

Course Description

Rocky Mountain Instructor Course

Features Of This Course:

- Backcountry hiking and climbing expedition (front-country climbing for May SIC's) that emphasizes teaching of the NOLS curriculum: mountain backpacking, technical climbing and wilderness skills
- Hiking route: ~100 miles
- Average pack weight: 60 pounds
- Minimum age: 21
- Average age: 27
- Opportunities for technical peak ascents, rock climbing, teaching, leading, fishing and natural history
- On and off-trail hiking
- Travel mostly above tree-line on later courses
- Group size: 12 students & 3 instructors

The Expedition

The Rocky Mountain Instructor course is conducted in the Wind River Range of Wyoming, a rugged, glacier-carved range renowned for its sheer granite walls and famous for its fishing and climbing. Its towering peaks, glistening alpine lakes, and perennial snow make a perfect classroom for learning wilderness travel techniques, outdoor living skills, and mountaineering. Early season courses may use the Absaroka Mountains, a volcanic range famous for its vast forests and abundant wildlife, as well as its proximity to Yellowstone National Park. On this course, you'll develop and refine the teaching and leadership skills necessary to prepare you for professional positions at NOLS and other wilderness programs.

The Mountain Instructor course is conducted three times each summer in Wyoming. Due to unpredictable mountain weather and lingering winter snowpack in the spring, May courses often camp and travel on snow, using snowshoes to move through the mountains. The first section is a three-week backpacking expedition. This is followed by a climbing base camp, at either Split Rock or Larkin Dome on the high plains of central Wyoming or Sinks Canyon near Lander in the foothills of the Wind River Mountains. The climbing section is a stationary camp that will cover the NOLS rock climbing teaching progression, some rock rescue techniques, and top rope site management. You will also be able to develop further climbing skills on top ropes and multi-pitch climbs. The course beginning in July will be entirely in the Wind River Mountains. This course will be a self-contained backpacking expedition of 30 or more days. Horse packers will re-ration food to the course. The curriculum, expectations, and outcomes for the Instructor course are similar regardless of start date. It should be noted that the climbing curriculum for the July course, in particular, is determined by weather, route, and individual/group abilities. (It should be noted that being a rock climber is not necessary for having a successful NOLS career.)

The instructor course will start in Lander with two days of in-town classes and activities focusing on issuing gear and rations, risk management, taking a WFR level first aid class, NOLS history, leadership, and managing challenging students. During the two days in town, you'll also have time to research and prepare classes. Then you'll head off to the mountain to begin your expedition. Between the backpacking and climbing sections, you'll return to Lander for a very brief period to reorganize gear and rations.

As noted above, you will be responsible for teaching basic and advanced classes in the field. Wilderness living skills, natural history, environmental ethics, expedition behavior, and communication skills are all-important parts of the curriculum. You'll be challenged to experiment with different teaching styles while polishing your skills, judgment, leadership, and supervisory abilities. Peer and staff feedback of class content, teaching techniques, and effectiveness is an essential part of the learning process.

Risk assessment in wilderness situations is a critical element of outdoor leadership. Your instructors will teach most of the risk management-related classes including river crossings, emergency procedures and rock and snow climbing. Hazard evaluation, accident prevention, group management, and evacuation procedures are thoroughly discussed and practiced on the course. Students will be evaluated on their first aid skills and knowledge. Practical scenarios will be used during the course.



Climbing is an important component of the NOLS curriculum and is taught and evaluated on the mountain instructor course. After completing a careful progression of instruction and climbing, students are expected to set up and supervise top rope and rappel sites in diverse mountain settings. Emphasis is also placed on developing lead climbing skills (as appropriate with student ability), focusing on concerns when climbing with students. However, climbing activities will only make up a relatively small percentage of the course time. It should be noted that mountain weather may prevent climbing activities from taking place at all.

During the Instructor Course you will live in small groups of three or four to minimize your impact on the land and to hone your camping skills. You'll also travel in small groups.

Student Independence

On all NOLS courses students will be independent (unaccompanied by instructors) at various times. This will include time in and around camp such as while cooking or performing camp chores. Instructors may allow students to travel away from camp. Students often have independent unsupervised time, usually in town, before and after their course starts or between sections. Students are expected to maintain the same level of expedition behavior and adherence to NOLS' drug/alcohol/tobacco policy while transitioning between sections and while staying at the Noble Hotel or Three Peaks Ranch.

