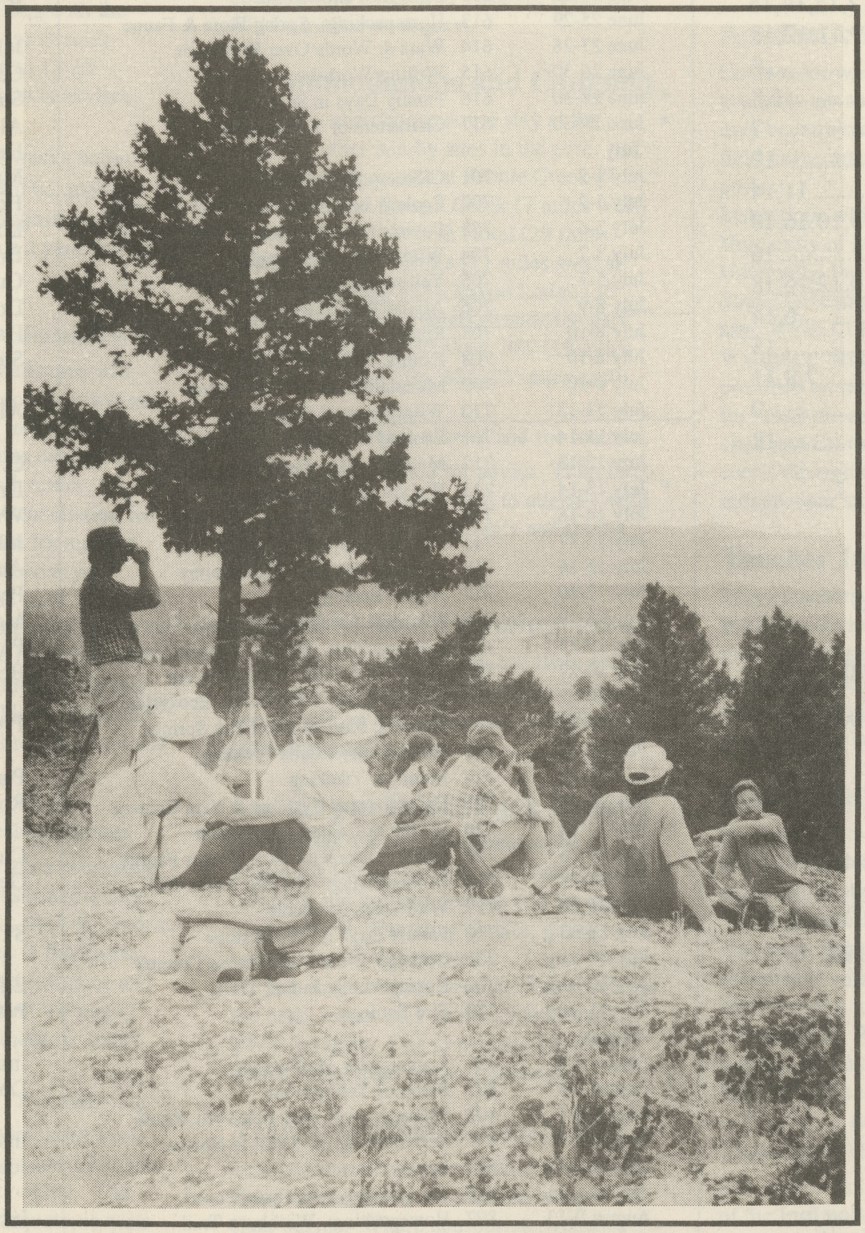
The Yellowstone Institute



Field Courses
1991
Nature Study Vacations

Phillips / Reese
YI Collection

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DIRECTORY

For General Information about Yellowstone National Park campgrounds and opening and closing dates contact:

Visitor Services 307-344-7381
Box 168 Ext. 2206
Yellowstone Park, WY 82190

For Information about in-park lodges, hotels, RV parks, marina, and reservations contact:

TWR Services, Inc. 307-344-7311
Yellowstone Park Division
Yellowstone Park, WY 82190

For travel information from states surrounding Yellowstone contact:

Wyoming Travel Commission
Frank Norris Jr. Travel Center
Cheyenne, WY 82002

Idaho State Travel Commission
Room 108 State Capitol
Boise, ID 83720

The Yellowstone Association for Natural Science, History & Education, Inc. is a non-profit, tax-exempt organization founded in 1933 to support educational, historical, and scientific programs in Yellowstone National Park.

P.O. Box 117
Yellowstone National Park,
Wyoming 82190
Phone: 307-344-7381
Extension 2384 Institute Registrar
Extension 2349 Business Office

CALENDAR 1991

	May		
	May 30-June 2	501	Wildlife Observation in the Spring
*	May 31-June 2	601	Waterbirds of Yellowstone
	June		
*	June 7-9	602	Ecological Relationships of Birds
	June 8-11	603	Grizzly Bear Ecology & Management
	June 11-13	604	Tracking: Earth as Manuscript
	June 14-16	605	Bears: Folklore & Biology
*	June 15-16	606	Indian Use of Yellowstone
	June 17-20	607	Wildlife Photography
	June 17-21	608	Lakes of Yellowstone by Canoe
	June 21-23	609	Blossoms & Birds
*	June 21-23	610	Birding Yellowstone
	June 24-26	611	Beetles, Bugs, and Butterflies
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	June 27-28	614	Wars & Words Over Wildlands
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	July 1-2	702	Ecology of Coyotes & Mountain Lions
	July 3-6	703	Environmental Education for Teachers
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	July 5-7	705	Yellowstone's Birds of Prey
	July 8-9	706	Alpine Wildflowers
	July 8-10	707	Ranger Ted
	July 8-10	708	Family Days in Sunlight
	July 8-10	709	Mountain Men in Yellowstone
	July 11-13	710	Wildflowers (Llama Trek)
	July 11-14	711	Ecology of Greater Yellowstone
	July 12-13	712	Mountain Men Field Trip
*	July 13-14	713	Wolves of Yellowstone
	July 14-18	714	Horsepacking: Teton Crest Trail
	July 15-17	715	Fire, Ice and Fossil Forests
	July 15-18	716	Learning Outdoor Photography
	July 17-20	717	Alpine Ecology
	July 18-19	718	Hiking & Camping in Grizzly Country
	July 19-23	719	Horsepacking: Bechler Canyon Trail
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	July 20-22	721	Exploring the Yellowstone Ecosystem
	July 20-22	722	Geysers, Mudpots, and Hot Springs
	July 22-26	723	Backcountry Llama Trekking
	July 23-26	724	Mammal Tracking
	July 23-28	725	Hydrothermal Systems & Ystn Caldera
	July 24-26	726	Hiking & Camping for Youth
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	July 25-29	728	Horsepacking: The Nez Perce Trail
*	July 26-28	729	Wilderness Medicine
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	August 4-8	803	Horsepacking: Nez Perce Alt. Route
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	August 9-13	807	Horsepacking: Washburn Trail
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*	August 24-25	812	Women & Yellowstone
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*	September 6-8	901	Wildlife Photography in the Fall
*	September 13-15	902	Autumn Scenic Photography
*	September 20-22	903	Wildlife Observation in the Fall
*	October 25-27	904	Swan Identification & Ecology

* denotes a weekend class (which may begin on Friday evening)

THE YELLOWSTONE ASSOCIATION

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Photos by Gene Ball & Don Streubel
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GENERAL INFORMATION

Tuition Unless otherwise specified, the tuition charge does not include lodging, meals, books, course materials, transportation, or university credit fees.

There are discounts for current members of the Yellowstone Association or those who join when they enroll.

Registration Complete and mail the attached registration form along with the tuition fee (and cabin fee if applicable).

Most courses are limited to 12-15 participants. Early registration is advised.

Student Packet Four weeks before class begins, each student will be mailed more course information, suggested study materials, if appropriate, plus a park entrance fee waiver.

Cancellation Policy Enrollees who cancel at least one month in advance will receive an 80% refund (except Yellowstone Association members, who receive a full refund minus a $10 per-course cancellation fee.) For less than one month notice, the entire fee will be retained. Cancellation fees may be applied toward tuition for another course during the current calendar year.

The Institute reserves the right to cancel a course if fewer than seven persons are enrolled 30 days prior to the first class day. Enrollees will be notified immediately and will receive a full refund. (Note: Cancellation insurance is available through travel and insurance agents.)

Location Courses are held at various locations within the Yellowstone ecosystem. Most are conducted at the Institute facility known as the Buffalo Ranch. It is an historic Park Service facility located in the Lamar Valley between the Northeast Entrance and Tower Junction. (See map on next page.) Classes meet there unless otherwise stated.

Classroom Facility The main log building is heated and has two classrooms, three bathrooms with showers and a kitchen where people do their own cooking. The facility, though clean and adequate, is quite simple.

Food and Preparation Unless otherwise specified, participants provide their own food. There are stoves, refrigerators and a small microwave. Space is limited so meals should be kept simple. Cooking and eating utensils are provided.

Cabins There are thirteen *multiple-occupancy* cabins. Most have two or three single beds. They have no plumbing, heating, or electrical outlets. Everyone must bring a warm sleeping bag. Life in the cabins has been affectionately described as "indoor camping." Cabin reservations should be made when registering for class. The fee is $7 per person per night. Space is limited. Cabin rental for family members of participants may be allowed *if space is available.* A copy of the Institute policy regarding family members and information about nearby lodging or camping facilities will be mailed on request.

Accommodations and Camping

For those who choose not to stay at the Institute, other nearby sites in the park include campgrounds at Pebble Creek (9 miles east) and Slough Creek (7 miles west) or lodging at Mammoth Hotel (29 miles west), Roosevelt Lodge (11 miles west at Tower Junction), and Canyon Lodge (30 miles southwest). Motels outside the park can be found at Silver Gate, MT (19 miles east) and Cooke City, MT (23 miles east).

