

# [Enviroment science lab5](https://assignbuster.com/enviroment-science-lab5/)

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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.