23rd Annual

The Yellowstone Institute

# 1998/99 winter

## Field Courses ◆ Nature Study Vacations



Phillips / Reese
YI Collection

# *Live and Learn Inside Yellowstone National Park*

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**Yellowstone Institute**
**Mammoth Office**
**307-344-2294**
**Lamar-Buffalo Ranch**
**June-August**
**307-344-7749**
**http://www.nps.gov/yell/ya/yellinst.htm**


Dear Friend of the Yellowstone Institute,

Whether you have taken one course at the Institute, half a dozen courses, or have never been to our Lamar Valley field campus, I know you will enjoy the educational programs we have planned for this year.

As you linger over our 1998/99 catalog, you will find that it includes almost a hundred courses on the natural and cultural history of Yellowstone, including perennial favorites and 30 new offerings on subjects suggested by our students.

As always, when you sign up for one of our courses, you can expect top quality instruction for a reasonable rate. Institute instructors are expert teachers who join us year after year because they love Yellowstone and want to share it with others. Explore the park with them in a small group, and you will quickly see why so many course participants are returning students.

So step away from the crowds ... and join us this year for an inside look at Yellowstone National Park. We promise it will be an experience of a lifetime.

Sincerely,

Jeff Brown
Director of Educational Operations

P.S. Members of our organization, the Yellowstone Association, receive tuition discounts and other benefits. See page 46 for details!


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Cover photo by Pam Gontz
Catalog layout by Pam Gontz

Animal photos in this catalog were taken with telephoto lenses from safe distances. Some photos were cropped and enlarged for a "full-frame" look.

# Calendar of Courses

## March 1998

| | | | | |
|---|---|---|---|---|
| * | Mar 13-15 | 301 | | Yellowstone's Wolves |
| > | Mar 20-23 | 302 | | Wildlife Observation—Winter |

## May-June 1998

| | | | | |
|---|---|---|---|---|
| | May 26-29 | 601 | ✓ | Mammal Tracking |
| | May 26-29 | 602 | | Wildlife Observation—Spring |
| * | May 29-31 | 603 | | Learning Birds by Sound |
| * | June 5-7 | 604 | | Exploring Yellowstone's Bird Life |
| | June 5-8 | 605 | | Grizzly Bear Ecology & Management |
| > | June 8-10 | 606 | | Yellowstone's Fisheries Beyond Angling |
| | June 9-11 | 607 | ✓ | Bears—Folklore & Biology |
| | June 11-13 | 608 | ✓ | The Evolution, Ecology, & Future of the Wolf Family |
| * | June 13-14 | 609 | | The Bison of Yellowstone |
| | June 14-17 | 610 | ✓ | Mammals Great & Small |
| | June 15-18 | 611 | ✓ | Bears: Bones, Signs, & Stories |
| > | June 18-21 | 612 | ✓ | Amphibians & Reptiles of the Greater Yellowstone Ecosystem |
| | June 19-21 | 613 | ✓ | Wild Edible Plants & Medicinal Herbs |
| | June 19-21 | 614 | | The Wolf's Return—Mythology to Recovery |
| | June 20-22 | 615 | | Family Days in the Lamar—the Wolves Come Home |
| > | June 20-22 | 616 | | Backpacking for Families |
| | June 22-25 | 617 | | Wildlife Observation—Spring |
| | June 23-25 | 618 | | Nez Perce in Yellowstone—1877 |
| > | June 25-27 | 619 | | Family Horsepacking in the Tetons |
| | June 26-28 | 620 | ✓ | Introduction to Yellowstone's Birds |
| | June 26-29 | 621 | | The Art of the Field Journal |
| > | June 29-Jul 2 | 622 | | Nature Writing |
| | June 30-Jul 2 | 623 | ✓ | Fire, Ice, & Fossil Forests |

## July 1998

| | | | | |
|---|---|---|---|---|
| | July 3-5 | 701 | ✓ | Yellowstone Birds of Prey |
| | July 3-5 | 702 | | Family Days in Yellowstone |
| | July 4-6 | 703 | | Fossils of Yellowstone |
| | July 6-7 | 704 | ✓ | Aquatic Insects of Yellowstone |
| | July 7-10 | 705 | | Photographing Nature in Yellowstone #1 |
| > | July 8-9 | 706 | | Yellowstone for Families |
| | July 8-10 | 707 | ✓ | Butterflies of Greater Yellowstone |
| > | July 9-12 | 708 | | Historic Field Journals |
| * | July 11-12 | 709 | | Women & Yellowstone |
| | July 11-13 | 710 | | Exploring the Yellowstone Ecosystem |
| | July 12-16 | 711 | | Photographing Nature in Yellowstone #2 |
| | July 13-16 | 712 | ✓ | Mammal Tracking |
| | July 13-17 | 713 | | Horsepacking: Hellroaring Area |
| | July 14-16 | 714 | ✓ | Headwater Watershed Ecology |
| > | July 17-18 | 715 | | Wildflowers & Wildfire—Ten Years After "The Fire" |
| | July 17-19 | 716 | | Yellowstone Place Names |
| | July 17-19 | 717 | ✓ | Geysers, Mudpots, & Hot Springs |
| > | July 19-21 | 718 | | Introduction to Macro Photography |
| | July 19-23 | 719 | ✓ | Wildflowers Llama Trek |
| | July 20-22 | 720 | | Botanical Sketchbook—Drawing Wkshp |
| > | July 20-24 | 721 | | Backpacking for Teens |
| | July 21-23 | 722 | ✓ | Geysers, Mudpots, & Hot Springs |
| > | July 22-24 | 723 | | Weather Cycles in the Big Sky |
| * | July 24-26 | 724 | ✓ | Alpine Wildflower Walks |
| | July 25-29 | 725 | | Observing Ylstn with the Artist's Eye |
| | July 26-30 | 726 | | Horsepacking: Snake River Country |

## July (cont.) 1998

| | | | | |
|---|---|---|---|---|
| | July 27-29 | 727 | | Backpacking in Grizzly Country |
| > | July 27-30 | 728 | ✓ | Carnivores of the Greater Yellowstone Ecosystem |
| | July 27-31 | 729 | | Lakes of Yellowstone by Canoe |
| > | July 30-Aug 4 | 730 | | Horsepacking: Fox Park Area |
| | July 31-Aug 2 | 731 | | Fly Fishing—Less Experienced |
| | July 31-Aug 2 | 732 | ✓ | Environmental Ethics & Yellowstone |
| > | July 31-Aug 2 | 733 | | Exploring the Ecology of Yellowstone's Microorganisms |

## August 1998

| | | | | |
|---|---|---|---|---|
| > | Aug 1-6 | 801 | | Backpacking The Heart of Yellowstone |
| | Aug 3-6 | 802 | ✓ | Life at the Extremes |
| | Aug 4-6 | 803 | | Family Days in the Thermal Basins |
| | Aug 4-6 | 804 | | Ylstn's Northern Roadside History |
| | Aug 4-9 | 805 | | Horsepacking: Trapper Trails |
| > | Aug 6-9 | 806 | | Bison to Buffalo—Using Field Journals to Explore an Animal & an Issue |
| | Aug 7-9 | 807 | | Fly Fishing—More Experienced |
| > | Aug 8-10 | 808 | | Day Hiking Yellowstone |
| | Aug 10-14 | 809 | ✓ | Geology of the Yellowstone Country |
| > | Aug 11-13 | 810 | | Ylstn's Southern Roadside History |
| | Aug 11-15 | 811 | | Backpacking the Beartooths |
| | Aug 14-16 | 812 | ✓ | The Living Stream |
| * | Aug 15-16 | 813 | | Simply Stunning Scenic Photography |
| > | Aug 16-21 | 814 | | Responding to the Elements—Painting |
| > | Aug 16-21 | 815 | | Responding to the Elements—Writing |
| > | Aug 22-27 | 816 | | Horsepacking: The Tetons |
| > | Aug 23-26 | 817 | | Introduction to Archaeology of Ylstn |
| | Aug 28-31 | 818 | | Autumn Canoeing in Yellowstone |
| | Aug 29-31 | 819 | ✓ | Wild Edible Plants & Medicinal Herbs |

## September-October 1998

| | | | |
|---|---|---|---|
| > | Sept 5-7 | 901 | Horsepacking: Gallatin Mountains |
| > | Sept 12-14 | 902 | Early Days in Jackson Hole |
| | Sept 16-19 | 903 | Wildlife Observation—Fall |
| | Sept 18-20 | 904 | Fly Fishing in the Fall |
| > | Sept 19-22 | 905 | Autumn Photography in Yellowstone |
| | Sept 27-30 | 906 | Grand Teton Photography |
| | Oct 4-6 | 907 | Angels from Echinus—Exploring the Mysteries of Norris Geyser Basin |

## January-February 1999

| | | | |
|---|---|---|---|
| > | Jan 2-12 | 1001 | Wilderness First Responder |
| > | Jan 15-18 | 1002 | Snowshoeing in Yellowstone |
| > | Jan 22-24 | 1003 | Snow Tracking |
| > | Jan 28-31 | 1004 | Winter Ecology on Skis |
| | Feb 4-7 | 2001 | Exploring Yellowstone on Skis |
| > | Feb 13-15 | 2002 | Literature of Yellowstone |
| | Feb 19-21 | 2003 | Winter Ecology & Survival |

## March 1999

| | | | |
|---|---|---|---|
| * | Mar 12-14 | 3001 | Yellowstone's Wolves |
| > | Mar 18-21 | 3002 | Wildlife Observation—Winter |

> denotes a *New* class
* denotes a weekend class (may begin on Friday evening)
✓ denotes classes that are available for university credit

# COURSE INFORMATION

**To Register:**

Complete and return the registration form on the back page, along with the tuition fee (and cabin fee if applicable). Most courses are limited to 10-15 students. Early registration is advised. Reservations can be made by phone or fax beginning on January 26, 1998.

**Tuition**

The costs listed in this catalog are for tuition and required course materials. Unless otherwise specified, the tuition charge does not include lodging, meals, transportation, or university credit fees. There is a $10 discount for Yellowstone Association members, including those who join when they register.

**Lodging and Meals**

For courses based at the Lamar Buffalo Ranch, lodging is available for an additional fee of $15 per person per night and students must bring and cook their own meals. For all other courses, students must make their own arrangements for lodging and meals.

**Transportation**

Students must arrange their own transportation to and from Yellowstone and to the location where the class begins. When appropriate, the Institute's 15-passenger vans will be used for field trips. Car pooling may be necessary in some cases.

**Location**

Most courses are held at our Lamar Buffalo Field Campus (see map on pg 5). Some courses are held at other locations within the Yellowstone ecosystem. Course locations and meeting times are included in each description.

**Insurance and Liability**

Students must provide their own health and accident insurance. Please read and sign the liability waiver on the registration form.

**Student Packet**

Detailed course information will be mailed to each student at least four weeks before the class.

**Academic Credit**

Courses for which academic credit is available are designated with a (U) for undergraduate credit and/or a (G) for graduate credit. To receive academic credit, students may be required to successfully complete exams and other assignments.

Institutions which offer credit include:

University of Montana, (U of MT),
Montana State University (MSU),
Idaho State University (ISU),
University of Wyoming (U of WY),
Colorado State University (CSU), and
Rocky Mountain College (RMC).

Registration forms will be provided on the first day of the course. Fees for credit are collected on the first day of class and are usually $70-$120 per semester hour, payable by check only. Students may enroll through their own university for independent study.

The Institute will gladly provide a letter of course completion, which lists the course title, hours of instruction and the nature of the course, is available upon request at no extra charge.

**Refund Policy**

***1998 Refund Policy (for all courses except horse and llama trips)—***

Payments for Institute courses are fully refundable, less a $35 per course processing fee ($20 for Association members), if cancellation takes place ***at least 60 days*** before the course. No refunds can be made for cancellations received fewer than 60 days before start of course, unless your space can be filled. If we can fill your space, a refund will be made less the course processing fee. Tuition and cancellation processing fees may be applied toward tuition for another course during the current calendar year on a space available basis. Cabin fees are 100% refundable.

The Institute reserves the right to cancel a course up to 30 days before the first class day; if we cancel, you will receive a full refund.

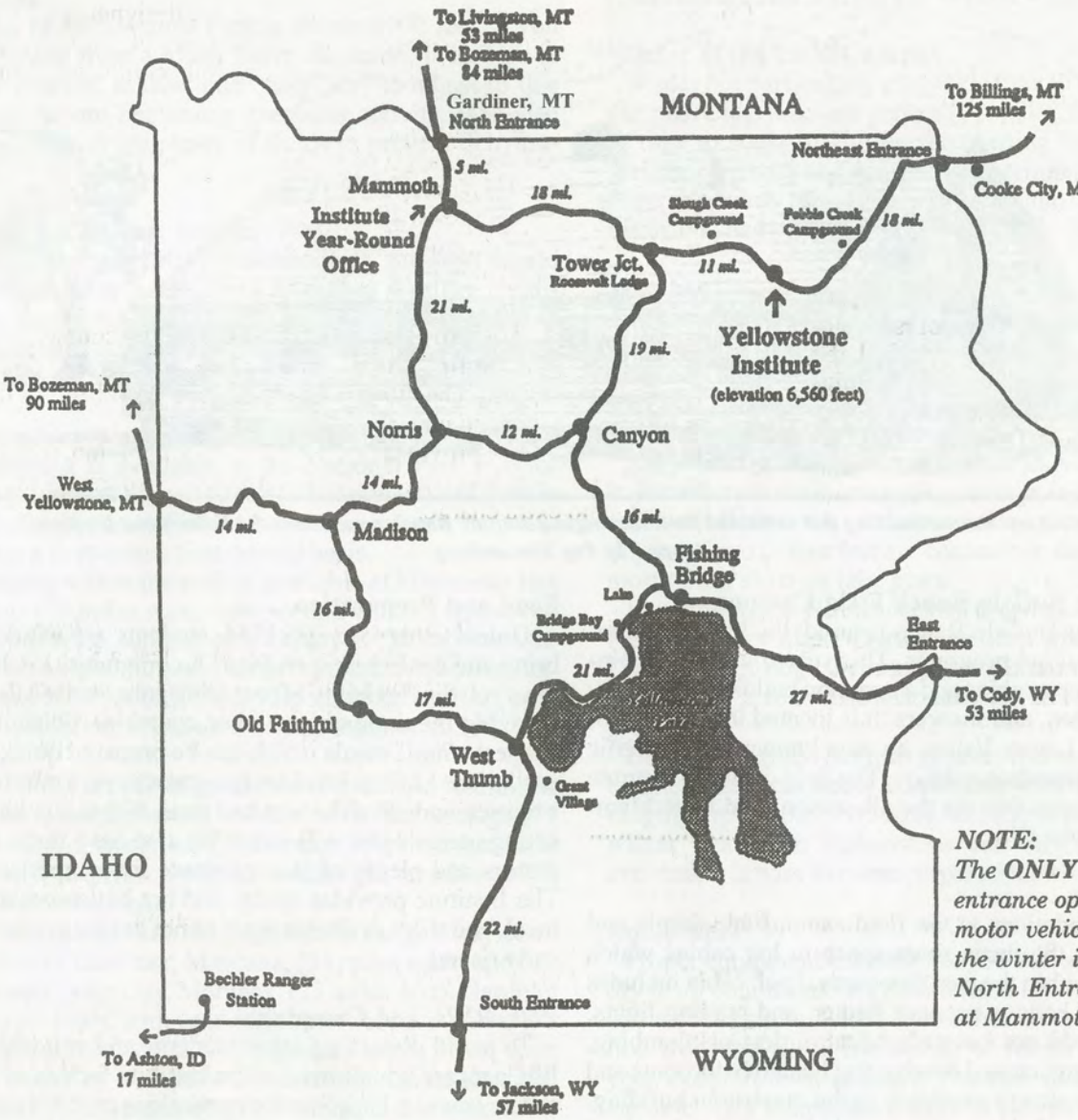
***1998 Horse and Llama Trip Refund Policy—***

Payments for Institute horse and llama courses are fully refundable, less a $35 per course processing fee ($20 for Association members), if cancellation takes place ***on or before April 1, 1998***. For cancellations made between ***April 1, 1998 and May 1, 1998***, a refund will be made less a $200 per person nonrefundable outfitter deposit and the $35/$20 course processing fee, unless your space can be filled. No refunds can be made for cancellations received after ***May 1, 1998***, unless your space can be filled. If we can fill your space a refund will be made less the course processing fee. Tuition and cancellation processing fees, less the nonrefundable outfitter deposit, may be applied toward tuition for another horse/llama trip during the current calendar year on a space available basis. Cabin fees are 100% refundable.

**Important:**

The Yellowstone Institute cannot make exceptions to this refund policy for any reason, including, but not limited to, illness, travel delays, personal situations, emergencies, or weather. We strongly urge you to take out accident, baggage, and trip cancellation insurance through a travel agent. *Travel insurance helps protect you against financial loss if you must cancel or interrupt a trip because of illness or injuries to yourself, a family member, or traveling companion.*

# TRAVEL INFORMATION & DIRECTORY




*NOTE: The ONLY entrance open to motor vehicles in the winter is the North Entrance at Mammoth.*

**Major Airports**
Bozeman, MT
Billings, MT

**Regional Airports**
Cody, WY
Jackson, WY
West Yellowstone, WY
Idaho Falls, ID

**Distances/Auto Travel Times to Yellowstone Institute**

| | | |
|---|---|---|
| From Bozeman | | |
| via Livingston | 118 mi. | 2 1/2 hrs |
| From Billings | | |
| via Red Lodge | 143 mi. | 3 1/2 hrs |
| via Livingston | 207 mi. | 3 3/4 hrs |
| From Cody | | |
| via East Entrance | 126 mi. | 3 hrs |
| via Northeast Entrance | 84 mi. | 2 1/4 hrs |
| From Jackson | 146 mi. | 3 1/2 hrs |
| From West Yellowstone | 70 mi. | 2 hrs |

***Plan on extra driving time in the park. The speed limit is 45 mph.***

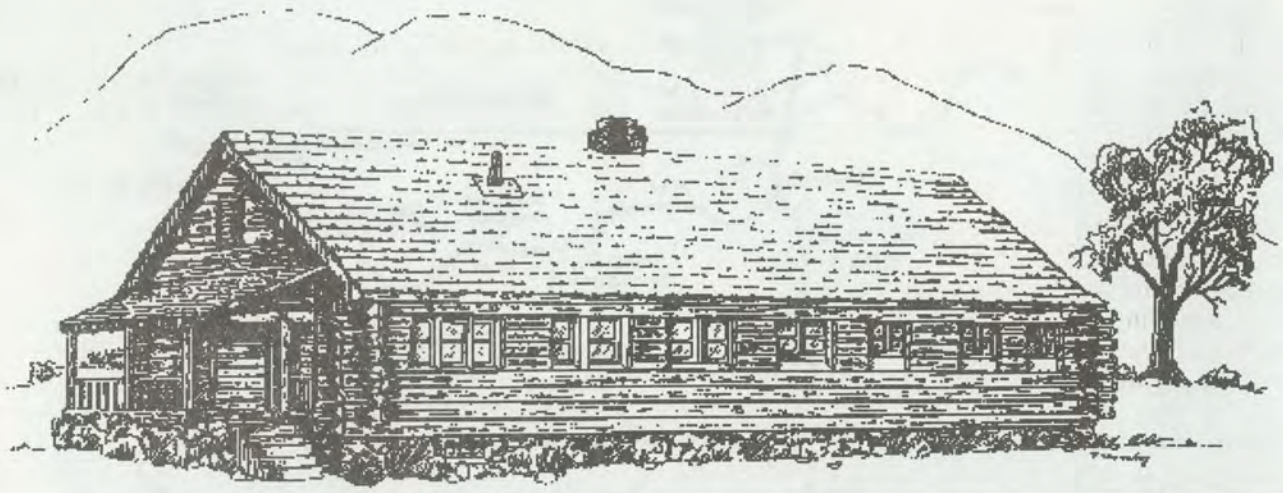
**Directory**

**Camping & Park Information**
National Park Service
Visitor Services 307-344-7381

**Park Lodging, RV Park, Marina**
AmFac Parks & Resorts
307-344-7311

**Wyoming Travel Information**
Wyoming Division of Tourism
800-225-5996

# GENERAL INFORMATION



*The old bunkhouse building that remained from the original Buffalo Ranch now houses the Yellowstone Institute. Artwork by Peg Steunenberg*

**The Lamar Buffalo Ranch Field Campus**

The Lamar Buffalo Ranch is an idyllic base of operations for Institute programs. This year-round facility includes log guest cabins and a common building with classrooms, kitchen, and showers. It is located in the midst of the pristine Lamar Valley, an area known for its scenic beauty and abundant wildlife. The field campus is remote yet easily accessible via the all-season road from Mammoth to Cooke City.

**Log Cabins**

Accommodations at the field campus are simple and comfortable. Students share space in log cabins which were built within the past five years. Each cabin includes three single beds, a propane heater, and reading lights. The cabins do not have electrical outlets or plumbing. Outhouses are located nearby, and heated bathrooms and showers are always available in the classroom building. Students must bring a pillow and a warm sleeping bag. The cabin fee is $15 per night per person. Cabin rental for family members of students may be allowed if space is available.

**"The Bunkhouse"**

The historic Bunkhouse is located a short walk away from the sleeping cabins and serves as the center of activity at the field campus. The Bunkhouse is fully heated and includes two classrooms, a self-service kitchen, and three rest rooms with showers. The classrooms have chairs, tables, and audiovisual equipment. This building is open around the clock to match the needs of early morning and late evening wildlife watchers. The kitchen table, the back porch, and the outside picnic tables are favorite places for students to relax and recount daily adventures.

**Food and Preparation**

Unless otherwise specified, students are expected to bring and cook their own food. A community kitchen allows you the flexibility of preparing your own meals while enjoying the company of other course participants. We suggest simple meals which can be prepared quickly and easily. The kitchen includes two gas stoves, a microwave, a toaster, and all of the pots and pans, dishes, cooking and eating utensils you will need. We also have three refrigerators and plenty of storage space for nonperishables. The Institute provides spices and hot beverages at each meal, and there is always a pot of hot coffee available for early risers!

**Pets, RV's, and Camping**

To avoid disturbing other students and resident wildlife, pets are not allowed at the Institute facility or on Institute courses. Park Service regulations prohibit camping and recreational vehicle use at the field campus.

**Physical Condition**

Since most courses require outdoor activity at high elevations, students should be in good health. Classes which involve backpacking, horsepacking, canoeing, or extensive field work will be more demanding. Please ask in advance if you have any questions about physical requirements.