Independent Student Group Travel

An emphasis of this course is the development of skills that permits you to be self-sufficient in remote backcountry areas. Our teaching progression for accomplishing this is carefully planned and executed. Initially travel groups, usually of four to six students, will include an instructor who will teach travel skills and leadership. Gradually, as you gain proficiency, the instructor will allow you to take on more responsibility and make more of the decisions. When you have demonstrated the necessary competency to the instructors, you may travel in student-led groups without instructors for a day at a time as you hike from camp to camp. We call this daily independent student travel and it is an effective educational tool. It allows you to practice travel skills and leadership and gives you responsibility for the outcome while still having indirect supervision by instructors and the benefit of the NOLS support systems.

This course may culminate in a Student Expedition. After successful practice with daily independent student travel and if your instructors think your group is ready, the instructors will help you divide into student expedition groups (usually three to six students each.) With instructor oversight, each group will then select a leader and carefully plan and execute a multi-day independent student led expedition. This part of the course builds on the skills you've learned and practiced and allows you to travel without instructors. Students are aware of where the instructors and the other student groups are planning to travel and camp. The instructors carry emergency communication capability and may be up to 24 hours away from the students. Our students often say the student expedition was the highlight of their course.

Fasting is an optional part of the curriculum for the student expedition (or optional solo, if applicable) on this course. If the instructors think fasting is appropriate for the conditions and student abilities the students may chose to fast during the student expedition (or optional solo.) Rations will be carried to allow students to eat in the event of an emergency.

Evaluations and Future Employment

Instructors evaluate students in the following areas: Risk management and judgment, teaching, communication, expedition behavior, leadership, conservation practices, climbing, and outdoor skills. At the conclusion of the course, each student receives a written evaluation documenting his or her abilities. Those who complete the course and do well are eligible to work a land-based course as an instructor at NOLS. Currently, about 80 percent of those passing eventually work for NOLS, but job opportunities cannot be guaranteed. Those who wish to be available for work the summer they take the course are advised to apply for an early date.

We look for initiative, creativity, and potential for growth as a wilderness educator. We operate on the premise that there is always more to learn and areas in which to grow no matter what the skill level, knowledge, or experience. The Instructor course is a demanding learning experience, and there is little free time. Those who do well bring a positive attitude toward learning and growing, respect and support for others, and care and enjoyment of the natural environment.

Weather and Other Challenges

Mountain weather is capricious. On any given day, temperatures may range from below freezing to sweltering. Afternoon thunderstorms are common and can be quite violent. Courses may experience snow and rain, or long stretches of sun and blue skies.

Travel in the mountains can be tough. Camping may involve dealing with swarms of mosquitoes or hanging your food to keep it away from bears or other animals. You'll be miles from the amenities of civilization. Telephones, ambulances, and hospitals may be several days away.

Often, you'll be off-trail bushwhacking through thick forests or scrambling around refrigerator-sized boulders. Early season courses may spend most of their time camping and traveling on snow. The depth of the late spring/ early summer snow pack will affect how much mileage can be covered. Rivers are icy from snowmelt and can be difficult or impossible to cross. You will traverse steep slopes of snow, loose rock, or grass, and grunt up high-mountain passes. But the hard work is worth it. There's nothing quite like taking your pack off at the top of a pass, feeling the wind dry the sweat off your back, and looking down at miles of new country opening up before you. It's exhilarating!

Bear avoidance techniques while camping and traveling will be integrated into this course. Precautions against bear encounters may decrease the opportunities for solitude and privacy on this course. This course will protect all food and attractants from bears. Other bear avoidance tactics include meticulously maintaining cleanliness at the cooking sites and making loud calls to warn bears of your presence.

Identifying and managing mountain hazards — falling rock, weather, animals, moving water, and steep terrain will be a constant theme in our instruction. Managing risks and assuming responsibility for yourself and your colleagues will help make your expedition in these wild mountains healthy and fun.