Children Most courses and the Institute facilities are designed for adults. Therefore, children are not encouraged to attend—with the exception of the children's and family classes.

Pets, RVs, and Camping Pets are not allowed at the Institute, and there are no provisions for camping and recreational vehicle use on the grounds at the Yellowstone Institute facility.

Lodging at Other Park Locales

For courses which do not meet at the Institute's Lamar facility, information about camping and lodging options will be sent upon request. For some classes, group campsites will be reserved.

For classes which meet at other locales in the park, rooms may be reserved through TWR Services. Due to demand for these rooms, early reservation is essential.

Transportation Participants must arrange their own transportation to and from Yellowstone and to the location where their class begins. Where appropriate, vehicles will be provided for travel associated with the courses.

Weather Much class time will be spent outdoors. Students should be prepared for a variety of mountain weather conditions and some cold temperatures. Rain gear and warm clothing are essential.

Physical Condition Participants should be in good general health for these courses because most courses require at least some walking at higher elevations. Classes which involve backpacking, horsepacking, canoeing, and field work will be more demanding. Ask in advance if you have any questions on this matter.

Insurance and Liability

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

Academic Credit

Courses for which academic credit is available are so designated. Credit seekers may be required to take an exam, submit field notes, and/or complete a post-course project.

Institutions which offer credit include the University of Montana, Montana State University, the University of Idaho, Idaho State University, Brigham Young University, Ricks College and the University of Wyoming. 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 $25-$45. Students may enroll through their own university for independent study.

Teacher In-Service Credits

Many teachers enroll in Yellowstone Institute courses for recertification or professional growth credits. Certification of course completion listing the course title, hours of instruction, and the nature of the course is available upon request.

Scholarships Limited scolarships may be available to Wyoming and Idaho teachers. Contact the Institute registrar for more information.

We gratefully acknowledge the Scott Foresman Publishing Company which has established a Yellowstone Institute scholarship program for teachers they select in the western U.S. We look forward to welcoming these scholarship recipients to the Institute this summer.

Funding The Yellowstone Institute is non-profit. Tuition fees cover only a portion of the Institute costs. Other funding comes primarily through membership contributions plus other fundraising activities of the Yellowstone Association, a non-profit, tax-exempt organization.

Since 1985, humanities courses offered by the Yellowstone Institute have been partially funded by grants from the Wyoming Council for the Humanities.

Unless otherwise stated, classes meet at the Institute facility at the Lamar Station (the old Buffalo Ranch).

The Yellowstone Association *was founded in 1933 to support educational, historical, and scientific programs for the benefit of Yellowstone National Park and its visitors. Among the Association's past and present projects are the following:*

* *Donated research library to park in 1967 and provides continued support through purchase of books and periodicals and hiring of part-time librarians*
* *Operates book sales outlets in Visitor Centers throughout the park*
* *Founded The Yellowstone Institute in 1976 and serves as its sponsoring organization*
* *Publishes trail guides for self-tours of thermal areas*
* *Publishes books and pamphlets pertaining to Yellowstone*
* *Assists naturalists with visitor information services at Visitor Centers*
* *Prints schedules of naturalist programs for visitors*
* *Administers grants and gifts received for designated projects in Yellowstone*
* *Funded Yellowstone's first braille trail*
* *Contributed funds for museum exhibits and research equipment*

The Yellowstone Association for Natural Science, History and Education, Inc., is a non-profit, tax-exempt organization.

Dear Participant,

Observing fantastic wildlife, discovering why Yellowstone is so geologically active, learning about birds, horsepacking, canoeing, wildflowers, interacting with instructors who all have a love and knowledge of Yellowstone that they are willing to share and meeting new friends, are all a part of the Yellowstone Institute. With nearly 70 classes in 1991, the Institute provides a diversity of subjects that can help you focus on Yellowstone in unique and rewarding ways.

The Institute is sponsored by the non-profit Yellowstone Association. Membership in the Association entitles you to discounts on classes at the Institute.

Life is best when you are learning. And learning about the wonders of this restless and enduring land is especially rewarding and refreshing. Come join us in 1991 and make Yellowstone Park a part of your life.

Sincerely,

Don Nelson

Don Nelson, Director
Yellowstone Institute





Lamar Station ... Yellowstone Institute
19 miles west of Silver Gate, Montana
11 miles east of Tower Junction
Elevation 6560 feet

1991 Summer Field Courses

THE SIXTEENTH ANNUAL
YELLOWSTONE INSTITUTE



The Yellowstone Institute facility, located in the Lamar Valley, Yellowstone National Park. Lamar River in background.

Wildlife Observation in the Spring: 501
May 30-June 2
$105 (Member's fee $95)

Field observation will be the major goal and activity of this class. In the lower forty-eight there is no place with better potential for wildlife observation than Yellowstone. The informal format will feature early morning and evening field trips with midday programs on related topics such as osprey, moose, bears, birds, animal sign, observation techniques, photo tips, optics, and the ethics of interaction with wildlife. Activities begin on the afternoon of May 30. (**Note:** A new "Wildlife Observation in the Fall," September 20-22, is being offered this year in addition to this spring class.)

***Gene Ball**, Yellowstone Institute director from 1985-88 and former director of the Cowboy Artists of America Museum, will be the coordinator for the course which will include presentations by **Gerry Green** (grizzly bear researcher), **Dan Tyers** (wildlife researcher), and others.*

Waterbirds of Yellowstone: 601
May 31-June 2 Limit: 10
$85 (Member's fee $75)

Water environments in Yellowstone are exciting areas for the study of ecological relationships of birds as spring unfolds into summer. This field course will emphasize species identification, food habits, habitat requirements, and interrelationships of birds associated with water environments such as waterfowl, herons, terns, gulls, shorebirds, ospreys, eagles, pelicans, kingfishers, cormorants, grebes, and loons. Though the course emphasizes waterbirds, students will have an opportunity to see and identify a variety of birds and mammals in the varied Yellowstone environment. The course begins at 7:00 pm on Friday, May 31.

***Terry McEneaney** is the bird biologist for the National Park Service in Yellowstone. He was a wildlife biologist for the U.S. Fish & Wildlife Service for 12 years, has taught field ornithology for the Nature Conservancy in Montana, and is the author of* Birds of Yellowstone.

Ecological Relationships of Birds: 602
June 7-9 Limit: 10
$85 (Member's fee $75)

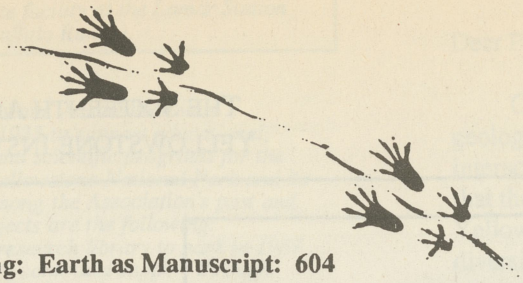
This course will examine the physical factors of soil, light, climate, and weather, and will put primary emphasis on habitats and the role that biological factors (food, prey, competition, niches, migration, etc.) play in the distribution of birds in Yellowstone. Students will learn the ecological role of the Clark's nutcracker, red crossbill, common raven, bald eagle, osprey, white pelican, Caspian tern, trumpeter swan and common loon, to name a few. Also, you will learn the role of birds in relation to other birds, mammals, etc. Field trips will be the major emphasis, since hands-on experience is the key to learning. If you can identify most birds, but are more interested in the ecological role that birds play in Yellowstone, this course is for you. Class begins on Friday, June 7 at 7:00 pm.

***Terry McEneaney**, see write-up under "Waterbirds of Yellowstone."*

Grizzly Bear Ecology & Management: 603
June 8-11
$160 (Member's fee $150)

This course will consider the ecology and management of grizzly bears and the many ways the two topics relate to one another. Students will receive a general overview of most important aspects of the subjects, but among the topics of special interest this year are the future delisting of the grizzly bear, the evolution of public attitudes that have driven bear management since the park's establishment and the black bear's place in the Yellowstone setting.

***Paul Schullery** is with the Research Division in Yellowstone Park. Since 1972 he has worked as a ranger-naturalist, park historian and research consultant. He has authored several well-known books about bears, including the forthcoming* Yellowstone Bear Tales. *In addition, several sessions of the course will be conducted by other bear specialists including **Steve and Marilynn French** of the Yellowstone Grizzly Foundation.*



Tracking: Earth as Manuscript: 604
June 11-13
$75 (Member's fee $65)

This course is designed to be an introduction to "reading" the earth's surface. The abundant wildlife of the Lamar Valley will serve as the main focus of the study in order for the student to acquire the skills needed to learn the art of tracking. Minimal time will be spent in formal lectures. The class begins at 7:00 pm on Tuesday, June 11.

Gerry Green was first introduced to the art of tracking 10 years ago. He has since developed his skill by working as a field ecologist for the Interagency Grizzly Bear Study Team. He has a degree in wildlife biology from the University of Montana, and is currently finishing his Master's Degree in wildlife ecology at the University of Idaho.

Bears: Folklore and Biology: 605
June 14-16
$115 (Member's fee $105)
Credit available (U, 1 quarter hour; MSU)

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 and to address the bear's role in folkstories, 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.

Harold Picton, Ph.D., is a professor of wildlife management at Montana State University. He has directed a number of graduate student studies of the Yellowstone grizzly, co-authored several scientific papers with members of the Interagency Grizzly Bear Study Team, and is a member of the grizzly bear committee of The Wildlife Society.

Jim Garry 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.