**Children**

Children who meet stated minimum age requirements are very welcome in family programs. All other courses are designed for adults, and we strongly recommend high school graduation as a minimum qualification.

# GENERAL INFORMATION (cont.)

**Altitude**

Most of Yellowstone Park is above 6,000 feet. If you are coming from a much lower elevation, it is wise to allow yourself at least one "easy" day to adjust to this altitude before beginning strenuous activity. It is also important to drink plenty of fluids to prevent dehydration.

**Weather, Clothing, and Equipment**

Much class time will be spent outdoors. Students should be prepared for a variety of mountain weather conditions, including cold temperatures. A recommended clothing and equipment list is sent to each course participant, and we are glad to answer specific questions.

**Nearby Camping, Lodging, and Groceries**

Camping is available in the National Park Service campgrounds at Slough Creek (7 miles west) and Pebble Creek (9 miles east). Sites at these campgrounds are available on a first-come, first-served basis.

Lodging within the park is available at Mammoth Hot Springs (29 miles west, summer and winter), Roosevelt (11 miles west, summer only), Canyon (30 miles southwest, summer only), and other locations. Space is limited and reservations should be made as soon as possible; please call AmFac Parks & Resorts at 307-344-7311.

A limited supply of groceries is available within the park in Hamilton stores at Mammoth Hot Springs (29 miles west, open all year), Roosevelt (11 miles west, summer only), Canyon (30 miles southwest, summer only), and other locations.

Additional services are available in the gateway communities of Gardiner, Montana, (34 miles west) and Silver Gate/Cooke City, Montana, (23 miles east). Gardiner is a larger town, with year-round motels, restaurants, gas stations, a laundromat, and a grocery store. Silver Gate and Cooke City are somewhat smaller and more seasonal, with motels, restaurants, gas stations, and convenience stores.



*A Yellowstone Institute log cabin*

**Additional Information for Winter Courses:**

**Winter at the Field Campus**

Winter is a particularly enjoyable time to visit the field campus. Class sizes are generally smaller, there is plenty of time to socialize during the evening hours, and the facilities are cozy and warm despite temperatures which often slip below zero. It's also a great time to see wolves, bison, elk, and other winter wildlife in the Lamar Valley.

**Weather**

Yellowstone is a big place with great variation in temperature and snowfall. While it is true that Yellowstone often sets the nation's records for cold temperatures, it is also true that some areas of the park are much warmer and receive relatively little snow.

Snow usually begins to accumulate in November, and it doesn't melt until late spring, except in the lower elevation valleys in the northern portion of the park. Snow depths of two to four feet are common in the areas where most of our ski trips take place.

Temperatures in November will drop below 20 degrees F almost every night. During the deep winter period of December through February, temperatures frequently drop below zero and occasionally fall as low as -40 degrees F.

During any given Institute course, it is common to encounter excellent snow conditions with temperatures ranging from above freezing to below zero. Because winter weather in Yellowstone can vary from mild to extreme, it is wise to come prepared for all possibilities.

**Equipment**

Proper equipment ensures that you will stay warm and dry in all conditions. We recommend layers of synthetic and wool clothing, with a nylon shell to provide protection from the wind. By adding or removing layers as your exertion level changes, you can maintain a comfortable body temperature without perspiring. A list of recommended clothing and equipment for winter courses is sent to all course participants and we will be glad to answer specific questions.

**Ski Rental**

Cross-country ski equipment can be rented from the AmFac Parks & Resorts ski shop in Mammoth at 307-344-5276 or Park's Fly Shop in Gardiner, Montana, at 406-848-7314.



*Photo by Pam Gontz*

### *YELLOWSTONE'S WOLVES: 301*

**March 13-15** **$125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Instructor: James Halfpenny, Ph.D.**

Listen closely … wolves howl over Lamar Valley! Six packs have been reintroduced. Wolves have established territories and travel the valley preying on elk and raising their pups. Be part of the latest news. Join us at Lamar for a two-day update of the wolf reintroduction and overview of wolf ecology. Morning and evening lectures will cover basic taxonomy, biology, ecology, and management. Lectures will be supplemented by slides and videos shot during the reintroduction. Using tracking (Jim's favorite) as a conduit to learning, afternoon field sessions will cover identifying wolf tracks (versus dog, fox, and coyote), understanding wolf gaits, reading stories in their trails, and interpreting wolf ecology in the field. With luck we may explore a kill site. We'll even try to view wolves from the road, but all this will be done without interfering with the wolves themselves.

Program starts at 7:30 pm, but come early for an informal, potluck, gossipy supper—perhaps a visit by a wolf biologist. There will be evening lectures on Friday and Saturday. Bring field lunches and lots of trail food as we will not waste daylight hours staying inside to eat. *Fee includes $15 for course materials.*

### *WILDLIFE OBSERVATION—WINTER: 302* NEW

**March 20-23** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Instructor: Gene Ball**

The end of winter offers its own set of wildlife viewing opportunities. Field observation will be the major goal and activity of this introduction to the snow-covered park. Methods of unobtrusive observation and the ethics of interaction with wildlife will be central themes. The schedule will be flexible to conform to that of the wildlife to be observed. Enrollees can expect morning and evening field trips, optional cross-country ski outings, and discussions of various wildlife topics, issues, and controversies.

The course will begin at 1:00 pm the first day and end at 1:00 pm the last day. The opening session will cover selection and use of binoculars, spotting scopes, and tripods for quality wildlife observation.

### *MAMMAL TRACKING: INTERPRETING TRACKS, SCAT, & OTHER SIGN*

**May 26-29: 601** **July 13-16: 712**
**$225 (Member's fee $215)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Credit available: U, 1 semester hour, U of MT/MSU**
**Instructor: James Halfpenny, Ph.D.**

Mammals are elusive and hard to observe in the wild. Much can be learned about them by detecting and reading their sign. Nature detective work will teach trackers the joys of interpreting natural history from mammal sign. Emphasis is placed not on track identification, but on tracking as a process for understanding animal behavior.

Course content includes the role of natural history and ecology, keeping field notebooks, taxonomy, anatomy, terminology, measurements, track averaging, relative size, estimating track age, print identification, gait patterns, estimating speed, field techniques, finding clues, following trails, and teaching tracking. Slide lectures will provide access to Dr. Halfpenny's years of field experience, and laboratories will introduce concepts of gaits and speed. Field sessions will aid in learning to trail and read stories in tracks. The course will begin at 9:00 am the first day and end at approximately 5:00 pm the last day. *Fee includes $25 for a copy of the instructor's book plus other course materials.*

### *WILDLIFE OBSERVATION—SPRING*

**May 26-29: 602** **June 22-25: 617**
**$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Instructor: Gene Ball**

Late spring is a superb time for viewing wildlife in Yellowstone. Field observation will be the major goal and activity of this introduction to the pre-summer park. Methods of unobtrusive observation and the ethics of interaction with wildlife will be central themes. The flexible schedule will feature early morning and evening field trips, short midday hikes, and programs on various wildlife topics plus related issues and controversies.

The course will begin at 1:00 pm the first day and end at noon the last day. The opening session will cover selection and use of binoculars, spotting scopes, and tripods for quality wildlife observation.



*Photo by Pam Gontz*



*Photo by Pam Gontz*

### *LEARNING BIRDS BY SOUND: 603*

**May 29-31** **$125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch** **Limit: 8**
**Instructor: Terry McEneaney**

One of the most pleasant features of bird life is the sounds they make. The most noticeable sounds in the spring are the songs of the perching birds; however, birds make a variety of other sounds such as calls, chip notes, clucks that are vocal, quivering, fluttering, gaping, and even flying noises that emit sound complementing a display. Designed for birders with little, if any, experience in bird sound identification, students in this class will learn how to identify the sounds of at least 50 species of birds. People will learn sounds to different degrees, depending on their ability to hear high and low pitches. Be aware, this course is not easy and requires tremendous concentration. Field trips will be the major emphasis with a chance for individual skills development. If you feel you can identify birds by sight, but are interested in identifying more birds by the sounds they make, then this course is for you. The course will begin at 7:30 pm the first day and end at 5:00 pm the last day. An optional outdoor barbecue will begin at 6:00 pm on the first day. Sign up early since this class is limited to eight students.

### *EXPLORING YELLOWSTONE'S BIRD LIFE: 604*

**June 5-7** **$125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Pam Gontz**

This course will explore Yellowstone's bird life and identify them by looking at their habitats, behaviors, and songs. The goal will be to visit a variety of habitats in order to observe many of the park's bird species from the magnificent trumpeter swan to the beautiful harlequin duck. While the focus of this class will be on birds, there will also be opportunities to view many of the park's mammals. Field trips will involve moderate, but not strenuous, hiking but will occur in the early morning and evening hours when the weather can be cold and inclement. The class will begin at 7:00 pm the first day of class, with introductions and a look into Yellowstone's birds, and end at 4:00 pm the last day. *Fee includes $10 for course materials.*

### *GRIZZLY BEAR ECOLOGY & MANAGEMENT: 605*

**June 5-8** **$175 (Member's fee $165)**
**Location: Lamar Buffalo Ranch** **Limit: 20**
**Instructor: Sue Consolo Murphy**

Conservation of Yellowstone's grizzly bear population involves a long history of controversy, research, and management challenges. This course will examine the ecology of the threatened grizzly bear, its natural history and current status in the Yellowstone ecosystem, and a number of ongoing management issues that affect the population's potential for long-term survival. Participants should be prepared for field trips daily to try to observe bears in the wild. These trips will not involve lengthy or strenuous hiking, but may occur in cold or inclement weather and in early morning and evening hours. Warm-layered clothing is essential. The course will begin at 6:00 pm the first day and end at 3:00 pm the last day. *Fee includes $15 for course materials.*

### *YELLOWSTONE'S FISHERIES BEYOND ANGLING: 606* **NEW**

**June 8-10** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructors: NPS Fisheries Biologists**

Fish in Yellowstone Park have been highly valued by members of the angling community since the park's creation. These same fish populations also directly or indirectly affect many species of the natural ecosystem as well. National Park Service fishery biologists from the Aquatic Resources Center will discuss current impacts to the fish populations in Yellowstone Park and examine management options available to ensure perpetuation of these often unseen aquatic residents.

After an introductory talk, on-site visits will be made to several lakes and streams in the park where participants will observe or participate in the experimental program to control exotic lake trout in the lake, capture spawning cutthroat trout at LeHardy Rapids, collect length and weight data from trout captures in a stream trap, visit westslope cutthroat trout restoration sites (Gallatin or Madison Rivers), sample fish at areas affected by water quality (Soda Butte Creek mine tailings) or irrigation diversions (Reese Creek), and examine steam habitat 10 years after the park-wide fires. Access to some streams may be prevented by high water conditions, in which case alternative activities will be selected. Weather conditions will be variable, but are typically snowy or rainy in early June. Rain gear and chest waders are recommended, but optional. The course will begin at the Lamar facility at 9:00 am on the first day of class and end late afternoon on the last day.

*BEARS—FOLKLORE & BIOLOGY: 607*
**June 9-11 $165 (Member's fee $155)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U, 1 semester hour, MSU**
**Instructors: Harold Picton, Ph.D. & Jim Garry**

This class will combine two disciplines and field observation time to explore the basic aspects of bear biology including reproduction, behavior, food habits, home ranges, habitat use, and population biology; the class will also address the bear's role in folk stories, images of bears in popular culture, bears as cult symbols, and the role of bears in today's world. Comparing and contrasting folk and scientific knowledge, and the importance of both, will be a continuing course theme. The course will begin at 9:00 am the first day and end late afternoon the last day.

*THE EVOLUTION, ECOLOGY, & FUTURE OF THE WOLF FAMILY: 608*
**June 11-13 $180 (Member fee $170)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U, 1 semester hour, MSU/U of MT**
**Instructors: Elaine Anderson, Ph.D., & James Halfpenny, Ph.D.**

Dire, gray, red, and timber wolves; coyotes, foxes: these canids have all roamed the North American continent. Some still survive in North America in spite of their human cohabitants. How did they evolve and how do they fit together in the overall scheme of things? Where does the domestic dog fit in? What is the modern ecology of North American wolves? How do we study these animals in the field? What is happening with the dynamic Yellowstone wolf reintroduction? Will wolves survive the steadily increasing human population? Join Elaine, carnivore paleontologist; Jim, carnivore ecologist; and invited lecturers to answer these and more questions.

Morning and evening lectures will be supplemented by afternoon field trips. Field trips will emphasize: 1) wolf observation; 2) wolf reintroduction into Yellowstone; and 3) coyotes and foxes of Yellowstone. The course will begin at 9:00 am the first day and end at 5:00 pm the last day. *Fee includes $15 for course materials.*


*Photo by Pam Gontz*


*Photo by Pam Gontz*

*THE BISON OF YELLOWSTONE: 609*
**June 13-14 $110 (Member's fee $100)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructors: Jim Garry & Harold Picton, Ph.D.**

One of the classic, enduring, symbols of the American West, the bison or buffalo, survived in the wild in only one place in the United States, Yellowstone Park. Today the bison is still prominent in the Yellowstone country and an enduring figure of controversy and continuity. The class will explore the bison's history, national history, and its role in both Indian and white cultures. We will also look at current bison political issues and, since the class is at the Buffalo Ranch, we'll look at the Ranch's history and role in saving the buffalo. The course will begin at 9:00 am the first day of class.

*MAMMALS GREAT & SMALL: 610*
**June 14-17 $200 (Member's fee $190)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U or G, 2 semester hours, ISU**
**Instructor: Don Streubel, D.A.**

The focus of this course will be the ecological role of mammals in the Yellowstone ecosystem. We will study their behavior, factors affecting their distribution and abundance, and their management. Field work and observation in different parts of the park will be emphasized, including early morning and evening observations of elk, bison, bears, bighorn sheep, pronghorns, ground squirrels, pikas, and possibly wolves. Both large and small mammals will be considered, including a short study of ground squirrel behavior. No specific biological background is required, but enthusiasm and a desire to enjoy long hours in the field with animals is a prerequisite. Moderate, but not strenuous hiking will occur. The course will begin at 8:30 am the first day and end late afternoon the last day.

*BEARS: BONES, SIGNS, & STORIES: 611*
**June 15-18 $220 (Member's fee $210)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U, 1 semester hour, MSU/U of MT**
**Instructors: Elaine Anderson, Ph.D., James Halfpenny, Ph.D., & Jim Garry**

Ursophiles (Greek for "bear lovers") unite! Supplement your knowledge of bears with a unique triad of

instructors. From Dr. Elaine Anderson you will learn the evolutionary history of carnivores, especially ursids, as she talks about fossil and recent bears—their bones and their distribution. Dr. Jim Halfpenny will teach about modern signs of bears and conduct a research project cataloging the "bear trees" of Yellowstone. Jim Garry will explore the vast and fascinating folklore of the bear, while examining the bear's habitat and behavior. Lectures will be supplemented by field trips to study bear trees, interpret stories left by claw marks, and to map tree distribution. Evening programs will share the lore of bears from a world-wide perspective. The course will begin at 9:00 am the first day and end at 5:00 pm the last day. *Tuition fee includes $15 for materials and handouts.*



*Photo by Pam Gontz*

### *AMPHIBIANS & REPTILES OF THE GREATER YELLOWSTONE ECOSYSTEM: 612* NEW

**June 18-21** **$190 (Member's fee $180)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Credit available: U or G, 1 semester hours, ISU**
**Instructor: Charles R. Peterson, Ph.D.**
**Edward D. Koch, & Debra A. Patla**

The objectives for this course are to develop: 1) the ability to identify amphibians and reptiles in the Greater Yellowstone Ecosystem; 2) basic knowledge of their natural history; 3) an appreciation of the importance of amphibians and reptiles; and 4) an understanding of conservation threats and actions. Course activities will include field trips and lectures illustrated with slides, recordings, and live animals. There will be opportunities to photograph live animals. Moderate hiking in hilly terrain will be required for the field trips. We hope to observe the following species: tiger salamanders, boreal toads, boreal chorus frogs, Columbia spotted frogs, sagebrush lizards, bull snakes, wandering garter snakes, and prairie rattlesnakes. The course will begin at 7:00 pm on the first day of class and will meet from 9:00 am through 5:00 pm on the following days. If we have visited all of the field sites by mid-afternoon on the last day, we may finish earlier than 5:00 pm. Recommended reading: *The Amphibians & Reptiles of Yellowstone and Grand Teton National Parks*, by C. R. Peterson and E. D. Koch, available through the Yellowstone Association. *Fee includes $20 for course materials. Bring hip waders if you have them.*



*Photo by Pam Gontz*

### *WILD EDIBLE PLANTS & MEDICINAL HERBS*

**June 19-21: 613** **August 29-31: 819**
**$175 (Member's fee $165)** **Limit: 15**
**Location: Squirrel Meadows/Warm River Area, Targhee National Forest, Idaho**
**Credit available: U, 1 semester hour, U of MT**
**Instructors: Wayne Phillips & Robyn Klein**

The blue camas meadows, ponds, aspen groves, and coniferous forests in the Bechler/Falls River area between Yellowstone and Grand Teton National Parks were an important food and medicine gathering area for early American people. The diversity of these ecosystems provides students with an exceptional area to study the edible and medicinal properties of many of the native plants of the West. This year we will emphasize field identification of wild plants, major poisonous plants of the area, gentle harvesting techniques, and safe herbal practices. With the help of an ecologist and an herbalist, students will learn to develop their own wild food meals and herbal preparations and will gain important knowledge and respect for safe herbal self-care with natural remedies.

Classroom headquarters for the June course will be at a Forest Service cabin located at Squirrel Meadows, which is situated along the scenic road between Ashton, Idaho, and the Flagg Ranch near the South Entrance to the park. The August class will be located at the former Warm River Fish Hatchery near the huge falls of the Henry's Fork of the Snake River between Ashton and Island Park, Idaho. The courses will begin at 8:00 am in Ashton, Idaho. Expect short, leisurely walks from one-half to three miles with an elevation gain/loss of 300 feet. *Participants should come prepared to camp out, or may choose to stay in a motel in Ashton, which is less than an hour away. Fee includes $10 for course materials.*

**Note:** If the second course held on August 29-31 is taken for credit, grades for this course will be available some time after October 1.

***THE WOLF'S RETURN—MYTHOLOGY TO RECOVERY: 614***
**June 19-21 $185 (Member's fee $175)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructors: Brian Peck & Linda Miller**

The wolves are back! For the first time since 1926, the wolf's song echoes through the Lamar Valley. This year Yellowstone will be home to more than 10 packs and we'll be there. Using slide shows, storytelling, expert speakers, and field trips (three- to five-mile hikes), we'll learn of the wolf's demise and be part of its triumphant return. An emphasis will be placed on field trips and nature hikes whenever possible. Readings will range from Barry Lopez's *Of Wolves and Men* to Rick McIntyre's *A Society of Wolves*. Extensive handouts will be provided. Join us for a howling good time as we welcome home the wolves of Yellowstone. The course will begin at 9:00 am the first day and end at 5:00 pm the last day. An optional group will scout the valley for wolves beginning at 7:00 am from the Lamar facility. *Tuition fee includes $15 for materials and handouts.*

***FAMILY DAYS IN THE LAMAR—THE WOLVES COME HOME: 615*** **June 20-22**
**Adult-$165 (Member's fee $155)**
**Child-$90 (Member's fee $80)**
**Location: The Lamar Valley Limit: 20**
**Instructors: Sandra Nykerk & Jim Garry**

The Lamar Valley of Yellowstone National Park has often been referred to as "America's Serengeti," a sweeping river valley that supports an amazing diversity of flora and fauna. This three-day family experience will explore the many aspects of the Lamar ecosystem, including the role of predators in such a system and what happens when a major predator is removed and then reinstated. Using the Yellowstone wolf as a focus, the instructors and guest speakers will discuss the cultural and biological events that led to the removal and eventual return of the wolf to the Lamar Valley. Field observation and group hikes will integrate information acquired through more formal classroom settings, but all activities and field trips will be paced for a family experience. We'll be up early and out late hoping to catch a glimpse and hear the soulful howl of the Lamar wolves, so we'll allow some siesta time in the middle of the day. An evening campfire storytelling session will introduce the mythology and folklore of the



*Photo by Pam Gontz*



*Photo by Pam Gontz*

Yellowstone country. Field trips will include hikes of up to three miles but the final itinerary will be based on the ages and abilities of class participants.

The course will begin at 9:00 am the first day in the Lamar Valley and end around 4:00 pm the last day. Children in this course should be at least eight years of age. *Participants will caravan for field trips. Families who camp must secure their own campsites early in the day or make reservations through AmFac Parks & Resorts at 307-344-7311. Participants must provide their own camping equipment and food, including field lunches.*

***BACKPACKING FOR FAMILIES: 616*** **NEW**
**June 20-22** **(see description on pg 34)**

***WILDLIFE OBSERVATION—SPRING: 617*** **NEW**
**June 22-25** **(see description on pg 8)**

***THE NEZ PERCE IN YELLOWSTONE—1877: 618***
**June 23-25 $155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Jim Garry**

The Nez Perce had befriended Lewis and Clark; they had requested missionaries from the United States government. But they never asked for gold miners to be sent to them and for white settlers to take over their lands. In 1877, torn by internal strife, the "non-treaty" bands finally gave in and began moving to the reservation. But conflict with white settlers flared into war with the army, and many Nez Perce fled to Canada. On their way they became Yellowstone's most unusual tourists and left an indelible mark on its history. The class will focus on their time in the Yellowstone country but will look at the whole war as well as the tribe's history and culture. The course will begin at 9:00 am the first day.

***FAMILY HORSEPACKING—DOING THINGS TOGETHER—On the West Slope of the Tetons: 619***
**June 25-27** **(see description on pg 36)** **NEW**

### *INTRODUCTION TO YELLOWSTONE'S BIRDS: 620*

**June 26-28** **$175 (Member's fee $165)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Credit available: U, 1 semester hour, MSU**
**Instructor: John Martin**

Nondescript "dirty brown birds," other feathered beauties, and unseen singers will all get names, identification characteristics, and a sense of order in this field-oriented course on birding. Ecological roles and functions of various songbirds, birds of prey, and other species within the Yellowstone ecosystem will be explained and explored, along with such topics as distribution and population dynamics. A special boat trip to Frank Island on Yellowstone Lake will be made to see water and shore birds, along with nesting ospreys and bald eagles. The course will begin at 9:00 am the first day and end at 4:00 pm the last day. John's wife, Marsha, will accompany the class and assist with logistics. *Fee includes the boat trip on Yellowstone Lake and $15 for course materials..*

### *A TRAIL THROUGH LEAVES—THE ART OF THE FIELD JOURNAL: 621*

**June 26-29** **$200 (Member's fee $190)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Hannah Hinchman**

A field journal is one of the best bridges between a person and the land. This three and a half day course at the Buffalo Ranch will introduce a kind of journal keeping that mixes words and images, exploration and introspection, and creates a new way of entering the world of nature. The pattern of our days includes early morning rambles, a watercolor session at dusk, classroom and field instruction in the best basic drawing methods, individual writing instruction and readings from some of the great naturalists. We map the sky and the ground, meet animals, plants, and land forms, and learn to transcribe their (and our) stories in new ways. The course is designed to allow ample time for solitude, or for browsing in the instructor's extensive library, balanced by the creative energy of an enthusiastic group of people in a magical place. Hikes of moderate length can be expected. The course will begin at 10:00 am the first day and end at noon the last day.



