

# Course Description

## Baja Sailing Instructor Course

### Features of This Course:

- Sailing route: 180 nautical miles
- Travel in 22' open boats
- 30-day instructor training expedition
- Unique marine and desert environment
- Emphasis on technical sailing skills
- Desert and coastal LNT
- Emphasis on risk management and judgment and seamanship
- Rowing Skin
- Diving
- Day hiking in rugged terrain
- Emphasis on group dynamics
- Average group size of 9 students/3 instructors
- Average Age: mid 20s
- Typical male/female ratio is 50/50

### Course Prerequisites

Participants must be at least 21 years old and possess either current Wilderness First Responder, or WEMT certification, and a current CPR card. NOLS seeks people knowledgeable in outdoor living skills, sailing, teaching, communication and natural sciences, with experience in supervising groups in outdoor settings. Admission is selective. A panel of NOLS staff chooses participants based on their outdoor resumes, recommendations from outdoor professionals and prior NOLS evaluations. Approximately 50% of those selected are graduates of previous NOLS courses. The other 50% are non-graduates with excellent outdoor and teaching resumes.

### Course Purpose and Expectations

The primary purpose of this course is to train and evaluate potential NOLS sailing instructors. Each student's skills and abilities will be assessed and evaluated by the course instructors in determining their potential as an instructor. We look for initiative, creativity and potential for growth as a wilderness educator.

A NOLS instructor must be capable of fulfilling a broad range of leadership roles, be a competent and effective teacher, be competent living outdoors for extended periods (up to 30 days) in fair and inclement weather, be an exemplary expedition member, and be able to perceive hazards and manage risk within the context of NOLS risk management strategies.

Equally important, the course will be an opportunity to learn new methods, exchange ideas and experiment with teaching and leading styles. Finding the balance between displaying your abilities and talents and learning new skills will require a commitment to communication. The course instructors will discuss expectations in detail, but it takes ongoing communication from every expedition member to make a highly successful learning community on the NOLS Instructor Course.

The NOLS Mexico Sailing Instructor Course is a demanding learning experience that includes academic study as well as demonstration of skills, 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. Strength, stamina and excellent health are essential for sailing and for full participation in the numerous classes and activities.

This course will prepare students to work in the Mexico Sail Program. Work in other NOLS branches and programs will require additional training, which is available through NOLS sponsored seminars and training trips or through in the field training in aide or "instructor in training" positions. Since NOLS work schedules are planned before the season begins, we cannot make any guarantees of work immediately after the course. The staffing situation, however, does change, sometimes on short notice, and recent instructor-course graduates have gone into the field soon after completing their courses.



## **The Expedition**

Throughout the course, students live outdoors, prepare their own meals and caring for themselves. The expedition format emphasizes hands-on learning and the application of skills ranging from navigation and boat handling to leadership and teaching. Cooperation and teamwork are a must, and all members are expected to participate fully in daily requirements of living and traveling comfortably in the out-of-doors.

Your group will divide into small “tent groups” of 3 to 4, who will cook and camp together. Each tent group shares the responsibilities of cooking and camping chores. On travel days the group will divide into boat crews. Many of the opportunities to refine practical outdoor and interpersonal living and leadership skills will occur when working in cook-group and boat-crew teams. Students will be leading onboard the boats and making decisions as a fleet with instructors observing and coaching as needed.

The initial pace of the course will allow you to get familiar with the environment, to become acquainted with your group and to practice basic skills. As the course progresses, you may travel from 12 to 20 nautical miles per day and when necessary make open-water crossings of 10 nautical miles or more. On some days we'll spend two nights at a camp location to allow time for class preparation and student presentations, skill practice, fishing and exploration. Periods of calm weather and light winds could reduce the distance we will be able to travel on a given day and the number of layover days. Severe weather may also prohibit traveling. Being flexible with our schedule will allow us to complete our busy agenda while making the most of experiential opportunities.

Risk management awareness in wilderness situations is a critical element of outdoor leadership. NOLS instructors teach risk management-related classes including rescues and emergency procedures. Hazard evaluation, accident prevention, group management, first aid and evacuation procedures are thoroughly discussed and practiced on the course. Wilderness living skills and travel techniques are also an important part of the curriculum as are natural history, expedition behavior, communication, and evaluation skills.

