How Does Human Activities Affect Invasive Species and How Do Invasive Species Impact Underprivileged Communities?

INTRODUCTION

Many human activities such as deforestation, burning fossil fuels, and waste dumping contribute to environmental harm, yet people often ignore these issues because they don't see them as immediate threats. Political psychologist Conor Seyle explains that humans are wired to focus on immediate dangers, which leads to underestimating complex, long-term issues. The threat of invasive species is no different. I have researched how human actions help invasive species spread, particularly in underprivileged communities that lack resources to manage them. The goal is to highlight how invasive species harm vulnerable communities by using both quantitative data (like population graphs) and qualitative sources (such as field notes), hoping to make people more conscious of the human impact of their choices.

DATA AND FINDINGS

SPECIES	ECONOMIC VARIABLE	ECONOMIC IMPACT
Introduced disease organisms	Annual cost to human, plant, animal health in USA	$41 billion per year
Coypu/nutria (aquatic rodent)	Damages to agriculture and river banks in Italy	$2.8 million per year
Zebra mussel	Damages to US and European industrial plants	Cumulative costs 1988-2000 = $750 million to 1 billion
Six weed species	Costs in Australia agroecosystems	$105 million per year
Pines, hakeas and acacias	Costs on South African Floral Kingdom to restore to pristine state	$2 billion
Water hyacinth	Costs in 7 African countries	$20-50 million per year
Varroa mite	Economic cost to beekeeping in New Zealand	$267-602 million
Comb-jelly	Lost anchovy fisheries in Black Sea	$17 million per year
Golden apple snail	Damage to rice agriculture in Philippines	$28-45 million per year

"Everywhere that the land has been disturbed, the invasive plants move in… we used to be all open grasslands around Merritt, good grazing for cattle and wildlife. I have really noticed the knapweeds and burdock moving in, they impact the berries as well. When the plants get over six feet tall, they are not easy to get through!"

-Harold Aljam, Member of the Coldwater Indian Band

IMPLICATIONS AND NEXT STEPS

- Want people to realize that the threat of invasive species is a broad scale issue and can be worsened by human impacts
- Countries should try to help out communities that have a high risk of invasion
- Further precautions should be taken when transporting animals or when using predation to combat an ecosystem imbalance

RESEARCH METHODOLOGIES

For my inquiry approach, I went about it through the lens of a case study since I attempted to prove and explain that a certain phenomenon exists. My data is mixed as I planned to find quantitative data like statistics and graphs and record qualitative observations from scientists who have previously done similar research in this field through scientific journals online as collecting data myself would be very difficult. I ended up finding a lot more quantitative data (ex. Articles, research field notes, etc.) than quantitative data. My data analysis technique is correlation and regression because this paper aims to prove that one thing impacts another. I have collected my data through various online databases and scientific journals including EBSCO, Britannica, ScienceDirect, the Wiley Online Library, and any other sources that I deemed reputable based on the source credibility rubric.

CONCLUSIONS AND ANALYSIS

Main Points: 1. Invasive species are a significant threat and actions like deforestation increase the invasion risk for an ecosystem and 2. Underprivileged communities are at a greater risk to these species since they rely heavily on the environment for food, shelter and income/jobs.

ACKNOWLEDGEMENTS / REFERENCES

Paper w/ References Sheet