*Photo by Pam Gontz*



*Photo by Pam Gontz*

### *NATURE WRITING—FROM APPRECIATION TO PUBLICATION: 622* **NEW**

**June 29-July 2** **$200 (Member's fee $190)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: David Petersen**

If you've ever wanted to write creatively about your feelings, and experiences in nature—just for the joy of expressing yourself on paper, or for publication—this intense seminar is for you. In an informal blend of classroom and field instruction and discussion, we'll define "nature writing," study the nuts and bolts of nonfiction writing in general and nature writing in particular—including listening to your senses, field notes, research, writing, and revision—and conclude with a primer for getting published. Participants are encouraged, but not required, to read brief samples of their work for group criticism. May include some modestly strenuous hiking (options can be arranged). The course will begin at 9:00 am the first day and end around 5:00 pm the last day.

### *FIRE, ICE, & FOSSIL FORESTS: 623*

**June 30-July 2** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Credit available: U, 1 semester hour, MSU**
**Instructor: John Good**

This course will introduce participants to the unique petrified forests of Yellowstone and to the Ice Age history of the park which profoundly influenced today's landscapes, flora, and fauna. There will be a discussion of the theory that repeated episodes of volcanic activity buried living forests in ash and mudflows to be slowly petrified by mineral-bearing hot water. Moving to the last 2 million years, discussion will focus on glacial ice and volcanic explosions. The course will involve field trips to observe evidence of glaciation and discuss the volcanic history of Yellowstone and the Absaroka and Beartooth Mountains, an all-day hike on Specimen Ridge, and a hike up Mt. Washburn where glacial and volcanic phenomena are visually united. Hikes are at a relaxed pace but at times in steep terrain. Specimen Ridge is an 800-foot climb in 1 ½ miles. Mt. Washburn climbs 1,400 feet over a 3-mile distance to the 10,000-foot summit. The course will begin at 9:30 am the first day and end at 2:00 pm the last day.

### *YELLOWSTONE BIRDS OF PREY: 701*

**July 3-5** **$175 (Member's fee $165)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Instructor: John Martin**

This course features Yellowstone's hawks, eagles, falcons, and owls, collectively known as raptors, in their natural habitats. Identification will be emphasized along with the role of predation in biological communities, predator-prey relationships, breeding strategies, and habitat influences. Conservation measures and management problems unique to raptors will also be examined. A special boat trip to Frank Island on Yellowstone Lake will be made to see nesting ospreys and bald eagles. The course will begin at 9:00 am the first day and end at 4:00 pm the last day. John's wife, Marsha, will accompany the class and assist with logistics. *Fee includes the boat trip on Yellowstone Lake and $15 for course materials.*



*Photo by Pam Gontz*

### *FAMILY DAYS IN YELLOWSTONE: 702* **July 3-5**

**Adult-$165 (Member's fee $155)**
**Child-$90 (Member's fee $80)**
**Location: Mammoth Hot Springs** **Limit: 20**
**Instructors: Jim Garry & Tom Watson**

This three-day family experience will be based in the Mammoth Hot Springs area of Yellowstone National Park. From there, we will explore Yellowstone's spectacular landscapes and unique natural history. Through hikes, group discussions and additional activities, participants will have an opportunity to learn about the geology and hydrothermal features, wildlife, botany, and history of this very special area. We will also spend time looking at the effects of the 1988 fires and address the role of fire in a natural ecosystem. All activities and field trips will be paced for a family experience. Wildlife watching at dawn will be an option for class participants, and an evening campfire storytelling session will introduce the mythology and folklore of the Yellowstone country. Field trips will include hikes of up to three miles but the final itinerary will be based on the ages and abilities of class participants.

The course will begin at 9:00 am the first day and end at 4:00 pm the last day. Children in this course should be at least eight years of age. *Participants will caravan for field trips. Families who camp must secure their own campsites early in the day or make reservations through AmFac Parks & Resorts at 307-344-7311. Participants must provide their own camping equipment and food, including field lunches.*

### *FOSSILS OF YELLOWSTONE: 703*

**July 4-6** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Vincent L. Santucci**

The fossil record of life is well represented within the rock layers of Yellowstone. A wide range of fossil types including marine invertebrates, petrified wood, leaves, and even dinosaurs have been discovered in the park. A paleontological survey was initiated at Yellowstone in 1996. This research documented over 20 fossil-producing units in the park. Field trips will include visits to a variety of paleontologic localities which preserve both plant and animal fossils. Participants can assist paleontologists with field surveys and help document new sites and fossils. The course will begin at 8:00 am the first day and end at 5:00 pm the last day.

### *AQUATIC INSECTS OF YELLOWSTONE: 704*

**July 6-7** **$110 (Member's fee $100)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Credit available: U or G, 1 semester hour, ISU**
**Instructor: Robert Anderson, Ph.D.**

The ponds, riffles, streams, and rivers of Greater Yellowstone support an abundance of aquatic insects. Their biomass, density, and diversity can be impressive. Mayflies, caddisflies, salmonflies, and their relatives are extra-aquatic as winged adults, but the nymphal immature stages are adapted to life in the water where they live with backswimmers, water boatmen, water striders, water bugs and scavengers, diving beetles, whirligigs, and a variety of maggots—the larvae of real flies. The diversity and habitats of the aquatic forms on which so many birds and fish depend for survival will be examined through excursions in the lab and field. The course will begin at 9:00 am the first day and end at 5:00 pm the last day. *Course materials will be available for optional purchase during the class.*




*Photo by Pam Gontz*

***PHOTOGRAPHING NATURE IN YELLOWSTONE COUNTRY #1: 705***
**July 7-10 $200 (Member's fee $190)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Sandra Nykerk**

This four-day workshop will begin with the basics of photographic principles including the ethics of nature photography, creative visualization, learning to see the light, metering, exposure, and composition. With this foundation, more advanced topics will be discussed, including film and equipment selection, macro photography, and using flash in the field. Classroom lectures and slide programs are integrated with in-the-field shooting to allow maximum opportunity for "hands-on" learning and enjoyment of this spectacular region. Yellowstone's magnificent diversity—including misty early morning scenics, majestic wildlife, and the brilliant colors and steamy surrealism of the thermal features—offers an unparalleled setting for learning and expanding photographic skills. Emphasis will be on developing personal vision and creativity combined with technical excellence and an understanding that a really good nature photographer is an even better naturalist! The course will begin at 9:00 am the first day and end at 4:00 pm the last day. If you are looking for an intermediate photography course, see *Photographing Nature in Yellowstone Country #2*, course number 711, page 16. *Lab film processing will take place; student will be responsible for paying for processing. Fee includes $5 for course materials.*

***YELLOWSTONE FOR FAMILIES: 706*** **July 8-9**
**Adult-$110 (Member's fee $100)** **NEW**
**Child-$60 (Member's fee $50)**
**Location: Mammoth Hot Springs and Lamar Valley Limit: 20**
**Instructor: Nancy Loren**

While you may hear some people say there is nothing left to discover . . . it just isn't true. Yellowstone offers much: from the tiniest dewdrop to the largest watershed; from the freshest wildflower to the oldest juniper trees. Exploring together, young family members enliven the experience of discovery for the old and everyone in between. We will inquire into wildlife behavior, animal signs, wildflowers, rocks, and insects, as we visit a variety of Yellowstone backcountry habitats including pond, thermal, grassland, sagebrush, and forest. Each day's exploration will intersperse several miles of easy-paced walking (some on-trail, some off-trail) with wildlife observation, activities, and games to entertain and educate all ages.

The first day we will explore the Mammoth Hot Springs area beginning at 9:30 am. The second day's exploration will be in Lamar Valley and the Tower Fall area. Activities for each day will conclude by 6:00 pm. Children in this course should be at least eight years of age. Grandparents and grandchildren are especially welcome! Participants will caravan for field trips. *Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course. Lodging reservations should be made as early as possible. Families who camp must secure their own campsites early in the day. Campground or lodging reservations within the park may be made through AmFac Parks & Resorts at 307-344-7311. Participants must provide their food, including field lunches.*

***BUTTERFLIES OF GREATER YELLOWSTONE: 707***
**July 8-10 $155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U or G, 1 semester hour, ISU**
**Instructor: Robert Anderson, Ph.D.**

This course on butterflies explores their unexcelled beauty and aesthetic appeal. Their diverse colors and patterns have inspired many a naturalist, both amateur and professional. The biotic sensitivities of butterflies to local environments and microhabitats have resulted in a rich array of genera, species, and subspecies. Indeed, many—especially those that survive in confined or compressed habitats—are rare or endangered and on the verge of extinction. The Greater Yellowstone Ecosystem supports nearly 130 species representing 7 families of butterflies, many of which can delight our vision in subtle ways as their presence passes between bluebirds and bison. Participants will discover the butterfly bounty of Yellowstone and its environs, with an emphasis on family characteristics, while observing their numbers, variety, flight characteristics, food requirements, life cycles, and other attributes. The course will begin at 9:00 am the first day and end at 4:00 pm the last day. *Course materials will be available for optional purchase during the class.*



*Photo by Pam Gontz*



Photo by Pam Gontz

### *HISTORIC FIELD JOURNALS: 708* NEW

**July 9-12** **$200 (Member's fee $190)**
**Location: Old Faithful** **Limit: 12**
**Instructor: Eleanor Williams**

Wandering the edges of the Firehole River, astonished by geysers and fumeroles, early explorers recorded the 1871 landscape in their journals. Peering into the journals of early field artists such as Holmes and Moran, we will discover techniques and tools they used. Inspired by the unique thermal wonders and historic volumes, 1998 field journals will reveal the observations of an incredible journey. As we explore paths edged in steaming rivulets, listen to fissures filled with vapor, touch delicate crennelatons and await wildlife invested in the ecology, we will expand the expression of the page. After we choose papers and make a field journal we will investigate tools and techniques for field observation. We will be in the field and around the quiet areas of the Old Faithful Inn. Ink, graphite, and watercolor provide swift mediums for sketches and notes that will define an individual journey through a spectacular landscape. The course will begin at 9:00 am the first day and end at 2:00 pm the last day. *Rooms have been set aside in the Old Faithful area—contact registrar for reservation information. Reservations should be made as early as possible. Fee includes $10 for course book and materials.*

### *WOMEN & YELLOWSTONE—A HISTORICAL PERSPECTIVE: 709*

**July 11-12** **$110 (Member's fee $100)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Karen Krieger**

This course examines Yellowstone as seen by women in the late nineteenth and early twentieth centuries. Using diaries, letters, photographs, and other historical resources, the group will discover the variety of experiences encountered by women residents and visitors to the park during its early years. Day hikes and a stagecoach ride will include exploring old tourist sites, cemeteries, and natural features which encourage an understanding of how women interacted with Yellowstone. Short hikes of up to a mile can be expected. The course will begin at 8:30 am the first day and end at 5:30 pm the last day. *Fee includes a stagecoach ride from Roosevelt Lodge.*

### *EXPLORING THE YELLOWSTONE ECOSYSTEM: 710*

**July 11-13** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Tom Watson**

Based out of Lamar, this course will look at park geology, wildlife, botany, and history in the context of an ecosystem. It will examine Yellowstone's fiery birth, its frozen past and how these events prepared the stage upon which plants and animals act out their interdependent roles. This class will look at geysers and hot springs and many wildlife species and will consider what they are, why they are present in Yellowstone and the threats they face. An abiding interest in nature, not scientific training, is the only requirement. The course will begin at 9:00 am the first day and end early afternoon the last day. *Fee includes $5 for course materials.*

### *PHOTOGRAPHING NATURE IN YELLOWSTONE COUNTRY #2: 711*

**July 12-16** **$225 (Member's fee $215)**
**Location: Yellowstone Area** **Limit: 15**
**Instructor: Sandra Nykerk**

This four-day intermediate field photography course will continue the development of skills learned in *Photographing Nature in Yellowstone Country #1* (course number 705, page 15) by having more time in the field. We will base at three different locations in the park and each day will be spent photographing Yellowstone; all of our learning will be through hands-on experience. In the four days we'll work with the thermals of Mammoth, the Grand Canyon of the Yellowstone, Yellowstone Lake, and the beautiful colors of the Old Faithful area, allowing for the serendipity of wildlife. A wide variety of subjects will be covered, from selecting the right film and lens for your subject, to dealing with environmental conditions in the field. Consideration will be given to the continuing development of personal vision and creativity and the importance of natural history knowledge to the nature photographer. You need not have taken *Photographing Nature in Yellowstone Country #1* to take this course but it will be assumed that you have a working understanding of photographic principles and a fundamental familiarity with your equipment. The course will begin at 7:00 pm in Mammoth the first day and end around 4:00 pm the last day. *We recommend the following dates and areas for camping or lodging: July 12 and 13—the Mammoth area; July 14—the Yellowstone Lake area; July 15—Old Faithful area. Rooms have been set aside in the Lake and Old Faithful area only—contact registrar for reservation information. Reservations should be made as early as possible. Fee includes $5 for course materials.*

*MAMMAL TRACKING: 712*
**July 13-16** **(see description on pg 8)**

*HORSEPACKING: HELLROARING & THE BLACK CANYON: 713*
**July 13-17** **(see description on pg 36)**

*HEADWATER WATERSHED ECOLOGY: 714*
**July 14-16** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Credit available: U or G, 1 semester hour, U of MT**
**Instructor: Roy Mink, Ph.D. & Tim Burton**

Yellowstone Park offers a unique opportunity to study a watershed which has had minimal impact by man. The park is very unusual in that it is the headwaters for two major United States river systems: the Yellowstone-Missouri-Mississippi and the Snake-Columbia.

The goal of this course is to understand a watershed. Much of our past environmental management strategies have been oriented toward managing a specific resource (such as timber) or species (such as trout) without regard to how that specific entity interacts within the total system. The watershed approach takes into account how each aspect of the ecosystem interrelates with every other. Students will study several Yellowstone watersheds and look at the hydrology and stream ecology in order to understand the relationship of various aspects of the watershed including effects of fire and wildlife. Also the relationship of the stream macroinvertebrates and riparian systems as indicators of stream health will be investigated. You will learn how to conduct a "stream walk" survey as part of the course. This survey could be used for teachers or citizen groups interested in stream monitoring. The course will begin at 9:00 am the first day. *Fee includes $5 for course materials.*

*WILDFLOWERS & WILDFIRE—TEN YEARS AFTER "THE FIRE": 715* **NEW**
**July 17-18** **$125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Wayne Phillips**

This class will study the role of fire in the Yellowstone ecosystem. We will learn to identify the wildflowers, shrubs, grasses, and trees that are growing in the areas burned in the great wildfire of 1988. The class will investigate the effect of fire on individual plant species and plant communities, including sagebrush, aspen, and coniferous forest. Plant responses to wildfire will be studied, including plant strategies for surviving fire and for recolonizing the burned area after the fire has passed. Burned areas will be compared with unburned. Sites visited and photographed by the instructor the first two years after the fire will be re-visited and the vegetation now compared with 1989-90. Most walks are 2 to 3 miles with up to 600-foot elevation gains. The course will begin at 9:00 am on the first day of class. *Fee includes $5 for course materials.*

*YELLOWSTONE PLACE NAMES—THE NOMENCLATURE OF WONDERLAND: 716*
**July 17-19** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Lee H. Whittlesey**

This three-day class will acquaint you with the origins and history of some of the 2,000 active and 2,000 obsolete place names of natural features in Yellowstone National Park. One of the best things about this class is its tour of the park, conducted by a twenty-five-year expert on Yellowstone features. On three separate field trips, the instructor will point out the mountain peaks and other natural features and explain to you how they got their names. The morning of the first day is spent in class, and the other two and one-half days are spent touring the park. Included will be biographical information on the historic persons for whom natural features are named; history of who gave the names, when, and why; and discussions on the rules for place names worldwide. Learn how Greek and Roman mythology affected Yellowstone's place names and how American politics and world literature, including the Bible, influenced their naming. The course will begin at 8:30 am the first day.

*GEYSERS, MUDPOTS, & HOT SPRINGS*
**July 17-19: 717** **July 21-23: 722**
**$180 (Member's fee $170)**
**Location: Old Faithful** **Limit: 15**
**Credit available: U, 1 semester hour, MSU**
**Instructor: Duncan Foley, Ph.D.**

The rare, spectacular geothermal features of Yellowstone will be explored in this course. After a short introduction, visits to mudpots, hot springs, and geysers will begin with hikes timed to see several of the less common geysers erupt. The class will meet at the Grand Canyon of the Yellowstone at 11:00 am on the first day of class and then proceed to the Old Faithful area for a full day of geyser gazing on the second day. Norris Geyser Basin and other sites will be visited on the third day of class, with class ending late afternoon. No background in geology is required. Fee does not include lodging. This class will headquarter at Old Faithful. Early lodging reservations are essential. Contact the Institute office for information on lodging and camping. *Rooms have been set aside in the Old Faithful area—contact registrar for reservation information. Reservations should be made as early as possible. Fee includes $18 for course book and materials.*

*INTRODUCTION TO MACRO PHOTOGRAPHY: 718* **NEW**
**July 19-21** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 15**
**Instructor: Joseph Berke**

One often misses the small things in life. Using the techniques of close-up (macro) photography you can capture the wonders of Yellowstone that are contained in images of plants, insects, crystals and within portions of larger objects. This class will cover the basics of macro photography including selection and use of equipment such as cameras, tripods, macro lenses, close-up lenses, extension tubes as well as the basic photographic theories to achieve the desired results. There will be ample opportunity to work with your own equipment in the field and to experiment with the techniques discussed in class.

You are encouraged to bring your equipment, old or new, to learn how to best use what you now have. You will also see other types of equipment in use and be able to try some of the equipment demonstrated and discussed by the instructor. The course will begin at 9:00 am the first day and end at 4:00 pm the last day. *Fee includes $5 for course materials.*

*WILDFLOWERS OF THE HIGH COUNTRY (LLAMA TREK): 719*
**July 19-23** **$475 (Member's fee $465)**
**Location: Beartooth Backcountry** **Limit: 10**
**Credit available: U, 1 semester hour, U of MT**
**Instructor: Wayne Phillips**

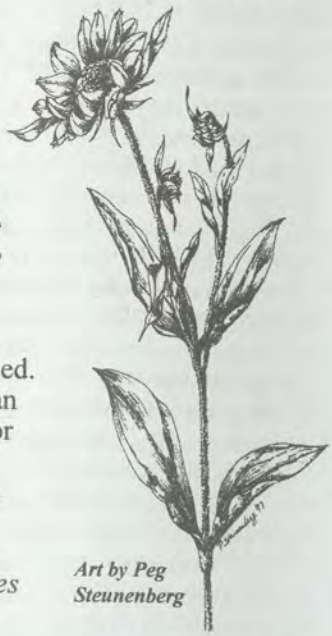
For this backcountry study of alpine plants and their environment, group gear and food will be transported by llama to a campsite near the high country lakes of the Beartooth Mountains. Participants should be physically fit and prepared for strenuous off-trail hikes in rugged mountain terrain. Wildflowers along the edges of the many lakes, streams, snow banks, and glaciers will be featured, from the alpine tundra to the open subalpine forest. The hikes each day will vary from 4-6 miles, or more, with elevation gains of 500 to 2,000 feet. More than half of these miles will be off-trail through rugged boulder strewn terrain with numerous stream and snow bank crossings, at elevations of 9,000 to 11,000 feet. The class will begin at 3:00 pm the first day. *Enrollees must bring tent, sleeping bag, pad, and pack. Fee includes group equipment, food, and llama packing. A camp cook will prepare meals.*



*Photo by Don Nelson*

*BOTANICAL SKETCHBOOK—DRAWING WORKSHOP: 720*
**July 20-22** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Peg Steunenberg**

To know it is to draw it—an in-depth exploration of the wildflowers of Yellowstone. Morning sessions include hiking, field sketching, and field observation. Afternoon sessions assist artists in developing the field sketches, transferring the drawing to their preferred working surface, and experimenting with the medium of choice. Demonstrations in graphite, colored pencil, pen and ink, and mixed media will be offered. The delights and dilemmas of working from photographs will be discussed. Free time in the evenings can be spent finishing artwork or reading up on illustration techniques in various books supplied by the instructor. The course will begin 8:30 am the first day. *Fee includes $5 for course materials.*



*Art by Peg Steunenberg*

*BACKPACKING FOR TEENS: 721* **NEW**
**July 20-24** **(see description on pg 34)**

*GEYSERS, MUDOTS, & HOT SPRINGS: 722*
**July 21-23** **(see description on pg 17)**

*WEATHER CYCLES IN THE BIG SKY: 723* **NEW**
**July 22-24** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Dave Thurlow**

The cyclical behavior of the atmosphere, from day to day, season to season, and year to year instills a sense of wonder, respect and curiosity in those who choose to take notice. This three-day course will allow you to notice the sky in ways you've never dreamed of, and take the observations made, and lessons learned, back to your home town, under your own piece of sky. Through slides, video, and direct observations, the focus will be on the summer weather patterns of Yellowstone. Much of our time will be spent in the field, including a full day hike to the weather observatory atop Mt. Washburn.

You will come away with a basic understanding of how weather works—from micro-scale to global scale. Simple observational parameters and cloud types will be discussed, giving you the language to describe the

atmosphere and the knowledge to make your own forecasts for anywhere in the world!

Yellowstone offers prime weather viewing opportunities, and we will be flexible enough to enjoy and learn from anything that pops up. Moderate but not strenuous hiking will occur, except the Mt. Washburn hike which climbs 1,400 feet over a 3-mile distance to the 10,000-foot summit. The course will begin at 9:00 am the first day and end at 3:00 pm the last day.

