Invasive Exotic Species Strategic Action Framework

April 2, 2014

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)
  - OERI to hold a high-level partnership workshop to discuss Strategic Action Framework
  - Provide coordination support for federal invasive species efforts (2010)

Activity to Date

- Held 4 IES Strategic Framework meetings
- Briefed the WG/SCG twice (11/19/13 and 4/2/14)
- Briefed the Task Force (12/17/13)
- Continuing to broaden the partnership

Current Status

- Simultaneously developing:
  - Printable Framework
  - Web-based Framework
  - Suite of case studies
- Initiated process to update the Task Force's overarching Strategy to better address invasive exotic species

Goals for Today

- Provide update on Working Group and Science Coordination Group meeting
- Identify Projects for the Task Force Strategy
- Get specific input on the Framework's:
  - Action steps
  - Further details/links to additional information
  - Graphics
  - Webpage

Draft Framework

Vision, Goals, and Case Studies

Small Group Activity

- We need to make a better case.
  - One group on Background.
  - Explain the **problem**.
  - Audience: Public; Decision-makers
- We need to better explain our strategy.
  - One group for each Goal.
  - Explain the **solution**.
  - Audience, Objectives: Public; Decision-makers
  - Audience, Action Steps: Actively engaged partners

Goal 1: Prevent the introduction of invasive exotic species.

Preventing introductions of new invasive exotic species is the most cost effective strategy and can yield benefits if invested in upfront and if current barriers are addressed.

Preventing the introduction of invasive exotic species into the South Florida Ecosystem protects both the environment and the economy from the negative ecological impacts of those species and the high costs associated with long-term control efforts. Prevention requires both the ability to identify risks and the ability to implement tools that will stop the identified species from entering our region. Prevention is often seen as only a high-level regulatory tool. However, many other tools, including best management practices and public education, are also available.

The ability to **prioritize** prevention efforts will rely on technical expertise and tool development, including ecological risk assessments. Current and future efforts will build on existing resources developed by partners working on invasive exotic species.

Preventing the introduction of high priority invasive exotic species will rely upon a cooperative and cohesive multi-jurisdictional approach that aims to fortify the ecosystem from invasion. Better understanding the risks from pathways can help develop robust and more effective biosecurity measures that prevent invasions before they produce significant economic and ecological damages, while simultaneously protecting safe commerce. Securing current and potential pathways will require enhanced import/export screening, full utilization of existing regulatory tools, and development of new regulatory tools.

A Deadly Hitchhiker

Heartwater is an often fatal tick-borne disease historically endemic to sub-Saharan Africa, Madagascar, and more recently several islands in the Caribbean. The potential for Heartwater gaining a foothold in South Florida is increased due to the favorable climate for the ticks and the large volume of African reptiles that are imported into Miami International Airport.

Don't Pack a Pest

TO BE UPDATED.

Yellow Anaconda

TO BE UPDATED.

- Broad Audience
  - Public
  - Decision-makers

Goal 1: Prevent the introduction of invasive exotic species.

PRIORITIZE

Objective 1A: Prioritize prevention efforts.

- Assemble technical work groups.
- Develop tools to identify invasive exotic species that pose the highest ecological, cultural, and/or health risks or are most likely to become established and thrive when introduced to the ecosystem.
- Utilize ecological risk assessments.
- Educate and create public acceptance of risk assessment process.

PREVENT

Objective 1B: Prevent high priority invasive exotic species from entering.

- Enhance import/export screening.
- Maximize use of existing regulatory tools.
  - Manage pathways of introductions of invasive exotic species using both regulatory and voluntary approaches.
- Seek new regulatory tools.
- Improve understanding of threats to domestic bio-security via intrastate and interstate pathways.
- Utilize best management practices (BMPs).
  - Activities that have the potential to introduce or disseminate invasive species on public lands should include an analysis to determine the potential for the introduction or movement of invasive species.
  - Develop a prevention plan (e.g. Hazard Analysis and Critical Control Point (HACCP) plan) or appropriate set of prevention and containment practices that will be implemented to mitigate or reduce the potential for invasive species movement onto and off of public lands and privately-owned/publicly managed lands.
- Engage the public and broaden the partnership actively working to prevent the introduction of invasive exotic species.
- Encourage the use of prevention practices in partner agency contracts and by entities working on or on the behalf of all partner agencies.