Personal Electronics

A key element to a NOLS education is time spent in wilderness. The benefits of this include being closer to nature, time away from society and civilization, and being in an environment where natural forces predominate and students have the opportunity to develop good judgment and practice self-reliance. For this reason, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc.), cell phones, or satellite phones on NOLS courses. Instructors will be carrying sufficient communication equipment (usually a satellite phone and a ground-to-air or marine band radio) to handle any emergencies that may arise.

Mountain Instructor Course Objectives

As an overall course objective, we expect Instructor Course graduates to be capable of responsibly leading groups of novices through educational experiences in the wilderness. Each course will be unique due to variables such as route, group dynamics, fitness levels, and environmental conditions. Working with these variables, it is our intent to accomplish the following outcomes.

Risk Management and Judgment

NOLS prepares instructors to teach and practice responsible habits that promote the health and well being of self and others. We expect each student to accomplish the following:

- demonstrate knowledge of the hazards in mountain environments and of your limitations
- describe and consistently perform specific techniques to reduce or avoid hazards
- describe emergency plans for groups in the outdoors in a variety of settings and circumstances
- show the ability to provide emergency and extended medical care for a remote wilderness setting using the available resources
- use experience and judgment to implement sound decisions and follow them through to completion
- understand and work within NOLS risk management policies and procedures

Leadership and Expedition Behavior

Students are exposed to the theory and practice of outdoor leadership, teamwork, and expedition behavior. At NOLS, expedition behavior involves commitment to the group, a positive attitude, and cooperation to achieve goals. We expect each student to accomplish the following:

- work effectively as members of a team
- appropriately communicate ideas and concerns on individual and group levels
- accurately identify strengths, skills and areas for growth in developing outdoor leadership styles in self and others
- display an appropriate initiative in a teaching/leadership role with peers
- demonstrate effective problem-solving and planning skills
- provide effective oral and written feedback
- display an awareness of group strengths and limitations

Outdoor Skills

Students are expected to live, travel, and guide others in the outdoors within a framework of risk management and care of the environment. We expect each student to accomplish the following

- live comfortably in a mountain environment: camping, cooking, and dressing for varied conditions
- travel competently in mountain terrain using appropriate off-trail navigation, hazard evaluation, and river-crossing techniques
- demonstrate a thorough understanding of elementary climbing systems including knots, belaying, and anchors
- set up and supervise top-rope and rappel sites in diverse mountain settings
- experience multi-pitch climbing and non-technical peak ascents (as conditions/experience/abilities allow)
- possess rudimentary skills and knowledge of snow travel techniques
- accurately assess skills, strengths and endurance in self and others and conservatively apply those limits to given situations
- display the skills necessary to teach spin and fly fishing techniques to novices

Environmental Studies

Students develop an awareness of how to apply minimum impact ideas to their lives beyond the course. We expect each student to accomplish the following:

- consistently practice and teach sound minimum impact living and travel skills
- use basic observation, interpretive and teaching skills to convey an understanding, appreciation and respect for the natural world
- facilitate the transference of wilderness ethics and practices to daily life

Wilderness Education Skills

The Instructor course prepares students to be wilderness educators as well as wilderness leaders. We expect each student to accomplish the following:

- demonstrate the ability to effectively teach basic outdoor living skills
- demonstrate knowledge of environmental and risk management concerns and their influence on learning in the wilderness
- be an exemplary model of a safe and effective wilderness educator
- demonstrate motivation and enthusiasm in the pursuit of learning
- be effective in the presentation and utilization of learning opportunities, adapting to the variables of the course

Student Classes

Students are expected to teach on the Instructor course. Topics will be determined before leaving town. Try to select subjects you are already familiar with. Instructors will advise you on content, and the NOLS staff library will be available before and for a short time at the start of your course. You should try to prepare as thoroughly as possible before leaving town. Doing so will help your classes be clear, concise, and relevant, as well as effective and fun. NOLS is known for creative and effective use of impromptu teaching aids whether they are anatomical diagrams on bodies, or "blackboards" on insolate pads or sandbars.

Critiques of classes can help everyone learn about education when done positively and constructively. After some warm-up "mini-classes," feedback may become more formal and possibly begin with a self-critique.