***ALPINE WILDFLOWER WALKS: 724***
**July 24-26 $125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Credit available: U, 1 semester hour, U of MT**
**Instructor: Wayne Phillips**

Wildflowers growing in the alpine tundra above the tree line will be the focus of this course. Participants will make day-hiking trips through the high country of the Beartooth Plateau to study the beauty of flowers found only in circumpolar arctic environments and on the highest mountain tops south of their arctic home. A variety of alpine ecosystems will be studied including the "krummholz," or windbattered, horizontal pygmy forest, the cushion plants of the boulder fellfields, the lush alpine meadows, and the flowers that spring up behind the receding snowbank. The hikes each day will vary from 4-6 miles, or more, with elevation gains of 500 to 2,000 feet. More than half of these miles will be off-trail through rugged boulder strewn terrain with numerous stream and snowbank crossings, at elevations of 9,000 to 11,000 feet. Participants should be physically fit and prepared for strenuous hikes in rugged terrain. The course will begin at 4:00 pm the first day and end at 4:00 pm the last day. *Fee includes $10 for course materials.*

***OBSERVING YELLOWSTONE WITH THE ARTIST'S EYE: 725***
**July 25-29 $245 (Member's fee $235)**
**Location: Lamar Buffalo Ranch**
**Instructor: Alan McKnight Limit: 12**

In this course we will strive for freshness in drawing and painting outdoors in Yellowstone. We will search for original motifs and work on form, composition, values, and color. The goal will be to communicate through our art our own unique relationship to the land, to its plant and animal life, and even to its other visitors. We will use sketchbooks to collect our ideas and organize them. Then we will work on our final drawings or paintings on site, continuing to gather observations as the picture develops. When we return to the Institute headquarters, there will be space and time for further critiques and final touches on our work. Choice of medium is up to the student, but remember that portability is crucial as we will attempt to work a good way from the roads. Suggestions on what to bring will be sent to each person who registers. The course will begin at 9:00 am the first day.

***HORSEPACKING: GUSTAVUS C. DOANE MEMORIAL RIDE—Yellowstone's Snake River Country: 726*** **July 26-30** **(see description on pg 37)**

***BACKPACKING IN GRIZZLY COUNTRY: 727***
**July 27-29** **(see description on pg 34)**

***CARNIVORES OF THE GREATER YELLOWSTONE ECOSYSTEM: 728*** **NEW**
**July 27-30 $200 (Member's fee $190)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Credit available: U, 1 semester hour, MSU**
**Instructor: Don White, Ph.D.**

Carnivores have always fascinated us, even though they make up only 10% of all mammalian genera and only about 2% of all mammalian biomass. The world of the carnivores embraces creatures in whom resides the very essence of power, endurance and speed, of wit and fang. In Greek mythology most of the gods adorned their robes and helmets with depictions of carnivores. Part of our fascination with carnivores stems from fright and intrigue, and sometimes even hatred because of our direct competition with them.

This course is designed to provide an introduction into the biology, ecology, behavior, and management of these fascinating animals. The primary objective of this course, however, is to bring the excitement and beauty of carnivores closer to those who have not had much of an opportunity to study them. Grizzly bears, black bears, wolves, coyotes, foxes, mountain lions, lynx, bobcats, wolverines, otters, fisher, badgers, marten, black-footed ferrets, and weasels will be discussed in detail. These species are generally secretive and occur at low densities, but there is a chance we will see a few of them in the field. This course will feature guest speakers, lectures, readings, videos, extensive discussion, and field trips to the habitats used by the carnivores of the Greater Yellowstone Ecosystem. The course will begin 9:00 am the first day. *Fee includes $15 for course materials.*



*Art by Alan McKnight*

***LAKES OF YELLOWSTONE BY CANOE: 729***
**July 27-31 $450 (Member's fee $440)**
**Location: Shoshone Lake, Yellowstone Backcountry**
**Instructor: Scott Wood Limit: 14**

This five-day canoe trip across Lewis Lake and into magnificent Shoshone Lake, the largest wilderness lake in the lower 48, will provide interpretation of the lake environment and instruction on low-impact backcountry camping techniques. Canoeing skills such as strokes, portaging, safety, and tripping (how to pack a canoe) will be covered, and an American Red Cross canoeing certification may be earned if desired. This trip is designed for beginners and is of moderate physical difficulty, including a two-mile upstream pull of the canoes on the Lewis River and travel in moderate winds. The course will begin at 9:00 am the first day at the Lewis Lake campground boat dock. *Fee includes all canoeing equipment, group camping gear, and food.*

***HORSEPACKING: SOUTH BOUNDARY, FOX PARK, & THE TETON WILDERNESS—The Wilderness Story: 730*** **NEW**
**July 30-Aug 4** **(see description on pg 37)**

***FLY FISHING THE CATCH-AND-RELEASE WAY***
**July 31-August 2 Less Experienced: 731 Limit: 8**
**August 7-9 More Experienced: 807 Limit: 9**
**$195 (Member's fee $185)**
**Location: Lamar Buffalo Ranch**
**Instructor: Richard Parks**

Both sessions of this course will emphasize the special nature of Yellowstone fishing—its abundance of native fish and the special regulations and fishing philosophies which have enabled park managers to protect and maintain a sport fishing resource.

The course for less experienced persons will concentrate on the basics and is intended for those who have progressed far enough to purchase their own equipment but who have not spent much time actually fly fishing. About half the course time in this first session will be spent away from the water practicing casting and other techniques. During the second and third days, the instructor will work with half of the group each day on the stream. He will be available each evening for discussion. The limited enrollment will allow time for the instructor to work with each person one-to-one. Students should be aware the Yellowstone River in the park lies above 7,000 feet in altitude and neither the stream banks nor their approaches are flat. Some hiking and climbing will be required.

The sessions for the more experienced is for persons who have mastered the basics and will focus almost exclusively on fishing Yellowstone's waters. The instructor will act primarily as a resource person in assisting participants in polishing their skills. Most instruction will be on an individual basis or in small groups. The class will divide into three groups, with one-on-one instruction for each group on one day. During the two days you are not having the intensive instruction, you will practice on your own and meet with the group for morning and evening discussions. Both courses will begin at 8:30 am the first day. *A Yellowstone Park fishing permit, available at most visitor centers, is required.*

***MOVING NATURE—ENVIRONMENTAL ETHICS & YELLOWSTONE: 732***
**July 31-August 2 $160 (Member's fee $150)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Credit available: U, 1 semester hour, RMC**
**Instructor: David Strong, Ph.D.**

Since the founding of Yellowstone Park, the most extensive transformation of the earth has taken place in all of humankind's history. From the exploitation of Earth's resources to the disposal of our waste, we have been engaged in a project of moving nature. Even immediately outside the park boundaries, this transformation is taking place in the forms of mining, timbering, oil and gas exploration and drilling as well as with other 'developments.' On the other hand, Yellowstone, for the most part, has resisted this massive transformation. It was the natural wonders of Yellowstone—the nature here—that first moved people to take steps to protect and preserve this place against such transformations.

What are the motives behind our rearrangement of nature? Do wild things and places, like Yellowstone, present a larger challenge to the way we seem to be settling nature, not only in the park but also on this continent and on the earth itself?

This course will address these questions and explore the ambiguity of "moving nature." Through slide shows and field trips we will see how nature has been moved near the park boundaries, and we will give nature a chance to move us as we hike trails here. Join David, who specializes in environmental ethics and the philosophy of technology, in a sophisticated discussion of nature and culture that uses Yellowstone as a focus and a springboard. Expect a mix of reading, classroom instruction applying environmental ethics to Yellowstone issues, discussion, journal writing, and moderate hikes. The course will begin at 9:00 am the first day. *Fee includes $20 for a copy of the instructor's book plus other course materials.*



*Photo by Pam Gontz*

***EXPLORING THE ECOLOGY & BIOTECHNOLOGICAL POTENTIAL OF YELLOWSTONE'S MICROORGANISMS: 733*** **NEW**
**July 31-August 2 $165 (Member's fee $155)**
**Location: Mammoth Hot Springs Limit: 10**
**Instructor: Anna-Louise Reysenbach, Ph.D.**

Given that most of the diversity of life resides with microorganisms, this three-day intensive course will acquaint you with a slice of the spectacular diversity of microbial life in Yellowstone's thermal springs. We will explore the different extremes in which these organisms thrive, consider some of the biotechnological value that they might harbor, and consider whether Yellowstone's thermal springs might tell us something about past life on other planets. Each day will start with a short introduction, followed by a visit and occasional short hike to a hot spring area that typifies a different environmental extreme for the microorganisms. Late afternoons or evenings will be spent viewing the microorganisms under a microscope, for limited exposure to laboratory techniques used to study microbial diversity (some entirely dependent on an enzyme obtained from a Yellowstone microorganism!) and for an informal presentation of the biology of deep-sea hydrothermal vents. No background in microbiology is required. The course will begin at 8:30 am the first day. Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course. *Fee includes $5 for course materials.*

***BACKPACKING THE HEART OF YELLOWSTONE: 801*** **NEW**
**August 1-6** **(see description on pg 35)**

***LIFE AT THE EXTREMES: 802***
**August 3-6 $210 (Member's fee $200)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Credit available: U, 1 semester hour, MSU**
**Instructors: Harold Picton, Ph.D. & Don White, Jr., Ph.D.**

Life in and around Yellowstone National Park takes place within a broad range of environmental extremes. The demands placed on life from heat, cold, pressure, and altitude have resulted in an amalgamation of unique and interesting adaptations in living organisms. This course is intended to introduce you to some of these morphological, physiological, and behavioral adaptations exhibited by some of the plants, animals, and microbes that live in and around Yellowstone. For example, we will discuss how alpine plants tolerate the variable environment of the alpine tundra. We will talk about how some animals tolerate low temperatures and low oxygen pressure, including how their blood responds to increasing altitude, and why hibernation is a strategy used to survive the winter by some animals but not others. Our goal is that you will begin to appreciate that understanding an organism's physiology (i.e., how they function biologically) is important in understanding their ecology. The course will begin at 9:00 am the first day.



*Photo by Pam Gontz*

***FAMILY DAYS IN THE THERMAL BASINS: 803***
**August 4-6**
**Adult-$165 (Member's fee $155)**
**Child-$90 (Member's fee $80)**
**Location: Madison Campground Limit: 20**
**Instructors: Sandra Nykerk & Jim Garry**

The thermal areas of Yellowstone are unique in the world for their number and diversity. For three days, this family class will explore the thermal basins of Yellowstone, gaining an understanding of the geology and ecological systems which make these features possible. We will spend time at many of the thermal areas both on and off the beaten path, including Old Faithful, Norris, and Mammoth. Both campsite activities and field trips will be paced for a family experience and will allow ample time to enjoy all of Yellowstone's natural history, including wildlife and botany. Field trips will include hikes of up to three miles but the final itinerary will be based on the ages and abilities of class participants. Wildlife watching at dawn will be an option for class participants, and an evening campfire storytelling session will introduce the mythology and folklore of the Yellowstone country.

The course will begin at 9:00 am the first day and is based at the Madison Campground. Children in this course should be at least eight years of age. *Participants will carpool for field trips. Families who camp must secure their own campsites early in the day or make reservations through AmFac Parks & Resorts at 307-344-7311. Participants must provide their own camping equipment and food, including field lunches.*



Photo by Pam Gontz

### *YELLOWSTONE'S NORTHERN ROADSIDE HISTORY: 804*

**August 4-6** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Lee H. Whittlesey**

The Yellowstone landscape is rich in evidence of earlier human activity and use of the area, and traveling the park's roads can reveal numerous fascinating sites worth closer examination. Based out of the Institute's Lamar facility, informative day-long field trips and off-road hikes (up to three miles round trip) will explain in detail the significance of the places we visit. Examination of sites and discussions throughout the day will guide your understanding of human involvement in Yellowstone, from early Native American use to more recent human activity. This exploration of the park's history will be supplemented with a slide show of historic photos and a special tour of Yellowstone's antique stagecoaches and early busses, a collection not generally open to the public. Included will be stories of early violent deaths in the park from the instructor's book, *Death in Yellowstone*. Bring your questions and try to stump the instructor! The course will begin at 8:30 am the first day.

### *HORSEPACKING: TRAPPER TRAILS THROUGH THE THOROUGHFARE: 805*

**August 4-9** **(see description on pg 37)**

### *FROM BISON TO BUFFALO—USING FIELD JOURNALS TO EXPLORE AN ANIMAL & AN ISSUE: 806* NEW

**August 6-9** **$200 (Member's fee $190)**
**Location: Canyon Area**
**Instructor: Carolyn Duckworth** **Limit: 15**

Field journals—records of our interactions with the natural world—can guide us in thinking about controversy. To explore this idea, we'll keep field journals as we explore one of the most controversial wildlife issues facing Yellowstone National Park—buffalo who wander out of the park. We'll learn about buffalo while observing them in the valleys of the park during their most active period—the time of mating. This is the one time of year that males, females, and young herd together. And we'll visit sites where the controversy occurs—near West Yellowstone or Gardiner. Throughout our exploration, we'll use written and visual journal entries to respond to what we learn and feel. The course will begin at 9:00 am the first day and end at 4:00 pm the last day. Participants will caravan for field trips. *Rooms have been set aside in the Canyon area—contact registrar for reservation information. Campsite or lodging reservations should be made as early as possible. Fee includes $5 for course materials.*

### *FLY FISHING: MORE EXPERIENCED: 807*

**August 7-9** **(see description on pg 20)**

### *DAY HIKING YELLOWSTONE: 808* NEW

**August 8-10** **(see description on pg 35)**

### *GEOLOGY OF THE YELLOWSTONE COUNTRY: 809*

**August 10-14** **$245 (Member's fee $235)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Credit available: U or G, 1 semester hour, U of WY/ U of MT**
**Instructor: David Fountain, Ph.D.**

This course, conducted in the natural field laboratory of Yellowstone Park, will concentrate on the geological evolution of the area. Daily travel through the park will introduce you indepth to such topics as volcanic rocks and processes, glaciation, earthquakes and faulting, hydrothermal features, sedimentary rocks and processes, metamorphism, and tectonics. Completion of an introductory geology course is preferable but not required. This course includes a 1½ - 2 mile day hike up to Specimen Ridge, with an elevation gain of 800 feet. On the first day of class the course will meet at the Lamar facility at 8:00 am. Note: If taken for credit, grades for this course will be available sometime after September 14.



Photo by Pam Gontz



*Photo by Pam Gontz*

***YELLOWSTONE'S SOUTHERN ROADSIDE HISTORY: 810*** **NEW**
**August 11-13** **$155 (Member's fee $145)**
**Location: Old Faithful** **Limit: 12**
**Instructor: Lee H. Whittlesey**

The Yellowstone landscape is rich in evidence of earlier human activity and use of the area, and traveling the park's roads can reveal numerous fascinating sites worth closer examination. Based out of the Old Faithful area, informative day-long field trips and off-road hikes (up to three miles round trip) will explain in detail the significance of the places we visit. Examination of sites and discussions throughout the day will guide your understanding of human involvement in Yellowstone, from early Native American use to more recent human activity. This exploration of the park's history will be supplemented with a slide show of historic photos and a special tour of Yellowstone's antique stagecoaches and early busses, a collection not generally open to the public. Included will be stories of early violent deaths in the park from the instructor's book, *Death in Yellowstone*. Bring your questions and try to stump the instructor! The course will begin in the Old Faithful area at 8:30 am the first day. *Rooms have been set aside in the Old Faithful area—contact registrar for reservation information. Reservations should be made as early as possible.*

***BACKPACKING THE BEARTOOTHS—THE "LEAVE NO TRACE" WAY: 811***
**August 11-15** **(see description on pg 35)**

***THE LIVING STREAM: 812***
**August 14-16** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Credit available: U, 1 semester hour, CSU**
**Instructor: Bert Cushing, Ph.D.**

This course, based at the Lamar Buffalo Ranch, will explore the functioning of streams as entire ecosystems. It will explain how the various biological communities found in different size streams are dependent upon the physical, chemical, and biological characteristics of the entire watershed, and, most importantly, how they are linked in a continuum from the headwater reaches to the river's mouth. A slide-illustrated lecture will set the stage for the field and laboratory work. We will then visit different sized streams where we will discuss the information presented in the lecture, collect aquatic insects, learn how to identify the insects in the lab, and determine how well the information we gather fits into the current popular concepts of stream ecosystems in use today. The information learned in this class permits an enhanced appreciation of how all aspects of the environment work together to produce the stream and its organisms; a truly holistic view of the function of these ecosystems. If you fish, it might not help you catch more fish, but should make the total experience more enjoyable. The course will begin at 8:30 am the first day.

***SIMPLY STUNNING SCENIC PHOTOGRAPHY: 813***
**August 15-16** **$110 (Member's fee 100)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Pete Houdeshel**

Presenting easy solutions to the mysteries of making great nature photographs will be the key emphasis of this workshop. Whether you come equipped with a simple "point and shoot" camera wanting to take better snapshots, or are an ambitious new photographer seeking to be immersed in the challenges of more advanced 35mm photography, this course in composition is designed for you. Combining instructive slide presentations with field trips that explore the grandeur of the Yellowstone landscape, anyone interested in learning how to record their visit with beautiful and more skillfully composed photos is welcome. The course will begin at the 9:00 am the first day of class and end at 10:00 pm the last day. It is recommended that participants plan on spending the night of August 16 at the Lamar cabins or in the general vicinity.



*Photo by Pam Gontz*

**[course descriptions continue on page 31]**

# The Institute Store

**These items are available at the Yellowstone Institute Store located at our facility in Lamar Valley, and by mail. Yellowstone Association members receive a 15% discount on all purchases. Proceeds support Yellowstone Institute programs.**

*The Yellowstone Institute logo is embroidered on all apparel.*

## *Short-Sleeved Apparel*

**Weathered Short-Sleeved Polos—**
Dress up in this cotton sport shirt with woodtone buttons dyed to match. 100% heavyweight cotton. By DesertWash. **Colors:** Dark Green, Denim Blue, Light Green, Poppy. **Sizes:** M, L. XL. #130002 ..... $34.00

**Short-Sleeved T-Shirts—**
An Institute classic, with bison logo and great colors. High quality shirts are generously cut. 100% heavyweight cotton is pigment-dyed and preshrunk. By Anvil. **Colors:** Western Sky (blue), Willow (green), Orchid, Smoked Salmon, Sage (light green). **Sizes:** M, L, XL.
#130000 ..... $16.00

## *Long-Sleeved Apparel*

**Long-Sleeved Denim Shirt—**
Add some western style to your wardrobe. Our denim shirt includes a banded collar, double-back yoke, single pocket, and hemmed tail. 100% laundered cotton. By Crystal Springs. **Colors:** Black, Light Blue, Green, and Dark Blue. **Sizes:** M, L, XL. #130003 ..... $44.00

**Long-Sleeved Thermal Henley—**
Imagine your favorite thermal underwear with fancy buttons and fun colors. 100% ring-spun cotton is pigment-dyed and preshrunk. By Avanti. **Colors:** Claret (burgundy), Meadow, Nearly Navy, and Plum. **Sizes:** L, XL.
#130008 ..... $33.00

**Long-Sleeved Sweatshirt—**
This comfortable garment features ribbed collar, cuffs, and waistband. 9 oz. material is 50% cotton, 50% polyester. By Jerzees. **Colors:** Sea Teal, Winestone, Weathered Denim, Dusty Green, Cameo (coral). **Sizes:** M, L, XL. #130006 ..... $27.00



*Diane Kline models our fleece jacket.*
*Photo by Pam Gontz*

## *Outerwear*

**Fleece Jacket—**
Perfect for wolf watching and field trips in the park. 100% pill-resistant polyester with sturdy full zipper, pockets, elastic cuff and waist. By Auburn Glacier Mountain. **Colors:** Navy, Charcoal, Forest Green, and Black. **Sizes:** M, L, XL.
#130047 ..... $60.00

**Polartec Vest—**
For added insulation without restricted mobility. Polartec 200 fleece. By Turfer. **Colors:** Navy, Forest, Black. **Sizes:** M, L, XL.
#130004 ..... $52.00

**Polartec Pullover—**
Just like your favorite sweater. . .only warmer and more durable for serious outdoor use. Polartec 200 fleece with zippered pockets and supplex trim. By Turfer. **Colors:** Plum, Forest, Black. **Sizes:** M, L, XL.
#130005 ..... $71.00

## New Items

**Mock Turtleneck—**
This high quality turtleneck will add a touch of class to your casual wear. Mock turtleneck design with Spandex collar and cuffs. 100% combed cotton. By Outer Banks. **Colors:** Forest Green, Black, Navy, and Wine. **Sizes:** M, L, XL.
#130049 ..... $27.00

**Long-Sleeved Henley Sweatshirt—**
This is a dressed up version of our popular sweatshirt, with two buttons and narrow-ribbed trim. 9 oz. material is 50% cotton, 50% polyester. By Lee. **Colors:** Navy, Hunter, Wine, and Ash. **Sizes:** M, L, XL.
#130048 ..... $34.00

**Polartec Hat—**
A hat made for those cool winter days or crisp spring evenings. Polartec 200 fabric. **Colors:** Navy, Charcoal, and Black. **Sizes:** One size fits all.
#130053 ..... $18.50

**Oil Skin Cap—**
Perfect for field work in inclement weather. Waxed cotton fabric with adjustable back strap. **Colors:** Navy, Brown, and Forest. #130054 ..... $12.00



*Yellowstone Institute Hats* *Photo by Pam Gontz*

## Hats

**Pigment Dyed Low Profile Cap—**
Practical headwear in fashionable style and colors. Pigment dyed cotton with leather back strap and disappearing tail. By Adams. **Colors:** Forest Green, Mud (brown), two-tone Khaki/Forest Green, Khaki/Midnight Blue.
#130026 ..... $12.00

**Brushed Canvas Hat—**
A classic baseball cap in soft brushed canvas with adjustable plastic back strap. **Color:** Tan with dark green visor.
#130024 ..... $12.00

**Pigment Dyed Cap—**
A soft and comfortable hat designed to fit most heads. Pigment dyed cotton with leather back strap. **Colors:** Blue, Charcoal, and two-tone Dark Green/Cactus (light green).
#130028 ..... $12.00

## Children's Clothing

**Children's T-Shirt—**
A pint-sized version of our perennial favorite. Hanes Beefy-T, 100% cotton 5.6 ounce shirt. **Colors:** Red, Royal Blue, Forest Green. **Youth Sizes:** S (6-8), M (10-12), L (14-16).
#130044 ..... $12.50

**Children's Sweatshirt—**
Kids love this warm and colorful sweatshirt. 50% cotton, 50% polyester. By Hanes. **Colors:** Denim Blue, Cardinal, Jade. **Youth Sizes:** S (6-8), M (10-12), L (14-16).
#130045 ..... $17.00