Indian Use of Yellowstone: 606
June 15-16
$75 (Member's fee $65)

This class will offer an Indian perspective on the Yellowstone area. Topics will include tribal migrations, trails, treaties, traditional roles of men and women, interrelationships with whites, and the interest of Indians in the park itself. Also addressed will be the role of family, folklore and religion concerning the natural environment of Yellowstone. The course includes a traditional Indian meal on the evening of June 15.

Jeanne M. Eder was born on the Fort Peck Indian reservation in Montana, is an enrolled member of the Sioux tribe and is currently working on a Ph.D. at Washington State University. She has completed work on the use of the Star Quilt among Sioux and Assiniboine women and has produced a one-hour monologue on a traditional Hidatsa woman named Waheenee, Buffalo Bird Woman.

Wildlife Photography: 607
June 17-20
$165 (Member's fee $155)

With Yellowstone as the focus, this course will emphasize practical applications of photography rather than technical theory and assumes at least moderate experience. It will cover widely varying climatic and temperature zones and will approach outdoor photography as art. Techniques, use of light, equipment, composition, form, and development of the creative eye will be discussed. There will be special emphasis on environmental sensitivity and the ethics of, and various approaches to, wildlife photography. Participants must provide their own camera, lenses, tripod, film and accessories and be familiar with the operation of their equipment. A complete equipment list will be included in the student packet.

Tom McBride is recognized throughout the West as a photographer and multi-media producer. He has been commissioned by the Library of Congress for still photography; by United Artists for cinematography; and by Stephen Cross for films released by the B.B.C. His photographs have been featured in numerous magazines and he was judged Photographer of the Year by the Montana Professional Photographers Association.



Lakes of Yellowstone by Canoe: 608
June 17-21 Lewis Lake, YNP
$295 (Member's fee $285) Limit: 12
Credit available (U or G, 1 semester; Ricks College/BYU)

This five day canoe trip across Lewis Lake and into magnificent Shoshone Lake will provide interpretation of the lake environment and instruction on low-impact backcountry camping techniques. The class will make a visit to the remote Shoshone geyser basin at the far end of the lake and anyone who wants to go fishing will have time for that activity. Canoeing skills such as strokes, portaging, safety and tripping (how to pack a canoe) will be studied and American Red Cross canoeing certification may be earned if desired. Class will start from the Lewis Lake campgound boat dock on the morning of June 17. *Fee includes all canoeing equipment, group camping gear, and food.*

Scott Wood has 17 years experience in outdoor education, is an instructor at Ricks college, and a doctoral candidate at the University of Utah. He is a certified Red Cross canoeing instructor.



Blossoms & Birds: 609
June 21-23 Squirrel Meadows, Targhee National Forest, Idaho
$110 (Member's fee $100)
Credit available (U, 2 quarter hours when taken in conjunction with one other Wildflower class, 706 or 710; U of MT)

This class takes place in the Falls River Area, in the less visited southwest corner of Yellowstone and the adjacent Targhee National Forest. This is an area of great habitat diversity: a mosaic of meadows, aspen glades and coniferous forests interspersed with lakes, ponds, rivers and waterfalls. Meadows may be solid blue with camas blossoms or splashed with patches of white and yellow wyethia. Loons, swans, and sandhill cranes come here to nest, filling the air with their calls. Students will focus on basic plant identification skills and observing behavior of loons and sandhill cranes. Time will be spent discussing life histories of these birds and interpreting the various calls of the loon.

Classroom headquarters will be at the historic Squirrel Meadows Forest Service cabin, located along the scenic road between Ashton, Idaho, and Flagg Ranch. Because of limited space in the cabin, participants should come prepared to camp out or commute to Ashton, less than an hour away.

***Wayne Phillips** has a degree in forestry and is an ecologist with the U.S. Forest Service on the Lewis and Clark National Forest. He has taught plant identification for the College of Great Falls, is intimately familiar with the vegetation of the mountain West, writes botanical articles, and is an avid wildflower photographer.*

***Ann Hutchinson** is a naturalist at the Maplewood Nature Center near St. Paul, Minnesota. She has a B.S. degree in biology and environmental education from the University of Wisconsin, Stevens Point.*

Birding Yellowstone: 610
June 21-23 Limit: 12
$75 (Member's fee $65)

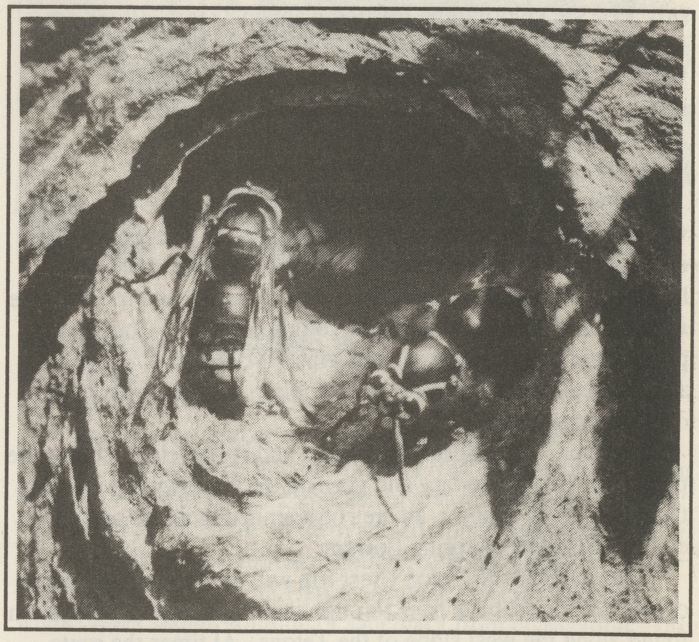
The objective of this fast-paced course will be to see as many Yellowstone bird species as possible in two days! The class will feature early morning departures to visit prime locations and varied habitat sites with a goal of spotting more than 50 species including the osprey, bald eagle, and trumpeter swan. There will also be opportunities to observe many of the park's mammals. The class will begin at 8:00 pm on Friday, June 21 with a session on birding in Yellowstone.

***Richard Follett** is author of* Birds of Yellowstone and Grand Teton National Parks *and* Birds of Crater Lake National Park. *He is a specialist on the birds of Yellowstone where he worked seven years as a ranger-naturalist and compiled the park's bird checklist.*

Beetles, Bugs, and Butterflies: 611
June 24-26
$105 (Member's fee $95)
Credit available (G or U, 1 semester credit; ID State U)

Insects and other arthropods are the most abundant, varied, and widespread animals in Yellowstone Park. Their total biomass exceeds that of all the bears, birds, and bison combined, and yet they go unnoticed as they suck sap, pollinate flowers, kill trees, feed fish, and recycle deadwood and carrion. Various macro- and microhabitats comprising the park system will be surveyed and characterized in terms of the resident arthropod assemblage, with a focus on the significance of these animals to aesthetics and the park's ecological equilibrium.

***Robert Anderson**, Ph.D., 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 and most recently completed research on the biology and ecology of the Idaho sand dunes tiger beetle.*



Birds of Yellowstone: 612
June 24-28
$195 (Member's fee $185)
Credit available (G or U, 2 quarter hours; U of MT)

This introductory ornithology course will emphasize field identification and ecological relationships of birds in the Yellowstone ecosystem. Field surveys include a hike to the summit of Mt. Washburn, a breeding bird census on Blacktail Deer Plateau, observations of osprey nests in the Grand Canyon of the Yellowstone, a boat trip on Yellowstone Lake, and numerous opportunities to observe waterfowl on the pothole lakes of Lamar Valley.

An effort will be made to tailor instruction to the individual needs of the enrollees. Amateur birders, including novices, as well as teachers and undergraduate and graduate students will find this course extremely informative. Binoculars required.

***Richard Follett**, see write-up under "Birding Yellowstone."*

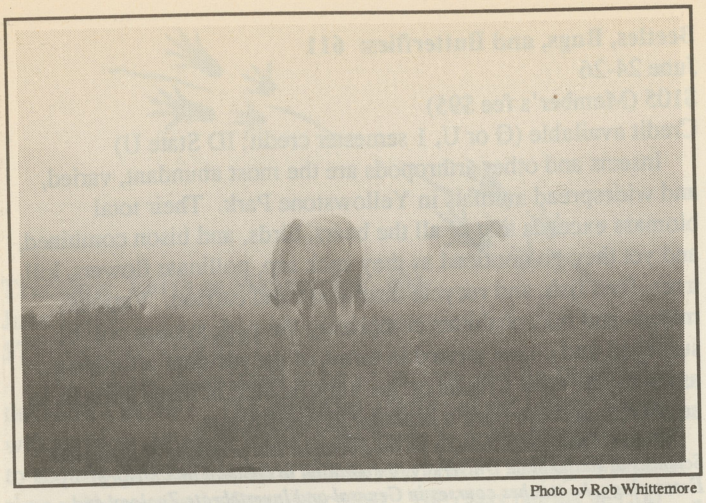


Photo by Rob Whittemore

Wilderness Horsepacking Limit: 12 per class
June 25-29, Springtime Flora & Fauna: **613**
July 14-18, Teton Crest Trail: **714**
July 19-23, Exploring the Bechler Canyon Trail: **719**
July 25-29, The Traditional Nez Perce Trail: **728**
July 30-August 3, Indian Trails: **732**
August 4-8, Nez Perce Trail: Alternate Route: **803**
August 9-13, The Washburn Expedition Trail: **807**
$495 per trip (Member's fee $485)

Along with its specific theme, each of these five day courses will stress low-impact use of pack stock in the backcountry. In addition to instruction in the use and care of pack and riding horses, participants will also learn how to camp and travel in the wilderness without damaging the fragile country. Courses are participatory rather than catered trips. *Fee includes horses, special equipment and food. Participants must provide their own sleeping bags.*

The June 25-29 Springtime Flora and Fauna class crosses the park's northern boundary and goes up the Yellowstone River to the Hellroaring country, an area of bountiful wildlife and colorful displays of spring flowers.

