

Title: Write in Larger Fonts with First Letter of Nouns in Upper Case

Authors (use the full name and affiliation of each author. Present names in alphabetical order)

Keywords: Five single keywords or up to five double keywords (e.g. mercury, arsenic, heavy metals, water contamination, etc...)

Abstract

Very concise recollection of the major points of your work. Short description of the major findings. Give broad averages and trends in your data (i.e. temporal or spatial variation; potential correlations). Provide in a sentence or two the major conclusions of your work (this is your take on the issue once you've condensed all the information). Finally, what are the major links to regulation/policy and/or what needs have you identified in science and communication of its results to support implementation of appropriate policy/regulation. You are limited to 300 words! **This limitation will be enforced!**

Introduction

Should be approximately 1/5 of the paper (remember that the whole text should not exceed 4-5 pages). In this section you will develop a historical background of the conceptual evolution of the field you are studying (namely coastal eutrophication). What are the major questions that have affected/directed the field? What is the scientific rationale that may have recently led to a new body of knowledge (in essence, why are people still studying this issue)? What controversies have provided shifts in knowledge, or still maintain an open debate in the field (i.e. is the impact of agriculture a consensus in the scientific/public regulatory community? What is the role of sewage disposal in the general context of coastal eutrophication and hypoxia?). There may not be any strong controversy on the subject but only identified dearth of knowledge that support the need for additional information. This is a critical section of your text where you will be establishing your position, the direction of the paper, and potentially pointing at needed interactions between social and natural sciences to address regulation/policy issues. Support all major statements with bibliographical references

(See the main text below for indications of how to include references in the text and see **Reference** section for a way to list them).

also identify the links (or lack of) between the science and policy/regulation. Here is the place where you should introduce 1) the major concept(s) of the field you are analyzing (namely coastal eutrophication) and some historical background of its evolution, 2) if there exists any controversy (argument) surrounding that topic today, and 3) establish your view on this scientific issue almost in a hypothesis format: what is the general and current conclusion of this field?. Here you

Results

In this section, you will present the evidence of your analysis from data collected from the large dataset available from the NYDEP. Here you need only present the results in a synthetic form (tables and graphs). You do not need to describe the methodology of analysis except for a general statement as to the information available on the DEP data set. However, if information appears on changes in method through time, please indicate that in this section. You do need to include a description of your quantitative

analysis (what sort of relationships? Did you omit data? Why?). In this section, you should not discuss the implications of the data (that comes in the “Discussion”). Here you only present it in a concise and organized fashion.

Discussion

Develop the concepts presented in the **Introduction** and discuss your results with respect to your hypothesis. Build your discussion on evidence collected and corroborate/infirm your findings with comparison to similar studies in specialized literature.

This section should be organized in a methodical structure that builds information towards the position you have summarized in the **Introduction**. You can use subsections (with subtitles) to emphasize different aspects of the scientific issue. This is the section that provides some freedom and creativity. The way you structure it and deal with available information will provide an important flow to the text and will allow you to draw clearer and more concise conclusions. Make sure that this section is well supported by reference material (i.e. several studies that have reached similar/opposing conclusions). Remember, this section truly allows you to be creative even within the confines of the rigorous scientific writing method. What you chose to highlight and how you chose to present it will give the tone to the text and should, to some extent, represent your adopted writing style.

This **Discussion** should be approximately 1/3 of your paper. See **Reference** section for indication on how to cite bibliographical references in the text and provide a list for them at the end of the text. To make a point, this is the place where you should sustain your interpretation with tabular or graphic

material. This visualization and summarizing material also allows you to be more concise in your writing. In addition to your own data, it is perfectly OK to use published material as long as you refer to it appropriately (see examples below). In some instances, you may build and support your own analysis from published data in a new way and present this in a new figure or table. In this case, cite the source of your data in the caption of your figure or table. Identify your figures and tables chronologically in the text (i.e. **Figure 1...n** and **Table 1...n**. See example below). **Note:** It is strongly recommended that you DO NOT use Web-based material as reference. Instead, use printed peer-reviewed material for your work. If you must use web-based references, keep it at a strict minimum (1-2) and make sure that this material is of strong scientific rigor or from a recognized agency (since it will rarely be peer-reviewed, this will lower the extent to which you can use it to sustain an argument). You should imbed your graphic material within the text in the way done in the seminal papers provided to you.