## Wolf Items

**Limited Edition Wolf Etching—**
The Yellowstone Institute's popular limited edition etching featuring the gray wolf is still available. Only 150 prints have been made, and each is signed and numbered by the artist, Lawrence Ormsby. Ormsby has used the ancient technique of intaglio printing to produce the etchings. Each color on a print is made with a separate plate. The plates are then covered with ink, and each color is transferred individually onto the paper. Unlike commercially printed "limited editions," original prints are truly limited by the deterioration of the medium, and not by a preset number. The wolf etchings are being sold for $185 each, plus $7.50 for insurance, shipping and handling.
#130038 ..... $185.00



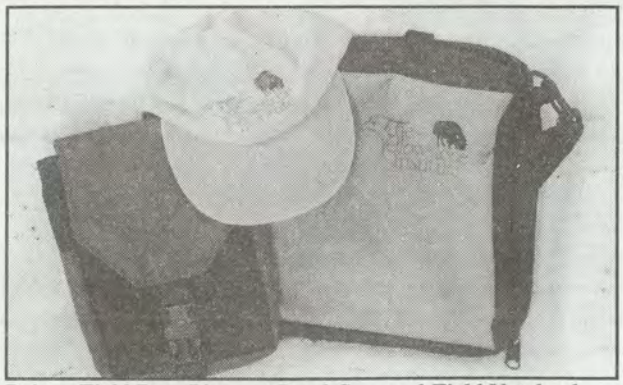

*Limited Edition Wolf Etching* *Photo by Pam Gontz*

**Yellowstone Institute Wolf Book Bag—**
This 18" x 17 1/2" off-white with black handle bag is made of heavy, durable 100% cotton. An image of a gray wolf (similar to the wolf shown in the print above) is printed on the front with the Yellowstone Institute logo. On the back is a brief message about the gray wolf and the Yellowstone Institute.
#130039 ..... $12.50

# *Useful gifts for yourself and others*

**Field Bag—**
This attractive waist pack, made of durable Cordura, is designed for the active outdoor enthusiast. It has seven handy pockets so you can tailor the field bag to your own needs. Pockets are large enough to hold binoculars, a camera, field guides, maps, etc. It also has a fully adjustable waist band so that the pack can be worn on the front, side, or back. Use it for birdwatching, hiking, traveling or a day in the park! By Pajaro. **Colors:** Forest Green/Black, Navy Blue/Black. #130046 ..... $29.95

**Field Notebooks—**
A Cordura case covering an 8.5" x 11" 3-ring binder. There are pockets for pens, business cards, calculator, and more; secured with a large zipper. It keeps those notes in order and in a protected, easy-to-find place. Features a full size zippered pouch pocket on the outside and a detachable shoulder strap. Case is made with luggage quality Cordura which is waterproofed and extremely durable.
**Colors:** Teal, Burgundy, Forest Green, and Royal Blue, all with black trim. Imprinted with Yellowstone Institute logo. #130014 ..... $50.00



*Pajaro Field Bag, Pigment Dyed Cap, and Field Notebook.*
*Photo by Pam Gontz*

**Deluxe Auto Travel Mug—**
Foam-insulated 12 ounce mug keeps beverage hot/cold longer and fits most built-in vehicle cup holders. Features a closable lid with locking mechanism that will resist spills. Granite with black Yellowstone Institute and Yellowstone Association logos imprinted on opposite sides.
#130035 ..... $6.00

## 1998/99 Order Form

**Name**_____
**Address**_____
**City**_____
**State**_____
**Zip**_____
**Daytime phone**_____

**Payment by:** ☐ Check ☐ Visa ☐ MasterCard ☐ Discover

**Credit Card Number**
____ ____ ____ ____

**Expiration Date** __/__

**Signature**_____

YI-C98/99

| Item # | Description | Size | Color | Alternate Color Choice | Qty | Price | Total |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
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**Returns** -- If you aren't satisfied, merchandise can be returned for exchange or refund within two weeks of its receipt. Shipping fees are not refundable.

| Amount of Order | US Postage and Handling |
|---|---|
| up to $10.00 | $5.00 |
| $10.01 to $25.00 | $6.50 |
| $25.01 to $50.00 | $7.50 |
| $50.00 and up | $8.50 |

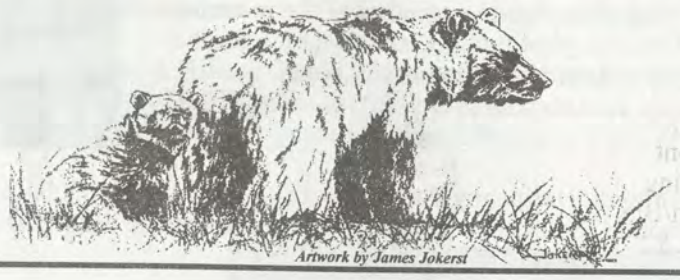
**Subtotal**_____
**Yellowstone Association members deduct 15%**_____
**4% sales tax (Wyoming residents only)**_____
**Postage and Handling**_____
**TOTAL**_____

**Foreign Orders**
Please specify:
☐ Surface (8-12 weeks) ☐ Air (1-2 weeks)
(Fee will be actual postage plus $2.00 for handling)

### To Order:

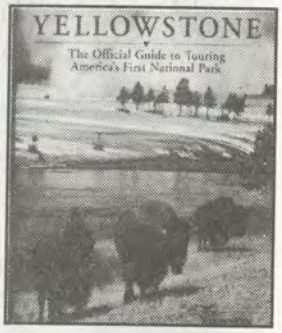
**Mail:** The Yellowstone Association, PO Box 117, Yellowstone National Park, WY 82190
**Phone:** 307-344-2293, Monday through Friday, 8:00-4:30 MST
**Fax:** 307-344-2485, Anytime

# Books, Maps, and Pamphlets about Yellowstone National Park


Artwork by James Jokerst

**These titles and many more are available at the Yellowstone Institute store located at our facility in Lamar Valley, at Visitor Centers throughout the Park, and by mail. Yellowstone Association members receive a 15% discount on all purchases.**

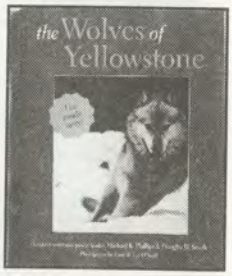
## *About Yellowstone . . .*




**Yellowstone—The Official Guide to Touring America's First National Park** is the Yellowstone Association's own newly published, up-to-date guidebook. Along with a map of the entire park, the Guide also contains detailed maps of each road section showing the location of the hotels, visitor centers, ranger stations, picnic areas, gas stations, and stores in each area. These features alone would match other guidebooks, but the Official Guide also contains an easy-to-use field guide section which contains color photos and descriptions of many of the park's most common mammals, plants, wildflowers, and birds. 80 pages. #10522 ..... $6.95

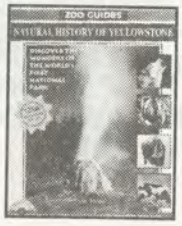



**Yellowstone Album: A Photographic Celebration of the First National Park,** Whittlesey. This 125th anniversary publication chronicles the history of Yellowstone with hundreds of black and white photos from the park's historic photo collection and expert commentary by park historian Lee Whittlesey. Edited by Marsha Karle with an introduction by Yellowstone Superintendent Michael V. Finley. 208 pages.
#10523 softcover ..... $19.95
#10502 hardcover ..... $29.95




**The Wolves of Yellowstone**, Phillips and Smith. Written by Wolf Restoration Project leaders Michael K. Phillips and Douglas W. Smith, this book tells the inside story of the restoration of wolves to Yellowstone. It contains the biologists' personal accounts, as well as previously unpublished photographs, field notes, and historical documents. 128 pages.
#10476 hardcover ..... $24.95

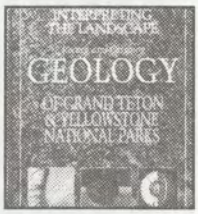



**Yellowstone Magic**, Terra Productions. This screen saver is available on CD-ROM and will work on either Macintosh or Windows platforms. It features 25 beautiful images of Yellowstone, as well as an option to view educational text about the park and the Yellowstone Association. #100013 ..... $14.95

**Natural History of Yellowstone.** From steaming geysers to majestic waterfalls, from bison to moose, this CD-ROM explores Yellowstone's wildlife, geology, and history. #100018 ..... $29.95

## *Books by Institute Instructors*




**Interpreting the Landscape of Grand Teton and Yellowstone National Parks: Recent and Ongoing Geology**, Good and Pierce. This book describes the creation of the mountain ranges of the Greater Yellowstone Ecosystem. The text, photography, and graphics demonstrate the product of volcanic eruptions, glaciation, and earth movements. 58 pages.
#10466 ..... $12.95




**Winter: an Ecological Handbook,** Halfpenny. Starting with snow physics, this book focuses on ecology during the cold months. Selections include advice on avalanche danger, snow shelters, and winter equipment. 272 pages. #10321 ..... $16.95

**Field Guide to Mammal Tracking**, Halfpenny. Given an outstanding review by the *New York Times*, this is more than just a field guide. You can learn to understand tracks, interpret clues, and read the trails that animals have left behind. 163 pages. #10254 ..... $14.95

**A Life in Hand**, Hinchman. This illustrated handbook will let you discover yourself through writing and drawing; includes a blank journal for your writing and illustrations. 160 pages.
#10121 ..... $19.95






**Birds of Yellowstone**, McEneaney. Written by Yellowstone's leading bird biologist, this practical guide will aid in your enjoyment of Yellowstone's varied bird life. 171 pages.
#10036 ..... $14.95



**Amphibians & Reptiles of Yellowstone and Grand Teton National Parks,** Koch and Peterson. Includes: Color photographs, identification key, color range maps, official form for reporting observed species, and extensive bibliographic references. 188 pages.
#10434 ..... $12.95




**Small Mammals of the Yellowstone Ecosystem,** Streubel. Concentrating on the small mammals of the Yellowstone ecosystem, this book covers over 53 animals and has an introductory chapter on habits and behavior. 152 pages. #10258 ..... $12.50




**Yellowstone Place Names-Mirrors of History,** Haines. This book devotes chapters to the place names drawn from Native Americans, fur trappers, prospectors, explorers, modern visitors, park concessionaires, and employees. Each chapter is preceded by a brief review of the historic period and its relationship to the park area. 318 pages.
#10447 ..... $17.50




**Death in Yellowstone—Accidents and Foolhardiness in the First National Park**, Whittlesey. Yellowstone's historical archivist details 300 deaths, caused by everything from earthquakes, bear attacks, poison gas, and lightning. 276 pages. #10411 ..... $16.95




**Lost in Yellowstone—Truman Evert's "Thirty-Seven Days of Peril,"** Whittlesey. This book contains Truman Evert's original high-adventure chronicle of hardship and survival, newly augmented with biographical and background information. 62 pages. #10428 ..... $10.95

## Hiking







**Day Hiking Yellowstone,** Carter. Complete descriptions of 20 great short hikes, including history, geology, and wildlife facts, some maps. 80 pages. #10196 ..... $4.95

**Yellowstone Trails: A Hiking Guide**, Marschall. This backcountry guide covers over 1,000 miles of park trails. Contains useful information on backcountry rules and how to hike through bear country. Updated edition. 176 pages. #10199 ..... $6.95

## History




**Searching for Yellowstone: Ecology and Wonder in the Last Wilderness**, Schullery. Highly acclaimed new book by local Yellowstone author Paul Schullery which examines the relationship between people and Yellowstone from earliest times to the present day, with emphasis on our changing perceptions of this special place. 338 pages.
#10520 hardcover ..... $25.00

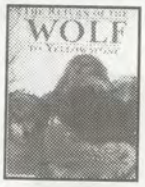


**The Yellowstone Story**, Haines. Comprehensive in their scope and entertaining in their detail, these two volumes are vital reading for all visitors and historians interested in Yellowstone National Park.
#10235 Volume I, 408 pages. ..... $19.95
#10236 Volume II, 568 pages. ..... $19.95

## Wolves




**The Yellowstone Wolves—A Guide & Sourcebook,** Schullery. In this comprehensive reference book, historian-naturalist Paul Schullery has gathered many voices, that together bring the dramatic saga of the Yellowstone wolf to life and provide an unparalleled firsthand look at our changing relationship with this extraordinary predator. All author's royalties from the sale of this book go to the Yellowstone wolf project, to further wolf recovery. 354 pages. #10481 hardcover ..... $32.50




**The Return of the Wolf to Yellowstone**, McNamee. The wolf's return has brought far-reaching changes to Yellowstone and this book chronicles the drama of the reintroduction and the harrowing stories of the wolves themselves. 354 pages. #10501 hardcover ..... $27.50



## Geology



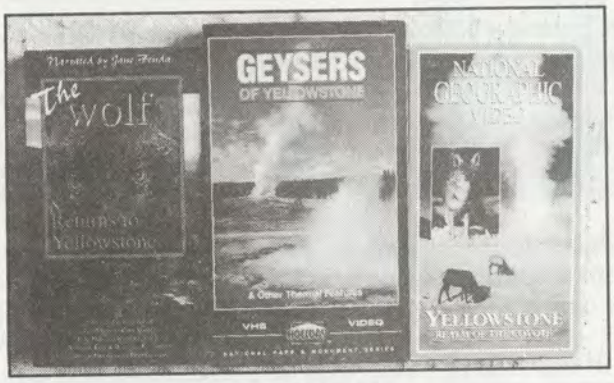
**The Geysers of Yellowstone**, Bryan. This completely revised guide describes in detail each of the more than three hundred geysers in Yellowstone National Park. 463 pages. Available by April. #10179 ..... $19.95




**Roadside Geology of the Yellowstone Country**, Fritz. Covers geologic formations along all roads in Yellowstone and all major roads leading to the North, East, and West Entrances of the park. 149 pages. #10186 ..... $10.00

**Life at High Temperatures,** Brock. This book takes a look at the hot springs and thermal features of Yellowstone. Learn about microbiology discoveries in Yellowstone that became building blocks for today's DNA research. 31 pages. #10183 ..... $2.50

## *Videos*




**The Wolf Returns to Yellowstone,** Busch Productions, 19 minutes. The Wolf Returns will take you through the capture, translocation, acclimation, care, feeding, release, and tracking after release, of the Yellowstone wolves during the 1995 and 1996 wolf recovery operations. #20059 ..... $14.95

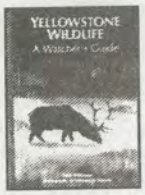
**Realm of the Coyote**, National Geographic, 60 minutes. Cain's yearlong adventure of hardship and triumph is set against the beauty of Yellowstone's changing seasons. #20047 ..... $19.95

**Geysers of Yellowstone**, Finley-Holiday Film Corp., 45 minutes. Compiled from several years of filming, this video presents a complete picture of geysers, hot springs, mud pots and how they work. Tour the geyser basins of Yellowstone and receive an education on the fascinating thermal features. #20006 ..... $24.95

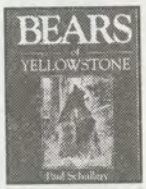
## *Mammals*




**Large Mammals**, Craighead. This booklet contains color photographs of Yellowstone's common large mammals. Included are descriptions of the animals along with information on habitat, tracks, food habits, enemies, and reproductive biology. 31 pages. #10247 ..... $1.95




**Yellowstone Wildlife: A Watcher's Guide**, Wilkinson. With beautiful color photographs, this is a great guide for wildlife fans. The author reveals over 45 animals, preferred habitats, best places to be found, feeding habits, and more. 95 pages. #10262 ..... $11.95




**Bears of Yellowstone**, Schullery. Myths and facts about park bears, their natural history and the evolution of bear management in the park. 263 pages, 60 illustrations. #10018 ..... $15.00




**Buffalo Nation**, Geist. Tells how millions of buffalo were killed in the nineteenth-century, followed by their amazing comeback. Also examines the natural history of the buffalo, underscoring its importance in North America. Hardcover, 144 pages. #10474 ..... $35.00




**Bear Aware—Hiking and Camping,** Schneider. Going into bear country can be frightening for some people, but it doesn't have to be. The essential tips in this book can help you build the confidence and peace of mind you need to enjoy your vacation. 128 pages. #10701 ..... $6.95




**Track of the Coyote**, Wilkinson. This informative text covers social structure within a pack, life cycle information and behavioral patterns. 138 pages. #10361 ..... $14.95

***To place an order, see form and information on pg 26.***

### *RESPONDING TO THE ELEMENTS*

From the textures of rocks and the patterns of aspen groves to the currents of streams and the contours of hills; from the explosive flumes of geysers and the percolating bubbles of mud pots to the purity of blue skies and the towering billows of thunderheads, we'll explore the impact of the Yellowstone landscape on our deepest selves.

The two classes, *Responding to the Elements: Painting* and *Responding to the Elements: Writing* will conduct some sessions and field trips together, writing and painting at the same locales within the park. Each class will also have separate sessions that would deal more specifically with techniques related to these two means of artistic expression.

The courses will begin at 7:00 pm the first day and end at noon the last day. The two courses will meet together the first evening for orientation. The last day, the two courses will have a joint art show/reading to share what the students have created during the week.



*Art by Deborah Milton Bond*

### *RESPONDING TO THE ELEMENTS—PAINTING: 814* NEW

**August 16-21** **$245 (Member's fee $235)**
**Location: Lamar Buffalo Ranch** **Limit 12**
**Instructor: Deborah Milton Bond, Ph.D.**

Each day will be devoted to a particular technique and a way of seeing the elements of nature. Color and shape, values of light and dark, textures and patterns, positive and negative space will be covered with demonstration and skill practice in the student building early in the day and field trips for sketching and photographing later on.

Though the instructor will be using watercolor, most of the techniques can be applied to any medium. Skill level: novice to intermediate. If you have an interest in visual expression, please join us.

### *RESPONDING TO THE ELEMENTS—WRITING: 815* NEW

**August 16-21** **$245 (Member's fee $235)**
**Location: Lamar Buffalo Ranch** **Limit 12**
**Instructor: Dorothy Hinshaw Patent, Ph.D.**

Each morning, we'll learn some new techniques for expressing the beauty of Yellowstone and the feelings it inspires within us. We'll explore the use of metaphor and story, as well as the possibilities of poetry to put our perceptions on paper. Then we'll travel to a different environment within the park every day to discover the impact of Yellowstone's landscapes and natural features on our spirits.

### *HORSEPACKING: THE GRANITE SPIRES & ALPINE MEADOWS OF THE TETONS—Low Impact Horse Travel in the High Country: 816*

**August 22-27** **(see description on pg 37)** **NEW**

### *INTRODUCTION TO ARCHAEOLOGY OF YELLOWSTONE: 817* NEW

**August 23-26** **$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructor: Ann Johnson, Ph.D.**

Through lectures (with slides) and field trips you will learn about the rich, 11,000-year archaeological record of the park. We will discuss prehistoric tools, their manufacture and materials, subsistence and settlement patterns of Yellowstone's early visitors, and travel routes in and out of the park. Historic Period sites (historic/protohistoric Native Americans, the Military [1886-1918], and others) will be visited. Discussions will include current research and management of Yellowstone archaeology. Field trips will go to as many of these sites as possible. If there is a professional excavation going on at a site in the park during the class, we will visit it. Some hiking will be required but will not be particularly strenuous. The course will begin at 7:00 pm the first day and end at noon the last day.



*Photo by Pam Gontz*

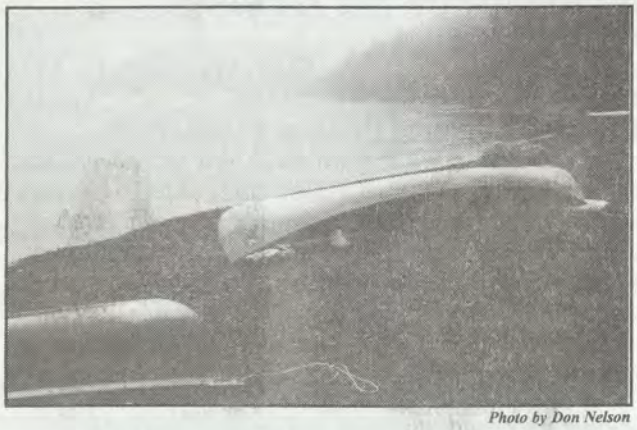


*Photo by Don Nelson*

***AUTUMN CANOEING IN YELLOWSTONE: 818***
**August 28-31 $360 (Member's fee $350)**
**Location: Shoshone Lake, Yellowstone Backcountry**
**Instructor: Scott Wood Limit: 14**

This four-day canoe trip across Lewis Lake and into magnificent Shoshone Lake, the largest wilderness lake in the lower 48, will provide interpretation of the lake environment and instruction on low-impact backcountry camping techniques. Canoeing skills such as strokes, portaging, safety, and tripping (how to pack a canoe) will be studied, and an American Red Cross canoeing certification may be earned if desired. This trip is designed for beginners and is of moderate physical difficulty, including a two-mile upstream pull of the canoes on the Lewis River, and travel in moderate winds. The course will begin at 9:00 am the first day at the Lewis Lake campground boat dock. *Fee includes all canoeing equipment, group camping gear, and food. The Institute cabins are not available for this course.*

***WILD EDIBLE PLANTS & MEDICINAL HERBS: 819*** **August 29-31 (see description on pg 11)**

***HORSEPACKING: ALONG THE WESTERN BASE OF THE GALLATIN MOUNTAINS—Conservation-A Lesson to Learn from Yellowstone: 901***
**September 5-7 (see description on pg 37) NEW**

***EARLY DAYS IN JACKSON HOLE: 902*** **NEW**
**September 12-14 $155 (Member's fee $145)**
**Location: Jackson, Wyoming Limit: 15**
**Instructors: Jim Garry**

Yellowstone is more than "The Park." The Greater Yellowstone Ecosystem encompasses many other incredible areas. One of the most fascinating inhabited places in the ecosystem is Jackson Hole. Old-timers thirty years ago talked of the old-timers they had known "from the early days." Yet, those old-timers came to "The Valley" two or three generations after mountain men started referring to it as Davey Jackson's Hole. And long before John Colter, the first mountain man to see "The Valley," came through it in the winter of 1807-08, several different tribes told tales of their early days in "The Valley." Millennia before those tribes took on their horse culture persona, the Clovis people hunted in "The Valley" when glacial ice still hovered on the horizon.

The class will examine all these early days. We will look at what's left from each in the form of artifacts, changes on the land and stories. We'll also examine changes in the structure of some of "The Valley's" ranches, the ski areas, and the town itself. The course will begin at 9:00 pm the first day at Jackson, and end at 4:00 pm the last day.

