Guidelines for Sexual Selection Project

- □ You must choose an organism to write about by the end of class on 11/17/2011
 - Try going here for some great ideas (on my teacher website, password kuenzli2011): http://faculty.vassar.edu/suter/1websites/bejohns/mateselection/index.htm http://evolution.berkeley.edu/evosite/evo101/IIIE3Sexualselection.shtml http://www.livescience.com/1117-mating-game-wild-kingdom.html www.neatorama.com/2007/04/30/30-strangest-animal-mating-habits/
- □ Fill out the general questionnaire about your creature. Turn in with the project (this packet) when you present to the class
- Document your resources!!! Format is not important to me, but you have to acknowledge your sources. NOT AS PART OF YOUR SUGGESTED LENGTH, you should list the websites you got information from and any books or journal articles you may have cited. IF YOU FAIL TO DO THIS, you will automatically lose 15 points. Spread the word.

Project Version 1 (Worth 40 points)

- Must write a summary of an (several?) unusual product(s) of sexual selection. This could include a weird breeding strategy, a strange anatomical characteristic (recall the peacock's tail), or even a detailed description of a sexually selective process (try looking up runaway selection). You not only have to describe the feature(s)/behavior(s) in the context of sexual selection, but you have to provide a potential explanation for how the feature(s)/behavior(s) may have arisen. You must also thoroughly explain how you are describing a product of sexual selection (i.e. why ISN'T it a product of NATURAL SELECTION?).
 Suggested length: 1 page, single-spaced, 12-point Times New Roman, 1-inch margins on all sides.
- Must also include a photograph of the organism(s) PERTAINING TO THE FEATURES YOU ARE DESCRIBING!!!
- ALL PROJECTS MUST BE TYPED AND SUBMITTED ELECTRONICALLY!!! Send completed files to Mr. Kuenzli: <u>kuenzlifiles@gmail.com</u> or hand over on a flash drive The completed project file must be saved in the following format: period.lastname.firstname.doc
- Prepare to present your project in class
- □ As a part of the presentation, you will read your 1-page summary to the class
- □ See the grading rubric for more specifics...

Project Version 2 (Worth 40 points plus 10 bonus points)

Must write a letter to a sex doctor by your organism. Refer back to *Dr. Tatiana's Sex Advice to All Creation*. It should be written as if you were the animal, describing a problem or confusion over why something is happening. Address it to a sex doctor and <u>be creative</u> in your descriptions. Suggested length: one paragraph

Must write a detailed response to the letter (again, in the fashion of Dr. Tatiana's Sex Advice to All Creation). This response should thoroughly describe the situation and how it applies to sexual selection. You must also thoroughly explain how you are describing a product of sexual selection (i.e. why ISN'T it a product of NATURAL SELECTION?). Suggested length: 1 page, single-spaced, 12-point Times New Roman, 1-inch margins on all sides

- Must also include a photograph of the organism(s) PERTAINING TO THE FEATURES YOU ARE DESCRIBING!!!
- ALL PROJECTS MUST BE TYPED AND SUBMITTED ELECTRONICALLY!!! Send completed files to Mr. Kuenzli: <u>kuenzlifiles@gmail.com</u> or hand over on a flash drive The completed project file must be saved in the following format: period.lastname.firstname.doc
- $\hfill\square$ Prepare to present your case in class
- □ As a part of the presentation, you will read your letter to the class AND will SUMMARIZE the main points of the "doctor's" response
- □ See the grading rubric for more specifics...

GENERAL ORGANISM QUESTIONAIRRE

- 1. What is your organism? Mammal? Insect? Bird? Fish? Plant? What?
- 2. What is the habitat in which your animal lives? Describe it in detail. For example, is it by water, in the forest, desert? Are there many predators? What resources are available? What is the climate? How might these things affect its reproductive strategies? There may also be information on this in the website from Vassar.
- 3. What does your organism eat?
- 4. What is the life of your organism like? Its lifespan?
- 5. Any other interesting things you found out about your organism...

Sexual Selection Project Grading Rubric --- VERSION 1

| | Needs Improvement | Adequate | Excellent |
|---|---|---|---|
| Format 5 points | Many grammatical and spelling mistakes. Could be better organized. No use of paragraphs to distinguish ideas. | Some grammatical mistakes. Fairly well organized. | Few to no grammatical or spelling mistakes. Ideas are well organized into paragraphs. Concepts are clearly explained. |
| Summary Content | The unusual characteristic that the animal is experiencing is laid out. | The unusual characteristic that the animal is experiencing is clearly laid out, with connections made to reproduction and other aspects of the animal's life. | The unusual characteristic that the animal is experiencing is clearly laid out <i>in detail</i> , with connections made to reproduction and other aspects of the animal's life. |
| Outside explanation content (the questionnaire) 5 points | None | Some explanation of the animal's habitat, food, competition. | Explanation of animal's habitat, food, competition, other adaptations and how this may connect with its sexual behavior. |
| Picture 5 points | Picture included | Detailed picture included, care taken to accurately represent. | Picture of animal engaged in their "unusual" behavior. |
| Electronic submission 5 points | Only submitted a hard copy | Submitted electronically but was late or missing components | Submitted all parts electronically and on time |
| Presentation | Presenter was unprepared to read letter and summarize response | Presenter was prepared to read letter OR the summarized response, or didn't show interest in his/her project | Presenter was prepared to read letter and the summarized response and did so with care and enthusiasm |
| 10 points | | | |

Sexual Selection Project Grading Rubric --- VERSION 2

| | Needs Improvement | Adequate | Excellent |
|---|---|--|---|
| Format 5 points | Many grammatical and spelling mistakes. Could be better organized. No use of paragraphs to distinguish ideas. | Some grammatical mistakes. Fairly well organized. | Few to no grammatical or spelling mistakes. Ideas are well organized into paragraphs. Concepts are clearly explained. |
| Letter Content 5 points | The problem that the animal is experiencing is laid out. | The problem that the animal is experiencing is clearly laid out, with connections made to reproduction and other aspects of the animal's life. | The problem that the animal is experiencing is clearly laid out <i>in detail</i> , with connections made to reproduction and other aspects of the animal's life. |
| Response Content | Response is given that indicates the behavior is a reproductive strategy. | Response is given that indicates how the behavior is a reproductive strategy. | Response is given that indicates how the behavior is a reproductive strategy, why this behavior developed in response to the environment and makes the connection with evolution (sexual selection). |
| Outside explanation content (the questionnaire) 5 points | None | Some explanation of the animal's habitat, food, competition. | Explanation of animal's habitat, food, competition, other adaptations and how this may connect with its sexual behavior. |
| 5 points | Picture included | Detailed picture included, care taken to accurately represent. | Picture of animal engaged in their "problem" behavior. |
| Electronic submission 5 points | Only submitted a hard copy | Submitted electronically but was late or missing components | Submitted all parts electronically and on time |
| Presentation | Presenter was unprepared to read letter and summarize response | Presenter was prepared to read letter OR the summarized response, or didn't show interest in their project | Presenter was prepared to read letter and the summarized response and did so with care and enthusiasm |
| <u>5 points</u> Bonus | Did you try? You got it. | Did you try? You got it. | Did you try? You got it. |
| 10 points | | | |