

WILDLIFE BIOLOGY

The one-year, course-based Master of Wildlife Biology (MWB) is a unique program designed to help graduates acquire the academic, technical and experiential training needed to solve problems of relevance for society, wildlife and ecosystems in the government, not-for-profits, environmental consulting, education and industry sectors. Within wildlife biology, students have the opportunity to customize their program of study to pursue their distinct professional interest, while also adapting to changing job market demands by specializing in one of the following fields:

1. Wildlife Rehabilitation
2. Biomonitoring
3. Wildlife Conservation

Students may also choose courses across all three focus areas, without having to declare a field of specialization.

The program is organized around three domains of learning: 1) Professional Skills and Qualifications, 2) Integrative Competencies in Wildlife Biology, and 3) Integrative Experiences and Applications of Knowledge. To address these three domains, students complete three required courses regardless of any field of specialization. Students take another three elective courses plus 80-hours of workshops, seminars or skills training in their field of specialization (or in an area of interest if not pursuing a field of specialization). Students complete either an experiential placement with a company, institution or wildlife centre that aligns with their career pursuits, or a Major Research Projects in their final semester. Students complete an Independent Pathways Plan at the beginning of the program to help guide their course selection and placement over the year.

By completing the required foundational courses within the MWB, plus the acquisition of skills-based training workshops, course electives and a placement within the student's field of specialization, graduates will be able to complete the Master of Wildlife Biology program. Graduates become fully equipped to integrate and apply knowledge and skills, conduct independent inquiry, synthesize and evaluate different perspectives, communicate with stakeholders, organize and lead projects and apply policy related to wildlife biology. Ultimately, this flexible and adaptable program prepares the next generation of wildlife professionals to support evidence-based and ethically responsible decision-making about wild animals and the pressing challenges they face in current socio-environmental contexts.

Administrative Staff

Director

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Graduate Program Coordinator

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Graduate Program Assistant

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Graduate Faculty

This list may include Regular Graduate Faculty, Associated Graduate Faculty and/or Graduate Faculty from other universities.

Sarah J. Adamowicz

B.Sc. Dalhousie, M.Sc. Guelph, PhD Imperial College - Associate Professor
Graduate Faculty

Sherri Cox

DVM, MBA, PhD Guelph - Contractually Limited Appointment
Associated Graduate Faculty

T. Ryan Gregory

B.Sc. McMaster, PhD Guelph - Professor
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Robert Hanner

B.Sc. Eastern Michigan, PhD Oregon - Professor
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Shoshanah Jacobs

B.Sc. M.Sc. New Brunswick, PhD Ottawa - Associate Professor
Graduate Faculty

Andrew MacDougall

BA Dalhousie, M.Sc. York, PhD British Columbia - Professor
Graduate Faculty

Georgia Mason

BA, PhD Cambridge - Professor
Graduate Faculty

Admission Requirements

Students entering the program must meet the minimum master's admission requirements set by the University: successful completion of an undergraduate degree/ baccalaureate, in an honours' program or the equivalent from a recognized university; minimum B- average (last two years of full-time equivalent study); English proficiency levels as per the University's admission guidelines. An additional requirement for this program is the submission of either two academic references OR one academic reference and one professional reference. Preference for admission will be given to applicants who have experience in biology either through previous degree(s) or work experience.

Students with non-traditional education and experience in a related wildlife biology field are welcome to apply and will be considered under the University's Alternate Admissions Criteria.

All components of the application, including transcript(s), graduate certificate(s), grading scale(s), language test results and assessment forms must be uploaded no later than two months after an application is submitted through the OUAC portal. Applications that are incomplete after this time period will be closed.

Admission Process

Graduate student applications to programs in the College of Biological Science (CBS) are overseen by the Office of the Associate Dean, Research and Graduate Studies (ADRGs). Before submitting an application, applicants are strongly encouraged to view the "Before you Apply" and "Admission Process" pages on the CBS ADRGs website.

Space in this program will be limited and applicants are advised to ensure their applications are complete by the application deadline stated on the program website. Application details and the admissions deadline are posted on the program website.

Learning Outcomes

By the end of this program, students should be able to:

1. Identify, select, and integrate the most appropriate set of integrative competencies (knowledge, skills, behaviours, values, abilities) to apply to a case or a complex problem typical of their specialization.
2. Conduct independent inquiry and analysis within wildlife biology.
3. Demonstrate how various perspectives are utilized to understand evaluate and synthesize communications and reports.
4. Communicate effectively with a variety of stakeholders in an inclusive and multimodal manner.
5. Explain the relevance and application of policy and laws related to wildlife biology at various levels of government administration.
6. Demonstrate leadership skills that will enable students to independently develop and lead projects in an organized, professional, and inclusive manner.

