

Does Nitrogen Affect Plankton in the Slough?

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Intro

We believe that the high levels of nitrogen in the water leads to an increased amount of phytoplankton. This may result in eutrophication which could lead to decreased levels of oxygen in the slough. This could lead to death of aquatic life in the slough. Our project question was does nitrogen affect Phytoplankton the slough?

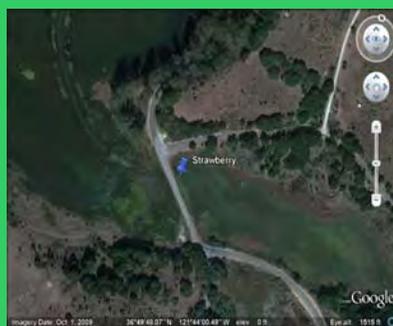
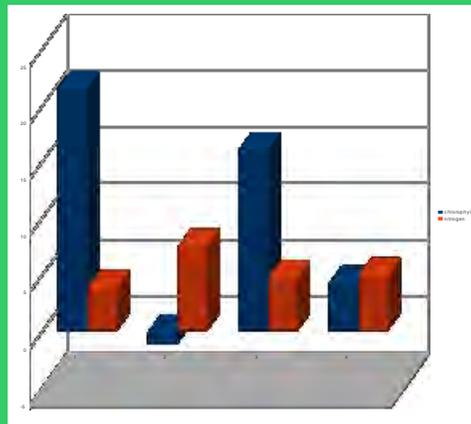


Photo of the group

Materials and Methods

Does nitrogen effect phytoplankton in the Elkhorn slough?

First we meet with water specialist John Haskins and his assistant Miguel Rodriguez who helped us with our testing. We discussed possible sites to use for our project. Once we found our sites which were Strawberry, Kirby Park, Hudson West, and Hudson East we took samples for four days. At each site we recorded weather, clarity of the water, nitrogen and chlorophyll.



1, strawberry 2, Kirby park
3 and 4, Hudson east and west

Results

We have found a connection between nitrogen and the amount of phytoplankton in the slough but we cannot prove that there is a direct correlation between the two. What we did find out was the lower the chlorophyll the higher the nitrogen level. We believe that other W.A.T.C.H students should continue our project to try to find a correlation between nitrogen and phytoplankton.



Photo of Phillip

Conclusion

We have found no direct correlation between amounts of nitrogen and phytoplankton. We have decided that we do not have enough data to make an accurate conclusion on this subject. Our group thinks that the local dairy's and farms should put hedge rows around the area of the slough which would collect most of the access nitrogen and anything that does not belong in the slough. Something that was interesting was one day when it was raining and our data showed that that we had low levels chlorophyll and high levels of nitrogen.

Literature Cited

The official website of the Elkhorn Slough Foundation and Elkhorn Slough National Estuarine Research Reserve

Micheal E Huber PH.D., Peter Castro, PH.D, McGraw companies, inc 1221 avenue of the America New York 2007 print

Acknowledgements

we would like to thank Miguel Rodriguez, John Haskins, Kenton Parker, Elkhorn Slough, Amy Gunzelmann and Ms. Ciandro, and MBA Staff



Photo of Miguel and Julio