

RESEARCH PAPER GUIDELINES

The research paper in ornithology should be focused on one of the following topics (other topics require discussion and approval by the instructors):

- 1) Urban bird count in specific neighborhoods of Duluth and surrounding areas;
- 2) Predation experiment using artificial nests;
- 3) Nocturnal bird surveys (four individuals maximum); or
- 4) Ruffed grouse breeding bird count (two individuals maximum).

For those projects in which a maximum number of individuals are specified, individuals will be selected on a first come basis.

Each of the topics will be based on data gathered in the field. Each project should be designed to answer a specific question or hypothesis. Each project must involve some statistical analysis of data; such an analysis may be as simple or complex as desired but should be appropriate to the question.

We suggest looking over papers in Auk, Condor, Wilson Bulletin, Journal of Field Ornithology, Journal of Wildlife Management, or other suitable journals.

Format:

The paper may not exceed 10 pages, double-spaced, excluding literature cited, figures, and tables (i.e., points 3-6 as shown below). A shorter, concise paper will be well received. All papers must be in electronic format (Word or WordPerfect). We expect every successful paper to cite a minimum of 5 journal articles (i.e., published papers, not reports); review articles, popular reading articles like Audubon, Nature Conservancy, magazines, and books must be cited if used but do not count as journal articles. Consult articles in the *Journal of Wildlife Management* for help in organization and presentation; follow instructions to authors.

The basic organization should include:

1. Title and author
2. Abstract - a summary of the results and conclusions
3. Introduction - statement of the question, review of relevant literature
4. Methods - what procedures did you follow to gather the data; for library projects, summarize the methods used in original papers but be brief; what statistical analyses did you incorporate
5. Results - concise presentation; do not repeat in text material that you have included in

- tables or figures
6. Discussion - interpret your results - what do they show or mean, how do they compare to previous work
 7. Literature cited - follow Journal of Wildlife Management for format
 8. Tables/Figures
 9. Appendices - print out or detail of statistical analysis

Grading:

Research proposal and question development - due on 6 March 2008	10 pts
Development of the question (including lit. review)	5 pts
Analysis and presentation of results	10 pts
Synthesis - interpretation of results	20 pts
Format, writing style	10 pts
Overall	<u>15 pts</u>
	70 pts

Deadlines:

The final paper is due on **9 May 2008**; late papers will be deducted **5 pts/day**. Have a proposal of your project and how you plan to accomplish it on or before **8 March 2008**. We will then read the outline and suggest improvements. We will try to return the proposal within a week.

REMEMBER - All projects/papers should be exclusively for this course unless otherwise approved. All projects should be discussed before you get too far involved. Once you have selected a topic, or while trying to select one, look through papers in ornithological or ecological journals for similar studies; you may get some good ideas on effort involved.