The July 14-18 Teton Crest trip will emphasize the special concerns of horseback trips through the fragile alpine ecosystem found along the west slope of the Tetons. At times the route passes through 10,000 feet elevations with spectacular views of the Tetons—including striated walls, tarn lakes and braided streams.

The July 19-23 trip takes place in the seldom-traveled Bechler Canyon country between Old Faithful and the southwest corner of the park which features lush meadows and scenic canyon waterfalls.

The July 25-29 course will explore the probable route taken in August 1877 by Nez Perce Indians while pursued by the U.S. Army. To this day, their exact route through one of Yellowstone's most remote areas is unknown. It was wild and rugged then and remains so today.

The July 30-August 3 session will explore portions of Indian routes through Yellowstone, such as the Bannock Trail. The ride will take participants through sections of the upper Lamar Valley, Mirror Plateau, and Pelican Creek and provide a chance to examine the effects of the Clover-Mist fire of 1988.

The August 4-8 session will explore an area that has interested some historians as a possible Nez Perce route. The ride will loop through portions of the Pelican Creek and Broad Creek areas and end near the Grand Canyon of the Yellowstone.

The August 9-13 course will follow a portion of the original Washburn Expedition trail along the east and south shores of Yellowstone Lake through country that is still much as it was in 1870 when Washburn's party rode through it.

***Richard Clark**, Ph.D., is a native of the upper Snake River Valley and has spent over a decade as a professional guide and outfitter in the Tetons and Yellowstone. He is a faculty member at Ricks College. His wealth of outdoor experience has been augmented with academic preparation in biology and botany at Utah State University, the University of Oregon, and Brigham Young University.*

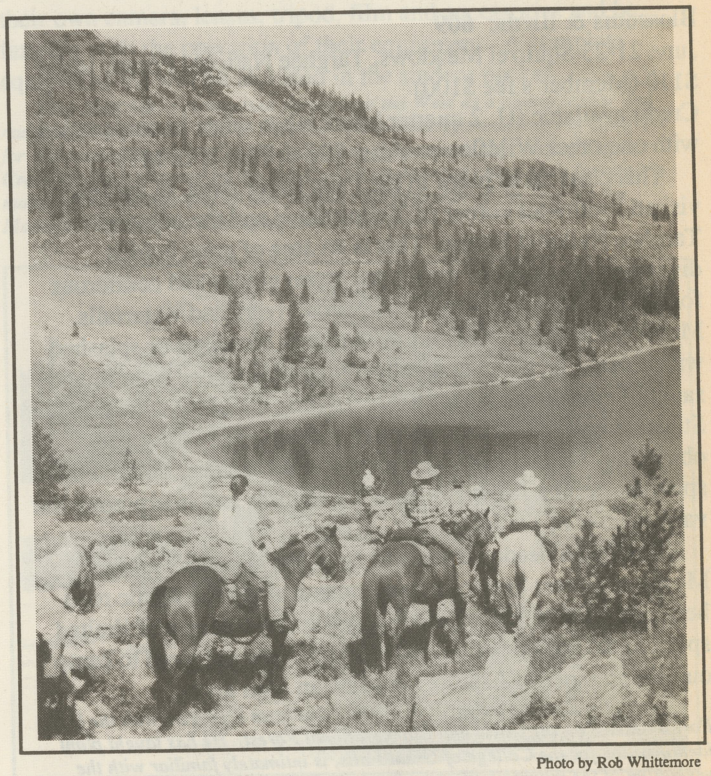


Photo by Rob Whittemore

Wars and Words Over Wildlands: 614
June 27-28
$75 (Member's fee $65)

The national "battle" over preservation versus resource development has raged in America for over a century and has generated a rich and enormous literature. It is a literature of controversy punctuated by scientific arguments, passionate appeals, bureaucratic explanations, heroic episodes and bizarre twists. This course will examine that literature through lectures, discussions, instructor synopses, group readings of articles and short essays, and field visits to sites in Yellowstone which are particularly relevant to conservation, wilderness, and national park themes. Participants will be expected to complete some reading prior to the beginning of the course. A reading list will be sent to each participant prior to the class.

***Bill Lang**, Ph.D., is research director of the Center for Columbia River History in Vancouver, Washington. He has taught at Carroll College, the University of Montana and Montana State University. He has written many articles on Yellowstone history and is co-author of* Montana: Our Land and People *and editor of* The Centennial West.

Finding Your Own Voice:
A Wilderness Writing Workshop: 615
June 26-30
$145 (Member's fee $135)

This four day workshop is for anyone who loves nature and likes to write. The course goals are to increase powers of observation, improve descriptive writing skills, deepen personal trust and confidence, and stimulate creativity. Good health, curiosity and enthusiasm are the only prerequisites. Designed to expand our awareness of the natural world in Yellowstone as well as deepen our appreciation of the wildness within ourselves, this class will combine writing and experiential exercises, both indoors and outside, with group interaction and guided field trips. We will spend time at an active geothermal area not often found by the average visitor, explore animal habitats and spend most of a day at a burn site created by the fires of 1988. Each day may develop quite differently, depending on the desires of the group and the unexpected opportunities offered by the weather in Yellowstone. Class begins on Wednesday, June 26 at 7:00 pm.

***Deborah M. Bond**, Ph.D., is a wildlands enthusiast, psychotherapist, and free lance writer. She has been an affiliate professor at the University of Montana. Her poetry has appeared in a number of publications. A collection of her short stories,* "Earth Stories," *appeared in Snowy Egret, the oldest independent nature journal in the U.S.*

***Dorothy Hinshaw Patent**, Ph.D., is the author of more than fifty science 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 Golden Kite Honor Award. Most of her books have been selected as Outstanding Science Trade Books for Children.*

Family Days in Sunlight
June 28-30: **616** Shoshone Nat'l. Forest Limit: 5 families
July 8-10: **708** Shoshone Nat'l. Forest Limit: 5 families
$90 For one parent and one child plus $30 per additional family member (Member's fee $80 plus $25 per additional)

Sunlight Basin and the Beartooth Mountains form the northeast flank of Yellowstone, an area noted for its scenic, high country beauty. This two night, two day course will give families, parents and children together, a chance to share in learning about, and from, this natural wonderland. Participants will be introduced to the area's geology, wildlife, archaeology, history, and the fires of '88, as well as naked-eye astronomy, photography, and the folklore and mythology of the region. Field trips will include short hikes. Critter watching at dawn is a popular option for class participants.

The course will headquarter on the Shoshone National Forest at Fox Creek Campground, approximately seven miles east of Cooke City, MT. Enrollees will meet at Fox Creek to set up between 6-8 pm on the first day (June 28 and July 8, respectively). Activities will run until 3 pm on the final day. Families who do not plan to stay in their tents, campers, or RVs may request a list of nearby accommodations. *Tuition includes camping fees for the three nights of the class. Enrollees must provide own camping equipment and food.*

***Jim Garry**, see write-up under "Bears: Folklore and Biology."*

***Sandy Nykerk** is a naturalist and photographer based in Gardiner, Montana. Her work has been published in many calendars, books, and journals and she teaches photography and natural history workshops around the country, including Illinois, Wisconsin, Yellowstone and the Canadian Rockies. She serves on the Greater Yellowstone Coalition board.*



Jim Bridger

Characters of Yellowstone: 617
June 29-30
$75 (Member's fee $65)

From the days before the creation of Yellowtone National Park in 1872 and well into this century, the Yellowstone Plateau attracted a cast of peculiar characters that matched the region's natural wonders. Some of them stayed only a season or two, while others decided to make Yellowstone their home. Some had heroic adventures and left their names on the landscape, while others sought solitude or sanctuary from civilization. This course will introduce students to the biographies of a dozen or more of these characters and visit places they frequented or made famous in Yellowstone.

***Bill Lang**, Ph.D., see write-up under "War & Words Over Wildlands."*

Close-up Photography in Yellowstone: 701
July 1-2
$75 (Member's fee $65)

This workshop will emphasize the basics of close-up and macrophotography and will assume a working knowledge of photographic principles and equipment. Topics include ethics of nature photography, macro basics, film and equipment selection, depth of field, making the most of natural light, technique for using flash in the field, and obtaining natural effects. Mornings will be spent in the classroom; afternoons will be devoted to field sessions. Emphasis will be on creativity combined with technical excellence.

***Sandy Nykerk**, see write-up under "Family Days in Sunlight."*



Ecology of Coyotes and Mountain Lions: 702
July 1-2
$75 (Member's fee $65)

The ecology of coyotes and mountain lions in Yellowstone Park will be compared during two morning classroom periods and two afternoon field trips. Discussions will focus on population dynamics, foraging ecology, and social behavior of coyotes and mountain lions, as well as other large predators. Research design, methods, and materials will be explained during "hands-on" seminars with radio-collared individuals. The ecological role of Yellowstone's other carnivores will be a part of the discussions. Participants should be prepared to hike three miles per day in possible rain and wind.

Robert Crabtree, Ph.D., is co-director of the Yellowtone Coyote Ecology project being done by the Wildlife Research Institute. His B.S. and Ph.D. degrees were earned at the University of Idaho and his M.S. in wildlife ecology from Utah State University. He has taught at U.C. Berkeley.

Kerry Murphy is a field biologist working on the Yellowstone Lion Ecology project. He received his M.S. from the University of Montana and is completing his Ph.D. at the University of Idaho.