- Objectives
  - Broad Audience
- Action Steps
  - Partners
  - Links to further details

Small Group Activity

- Ensure core elements/steps are included.
  - Example, Background Economy section:
    - Inspection/Interdiction
    - Agriculture
    - Recreation/Tourism
  - Clumped into categories, but not telling clear story.

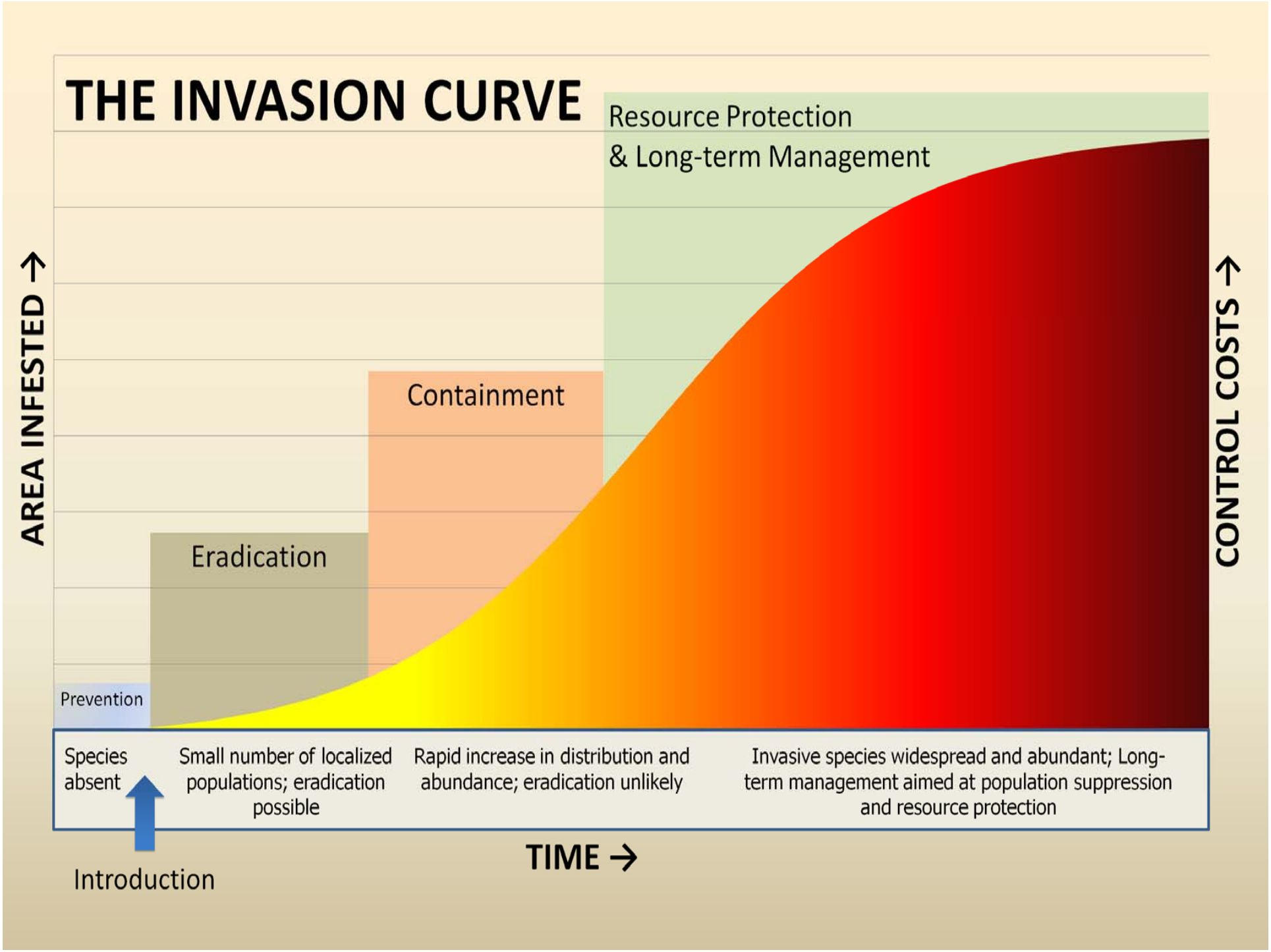
Small Group Activity

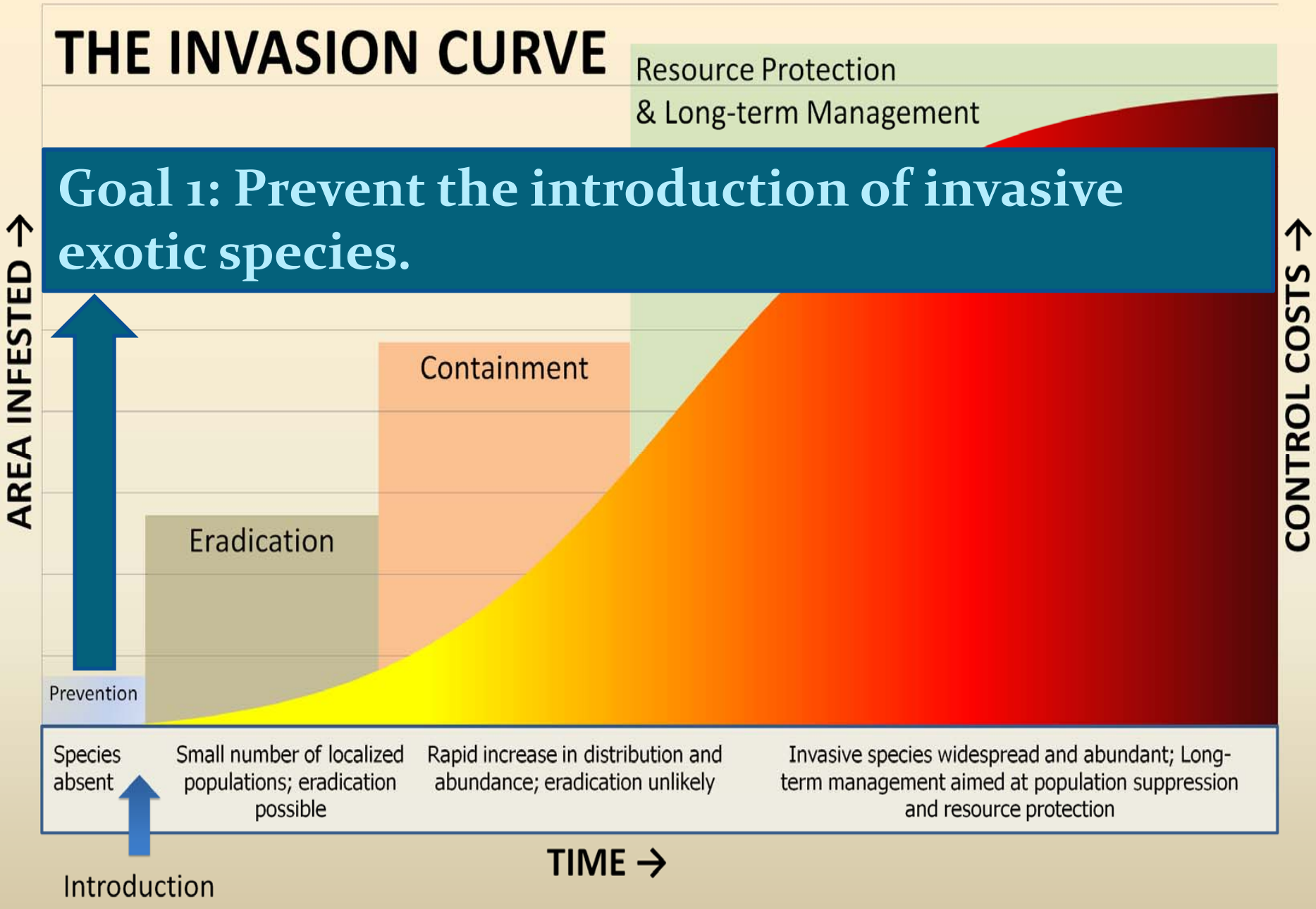
- Identify links to next layer of information.
- Describe graphics that would tell the story better.
- Do not focus on wordsmithing.
  - But we'll take any edits on the text you provide ☺

