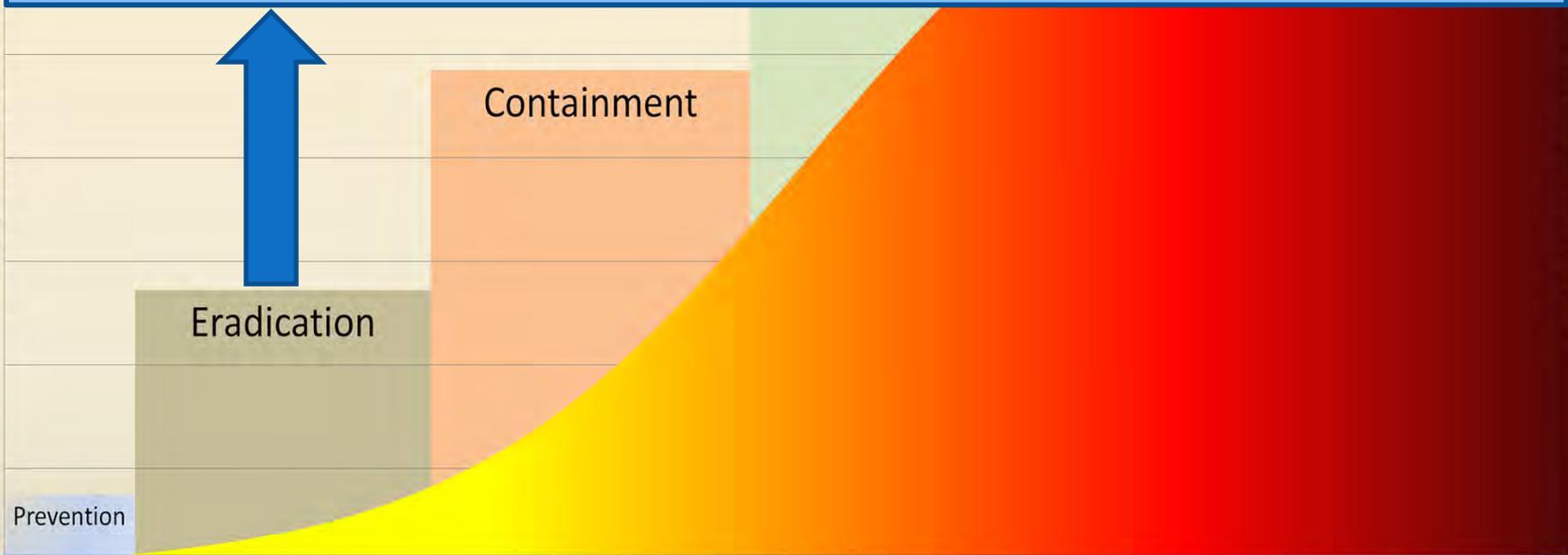
# THE INVASION CURVE

Resource Protection  
& Long-term Management

**Goal 2: Implement Early Detection and Rapid Response (EDRR)**

AREA INFESTED →

CONTROL COSTS →



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

Introduction

TIME →

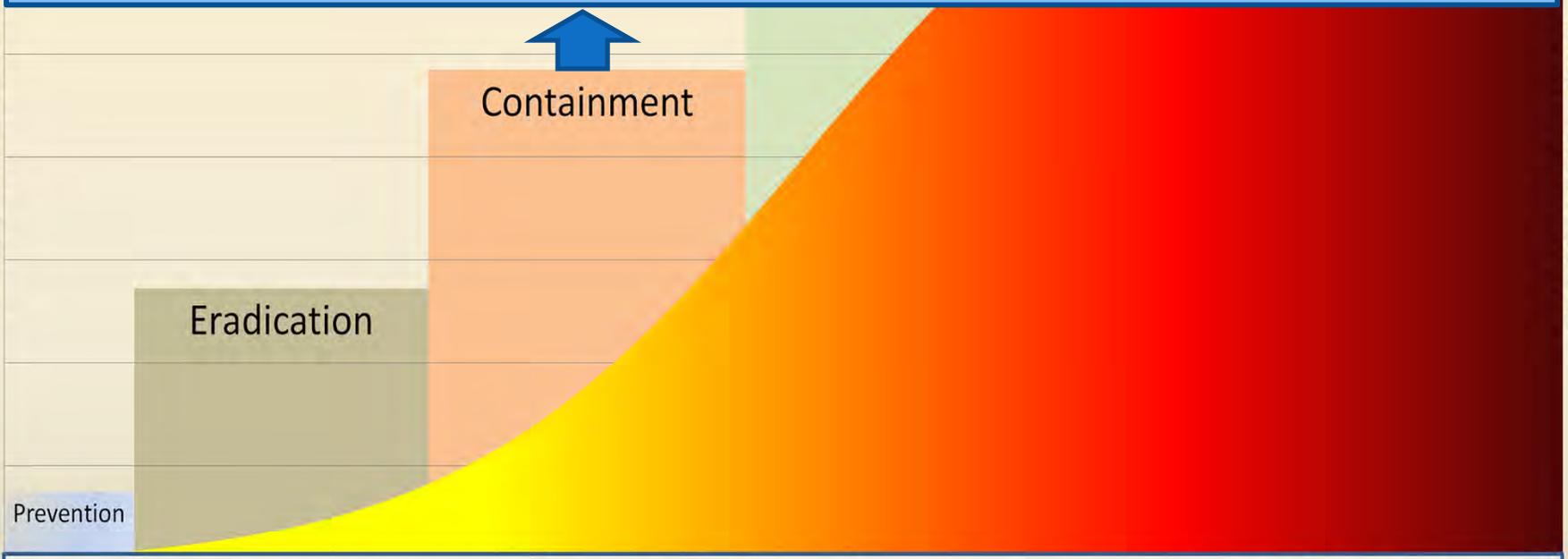
# THE INVASION CURVE

Resource Protection  
