

# Control of Invasives in Forests

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# Organization of Presentation

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- Current Situation**



- Pathway analysis**



- Prevention approaches**



- Impediments**



- EDRR for forest pests**



# Current Situation



**Forest ecosystems face threats from  
MANY taxa**



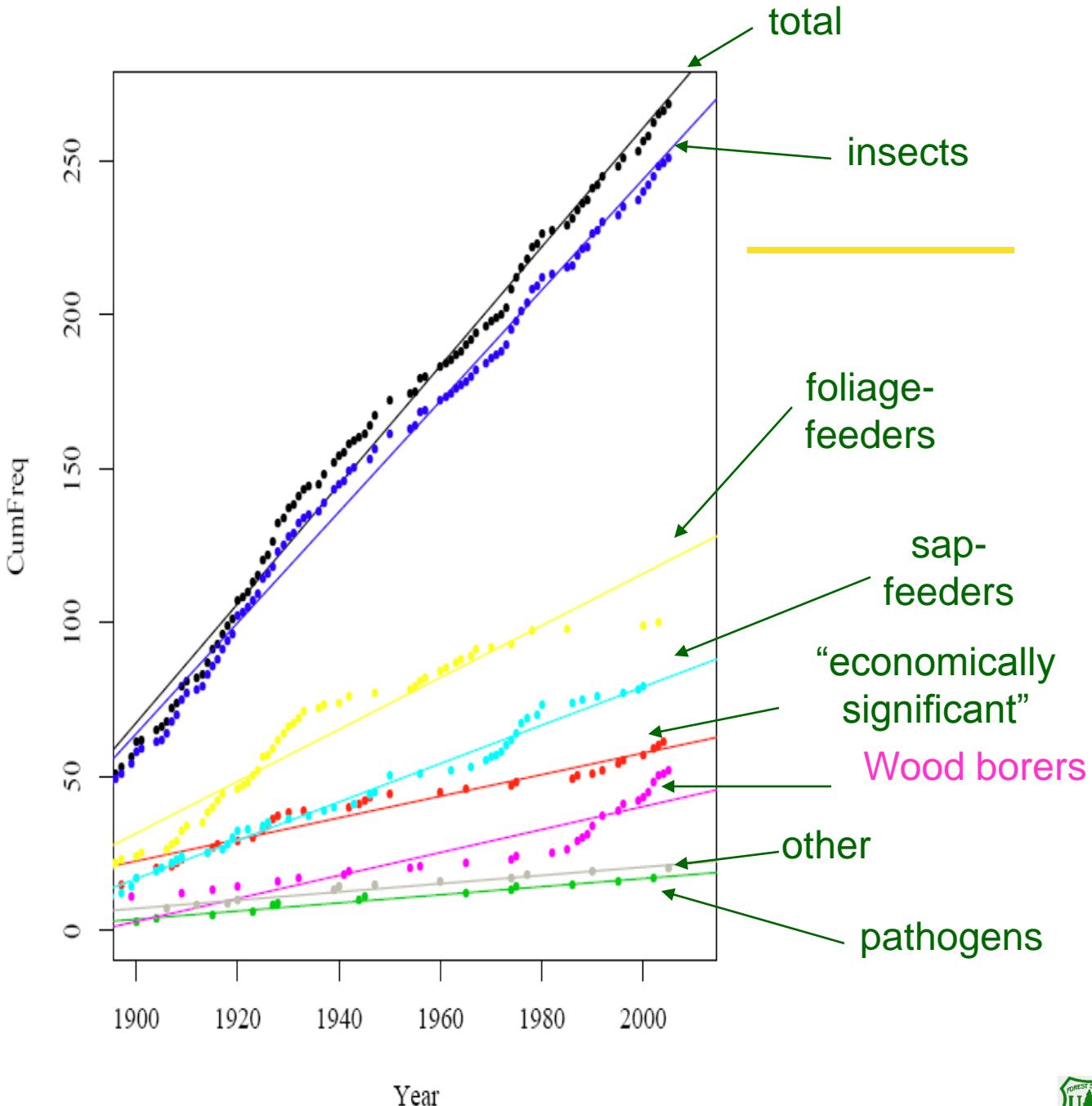
**Prevention and EDRR are better  
investments than control &  
management after invasion**