***WILDLIFE OBSERVATION—FALL: 903***
**September 16-19 $155 (Member's fee $145)**
**Location: Mammoth Hot Springs Limit: 15**
**Instructor: Gene Ball**

Against the backdrop of changing colors, fall stages a variety of interesting wildlife activities. Field observation will be the major goal of this introduction to the pre-winter park. Methods of unobtrusive observation and the ethics of interaction with wildlife will be central themes. The flexible schedule will feature early morning and evening field trips, short midday hikes, and programs on various wildlife topics plus related issues and controversies. The opening session will cover selection and use of binoculars, spotting scopes, and tripods for quality wildlife observation. The course will headquarter in the Mammoth/Gardiner area. The course will begin at 1:00 pm the first day at Mammoth Hot Springs, and end at 1:00 pm the last day. *Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course.*

**FLY FISHING IN THE FALL: 904**
**September 18-20 $195 (Member's fee $185)**
**Location: Mammoth Hot Springs Limit: 9**
**Instructor: Richard Parks**

This fall course is based out of the Mammoth Hot



*Photo by Pam Gontz*

Springs/Gardiner area and is aimed at an audience of people who have some experience with fly fishing, but want to expand and polish their skills. Students will have the opportunity to fish several of the park streams, including the Yellowstone, Gardner, and Firehole Rivers. Most instruction will be on an individual basis or in small groups. The class will divide into three groups, with one-on-one instruction for each group on one day. During the two days you are not having the intensive instruction, you will practice on your own and meet with the group for morning and evening discussions. The course will begin at Mammoth Hot Springs at 8:30 am the first day. *Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course. A Yellowstone Park fishing permit, available at most visitor centers, is required.*

***AUTUMN PHOTOGRAPHY IN YELLOWSTONE: 905*** **NEW**
**September 19-22 $200 (Member's fee $190)**
**Location: Mammoth Hot Springs Limit: 12**
**Instructor: Sandra Nykerk**

Spend four days with us exploring the many photographic opportunities of a Yellowstone autumn—from bugling elk and rutting pronghorn to the various subtleties offered by the delicate colors of the changing landscape. This course is designed for photographers of all levels, but it will be assumed that you have a working understanding of photography and a fundamental familiarity with your own equipment. Short classroom sessions will review basic photographic principles and discuss the ethics of field photography, exposure control, composition, and film and lens selection. From there we'll spend most of the time in the field for "hands-on" learning and shooting experience and exploring the possibilities for capturing the essence of autumn in Yellowstone on film. We'll turn our attention to all aspects of the Yellowstone experience, allowing for the inspiration of the Yellowstone landscape and the serendipity of wildlife, with consideration given to the development of personal vision and creativity and the importance of natural history knowledge to the nature photographer. Photographers working in all formats (35 mm, medium and large formats) are welcome. The course will begin at 9:00 am in Mammoth Hot Springs the first day and end at 4:00 pm the last day. A list of recommended supplies and equipment will be forwarded to each participant prior to the course. *Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course. Lab film processing will take place; student will be responsible for paying for processing. Fee includes $5 for course materials.*



*Photo by Pam Gontz*

***GRAND TETON PHOTOGRAPHY: 906***
**September 27-30 $215 (Member's fee $205)**
**Location: Grand Teton National Park Limit: 15**
**Instructor: Pete Houdeshel**

Lodged in rustic cabins along the shores of Jackson Lake at the base of the Grand Tetons, this course will focus on some of the West's most dramatic scenes nestled in the Yellowstone ecosystem. September in the Tetons means bugling elk, uncrowded trails, and rich fall colors highlighted by fresh dustings of snow on the 14,000 foot peaks. Though most class time will be spent in the field, lively slide presentations will provide guidance for producing great photography. Special emphasis will be spent on composition, lens selection, and enjoying the outdoors with a camera. The course will begin at 2:00 pm the first day and end around 1:00 pm the last day. *Participants need to secure their own lodging. Class will base out of the Signal Mountain Lodge in Grand Teton National Park. Information on lodging can be requested from the registrar.*

***ANGELS FROM ECHINUS—EXPLORING THE MYSTERIES OF NORRIS GEYSER BASIN: 907***
**October 4-6 $155 (Member's fee $145)**
**Location: Mammoth Hot Springs**
**Instructor: Carolyn Duckworth Limit: 12**

Timed to coincide with the harvest moon, we'll experience one of the world's most unique thermal areas as few people do. We'll begin the afternoon of October 4 with a daylight tour of the basin, then remain at Norris for sunset and the rising of the moon, and a moonlit walk through the steamy, sizzling basin that can change character with just a shift in the wind. During the next two days, we'll continue exploring the history and hot waters of Norris—including another moonlit walk the night of the 5th. We'll also spend time observing the thermal features and taking notes about their behavior and rhythm. The course will begin at noon at the Mammoth Hot Springs Visitor Center. *Participants need to secure their own campsite or lodging in Mammoth or in Gardiner. Institute cabins are not available for this course.*

# 1998 BACKPACKING SEMINARS

***BACKPACKING FOR FAMILIES: 616*** **NEW**
**Adult-$200 (Member's fee $190)** **June 20-22**
**Child-$150 (Member's fee $140)** **Limit: 10**
**Location: Hellroaring Region**
**Instructors: Michael Bartley & Marla Darby**

This three-day backpack will give your family an opportunity to explore the backcountry of Yellowstone National Park. The wilderness of Yellowstone offers a unique family get away and time to experience familial relationships on a deeper level. There will be daily classes on a variety of topics including backpacking skills and the area's natural history. Throughout the trip we will be practicing the principles and skills of "Leave No Trace" and adapting them to safe travel in bear country. Bring your family to Yellowstone and share with us in the wonder of walking this unparalleled land.

While the trip is relatively short and designed for the beginner, the Yellowstone backcountry is rugged and offers unique challenges. The scheduled trip is less than 20 miles with a 1,000-foot climb. Participants must be in good physical condition. The course will meet the first morning at a trailhead between Mammoth and Tower Junction. Specific details including the meeting time and place will be provided in the student packet. *For ages 10-15 and their adult family members. Children must be able to carry their own backpack or be assisted by the adult in carrying gear. Participants need to secure their own campsite or lodging before and after the course. The nearest campgrounds are Slough Creek, Tower Fall, or Mammoth. The nearest lodging would be at Roosevelt or Mammoth or in the Gardiner area. Institute cabins will not be available for this course.*

***BACKPACKING FOR TEENS: 721*** **NEW**
**July 20-24** **$295 (Member's fee $285)**
**Location: Gallatin Region** **Limit: 10**
**Instructors: Michael Bartley & Marla Darby**

This five-day backpack will take you on a walk through a land of exceptional beauty and diversity into the isolated northwest corner of Yellowstone National Park—the Gallatin Range. This course is designated for young people who want to explore the physical and mental challenges of backpacking while learning about Yellowstone. During these five days, a strong emphasis will be placed on developing leadership and group dynamic proficiency as well as backpacking skills such as "Leave No Trace," bear safety, map reading, and first aid. Daily classes will also include discussions on Yellowstone's natural history and wilderness ethics and philosophy. If you are eager and prepared to accept the challenges of wilderness travel and willing to take responsibility for yourself and others, join us for an exciting adventure in Yellowstone.

This semi-loop hike will be around 25-30 miles in length (depending on park permits) and will include some strenuous climbs with a total elevation gain of 1,500 feet. Participants must be in good physical condition. The course will meet the first morning at a trailhead approximately 20 miles north of West Yellowstone. Specific details including the meeting time and place will be provided in the student packet. *For ages 13-17 only. Participants need to secure their own campsite or lodging before and after the course. The nearest campgrounds or lodging would be in the West Yellowstone area. Institute cabins will not be available for this course.*

***BACKPACKING IN GRIZZLY COUNTRY: 727***
**July 27-29** **$175 (Member's fee $165)**
**Location: Pebble Creek Backcountry** **Limit: 10**
**Instructors: Michael Bartley & Marla Darby**

This three-day backpack in Yellowstone is for people who want to learn to travel safely, confidently, and respectfully in grizzly country. The grizzly bear is one of the most magnificent animals in the world. Hiking and camping in the land of the "Great Bear" can be a magical experience. However, for your safety and the welfare of the bear it is essential that you learn how to exist with grizzly bears. Adapting the principles of "Leave No Trace" to bear country, you will earn the "hard" skills necessary to reduce the possibility of encountering a bear on trail and in camp. We will include suggestions on how to deal with both daytime and nighttime bear encounters. Furthermore, we will discuss the biological, ecological, political, and social aspects of the threatened bear and its long term prospects for recovery. Twelve miles in length, this course is designed for the beginning backpacker. The terrain and pace of the course will allow the inexperienced hiker plenty of time to absorb the many backcountry lessons to be learned. Remember: For some this hike can still be difficult. There is an initial 1,100 foot climb en route to the beautiful Pebble Creek Valley. As with any backpack trip, you must be in good physical condition. Regardless of your level of experience if you are new to hiking in grizzly country or simply "bearphobic," we recommend that you take this course. The course will begin at 9:00 am at the Lamar Buffalo Ranch and return to the trailhead around 3:00 pm the last day. *Participants need to secure their own campsite or lodging before and after the course. The nearest campgrounds are Slough Creek or Tower Fall or lodging in the Silver Gate/Cooke City area. Institute cabins will not be available for this course.*



*Photo by Pam Gontz*

# Explore the Yellowstone Backcountry

***BACKPACKING THE HEART OF YELLOWSTONE (4th of a series): 801*** **NEW**
**August 1-6** **$355 (Member's fee $345)**
**Location: Yellowstone Lake Region** **Limit: 10**
**Instructors: Michael Bartley & Marla Darby**

This six-day backpack will take you along the east side of Yellowstone Lake around the southeast and south arms across the Continental Divide and into Heart Lake. Fifty miles in all, this hike is a relatively flat walk into some of the wildest and finest country in all of Yellowstone. Sunset across Yellowstone Lake, abundant bird and animal life, crossing the upper Yellowstone River, walking through both green and burned forests, and exploring a backcountry geyser basin comprise some of the many incomparable features of this magnificent country and this long walk. There will be daily classes on a variety of subjects including backpacking skills, natural history of the area, and park management issues. "Leave No Trace" will be taught and practiced. This trip also features long days on the trail, cold stream crossings, and persistent mosquitoes. Participants must be experienced and determined to meet the many challenges presented by a long hike in very remote country.

This hike is the fourth in a series of week-long backpacks to be offered, one each year, within Yellowstone National Park. Each stage highlights a unique ecotype within the larger ecosystem that is known as Greater Yellowstone. Our goal is to take you on a journey of discovery—a discovery of the land ranging from high mountains to broad valleys, from lodgepole forest to backcountry geyser basins, to a seldom-visited land known as "waterfalls country." And, due to the uniqueness of this land and of backcountry travel, we may discover something new about ourselves. This six-day hike is 50 miles in length with some difficult stream crossings, and participants must be in good physical condition. The course will meet at the Fishing Bridge Visitor Center at 9:00 am at which time participants will be shuttled to the trailhead. The Yellowstone Institute will provide transportation to and from trailheads. *Participants need to secure their own campsite or lodging before and after the course. The nearest campground or lodging would be in the Lake or Canyon area. Institute cabins will not be available for this course.*

***DAY HIKING YELLOWSTONE: 808*** **NEW**
**August 8-10** **$165 (Member's fee $155)**
**Location: Lamar Buffalo Ranch** **Limit: 12**
**Instructors: Michael Bartley & Marla Darby**

Based at the Buffalo Ranch, this class will explore the incomparable Yellowstone backcountry. Day hiking in the park allows for flexibility and provides a unique opportunity to experience the wild places of Yellowstone. Without the encumbrance of a heavy pack and the limits of overnight backcountry regulations, we will be able to explore Yellowstone's varied landscapes (some of which are closed to overnight camping) while enjoying the comforts of the historic Buffalo Ranch. Each day's hike will include both formal and informal discussions on the natural and cultural history of Yellowstone as well as wilderness travel.

The day hikes will vary greatly in terrain and distance. Participants should arrive in good physical condition and be prepared for challenging terrain. The course will begin at 9:00 am the first day. *Institute cabins are available for this course.*

***BACKPACKING THE BEARTOOTHS—THE "LEAVE NO TRACE" WAY: 811***
**August 11-15** **$295 (Member's fee $285)**
**Location: Beartooth Wilderness** **Limit: 10**
**Instructors: Michael Bartley & Marla Darby**

This five-day course, which will explore a new area of the Beartooth Wilderness this year, is for intermediate backpackers who wish to explore some of the most spectacular and rugged backcountry in the Greater Yellowstone Ecosystem. Besides the sheer joy of being immersed in wilderness, the main goal of this journey will be to provide the student with the principles, theories, and skills of Leave No Trace (LNT). We will build upon the minimum impact techniques developed by the National Outdoor Leadership School in conjunction with the federal land use agencies' LNT program. Upon successful completion of this course, the participants will receive certification as "Trainer" of Leave No Trace. It is our hope that you will share your LNT knowledge and skills with other backcountry users in both formal and informal settings. Other ways in which you can participate in the Leave No Trace program will be discussed during the trip. In addition to LNT, there will be ample time to augment your back-country skills and learn more about the region's natural history. You can expect hikes, with a full pack, of 5-7 miles with elevation gains up to 1,500 feet. Much of the terrain is boulder strewn with small stream crossings and at elevations of 9,000 to 11,000 feet. If you have minimal experience but are interested in taking this course, please contact the Institute office for more detailed information on the physical requirements of this course. The course will begin at 9:30 am at the Island Lake Campground at which time participants will move their vehicles to the trailhead. *Participants need to secure their own campsite or lodging before and after the course. The nearest campground is the Island Lake Campground located in the Beartooth Mountains and operated by the Forest Service. The nearest lodging is the Silver Gate/Cooke City area. Institute cabins will not be available for this course.*

***For all backpacking courses:*** *Participants must provide their own backpacking gear and food. A complete equipment list will be provided in the student packet.*

# 1998 HORSEPACKING SEMINARS

**HORSEPACKING SEMINARS**
**Horsepacking in, for, and about Yellowstone's Backcountry**

The Yellowstone Institute conducts courses on horsepacking in the backcountry of Yellowstone to immerse you in a true wilderness experience, accompanied by a large animal, the horse. The exploration of wild land, in the companionship of a horse, is a historically significant tradition, creating much of the soul of the West. As we have become increasingly civilized as a people, we have also distanced ourselves from the learning experience that wildness offers us. The goal of these courses is to bridge that gap, and by accepting wildness on its own terms, return home refreshed, invigorated, and perhaps a bit more mindful.

All of our horse trips emphasize **the low-impact use of pack stock** in the backcountry, along with specific themes relevant to the area of the park visited. Each course is **participatory**, where you learn by doing, not by being catered to. Our horsepack experiences are a time for students to learn the use and care of pack and riding stock and how to camp and travel in the wilderness without damaging the fragile country. You become the one responsible for the well-being of the horse, its tack, and the backcountry.

Fee includes pack stock, saddle horses, camping equipment, and food. Participants must provide their own sleeping bags and personal effects. Due to park management policies, trip locations may change on short notice due to backcountry conditions.

*An equipment list will be provided in the student packet. Participants need to secure their own campsite or lodging before and after the course. Institute cabins will not be available for these courses.*

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| **June 25-27** | **Family Horsepacking—Doing Things Together—On the West Slope of the Tetons: 619** |
| **July 13-17** | **Hellroaring & the Black Canyon—Plants & Animals of Yellowstone: 713** |
| **July 26-30** | **Gustavus C. Doane Memorial Ride—Yellowstone's Snake River Country: 726** |
| **July 30-August 4** | **South Boundary, Fox Park, & the Teton Wilderness—The Wilderness Story: 730** |
| **August 4-9** | **Trapper Trails Through the Thoroughfare: 805** |
| **August 22-27** | **The Granite Spires & Alpine Meadows of the Tetons—Low Impact Horse Travel in the High Country: 816** |
| **September 5-7** | **Along the Western Base of the Gallatin Mountains—Conservation-A Lesson to Learn from Yellowstone: 901** |

**Instructor: Richard Clark, Ph.D., Outfitter, Biologist**
**Family class (619) $295 per person (Member's fee $285 per person)**
**3-day class (901): $495 per person (Member's fee $485 per person)**
**4-day classes (713, 726): $695 per person (Member's fee $685 per person)**
**5-day classes (730, 805, 816): $745 per person (Member's fee $735 per person)**

***HORSEPACKING: FAMILY HORSEPACKING—DOING THINGS TOGETHER—On the West Slope of the Tetons: 619*** **June 25-27 Limit: 14 NEW**

An unforgettable shared adventure for members of a family. Instruction will be available in horseback riding, basic camping, and in nature study. With instruction, participants will saddle, bridle, and hobble their own horse. Each family will set up their own tents and take turns with camp chores. Each family will assist the staff in cooking and cleanup on one meal for the group. The course will be staged on the west slope of the Tetons. The course will begin at 10:00 am the first day near the trailhead at Fox Creek Canyon, about five miles south and two miles east of Driggs, Idaho. The course will end at the same location around 3:00 pm on the third day. Family groups who register should have a least one member under 14 years of age and all children will need to be with an accompanying adult. Minimum age for participation in this course is seven years old.

***HORSEPACKING: HELLROARING & THE BLACK CANYON—Plants & Animals of Yellowstone: 713*** **July 13-17 Limit: 8**

"It's a hell roarer," Prospector A. H. Hubble reported to his partners in 1867, years before Yellowstone became a national park, of the wide, wild stream running into the Yellowstone River from the Absaroka Mountains to the north. It is Hellroaring Creek and its environs that will be explored as participants in this course learn more from low impact horsepacking in wildlands. The course curriculum will include selected wildflower identification, acquaintance with the tree species of Yellowstone's forests, recognition of wildlife species in the area, and a summary lesson on Yellowstone ecology. The course will begin at 11:00 am the first day at the Hellroaring trailhead three miles west of Tower Junction. The course will return early afternoon on the fifth day to the same trailhead.

***HORSEPACKING: GUSTAVUS C. DOANE MEMORIAL RIDE—Yellowstone's Snake River Country: 726*** **July 26-30 Limit: 10**

In November of 1876 Lieutenant Gustavus C. Doane and soldiers from his command out of Fort Ellis, Montana, launched a small boat, carried in by horses, into the icy waters of Yellowstone's Snake River to continue an ill-fated expedition to explore the drainage of the Columbia River, an expedition that Doane had sent himself on. Doane is a prominent and colorful figure in Western Americana, and mountains in both Yellowstone and the Tetons are named for him. His name appears on the pages of history describing the creation of Yellowstone National Park, the events of the 1877 Nez Perce War, and the battle and cleanup at Little Bighorn.

G.C. Doane was challenged numbers of times during his military career. He applied for and wanted very badly to be assigned command at Yellowstone National Park, an event that just never happened. And there was his ill-fated trip down the Snake River. This course is a memorial to Lieutenant Doane and his life on the western frontier. But it is also a memorial to all who have explored the wildlands of western America including those of us who will ride this trail. The horsepack down the Snake River will be supplemented with readings, campfire presentations, and group discussions centered on the American frontier era in Yellowstone. The course will begin at 10:00 am the first day at the Heart Lake trailhead in the southern part of the park and end around 3:00 pm the last day.

***HORSEPACKING: SOUTH BOUNDARY, FOX PARK, & THE TETON WILDERNESS—The Wilderness Story: 730*** **NEW**

**July 30-August 4 Limit: 10**

Yellowstone is a "wilderness" national park, and the adjoining Teton Wilderness was one of the earliest forest areas designated "wilderness." Bob Marshall, an early advocate of the Wilderness Act was influential in this designation. Course curriculum will explore the concept of "designated wilderness" while practicing skills commensurate with low impact horse camping in such areas. Events, personalities, and ethics that led to the passage by Congress of the Wilderness Act will be surveyed. The physically demanding itinerary includes several particularly long days in the saddle and no planned layover days. THIS COURSE IS RECOMMENDED FOR EXPERIENCED BACKCOUNTRY HORSE PEOPLE ONLY. Consult with the instructor if there are questions regarding the experience required. The course will begin at 1:00 pm the first day at the South Entrance trailhead.

***HORSEPACKING: TRAPPER TRAILS THROUGH THE THOROUGHFARE: 805***

**August 4-9 Limit: 10**

Jim Bridger and Osborne Russell were two of the mountain men that passed through Two Ocean Pass as they entered the beaver-rich waters of Yellowstone. Trappers traveled along the east shore of Yellowstone Lake en route to the interior of the Yellowstone plateau in search of fur and fortune. This course will present the stories of those who came to obtain the fur wealth from Yellowstone's streams and rivers. The route begins outside the park in the Teton Wilderness, follows the Yellowstone River north to Yellowstone Lake terminating at the Nine Mile trailhead on the northeast corner of the lake. Participants will rendezvous on the first day of the course at the Nine Mile trailhead, leaving their vehicles there. A shuttle will be provided to the Turpin Meadows trailhead in the Teton Wilderness with expected arrival there at approximately 1:00 pm.

***HORSEPACKING: THE GRANITE SPIRES & ALPINE MEADOWS OF THE TETONS—Low Impact Horse Travel in the High Country: 816***

**August 22-27 Limit: 10 NEW**

The high alpine ecosystem of near tree line will be studied as participants in this course traverse the Teton Crest Trail and go "over the top." The cultural and natural history of the Tetons will be shared as this group crosses what was once called the "Skyline Trail." Special care will be taken in this fragile environment with pack and saddle stock with emphases on camping techniques used to keep environmental impacts light. The route planned passes through areas of 10,000-foot elevation or higher with spectacular views of the Teton peaks. The Tetons are block-fault mountains rugged because of their relative geologic infancy that show the effects of numbers of recent glacial periods. The course begins and ends at the Fox Creek Canyon trailhead five miles south and two miles east of Driggs, Idaho. Participants will gather 10:00 am the first day.

***HORSEPACKING: ALONG THE WESTERN BASE OF THE GALLATIN MOUNTAINS—Conservation-A Lesson to Learn from Yellowstone: 901***

**September 5-7 Limit: 10 NEW**

Like other sections of Yellowstone National Park, the Gallatin Mountains region has a unique beauty of its own. Becoming familiar with this beautiful corner of the park, including its natural and cultural history, should lead to the concepts of conservation and preservation. Our campfires each evening will center on these two wildland hoped-for outcomes. On trail each day there will be sessions of instruction regarding the plant life, the wildlife, and the geology of the area. Participants will rendezvous 10:00 am at the Sportsman's Lake trailhead about 25 miles north of West Yellowstone on U.S. Highway 191. The group will shuttle south a few miles to Fawn Pass trailhead to meet the saddle and pack stock. The return will be out the Sportsman's Lake Trail to the trailhead. We expect to complete the experience by mid to late afternoon on September 7.