On any NOLS course, the classes support the activities, but the activities are the heart of the course. Instructors constantly adjust plans with changing conditions, especially as "teachable moments" arise. This makes the scheduling of your classes tentative. It also means that NOLS instructors routinely plan for many different alternatives, only using the most fitting ones. It is possible that one or two prepared classes will not even be presented. We also hope that you will point out teachable moments as you experience them. Guided discovery is what experiential education is all about. Helping you to develop your skills to both model and guide others in this discovery is the foundation of the NOLS instructor course.

Please be prepared to teach any of these basic topics on short notice:

• Keeping Warm and Dry	• Basic Cooking
• Stove Use and Care	• <i>Leave No Trace</i> Techniques
• Pack Packing and Carrying	• Fire Building
• First Day Hiking Tips	• Basic Map Reading
• Campsite Selection	• Time Control Planning (Hiking Itineraries)
• Tent and Fly Pitching	• Sanitation and Hygiene
• Foot Care and Blister Treatment	• Food Identification

Expect to teach at least one of these more advanced classes. You can prepare them at the start of your course. It will also help throughout your NOLS experience if you arrive with a basic understanding of each of these topics as they relate to wilderness education:

• Expedition Planning	• Astronomy/Constellations
• Advanced Cooking and Baking	• Ecological Concepts/Topics
• Fly and Spin Fishing	• Flower Keys and Taxonomy
• Compass Use	• Gender-Specific Medical Concerns
• Advanced Map Reading	• Fauna/Animal Signs/Tracks
• Wilderness Ethics and Land Use	• Weather/Lightning
• Expedition Behavior	• Glaciology
• Field Expedient Splints	• Tectonics/Rocks & Minerals
• Field Expedient Litters	• Ornithology
• Environmental Injuries : Heat, Cold	• Leadership & Group Dynamics Topics
• Extended Patient Care	• Rocky Mountain History
• High Altitude Physiology	• Stove Repair
• Athletic Injuries	• Climbing Topics (Rock & Snow)
• Nutrition	• River Crossings

Expect to also teach a Mini-Class on a local animal and a local plant (1-5 Minutes).

NOLS Instructor Course (IC) Reading List

NOLS instructor courses are stepping-stones for outdoor professionals who already have extensive experience in the terrain and skills of their course. We expect each participant to have a broad experience base and be in shape physically and mentally. Staying well read is a given part of continuing education for any professional. You should already be familiar with many of the titles on this list. We expect you to have a working knowledge of at least one book from each relevant category before beginning your course. Your familiarity with these books can only enhance your experience on your NOLS Instructor Course. Your preparation before the course often determines whether you are learning basic material on your course, or better yet, learning how to teach it. And most of all, we hope you enjoy these books. **Have suggestions?** Email recommended titles to curriculum@nols.edu

Key

* Books we routinely use as references in the field

** NOLS instructor notebooks will be supplied to IC students on specific IC course types.

BSIC= Baja Sailing Instructor Course

KIC= Sea Kayak Instructor Course

RIC-U/Y = River Instructor Course: raft/kayak/canoe in Utah or canoeing in the Yukon

SIC = Summer Instructor Course: the original "IC" has been run in Wyoming's mountains since 1971.

Some of these have a separate climbing camp: some are 35-day expeditions.

ICS = Southwest Instructor Course: a mountain instructor course run in Arizona

AKIC= Alaska Instructor Course: a mountain instructor course with glacier travel but no rock camp

PNIC= Pacific Northwest Instructor Course: a mountain instructor course with glacier travel but no rock camp

Wilderness Education (all ICs)

Drury, Jack, et al (2005). *The Backcountry Classroom (2nd ed.)*.

**Gookin, John (2006). *The NOLS Wilderness Educator Notebook, (10th ed.)*.

Priest, Simon (2005). *Effective Leadership In Adventure Programming (2nd ed.)*.

Risk Management (all ICs)

Ajango, Deb (2005). *Lessons Learned II*.

American Caving Accidents (annual). National Speleological Society.

Bronze, Matt, and George Gronseth (1997). *Sea Kayaker's Deep Trouble*.

Gonzales, Laurence (2004). *Deep Survival: Who Lives, Who Dies, And Why*.