## **Student Independence**

On all NOLS courses students will be independent (that is unaccompanied by instructors) at various times. This includes 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 their course starts and after it finishes.

## **Independent Student Group Travel**

Normally you will sail in a boat with an instructor and two or three other students. Depending on factors such as route, weather, group competence, course length, and curriculum progression, you may be able to sail in an all student boat near the end of your course. This boat would sail as part of a fleet with instructors monitoring it. It is common for this to happen on instructor courses, but not guaranteed.

## **Behavior on the Expedition**

Each person's values, beliefs and actions affect those of the rest of the group -- balancing these is an important part of expedition behavior. We want you to have a positive learning environment. Therefore we expect all students to respect the values and beliefs of other members of the expedition. The best expedition members have positive attitudes, apply new skills and ideas at the first opportunity and come motivated to work hard with people they have never seen before. They care about others, put the welfare of the group before their own, and understand that an expedition succeeds when all its members complete each day successfully. If you feel NOLS' staff or students are not respecting your values or beliefs, it is essential that you speak up so the issues are addressed.

## **Weather and Other Challenges**

The winter weather patterns on the Sea of Cortez are predominately influenced by strong winds from both the West and North. The westerly winds, called “Elephantines” are localized but quite strong — up to 45 knots. The northerly or “Norte” winds can build suddenly and blow for several days at 25 knots or more. These “Norte” winds can build large, steep seas. Storms and sea conditions can make sailing hazardous and limit travel. The water temperatures in the northern Gulf of California and Midriff Islands are quite cold due to upwelling and mixing of surface and deep waters. It is a beautiful area, but it also can be harsh and demands respect. There will be times when you may be wet, cold, and tired. There will be times when you may be challenged by heat, sun and dehydration. An objective of this course is to learn to manage these situations competently and with the minimum of discomfort – for yourself and your students.



Identifying and managing the hazards of the desert, wind and waves, rocky shore-lines, fog, surf, swell, currents, open crossings, animals, cold water and long stretches of exposed open coastline will be a constant theme in our instruction. The consistent practice of risk management techniques and assuming responsibility for yourself and other group members will help make your expedition in this coastal environment healthy and enjoyable.

Leadership and teamwork will be stressed on this course. You'll find that strong friendships can develop as you learn to work together and depend upon each other for support and comfort. Learning to be a contributing member of an expedition can be a challenge but it can also provide immense personal rewards and is an essential trait for good outdoor educators.

### **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 tracking devices (e.g. SPOT), 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.

### **Fishing**

While not a focus of the course, students may have various opportunities to fish. There is no license required to fish from shore using a hand line or a rod and reel. If you are interested in fishing from a boat, you will need to obtain a license, and should contact:

CONAPESCA/Oficina de Pesca  
2550 Fifth Avenue #15, San Diego, CA 92103  
(619) 233-4324 Fax: (619) 233-0344  
[www.conapescasandiego.org](http://www.conapescasandiego.org)

Please bring a copy of your license with you to Mexico and read the regulations.

### **Student Classes**

Students are expected to teach many of the classes on the course. A class sign-up sheet will be handed out at the beginning of the course. Each student will be expected to teach the fundamental sail and boat handling classes while on board the boats. You should pick topics you have personal experience in, so your content and delivery are good models for the group. Time will be available for preparation.

We expect thorough preparation prior to leaving for the field so that each of your classes is concise, timely, enjoyable, and relates directly to the experiences of the course.

You will be teaching to peers. Some may be novices in your areas of instruction; some may be pros. In the more elementary areas, you may only need to explain how you would address the topic to beginners. NOLS is known for creative and effective use of impromptu teaching aids whether they are anatomical diagrams on bodies, or "blackboards" on ensolites or beaches.

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. On the other hand you may 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 Instructor Course aims to accomplish.

### **Expect to teach a class on a natural history topic of your choice.**

Please refer to the suggested reading list.



