Ecology and Management of Birds
WLF 425 (oral intensive, Spring 2014, CRN 39307)
(tentative, version 14th January 2014)

**Instructor:** Falk Huettmann  
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**Phone:** 474 7882 (voice mail)  
**E-mail:** fhuettmann@alaska.edu  
**Office hours:** Mondays 2:00 – 3:00 p.m. or by appointment

**TA1:** TBA  
**Phone:** TBA  
**E-mail:** TBA  
**Office hours:** TBA

**Lecture:**  
Tuesday 9:45 – 11:15 p.m., Murie lab 309  
Thursday 9:45 – 11:15 p.m., Murie lab 309

**Course Web Page (CANVAS)**  
[https://canvas.instructure.com/login](https://canvas.instructure.com/login)

**Course Description:** This inquiry-based course will examine the ecology of avian populations with a focus on harvest, conservation, habitat management and policy for North American birds. Topics covered will include: distributions, life-history, population dynamics, and monitoring and research techniques in space and time, all in the context of sustainable species management and within a climate change and a digital framework. The course will primarily discuss 6 species groups (waterfowl, raptors, upland game birds, shorebirds, songbirds and seabirds). Ecological attributes, conservation and management issues, status of North American populations, and current research and monitoring programs are elaborated. This course is inquiry-based and requires a proficient background in ecology, a familiarity with the principles of wildlife management, and is most appropriate for advanced undergraduate students majoring in science-based natural resource conservation. Some lecture time will be used to reviewing and discussing in-depth scientific articles and text book chapters of relevance for the lecture topic involving new digital online methods.

**Course Goals:** Students will be provided with an understanding of the status of bird populations in North America, how information on populations is obtained, and how specific research and monitoring methods relate to the specific ecology and conservation of the species of interest. This will be achieved through an understanding of avian ecology and how the principles of ecology are applied to management practices and policies for bird populations and habitats. This inquiry-based course will help students develop skills in critical thinking and synthesis. Concepts covered in this course will be linked to the process of ecosystem and adaptive management for developing, implementing, and evaluating management plans.

**Pre-requisites:** BIOL F271 Principles of Ecology, COMM F131X Fundamentals of Oral Communication (FOC)-Group Context, or COMM F141X FOC-Public Context, WLF F222 Principles and Techniques of Wildlife Management, or permission of instructor. A background in spatial ecology, and having computational and digital skills are useful.
Credits: 3

**Grading Policy:** Letter grades will be determined from the performance in a) participation in lectures and discussions (30%), b) two oral presentations (2*15%), c) two written exams (25%; mid-term and final exam, equally weighted), and quizzes (15%). This class makes use of, and teaches, some digital online resources and techniques. I use some quizzes to confirm whether students know and understood the lecture and presentation topics. Oral presentations are graded on speaker’s knowledge of the topic, ability to synthesize material, organization of presentation, effluence, use of visual aids and clarity. Missing classes and deadlines result in lost percentages (20% per day) and potentially, class failure. For marking, I follow a quantitative scale and with the eventual thresholds A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%, F < 60% (+ and – at instructor’s discretion). I do offer extra credit opportunities, and follow the latest UAF grading scheme.

**Student-led Discussions:** Each student will lead one 10 minute long summary presentation (spoken freely, no visual aids or software) on a research topic relevant to the lecture, which includes a 5-minute long facilitated class discussion. A second presentation will be done in PowerPoint as a PDF (the use of Open Office, PREZI, with iPAD, youtube or an online blog/TWITTER style will receive extra points). The material can consist of regular research publications but also a software or a URL (or a voluntary project summary). Underlying materials are to be made available on reserve, CANVAS or email by the student for the rest of the class to review one week prior to the discussion. The suggested material must be provided to the teacher two weeks prior to the course for assessment and approval. The student in charge will lead the discussion by compiling a set of questions relevant to the topic and a list of questions (also distributed one week before class). Students in the audience will be expected to synthesize material from the readings in a biological science and conservation management context, in addition to summarizing them. All students are required to provide via email or blog to the instructor a written half-page review of the discussed paper/topic annotated with a few relevant scientific references following the journals of ‘The Auk’, Journal of Wildlife Management, or ‘Open Ornithology’.

