

MODULE WLD3040: WILDLIFE RESEARCH

Level: Advanced

Theme: Technology and Applications

Prerequisite: None

Module Description: Students explain applications of the wildlife research process, and conduct experimental research on a wildlife space or species.

Module Parameters: Sample research articles, a science laboratory and/or outdoor wilderness environment.

Note: This module is a prerequisite for WLD3050: Wildlife Management 1 and WLD3060: Wildlife Management 2. It is recommended that students focus attention on a common theme (i.e., a space or species of particular relevance) throughout WLD3040, WLD3050 and WLD3060.

Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify components of the wildlife research process and their application to a sample wildlife space or species 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> given information regarding scientific research conducted on a wildlife space or species, identifying major components of the research process as they apply to the space or species. <p><i>Assessment Tool</i> <i>Assessment Criteria: Components of Scientific Research, WLD3040–1</i></p> <p><i>Standard</i> <i>Identify components and applications of scientific research within the context of one space or species to a standard of 3 on the rating scale</i> defining concise research problems for each of five wildlife topics suited to scientific research. <p><i>Assessment Tool</i> <i>Assessment Criteria: Defining Research Problems, WLD3040–2</i></p> <p><i>Standard</i> <i>Define five research problems to a standard of 3 on the rating scale</i></p> </p>	<p>30</p>

MODULE WLD3040: WILDLIFE RESEARCH (continued)

Concept	Specific Learner Expectations	Notes
Research Process (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • explain applications of the research process in finding answers to questions about wildlife spaces or species • relate the research process to an existing piece of wildlife research. 	Refer to Canadian Wildlife Services project reports.
Research Project	<ul style="list-style-type: none"> • identify a problem or question regarding a wildlife space or species; e.g.: <ul style="list-style-type: none"> – growth rate of a plant – bird preference to seed type – effect of light on plant growth – habitat preference of a mammal – overwintering of species – reproductive rate of composting worms • outline sources for background information about the problem or question; e.g.: <ul style="list-style-type: none"> – library – computer – interview • propose a plan for conducting research related to the problem or question; e.g.: <ul style="list-style-type: none"> – experimental design – logistics – funding and partnerships • describe baseline and specific data using a variety of information gathering techniques; e.g.: <ul style="list-style-type: none"> – sampling and surveys – observation – measurement and estimation – experimentation • analyze and interpret data that is gathered, and formulate further questions • draw conclusions related to the problem or question; e.g.: <ul style="list-style-type: none"> – recommendations – management actions – further research • communicate the results of research through written reports and oral presentations. 	<p>Limit, define and refine.</p> <p>Written review and summary of relevant literature.</p> <p>Submit a written plan.</p> <p>Consider:</p> <ul style="list-style-type: none"> • species count • observation of behaviours • experimental controls, groups and variables. <p>Use data tables, graphs, anecdotal reports, photographic records, videotape.</p> <p>Consider:</p> <ul style="list-style-type: none"> • logical relationships • significant elements and implications • potential sources of bias • limitations of data. <p>Display boards.</p>