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# Pathway Analysis



## Accidental Introductions:

✳ **Logs**

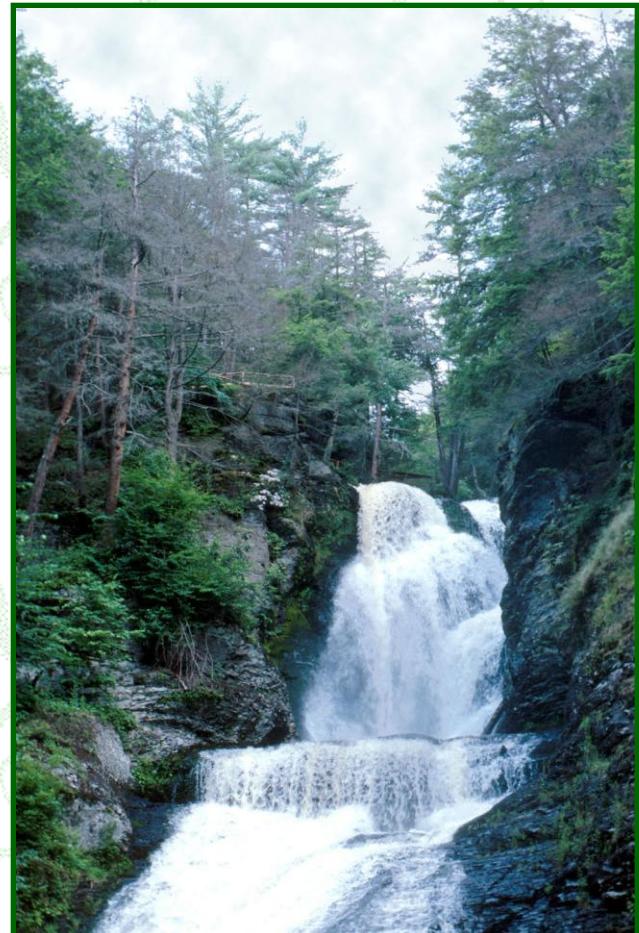
✳ **Wood Packing Material**

✳ **Ballast Water**

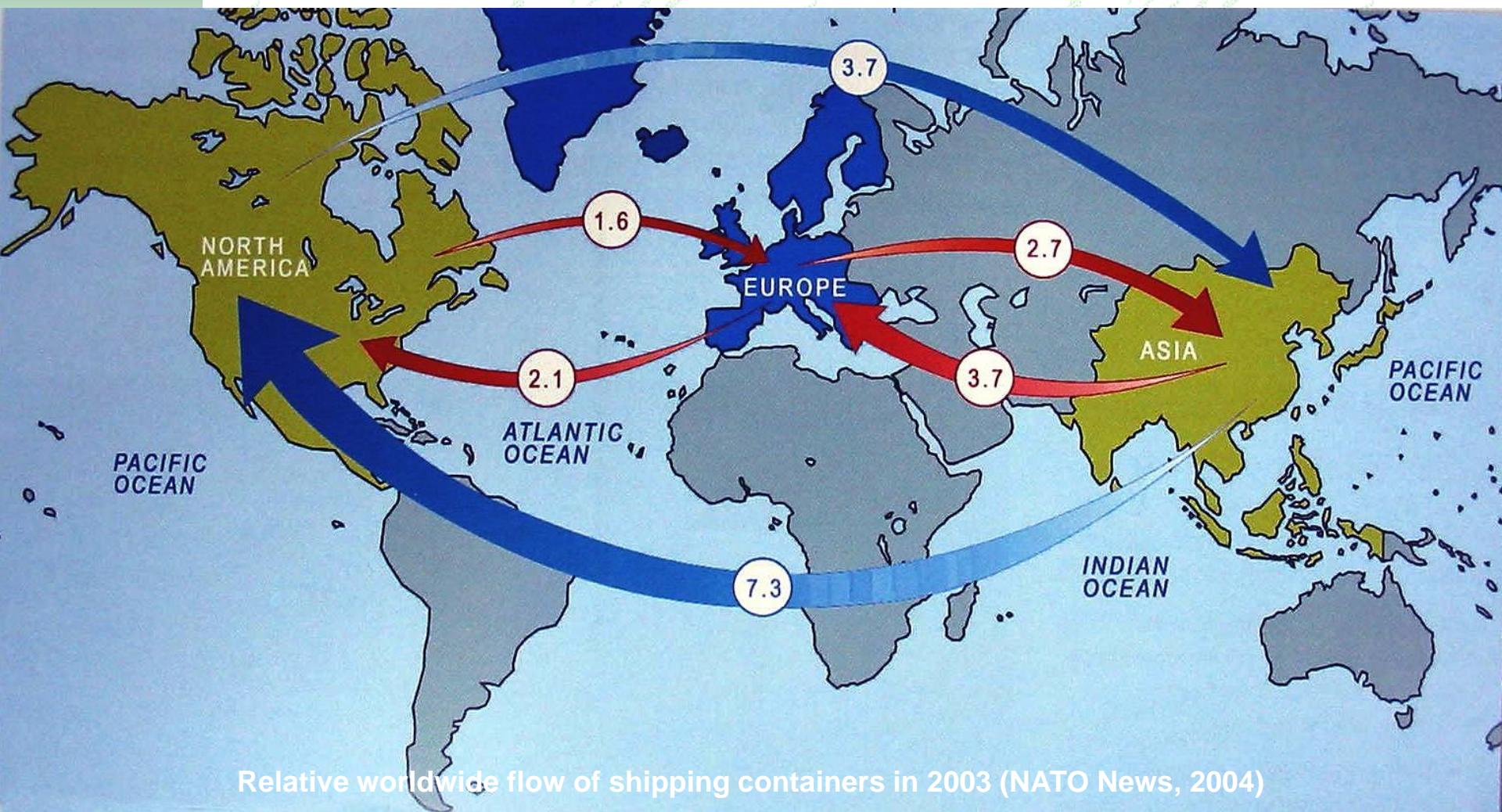
✳ **Fodder**

✳ **Recreational Vehicles**

✳ **Nursery Stock**



# Globalization





# Accidental introductions call for broad spectrum mitigations:

- ↔ Logs – HT or fumigate (imports)
- Wood Packing Material – HT & fumigation
- ↔ Ballast Water – exchange → treat
- ↔ Recreational Vehicles –  
washing stations
- ↔ Fodder – weed-free hay
- Nursery Stock – ?