Environmental Education For Teachers: 703
July 3-6
$140 (Member's fee $130)
Credit available (U or G, 1 semester hour, Idaho State U)

This course will focus on teaching teachers of grades K-8 how to teach environmental education. Participants will join in a variety of field investigations using various curricula, including: Project Wild, Project Learning Tree, Aquatic Wild, USFS Field Investigations, OBIS, SCS, and others. Techniques involving analysis of Yellowstone habitats, field identification of plants and animals and other appropriate experiences will be used. All of the activities will apply and integrate with many aspects of the typical classroom curriculum. Participants will be able to take many materials and ideas home to their classrooms.

Jane Streubel has been an elementary teacher for 20 years in grades 4-8. She received the Idaho "Governor's Award" for outstanding science teaching in 1988, has taught numerous in-service workshops and classes on elementary science teaching and is on the Idaho Science Teachers Association Board.

Don Streubel is the past director of the Yellowstone Institute. He holds a Doctor of Arts degree in biology and is a professor of biology at Idaho State University. He has been involved in numerous environmental education workshops and recently authored Small Mammals of the Yellowstone Ecosystem.

Shirley Wright has a Ph.D. in biological sciences. She has been an elementary teacher for 12 years. In 1990 she received the National Presidential Award for excellence in science teaching and in 1989 the Idaho "Governor's Award" for outstanding science teaching.

Wilderness Photography: 704
July 3-7 Absaroka Beartooth Wilderness, Shoshone Nat'l. Forest
$325 (Member's fee $315)

This course will cover all of the subject matter in "Wildlife Photography" (June 17-20) but will take place in a wilderness setting. The group will spend most of its time in remote locations shooting infrequently viewed scenes. Outings will involve moderate hiking with light packs through untracked wilderness. Group equipment, food, and other heavy items will be hauled to the campsite by horsepackers. Participants will have to carry camera gear and some personal gear to the campsite; a moderate six hour hike. Expect daily hikes in mountain country up to 9,000 feet elevation.

Each person must provide tent, sleeping bag, pad, pack and personal gear. Fee includes group equipment, food, and horsepacking.

***Tom McBride**, see write-up under "Wildlife Photography."*

Yellowstone's Birds of Prey: 705
July 5-7
$105 (Member's fee $95)
Credit available (U, 1 quarter hour; MSU)

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 ecological communities, predator-prey relationships, breeding strategies, and habitat influences. Conservation measures and management problems unique to raptors will also be examined during the course. A special boat trip to Frank Island on Yellowstone Lake will be made to see nesting ospreys and bald eagles.

John W. Martin, is currently a district realty specialist acquiring wetlands for the National Wildlife Refuge system in Montana. His research leading to an M.S. in Wildlife and Range Resources was based on Northern Harrier habitat utilization.



Alpine Wildflowers: 706
July 8-9
$75 (Member's fee $65)
Credit available (U, 2 quarter hours when taken in conjunction with 609 or 710; U of MT)

Wildflowers growing in the alpine tundra above the tree line will be the focus of this course. Participants will make day trips to 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 below 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 snowbanks. Students have the option of staying in Cooke City, MT, since the class will travel through there on the way to the Bearthooths each day.

***Wayne Phillips,** see write-up under "Blossoms & Birds."*



Interpreting Yellowstone with "Ranger Ted"
July 8-10 Fishing Bridge: **707**
August 5-7 Fishing Bridge: **805**
$95 for one adult and one child, plus $35 per extra family member (Member's fee $85, plus $30 per extra family member)
Credit available (G, 1 semester hour; BYU)

Participants will be introduced to the wonders and dilemmas of Yellowstone by a semi-retired ranger-naturalist whose first summer in Yellowstone was in 1945. Ted Parkinson has seen almost a complete turnaround in several park management policies. His series of nature walks and programs will encompass themes such as park history, environmental issues, personal reminiscences, kinship and interdependence of *all* life forms, predator-prey relationships, wilderness ecosystems and true bear stories. Activities will include short hikes, a visit to a bear den, wildlife observation, and plant identification. The third day participants will hike five miles round trip to Fairy Falls, near the Old Faithful area. All hikes will include lots of short stops for relevant comments.

(**Note**: This class will meet in the Fishing Bridge area. A group site will be reserved for tent camping at Bridge Bay campground. Information about other lodging and camping options is available from the registrar.)

***Ted J. Parkinson** served 37 seasons as a ranger-naturalist in Yellowstone and has delighted thousands of children with his informative, inspiring nature walks. As a special faculty member at Brigham Young University he has taught environmental biology and natural history. He is the author of the "Ranger Ted" conservation programs presented throughout northern Utah.*

Family Days in Sunlight: 708
July 8-10 (see description p. 9)

Mountain Men in Yellowstone: Part I: 709
July 8-10
$130 (Member's fee $120) Limit:15
Credit available (G or U, 2 semester hours; BYU)

This course will examine the exploration of Yellowstone by early fur traders (1807-1812) and mountain men (1825-1840). It will begin with a study of the penetration of the region by the St. Louis Fur Company, including such personalities as John Colter, Andrew Henry, Thomas James, John Hoback and George Drouillard. The second era (1825-1840) will focus on the Ashley men who rediscovered South Pass, founded the rendezvous system in the North and Central Rockies and became the legendary mountain men: William Sublette and Warren Ferris. Using maps and primary source materials taken from journals and diaries, the class will follow paths traveled by the mountain men throughout the park and study the observations recorded by the fur men. *Fee includes $18 for text including handouts and copies of historic maps and source documents.* (See 712, "Mountain Men in Yellowstone: Part II" field trip, p. 12.)

***Fred R. Gowans**, Ph. D., is a professor of Western American History at Brigham Young University. He has been a consultant for historical films on mountain men and is the author of* Rocky Mountain Rendezvous, Mountain Man and Grizzly, *and* A Fur Trade History of Yelllowstone Park: Notes, Documents, Maps.

Wildflowers of the High Country (Llama Trek): 710
July 11-13 Beartooth Backcountry, Shoshone National Forest
$235 (Member's fee $225) Limit: 10
Credit available when taken in conjunction with one other wildflower course 609 or 706; (U, 2 quarter hours; U of MT)

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 prepared for hikes of four to five miles per day on relatively gentle terrain at an elevation of about 8,000 feet. Wildflowers along the edges of the many lakes, streams, snowbanks and glaciers will be featured, from the alpine tundra to the open subalpine forest. *Enrollees must bring sleeping bag, pad, and pack. Fee includes group equipment, food and llama packing. A camp tender will prepare meals.*

***Wayne Phillips**, see write-up under "Blossoms & Birds."*



Ecology of Greater Yellowstone: 711
July 11-14
$155 (Member's fee $145)
Credit available (U or G, 1 semester hour, Idaho State U)

This class will provide an introduction to the Greater Yellowstone Ecosystem's ecology, plant and animal populations, biotic communities, key management challenges, and use of the ecosystem concept in the greater Yellowstone area. Each of the major biotic communities will be visited and the role of succession, fire, and other factors will be discussed. The course will feature guest speakers plus field trips to observe large mammal and bird species and to survey some of the ecosystem's major challenges such as wildlife management, threatened and endangered species, and surrounding forest lands.

Jim Halfpenny, Ph.D., is coordinator of the University of Colorado Long-Term Ecological Research Program and a Research Fellow of the Institute of Arctic and Alpine Research. He has taught for 22 years in the Greater Yellowstone Ecosystem and is the author of Mammal Tracking in North America *and* Winter: An Ecological Handbook.

Mountain Men In Yellowstone: Part II (Field Trip C): 712
July 12-13
$85 (Member's fee $80) Limit: 24
Credit available (G, 1 semester hour, BYU)

This field trip is structured to study some of the key mountain passes, historical sites and trail systems which were used by the fur men to penetrate into Yellowstone country. We will start from Jackson, Wyoming, using Institute vans for the field trip.

Day one will include visits to Pacific Creek—the major route to Two Ocean Pass, Togwotee Pass, Brooks Lake (Lake Biddle?). We will spend the first evening in the Wind River Mountains, five miles from Union Pass. Reservations for our group will be made in advance at the Line Shack, but students will pay for their cabins and meals when we get there.

Day two will include an in-depth study of Union Pass, visits to the headwaters of the Spanish River (Green River), Museum of the Mountainmen at Pinedale, Green River Rendezvous site, Fort Bonneville (Fort Nonsense), Hoback Canyon, Wilson Price Hunt's (Mad River), and Teton Pass with return to Jackson by evening. Students will be required to make their own reservations for lodging in Jackson on the nights of July 11 and 13. Mountain Men, Part I is a prerequisite.

Fred Gowans, see write-up under "Mountain Men: Part I."

Wolves of Yellowstone: The Missing Link: 713
July 13-14
$90 (Member's fee $80)

This course will focus on the wolf as the major missing link in the Yellowstone ecosystem. The ecological role of the wolf as a major predator of large ungulates will be examined as well as the historical and present status of wolves and their habitat in the park. The course will also explore the issues, options and strategies associated with restoration of wolves to Yellowstone. *Course fee includes $15 for a large resource manual.*

John Weaver is a wildlife researcher with the Northern Rockies Conservation Cooperative in Missoula, Montana. He holds graduate and undergraduate degrees in wildlife science and has published scientific papers on wolves including a treatise on "The Wolves of Yellowstone." He was a member of the Northern Rocky Mountain Wolf Recovery Team and is now studying wolves in Jasper National Park for his Ph.D.

Horsepacking: Teton Crest Trail: 714
July 14-18 (see description p. 8)

Fire, Ice and Fossil Forests: 715
July 15-17
$105 (Member's fee $95)
Credit available (U, 1 quarter hour; MSU)

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 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 two million years, discussion will focus on glacial ice and volcanic explosions. The course will involve a field trip 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.

John Good 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 masters degree in geology and is a fellow of the Geological Society of America.

