

Enviroment science lab5

[Literature](#), [Russian Literature](#)



Zebra and Quagga Mussels This lab report will help me in coming up with new methods of Improving and Zebra and Quagga Mussel Identification.

Introduction

Zebra and Quagga mussels are best known great lake invader because they are better adapted to living in colder temperatures and colonizing soft substrates. This makes them capable of inhibiting deeper areas of the fresh water lakes living them the dominant invasive species in the aquatic environment.

Hypothesis

New methods of identifying and getting rid of Zebra and Quagga mussels.

Methods

In the lab session, I took various data on the number aquatic animals in the water. This helped me knowing how fast the new specie multiplied or increased. It also indicated how the other species such as lake trout and others were decreased in number.

Results

From the data I collected, it was clearly evidence that zebra and quagga mussels multiply at a very faster rate. Invasion of zebra and quagga mussels into fresh water is catastrophic impact to the ecosystem in which they are brought. This is so because they clog water intake structures which increase the cost of maintenance of water treatment and power plants.

Years

Zebra and Quagga Mussel (density/m²)

Phytoplankton (µg/ml)

Zooplankton (µg/ml)

Cladophora Biomass (g/m2)

Foraging Fish (kilotons)

Lake Trout (kilotons)

0

899

6890

357

50

19

21

4

1002

5321

416

122

23

37

7

2301

3823

467

168

34

48

10

3832

2679

548

218

56

52

13

5503

2134

582

265

72

65

16

7780

1939

659

301

91

81

20

9404

1674

756

336

106

95

Analysis

A zebra and quagga mussel also causes lakeshore problems to the recreationists and residents. They multiply at a faster rate and this leads to a decrease in phytoplankton. This is so because they filter phytoplankton from the surrounding water which increases the clarity of water. Lake trout will increase since they will have sufficient food that is zooplankton and zebra mussels. On the other hand, foraging fish will also increase since they have enough food to keep them alive. This explains why phytoplankton decreases tremendously and this will cause imbalance to the ecosystem. This filtration process may also contribute to the explosive growth of harmful blooms and ecosystem may lead to disappearance of some unique species.

References

Desonie, D. (2008). Hydrosphere: Freshwater systems and pollution. New York: Chelsea House.