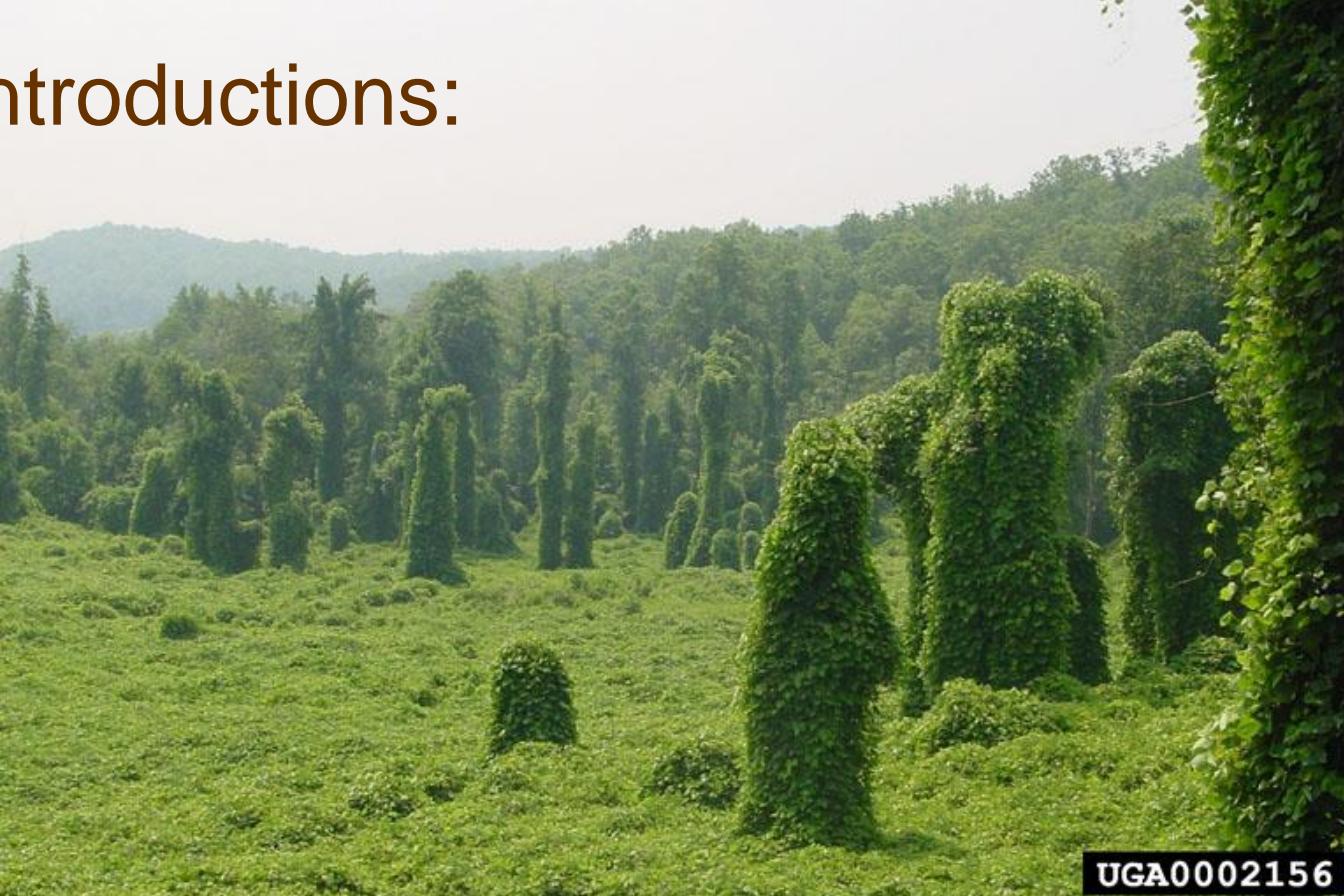


# Pathway Analysis



## Intentional Introductions:

- ✿ Pet Trade
- ✿ Aquaculture
- ✿ Horticulture



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# Intentional introductions

require science for accurate  
risk assessment & management

- ↔ Pet Trade
- ↔ Aquaculture
- ↔ Horticulture



# Social Dynamics of Resource Use





# Recognize:

There is usually someone or groups who want to import, without restriction.

Regulations must be technically justified and the least restrictive, effective measure.

AND they must be applied domestically as well as on imports





# Globalization: Safe Trade

- Port of Entry/ Exit
- Trade protocols
- Early Detection/Eradication Methods
- Efficient and Effective Monitoring Systems
- Technical Assistance to Developing World





# Successful EDRR Systems

- Agile organizations
- Readily available funding
- Cadre of volunteers and partners
- Effective detection, identification and control technology
- Technology developed before arrive
- Asian gypsy moth is example of successful EDRR