& Long-term Management

**Goal 3: Prevent the spread of invasive exotic species to new areas**

AREA INFESTED →

CONTROL COSTS →



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
----------------	---	--	--

Introduction

TIME →

# THE INVASION CURVE

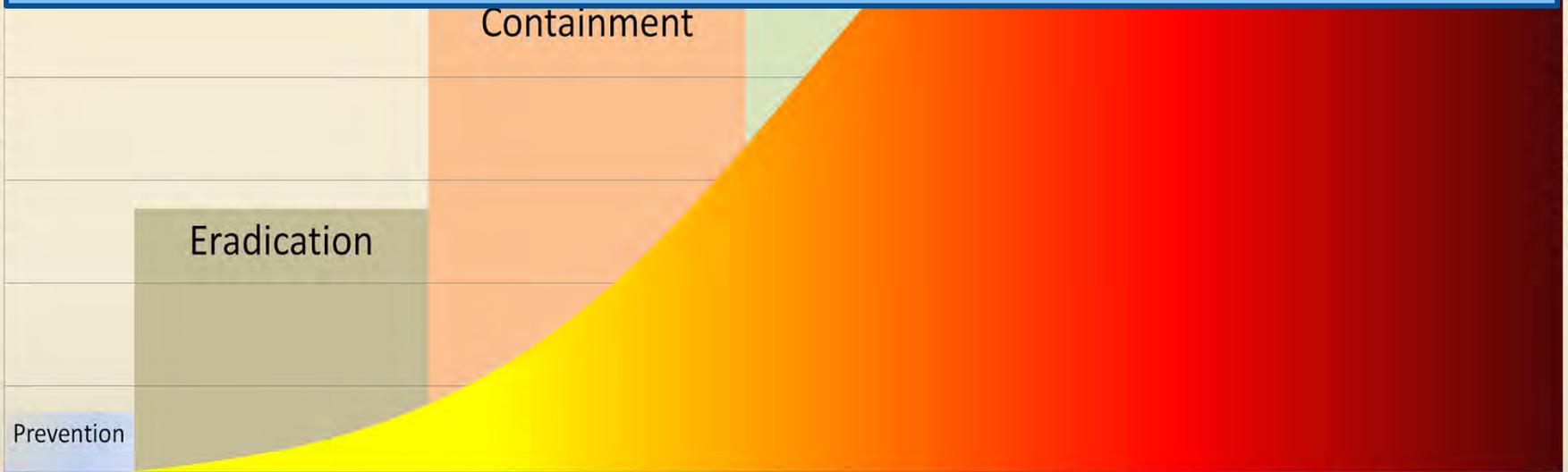
Resource Protection  
& Long-term Management



