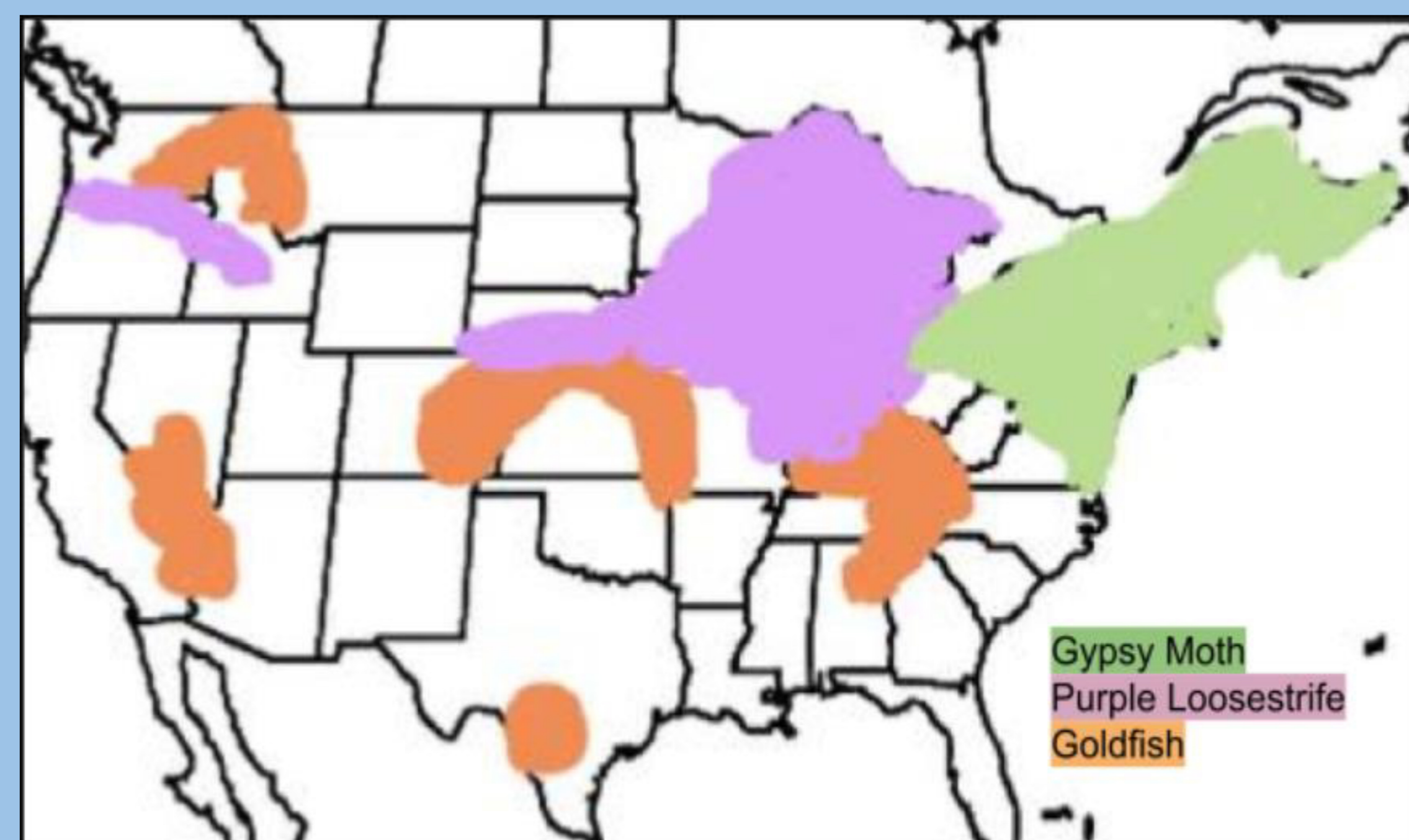


By Emma VanBeek(BME), Melissa Hasbrouck(ME), Geethika Chandragiri(CE), Melina Iannacchione (AE)

## Research Questions

- What is the cascade effect of invasive species?
- How do different habitats respond to invasive species?
- Are there benefits gained from invasive species?
- What are effective methods in the prevention of invasive species?