**Leemon, Drew & Tod Schimelpfenig (2005). *Risk Management For Outdoor Leaders*.

Leemon, Drew et al (2002). *Adventure Program Risk Management Report, V3, 1998-2000*. AEE.

Raffan, James (2002). *Deep Waters: Is The Adventure Worth The Risk?*

Ross, John (1999). *The Polar Bear Strategy: Reflections On Risk In Modern Life*.

Walbridge, Charlie (1996). *The ACA's River Safety Anthology*.

Wilde, Gerald (2001). *Target Risk 2: A New Psychology Of Risk And Health*.

Wilderness Risk Management Conference Proceedings (annual).

Williamson, Jed (annual). *Accidents In North American Mountaineering*.

Living in the Wilderness (all ICs)

*Harvey, Mark (1999) *The NOLS Wilderness Guide*.

Howley Ryan, Mary (2008) *NOLS Backcountry Nutrition*.

*Pearson, Claudia (2004). *The NOLS Cookery*.

Minimum Impact Camping (all ICs)

*Hampton, Bruce, and David Cole (2003). *Soft Paths (3rd ed.)*.

Harmon, Will (1994). *Wild Country Companion*.

Hart, John (1998). *Walking Softly in the Wilderness*.

*Regional Leave No Trace "skills & ethics" booklets www.lnt.org

Climbing & Mountaineering (SIC, ICS, AKIC)

DaSilva, Rachel (1998). *Leading Out: Mountaineering stories of adventurous women*.



Chouinard, Yvon (1978). *Climbing Ice*.
Cox, Steven (2003). *Mountaineering: The Freedom of the Hills* (7th ed.).
Long, John (2006). *Climbing Anchors*, (2nd ed.).
Long, John (2003). *How To Rock Climb* (4th ed.).
**Anderson, Dave (2008). *NOLS Climbing Instructor Notebook* (4th ed.).
*Powers, Phil (2008). *NOLS Wilderness Mountaineering* (3rd ed.)
*Tyson, Andy (2005). *Glacier Mountaineering*.
Vause, Mikel (2002). *Rock and Roses* (2nd ed.).

Whitewater Paddling (RIC)

American Canoe Association (2005). *ACA Instructor's Manual*.
*Gullion, Laurie (1987). *Canoeing & Kayaking- Instruction Manual*. American Canoe Association.
**Ostis, Nate (2006). *NOLS River Educator Notebook*.
ACA books: we generally use the ACA curriculum for whitewater instruction (with their blessings).

River Rescue (RIC)

*Ray, Slim & Les Bechdel (1997). *River Rescue* (3rd ed.).
Walbridge, Charlie (1995). *Whitewater Rescue Manual*.

Sea Kayaking (KIC)

Burch, David (2005). *Fundamentals of Kayak Navigation* (4th ed.).
*Dowd, John (2004). *Sea Kayaking- A Manual For Long Distance Touring* (5th ed.).
*Hutchinson, Derek (2004). *The Complete Book Of Sea Kayaking* (5th ed.).
Ince, John, and Hedi Kottner (1992). *Sea Kayaking Canada's West Coast*.
Schumann, Roger & Jan Shriner (2001). *Sea Kayak Rescue*.
Seidman, David (2000). *The Essential Sea Kayaker* (2nd ed.).
**Smithhammer, Bruce (2005). *The NOLS Sea Kayak Instructor Notebook* (2nd ed.).
Washburne, Randall (1998). *The Coastal Kayaker's Manual* (3rd ed.).

Sailing (BSIC)

**NOLS Sailing Instructor Notebook
Fries, Derrick (1997). *Start Sailing Right*. US Sailing Assn.
Rousmaniere, John (1999). *The Annapolis Book of Seamanship* (3rd ed.).
Seidman, David (1995). *The Complete Sailor: learning the art of sailing*.

Oceanography & Marine Biology (KIC & BSIC)

Carson, Rachel (1998). *The Edge Of The Sea*.
*Fox, William (1992). *At The Sea's Edge: Coastal Oceanography for the Amateur Naturalist*.
Greenlaw, Linda (1999). *The Hungry Ocean*.
Pojar, Jim, and Andy MacKinnon (1994). *Plants of Coastal British Columbia*.
Steinbeck, John (2001). *The Log from the Sea of Cortez*.