Next Steps

IES Framework Schedule

- April - Refined draft will be circulated to group
- April – Case Studies will also be edited/circulated
- May 7 – Progress update presented to the Task Force


THE INVASION CURVE
Resource Protection
& Long-term Management
Containment
Eradication
Prevention
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 →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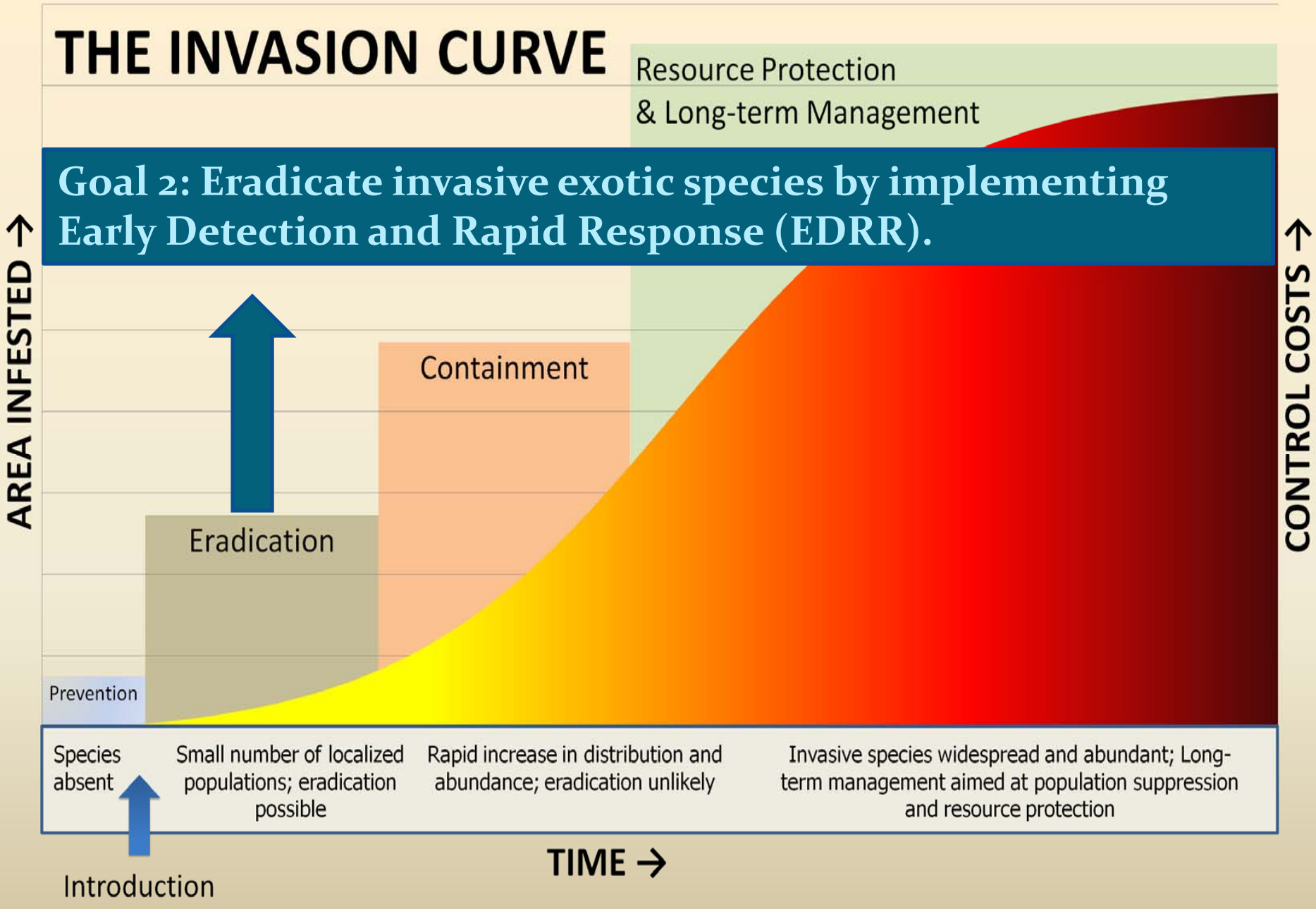
Goal 1: Prevent introduction of invasive exotic species