**Goal 4: Reduce the populations of widely established invasive exotic species to lowest feasible levels**

AREA INFESTED →

CONTROL COSTS →

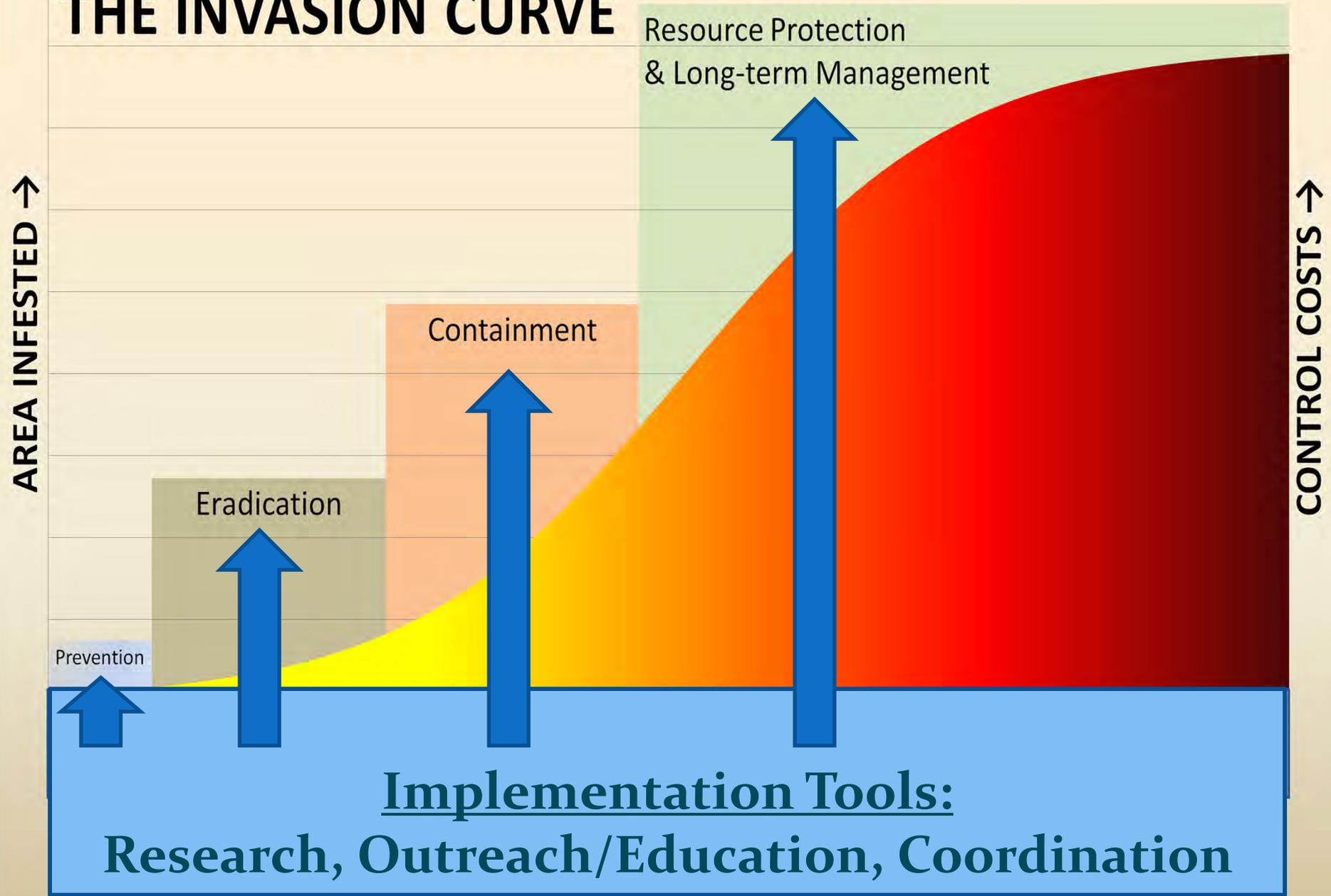


Species absent      Small number of localized populations; eradication possible      Rapid increase in distribution and abundance; eradication unlikely      Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection

Introduction

TIME →

# THE INVASION CURVE





# Draft Vision Statement

- “The South Florida Ecosystem, including America’s Everglades, its environmental, economic, and cultural values and human health, is protected from the harmful effects of invasive exotic species.”

# Case Study Nominees

- Prevention
  - South African Python
  - Ticks (Heart Water Disease)
- Eradication
  - Sacred Ibis
  - Giant African Snail
- Containment
  - Tegus
  - Gambian Pouched Rat
- Management
  - Lionfish
