

# WILDLIFE ECOLOGY AND CONSERVATION

## Program Information

The Department of Wildlife Ecology and Conservation offers a breadth of graduate programs that are designed to prepare students for professional employment in conservation of natural resources in a changing world. WEC faculty teach, conduct research, and provide service and extension in the following areas: avian ecology, behavioral ecology, community ecology, conservation biology, conservation education, conservation genetics, ecosystem management, environmental interpretation, habitat restoration, global change ecology, herpetofaunal ecology, human dimensions of wildlife management, international conservation, introduced species, landscape ecology, macroecology, mammalian behavior, marine mammal ecology, plant ecology, population biology, range ecology, systems ecology, tropical conservation, urban wildlife relations, wetlands ecology, wildlife diseases, and wildlife management.

The **Doctor of Philosophy (PhD) program** in Wildlife Ecology and Conservation serves graduate students conducting advanced, original studies of fundamental ecological and social sciences (e.g., ecosystem, community, landscape ecology, human dimensions), usually with applications to further society's understanding of wildlife ecology and to improve conservation of wildlife resources.

The **Master of Science (MS) thesis program** in Wildlife Ecology and Conservation:

1. prepares graduate students for entry-level professional positions in areas of wildlife biology and ecology, natural resource management, conservation, and
2. provides a solid scientific foundation for further graduate work leading to the PhD degree.

The **Master of Science, non-thesis (MS) program** in Wildlife Ecology and Conservation provides advanced training for students in technical and professional aspects of wildlife management, conservation, and public education, emphasizing written and oral communication of scientific information.

- Master of Science in Wildlife Ecology and Conservation with a concentration in Wildlife Forensics Science and Conservation - offered by WEC in conjunction with UF's Maples Center for Forensic Science as a non-thesis, online option. Students are prepared for real-world situations in wildlife forensics such as poaching and illegal trade and courses are taught by faculty members who have years of experience in the field working with law enforcement and wildlife organizations. See <https://masters.wildlife.forensics.med.ufl.edu/programs/masters-degree/> for a full program description and application instructions.

For more information, please see our website: <http://www.wec.ufl.edu>.

## Degrees Offered

### Degrees Offered with a Major in Wildlife Ecology and Conservation

- Doctor of Philosophy
  - without a concentration
  - concentration in Geographic Information Systems
  - concentration in Tropical Conservation and Development
  - concentration in Wetland Sciences
- Master of Science
  - without a concentration
  - concentration in Geographic Information Systems
  - concentration in Tropical Conservation and Development
  - concentration in Wetland Sciences
  - concentration in Wildlife Forensic Sciences and Conservation

Requirements for these degrees are given in the Graduate Degrees (<http://gradcatalog.ufl.edu/graduate/degrees/>) section of this catalog.

## Courses

### Wildlife Ecology and Conservation Courses

Code	Title	Credits
ALS 6500	Multivariate Statistics for Agricultural and Life Sciences	3
ALS 6501	Data Carpentry for Biologists	3
WIS 5496	Research Design in Wildlife Ecology	3
WIS 5555C	Conservation Biology	3
WIS 5562	Conservation Medicine	3
WIS 6050	Pro Communication in Wildlife Forensic Sciences	3
WIS 6051	Wildlife Tracks and Sign	3
WIS 6052	Bird Language	3
WIS 6306	Applied Wildlife Forensic Genetics	3
WIS 6307	Integrated Wildlife Forensic Genetics	3
WIS 6405	Biodiversity	3
WIS 6421	Wildlife Toxicology: The Ecohealth Perspective	3
WIS 6425	Carrion Ecology and Evolution	3
WIS 6444C	Wetland Management	3
WIS 6455	Wildlife Population Ecology	3
WIS 6466	Wildlife Population Modeling	3
WIS 6468C	Pattern and Process in Landscape Ecology	3
WIS 6505C	Quantitative Analysis of Animal Populations	3
WIS 6522	Coupled Human and Wildlife Systems	3
WIS 6526	Stakeholder Engagement in Natural Resources	3
WIS 6544	Administration in Natural Resources	3
WIS 6557	International Wildlife Conservation Law, Policy and Ethics	3
WIS 6558	Introduction to U.S. Wildlife Law, Policy & Ethics	3
WIS 6559	Forensic Science for Conservation Biology	3
WIS 6561	Wildlife Crime Scene Processing	3
WIS 6563	Wildlife Forensic Pathology	3
WIS 6565	Negative and Suboptimal Research Findings in Wildlife Forensics	3
WIS 6576	Human and Wildlife Conflict	3

