

## 11:628:320 Dynamics of Marine Ecosystems 2011

**Term paper: Due Date. Dec 9 (last day of class)**

**Papers are to be turned in via turnitin**

### Term paper info

The paper is 20% of the grade

The topic has to be interdisciplinary and on some aspect of a topic covered in the course. Any aspect of hydrothermal vents and their fauna **are not** an acceptable topic.

Please include a title page.

Illustrative figures or graphs are required (no science paper is complete without figures!).

The paper **must** have a minimum of 3-4 **primary literature** sources (more is better!!)

Please note: newspaper articles and articles from non- scientific journals are **not** primary literature and not acceptable references.

You may also use “survey material” In fact chapters in books and articles in popular scientific journals make for good background information. However, popular science journals (Popular Scientist, New Scientist, Scientific American) and textbooks of any kind are **not** primary literature. They are useful resources and are acceptable reference materials (so read them!!!), but in addition to any material you cite from these, you will need to read and cite the primary literature They should not be the majority of the material for your paper.

### Paper length:

~8 double spaced pages of TEXT.

At 300 words/page that's ~2200 to 2500 words **plus** figures and references.

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**Turning the paper in:** Turn the papers in via **Turnitin**

To Register: (Do this **NOW** so you don't have problems when you have to submit it)

1. Go to [turnitin.com](http://turnitin.com)
2. In the upper right under email click “create an account”
3. Under New Students click “create a user profile”
4. On the bottom of the screen under Create a new account click “student”

Class ID: 4431725

Enrollment password: algaearecool

5. Fill out the information and click “create an account”

Note: Jeana Drake is listed as the instructor.

To submit a paper:

1. sign in with your email and password that you created above
2. click on “Dynamics of Marine Ecosystems”
3. click on “submit”
4. fill in Title
5. Click “browse” –find the file and double click on it
6. Click “upload”
7. Log out and sign in again to make sure your paper submitted. We will only know if you submitted your paper on time if it shows up on turnitin.com. It is YOUR responsibility to make sure the paper is there. If for any reasons your paper will not upload or cannot be

submitted through turnitin.com you must contact Julie via email and attach your paper. This way we know you are having technical problems, but your paper is done on time. We will still find a way to submit it to turnitin.com, but your paper will not be considered late.

## Term Paper guidelines:

### 1) The paper:

Writing style should try to emulate the Primary literature: Your paper should have an **introduction, body and conclusion**.

**Introduction:** should overview and introduce the topic in a few paragraphs. It should be concrete and concise not vague and general.

It could and should address one or more of the following issues

Why does anyone care about this topic?

What is the purpose and direction of the overall paper

Tell us “what you are going to tell us”

**Body of the paper** should cover results and provide a discussion of the data presented: It should present the information data and results on the topic and then discuss this data in the context of the other information also presented. If different sources come to different conclusions then this should be addressed. This is an interdisciplinary paper the discussion should pull together the data and ideas from different fields and present to the reader an analysis of how these several lines of evidence add up to a greater understanding of the topic at hand.

The overall paper should have a governing point (or “thesis”) around which the data and the discussion should center. Use concrete examples and data to support your thesis.

**Figures** to illustrate the data and clarify the discussion are required. These should be **numbered** sequentially and have a **caption** that acknowledges where it came from and text that explains not only what it is but what it says.

**Conclusions/summary:** The summary should present a summary of the body of knowledge presented and detail any conclusions leading on from the discussion. Ultimately the paper should end by “telling us what you told us”

### 2) Referencing

a. In text referencing should be in the scientific style: (first author, year of publication) with single, dual and multiple author papers having slightly different callouts: as in:

Rock lobster larvae have been found to “rock” musically (Fuchs, 2005). However, recently evidence shows that they have rocked less in recent years (Sikes and Fuchs, 2006). This appears to be due to changes in current structure (Wilkin et al, 2007).

b. References in the bibliography should be in journal style: with year, journal title, volume and page numbers:

Fuchs, H., 2006, On the rockabilly nature of rock lobsters (*Jasus edwardsii*) in Southern Ocean waters, *Oceanography News*, **33**, 222-230.

Sikes, E.L. and H. Fuchs, 2007, Changes in the musical nature of *Jasus edwardsii* over the last century, *Subantarctic Science*, **26**, 123-145.

Wilkin, J., E.L. Sikes, and H. Fuchs, 2008, Current control of musical flow fields and lobster behavior, *Southern Ocean Physics*. **49**, 666-671.

Please note under-hanging style: Journal is italicized and volume highlighted.

Books should be similarly referenced:

Blowhard, B. 2004. *A Treatise on Subantarctic larvae: Is It Rock or Is It Jazz?*, Simon & Coltrain, New York, 200pp.

### Term paper topic **IDEAS**

#### **Hydrothermal vents topics are not acceptable.**

Estuarine Pollution

trapping and biomagnification of toxic substances in estuaries

The Gulf Oil spill and bio-remediation

Sea level rise ecosystem responses

Anthropogenic carbon dioxide emissions and its effects (temperature, ocean acidification, circulation ) on marine ecosystems

Ocean acidification effects on coral reefs and other calcifying organisms

Between greenhouse and icehouse: the Eocene and Oligocene periods

Significance of brown tides off the Midwestern Atlantic coast of the US

The effects of natural cycles on Pacific fisheries versus over fishing pressures

Antarctic Krill:

survival skills in an extreme environment

changes in ecosystem structure with climate change

Ocean ecosystem structures – stresses and changes with climate change

Estuaries, metals, and pollution: it's not just a matter of dilution

Coastal dead zones – nutrients or geochemical and circulation interactions.

Iron fertilization and the biological pump.

El Niño effects on productivity (primary and secondary) or carbon cycling

Ocean circulation – climate interactions.