Learning Outdoor Photography: 716
July 15-18
$155 (Member's fee $145)

This field course is geared to those who want to develop their skills in outdoor photography. No previous photography experience is necessary. The course will provide instruction on all aspects of the use of the camera, proper exposure, composition, and use of tripods and wide angle, telephoto, and close-up lenses. Special emphasis will be given to seeing and interpreting a variety of Yellowstone subjects including wildflowers, water scenes, landscapes and wildlife.

Pete Houdeshel's photographic prints have been featured in galleries in over 25 cities across the nation and his clients include Hallmark Cards, Marriott Hotels, Aloha Magazine, *and Hyatt Regency Hotels. He worked for ten years for* New Worlds Magazine *and has a special interest in discovering how to present scenes with imagination and clarity. He flies jets for Delta Airlines when not out with a camera.*

Alpine Ecology: 717
July 17-20 Beartooth Mountains, Shoshone National Forest
$170 (Member's fee $160)
Credit available (U, 2 quarter hours, U of MT)

The Beartooths are still locked in glaciation as they form the northeast bastions of the Yellowstone Ecosystem. From the Beartooth section of U.S. 212, called by Charles Kuralt, "...the most beautiful roadway in America," there will be day trips to this incredible region above tree line. The class will explore the patterns and processes of geology, glaciers, peri-glacial features, climate, and plant and animal communities as they combine to form the alpine tundra. Using a hierarchical approach, ecosystem function over differing time and space scales will be stressed. The interference of modern civilization will also be analyzed. Tuition includes course materials. (Note: This course will headquarter near Cooke City on Shoshone National Forest.

Jim Halfpenny, see write-up under " Ecology of Greater Yellowstone."

Hiking and Camping in Grizzly Country: 718
July 18-19 Pebble Creek Campground
$75 (Member's fee $65) Limit: 10

Moderate hikes of five to six miles each day and an overnight in the Yellowstone backcountry will provide the format for this class which will emphasize safety and precautions necessary in grizzly country. The first morning of this course will be devoted to a discussion of the history of bear-man confrontations followed by a discussion of techniques for the prevention of such confrontations including suggestions for dealing with grizzly encounters. The remainder of the course will cover camping techniques and further discussion about the current status of the great bear and its uncertain future. *Participants must provide their own backpacking gear and food.*

***Bill Schneider** is the author of* Where the Grizzly Walks, The Hiker's Guide to Montana, *and dozens of magazine articles on grizzlies. He has a degree in wildlife biology and was editor of* Montana Outdoors *for nine years. He is currently a publisher with Falcon Press of Helena, Montana, a company specializing in hiking guides and other outdoor books.*

Horsepacking: Bechler Canyon Trail: 719
July 19-23 (see description p. 8)

Three Days at the Buffalo Ranch (Ages 8-12): **720**
July 20-22 Limit: 20
$105 (Member's fee $95)

This three day stay at the Lamar Buffalo Ranch is especially for children. It provides an exciting time for youngsters to learn and explore in a national park and make new friends. Each day includes a hike to observe wildlife and learn about plants, ecology, and the park's history. Active days of fun and learning are concluded each evening with games, songs, and wildlife films.

Fee includes meals and lodging. Children must provide their own sleeping bags, canteens, and day packs. (Classes for adults have been scheduled to coincide with the children's course to give parents class options. See write ups for "Exploring The Yellowstone Ecosystem," and "Geysers, Mudpots, and Hot Springs.")

Note: Hiking and Camping for Youth (ages 11-13), is being offered July 24-26 for those students who have "graduated" from the Buffalo Ranch class.

***Cynthia Andrus** is the Institute's Field Manager. She has a degree in outdoor/elementary education, has taught Institute courses for six summers, and is experienced in the outdoor gear business and as a travel consultant.*

***Louise Bruce** has a degree in recreation management. She has extensive experience in outdoor and environmental education through work with nature centers, schools, and camps and at Yellowstone and Grand Canyon National Parks. She has taught at the Institute for five years and has worked as an organizer for the Northern Plains Resource Council.*

***Bill Williams** holds a B.S. in Urban & Regional Planning and Environmental Studies. His first summer with the Institute was in 1981, teaching a children's class and assisting with backcountry classes. He co-leads a photo tour in the park in the summer and teaches 6th grade in Southwest Colorado during the school year.*

Exploring the Yellowstone Ecosystem: 721
July 20-22 Mammoth
$85 (Member's fee $75)

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. The 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 class will meet from 1:00 pm, July 20 through early afternoon July 22 and will headquarter at Mammoth Hot Springs. Contact the Institute office for lodging and camping information. (**Note:** See schedule tie-in with children's class, "Three Days at the Buffalo Ranch.")

***Don Streubel**, see write-up under "Environmental Education for Teachers."*

***Tom Watson** teaches high school biology and geology in California. He has spent 11 summers studying the Greater Yellowstone Ecosystem at the Yellowstone Institute and has worked as a volunteer for the Institute.*

Geysers, Mudpots, and Hot Springs: 722
July 20-22 Old Faithful
$95 (Member's fee $85)
Credit available (U, 1 quarter hour; MSU)

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 noon on July 20 and then proceed to the Old Faithful area for a full day of geyser gazing on July 21. Norris Geyser Basin and other sites will be visited on July 22, with class ending early 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.) (**Note:** See schedule tie-in with children's class, "Three Days at the Buffalo Ranch.")

***Duncan Foley**, Ph.D., teaches geology at Pacific Lutheran University in Tacoma, Washington. He has worked throughout the western United States and Guatamala on volcanoes and geothermal systems and has taught Institute classes for the past twelve years.*



Backcountry Llama Trekking: 723
July 22-26 Shoshone Lake Trail
$360 (Member's fee $350) Limit: 8

Participants in this course will have the opportunity to hike the backcountry of southwestern Yellowstone using llamas to transport group gear and food. The instructor will discuss topics such as natural features, plant identification, outdoor skills, nature awareness, minimal impact camping, and use of pack animals.

Enrollees should be prepared to hike two to five miles per day at elevations of 7,500 to 8,000 feet with day packs of 5-15 lbs. *Fee includes food and group camping gear. Each enrollee must bring a sleeping bag, canteen, and day pack and will be allowed 20 lbs. of personal gear for llama transport. This is a participatory rather than a catered trip.*

***Carrie Wilson** has a degree in recreation education and seven years experience as a Wilderness Trip Leader for Ricks College. She has also taught courses on aboriginal survival skills.*

***Greg Smith** has his associate degree from Ricks College in Recreation Education and is certified in advanced first aid. He has five years of llama packing experience and is the lead guide for Teton Llamas' commercial pack trips.*

Mammal Tracking:
Interpreting Tracks, Scat, & Other Sign: 724
July 23-26
$175 (Member's fee $165)
Credit available (U, 2 quarter hours; U of MT)

Mammals are elusive and hard to observe in the wild. Much can be learned about them from detecting and reading their sign. Nature detective work will teach enrollees 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. *Fee includes a copy of the instructor's book plus other course materials.*

***James Halfpenny**, see write-up under "Ecology of Greater Yellowstone."*

Hydrothermal Systems & the Yellowstone Caldera: 725
July 23-28
$245 (Member's fee $235)
Credit available (U or G, 3 quarter hours; U of MT)

The class will present a thorough discussion of the geological evolution of the Yellowstone caldera and the nature and occurrence of hot springs, geysers, and mudpots. Lectures will include discussions of volcanic rocks, caldera cycles, and development of geologic structures that influence the location of hydrothermal systems, the geology of geothermal features and the chemistry of thermal waters. Field trips will visit areas that feature the many types of rocks produced during several stages of the Yellowstone caldera and famous and unusual hydrothermal features that are off the beaten path.

The class will have special appeal for teachers of earth science and others with serious interest. A background knowledge of geology will help in understanding many of the topics.



***Duncan Foley**, Ph.D., see write-up under "Geysers, Mud Pots, and Hot Springs."*

***Roy Mink**, Ph.D., was a manager of geotechnical science with Morrison-Knudsen Engineers and is now Director of the Idaho Water Resource Research Institute with the University of Idaho. He 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 geothermal programs with the DOE. He is presently working on a geothermal power project in Guatamala.*

***Clay Nichols**, Ph.D., is deputy assistant manager for Projects and Energy Programs at the Idaho Falls office of the Department of Energy where he manages programs at the Idaho National Engineering Laboratory and many universities. He has also worked on national geothermal programs for the DOE.*

Hiking & Camping for Youth (Ages 11-13): **726**
July 24-26 Pebble Creek Campground
$105 (Member's fee $95)

This class goes beyond what is covered in the "Buffalo Ranch" kids' class and offers students a chance to focus on outdoor skills. From a campsite at Pebble Creek in northeast Yellowstone, the class will dayhike into Cache Creek and the upper and lower reaches of Pebble Creek. Emphasis will be on hiking and backpacking skills, including discussing wilderness ethics, map reading, natural interpretation, and fire ecology. Evenings will be spent learning more about camping equipment, outdoor cooking, wildlife, stargazing, and Yellowstone history. Students must provide their own camping equipment and food. A complete equipment list will be included in the student packet.

***Cynthia Andrus**, see write-up under "Three Days at the Buffalo Ranch."*
***Bill Williams**, see write-up under "Three Days at the Buffalo Ranch."*

Family Days:
Exploring the Park with a Ranger Family: 727
July 24-26 Grant Village Limit: 6 families
$90 for one parent and one child plus $35 per additional family member (Member's fee $80 plus $30 per additional)

This is a class for families—taught by a family. Two former National Park Service rangers and their 4 and 1 year-old sons will lead you off the beaten track, sharing their years of experience in Yellowstone. The course is based at the Grant Village group campsite, but families may stay in nearby lodges. The class will include easy walks and even a strenuous hike at a family pace. This class will explore the West Thumb Geyser Basin, hike to points overlooking Yellowstone Lake, learn about how fish are managed in the park, and sharpen photography and compass skills. You may stay at the Grant Village group campsite starting the evening of Tuesday, July 23. Class begins at 9:00 am Wednesday, July 24 and runs until 10:00 pm on Friday July 26. Families must provide their own camping equipment (if camping at the group site) and food.