**Exams:** A Mid-term and a Final Exam will be required. They consist of multiple choice and written questions, covering the content of the class.

**Readings:** There is no single suitable textbook for this course. Lectures are based on chapters from several avian and ecology textbooks, many peer reviewed journal articles, and published management plans (e.g., North American Waterfowl Management Plan, US Shorebird Conservation Plan). The relevant course materials will be posted on CANVAS (not for textbooks) prior to the class, or are available in the library or with the instructor. I expect that you have them accessible/arranged and read prior to the class (mind week-ends, holidays and library closures); this is part of the inquiry process. Feel to ask me and for questions and help if you encounter problems.

**Other details relevant for this class:**
STUDENTS WITH DISABILITIES: Students with learning or other disabilities who may need classroom accommodations are encouraged to make an appointment with the Office of Disability Services (907 474-5655). Please meet with me during office hours so that we can collaborate with the Office of Disability Services to provide the appropriate accommodations and supports to assist you in meeting the goals of the course.

PARTICIPATION: I expect students to participate and contribute actively in this class in order to improve the individual as well as the overall group performance. I allow NO cell phones during the entire course, nor non-course activities.

ETHICS: I believe in team work, high ethical standards and fair judging. I will follow the Code of Honor outlined in the UAF documents (http://www.uaf.edu/catalog/current/academics/regs3.html). Plagiarism and any other unethical approaches will not be tolerated in this course and will result in failure of the class.

SUPPLIES REQUIRED: None beyond the UAF computing infrastructure.

SUPPORT FOR WRITTEN TASKS: Since many assignments are in an oral format, students may want to make use of the Speaking Center (http://www.uaf.edu/comm/speaking-center/). Digital deliveries are an important part of this class.

(I keep the right to modify the class schedules, teaching topics etc., whenever required by the course and circumstances)
## Lecture Schedule WLF 425