Please find below two sets of figures and tables that you can use as models for your report. The first set (Figure 1 and Table 1) presents illustrations/tables borrowed from other publications (their source is indicated in the caption). The second set (Figure 2 and Table 2) is composed of a figure and a table that were built from personal data.

Implications for Policy/Regulations

This is the section that will provide the most freedom and creativity. Here, you should address how this field relates to specific policies (local, regional, global) and expand your discussion to the more general sociopolitical and economic context of your findings. In this section however, you should start bridging the knowledge you carry from social sciences

into the natural sciences, and *vice-versa*. How is the environment and public health impacted by the issues you've presented above? What is done to overcome these impacts? If no action is yet enacted, what are the major policy roadblocks that prevent such actions (is it lack of scientific certainty? Is it inappropriate regulatory structure?). What is needed at the regulatory level to promote policy decisions that respect the science knowledge we have presently and social needs. This section may be influenced by

ideological and conceptual backgrounds of the groups doing the work and thus no single answer can be expected. However, while you should respect your freedom, make sure you place your work within the confines of national/international regulations and of the feasible. Here again, you should support your work with appropriate bibliographical material. This section should be approximately 1/3 of your paper.

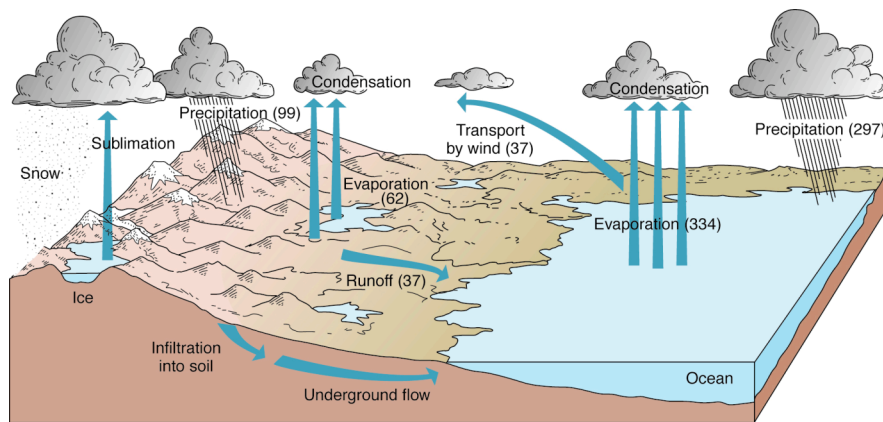


Figure 1. The global water (hydrologic) cycle. Source: Duxbury, et al. (*An Introduction to the World's Oceans*; McGraw Hill, 2000)

Reservoir	Volume (km ³)	% Total
Biosphere	0.6 10 ³	0.00004
Rivers	1.7 10 ³	0.0001
Atmosphere	13 10 ³	0.001
Lakes	125 10 ³	0.01
Groundwater	9500 10 ³	0.68
Glacial and other land ice	29000 10 ³	2.05
Oceanic water and sea ice	1,370,000 10 ³	97.25
Total	1,408,640 10³	100

Table 1. Earth's water reservoirs. Source: Adapted from Berner & Berner (*The Global Water Cycle*; Prentice Hall, 1987)