Bluewater Expeditions (KIC & BSIC)

Brower, Kenneth (1983). *The Starship and the Canoe*.
Callahan, Steve (2002). *Adrift*.
Fredston, Jill (2001). *Rowing To Latitude*.
Junger, Sebastian (1997). *The Perfect Storm*.
Lansing, Alfred (1999). *Endurance: Shackleton's Incredible Voyage* (2nd ed.).

Wilderness Medicine (All ICs)

Auerbach, Paul (2007). *Wilderness Medicine: Mgmt of Wilderness and Env. Medicine* (5th ed.). (reference book)
Forgey, W (1999). *Wilderness Medicine* (5th ed.)
Giesbrecht, Gordon & James Wilkerson (2006). *Hypothermia, Frostbite and Other Cold Injuries*. (2nd ed.).
*Houston, Charles (2005). *Going Higher: Oxygen, man and mountains* (5th ed.)
Johe, David & Warren Bowman (2002). *Outdoor Emergency Care* (4th ed.).

*Schimelpfenig, Tod (2006). *NOLS Wilderness Medicine*.
Setnicka, Tim (1981). *Wilderness Search and Rescue*.
Tilton, Buck (2004). *Wilderness First Responder (2nd ed.)*.
Wilkerson, James A. (2001). *Medicine for Mountaineering (5th ed.)*.

Wildland Ethics (All ICs)

Brower, David (1995). *Let The Mountains Talk, Let The Rivers Run*.
Callicott, J. Baird, and Michael P. Nelson, eds. (1998). *The Great New Wilderness Debate*.
Cordell, HK, et al (2005). *The Multiple Values Of Wilderness*.
**Gookin, John & Darran Wells (2002). *NOLS Environmental Education Notebook*.
*Goodrich, Glenn (2006). *NOLS Wilderness Ethics: Valuing and Managing Wild Places*.
Hendee, John, et al. (1990). *Wilderness Management (2nd ed.)*.
Nash, Roderick (2001). *Wilderness and The American Mind (4th ed.)*.
Oelschlaeger, Max (1993). *The Idea of Wilderness*.
Waterman, Laura & Guy (1993). *Wilderness Ethics: Preserving the Spirit of Wildness*.
The Wilderness Act of 1964 www.wilderness.net/index.cfm?fuse=wnwps&sec=legisact also in Goodrich (2006).
Zaslowky, Dyan (1994). *These American Lands*.

Environmental Studies & Sustainability

Brower, Michael (1998). *The Consumer's Guide To Effective Environmental Choices*.
Edwards, Andres (2005). *The Sustainability Revolution*.
**Gookin, John & Darran Wells (2002). *NOLS Environmental Education Notebook*.
Leopold, Aldo (1966). *Sand County Almanac*.
Light, Andrew & Holmes Ralston, III (2003). *Environmental Ethics*.
Lorbiecki, Marybeth (1996). *Aldo Leopold: A Fierce Green Fire*.
McKenzie-Mohr, Doug (1999). *Fostering sustainable behavior: an introduction to community-based social marketing*.
Miller, Char (2001). *Gifford Pinchot and the Making of Modern Environmentalism*.
Orr, David (2004). *Earth In Mind: On education, environment and the human prospect*.
Reisner, Marc (1993). *Cadillac Desert: The American West and Its Disappearing Water (2nd ed.)*.

Leadership (All ICs)

Bennis, Warren (1985). *Leaders*.
**Gookin, John & Shari Leach (2008). *NOLS Leadership Educator Notebook*.
Graham, John (1997). *Outdoor Leadership: Techniques, Common Sense And Self Confidence*.
Heifetz, Ronald (2002). *Leadership On The Line: Staying Alive Through The Dangers Of Leading*. Harvard Business School.
Huntford, Roland (1986). *The Last Place on Earth*.
Heider, John (1986). *The Tao of Leadership*.
Roberts, Wess and Bill Ross (1995). *Make it So: leadership lessons from Star Trek*.
Roberts, Wess (1990). *Leadership Secrets Of Attila The Hun*.
Siebert, Al (1996). *The Survivor Personality*.
Siebert, Al (2005). *The Resiliency Advantage.: Master change, thrive under pressure, and bounce back from setbacks*.
Snyder, Howard (1973). *Hall of the Mountain King*. Out of Print. (see Chessler Books or Abebooks).
Taylor, Rob (1981). *The Breach*.