## Be prepared to teach any of these basic topics on short notice.

Which classes you will teach will be decided at the beginning of the course:

Points of Sail	Stretching
Basic Sail Theory	Keeping Warm and Dry
Wind Awareness	Basic Boating Risk Management
Right of Way Rules	Campsite Selection
Helming	Tent and Fly Pitching
Boat Terminology	Food Identification
Passage Planning	Stove Use and Care
Topographic Map Reading	Basic Cooking
Chart Reading	Basic Outdoor Self-Care
Rowing Techniques	Sanitation and Hygiene
Knots and Line Handling	Fire Building
VHF Radio Use	<i>Leave No Trace</i> Conservation

## Expect to teach one or more of these advanced classes.

You can prepare for your classes at the start of your course. It will help you throughout your NOLS experience to arrive with a basic understanding of each of these topics.

Expedition Planning	Ecological Concepts/Topics
Coastal Piloting	Astronomy/Constellations
Tides	Flower Keys and Taxonomy
Advanced Chart Reading	Waves
Currents	Beaches and Coastal Processes
Dead Reckoning	Fauna/Animal Signs/Tracks
LOPs and Fixing Position	Desert Adaptations
Steering Forces	Basic Marine Ecology Topics
Basic Ocean Safety Equipment	Geology and Tectonics
Outboard Motor Repair	Weather and Lightning
Towing Systems	Ornithology
Anchorage Assessment	Wilderness Ethics
Dive Physiology	History of Baja California
Group Management on the Water	Stove Repair
Crew Over-Board recovery	Advanced Cooking and Baking
Marine Communications	Nutrition
Sailboat and Rig Design	Extended Patient Care
History of Sailing	Athletic Injuries
Gender-Specific Concerns	Environmental Injuries
Leadership	Field Expedient Splints
Expedition Behavior	Field Evacuation Planning
Building Group Dynamics	Coastal Habitats
Formation of Baja/Sea of Cortez	Seasonal Weather/Winds of Sea of Cortez
Water Movement in Sea of Cortez	Marine vs. Terrestrial Ecosystems
Red Tides	Upwelling
Marine Species: Life Histories and Adaptations	

## Evaluations and Future Employment

Students will receive on-going feedback from peers and instructors and self-evaluate their leadership, inter-personal, and teaching skills both on and off the water. Instructors evaluate students on the following areas: risk management and judgment, teaching, attitude towards education in the outdoors, communication, expedition behavior, leadership, conservation practices, sailing, and outdoor skills. At the conclusion of the course, each student receives a written evaluation for documentation of their abilities when seeking employment with NOLS or other outdoor programs. Those who complete the course with strong performances and potential are eligible to instruct sailing courses at NOLS, though job opportunities cannot be guaranteed.



Those who wish to work the same season as their Instructors Course are advised to bring a driver's license, social security card (or equivalents as described in INS form I-9) and passport. Employment opportunities often hinge upon an individual's availability. Full instructor certification is based on evaluation at the end of the first course as an 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 on wilderness waters. The 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. Each student is expected to accomplish the following outcomes:

- Demonstrate knowledge of sailing hazards 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
- Be able to provide emergency and extended medical care appropriate to a remote wilderness setting using 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 Communication**

Students are exposed to 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 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

### **General 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. Each student is expected to accomplish the following:

- Live comfortably in a coastal environment: camping, cooking and dressing for varied conditions
- Move competently in rugged loose terrain
- Dive responsibly as a member of a skin diving team
- Travel competently on ocean using appropriate navigation, hazard evaluation and boat handling techniques
- Accurately assess skills, strengths and endurance in self and others and conservatively apply those limits to given situations
- Demonstrate an understanding of sailing techniques for remote coastal expeditions
- Display effective rescue and evacuation techniques
- Display basic natural history observation and interpretation skills

### **Environmental Studies**

Students develop awareness of how to apply *Leave No Trace* ideas to their lives beyond the course. We expect each student to accomplish the following:

- Consistently practice and teach sound *Leave No Trace* living and traveling skills
- Use basic observation and interpretive skills to develop an understanding and respect for natural systems
- Demonstrate and convey an understanding, appreciation and respect for the natural world on the water and land
- Describe how to facilitate the transference of wilderness ethics and practices to daily life



## Wilderness Education Skills

A NOLS Instructor Course prepares students to be wilderness educators as well as wilderness leaders. Each student is expected to accomplish the following outcomes:

- 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 role model of a safe and effective wilderness educator
- Demonstrate motivation and enthusiasm in the pursuit of learning

## 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](mailto: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 (2<sup>nd</sup> ed.)*.