  - Melaleuca (bio-control success story)
  - Burmese python
  - Ambrosia Beetle/Laurel Wilt



# Growing the Partnership

# Initiated Dialogue with New Partners

- U.S. Customs and Border Protection
- USFWS Law Enforcement
- University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS)
- Zoo Miami



**UF | IFAS**  
UNIVERSITY *of* FLORIDA

# USFWS Law Enforcement

## Special Agents

- Plainclothes Criminal Investigators
- Enforce wildlife laws nationwide
- Investigations focus on:
  - Illegal trade
  - Unlawful take of native species
  - Habitat destruction

## Wildlife Inspectors

- Uniformed unarmed Import/Export control officers
- Stationed at major airports, ocean ports, & border crossings
- Enforce U.S. Wildlife Regulations and Foreign Laws:
  - Compliance monitoring
  - Smuggling interdiction

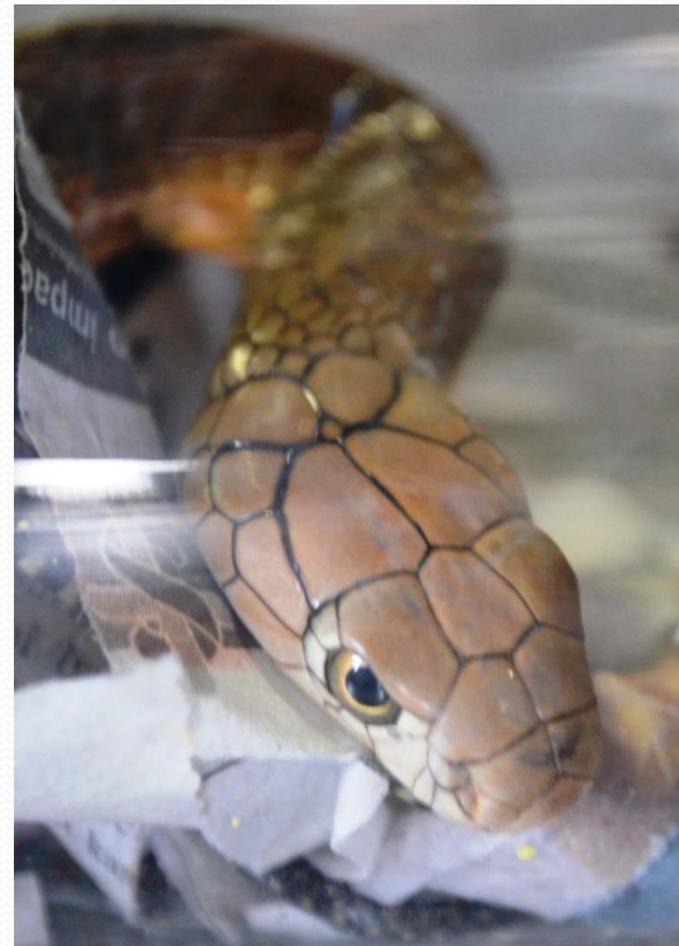
## Wildlife Inspector K-9

“Viper”