Jack de Golia is the Public Affairs Officer for the Beaverhead National forest in Dillon, Montana. For seven years he was an interpretive naturalist in Yellowstone, in charge of the environmental education program. He has written two books, one about Everglades National Park and one about fire.

Louise Bruce, see write-up under "Three Days at the Buffalo Ranch."

Alex de Golia, age 4, first came to Yellowstone from the hospital in Livingston, MT when he was five days old. His first word was "elk" and his first phrase was "big elk eat." He brings his unique perspective of Yellowstone that only a little kid can have!

Kyle de Golia, age 1, ia a native of Montana and an expert observer.

Horsepacking: Nez Perce Trail: 728
July 25-29 (see description p. 8)

Introduction to Wilderness Medicine: 729
July 26-28
$75 (Member's fee $65)

The relatively new field of wilderness medicine is appreciably different from backcountry first aid. This program offers an overview of current wilderness medicine concepts and is designed to enhance the ability to care for oneself or others in a remote setting. Human anatomy and physiology will be reviewed in order to help in recognition and informed assessment of injury or illness. Basic principles will be offered to assist in the challenging task of medical decision making regarding diagnosis and treatment as well as problems such as prolonged wilderness care, evacuation and overall crisis management. Field experience will provide familiarity with decision making and use of skills needed under adverse conditions. Emphasis will be placed on prevention of wilderness misadventure. Participants will be expected to bring (for training and for future use) some basic diagnostic and therapeutic equipment including a compass, sphygmomanometer, stethoscope, and hypothermia thermometer. Previous first aid or medical training are not required. Class begins at 7:00 pm on Friday, July 26.

Robert M. Loveland, M.D., combines his practice of Orthopaedics-Sports Medicine and his extensive experience in wilderness area backpacking into a special interest that joins wilderness medicine with backcountry search and rescue. He is a member of the National Association for Search and Rescue, the Wilderness Medical Society, a Fellow of the American College of Sports Medicine, a Clinical Professor at the College of Medicine at the University of California, Irvine, and a Trustee of the Wildlife Research Institute.

Family Days in Yellowstone: 730
July 28-30 Grant Village Limit: 5 families
$90 for one parent and one child plus $35 per additional person (Member's fee $80 for one parent and one child $30 per additional)

This family camping experience will focus on the southern section of the park. We will be based at the Grant Village group campsite, but families may stay at nearby lodges in Grant Village. We will explore the West Thumb Geyser Basin, Upper Geyser Basin, the Old Faithful area and the north shore of Yellowstone Lake. Discussion and learning activities will focus on fire ecology, geology, plants, wildlife and photography. During the class we will take leisurely walks and hikes at a pace allowing ample time to look and learn. We will enjoy luncheon picnics, a special Yellowstone gift exchange, and introduce you to some special literature. You may stay at the group campsite starting the evening of July 27. Families must provide their own camping equipment (if camping) and food. Class begins at 9:00 am July 28 and concludes by 5:00 pm July 30.

Sandy Nykerk, see write-up under "Family Days in Sunlight."

Bill Williams, see write-up under "Three Days at the Buffalo Ranch."



Geology of the Yellowstone Country: 731
July 29-August 2
$195 (Member's fee $185)
Credit available (U or G, 1 semester hour; U of WY)

This course, conducted in the natural field laboratory of Yellowstone Park, will concentrate on the geological evolution of the area. Topics to be covered include 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.

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

Horsepacking: Indian Trails: 732
July 30-August 3 (see description p. 8)

Fire Ecology: 733
July 31-August 2
$105 (Member's fee $95)

Fire has always been a major force in Yellowstone. Ancient evidence is preserved in lake bottoms, and historical evidence can still be found in the trees themselves. This course will examine the interplay of fire and its environment, factors influencing ignition and spread, response of biotic communities to fire, and the role of fire in determining the characteristics of plant communities. The instructor will lead field trips to gather data at both old and recent burn areas from the fires of 1988 and to an ongoing fire if the opportunity arises.

***Don Despain**, Ph.D., has worked in Yellowstone studying the park ecosystem since 1971. He helped develop and apply the park's natural fire program. He is a plant ecologist and the author of* Flora of Yellowstone

Backcountry Photography: 801
August 1-5 Buffalo Horn Lakes
$325 (Member's fee $315)

This course will cover all of the subject matter in "Wildlife Photography" (June 17-20) but will take place in a backcountry setting in the Gallatin National Forest. The group will spend most of its time in remote locations shooting infrequently viewed scenes. Outings will involve moderate hiking with light packs. Group equipment, food, and other heavy items will be moved by camp outfitters.

Camp gear will be taken by a horsepacker to a wilderness campsite in the Gallatin National Forest near the northwest corner of the park. Participants will accompany the instructor on a four mile hike to the site. Hikes are in mountain country at 6,500 to 8,500 feet elevations.

Each person must provide tent, sleeping bag, pad, and pack. *Fee includes group equipment food, and horsepacking.*

***Tom McBride**, see write-up under "Wildlife Photography."*

Bison of Yellowstone: 802
August 3-4
$75 (Member's fee $65)

Included in this seminar will be field and classroom exposure to topics such as bison ecology, evolution, mating activities, general behavior, sex and age group characteristics, and recent history. Discussions on current Park Service management strategies and proposals and the controversy surrounding these topics will be included. The course takes place during the bison rut, allowing for first-hand observation of mating behavior and experience in determining the age and sex of bison. Guest instructors with recognized expertise will provide additional input on the topics mentioned above.

***Rich Klukas** worked on bison research and management problems in three national parks of the Great Plains during 1976-1989. In 1989 he came to Yellowstone to assist in administrating the park's research program and to carry out bighorn sheep studies. Since obtaining a M.S. degree in forestry and wildlife management at the University of Minnesota, he has spent most of his 26 year government service career involved in the research and management of natural resources.*

Horsepacking: Nez Perce Alternate Route: 803
August 4-8 (see description p. 8)

Experiencing the Spirit in Nature: 804
August 5-7
$105 (Member's fee $95)

After the biologist, geologist, physicist, and ecologist have probed as deeply as they can into nature, we still have unanswered questions; we want to know more about the mystery that remains. Is a rock, a geyser, a glacier, and elk only what we see and measure, or is it possible to go beyond rational science and continue to learn from the mystery we intuit at the heart of all existence? It may be necessary if we are to be instrumental in healing the environment. Many people desire to be drawn into a deeper relationship with nature, not just as spectators, but as active participants. Our goal is to become deeply aware of all that surrounds us by taking time to see, question, and reflect. This will enhance our personal connection with nature and, hopefully, lead to a better articulation of our values as planetary citizens. We will listen to what the rock, the tree, the stream, the sky, the mountain, the elk and the buffalo have to say to us, using techniques developed by the instructor through forty years of experience in the Greater Yellowstone area. Our classroom is the outdoors with day hikes of moderate intensity to areas that have a special "sense of place," with frequent pauses for questioning and listening.

***John Kirsch** has been a rancher, big game biologist and priest in Montana during the past 40 years. He has a M.S. in Wildlife Management and trained for the priesthood at John XXIII Seminary in Boston. For seven summers he taught a course on "Eco-Theo" (ecology and theology) at Carroll College in Helena, MT. He has conducted trips for several years to enhance awareness of nature in the Yellowstone Ecosystem.*

Interpreting Yellowstone with Ranger Ted: 805
August 5-7 (see description p. 11)





Fly Fishing the Catch-and-Release Way
August 9-11 less experienced: **806** Limit: 8
August 16-18 more experienced: **810** Limit: 9
$145 (Member's fee $135)

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.

The session 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 instructor will work intensively with three persons each day. During the other two days of each course, instruction will be limited to morning and evening discussions.

***Richard Parks** is the manager of Parks' Fly Shop, a family business that has been in Montana for over thirty years. Richard is highly respected as a fly tier, a teacher and a river guide and is intimately familiar with Yellowstone's waters.*

Horsepacking: Washburn Expedition Trail: 807
August 9-13 (see description p. 8)

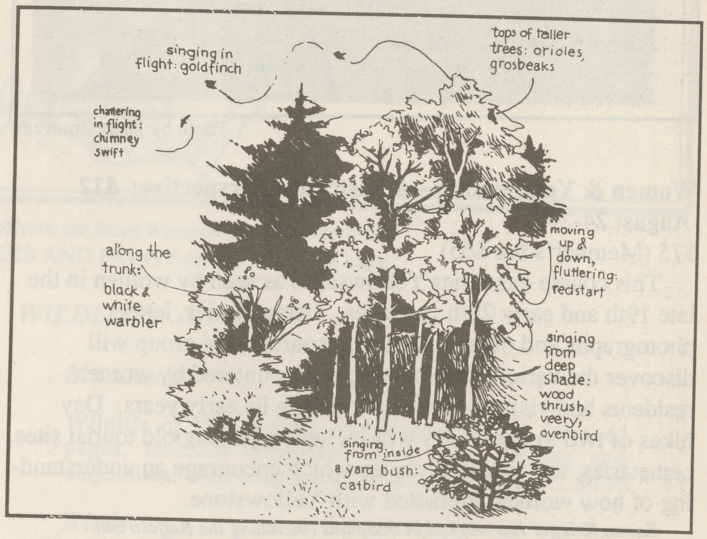
Yellowstone Streams Through the Eyes of a Trout: 808
August 12-14
$105 (Member's fee $95)
Credit available (U or G, 1 semester hour, ID State U)

Designed for experienced anglers and others interested in aquatic systems in Yellowstone, this course will help you gain a better understanding of the behavior of stream-dwelling trout and the ways in which they are adapted to their environment. Discussions will focus on diet, habitat use, and sensory perception of trout in Yellowstone streams and will include life histories of the species important in the park and factors affecting their populations. Field trips will provide the chance for students to don wet suits and directly observe fish behavior.

