

# Wildlife Resources

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**Prerequisite:** Courses in this subject field that are numbered above 299 are not open to undergraduate students on academic probation.

**WLF 102 The Fish and Wildlife Professions (1 cr)**

See Fish 102.

**WLF 200 (s) Seminar (cr arr)**

**WLF 203 (s) Workshop (cr arr)**

**WLF 204 (s) Special Topics (cr arr)**

**WLF 299 (s) Directed Study (cr arr)**

**WLF 314 Wildlife Ecology I (3 cr)**

Ecology and natural history of birds, mammals, reptiles, and amphibians. (Fall only)

**Prereq:** For 221 or Biol 314

**WLF 315 Wildlife Ecology I Laboratory (1 cr)**

Techniques associated with wildlife research and local habitats and areas where wildlife species are present. Three hours of lab a week. One weekend field trip required. Two additional animal trapping sessions also required. (Fall only)

**Prereq or Coreq:** WLF 314

**WLF 316 Wildlife Ecology II (4 cr)**

Application of principles of ecology to conservation and management of wildlife in natural and altered habitats. Three lec and one lab a wk; three days of field trips. (Spring only)

**Prereq:** WLF 314 and 315 with a grade of 'C' or better; or Permission

**WLF 396 Wilderness Research Internship (3 cr)**

Nine-week summer internship at UI Wilderness Field Station, located at Taylor Ranch in the heart of the Frank Church River of No Return Wilderness of central Idaho; research honorarium awarded; lodging and transportation to field station provided. Enrollment limited to 2-3 students based on available funding; competitive selection process by faculty committee based on research proposal, GPA, and resume. (Summer only)

**Prereq:** Junior standing

**WLF 398 (s) Renewable Natural Resources Internship (cr arr)**

Supervised field experience with an appropriate public or private agency. Req'd for cooperative education students. Graded P/F.

**Prereq:** Permission of department

**WLF 403 (s) Workshop (cr arr)**

**WLF 404 (s) Special Topics (cr arr)**

**WLF J416/J516 Molecular Methods in Population Biology (1 cr)**

Introductory workshop on basic procedures in molecular biology that have applications in ecology and evolutionary biology. Course includes DNA/RNA extraction, PCR, simple recombinant DNA procedures, DNA sequencing, and data analysis. Graduate level will require independent study project. Recommended preparation: Introductory level genetics, general and organic chemistry courses (Fall only)

**Prereq:** Permission

**WLF WS-J431/WS-J531 Wildlife Nutrition (3 cr) WSU NATRS 431/531**

Nutritional requirements and interactions of wildlife populations. (Spring only).

**WLF 440 Conservation Biology (3 cr)**

Patterns of biological diversity; factors producing changes in diversity; values of diversity; management principles applied to small populations, protected areas, landscape linkages, biotic integrity, restoration, legal issues, and funding sources. (Fall only)

**Prereq:** For 221 or Biol 314 or Permission

**WLF 448 Fish and Wildlife Population Ecology (4 cr)**

Dynamics of animal populations resulting from balance between birth, death, and movement processes; quantitative methods for measuring distribution, abundance, survival and population growth; competition, predation, and self-regulation; viability and management of fish and wildlife populations. Three lec and one lab a wk. (Fall only)

**Prereq:** Stat 251; and Fish 316, WLF 316, or course in vertebrate ecology

**WLF 482 Ornithology (4 cr)**

Evolution, systematics, distribution, identification, and biology of birds, including current conservation efforts. Requires two days of field trips. (Spring only)

**Prereq:** Biol 213

**WLF 483 Senior Project Presentation (1 cr)**

See For 483.

**WLF 485 Ecology and Conservation Biology Senior Project (1-3 cr, max 3)**

Same as CSS/Fish/For/REM 485. Scholarly work; learning objectives include development and formal proposal of a specific project and conducting the project or research with the guidance of a faculty mentor.