# USFWS Law Enforcement Collaboration with FWCC

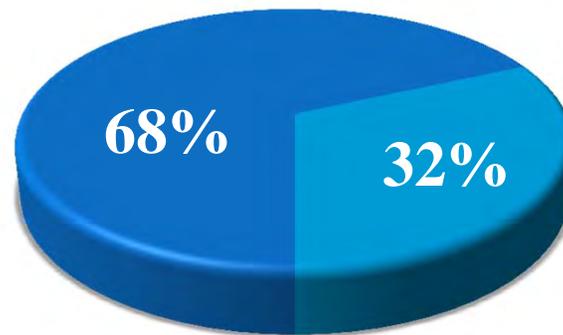
- Collaborate with the Florida Fish and Wildlife Conservation Commission on seizure of Florida prohibited species
- Pictured: King Cobra



# USFWS Law Enforcement

## Port of Miami Statistics

### Inspections Resulting in Law Enforcement Actions



■ Cleared   ■ Refused Clearance

Statistically, this equates to enforcement action being taken 1 out of 3 physical inspections that are being conducted.

# Department of Homeland Security- U.S. Customs and Border Protection



Securing  
America's  
Borders



Securing and  
expediting the  
movement of  
goods

Securing and  
expediting the  
movement of  
people



# Department of Homeland Security- U.S. Customs and Border Protection

## In 2012...

- CBP Agriculture Specialists conducted more than **1.6 million interceptions** of prohibited plant materials, meat, and animal byproducts while also stopping entry of approximately **174,000 potentially dangerous pests**.
- CBP processed more than **\$2.3 trillion in trade**. The revenue which CBP collects remains the **second largest source of revenue** for the U.S. Government. (1-Individual Income tax).

# Department of Homeland Security- U.S. Customs and Border Protection

Coming Soon on a  
Flight with You!

- Live songbirds



- Hatching eggs



# Zoo Miami

## Successful Efforts

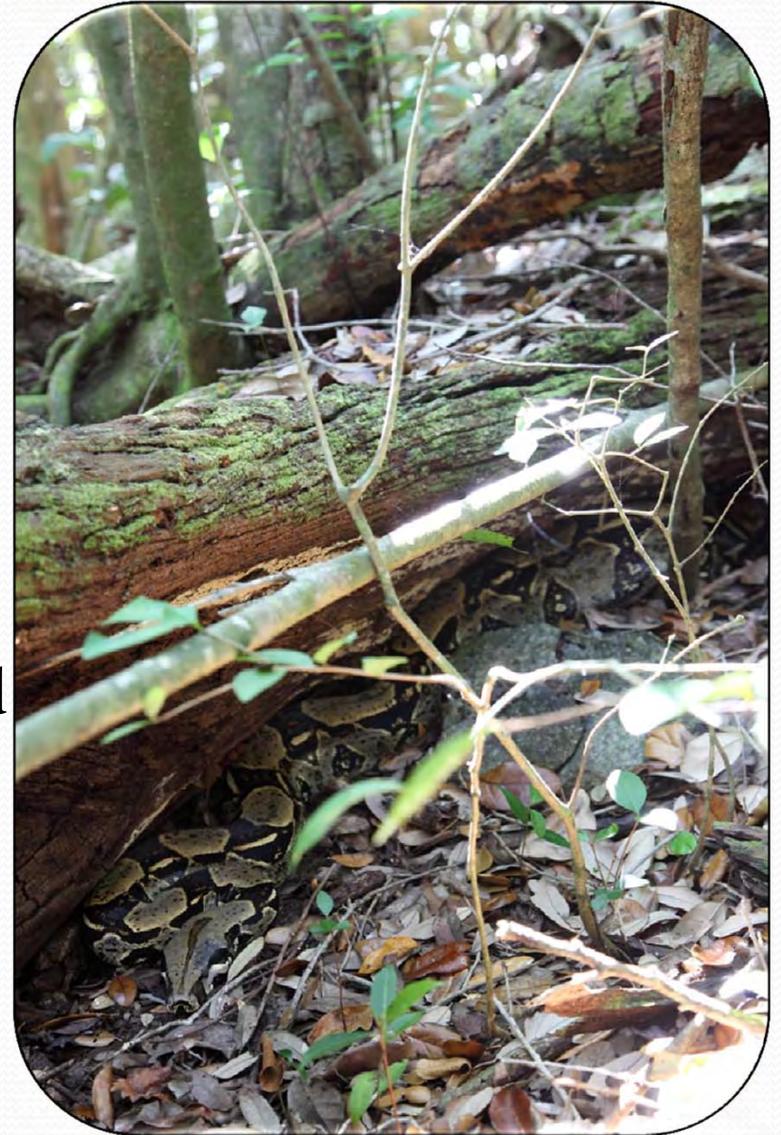
- Sacred Ibis
  - Successful eradication story
  - 33 captured and placed in accredited institutions
- Green Iguanas
  - Zoo management decision to eradicate
  - Removed over 450; less than a dozen resident now