Rocky Mountain History (SIC)

Blevins, Winfred (1973). *Give Your Heart to the Hawks*.
DeVoto, Bernard (1947). *Across the Wide Missouri*.
Guthrie, A.B. (1947). *The Big Sky*.

Earth Sciences (All ICs)

Day, John (1998). *A Field Guide To The Atmosphere*.
*Link, Paul (1977). *Geology of the Wind River Range*. NOLS.
McPhee, John (1981). *Basin and Range*.
McPhee, John (1983). *In Suspect Terrain*.
*McPhee, John (1986). *Rising from the Plains*.



Renner, Jeff (2005). *Mountain Weather*.
*Rey, H.A. (1975). *The Stars*.
Woodmency, Jim (1998). *Reading Weather: where will you be when the storm hits?*

Fly Fishing (SIC only)

*Anderson, Sheridan (1978). *Curtis Creek Manifesto*.
Bergman, Ray (1983). *Trout*.
Brooks, Joe (1972). *Trout Fishing*.
Gierach, John (1984). *Fly Fishing the High Country*.

Mountain Expeditions (SIC, ICS, PNIC, AKIC)

Allison, Stacy (1999). *Beyond the limits*.
Blum, Arlene (1998). *Annapurna: A Woman's Place*.
Craig, Robert (1980). *Storm and Sorrow in the High Pamirs*. (Out of print: see Chessler Books or Abebooks).
Davidson, Art (1999). *Minus 148 Degrees*.
Herzog, Maurice (1952). *Annapurna*. (various printings)
Hornbein, Tom (1998). *Everest: The West Ridge*.
Jones, Chris (1997). *Climbing in North America*.
Roberts, David (1986). *Moments of Doubt*.
Roper, Steve (1979). *Fifty Classic Climbs of North America*.
Waterman, Jon (1991). *Surviving Denali (2nd ed.)*.
Wilson, Ken (1981). *The Games Climbers Play*.

Flora and Fauna (All ICs)

Colinvaux, Paul (1978). *Why Big Fierce Animals are Rare*. (out of print: see Abebooks)
Ehrlich, Paul (1988). *The Birders Handbook*.
*Halfpenny, James (2001). *Scats and Tracks of the Rocky Mountains (2nd ed.)*.
*Halfpenny, James (2000). *Scats and Tracks of the Desert Southwest*.
*Herrero, Stephen (2002). *Bear Attacks: Their Causes and Avoidance (2nd ed.)*.
Lopez, Barry (1979). *Of Wolves and Men*.
*Mathews, Daniel (2003). *Rocky Mountain Natural History*.
*Nelson, Ruth (1992). *Handbook of Rocky Mountain Plants*.
Smith, David (1997). *Backcountry Bear Basics*.
Zwinger, Ann (1972). *Land Above the Trees*.
Zwinger, Ann (2002). *Beyond the Aspen Grove*.

Wilderness Literature (All ICs)

Abbey, Ed (1968). *Desert Solitaire*.
Anderson, Lorraine (1991). *Sisters of the Earth*.
Burgess, Vicky (1973). *Everett Ruess: A Vagabond for Beauty*.
Daumal, Rene (2004). *Mount Analogue*.
Dillard, Annie (1998). *A Pilgrim at Tinker Creek*.
Dillard, Annie (1988). *Teaching A Stone To Talk*.
Gookin, John (2004). *NOLS Wilderness Wisdom*.
Lopez, Barry (1986). *Arctic Dreams*.
Nelson, Richard K. (1989). *The Island Within*.
Sessions, George (1995). *Deep Ecology for the Twenty-First Century*.
Turner, Jack (1996). *The Abstract Wild*.

Book Sources

NOLS books are available at: www.nols.edu/store 1-888-332-3636
Most titles are available at www.amazon.com
Out of print books are often findable at www.abebooks.com
Antiquarian mountaineering titles are often available at www.chesslerbooks.com