## Methods

Investigate invasive species in North America, the affected habitats, and species in those habitats that were affected by the invasive species



Collect and analyze data on the abundance of invasive species with their respective habitats

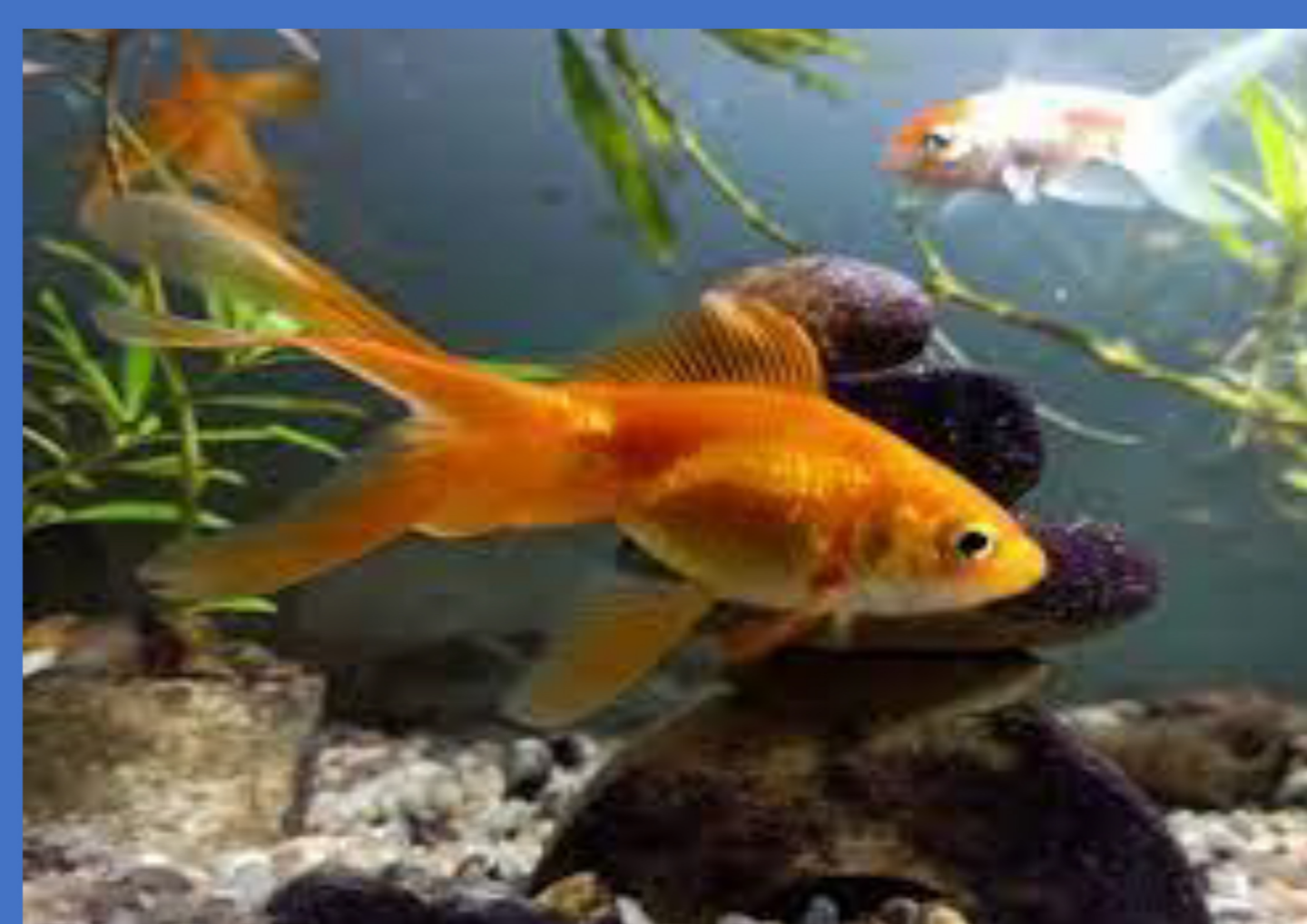


Research the most effective solutions for preventing and managing invasive species with each habitat

## The Problem

Invasive species are causing a decline in biodiversity and damaging native ecosystems