# Zoo Miami

## Successful Efforts

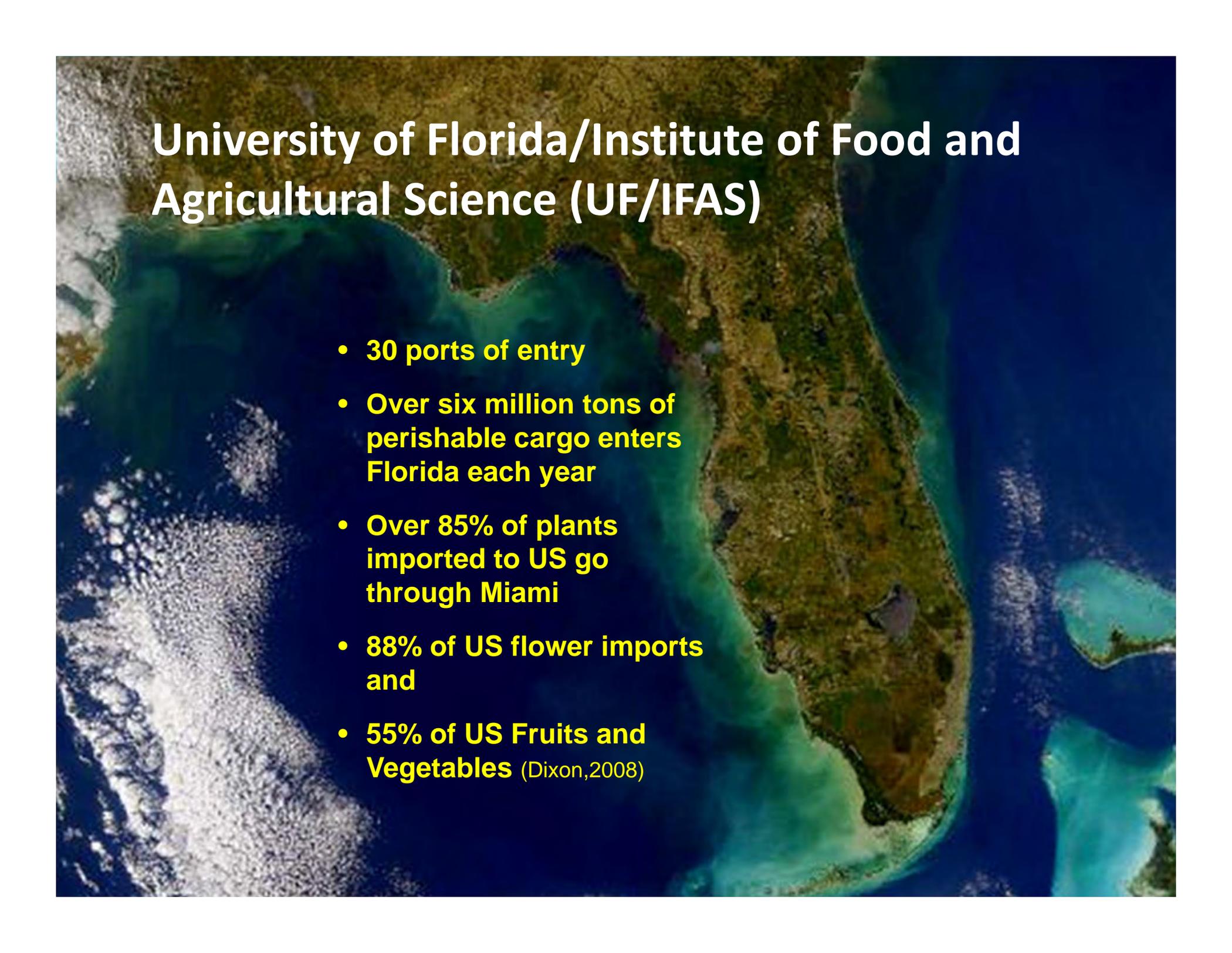
- Boa Constrictor research and removal
- Cuban Knight Anoles, Marine Toads, Cuban Treefrogs
- Invasive Plants – removal and restoration
  - Globally imperiled pine rockland
  - Largest fragment outside Everglades National Park
  - 15 Federally endangered species
  - 110 State threatened/endangered