*(version 30th December 2013; tentative)*

<table>
<thead>
<tr>
<th>Date</th>
<th>General Topic *</th>
<th>Specific Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Thu</td>
<td>Introduction</td>
<td>Course Info and Ornithology overview (1)</td>
<td>Gill 2007 xxi-xxvi, Resendiz 2012</td>
</tr>
<tr>
<td>21 Tue</td>
<td>Waterfowl</td>
<td>Waterfowl 1: Classification &amp; Ecology (2)</td>
<td>Gill 2007, chapter 3, Livezey 1997</td>
</tr>
<tr>
<td>23 Thu</td>
<td>Waterfowl</td>
<td>Waterfowl 2: Monitoring methods for research and management (3)</td>
<td>North American Waterfowl Management Plan</td>
</tr>
<tr>
<td>28 Tue</td>
<td>Waterfowl</td>
<td>Waterfowl 3: Populations &amp; dynamics (4)</td>
<td>Gill 2007, chapter 18, Silvy 2012 (chapter 25, vol 2)</td>
</tr>
<tr>
<td>30 Thu</td>
<td>Waterfowl</td>
<td>Waterfowl 4: Adaptive, ecosystem &amp; resilience management (5)</td>
<td>Smith 1995</td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
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<tr>
<td>4 Tue</td>
<td>Guest Lecture</td>
<td>Guest Lecture</td>
<td>TBA</td>
</tr>
<tr>
<td>6 Thu</td>
<td>Oral Discussion Session</td>
<td>Students</td>
<td>Provided by presenters</td>
</tr>
<tr>
<td>11 Tue</td>
<td>Raptors</td>
<td>Raptors 1: Classification &amp; Ecology (8)</td>
<td>Gill 2007</td>
</tr>
<tr>
<td>13 Thu</td>
<td>Raptors</td>
<td>Raptors 2: Populations (9)</td>
<td>Newton 1998 (chapter 9)</td>
</tr>
<tr>
<td>18 Tue</td>
<td>Raptors</td>
<td>Raptors 3: Discussion topics (10)</td>
<td>Dugger et al. 2011, Van Lanen et al. 2011, Hamer et al. 2007</td>
</tr>
<tr>
<td>20 Thu</td>
<td>Upland game birds</td>
<td>Upland game birds: Classification &amp; Ecology (11)</td>
<td>Silvy 2012, Gill 2007</td>
</tr>
<tr>
<td>25 Tue</td>
<td>Upland game birds</td>
<td>Upland game birds: Populations (12)</td>
<td>Brennan and Kuvlevsky 2005</td>
</tr>
<tr>
<td>27 Thu</td>
<td>Upland game birds</td>
<td>Upland game birds: Game and Conservation Management (13)</td>
<td>Silvy 2012</td>
</tr>
<tr>
<td>March</td>
<td></td>
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<tr>
<td>4 Tue</td>
<td>Upland game birds</td>
<td>Upland game birds: Discussion topics (14)</td>
<td>Sandercock et al. 2011</td>
</tr>
<tr>
<td>6 Thu</td>
<td>Mid-term</td>
<td>Mid-term</td>
<td>Based on all lectures and readings, so far</td>
</tr>
<tr>
<td>11 Tue</td>
<td>Shorebirds</td>
<td>Shorebirds: Classification &amp; Ecology (15)</td>
<td>Gill 2007</td>
</tr>
<tr>
<td>18 Tue</td>
<td>SPRING BREAK</td>
<td>NO CLASS</td>
<td></td>
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<tr>
<td>20 Thu</td>
<td>SPRING BREAK</td>
<td>NO CLASS</td>
<td></td>
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<tr>
<td>27 Thu</td>
<td>Shorebirds</td>
<td>Shorebirds: Discussion topics (18)</td>
<td>McCaffery et al. 2006</td>
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<tr>
<td>April</td>
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<tr>
<td>1 Tue</td>
<td>Songbirds</td>
<td>Songbirds: Classification &amp; Ecology (19)</td>
<td>Gill 2007</td>
</tr>
<tr>
<td>3 Thu</td>
<td>Oral Discussion Session</td>
<td>Students</td>
<td>Provided by presenters</td>
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<tr>
<td>8 Tue</td>
<td>Songbirds</td>
<td>Songbirds: Populations (20)</td>
<td></td>
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<tr>
<td>17 Thu</td>
<td>Seabirds</td>
<td>Seabirds: Classification &amp; Ecology (23)</td>
<td>Gill 2007</td>
</tr>
<tr>
<td>22 Thu</td>
<td>Seabirds</td>
<td>Seabirds: Populations (24)</td>
<td></td>
</tr>
<tr>
<td>29 Tue</td>
<td>Oral Discussion Session</td>
<td>Students</td>
<td>Provided by presenters</td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1 Thu</td>
<td>Special Topics &amp; Exam prep.</td>
<td>Programs MARK, PVA and RAMAS-GIS, random Survival Forest (R), Final Exam review</td>
<td>Software resources online</td>
</tr>
<tr>
<td>8 Tue</td>
<td>Final Exam</td>
<td>Final Exam (held 8-10 AM in Murie 105)</td>
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### Important Deadlines (tentative)

<table>
<thead>
<tr>
<th>Date</th>
<th>Deliverable</th>
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</thead>
<tbody>
<tr>
<td>3 weeks before presentation</td>
<td>Discussion of topic with instructor</td>
</tr>
<tr>
<td>2 weeks before</td>
<td>Papers for discussion provided to instructor</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
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<tr>
<td>--------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>1 week before presentation</td>
<td>Questions for discussion provided to instructor</td>
</tr>
<tr>
<td>February 6th</td>
<td>Oral presentation slot</td>
</tr>
<tr>
<td>March 6th</td>
<td>Mid-Term (regular lecture time)</td>
</tr>
<tr>
<td>April 3rd</td>
<td>Oral presentation slot</td>
</tr>
<tr>
<td>April 29th</td>
<td>Oral presentation slot</td>
</tr>
<tr>
<td>May 8th</td>
<td>Final Exam (held 8 - 10 AM)</td>
</tr>
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