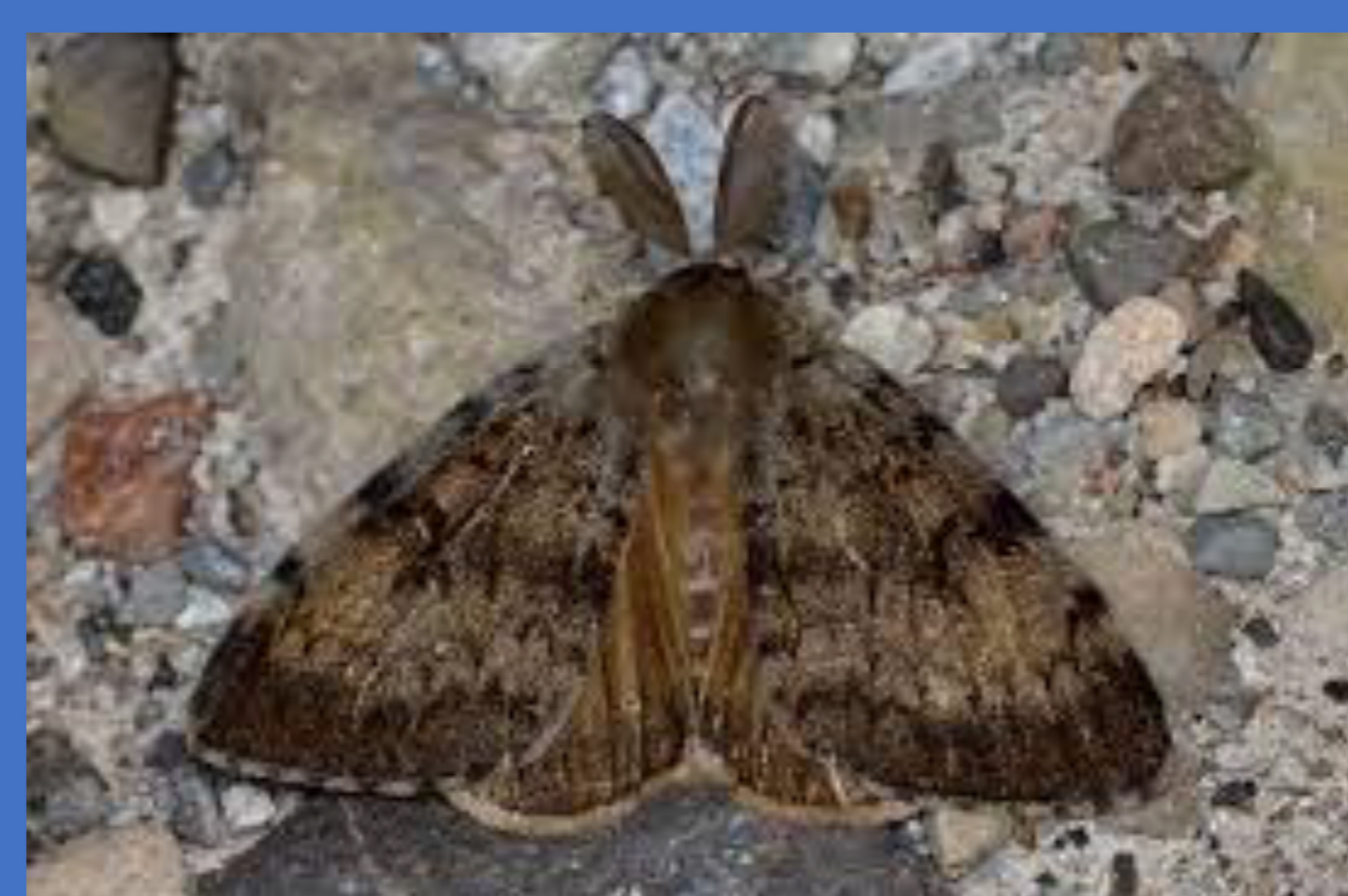
## The Invaders



"Katri" by Souravgg8 is licensed under CC BY-SA 4.0



"Lythrum Salicaria, purple loosestrife" by Liz West is licensed under CC BY 2.0



"Gypsy Moth (Lymantria dispar)" by Ryan Hodnett is licensed under CC BY-SA 4.0

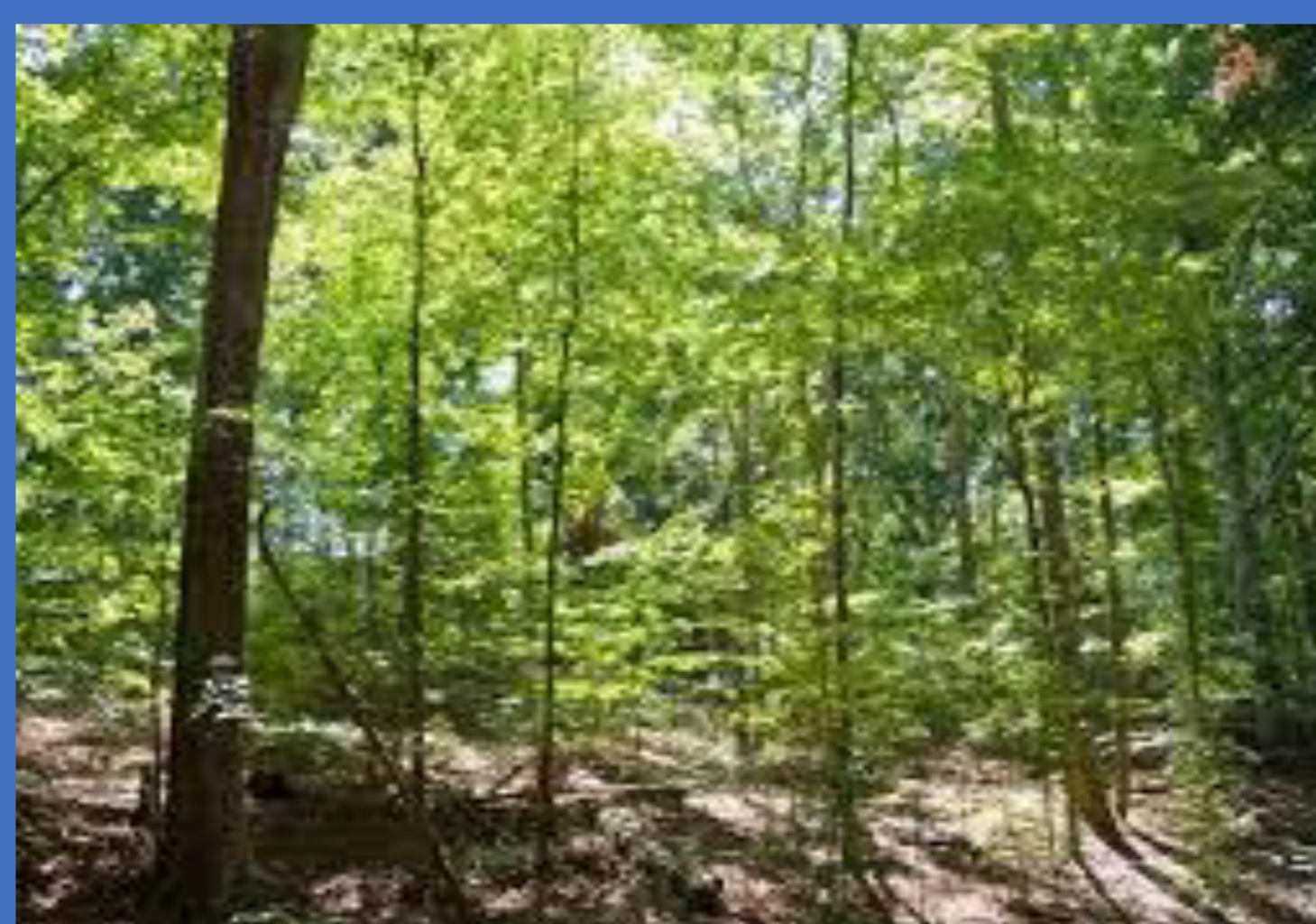
## The Ecosystems



"Maff Ja" by MaffJa is in the Public Domain, CC0



"Coastal Wetlands" by Kelly Fike is in the Public Domain, CC0



"Scenic Woods of Georgia, USA" by Paul Brennan is in the Public Domain, CC0

## The Solution

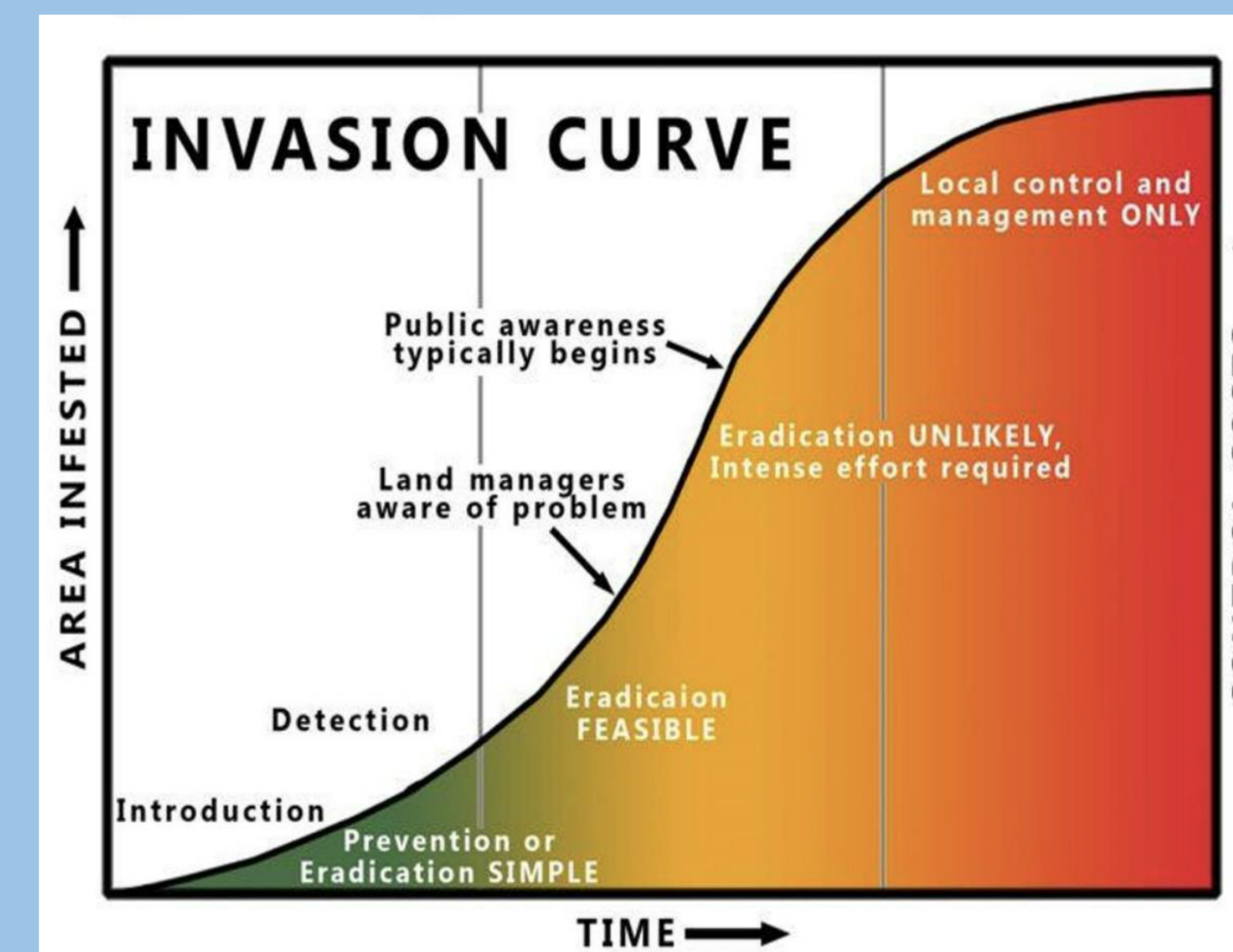


**Woodlands** – integrated pest management, regulating international trade

**Freshwater** - carbon dioxide bubbles, strobe lights, regulating ballast water and aquarium trade