**WLF 492 Wildlife Management (4 cr)**

Review of social and biological context for current practice of wildlife management. Three lec and one lab a wk; two days of field trips. (Spring only)

**Prereq:** WLF 316 and WLF 448

**Prereq or Coreq:** WLF 482, Biol 481 or Biol 483

**WLF 495 (s) Wildlife Seminar (1-2 cr)**

Discuss integrating biological, social, political, economic, and philosophic aspects of wildlife problems. (Fall only)

**Prereq:** Senior standing

**WLF 497 Senior Thesis (1-3 cr, max 6)**

Preparation of thesis, exhibition, video, computer program, multimedia program, or other creative presentation based on research conducted under the guidance of a faculty mentor.

**Prereq:** Cumulative GPA of at least 3.2 in all college courses, completion of at least 90 credits, and permission of a faculty mentor

**WLF 499 (s) Directed Study (cr arr)**

For the individual student; conferences, library, field, or lab work.

**Prereq:** Senior standing, GPA 2.5, and Permission

**WLF 500 Master's Research and Thesis (cr arr)**

**WLF 501 (s) Seminar (cr arr)**

Major philosophy, management, and research problems of wildlands; presentation of individual studies on assigned topics. Graded P (pass)/F (fail).

**Prereq:** Permission

**WLF 502 (s) Directed Study (cr arr)**

**WLF 503 (s) Workshop (cr arr)**

Selected topics in the conservation and management of natural resources.

**Prereq:** Permission

**WLF 504 (s) Special Topics (cr arr)**

**WLF 516 Molecular Methods in Population Biology (1 cr)**

See WLF J416/J516.

**WLF WS531 Wildlife Nutrition (3 cr) WSU NATRS 531**

See WLF J431/J531

**WLF ID540 Conservation Genetics (3 cr) WSU Biol 540**

Basic principles of population genetics and phylogenetics and their applications to the field of conservation genetics and natural resource management; case studies and examples from current literature; topics include genetic diversity, inbreeding, population structure, gene flow, genetic drift, molecular phylogenetics, and hybridization. (Fall, Alt/yrs)

**WLF 541 Advanced Population Biology (3 cr)**

Readings and discussion of current theories of population control, their biological basis, and applications to animal populations. (Fall, Alt/yrs)

**Prereq:** WLF 448 or Permission

**WLF 543 Fish and Wildlife Population Analysis (4 cr)**

Quantitative analysis of fish and wildlife habitat, diet, harvest, population density, survival, and natality data; development and application of population models in fish and wildlife management. Three lec and 3 hrs of lab a wk. (Fall, Alt/yrs)

**Prereq:** WLF 448, Stat 401 or Permission

**WLF ID545 Wildlife Habitat Ecology (2-3 cr) WSU NATRS 542**

Reading and discussion on habitat concepts, analyses, and applications. Students enrolled in the 3<sup>rd</sup> credit will complete additional readings and quantitative problem sets.

**Prereq:** WLF 492 or Permission, animal and plant ecology

**WLF ID546 Upland Game Ecology (2 cr) WSU NATRS 546**

Ecology and management of forest and rangeland wildlife species. Three days of field trips. (irregular offering)

**Prereq:** Permission

**WLF WS548 Evolutionary Ecology (3 cr) WSU Biol 548**

**WLF 552 Ecological Modeling (3 cr)**

Linear and nonlinear dynamical models of biological systems; computer-intensive introduction to concepts of stability, attractors, bifurcations, chaos; model identification, estimation, and evaluation; applications in aquatic and terrestrial ecological communities. (Spring, Alt/yrs)

**Prereq:** Math 175 and For 221 or Permission

**WLF ID555 Statistical Ecology (3 cr) WSU Stat 555**

Same as Stat 555. Stochastic models in ecological work; discrete and continuous statistical distributions, birth-death processes, diffusion processes; applications in population dynamics, population genetics, ecological sampling, spatial analysis, and conservation biology. (Spring, Alt/yrs)

**Prereq:** Math 451 or Permission

**WLF 597 (s) Practicum (cr arr)**

**WLF 598 (s) Internship (cr arr)**

**WLF 599 (s) Non-thesis Master's Research (cr arr)**

Research not directly related to a thesis or dissertation.

**Prereq:** Permission

**WLF 600 Doctoral Research and Dissertation (cr arr)**

**Prereq:** Admission to the doctoral program in "natural resources" and Permission of department