

# [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.