Program Requirements

A total of 4.00 course credits are required to graduate, which must include:

Code	Title	Credits
BIOL*6100	Professional Skills and Qualifications in Wildlife Biology	0.50
BIOL*6110	Emerging Problems and Opportunities in Wildlife Biology	0.50
UNIV*6120	Communications and Outreach in Biology	0.50
BIOL*6130	Practicum or Major Research Project in Wildlife Biology	1.00
Three electives from the following list:		
BIOL*6140	Applied Field Biology	0.50
BIOL*6150	Wildlife Rehabilitation in Practice	0.50
BIOL*6160	Chemical Immobilization of Free-Ranging Wildlife	0.50
BIOL*6170	Stress and Resilience in the Anthropocene	0.50
IBIO*6000	Special Topics in Ecology and Behaviour	0.50
IBIO*6010	Special Topics in Physiology	0.50
BINF*6210	Software Tools for Biological Data Analysis and Organization	0.50
ANSC*6250	Growth and Metabolism	0.50
ANSC*6700	Animals in Society: Historical and Global Perspectives on Animal Welfare	0.50
ANSC*6720	Scientific Assessment of Affective States in Animals	0.50
ENVS*6440	Field Sampling Strategies and Geostatistics	0.50
ENVS*6452	Special Topics in Ecosystem Science and Biodiversity	0.50
ENVS*6460	Environmental Remediation	0.50
ENVS*6470	The Science and Management of Multiple Stressors in the Great Lakes	0.50

ENVS*6530	Pollinator Conservation	0.50
UNIV*6030	Seminars and Analysis in Animal Behaviour and Welfare	0.50
PABI*6104	Mechanisms of Disease	0.50
PABI*6550	Epidemiology of Zoonoses	0.50
CONS*6100	Conservation Past, Present and Possible	0.50
GEOG*6340	Human-Environment Relations	0.50
STAT*6950	Statistical Methods for the Life Sciences	0.50

Program Duration

Students will normally complete the program in one year in a full-time schedule, taking five 0.50 credit courses during the Fall and Winter (could be either two courses in the Fall and three in the Winter or vice versa), one 0.50 credit course throughout the year, and a 1.00 credit experiential placement in the Summer. There is also the option of completing this program part-time, in which case students are expected to complete 1.50 credits in year one, 1.50 credits in year two, and the 1.00 experiential placement in year three.

BIOL*6100 Professional Skills and Qualifications in Wildlife Biology Fall, Winter & Summer Reg Req [0.50]

In this course, students choose professional workshops and skills that support their career path. The creation of an Independent Pathways Portfolio (IPP) sets the stage for students to have the flexibility to complete professional skills, techniques, and qualifications throughout the entire duration of their program.

Offering(s): Annually.

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

BIOL*6110 Emerging Problems and Opportunities in Wildlife Biology Fall Only [0.50]

Students attend a series of lectures and/or guided discussions with panelists regarding emerging issues that impact wildlife with an emphasis on emerging diseases, threats due to climate change, and mitigation strategies in Canada.

Offering(s): Annually.

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

BIOL*6130 Practicum or Major Research Project in Wildlife Biology Summer Only [1.00]

A major research project or practicum is completed and presented by students in the Master of Wildlife Biology program. Projects may involve primary research or the application of knowledge. Professionalism and communication skills in written, oral, and visual formats are also emphasized.

Offering(s): Annually. First offering Summer 2024

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

BIOL*6150 Wildlife Rehabilitation in Practice Winter Only [0.50]

This course is designed for students to gain valuable knowledge and hands on experience in wildlife rehabilitation practice through a series of lectures and labs. Students learn about wildlife rehabilitation and the skills necessary to care for sick, injured, or orphaned wildlife. Labs include stabilization techniques, physical examination, feeding (gavage) techniques, technical diagnostic skills, and comparative anatomy that is relevant in wildlife rehabilitation.

Offering(s): Annually

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

BIOL*6160 Chemical Immobilization of Free-Ranging Wildlife Fall Only [0.50]

This course is designed for students interested in a career working with free-ranging wildlife (specifically with wild canids, ursids, cervids). Students critically examine whether chemical immobilization of a wild animal is required and consider human safety and animal welfare concerns. Students are taught how to safely handle tranquilizing equipment and drugs.

Offering(s): Annually

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

BIOL*6170 Stress and Resilience in the Anthropocene Unspecified [0.50]

How can physiological and behavioural plasticity help vertebrates cope with human-induced rapid environmental change? What are stress responses, when do they indicate that an animal's coping mechanisms are over-taxed, and does this mean that wild animals 'suffer'? And when and how should we treat wild animals with more compassion?

Offering(s): Annually

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph

UNIV*6120 Communications and Outreach in Biology Winter Only [0.50]

What are the best ways to share biological knowledge with non-scientists, including user groups wishing to apply this knowledge? Students learn to be accurate, credible, inclusive and engaging communicators in a variety of media (from written articles or policy documents to tweets and podcasts).

Offering(s): Annually. First offering Winter 2024.

Restriction(s): Restricted to Master of Wildlife Biology students.

Department(s): Department of Integrative Biology

Location(s): Guelph