

WILDLIFE BIOLOGY PROGRAM | UNIVERSITY OF MONTANA

To obtain a high honors degree in Wildlife Biology you must either:

- (1) Have a 3.7 or higher GPA at the time of graduation and have officially completed all the requirements for a **Wildlife Biology Program Senior Thesis** including a proposal defense, public presentation, defense to your Senior Thesis Committee, and a copy of your approved senior thesis on record with the program. As stated in the Honor's option, if you intend to go on to graduate school, a senior thesis is strongly recommended.

OR

- (2) Have a 3.7 or higher GPA at the time of graduation and complete a **High Honors Oral Exam**. Requirements for both detailed below.

Senior Thesis Requirements

A Senior Thesis (WILD 499) may involve a variety of different types of activities and analyses such as the collection of field or lab data, secondary data analysis, a policy analysis, or content analysis, and it requires:

- (1) *Submission of a formal written proposal to the prospective faculty mentor and committee, complete with sections that provide an introduction to, and the significance of, a particular problem; the specific question that the student wishes to address; how an answer to that specific question will refine our understanding of the broader issue described in the introduction; and the methods to be employed; a committee-approved proposal is necessary before work can begin*
- (2) *That the student present a summary of the problem and his or her findings at a UM Conference for Undergraduate Research, chapter meetings of professional societies (TWS, AFS, SCB), or some other appropriate venue; and*
- (3) *That the thesis be completed and defended before the committee as the basis of an overall evaluation by the faculty mentor and committee. Credits are variable, but should correspond with the anticipated time needed to conduct and complete the project.*
- (4) *That the successfully defended and revised thesis be submitted to the student advisor for the Wildlife Biology Program before the end of exam week.*

In general, Senior Thesis is reserved for students who show evidence that they are budding research wildlife biologists, and the thesis should help them achieve related goals. At a minimum, students should be question-oriented and should want to work independently to solve a problem. Most are probably motivated to attend graduate school, but some may simply want to hone their own independent problem-solving skills. Senior theses address questions with an approach that is judged meritorious by the faculty committee and potentially publishable; students will be encouraged to submit a manuscript for publication.

To be eligible to do a Senior Thesis, a student must have at least a 3.0 Grade Point Average and/or be in the Honors Option for Wildlife Biology. The Senior Thesis advisor must be a faculty member in Wildlife Biology. The three-member committee must have at least one committee member from WBIO/FOR and WBIO/DBS. The student must defend their proposal and thesis during the academic year. Senior Thesis credits are Pass/Fail and the number of credits are decided by the faculty advisor and/or committee. It is important to acknowledge that a senior thesis is challenging, a large time commitment, and not all students will pass and receive credit. Regardless of the outcome,

students are commended for their desire to test their research skills and to further engage with faculty interactions.

Opportunities exist to apply for external funding to support a student's research project. A few examples include undergraduate research support through the Irene Evers Scholarship in the College of Forestry and Conservation, Philip L. Wright Memorial Research Award, and within the Honors College. Individuals developing proposals should talk with their faculty mentors about these possibilities.

High Honors Oral Exam

The oral exam is completed during your last semester. The purpose of the exam is to practice communicating what you have learned from a wide variety of classes and experiences during your undergraduate training in a professional, synthetic manner. This is an ideal experience for students to practice applying their knowledge in front of a faculty committee.

The exam is given by three faculty members (two of which must represent the DBS and FCFC branches of the wildlife faculty, the third member can be any professor on campus) and is approximately one hour. The student should work with their faculty mentor to determine the most appropriate faculty to sit on the committee. Typically the committee consists of faculty with whom the student has had some form of interaction. You will find that the tone of the exam differs substantially from tests and exams given during your undergraduate classes (in which you are generally told what material will be covered on the test). The High Honors Oral Exam will test you on more open-ended skills that will be important after you graduate, whether you are working for the Fish and Wildlife Service, the Forest Service, a private company, an NGO, or in graduate school. The exam topics are wide-ranging and focus on general issues and important questions, rather than probing for specific bits of knowledge in a "Trivial Pursuit" fashion. The tone of the exam should be an informal conversation between colleagues.

To give you the flavor of the exam, here are some examples of questions that might be asked:

- *What do you think are the most pressing issues in wildlife biology in the northwest United States? In North America? In the world? Why?*
- *Explain the concept of an "ecological trap". Why is this concept important to wildlife biologists?*
- *Does island biogeographic theory hold in wildlife biology? Why or why not?*
- *Provide a solid example that ecological results are scale dependent.*

The questions are generally tailored to your experience (i.e., classes, internships, jobs) and career goals. The best answers are ones in which you demonstrate to us that you have synthesized information from a variety of sources and courses; that you can discuss your opinions in a professional way and back up your views by referring to particular studies, researchers, and papers in the primary literature. The High Honors Oral Exam is designed to gauge conceptual thinking and synthesis. We suggest that you prepare well during your last year by thinking critically, making connections between different materials that you have been exposed to in all your courses, attending seminars, and spending some time in the library reading journal articles that are of interest to you. This is not an exam you should study for at the last minute. One suggestion is to keep a notebook during your last year to help organize your thoughts.

The High Honors Exam is Pass/Fail and decided by the faculty committee. The exam must be completed by the last day of the semester. It is important to acknowledge that this exam will be a

challenge and not all students will pass. Regardless of the outcome, students are commended for their desire to improve their communication skills and to further engage with the faculty. Individuals passing and have a 3.7 or higher GPA will graduate with High Honors in Wildlife Biology.