

# ENDANGERED SPECIES OF THE ROCKIES: EVADING EXTINCTION

MAY 15, 2020

**COURSE LEVEL: III COURSE #: S3056**  
**FEE: \$80 PER ADULT AGES 16 AND OLDER**



**INSTRUCTOR: GARY C. MILLER**

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**LOCATION: Rocky Mountain Conservancy - Field Institute & Conference Center**  
**1895 Fall River Road, Estes Park, Colorado**

**TIME: 8:00 AM - 4:30 PM**

**COURSE DESCRIPTION:** Are you concerned about threatened or endangered species and their preservation as part of our natural world? How do species come to be at the brink of extinction, and how can they be recovered? The answers lie in the landmark Endangered Species Act of 1973 (ESA), the emerging science of conservation biology, and the resulting actions taken by scientists and citizens. Using examples of species occurring in Rocky Mountain National Park, this class will delve into these topics and their application in recovery efforts. The case histories (including little-known “backstories”) of efforts to recover peregrine falcons, Canada lynx, North American wolverine, and greenback cutthroat trout each demonstrate different aspects of endangered species management. The class includes a visit to a nesting area of the once-endangered/now-recovered peregrine falcon.

## **COURSE LEVEL: III**

The class will consist of approximately half classroom time, half in a field tour consisting of a one-mile moderate hike.

## **BRIEF INSTRUCTOR BIOGRAPHY (additional information available at [www.RMConservancy.org](http://www.RMConservancy.org)):**

Wildlife biologist Gary C. Miller retired from Rocky Mountain National Park in 2013 after working as both a naturalist/interpreter and as a biologist during the early years of the Elk-Vegetation Management implementation. Prior to that, he held positions with the Colorado Division of Wildlife (now Colorado Parks and Wildlife) as wildlife researcher, research leader and statewide ecologist. During that time, he conducted or oversaw research and management of both game and nongame species, including their ecology, population dynamics, diseases, and restoration of native species.

**EXPECTATIONS:** Professional conduct will be expected from participants at all times. Respect for individual ideas will be observed. Except during course breaks, cellular phones, pagers, and personal entertainment devices are strictly prohibited in the classroom and during field sessions.

**CAR-POOLING:** Rocky Mountain Conservancy - Field Institute courses utilize car-pooling to limit vehicles traveling into the park. Car-pooling makes it easier to keep the group together, reduces transit time, and allows courses greater access because fewer parking spaces are required at destinations. In addition, it provides an opportunity for participants to discuss course material in small groups during transit. Typically, a few participants from each course volunteer the use of their vehicles for car-pooling to course locations.

TENTATIVE SCHEDULE:

<b>8:00 AM - 8:15 AM</b>	Welcome/Introductions
<b>8:15 AM - 9:30AM</b>	<u>The Endangered Species Act</u> - Has it Worked? <i>History of the Act</i> <i>How species are listed, de-listed</i> <i>Protections, requirements</i> <i>The scorecard</i> <i>Misconceptions and myths</i> <i>Group discussion</i>
<b>9:30 AM – 9:45 AM</b>	<b>BREAK</b>
<b>9:45 AM – 10:30 AM</b>	<u>Conservation Biology Basics</u> – Bringing science to bear <i>Population viability</i> <i>Connectivity and the theory of island biogeography</i> <i>Species, subspecies, and distinct populations</i> <i>Conservation challenge in a rapidly-changing environment –Red Queen hypothesis</i> <i>Applications – developing management/recovery plans</i> <i>Group discussion</i>
<b>10:30 AM – 11:30 AM</b>	<u>Group Exercise</u> <i>Participants will select a species of interest and 1) propose an ESA listing category; 2) develop a recovery goal, and 3) outline an action plan for recovery/de-listing</i>
<b>11:30 AM – 2:30 PM</b>	<u>Field Session</u> Car-pool to Lumpy Ridge, observe peregrine falcon and other raptors <b>LUNCH</b> <i>Case histories (handouts):</i> - <i>Peregrine falcon</i> - <i>Canada lynx</i> - <i>Greenback cutthroat trout</i>
<b>2:30 PM – 3:00 PM</b>	Return to Rocky Mountain Conservancy – Field Institute
<b>3:00 PM – 4:00 PM</b>	<u>Special Cases</u> <i>North American wolverine (proposed for listing) – the story of M56, “Wilberdeen”</i> <i>Plants and insects</i> <i>Colorado state-listed species</i>
<b>4:00 PM – 4:30 PM</b>	<u>Summary, Roundtable, Final Thoughts</u> – Resources for further study
<b>4:30 PM</b>	<u>Final evaluations; Depart</u>

WHAT TO BRING:

- Sack lunch, snacks, energy bars, **WATER**
- Your favorite wildlife guide
- Binocular
- Camera

REMEMBER TO BRING THE 10 ESSENTIALS:

Rocky Mountain National Park recommends that hikers always carry the 10 essentials in their daypacks.

- |                             |                            |                                 |
|-----------------------------|----------------------------|---------------------------------|
| ▪ Raingear                  | ▪ Map and compass          | ▪ Flashlight or headlamp        |
| ▪ Sunglasses and sunscreen  | ▪ Candles                  | ▪ Matches or other fire starter |
| ▪ Pocketknife               | ▪ First-aid kit            |                                 |
| ▪ Sack lunch, snacks, water | ▪ Extra layers of clothing |                                 |

*Note: Rocky Mountain Conservancy – Field Institute recommends that participants for all courses dress in layers and wear comfortable, sturdy hiking boots/shoes. Participants should be prepared for sudden changes in temperature and weather conditions.*

**REFUND POLICY:**

Cancellations received at least 14 days prior to the start of a class will qualify for a refund minus a cancellation fee of \$25 per participant for a one-day class, \$50 for a multi-day class, \$5 per kid's class and \$15 per half-day class or bus tour seat. Registration money transferred to another class will be subject to a \$10 switch fee. Cancellations received less than 14 days prior to the start of a class or bus tour will not generate a refund. If the Field Institute cancels a class, every effort will be made to place the participant in another class; otherwise, a full refund will be given.

**TEACHER RECERTIFICATION CREDIT:**

Most courses are eligible for teacher recertification credit through the Centennial Board of Cooperative Education Services (BOCES). The fee is \$25 per class (.5 unit) or \$25 per series of threaded courses (1.0 - 3.0 units). A list of threaded courses can be found online at [www.RMConservancy.org](http://www.RMConservancy.org). Participants must enroll in all courses of a threaded series in order to qualify for the \$25 multi-unit fee. Please be prepared to pay for this credit with a check, made payable to BOCES, on the first day of a class or on the final day of a threaded series of courses.