WIS 6905	Research Problems in Wildlife and Range Sciences	1-6
WIS 6910	Supervised Research	1-5
WIS 6933	Seminar	1
WIS 6934	Topics in Wildlife Ecology and Conservation	1-4
WIS 6940	Supervised Teaching	1-5
WIS 6946	Wildlife Forensics Internship	1-6
WIS 6971	Research for Master's Thesis	1-15
WIS 7979	Advanced Research	1-12
WIS 7980	Research for Doctoral Dissertation	1-15

## Wildlife Ecology and Conservation Departmental Courses

Code	Title	Credits
ALS 6500	Multivariate Statistics for Agricultural and Life Sciences	3
ALS 6501	Data Carpentry for Biologists	3
WIS 5496	Research Design in Wildlife Ecology	3
WIS 5555C	Conservation Biology	3
WIS 5562	Conservation Medicine	3
WIS 6050	Pro Communication in Wildlife Forensic Sciences	3
WIS 6051	Wildlife Tracks and Sign	3
WIS 6052	Bird Language	3
WIS 6306	Applied Wildlife Forensic Genetics	3
WIS 6307	Integrated Wildlife Forensic Genetics	3
WIS 6405	Biodiversity	3
WIS 6421	Wildlife Toxicology: The Ecohealth Perspective	3
WIS 6425	Carrion Ecology and Evolution	3
WIS 6444C	Wetland Management	3
WIS 6455	Wildlife Population Ecology	3
WIS 6466	Wildlife Population Modeling	3
WIS 6468C	Pattern and Process in Landscape Ecology	3
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WIS 6563	Wildlife Forensic Pathology	3
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## College of Agricultural and Life Sciences Courses

Code	Title	Credits
ALS 5156	Agricultural Ecology Principles and Applications	3
ALS 5905	Individual Study	1-4
ALS 5932	Special Topics	1-4
ALS 6046	Grant Writing	2
ALS 6166	Exotic Species and Biosecurity Issues	3
ALS 6921	Colloquium on Plant Pests of Regulatory Significance	1
ALS 6925	Integrated Plant Medicine	4
ALS 6931	Plant Medicine Program Seminar	1
ALS 6935	Topics in Biological Invasions	3
ALS 6942	Principles of Plant Pest Risk Assessment and Management	3
ALS 6943	Internship in Plant Pest Risk Assessment and Management	1-10
ANS 6936	Graduate Seminar in Animal Molecular and Cell Biology	1-2
BCH 5045	Graduate Survey of Biochemistry	4
FNR 6933	Seminar	1
STA 6093	Introduction to Applied Statistics for Agricultural and Life Sciences	3
STA 6329	Matrix Algebra and Statistical Computing	3

### Student Learning Outcomes

#### Wildlife ecology & conservation (PHD)

SLO 1 Concepts and Theories of Wildlife Ecology and Conservation  
Describe and explain concepts and theories of wildlife ecology and conservation science, and the appropriate methods and techniques in a specialization.

SLO 2 Independent/Original Research  
Plan, conduct and analyze independent/original research.

SLO 3 Apply Research to Address Problems  
Apply quantitative, spatial or qualitative research approaches to address wildlife ecology and conservation problems.

SLO 4 Effective Communication  
Communicate proficiently and productively in oral and written form.

SLO 5 Professional Behavior  
Display ethical behaviors and professional conduct to contribute as responsible professionals in the field of wildlife ecology and conservation

#### wildlife ecology & Conservation (MS)

SLO 1 Concepts and Theories of Wildlife Ecology and Conservation Science  
Describe and explain concepts and theories of wildlife ecology and conservation science, and the appropriate methods and techniques in a specialization.

SLO 2 Independent/Original Research  
Plan, conduct and analyze independent/original research.

SLO 3 Apply Research to Address Problems  
Apply quantitative, spatial or qualitative research approaches to address wildlife ecology and conservation problems.

SLO 4 Effective Communication

Communicate proficiently and productively in oral and written form.

SLO 5 Professional Behavior

Display ethical behaviors and professional conduct to contribute as responsible professionals in the field of wildlife ecology and conservation.