# Beyond Prevention & EDDR

## Monitoring

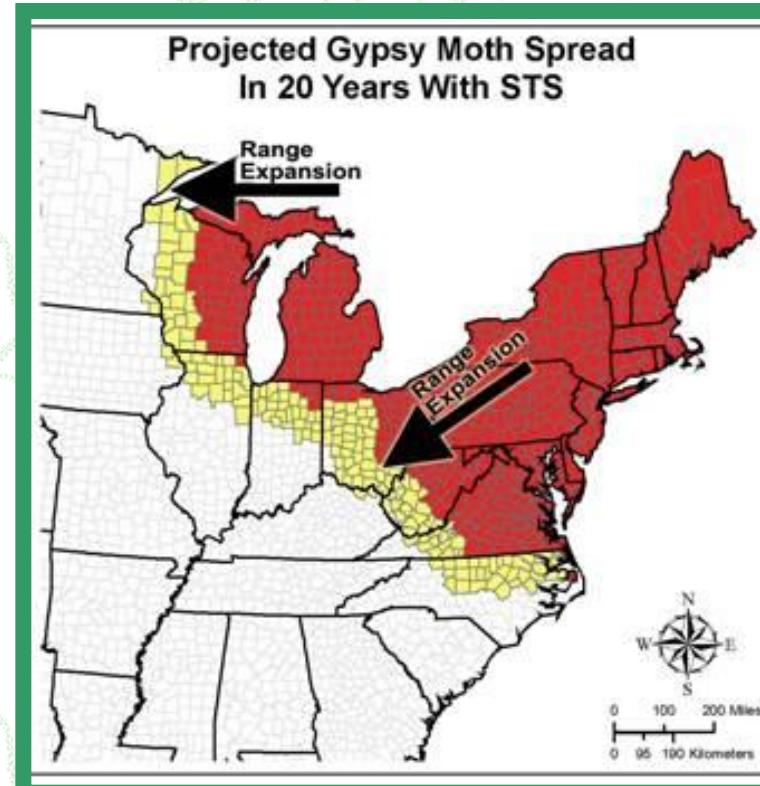
## Decision Support

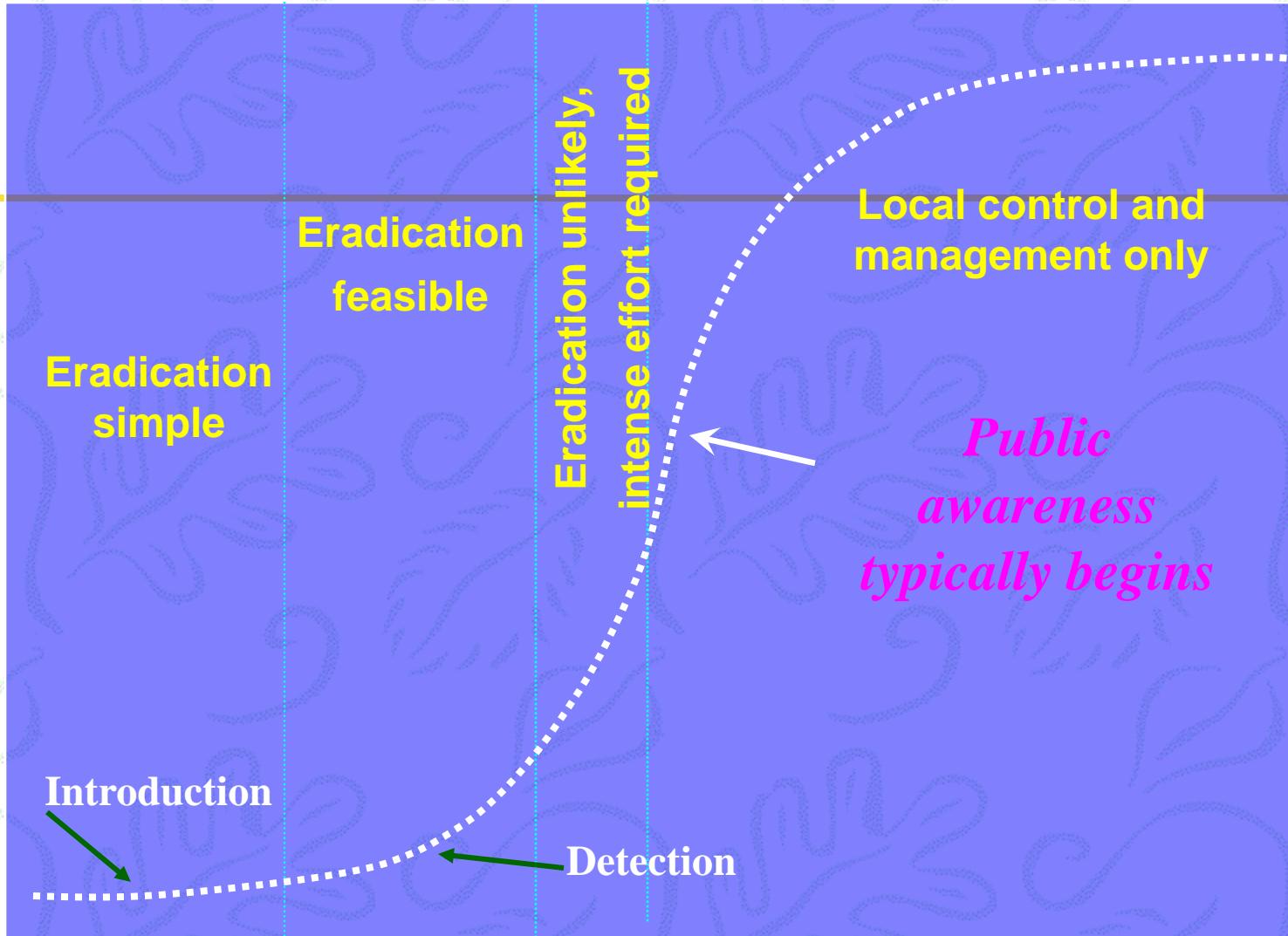
## Integrated systems

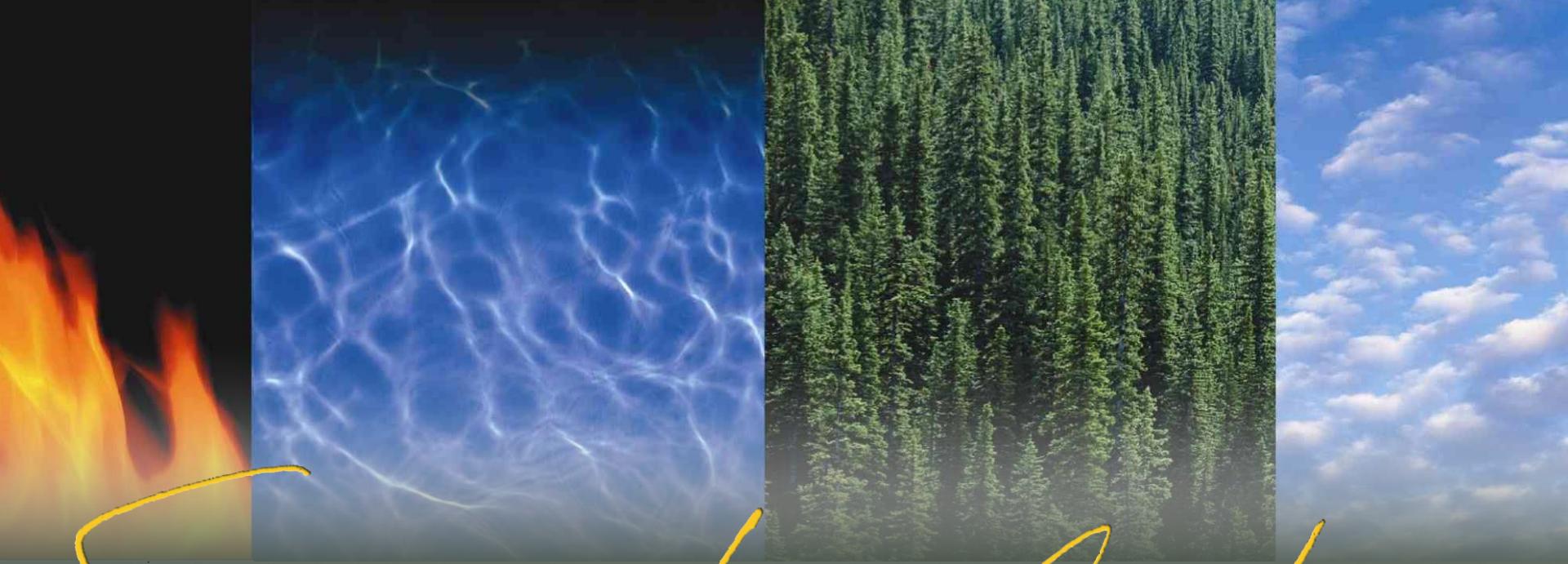
- ✳ “Slow the spread” – Gypsy moth
- ✳ “Slam” – Slowing ash mortality

## Adaptive Management

- ✳ Restoring/ maintaining ecosystem function
- ✳ Restoring ecosystems







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