

**Biology Department Meeting  
5 December 2014**

**Announcements**

Tess Killpack visit Dec 8-9 with seminar Monday Dec 8 at 4:00 pm  
Sarah Amugongo visit Dec 9 (evening) – 12 (late morning) with seminar either Wed at 4:30 or Thurs  
at 11:30  
Chris Vecsey visit Dec 15-16 with seminar Monday Dec 15 at 4:30 pm

TriBeta will host a holiday party next week some time *Dec 12 at 3:00*

Distinction Paper Rubric Draft is part of this handout – please comment and we will discuss at the Friday Dec 12 department meeting

*No significant changes made but headings removed. Plans to discuss next week.*

**Decision about AAA position**

Candidate discussion (new information from interviews and reference(s))  
Low-tech voting  
Internal candidate confidentiality

*Joy Broin*

**Budget planning**

This year in addition to the normal budget request (which is still flat this year), we are allowed to request special budget enhancements. Some ideas that the FNSM Chairs brainstormed this morning are: IPAT increases, staff support, renovations, equipment/supplies boost especially for new courses in our curriculum, travel for students to attend conferences... please bring your ideas! Unfortunately the Treasurer is asking for these by Dec 15. We would submit one or more requests as a department. We can discuss now and decide on Dec 12 at our meeting.

Lysne and Hanson restricted funds?

*The department briefly discussed these some options. Staff support was highly not garnered a lot of interest.*

**Capital Equipment**

Capital equipment requests for next fiscal year as well as in general projecting farther out...

New requests are on the next page.

Deans and Treasurer would like to be more specific about projecting out three years – an estimate is for Biology to propose within \$333,000 total spread over the next three years (FY16-18).

**New capital requests for FY16:**

***Water sampling equipment (Mike) - \$17,716***

The meters we currently have to support aquatic biology classes and research are old, non-functional, or both. These meters are YSI's current new models that supersede our older models in quality, robustness, and versatility.

ecology, field ecology, biogeochemistry, limnology, Bio 128, animal physiology, Island biology in the Bahamas, IS/IR, conservation biology, environmental chemistry, analytical chemistry

***Growth chamber (various faculty) - \$40,000***

Need to replace last old growth chamber. Current one is beyond repair and +25 years old.

Ecology, Plant Morph, Bio or Repro, Bio 150

***Ecological survey equipment (Steve, Kathy, Mike) - \$5100***

The equipment would be valuable for collecting field data: Water Temperature Data Loggers, HOBOWare Pro Mac/Win Data Logger Software, Optic USB Base Station, HOBOWare Waterproof Shuttle, Simmons Whitetail Trail Camera with Night Vision, Mist Net)

Ecology, Field Ecology, Invertebrate Biology, Vertebrate Biology, Desert Biology, Equatorial Biology, IR, Environmental Studies in Australia program

## Biology Distinction Paper Overview and Rubric

### Important Dates:

Monday March 23<sup>rd</sup> – Deadline for distinction paper submission

Monday April 20<sup>th</sup> – Poster Session

Friday April 24<sup>th</sup> – Final Decision and notification of students

Writing a distinction paper will be a new experience, unlike any type of writing you've been asked to do before. The distinction paper is neither a literature review nor a typical research paper but shares aspects of both. This is your chance to demonstrate how well you know the science surrounding all aspects of your project from the particular question itself and its importance in a broader context to the methods you are using and why they are suitable. In general terms, the introduction section should be more elaborate than a typical research paper. It is a contextual review of the literature with an opening paragraph or two followed by several discrete subheadings to ensure that you cover all aspects of the project in an organized manner. The final section of the introduction should include a concise and clear statement of your question and hypothesis. The discussion should also be more elaborate than a typical research paper. We want you to demonstrate that you know the meaning and limits of your results and that you could plan a reasonable set of "next steps" based on the context of the research and what you have accomplished thus far. If you have questions about this unique format, please seek out a biology department faculty member to mentor you in this process.

### Rubric

**Writing Quality:** The paper is organized with headings for each section. Paragraphs are written in a logical manner, each beginning with a clear topic sentence and focusing on a single major point. There are transitions between paragraphs and ideas. The paper generally has good use of language and sentence structure and few spelling or grammatical errors.

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Comments:

**Introduction:** This section describes the background information for the reader to understand why the investigation was done. It is organized by sub-headings and the information is thoroughly cited with peer-reviewed primary literature and review papers. The introduction starts with the general context of your study and ends with the specific question being asked and the strategy to approach that question.

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Comments:

**Methods:** This section describes how you gathered your data at a level of detail that another biologist in your field could repeat your experiment and no greater detail than that. The methods are written in concise paragraph form and each technique or experiment has its own section with a sub-heading describing that technique.

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Comments:

**Results:** This section summarizes the results obtained. Results are organized in a logical order that corresponds to the questions asked. The rationale for a series of experiments flows from the data collected (the results from experiment X are the justification for experiment Y). For each experiment or set of experiments, there is a simple introduction to the scientific question followed by a clear interpretation of the results. Given the data in each figure, the interpretation of the results is logical and accurate. The text calls to attention the trends in the data or important points to be noted on the graphs or tables.

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Comments:

**Figures and Tables:** Figures and Tables are numbered and labeled and include descriptive figure legends with sufficient information that they could stand alone. Each figure is referred to in the text. The figures and tables are easy to read with appropriate statistical analysis. The way the data is displayed (bar graph, line graph, table, picture, etc.) is appropriate for the data. Data is analyzed appropriately.

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Comments:

**Discussion:** This section interprets the meaning of the results and relates the results to the original hypothesis or goal. Attempts to provide an explanation for the most interesting or relevant results, talks about the limitations of the results, and talks about larger implications of the research. Includes future directions for study. This information is thoroughly cited with peer-reviewed literature. In general, the discussion starts with specifics and ends with general context (opposite of introduction).

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Comments:

**References:** There are many acceptable conventions for writing in-text citations and the reference section. Pick a convention and be consistent throughout the paper. One suggestion is (Author, date) ex: (Smith, 1999) for the in-text citations and a reference section that is alphabetical by the Author's last name. Regardless of the convention, the references must be peer-reviewed journal articles or reviews and of an adequate quantity.

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Comments:

**Off-campus research clarification:** If you played a role in a larger off-campus research project, please include a separate section at the beginning that clearly indicates what portion of the work you did.