\*\*Gookin, John (2006). *The NOLS Wilderness Educator Notebook, (10<sup>th</sup> ed.)*.

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

### Risk Management (all ICs)

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

*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*.

\*\*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* (3<sup>rd</sup> 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](http://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* (7<sup>th</sup> ed.).
- Long, John (2006). *Climbing Anchors*, (2<sup>nd</sup> ed.).
- Long, John (2003). *How To Rock Climb* (4<sup>th</sup> ed.).
- \*\*Anderson, Dave (2008). *NOLS Climbing Instructor Notebook* (4<sup>th</sup> ed.).
- \*Powers, Phil (2008). *NOLS Wilderness Mountaineering* (3<sup>rd</sup> ed.).
- \*Tyson, Andy (2005). *Glacier Mountaineering*.
- Vause, Mikel (2002). *Rock and Roses* (2<sup>nd</sup> 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* (3<sup>rd</sup> ed.).
- Walbridge, Charlie (1995). *Whitewater Rescue Manual*.

### **Sea Kayaking (KIC)**

- Burch, David (2005). *Fundamentals of Kayak Navigation* (4<sup>th</sup> ed.).
- \*Dowd, John (2004). *Sea Kayaking- A Manual For Long Distance Touring* (5<sup>th</sup> ed.).
- \*Hutchinson, Derek (2004). *The Complete Book Of Sea Kayaking* (5<sup>th</sup> 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* (2<sup>nd</sup> ed.).
- \*\*Smithhammer, Bruce (2005). *The NOLS Sea Kayak Instructor Notebook* (2<sup>nd</sup> ed.).
- Washburne, Randall (1998). *The Coastal Kayaker's Manual* (3<sup>rd</sup> ed.).

### **Sailing (BSIC)**

- \*\*NOLS Sailing Instructor Notebook
- Fries, Derrick (1997). *Start Sailing Right*. US Sailing Assn.
- Rousmaniere, John (1999). *The Annapolis Book of Seamanship* (3<sup>rd</sup> 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* (2<sup>nd</sup> ed.).

### **Wilderness Medicine (All ICs)**

Auerbach, Paul (2007). *Wilderness Medicine: Mgmt of Wilderness and Env. Medicine* (5<sup>th</sup> ed.). (reference book)

Forgey, W (1999). *Wilderness Medicine* (5<sup>th</sup> ed.)

Giesbrecht, Gordon & James Wilkerson (2006). *Hypothermia, Frostbite and Other Cold Injuries*. (2<sup>nd</sup> ed.).

\*Houston, Charles (2005). *Going Higher: Oxygen, man and mountains* (5<sup>th</sup> ed.)

Johe, David & Warren Bowman (2002). *Outdoor Emergency Care* (4<sup>th</sup> ed.).

\*Schimelpfenig, Tod (2006). *NOLS Wilderness Medicine*.

Setnicka, Tim (1981). *Wilderness Search and Rescue*.

Tilton, Buck (2004). *Wilderness First Responder* (2<sup>nd</sup> ed.).

Wilkerson, James A. (2001). *Medicine for Mountaineering* (5<sup>th</sup> 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* (2<sup>nd</sup> ed.).

Nash, Roderick (2001). *Wilderness and The American Mind* (4<sup>th</sup> ed.).

Oelschlaeger, Max (1993). *The Idea of Wilderness*.

Waterman, Laura & Guy (1993). *Wilderness Ethics: Preserving the Spirit of Wilderness*.

The Wilderness Act of 1964 [www.wilderness.net/index.cfm?fuse=nlwps&sec=legisact](http://www.wilderness.net/index.cfm?fuse=nlwps&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* (2<sup>nd</sup> 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 (2<sup>nd</sup> 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 (2<sup>nd</sup> ed.)*.  
\*Halfpenny, James (2000). *Scats and Tracks of the Desert Southwest*.  
\*Herrero, Stephen (2002). *Bear Attacks: Their Causes and Avoidance (2<sup>nd</sup> 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*.  
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