

ROCKY MOUNTAIN FIELD SEMINARS

LEARN ♦ EXPLORE ♦ ADVENTURE

NATURAL HISTORY IN ROCKY MOUNTAIN NATIONAL PARK
THE CORE CURRICULUM WITH KEVIN COOK:
IDENTIFYING WILDFLOWERS

JULY 2, 2008

COURSE LEVEL: I COURSE #: 08-023

FEE: \$85*

INSTRUCTOR: KEVIN J. COOK

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***IF YOU REGISTER FOR ALL SIX COURSES IN THE NATURAL HISTORY CORE CURRICULUM, ONE IS FREE!**

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

TIME: 8:30 AM – 4:30 PM

COURSE DESCRIPTION: As part of the Core Curriculum, this seminar emphasizes skills development. Participants will learn to manage large volumes of complex information, to develop a disciplined observation protocol, to use classification in various productive ways, to find wildflowers on purpose rather than by serendipity, and to derive more personal gratification from the time spent wildflowering.

SEMINAR OBJECTIVES

1. Learn the difference between memorizing a name and identifying a plant.
2. Develop personal observation skills relevant to identification.
3. Acquire working use of fundamental botanical language necessary for plant identification.
4. Practice using identification keys.
5. Learn how to use classification as an aid to identification.
6. Learn alternative and supplemental strategies useful for plant identification.
7. Independently identify 10 wildflowers using botanical protocols.

TAKE-HOME OUTCOMES

1. Improved ability to identify unknown plants
2. Enhanced ability to use botanical literature essential for correct plant identification
3. Enriched familiarity with dichotomous keys
4. Heightened awareness of plant diversity
5. Knowledge to recognize 20 plant families with only superficial examination

COURSE LEVEL: I

Short-distance walks throughout the day on primarily level terrain.

BRIEF INSTRUCTOR BIOGRAPHY (additional information available at www.rmna.org): Kevin has spent the past 33 years exploring Colorado in order to experience its wildlife firsthand. Realizing that no species lives alone, he studies all plant and animal groups with a special enthusiasm devoted to the myriad connections among all life. He writes natural history columns for newspapers and magazines, edits technical articles for scientific publications, leads wildlife observation tours, and teaches various bird and wildflower classes.

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 Field seminars 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 seminar 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 COURSE SCHEDULE:

- 8:30-8:45 AM Welcome: introduction to RMNA and meeting the participants
- 8:45-9:00 AM Introduction to and explanation of “Identifying Wildflowers” seminar
- 9:00-9:15 AM Restroom break and convene outside Seminar Center
- 9:15-11:30 AM Wildflowering the Seminar Center grounds. Note: all lecture and subsequent instruction will be given while working with live wildflowers in the field.
- Breaking through the language barrier
 - Terms: distinguishing those you must know from those you can look up
 - Names: distinguishing taxonomy, systematics, cladistics, classification, and nomenclature and why they are relevant
 - Relatedness: extreme relevance
 - Vital resources
 - Field guides: how to use them effectively
 - Floras: what are they and how to use them in conjunction with field guides
 - Botanical keys: moving from frightening to gratifying
 - Internet sites: which ones and how to use them
- 11:30-Noon Lunch; Group Discussion
- 12:15 PM Summarize morning’s instruction; depart for Rocky Mountain National Park
- 12:30-3:30 PM The identification process
- A flower walk: independent plant identification with supportive instructional assistance
 - A flower walk: with botanical resources and protocols
 - Using multiple resources
 - Using all the available information
 - Year-round plant identification
 - Identification without flowers
 - Collecting specimens for future identification: relevant ethics, vital equipment, and proper notes
- 3:30-3:45 PM Return to Seminar Center.
- 3:45-4:30 PM Test; discussion of for-credit projects; summarize and conclude seminar; fill out evaluations.

WHAT TO BRING:

- Sack lunch, snacks, energy bars, **WATER**
 - Hand lens (inexpensive and may be purchased at the Field Seminar Center)
 - Binocular (optional)
 - Brimmed hat
 - Daypack
 - Notepad
 - Pen, pencil
 - Camera (optional)
 - Footwear appropriate for rocky trails and maybe a little mud
 - Clipboard or sturdy three-ring notebook for organizing and using worksheets in the field
 - Your favorite field guides—trees, wildflowers, birds, mammals
- (You need not purchase field guides for this course. If you would like to purchase field guides before this course, contact Rocky Mountain Field Seminars for instructor recommendations.)*

Instructor’s Note: Wildflower identification requires a lot of time on the ground, so expect to get a little dirty. Long pants are recommended as a defense against biting insects and scratchy plants.

REMEMBER TO BRING THE 10 ESSENTIALS:

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

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

Note: Rocky Mountain Field Seminars 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.

RECOMMENDED READING:

Beidleman, Linda H., Richard G. Beidleman, and Beatrice E. Willard. 2000. *Plants of Rocky Mountain National Park*. Rocky Mountain Nature Association with Falcon Publishing, Inc.

Though specific to Rocky, the book is applicable to various mountain areas east of the Continental Divide. This will be our work-horse.

Harris, James G. and Melinda Woolf Harris. 2001. *Plant Identification Terminology: An Illustrated Glossary*, 2nd ed. Spring Lake Publishing; Spring Lake, Utah.

Some field guides and all the botanical books with keys will have glossaries, but this 206-page paperback is superior in so many ways you will wonder how you ever survived without it. Once you have a copy, it may become your single most-used reference book. Think of it as a frustration buster!

Pesman, M. Walter. 1992. *Meet the Natives*, 10th ed. Denver Botanic Gardens.

Expect to wear out this book in a year or two.

Weber, William E. and Ronald C. Wittmann. 2001. *Colorado Flora: Eastern Slope*, 3rd ed. University Press of Colorado.

This is a complicated book and will look hopelessly formidable for those with minimal botanical background. However, I will show you how to wring a lot of good out of it. Because this and the companion, *Colorado Flora: Western Slope*, are the only books to cover all the vascular plants in Colorado, you will not be able to progress beyond a certain point until you learn how to use them.

TEACHER RECERTIFICATION CREDIT

All courses are eligible for teacher recertification credit through the Centennial Board of Cooperative Education Services (BOCES). The new fee is \$25.00 per seminar (.5 units) or \$25.00 per series of threaded seminars (1.0 - 3.0 units). A list of threaded seminars can be found in the Field Seminar catalog or online at www.rmna.org. Participants must enroll in all seminars of a threaded series in order to qualify for the \$25.00 multi-unit fee. Please be prepared to pay for this credit with a check, made payable to BOCES, on the first day of a seminar or on the final day of a threaded series of seminars. **This seminar is one of six in Thread B (Core Curriculum).**

ADDITIONAL INFORMATION FOR STUDENTS PURSUING CSU CREDIT

THIS COURSE IS ELIGIBLE FOR CSU CREDIT PROVIDED YOU REGISTER FOR AT LEAST TWO OF THE COURSES IN THE NATURAL HISTORY CORE CURRICULUM.

COURSE OBJECTIVES: See Above.

CONTACT HOURS: 8

EVALUATION TECHNIQUES: Students will be evaluated based on knowledge of the identification techniques demonstrated in the course and will be expected to participate in a test and turn in a final project.

GRADING METHOD: Pass/Fail