2015

Asian Carp: A Great Lake Problem

Katelyn Burke  
Worcester Polytechnic Institute

Daniel Champlin  
Worcester Polytechnic Institute

Austen Crawford  
Worcester Polytechnic Institute

Anis Medjahed  
Worcester Polytechnic Institute

Nicholas Songer  
Worcester Polytechnic Institute

Follow this and additional works at: https://digitalcommons.wpi.edu/gps-posters

Part of the Architecture Commons, Arts and Humanities Commons, Business Commons, Education Commons, Engineering Commons, Life Sciences Commons, Medicine and Health Sciences Commons, and the Social and Behavioral Sciences Commons

Recommended Citation

Burke, Katelyn; Champlin, Daniel; Crawford, Austen; Medjahed, Anis; and Songer, Nicholas, "Asian Carp: A Great Lake Problem" (2015). Great Problems Seminar Posters (All Posters, All Years). 414.  
https://digitalcommons.wpi.edu/gps-posters/414

This poster represents the work of WPI first-year students submitted to the faculty as evidence of completion of a course requirement for the Great Problems Seminar (GPS). WPI routinely publishes these posters on its website without editorial or peer review. For more information about the GPS program at WPI, please see https://www.wpi.edu/academics/undergraduate/great-problems-seminar.
Asian Carp: A Great Lake Problem

Katelyn Burke (EVE), Daniel Champlin (BCB), Austen Crawford (CE)
Anis Medjahed (CE), Nicholas Songer (AE)

Advisors: Professor Marja Bakermans (BBT), Professor Geoff Pfeifer (HUA)

Problem
Asian carp are an invasive species that are in the Mississippi River moving towards the Great Lakes. If Asian carp entered the Great Lakes region, the biodiversity of the ecosystem and the fishing industry would suffer significantly.

Goals
1. To reduce populations of Asian carp in the Mississippi River.
2. Prevent Asian carp from entering the Mississippi River.

Background
Invasive species are species that are non-native to an ecosystem and are likely to cause economic and/or environmental harm1. The Asian carp consist of silver carp, bighead carp, grass carp, and black carp. They were introduced in the United States in the 1970s to control algae growth in ponds, but when flooding occurred they established a population in the Mississippi River, and are spreading towards the Great Lakes region.

Species of Asian Carp

Species: 
- Silver Carp
- Grass Carp
- Bighead Carp
- Black Carp

Methods
Establish Where Asian carp Could Infiltrate
Research Ways to Prevent Entry
Compare Our Potential Solutions
Discover GLMRIS Study
Create Decision Matrix Comparing GLMRIS Solutions
Chose Best Solution Based on Matrix
How to Reduce Population?
Research How to Catch Them
Create Market for Carp
Rebrand-Kentucky Whitefish?
Create Market Campaign

Acknowledgments
We would like to thank Professor Marja Bakermans, Professor Geoff Pfeifer, and Elio Daci for their help and guidance on this project.

References

The GLMRIS Solution

The Army Corps of Engineers performed the GLMRIS to prevent invasive species from entering the Great Lakes. The addition of technologies were proposed in GLMRIS and would be effective.

The GLMRIS Solution

There is currently no market for Asian carp in the US, but by rebranding them we could potentially make a market for consuming them.

Implement both solutions simultaneously for maximum success!