

Course Description

Southwest Mountain Instructor Course

Features Of This Course:

- Hiking Route: ~ 70-100 miles
- Elevations of 4,500' – 11,000'
- Field Days: 32
- Minimum Age: 21
- Average Age: 27
- Average Group Size: 12 Students/3 Instructors
- Average Pack Weight: 25-50 lbs.
- 13 day climbing section at Cochise Stronghold, AZ
- 19 day backpacking section in the Gila Wilderness, NM
- Half of backpacking section done in the NOLS lightweight style

The Expedition

The desert Southwest is the site of this expedition. This is an enchanted land rich in history and natural beauty. You'll spend the initial segment of the course in the Gila Wilderness of New Mexico, the first federally designated wilderness area in the country. As you backpack through this wilderness, you'll develop and refine the teaching and leadership skills needed to prepare you for professional positions at NOLS and other wilderness programs. After nearly three weeks of hiking, you'll relocate to a climbing camp at Cochise Stronghold in the Dragoon Mountains of Arizona. At Cochise, you'll continue to expand your knowledge of the outdoors and education while being exposed to rock climbing techniques and systems.

In the field, you will be responsible for teaching some of the basic and advanced classes. Wilderness living skills, travel techniques, natural history, environmental ethics, expedition behavior, and communication/evaluation 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 on class content, teaching techniques and effectiveness will enhance the learning process.

Risk management awareness 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 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.

You'll spend your first two days of the course fully in town at NOLS Southwest. During this time, you'll issue equipment, bag food, and pack up. You'll also have time to research and prepare classes. Additional time will be set aside for class preparation in the NOLS Southwest library. You'll head off to the Gila to begin your expedition on the third morning.

During first half of your backpacking section you will learn and practice traditional NOLS backpacking skills with packs weighing 40-50 pounds, in preparation to work traditional NOLS Wilderness courses. During the second half of your hiking section you will get a new food supply and swap out heavier personal and group gear to achieve a pack weight of 25-30 pounds. This ration period will focus on the NOLS lightweight backpacking skills and you'll learn essential skills like cooking one-pot meals on an alcohol stove and staying warm and dry with a minimum of gear. You will leave this course with the skills and background necessary to plan and execute your own lightweight backpacking adventures.

Technical terrain management and top-rope supervision are the main focus of the mountain instructor course climbing section and are important components of the NOLS curriculum. After being immersed in the full progression of the NOLS climbing curriculum and many days to practice, students are expected to set up and supervise top rope and rappel sites in diverse mountain settings. For students who come into this section with prior lead climbing and multi-pitching experience, some emphasis is placed on developing climbing efficiency and further awareness about concerns you might face when leading with students. These experienced climbers will be evaluated on these skills with a chance to be assessed as NOLS climbing instructors by the end of the section. It should be noted that being a rock climber is not necessary for having a successful NOLS career.

On both sections you will live in small groups of three or four to minimize your impact on the land and to hone your camping skills. During the backpacking section, you'll also travel in small groups during the day.

Students must pass the NOLS Wilderness First Aid test, given at the start of your instructor's course, to work at NOLS. It is your responsibility to be prepared to take this multiple-choice test at the start of your course.

This course may run in other locations due to unforeseen circumstances.

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.

Independent Student Group Travel

An emphasis of this course is the development of skills that permit 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 and evaluate your skills. 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 an Independent 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 for up to four days. Students are aware of where the instructors and the other student groups are planning to travel and camp. Each Student Expedition group will carry an emergency locator beacon that when activated in the event of a serious emergency will initiate a response from local search and rescue agencies. The instructors with a satellite phone may be up to 24 hours away from the students. Our students often say the student expedition was the highlight of their course.

Evaluations and Future Employment

Instructors evaluate students on the following areas: risk management and judgment, teaching, communication, expedition behavior, leadership, conservation practices, terrain management, 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 (wilderness) course as an instructor at NOLS. Currently about 80 percent of those passing eventually work for NOLS, but job opportunities cannot be guaranteed.

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, an attitude of respect and support for others, and an attitude of care and enjoyment of the natural environment.

Weather and Other Challenges

The Southwest can be host to extremes in temperature and weather conditions. **Though warm, mild weather is typical, students should expect anything from monsoon rains and extreme heat, to snow, wind and subfreezing temperatures.** Afternoon thunderstorms are common and can be quite violent. Students should expect to experience a wide range of temperatures from high teens to eighty-five degrees. Courses typically travel and camp on snow in the Gila for at least a portion of this hiking section.

All areas you will be travelling in are rugged desert mountain ranges characterized by deeply incised canyons, steep slopes, rocky terrain and sheer cliffs. Travel in the backcountry can at times be exclusively off-trail, requiring constant attention to



route finding. The rock is loose and easily breakable adding to the challenge of hiking. While in the backcountry, we will be far from roads and telephones. In the event of an accident or illness, it may take several days to get to a medical facility.

The Southwest is home to rattlesnakes and other potentially harmful insects and reptiles. Various species of cactus and other plants with sharp spines make it a challenge to avoid becoming a human pincushion. An important part of the curriculum is learning to identify these hazards in order to reduce the chance of injury.

Water is the life-blood of the desert. Your hiking routes are typically designed to go from one water-source to another. These water sources are either mountain streams, man-made “tanks”, or naturally occurring pools found deep in the clefts of the rocks. Often it is many miles between water sources and it may be necessary to carry a day’s supply of water between camps. The Southwest has been experiencing drought conditions for the past few years. If water shortages dictate a change, the location might be moved to another wilderness area for the backcountry portion of this course.

