Animal Migration Seminar
Biology/Wildlife 692P, CRN 39832
Spring 2014

Course information
1 credit

Instructor
Abby Powell
abby.powell@alaska.edu; 474-5505, 210B Irving I Bldg
Office hours Friday 10:30-11:30 AM

Time/Room
Friday 9:30-10:30 AM, 130 Murie

Prerequisites
Graduate standing, an undergraduate or professional background in biology, or permission of instructor

Readings
There are readings, chiefly journal articles, required prior to each class meeting. Readings will be made available through Blackboard or general email, depending on class size. There will also be several readings from text books available from the library or other sources:

Course description
A survey of literature on migration ecology ranging from theory to applied issues of animal migration for a range of taxa (fish, insects, birds, mammals). Topics covered will include understanding the mechanisms of migration, migratory connectivity and seasonal interactions, evolutionary theory, animal behavior, and conservation/management.

Course goals
The goals of the course are to a) gain background knowledge and perspective about animal migration, and b) develop critical reading and analysis skills. Both goals will be met by reading, presenting, and discussing classic and modern literature on animal migration.
Student learning outcomes
At the end of the course, students should be able to:
- Deliver a concise and accurate summary of a paper from the scientific literature.
- Critique thoroughly and fairly the theoretical context and methodology of a scientific paper.
- Effectively lead a class in discussion.

Instructional methods
Although the instructor will lecture occasionally, most class meetings will be devoted to discussion. Students and instructor will prepare for class by reading one or more journal articles, assigned in advance. The instructor will choose some of the articles we discuss; students will choose others. The instructor will guide students in their choice of articles. Students will take turns leading the discussion. The number of classes lead by any one student will depend on class size.

Course policies
Students are expected to attend all scheduled class sessions, to have prepared for class thoroughly, to alternate in leading the class in discussion, and to participate in all class activities.

Expectations of discussion-leaders
When it is your turn to present a paper and lead the discussion, you should read the paper or papers you are presenting at least twice. If there is background information that the class will need to understand the work or the context of the work, you are responsible for doing that reading as well, and should come to class prepared to explain the background clearly. Here are some questions to ask yourself as you read:
- What was the overall goal of the study?
- What hypotheses or questions were addressed?
- What approach was taken?
- Do the methods and results truly address the hypotheses and study goals?
- Are there significant methodological weaknesses?
- What is the significance and usefulness of the study?
- Will the class require additional background to understand the study, and if so, am I prepared to give the background?
- What does it tell us, or fail to tell us, about animal migration?

When leading a discussion, begin by summarizing the study goal and hypotheses. Give a summary of the approach and results, focusing on points directly relevant to the larger goal rather than the details (unless details are relevant to a point you wish to make). Then lead the class in a discussion of the merits of the paper. You should come to class with an opinion about the strengths and weaknesses of the paper, and you will no doubt express that opinion at some point, but your main job is to stimulate critical and creative thinking in others by posing questions and keeping the discussion on track.
We will read some excellent papers in this course, but we will probably also encounter some papers that are not so excellent. Be critical of what you read. Not all published studies are well-designed, and not all authors reach reasonable conclusions from evidence. One of the goals of the course is to learn to appreciate well-constructed paper and recognize a weak one.

**Grading**

Grades will be pass/fail. A passing grade will be determined by attendance at all classes (which must be attended for the full hour) and full class participation. Excused absences (see below) must not exceed two missed classes for a passing grade.

**Missing class**

Excused absences are absences that have been cleared with the instructor *beforehand*, and may be due to reasons such as illness or pre-professional opportunities (e.g., attending a professional conference or workshop).

**Academic Dishonesty**

UAF students are subject to the Student Code of Conduct. Plagiarism, which is presenting someone else’s ideas or text, is a serious violation of the Code. Instances of plagiarism include failing to cite your sources properly and copying someone else’s work. Note that making small alterations to someone else’s text to obscure the resemblance still constitutes plagiarism.

**Disabilities Act**

The Office of Disabilities Services implements the Americans with Disabilities Act (ADA) and insures that UAF students have equal access to the campus and course materials. The instructor will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities.

**Schedule and Topics**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Leader</th>
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<tbody>
<tr>
<td>24 January</td>
<td>Evolution of Migration</td>
<td>Abby Powell</td>
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<td>31 January</td>
<td>Plasticity</td>
<td>Dan Rizzolo</td>
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<td>7 February</td>
<td>Physiological Adaptations</td>
<td>Roy Churchwell</td>
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<td>14 February</td>
<td>Navigation</td>
<td>Job Noordeloos</td>
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<td>21 February</td>
<td>Cues</td>
<td>Allison Martin</td>
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<td>28 February</td>
<td>Trophic Interactions</td>
<td>Justin Olnes</td>
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<td>7 March</td>
<td>Migratory Connectivity/Seasonal Effects</td>
<td>Adam DuBour</td>
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<td>14 March</td>
<td>Site Fidelity</td>
<td>Heather Craig</td>
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<td>28 March</td>
<td>Stopover Sites</td>
<td>Sarah Liben</td>
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<td>4 April</td>
<td>Climate Change</td>
<td>Jen Curl</td>
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<td>11 April</td>
<td>Techniques</td>
<td>Chris Latty</td>
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<td>18 April</td>
<td>Dispersal</td>
<td>Christopher Behnke</td>
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<td>25 April</td>
<td>TBD (Case Studies?)</td>
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<td>2 May</td>
<td>TBD</td>
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