**A Winter Welcome**



*Photo by Pam Gontz*

As the seasons change and winter moves in, Yellowstone country is transformed into a beautiful snowscape, offering the visitor rewarding experiences available to relatively few people. Deep, dry powder snow smooths the terrain into a gently rolling world of nearly perfect cross-country skiing. Elk and bison congregate for easy viewing, and thermal basins come alive with billowing steam and ghost trees.

This fresh, invigorating winter world creates a whole new place and time for nature study, photography, and backcountry adventure. The Yellowstone Institute conducts courses this time of year so that you can learn about this wonderful season and all it has to offer. We have several courses designed to meet a variety of interests and experience levels, all based out of the heated cabins at our Lamar Buffalo Ranch facility.

Institute winter courses provide you with an opportunity to learn about this special place in a stimulating, fun, and safe environment, full of the camaraderie that comes so easily this time of year.

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***WILDERNESS FIRST RESPONDER: 1001*** **NEW**
**January 2-12, 1999 $595 (Member's fee $585)**
**Location: Lamar Buffalo Ranch Limit: 30**
**Instructor: Wilderness Medicine Institute Staff**

This 80-hour course is required by many outdoor employers and recommended for anyone who works or plays in the backcountry. Through a combination of classroom sessions and field exercises, students will learn how to deal with emergencies in remote settings. Some of the topics to be covered are wilderness wound management, improvised splinting techniques, environmental emergencies, patient monitoring and long-term care. Emphasis is placed on principles of medical care rather than memorization of information. Students must be 18 years old and physically and mentally able to participate in classes which occur in all types of weather and terrain. Certifications upon successful completion include Stonehearth Open Learning Opportunities (SOLO) Wilderness First Responder and American Heart Association CPR. The course begins at 8:00 am the first day and ends at 5:00 pm the last day. *Fee includes lodging at the Lamar Buffalo Ranch.*

***SNOWSHOEING IN YELLOWSTONE: 1002*** **NEW**
**January 15-18, 1999 $165 (Member's fee $155)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Scott Wood**

This three-day course will be centered out of the Buffalo Ranch in the Lamar Valley. Participants will be staying at the ranch at night and snowshoeing during the day in different areas of the valley. Snowshoes will be provided. Topics covered on the course include avalanches and the value of adventure. Due to the possibility of deep snow which is strenuous to travel through, participants are required to be in good physical shape. Course begins at 7:00 pm on the first day and ends at 3:00 pm on the last day.

***SNOW TRACKING: 1003*** **NEW**
**January 22-24, 1999 $120 (Member's fee $110)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructor: James Halfpenny, Ph.D.**

For winter enthusiasts, this program is designed to study detailed information snow can provide. The white slate records nearly every movement by animals, allowing for extended sections of trail interpretation. Program emphasizes reading trails for behavioral information, habitat preference, and travel suitability. Content includes snow properties, snow tracking basics, melted-out footprints, snow load, snow pillars, snow casting, travel suitability, snow tracking index, measuring, gait pattern recognition, trail interpretation, and ethograms. Morning inside lectures will be supplemented by afternoon field trips. Field trips will be on skis. The course on the first day of class will meet at the Lamar facility at 6:00 pm with an optional potluck followed by a lecture at 7:30 pm. *Closest accommodations other than Lamar would be the Silver Gate/Cooke City area—23 miles to the east. Fee includes $15 for course materials. Participants need to provide their own ski equipment—see pg 7.*

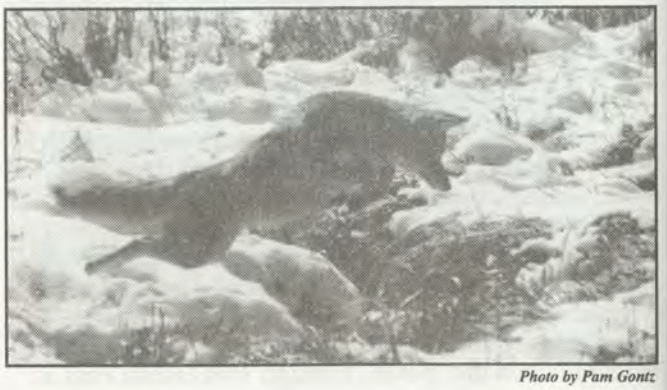


*Photo by Pam Gontz*



Photo by Don Nelson

*WINTER ECOLOGY ON SKIS: 1004* **NEW**
**January 28-31, 1999 $275 (Member's fee $265)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructor: James Halfpenny, Ph.D.**

Join Jim, author of *Winter: an Ecological Handbook*, for hands-on field trips in Yellowstone to study ecological processes in the nivean (snow) environment. Jim has taught winter ecology classes in the Yellowstone ecosystem every winter since 1971. Each day's cross-country ski trip will explore a different region, studying how plants and animals interact with the winter environment. We'll study the subnivean world of small mammals and winter green plants, measure insulation of human snow shelters—quinzhees (possibly sleep in one, if you want,) track mammals by studying snow support, and study snow itself! Our traverse of Yellowstone, from shallow snow conditions to deep, will include a one-day, snow coach trip to Canyon, where our ski trip will study snow and its various properties. This trip is designed for the cross-country skier and we will be on skis most of the day. The course will begin at 7:00 pm the first day. *Closest accommodations other than Lamar would be the Silver Gate/Cooke City area—23 miles to the east. Participants need to provide their own ski equipment—see pg 7. Fee includes the snowcoach ride to Canyon and $5 for course materials.*

*EXPLORING THE YELLOWSTONE LANDSCAPE ON SKIS: 2001* **February 4-7, 1999**
**$215 (Member's fee $205)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Bill Hopkins**

For the outdoor enthusiast, cross-country skiing the Yellowstone backcountry can be a fabulous experience. The plateaus and river valleys of Yellowstone are ideal terrain for the cross-country skier.

This course is aimed at, but not limited to, those who have some experience with alpine or cross-country skiing. In addition to experiencing a range of cross-country skiing skills, participants can expect to learn about winter ecology, avalanches (dynamics, avoidance, and rescue), dealing with the cold, day tour preparation, and emergency and non-emergency shelter construction.

We will base out of the Lamar Buffalo Ranch, skiing most of each day, and devoting one day to a ski in the park's interior. Short morning classes will be presented before each day's tour. The course will begin at 9:00 am the first day. *Closest accommodations other than Lamar would be the Silver Gate/Cooke City area—23 miles to the east. Participants need to provide their own ski and/or snowshoe equipment—see page 7. Fee includes $15 for a snowcoach shuttle into the interior.*

*LITERATURE OF YELLOWSTONE: 2002* **NEW**
**February 13-15, 1999**
**$155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Jim Garry**

The ancient, oral literature of the Greater Yellowstone is extensive, but largely unwritten. Lewis & Clark, the first great American chroniclers of the West, only brushed the edge of the Greater Yellowstone. John Colter passed through the heart of it two years later, but was illiterate. But since then many have come, have seen, and have written. Mountain men, miners, scientific surveyors, tourists; those brought by the glories they have read or heard of have all tried to describe this magical land. Beginning with such mountain men as Osborne Russell and ending with such current writers as Paul Schullery, the class will explore the Yellowstone Country through the eyes of the writers who have been moved by it. The course will begin at 9:00 am the first day. *Closest accommodations other than Lamar would be the Silver Gate/Cooke City area—23 miles to the east.*



Photo by Pam Gontz



Photo by Pam Gontz

### *EXPLORING YELLOWSTONE'S NORTHERN RANGE—WINTER ECOLOGY & SURVIVAL: 2003*

**February 19-21, 1999 $155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch Limit: 12**
**Instructor: Wayne Phillips**

This class will strive to improve your skiing and survival skills, while exploring the Northern Range Ecosystem. Skiing both on- and off-trail routes, this class will study winter ecology, focusing on the interactions between herbivores and their winter habitat. Participants will learn to identify, in winter condition, the shrubs and trees used for browse by deer, elk, bison, and antelope.

Winter survival skills will be honed with review of the basics of orienteering, finding your way with map and compass; route finding in the snow-clad terrain; snow metamorphosis; how to recognize avalanche hazards; and search and rescue of an avalanche victim.

Cross-country ski proficiency and experience at the intermediate level is required. We will ski from five to seven miles a day as we explore Yellowstone's beautiful Northern Range. Participants need to provide their own ski equipment, day pack, compass, shovel, and rescue transceiver (457 kHz) (optional). The course will begin at 9:00 am the first day. *Closest accommodations, other than Lamar, would be the Silver Gate/Cooke City area—23 miles to the east. Participants need to provide their own ski equipment—see pg 7.*

### *YELLOWSTONE'S WOLVES: 3001*

**March 12-14, 1999**
**$125 (Member's fee $115)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructor: James Halfpenny, Ph.D.**

Listen closely … wolves howl over Lamar Valley! Six packs have been reintroduced. Wolves have established territories and travel the valley preying on elk and raising their pups. Be part of the latest news. Join us at Lamar for a two-day update of the wolf reintroduction and overview of wolf ecology. Morning and evening lectures will cover basic taxonomy, biology, ecology, and management. Lectures will be supplemented by slides and videos shot during the reintroduction. Using tracking (Jim's favorite) as a conduit to learning, afternoon field sessions will cover identifying wolf tracks (versus dog, fox, and coyote), understanding wolf gaits, reading stories in their trails, and interpreting wolf ecology in the field. With luck we may explore a kill site. We'll even try to view wolves from the road, but all this will be done without interfering with the wolves themselves.

Program starts at 7:30 pm, but come early for an informal, potluck, gossipy supper—perhaps a visit by a wolf biologist. There will be evening lectures on Friday and Saturday. Bring field lunches and lots of trail food as we will not waste daylight hours staying inside to eat. *Fee includes $15 for course materials.*

### *WILDLIFE OBSERVATION—WINTER: 3002*

**March 18-21, 1999 $155 (Member's fee $145)**
**Location: Lamar Buffalo Ranch Limit: 15**
**Instructor: Gene Ball NEW**

The end of winter offers its own set of wildlife viewing opportunities. Field observation will be the major goal and activity of this introduction to the snow-covered park. Methods of unobtrusive observation and the ethics of interaction with wildlife will be central themes. The schedule will be flexible to conform to that of the wildlife to be observed. Enrollees can expect morning and evening field trips, optional cross-country ski outings, and discussions of various wildlife topics, issues, and controversies.

The course will begin at 1:00 pm the first day and end at 1:00 pm the last day. The opening session will cover selection and use of binoculars, spotting scopes, and tripods for quality wildlife observation.

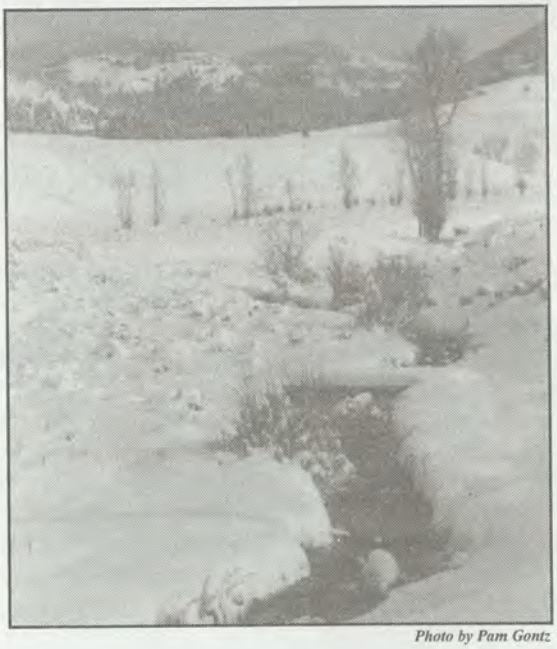


Photo by Pam Gontz

# Instructor Profiles

**Elaine Anderson, Ph.D.,** (*The Evolution, Ecology, & Future of the Wolf Family; Bears: Bones, Signs, & Stories)* is a research associate in earth sciences at the Denver Museum of Natural History and co-author of *Pleistocene Mammals of North America*. She teaches comparative mammalian osteology at the museum and is writing a book on osteology. Research interests include fossil and recent carnivores, Pleistocene faunas, osteology, and biogeography.

**Robert Anderson, Ph.D.,** *(Aquatic Insects of Yellowstone; Butterflies of Greater Yellowstone)* is an entomologist and professor of biological sciences at Idaho State University. In addition to general and medical entomology, he teaches courses in general and invertebrate zoology, and parasitology. He has published works in applied ecology and medical entomology, researched the biology and ecology of the Idaho sand dunes tiger beetle, and produced videos on crickets and collecting insects.

**Gene Ball** *(Wildlife Observation-Winter; Wildlife Observation-Spring; Wildlife Observation-Fall)* was director of the Yellowstone Association and Institute from 1985-88. He now lives in Meeteetse, Wyoming, does free-lance projects for a variety of organizations throughout the West, and serves on the advisory council for The Yellowstone Grizzly Foundation.

**Michael Bartley** *(Backpacking for Families; Backpacking for Teens; Backpacking in Grizzly Country; Backpacking The Heart of Yellowstone; Day Hiking Yellowstone; Backpacking the Beartooths-The "Leave No Trace" Way)* is a former field manager of the Yellowstone Institute. He is certified as a Master of the National Leave No Trace (LNT) program and has previously taught both summer and winter backcountry courses for the Institute. A graduate of the National Outdoor Leadership School, he has led numerous hikes in the Grand Canyon and Rocky Mountains. A historian, naturalist, ursophile, and long time backpacker, he combines a passion for wilderness with practical know-how in sharing his knowledge of the Yellowstone region.

**Joseph Berke** *(Introduction to Macro Photography)* has been a photography and writing instructor at several community colleges, presented seminars at national parks and writers' conferences, and taught for the Smithsonian Institution Resident Associate Program in Washington, DC. He has been a writer and photographer for about 15 years. In that time he has written over 70 articles, most of them illustrated with his own photographs. He has also contributed photos to nine books. He specializes in travel, business, scientific and nature subjects. He holds a California Junior College teaching credential in physics and photography and has exhibited his nature and wildlife photographs in galleries and shows across the United States.

**Deborah Milton Bond, Ph.D.** *(Responding to the Elements-Painting)* left her psychotherapy practice in 1990 to devote more time to teaching creativity in outdoor settings and becoming a writer. In 1992, it became clear that she was really meant to be a watercolor painter. She's had several one woman shows, been published in a number of magazines and was juried into a national landscape exhibition last spring. She began teaching watercolor two years ago when students started knocking on her door. Together, she and Dorothy Hinshaw Patent, Ph.D. have taught a writing course, *Finding Your Own Voice*, at the Yellowstone Institute for six years.

**Richard Clark, Ph.D.,** *(Horsepacking Seminars)* is a native of the Yellowstone country and has spent a good share of his life acquainting himself with the wildlands of Yellowstone. Dick has outfitted and guided professionally for over 36 years in the area. He is currently director of the Professional Guide Institute at Western Montana College at Dillon. The PGI offers natural and cultural history instruction to professional guides. Dick's formal training is in botany, natural history, and ecology. He owns and manages Bleu Sky Pack Station, Inc., a concession of Yellowstone National Park.

**Sue Consolo Murphy** *(Grizzly Bear Ecology & Management)* is a resource naturalist for Yellowstone Park. Since 1982 she has worked as a ranger-naturalist and resource manager, specializing in bear management, park planning, and resource interpretation. She works closely with scientists from the Interagency Grizzly Bear Study Team and with the Yellowstone Grizzly Bear Management Subcommittee. She has a B.S. in recreation and park administration from the University of Wyoming and an M.S. in resource conservation from the University of Montana.

**Bert Cushing, Ph.D.,** *(The Living Stream)* now retired, was a Senior Research Scientist at the Pacific Northwest Laboratories, adjunct professor at Washington State University-Tri Cities, and is currently on the Affiliate Faculty at Colorado State University. He has over 30 years of experience in studying streams and has published widely on this subject. He edited the book *River and Stream Ecosystems of the World* and is past-president of the North American Benthological Society.

**Marla Darby** *(Backpacking for Families; Backpacking for Teens; Backpacking in Grizzly Country; Backpacking the Heart of Yellowstone; Day Hiking Yellowstone; Backpacking the Beartooths-The "Leave No Trace" Way)* is a graduate student in nutrition and exercise and sport science at Colorado State University. She is an instructor for the National Outdoor Leadership School, for the outdoor adventures program of CSU, and has previously taught backcountry courses for the Yellowstone Institute. She is certified as a Master of the National Leave No Trace (LNT) program and as an Emergency Medical Technician. Marla's love and knowledge of the mountain environment make her an effective outdoor educator.

# Instructor Profiles

**Carolyn Duckworth** *(From Bison to Buffalo-Using Field Journals to Explore an Animal & an Issue; Angels from Echinus-Exploring the Mysteries of Norris Geyser Basin)* has taught field journal and writing workshops for the National Wildlife Federation, the Nature Conservancy, the Montana Conservation Corps, and the University of Montana. She has also written about science and the environment for the Smithsonian, *Northern Lights*, *Ranger Rick*, the multimedia *Earth Explorer Encyclopedia*, and Project WILD. After completing a M.S. in environmental studies, she moved to the northern edge of Yellowstone to be close to the geysers and wild country that inspire her.

**Duncan Foley, Ph.D.,** *(Geysers, Mudpots, & Hot Springs)* teaches geology at Pacific Lutheran University in Tacoma, Washington. He has worked throughout the western United States and Guatemala on volcanoes and geothermal systems and has taught Institute classes for the past 19 years.

**David Fountain, Ph.D.,** *(Geology of the Yellowstone Country)* is a professor of geology and geophysics at the University of Wyoming. He has taught field courses in Yellowstone and Glacier National Parks, served as co-instructor in a National Science Foundation course for science teachers, and was editor of the journal *Geology* for the Geological Society of America. His research interests are crustal evolution and structure which he has studied in Europe, Canada, the northwest Pacific Ocean, and the Rockies.

**Jim Garry** *(Bears-Folklore & Biology; The Bison of Yellowstone; Bears: Bones, Signs, & Stories; Family Days in Lamar—the Wolves Come Home; The Nez Perce in Yellowstone—1877; Family Days in Yellowstone; Family Days in the Thermal Basins; Early Days in Jackson Hole; Literature of Yellowstone)* is both a naturalist and a folklorist. His degree as a naturalist is from the University of Michigan as is his M.S. in Environmental Communications. He has worked on numerous wildlife research projects, primarily for Texas Parks and Wildlife. He is the founding director of Great Plains Lore and Natural History, Inc. and is the author of *This Ol' Drought Ain't Broke Us Yet (But We're All Bent Pretty Bad)* and *The First Liar Never Has a Chance*.

**Pam Gontz** *(Exploring Yellowstone's Bird Life)* is the manager of the Yellowstone Institute and has spent the last 11 summers studying plant and animal life in the Greater Yellowstone Ecosystem. She has participated in breeding bird surveys, breeding bird census plots, and Christmas bird counts. She has taught beginning and intermediate bird courses at the Clark Fork Field Institute and has given talks on birds to local colleges and Audubon societies.

**John Good** *(Fire, Ice, & Fossil Forests)* was chief naturalist of Yellowstone National Park for six years. During his distinguished career in the National Park Service he served as superintendent of Acadia and Everglades National Parks and assistant superintendent of Yosemite. He holds a master's degree in geology.

**James Halfpenny, Ph.D.,** *(Yellowstone's Wolves; Mammal Tracking: Interpreting Tracks, Scat, & Other Sign; The Evolution, Ecology, & Future of the Wolf Family; Bears: Bones, Signs, & Stories; Snow Tracking; Winter Ecology on Skis)* is an ecologist and educator. Most recently he was coordinator of the Long-Term Ecological and Alpine Research at the University of Colorado. Annually he travels North America studying bears and wolves and their sign. He has taught since 1966 in the Greater Yellowstone Ecosystem and is author of *A Field Guide to Tracking in North America* and *Winter: An Ecological Handbook*. His research has included expeditions to Antarctica, Canada, China, Greenland, Kenya, and Tanzania.

**Hannah Hinchman** *(A Trail Through Leaves-The Art of the Field Journal)* has kept an illustrated journal for 28 years. She has a B.F.A. from the Maine College of Art, and shows her watercolor "illuminated journal" pages at various galleries. She has written for a number of publications, including *Sierra* magazine, *High Country News* and *Orion* magazine. She is the author of two books: *A Life in Hand: Creating the Illuminated Journal* (Peregrine Smith, 1991) and a newly released *A Trail Through Leaves: the Journal as A Path to Place* (W. W. Norton, 1997). She is in the process of moving from Dubois, Wyoming, to Augusta, Montana.

**Dorothy Hinshaw Patent, Ph.D.,** *(Responding to the Elements-Writing)* is the author of two gardening books and more than 90 science and nature books for children. She is a recipient of the Eva Gordon Award (American Nature Study Society), Golden Kite Award (Society for Children's Book Writers), and Children's Choice Award. Recently, she has expanded the range of her writing, with the natural world always providing inspiration. Her first fiction was published in spring, 1995.

**Bill Hopkins** *(Exploring the Yellowstone Landscape on Skis)* is an avid nordic skier. He enjoys the full range of the sport from racing to ski mountaineering. Currently, he coaches junior racers for the Bridger Ski Foundation in Bozeman, Montana. He has taught and guided in Washington state, Wyoming, Montana, and New Zealand. During the non-winter months he works as backcountry trails supervisor for the National Park Service in Yellowstone.

**Pete Houdeshel** *(Simply Stunning Scenic Photography; Grand Teton Photography)* is a veteran photography workshop and Yellowstone Institute instructor. His award-winning photo career spans over 25 years and includes publication in major books and magazines. He enjoys sharing his concepts of making pictures with all levels of photographers.

# Instructor Profiles

**Ann Johnson, Ph.D.,** *(Introduction to Archaeology of Yellowstone)* has a Ph.D. in anthropology from the University of Missouri-Columbia and has worked for the National Park Service as an archeologist for 20 years. She has been involved for many years with the Montana and Colorado Archaeological Societies and with the Museum of the Rockies. Geographically, she is interested in the North American Great Plains and adjacent areas, and plains environments worldwide; topically, she is interested in prehistoric cultures with ceramics; and temporally in the last 3,000 years.