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. NOLS does not permit students to use personal cell or satellite phones or other communication devices including personal locator beacons (e.g. SPOI), while in the field. Additionally, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc). Instructors will be carrying sufficient communication equipment (usually a satellite phone) to handle any emergencies that may arise.

Drug and Alcohol Policy

The use of any type of illegal drugs, alcohol or tobacco is strictly forbidden during your course – this includes during the time in town between your sections for the duration of your course. The alcohol policy applies to all students. **Students in violation of the drug and alcohol policy will be expelled from their course. No second chances are given.**

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, Judgment and Decision Making

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.
- Pack only the essentials for lightweight backcountry travel.
- Cook nutritious single-pot meals using a camp stove or fire.
- 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.
- 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.

Environmental Ethics

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 Leave No Trace camping 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 NOLS 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 responsible 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 on the Mountain Instructor Course

Students are expected to teach many of the classes on the course. Topics for each student will be decided before leaving town. Try to select topics you are already familiar with. Instructors will advise you on content and the NOLS Southwest Staff Library will be available to find materials for preparation at the start of your course.

You should try to prepare as thoroughly as possible before leaving town. That will free up more of your time in the field and will help your classes be clear, concise and presented in a timely way that is ultimately relevant to the experiences of the course. NOLS is known for creative and effective use of impromptu teaching aids whether they are anatomical diagrams on bodies, or "blackboards" on ensolites or sandbars. You will only get to teach one or two classes, but with thorough preparation they can be very good. 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 very possible that one or two prepared classes will not even be presented. We also hope for you to point out teachable moments as folks experience them. Guided discovery of the world is what experiential education is all about. Helping you to further develop your skills to both model and guide others in this discovery is what the NOLS Instructors Course is all about.

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

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

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 you throughout your NOLS experience to arrive with a basic understanding of each of these topics as they relate to wilderness education:

- Expedition Planning
- Leadership
- Expedition Behavior
- Conflict Resolution
- Compass Use
- Basic Geology
- Regional Geology (Gila or Cochise)
- Nutrition / Hydration
- Stove Repair
- Weather / Lightning
- Fauna / Animal Signs / Tracks
- Astronomy / Constellations
- Advanced Map Reading
- Ornithology
- Desert Plant Adaptations
- Ecological Concepts / Topics
- Animal Adaptations
- Life Zones & Habitats
- Indigenous Peoples
- Federal Land Management
- Local public policy issues
- Wilderness Ethics
- Transference/Soft Sidewalks
- Fire Building & Cooking
- Flower Keys and Taxonomy
- Climbing Topics
- Fire Ecology
- River Crossings

Expect to also teach a mini-class on a local plant or regionally pertinent subject (1-5 minutes). Below are some examples of topics:

- Aldo Leopold
- Plateau Striped Whiptail
- Gila Wilderness Intro.
- Local Spruces
- Local Firs
- Ponderosa Pine
- Cottonwoods
- Yellow-bellied Sapsucker
- Pocket Gopher
- Scorpion
- Tarantula
- Cone-nosed Kissing Bug
- Rattlesnake
- Piñon Jay
- Nuthatch
- Mistletoe
- Mountain Lion
- Leopard Frog
- Aspen
- Turkey
- Belted Kingfisher
- Ant Lions
- Elk
- Black Bear
- Geronimo
- Gila Trout
- American Dipper

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.

Got suggestions? Just 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) If I was to provide a focused list I would only recommend:

**Gookin, John (2006). *The NOLS Wilderness Educator Notebook*, (10th ed.). chapter 11

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

Priest, Simon (2005). *Effective Leadership In Adventure Programming* (2nd ed.). chapter 7

These publications document common accidents and supplement the above comprehensive titles.

American Caving Accidents (annual). National Speleological Society.

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

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

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

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)

**Anderson, Dave (2008). *NOLS Rock Climbing Instructor Notebook* (4th ed.).

Chouinard, Yvon (1978). *Climbing Ice*.

Cox, Steven (2003). *Mountaineering: The Freedom of the Hills* (7th ed.).

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

Long, John (2006). *Climbing Anchors*, (2nd ed.).



Long, John (2003). *How To Rock Climb* (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.
Jackson, Eric (1999). Whitewater paddling strokes and concepts. Stackpole.
Mason, Bill (1999). *The path of the paddle*. Firefly Books.
Ostis, Nate (2010). *NOLS River Rescue*. PA: Stackpole.
**Ostis, Nate (2006). *NOLS River Educator Notebook*.
ACA books: we generally use the ACA curriculum for whitewater instruction (with their blessings).

River Rescue (RIC)

Ostis, Nate (2010) *NOLS River Rescue Booklet* (in press)
*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*.
 *Schimelpfenig Tod, Padgett Justin. *Wilderness Medicine Field Guide*. 2ed Ed 2009
 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).
 Zaslowsky, 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 (2009). *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*.
 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*.

*Gookin, John & Tom Reed (2009). *Bear essentials: hiking and camping in bear country*. Stackpole.

*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 (#888-332-3636)

Most titles are available at www.amazon.com



ics.cd.12 rev. 08/18/2011

©National Outdoor Leadership School

Out of print books are often findable at www.abebooks.com

Antiquarian mountaineering titles are often available at www.chesslerbooks.com (#800-654-8502)