Preventing introductions of new invasive exotic species is the most cost effective strategy and can yield benefits if invested in upfront and if current barriers are addressed.

- Objectives:
  - **Prioritize:** Prioritize prevention efforts.
  - **Prevent:** Prevent high priority invasive exotic species from entering
- Case Studies:
  - Heartwater Diseases
  - Yellow Anaconda
  - Don't Pack a Pest

Tropical Bont Tick

Photo: USFWS Law Enforcement


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 2: Eradicate invasive exotic species by implementing Early Detection and Rapid Response (EDRR).
AREA INFESTED →
CONTROL COSTS →
Containment
Eradication
Prevention
Species absent
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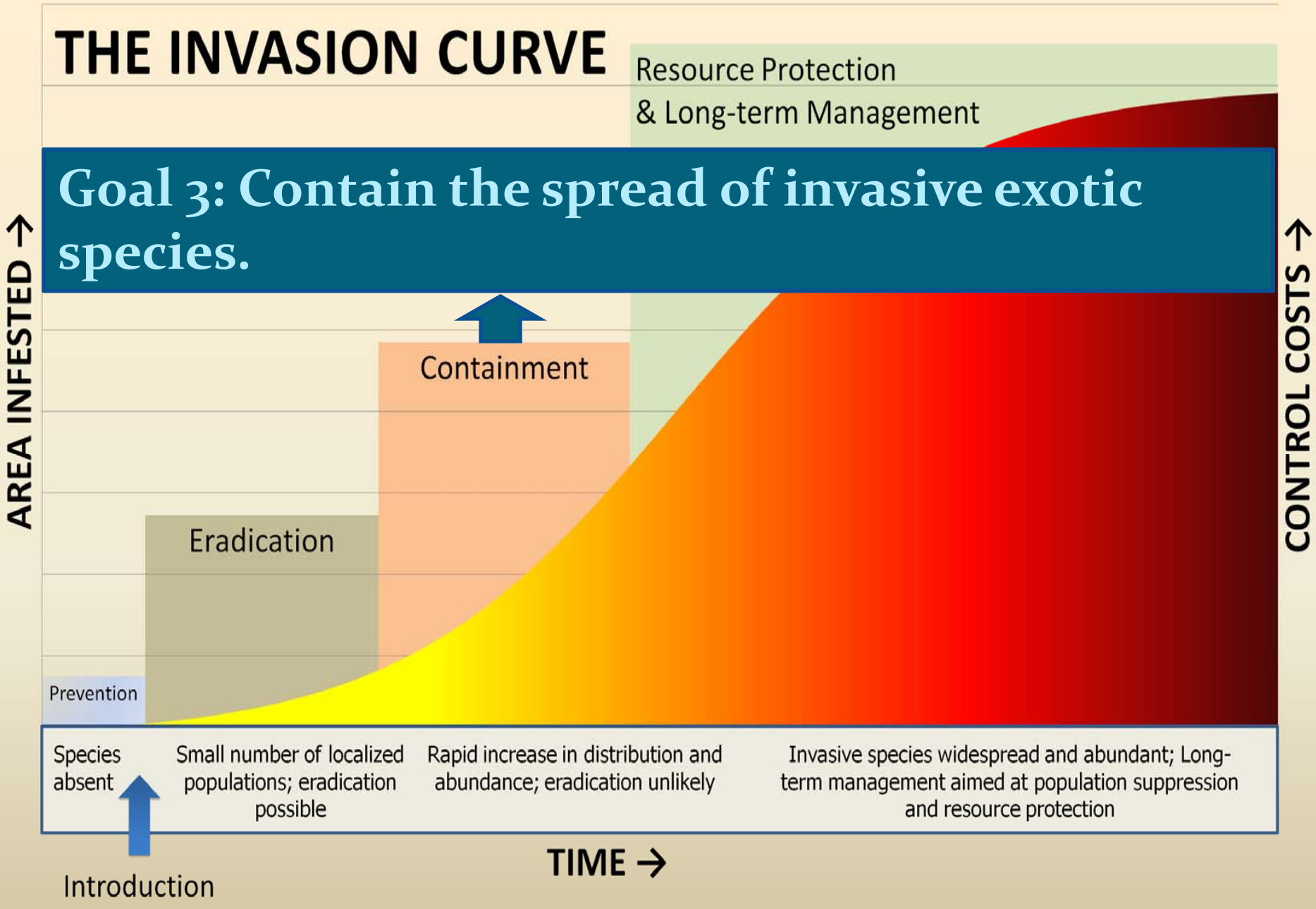
Introduction
TIME →