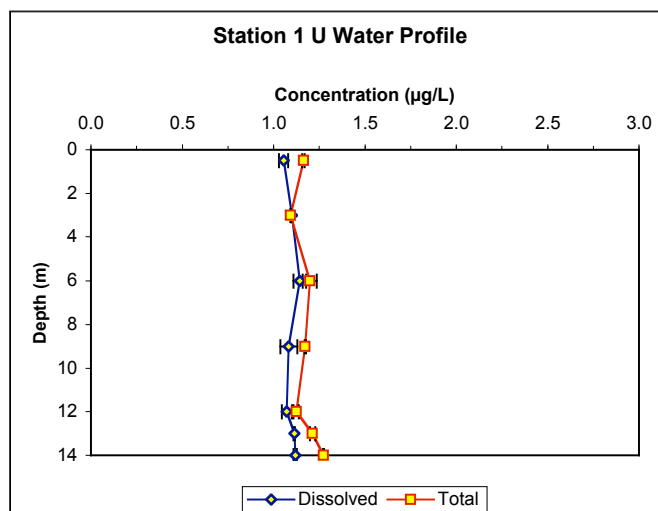


Figure 2. Vertical distribution of uranium ($\mu\text{g/l}$) in Lake Corpus Christi’s water column for the month of July at Station 1. (Squares: total concentration; Diamonds: dissolved concentration). Error bar represent ± 1 Standard Deviation.

Sample	Salinity	DOC (μM)	Volume (L)	%DOC Recovered	% Initial DOC ^a	Wt% OC CHN
GOM#1	36.2	78	50	23.4	105	3.96
GOM#2	36.2	87	50	21.1	n.d	3.38
AP#1	22.0	219	35	31.7	97.3	9.32
AP#2	22.0	218	35	32.3	99.6	10.0
NR	--	336	50	41.6	91.0	7.98

^a. % Initial DOC = $((\text{DOC}_{\text{concentrate}} + \text{DOC}_{\text{permeate}}) / \text{DOC}_{\text{initial water}}) * 100$

Table 2. Concentrations of dissolved organic carbon (DOC), percentages of DOC recovered using tangential-flow ultrafiltration, and weight percentages of organic carbon (Wt% OC) in the recovered isolate as determined by flash combustion of dried powders in a CHN analyzer.

Conclusion

Draw major conclusions on the overall work and particularly the state of current scientific knowledge and needs for further research. Particularly identify, if they exist, the uncertainties that prevent policy decisions to be implemented. Here too, use bibliographical references to support your conclusions.

References

All bibliographical references should be presented in complete form, without omitting any detail. These references

should include 1) the author(s), 2) the year of publication, 3) the title of the work, 4) the publisher or journal name, 5) the place of publication in case of book reference, and additional information if necessary. Following are a few examples but please look at more examples in journals, reports, and books. (Make sure that if incomplete references appear in the publications you consult, you investigate and report the complete one. Avoid carrying over errors).

- Baird, C., Jennings M., Ockerman D. and Dybala T. (1996) Characterization of non-point sources and loadings of the Corpus Christi Bay National Estuary Program Study Area. CCBNEP-5, pp. 225.
- Berner, E.K. and Berner R.A. (1987) The global water cycle. Englewood Cliffs, N.J., Prentice-Hall.
- Hedges, J. I., R. G. Keil, et al. (1997). "What happens to terrestrial organic matter in the ocean?" *Organic Geochemistry*, **25**(5/6): 195-212.
- Houel, S., Louchouart P., Peteet D., and Lucotte, M. (2004). Fire and elemental black carbon analyses: A new addition to vascular plant biomarkers for reconstructions of allochthonous OM fluxes in aquatic systems. 227th American Chemical Society National Meeting.
- Intergovernmental Panel on Climate Change (2001). Climate Change 2001: The scientific basis. Houghton J.T. et al. (Eds). Cambridge Univ. Press.
- Neff, J.M. (1984) Bioaccumulation of organic micropollutants from sediments and suspended particulates by aquatic animals. *Fresenius Z. Analytical Chemistry*, **319**: 132-136.
- Wurstbaugh, W., Cole J., McKnight D., Brezonik P., MacIntyre S., and Potter K. (2003). Report of the Workshop on Emerging Research Questions for Limnology: The Study of Inland Waters. American Society of Limnology and Oceanography.