# University of Florida/Institute of Food and Agricultural Science (UF/IFAS):

## *The Florida Economy & the Issue of Invasive Species*

- 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.**
- 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.
- Economic cost-benefit analysis is a useful tool to inform resource allocation decisions.

A satellite image of Florida and the Gulf of Mexico. The state of Florida is visible in the center-right, surrounded by the Gulf of Mexico to the west and the Atlantic Ocean to the east. The text is overlaid on the image.

# University of Florida/Institute of Food and Agricultural Science (UF/IFAS)

- **30 ports of entry**
- **Over six million tons of perishable cargo enters Florida each year**
- **Over 85% of plants imported to US go through Miami**
- **88% of US flower imports and**
- **55% of US Fruits and Vegetables** (Dixon,2008)

# Developing a Web Portal

- Currently being developed as part of [www.sfrestore.org](http://www.sfrestore.org)
- To be expanded on [www.evergladesrestoration.gov](http://www.evergladesrestoration.gov) over the next year

# U.S. DOI OFFICE OF EVERGLADES RESTORATION INITIATIVES

## South Florida Ecosystem Restoration Task Force

[Home](#) [Documents](#) [Calendar](#) [About Us](#) [Contact Us](#)

### Invasive Exotic Species

Search...



Non-native plant and animal species are defined as those species living in an area outside their native range. If a non-native species causes or is likely to cause economic or environmental damage or pose a threat to human health and safety, it is considered an invasive species. Invasive species have infested millions of acres of natural areas in the United States with the associated loss of native species, including rare and endangered species. Particularly pervasive in Florida, invasive species have been documented to alter the ecological structure and function of entire ecosystems, sometimes leading to irreversible changes in ecosystem processes and food webs. Invasive plant, animal and fish species are a rapidly increasing environmental and economic problem in south Florida. Florida is second only to Hawaii in the severity of the threat posed by invasive species and is particularly vulnerable to the introduction and spread of invasives because of its subtropical climate, major ports of entry, and the pet, aquarium, and ornamental plant industries.

### IES Strategic Framework

**November 13, 2013**

**September 17, 2013**

### What Can You Do?

- Don't Let it Loose
- Turn in your Unwanted Exotic Pets  
**Next Amnesty Day January 25, 2014**
- Adopt a Non-Native
- Report it - IveGot1.org

### Education and Outreach

- National Park Service
- Florida Fish and Wildlife Conservation Commission
- South Florida Water Management District

# Next Steps

- Continue *Strategic Action Framework* development (Draft March 2014)
- Enhance web portal
- Continue outreach to new partners
- Continue enhanced federal coordination
- Implement good ideas

# Questions?



[www.sfrestore.org/ies.html](http://www.sfrestore.org/ies.html)