Goal 2: Eradicate invasive exotic species by implementing EDRR

Successful eradication of newly established invaders through EDRR requires formal collaboration and dedicated staff and funding.

- Objectives:
  - **Prepare & Monitor:** Prepare and monitor to enhance early detection.
  - **Assess:** Ensure rapid assessment of newly detected species.
  - **Respond:** Rapidly respond to identified threats.
- Case Studies:
  - Gambian Pouched Rats
  - Sacred Ibis
  - Tephritid fruit flies


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 3: Contain the spread of invasive exotic species.
Containment
Eradication
Prevention
AREA INFESTED →
CONTROL COSTS →
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TIME →

Goal 3: Contain the spread of invasive exotic species

Consistent resources to address containment, resource protection, and long-term management are needed.

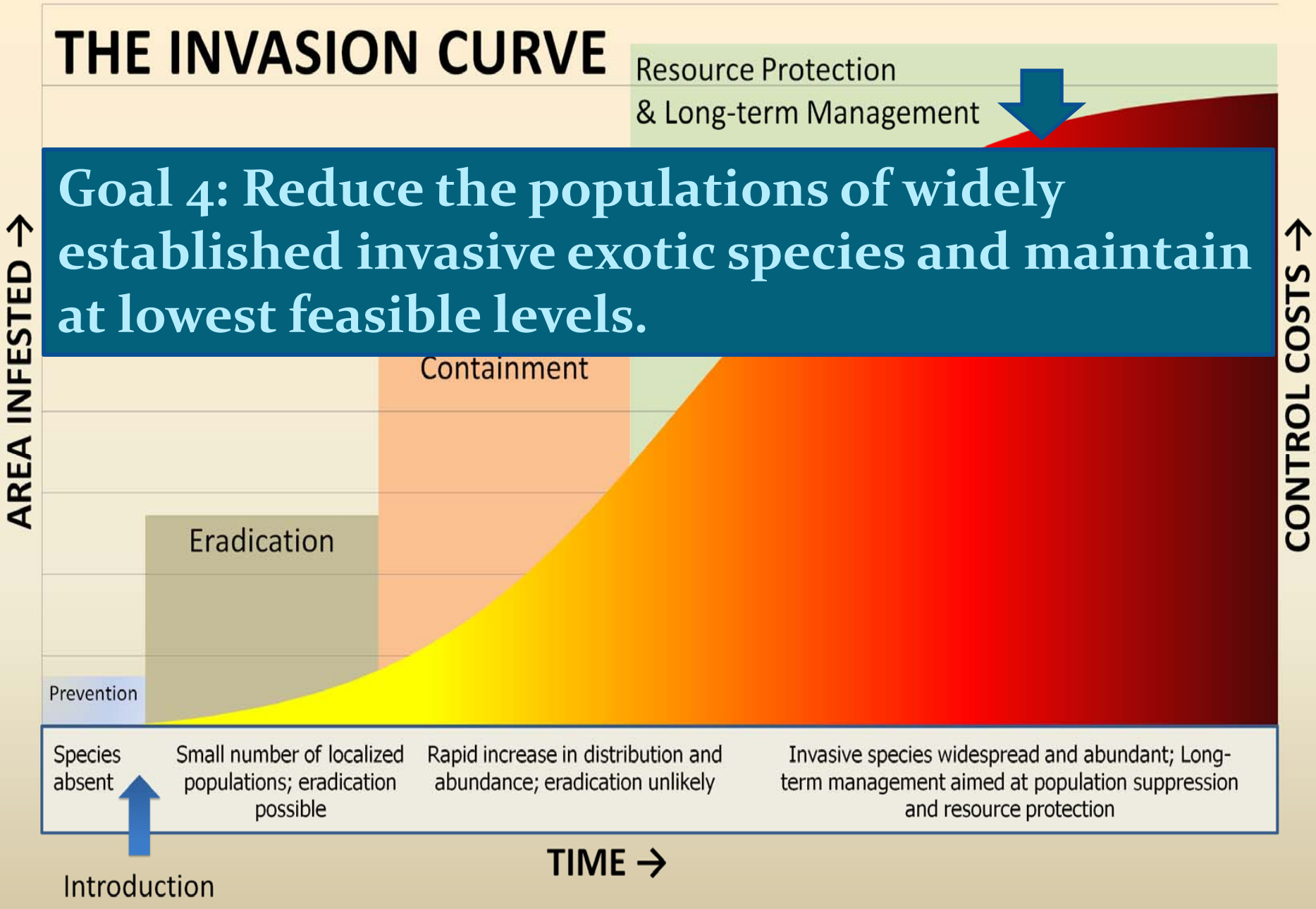
- Objectives:
  - **Coordinate:** Standardize containment efforts through enhanced coordination.
  - **Contain:** Utilize existing control tools to contain invasive exotic species.
  - **Invest:** Invest in monitoring, research, science, and tool development.
  - **Assess & Adapt:** Determine effectiveness of containment efforts on populations of invasive exotic species.

Goal 3: Contain the spread of invasive exotic species

Argentine Black and White Tegu

Photo: Dennis Giardina, FWC

- Case Studies:
  - Argentine black and white tegu



Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

Consistent resources to address population reduction, resource protection, and long-term management are needed.

- Objectives:
  - **Combat:** Reduce the population of established invasive exotic species through new controls or increased utilization of existing control tools.
  - **Restore:** Reduce impacts of invasive exotic species through restoration of native habitats and species.
  - **Invest:** Invest in monitoring, research, science, and tool development.
  - **Assess & Adapt:** Determine effectiveness of long-term management efforts on populations of invasive exotic species.

Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

- Case Studies:
  - Shoebutton Ardisia
  - Ambrosia beetle/laurel wilt disease
  - Lionfish
  - Burmese python
  - Melaleuca