**Wetlands** – introducing beetle that eats purple loosestrife, physical removal, chemical removal



## What's missing?

Research into invasive species on a local level can help form connections in the scientific community, creating a cohesive understanding of invasive species.

Money is often put where the most serious invasions are, but in order to prevent new invasions from developing, research must also be done in the places that have yet to be invaded.

## Acknowledgements:

Professor San Martín, Professor Bakermans, Leigh Greenwood, Sara Campbell, Alisha Gill



Vote to rename the Gypsy Moth!

## References:

- Gulliver, K. (2012, November 1). *The Great Goldfish Invasion: How An Exotic Carp took over America*. The Atlantic. Retrieved October 12, 2021, from <https://www.theatlantic.com/national/archive/2012/11/the-great-goldfish-invasion-how-an-exotic-carp-took-over-america/264420/>.
- Invasive Species Centre. (2020, September 24). *Purple loosestrife – profile and resources: Purple loosestrife*. Invasive Species Centre. Retrieved October 7, 2021, from <https://www.invasivespeciescentre.ca/invasive-species/meet-the-species/invasive-plants/purple-loosestrife/>.
- Johnson, D. M., Bjørnstad, O. N., Tobin, P. C., & Liebhold, A. M. (2006). Allee effects and pulsed invasion by the gypsy moth. *Nature (London)*, 444(7117), 361–363. <https://doi.org/10.1038/nature05242>
- National Geographic Society. "Invasive Species." *National Geographic Society*, 9 Oct. 2012, <https://www.nationalgeographic.org/encyclopedia/invasive-species/>.