**Robyn Klein, Herbalist A.H.G.,** *(Wild Edible Plants & Medicinal Herbs)* is a graduate of both Dominion Herbal College and the Southwest School of Botanical Medicine. She has taught herbalism classes since 1982. Robyn is the editor of *Robyn's Recommended Reading* and director of the Sweetgrass School of Herbalism in Bozeman, Montana. She is a member of the American Herbalists Guild, the American Herb Association, the Herb Research Foundation, the Great Northern Botanical Association and the Montana Native Plant Society.

**Edward D. Koch** *(Amphibians & Reptiles of the Greater Yellowstone Ecosystem)* is an endangered species biologist with the USDI Fish and Wildlife Service in Boise, Idaho. He received his M.S. degree from Idaho State University. Ted has worked in the Greater Yellowstone Ecosystem for over 10 years.

**Karen Krieger** *(Women & Yellowstone-A Historical Perspective)* has her master's degree in American studies from Utah State University and works for the Utah Department of Natural Resources directing cultural programs in Utah's state parks. She has worked in museums (including the Buffalo Bill Historical Center in Cody, Wyoming) and historical sites, published articles on women in wilderness, led outdoor trips for women, and conducted nature hikes for children and adults.

**Nancy Loren** *(Yellowstone for Families)* is an avid and curious adventurer—hiking, skiing, and backpacking hundreds of miles of the Rocky Mountain landscape each year. She enjoys experiencing with people their on-going discovery of nature and themselves as naturalists. Nancy holds degrees in natural resources management from California Polytechnic and elementary education from the University of Montana. For the past six years, she has taught environmental education with the National Park Service's residential student program, *Expedition: Yellowstone!* She is a member of the Montana Environmental Education Association.

**John Martin** *(Introduction to Yellowstone's Birds; Yellowstone Birds of Prey)* is currently Supervisory Ecologist and Chief of Natural and Cultural Resources at U.S. Army Dugway Proving Ground, Utah. His M.S. in wildlife and range resources focused on raptor ecology and habitat use. He is currently involved in long-term monitoring of Neotropical migratory songbird and raptor populations and habitat use, including satellite tracking of Swainson's and ferruginous hawks. John is assisted by his wife, Marsha.

**Terry McEneaney** *(Learning Birds by Sound)* is currently the staff ornithologist for Yellowstone National Park. Prior to his 11 years' employment with the National Park Service, he was a wildlife biologist at Red Rock National Wildlife Refuge. He worked for the U.S. Fish & Wildlife Service for 12 years, gaining experience in the western United States, Mexico, Canada, and Greenland. He has taught field ornithology courses for the Nature Conservancy in Montana and is the author of *Birds of Yellowstone*, *The Uncommon Loon*, and *The Birder's Guide to Montana*. He is currently the chairman of the Montana Bird Records Committee and is writing a definitive book on the ecology of Yellowstone birds.

**Alan McKnight** *(Observing Yellowstone with the Artist's Eye)* is an alumnus of the Woodstock School of Art in Woodstock, New York, now living in Teton County, Idaho, where he paints, illustrates, and teaches. He has traveled extensively in the Rocky Mountain West, sketching and painting in wilderness settings. Examples of his illustrations may be seen in Bob Berman's *The Secrets of the Night*, William Morrow, 1995.

**Linda Miller** *(The Wolf's Return-Mythology to Recovery)* has been working on wolf recovery issues and education for the past six years. Her background includes interpretive naturalist work for the Aspen Center for Environmental Studies, Boulder County Parks and Open Space, and the U.S. Forest Service. She is presently using her degree in occupational therapy as a wildlife rehabilitator, and volunteering in wildlife observation and interpretation in Glacier National Park. She also co-teaches wildlife education classes with Brian Peck at Flathead Valley Community College.

**Roy Mink, Ph.D.,** *(Headwater Watershed Ecology)* presently serves as director of the Idaho Water Resource Research Institute with the University of Idaho. Dr. Mink has been working in water quality aspects of several Idaho watersheds, and through his position with the Idaho Water Resource Research Institute supports multiple watershed studies throughout Idaho. He also has extensive experience in geothermal systems, was formerly chief of the geothermal energy branch of the U.S. Department of Energy at Idaho Falls and has worked on national and international geothermal projects.

**Sandra Nykerk** *(Family Days in Lamar-the Wolves Come Home; Photographing Nature in Yellowstone Country #1; Photographing Nature in Yellowstone Country #2; Family*

# Instructor Profiles

*Days in the Thermal Basins; Autumn Photography in Yellowstone),* is a naturalist and photographer now living in Gardiner, Montana, on the northern border of Yellowstone. Sandy has been teaching photography and natural history workshops throughout the country for over fifteen years. Her images have been published in many calendars, books, and journals. Active in environmental issues, she was a member of the board of directors of the Greater Yellowstone Coalition for seven years. Currently, Sandy is working on a book celebrating the unique biology and beauty of the Yellowstone hydrothermal features and on a project investigating the cultural perceptions of visitors to Yellowstone National Park.

**Richard Parks** *(Fly Fishing-Less Experienced; Fly Fishing-More Experienced; Fly Fishing in the Fall)* is the manager of Parks' Fly Shop, a family business that has been in Montana for over 30 years. Richard is highly respected as a fly tier, a teacher and a river guide, and is intimately familiar with Yellowstone's waters. He is also deeply involved in regional resource issues.

**Debra A. Patla** *(Amphibians & Reptiles of the Greater Yellowstone Ecosystem)* is a conservation biologist living in Victor, Idaho. She received an M.S. degree in biology from Idaho State University. She is a research associate of the ISU Herpetology Laboratory and coordinates the Greater Yellowstone Ecosystem Amphibian Monitoring Program.

**Brian Peck** *(The Wolf's Return-Mythology to Recovery)* is the Grizzly Recovery Coordinator for the Great Bear Foundation and was the Endangered Species Coordinator for National Audubon's Rocky Mountain office for the previous four years, focusing on wolf and grizzly bear recovery programs. Before coming to Audubon he was a park ranger and natural resource/education coordinator for Boulder, Colorado's, mountain park system for 21 years. He also spent the winter of 1986-87 tracking and studying wolves around Glacier National park for the Wolf Ecology project. Brian has a B.S. in wildlife biology from the University of Massachusetts and master's degree work in natural resource administration from Colorado State University. He also conducts natural history programs for the Glacier Institute, World Wildlife Fund and Montana's Flathead Valley Community College (Elderhostel).

**David Petersen** *(Nature Writing—From Appreciation to Publication)* is the author or editor of nine critically acclaimed books, most recently including *A Hunter's Heart* (Holt), *The Nearby Faraway: A Personal Journey Through the Heart of the West* (Johnson), and *Ghost Grizzlies* (Holt). David's articles and essays have appeared in *Backpacker, Bugle, Northern Lights, Orion, Terra Nova, Wilderness, Writer's Digest* and other periodicals, plus nearly a dozen anthologies. David is an experienced college writing instructor and an old friend of Lamar Valley and its wild inhabitants.

**Charles R. Peterson, Ph.D.,** *(Amphibians & Reptiles of the Greater Yellowstone Ecosystem)* is an associate professor in the Department of Biological Sciences at Idaho State University and Curator of Herpetology at the Idaho Museum of Natural History. He has been studying the amphibians and reptiles of the Greater Yellowstone Ecosystem since 1989.

**Wayne Phillips** *(Wild Edible Plants & Medicinal Herbs; Wildflowers and Wildfire-Ten Years after "The Fire"; Wildflowers of the High Country (Llama Trek); Alpine Wildflower Walks; Exploring Yellowstone's Northern Range-Winter Ecology and Survival)* formerly a Forest Service ecologist, is now devoting his full time to teaching and writing about the flora of the Central and Northern Rockies. He has taught botany/wildflower classes at the Yellowstone Institute for fifteen years. His teaching experience includes botany classes as a faculty affiliate at the University of Montana, Montana State University-Northern and the University of Great Falls. He is currently the president of the Montana Native Plant Society. His hobbies include ethnobotany, herbalism, wildflower photography, skiing and mountaineering. He has over 20 years of backcountry skiing experience, including trips across the Bob Marshall Wilderness and Old Faithful to Bechler in Yellowstone.

**Harold Picton, Ph.D.,** *(Bears-Folklore & Biology; The Bison of Yellowstone; Life at the Extremes)* is a professor of wildlife management at Montana State University. In addition to his involvement in grizzly bear research, he also teaches physiology. He has authored research papers and popular articles dealing with the ecology and physiology of a number of species. Many of his graduate students have completed projects in the Yellowstone area.

**Anna-Louise Reysenbach, Ph.D.** *(Exploring the Ecology & Biotechnological Potential of Yellowstone's Microorganisms)* is a microbial ecologist and teaches at Rutgers University. Her research focuses on the ecology of microorganisms from high temperature environments. Over the past decade, her work has taken her to the thermal springs of Yellowstone National Park, Iceland, New Zealand, and the Azores, and in research submersibles to the deep-sea hydrothermal vents along the mid-oceanic ridges. Much of her enjoyment in her work is derived from exposing people to the secrets of the microbial world.

**Vincent L. Santucci** *(Fossils of Yellowstone)* is a paleontologist specializing in National Park Service fossil resource management, research, and protection. His career has included paleontological surveys at Badlands, Grand Canyon, Petrified Forest, Yellowstone, and Zion National Parks. He served as an instructor at Slippery Rock University and the University of Pittsburgh in Pennsylvania.

# Instructor Profiles

**Peg Steunenberg** *(Botanical Sketchbook-Drawing Workshop)* is a natural science illustrator with a B.S. from Avila College and B.A. in drawing and painting from San Jose State University. Peg completed the graduate studies program in science illustration at the University of California, Santa Cruz. Her work has appeared in a number of publications, the Nature Company product line, promotional work for the California Chapter of the Nature Conservancy, and her own annual educational product line providing information about the plants and animals to the public. Her work was accepted for the 1996 Guild of Natural Science Illustrators Annual Exhibit at the Smithsonian Institution, and Peg was recently awarded the Bronze Award for Technical Merit at the 1997 San Francisco Society of Illustrators annual juried show.

**Don Streubel, D.A.,** *(Mammals Great & Small)* holds a Doctor of Arts degree in biology and is a professor of biology at Idaho State University. He is the author of *Small Mammals of the Yellowstone Ecosystem* and was director of the Yellowstone Institute from 1989-1991.

**David Strong, Ph.D.,** *(Moving Nature-Environmental Ethics & Yellowstone)* is a professor of philosophy at Rocky Mountain College where he teaches environmental ethics, philosophy of technology and culture, and various interdisciplinary courses. A native of Livingston, he has worked on trail crews in Yellowstone, has hiked nearly the length of the Absaroka Mountains and has been a lifelong activist with regional environmental issues. In his professional writings he uses his training in philosophy and the humanities to deepen the examination of local and global environmental issues, as illustrated in his *Crazy Mountains: Learning from Wilderness to Weigh Technology*.

**Dave Thurlow**, (*Weather Cycles in the Big Sky)* is writer, host, and producer for *The Weather Notebook*, heard nationwide on National Public Radio. Trained as a meteorologist, Dave has also spent many years as a naturalist for the Massachusetts Audubon Society and the Appalachian Mountain Club. His expansive knowledge of meteorology and the natural world, coupled with his easy-going, humorous style, has made him one of New England's most popular naturalists. Dave has written articles for several outdoor publications, including *Weatherwise* magazine, has produced a series of educational posters, and is working on a book version of *The Weather Notebook*, available in 1998.

**Tom Watson** *(Family Days in Yellowstone; Exploring the Yellowstone Ecosystem)* has spent the last 18 summers studying geology and ecology in the Greater Yellowstone Ecosystem, most recently as a Yellowstone Institute instructor, as presenter for the National Wildlife Federation Summit programs, and guide for Off the Beaten Path. During the school year he teaches biology and geology in California.

**Don White, Ph.D.,** *(Carnivores of the Greater Yellowstone Ecosystem; Life at the Extremes)* is an Assistant Research Professor in the Department of Biological Sciences at Montana Tech of the University of Montana, Butte, Montana. He is currently conducting research in disease ecology and grizzly bear reproductive physiology. He has published numerous technical and popular articles, including a teacher's manual for a bear video.

**Lee H. Whittlesey** *(Yellowstone Place Names-The Nomenclature of Wonderland; Yellowstone's Northern Roadside History; Yellowstone's Southern Roadside History)* is historical archivist and acting historian for Yellowstone National Park. He spent 15 years writing *Wonderland Nomenclature: A History of the Place Names of Yellowstone National Park*, and its sister version, *Yellowstone Place Names*. Whittlesey is also the author of *Death in Yellowstone: Accidents and Foolhardiness in the World's First National Park* and *Everts: Lost in Yellowstone*. He is widely published in the early history of interpretation and transportation in the park and has a law degree from the University of Oklahoma.

**Wilderness Medicine Institute** *(Wilderness First Responder)* Wilderness Medicine Institute (WMI) and its sister school, Stonehearth Open Learning Opportunities (SOLO), have been leaders in wilderness medicine education since 1976. The WMI staff comes from a wide range of medical and professional backgrounds; many have worked as nurses or EMT's, some have served on mountain rescue teams, and others have instructed for National Outdoor Leadership School (NOLS) and Outward Bound. They know what it feels like to provide emergency care in remote settings, and they know how to transfer that ability to others. WMI provides all levels of wilderness medicine training for state and federal agencies, colleges, and outdoor programs throughout the West.

**Eleanor Williams** *(Historical Field Journals)* is the Chief Landscape Architect for Yellowstone Park. She has kept journals of landscape projects, filled with observations for twelve years. Her work involves the landscape architectural coordination for the park, including standards for design and construction. She has maintained an interest in the physical, sculptural aspects of landscape and the influence of artistic endeavors that shape our connections to the land. Art is often the foundation of early landscape ideas and developments.

**Scott Wood** *(Lakes of Yellowstone by Canoe; Autumn Canoeing in Yellowstone; Snowshoeing in Yellowstone)* has 22 years' experience in outdoor education and is an instructor at Ricks College. He is a certified Red Cross canoeing instructor, a certified backcountry ski guide and has extensive avalanche experience.

## Would you like to help the Yellowstone Institute?

Each year we ask Association members and Institute students to consider making a donation which will help support the Yellowstone Institute. These donations allow us to purchase furniture, equipment, and other items which make life at the Lamar Buffalo Ranch comfortable and enjoyable. They also enable us to keep our rates low so that a broad range of students (including Yellowstone area school children) can attend Institute programs. This year, we are seeking donations for the following projects:

**Lodgepole Pine Captain's Chairs for Guest Cabins.**
Last year, we received a $500 donation from one of our custom course groups to be used for cabin chairs. After searching for an appropriate design, we purchased several hand-crafted captain's chairs from a craftsman in Livingston, Montana. These sturdy chairs have been so popular that we hope to get one for each cabin. The cost is $150 per chair, and we would like to purchase at least one dozen chairs in 1998.

**New Rugs for Guest Cabins.**
Guests who have stayed in the Lamar cabins on a cold day appreciate the simple luxury of throw rugs to cover the wooden floors. Many of the current rugs were donated by Institute Manager Pam Gontz several years ago and now need to be replaced. We anticipate spending $75 per cabin and would like to purchase new rugs for all 16 cabins in 1998.

**Unrestricted Program Support and Other Donations.**
Unrestricted donations will be credited to the Yellowstone Institute budget and used to support educational programs at Yellowstone. Donations for any other specific purpose are always welcome, and we will be glad to talk with you about current needs.

Please make your contribution payable to:

*Yellowstone Association*
P.O. Box 117
Yellowstone National Park, WY 82190

and let us know if it should be used to help pay for "Chairs," "Rugs," or "Programs." Gifts of any amount will be gratefully accepted. We will send acknowledgment of your tax-deductible donation. Your support is very much appreciated.

## The Yellowstone Association

The Yellowstone Institute is one of many outstanding educational programs and projects sponsored by the non-profit Yellowstone Association for Natural Science, History & Education, Inc., the National Park Service's primary partner for education in Yellowstone National Park.

Each year, the Yellowstone Association provides substantial funding for in-park wayside and museum exhibits, interpretive programs, scientific conferences, research, and educational publications. All of the activities of the Yellowstone Association are dedicated to developing public appreciation for and awareness of the beauty and value of Yellowstone's unique natural and cultural treasures. This appreciation of the value of natural areas is critical to the preservation of Yellowstone and wilderness areas throughout the world.

Would you like to join us? Thousands of people are now part of the Yellowstone Association's efforts to educate others about the value of Yellowstone in an increasingly crowded world. In addition to helping Yellowstone, members receive an informative newsletter throughout the year and discounts on Institute classes and Association products. See page 47 of this catalog for information on how you can help Yellowstone as a member of the Yellowstone Association.

## New Membership Benefit Effective Next Year

When the 1999/2000 Institute courses are announced in January of 1999, members of the Yellowstone Association will have the opportunity to register one week earlier than anyone else. What this means is that members will have the best selection of popular courses. For the Association, this is a way to show appreciation for our most loyal supporters. For potential members, it is another great reason to join the Yellowstone Association for the benefit of Yellowstone National Park.

# Are you getting the benefits of membership in the Yellowstone Association?

The Yellowstone Association, sponsor of the Yellowstone Institute, was founded to serve Yellowstone National Park and its visitors through support of educational, scientific, and historic programs. When you become a member of the Yellowstone Association you will have a role in a nonprofit, educational project which began in 1933. For more information on projects sponsored by the Association see page 46 of this catalog.

To acknowledge your interest and support as a member, you will be entitled to the following benefits:

- A **family membership** (covering donor, spouse, and children through age 20)
- **Discounts** on Yellowstone Institute field courses and products
- **Yellowstone Institute course catalog** sent prior to general mailing
- A **15% discount** on items sold by the Yellowstone Association (in Visitor Centers or by mail)
- Informative **quarterly newsletters** and the National Park Service's **quarterly Yellowstone newspaper**
- Invitations to special **member's activities**
- Credit for a **tax-deductible** gift (to the extent allowable by law)
- **Discounts** at many association bookstores in visitor centers at other national parks

*You may be assured that your membership gift will be gratefully received, immediately acknowledged, and efficiently used.*

**To learn more: www.nps.gov/yell/ya/yellassn.htm**

☑ **Yes!** **I want to help to educate people about the natural wonders of Yellowstone.**

To receive all the benefits of membership, complete and mail this form with your dues to: The Yellowstone Association, P.O. Box 117, Yellowstone National Park, WY 82190 (or leave at any Visitor Center sales desk in Yellowstone).

❑ Renewing ❑ Joining for the first time

Give name as you prefer for Association records:

Name_____

Address_____

City_____

State_____ Zip_____ Phone_____

Memberships are family memberships, including your spouse and children through age 20. Please identify those for whom membership cards are desired:

| Name | Relationship (spouse/son/daughter) | Age (children only) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

Annual Dues:

| | | | |
|---|---|---|---|
| Associate ..... | $ 25 ☐ | Patron ..... | $250 ☐ |
| Contributing .... | $ 50 ☐ | Sponsor ..... | $500 ☐ |
| Sustaining ..... | $100 ☐ | Benefactor .. | $1000 ☐ |

Make checks payable to "The Yellowstone Association"

Charge to: ☐ Visa ☐ MasterCard ☐ Discover

#_____

Exp. Date __ / __

Signature_____

YI-98

✂ **Clip and mail to the address listed above today!**

The Yellowstone Association
P.O. Box 117
Yellowstone National Park, WY 82190

Non-Profit Organization
U.S. POSTAGE
PAID
Permit No. 104
Livingston, MT 59047

Wayne Phillips
2601 Third Ave N
Great Falls MT 59401

**CHANGE SERVICE REQUESTED**

The 1999 catalog of courses will be available in mid-January, 1999.

**Institute office 307-344-2294**
**Institute fax 307-344-2485**

*Please help by sharing your Institute catalog with a friend*

Duplicate this form for multiple registrations if necessary

## '98/99 REGISTRATION FORM

**[Note: Refund Policy on page 4]**

Name(s)_____ ☐ Male ☐ Female ☐ Check here if you're *new* to the Institute

Address_____ Please list names & ages of children for family classes

City_____ State_____ Zip_____ Wk Phone_____ Hm Phone_____

Where can you be reached one month prior to the course? Address_____ Phone_____

How did you find out about the Yellowstone Institute?_____

☐ Check here if you are a current member of the Yellowstone Association or are joining now. (Memberships begin at $25—see pg 47)

| Course Title and Number | Dates | Tuition |
|---|---|---|
| | | |
| | | |
| | | |

**Lodging:**

☐ I want to stay at the Institute cabins at Lamar the following nights at $15/night. Dates_____
☐ My class does not meet at the Lamar facility. See course descriptions for recommended lodging or contact the registrar.
☐ I will make my own lodging or camping arrangements.

Total tuition fee(s) _____
Cabin fee(s) at $15 per person per night _____
Membership (optional) _____
☐ joining now
☐ renewal
Total Enclosed _____

Payment by: ☐ Check ☐ MasterCard ☐ Visa ☐ Discover

Number_____
Expiration Date_____
Signature_____

Mail to: Yellowstone Institute
P.O. Box 117
Yellowstone Park, WY 82190

### Release and Assumption of Risk
**(Please return original, signed Release)**

I am aware that during the courses or activities that I am participating in under the arrangements of the YELLOWSTONE ASSOCIATION and its agents or associates, certain risks and dangers may occur, including but not limited to the hazards of traveling in rough terrain, water, and thermal areas; accident or illness in areas remote from medical facilities; the forces of nature; and travel by automobile, bus, air or other conveyance. In consideration of and as part payment for the right to participate in such courses or other activities, I have and do hereby assume the risks and all legal responsibility for injury to myself or loss of my property resulting from participation in these courses or other activities, and do hereby hold the YELLOWSTONE ASSOCIATION harmless from any and all liability, actions, causes of action, debts, claims, and demands which I now have or which may arise in connection with my participation in these courses or other activities. The terms hereof shall serve as release and assumption of risk for my heirs, personal representatives, executors, administrators, and for all members of my family. I affirm that my general health is good and that I am not under a doctor's care for any condition which will endanger my health or the health of other participants. In case of injury and/or illness, I will bear the cost of any evacuation procedures such as ambulance, helicopter, rescue team, and professional medical care. I understand that I must provide my own health and accident insurance. My participation in the Yellowstone Institute course(s) and attendant activities, including photographs for future publicity in which I may appear, is entirely voluntary.

Date_____ Signature_____

Date_____ Signature_____

**(SIGNATURES FOR ALL PARTICIPANTS REQUIRED)**

If under 21 years of age, parent or guardian must sign—give age(s).