

ROCKY MOUNTAIN FIELD SEMINARS

LEARN ♦ EXPLORE ♦ ADVENTURE

SEASON OF CHANGE

OCTOBER 11, 2008

COURSE LEVEL: I COURSE #: 08-059

FEE: \$85

INSTRUCTOR: KEVIN J. COOK



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

TIME: 9:00 AM – 4:00 PM

COURSE DESCRIPTION: We will look among the last golden leaves and wildflowers; we will listen among the elk bugling and pikas squeaking; and we will watch the insects and birds. Somewhere in all this looking, listening, and watching we will discover in the story of living the answers for the perennial question: How does wildlife survive the changing of seasons?

SEMINAR OBJECTIVES

1. Learn the naturalist's language of the seasons.
2. Catalog the sources of stress that challenge survival both for plants and for animals.
3. Identify the means for relieving or countering those stress factors.
4. Witness, in the field, the stress-counterstress interplay as it naturally occurs.
5. Explore Ann Zwinger's observation: "The severity of the environment molds them all to the shape of survival."

TAKE-HOME OUTCOMES

1. Deeper understanding of cause-and-effect in natural phenomena
2. Enhanced ability to interpret wildlife behaviors as clues to survival adaptations
3. Richer command of language that describes seasonal behavior of wildlife

COURSE LEVEL: I

Moderate hikes of less than five miles per day with elevation gain of less than 1,000 feet and/or indoor classroom sessions in accessible buildings.

BRIEF INSTRUCTOR BIOGRAPHY (additional information available at www.rmna.org): Kevin has spent the past 33 years exploring Colorado 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.

INSTRUCTOR'S WEBSITE: www.wildlifewindow.com

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 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 COURSE SCHEDULE:

9:00-9:15 AM	Welcome: Introduction to RMNA and meeting the participants
9:15-9:30 AM	Introduction to and explanation of “Seasons of Change” seminar
9:30-9:45 AM	Restroom break; depart for Rocky Mountain National Park
10:00- Noon	Walk afield to find specific target species that illustrate stress factors that challenge survival from season to season with salient discussion topics to include: Language of the seasons autumnal, brumal, estival, vernal brumation, estivation, hibernation, migration, vernalization Stress factors that challenge survival Strategies for countering those stress factors Find, watch, and discuss: common chickaree, mixed flock of small forest birds
12:00-12:40 PM	Lunch and restroom break
12:40-3:30 PM	Continue morning walk-and-talk exploration with discussion to include Plant adaptations for survival Metabolism: what it is and is not Thermogenesis Find, watch, and discuss: pika, elk, aspen, Douglas-Fir
3:30-4:00	Return to Seminar Center. Summarize seminar and 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)
- Notepad
- Footwear appropriate for rocky trails and maybe a little mud
- 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.)
- Brimmed hat
- Pen/pencil
- Daypack
- Camera (optional)

Instructor’s Note: Because we will spend the entire day afield and because temperature may fluctuate 30-50 degrees from early morning to midday, participants must be prepared with layered clothing including gloves, some kind of windbreaker, and rainwear (a light rain coat can double as a windbreaker). Shoes or boots suitable for rough walking on uneven surfaces are essential.

REMEMBER TO BRING THE 10 ESSENTIALS:

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

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

Emerick, John C. 1995. *Rocky Mountain National Park Natural History Handbook*.

Teale, Edwin Way. *North with the Spring; Journey into Summer; Autumn across America; Wandering through Winter*.

This set of four books written 1947-1965 documents a naturalist’s view of the American landscape. It simultaneously preserves the human-nature interface of the mid 20th Century and presents fascinating tidbits of how life endures. The volume on winter was the first nature book to receive a Pulitzer Prize. Suggested here only as mood reading.

Zwinger, Ann. 1991. *Aspen: Blazon of the High Country*.

TEACHER RECERTIFICATION CREDIT

Most seminars 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 COURSE IS NOT ELIGIBLE FOR CSU CREDIT.