***Jack Griffith**, Ph.D., is professor of biological sciences at Idaho State University. His research specialty is the ecology of trout in streams such as Idaho's Henry's Fork and Silver Creek and, in the park, the Yellowstone and the Firehole Rivers.*

The Art of Keeping a Field Journal: 809
August 13-16
$155 (Member's fee $145)

This course is for the student of nature who wants to deepen his or her outdoor experiences by keeping a journal. During this four day workshop we will explore the sublimity of Yellowstone's rich ecosystems, drawing and writing in the field. We will work both on quick recording and on more extended, reflective studies. By observing the works of some of the great naturalists and artists, we will learn about their techniques and intentions. The emphasis of this course will be less on amassing information and more on finding methods of discovery.



***Hannah Hinchman** has kept an illustrated journal for 20 years. She has a B.F.A. from Portland School of Art, Maine, has studied writing and literature at Earlham College and received naturalist training through the National Audubon Society. Her work has appeared in* Northern Lights *and* Sierra *magazine and her book on keeping journals,* A Life in Hand, *will be released from Peregrine Smith Press in spring 1991.*

Fly Fishing: More Experienced : 810
August 16-18 (see description at left)

Fire in Paradise—the Third Year: 811
August 17-18
$75 (Member's fee $65)

During the summer of '88, Yellowstone was enveloped in wildfires of historically unprecedented magnitude. Thousands of acres were burned in some fashion. News stories told of Yellowstone's "incineration" and the blackening of the first and best national park. What really happened in Yellowstone? Is our park blackened forever? Were the predictions of devastation accurate? After three years the press coverage is gone. Other issues fill the paper, but Yellowstone patiently recovers, and we see the changes every day. Dr. Shovic's course focuses on these changes, as well as reviewing what happened in Yellowstone during the fires. We will examine the soil, streams, and the landscape to learn of the workings of recovery.

***Henry Shovic**, Ph.D., is an interagency soil scientist for Yellowstone National Park and the Gallatin National Forest. He played an active roll collecting and analyzing samples for preliminary reports on fire effects during the summer of 1988.*



Photo by Dana Brunvand

Women & Yellowstone—A Historical Perspective: 812
August 24-25
$75 (Member's fee $65)

This course examines Yellowstone as seen by women in the late 19th and early 20th 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 of two to four miles will include exploring old tourist sites, cemetaries, and natural features which encourage an understanding of how women interacted with Yellowstone.

***Karen Krieger** has worked in museums (including the Buffalo Bill Historical Center in Cody, WY) and historic sites, published articles on women in wilderness, led outdoor trips for women and conducted nature hikes for children and adults. Currently she is a graduate student at Utah State University, studying folklore and researching the history of women in the West.*



Wildlife Photography in the Fall: 901
September 6-8 Mammoth
$105 (Member's fee $95)

With wildlife in focus, this course will emphasize various techniques of wildlife photography. The course occurs during the peak of the elk rut, when their bugling and breeding behavior is on full display. Other wildlife, as well, will be easily observed. The course will also emphasize wildlife behavior, including human behavior in the presence of wildlife, and the ethics of wildlife photography will be continually stressed. Although fall weather can be extremely variable, many photographic opportunities will occur.

***Tom McBride**, see write-up under "Wildlife Photography."*

Autumn Scenic Photography in Yellowstone: 902
September 13-15 Old Faithful
$85 (Member's fee $75)

Fall, rich in wildlife and color, peacefully uncrowded, is a favorite time for photographers in Yellowstone. This class will headquarter in the Old Faithful area and is designed to give the more experienced photographer the opportunity for an autumn exploration–from vast scenics to intriguing close-ups. Techniques in equipment use, from wide angle lenses to macros, to fill flash, will be covered. Special emphasis will be placed on the photo essay–combining pictures to illustrate a unified theme. Discussions on potential uses and marketing of photography will also be included. Class will begin with a Friday evening lecture and slide presentation followed by field trips on Saturday and Sunday. (**Note:** Lodging is available at Old Faithful, reservations should be secured early.)

***Pete Houdeshel**, see write-up under "Learning Outdoor Photography."*

Wildlife Observation in the Fall: 903
September 20-22 Mammoth Hot Springs
$105 (Member's fee $95)

Field observation will be the major goal and activity of this introduction to the pre-winter park. Methods of unobtrusive observation and the ethics of interaction with wildlife will be central themes. The informal schedule will feature early morning and evening field trips, short midday hikes and interviews with researchers. Other topics will include bison, elk, rutting behavior, bears, photo tips, and optics. The course will headquarter in the Mammoth/Gardiner area.

***Gene Ball**, see write-up under "Wildlife Observation in the Spring."*

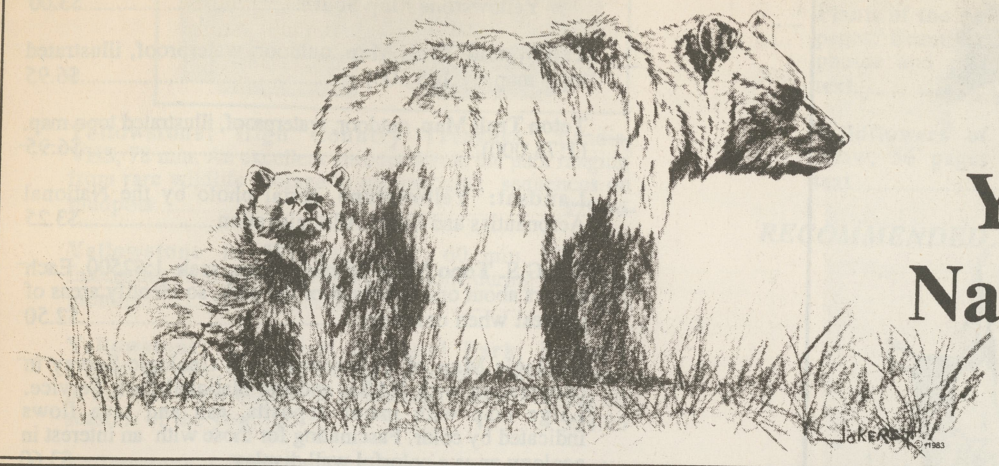
Swan Identification and Ecology: 904
October 25-27 West Yellowstone, MT
$90 (Member's fee $80) Limit: 10

Late October is a unique time of year, in that large numbers of swans concentrate in the Greater Yellowstone Area. Approximately 1900 swans were observed during the two day class in 1990. Two species of wild swans can be found in the area at this time—the trumpeter swan and the tundra swan. The course will examine a wide variety of subjects, such as identification, habitat requirements, life history/life strategy, populations, migration, environmental threats, and conservation. Field trips are an important component of the course. Areas visited will include Yellowstone Park, Red Rock Lakes National Wildlife Refuge, Harriman State Park and Hebgen Lake. The course will headquarter in West Yellowstone and begins at 7:00 pm on Friday, October 25. Enrollees will be sent a list of nearby motels and campgrounds, as well as other pertinent information.

***Terry McEneaney**, see write-up under "Waterbirds of Yellowstone."*



BOOKS, MAPS and PAMPHLETS about Yellowstone National Park



Wildlife drawing above and those throughout brochure are from *Western Wildlife Portfolio* by James Jokerst and are available under POSTERS AND PRINTS on the following page.

GENERAL

Guide/Picture Books

___ **National Parkways,** Yandell, large color pages with maps. A photographic and comprehensive guide to the Park.
Yellowstone, 80 pages.....$5.50
Grand Teton, 68 pages.....$5.50

___ **Hamilton's Guide,** Lystrup, 160-page guidebook to Yellowstone with information on facilities and services. Color photos and maps.....$3.95

___ **The Story behind the Scenery,** Crandall, 48 color pages, photographs of geologic features and wildlife with informative text. .
Yellowstone.....$5.95
Grand Teton $5.95

___ **Yellowstone – Land of Fire and Falling Water,** O'Hara and McNulty. 72 pages. Large format collection of artful and sensitive full color photographs of the natural beauties of the park and its wildlife.
Softcover.....$19.95
Hardcover.....$29.95

___ **Yellowstone / Grand Teton Road Guide,** Schmidt and Fuller, 96 pages with easy to use strip maps and side by side commentary. Tells you where to see elk, deer,bear, and other wildlife. Also gives you information on scenic overlooks, side trips, geology, and a special section on the 1988 fires.....$4.95

FISH AND FISHING

___ **Freshwater Wilderness: Yellowstone Fishes and their World,** Varley & Schullery, color illustrations, 132 pages. A beautiful award-winning publication designed for anglers and non-anglers alike who want to know the history of Yellowstone's fishes and how management affects what we see today.....$12.95

___ **Yellowstone Fishing Guide,** Charlton, 104 pages. An accurate and comprehensive book on fishing the waters of Yellowstone National Park. Good for the novice who wants to fish close to the car as well as for those who want to hike into the backcountry.....$9.95

WILDLIFE

Mammals

___ **Wildlife of Yellowstone and Grand Teton,** Scott. 64 pages, includes mammals, birds, fish, reptiles and amphibians. With complete up–to–date checklist.....$4.95

Birds

___ **Birds of Yellowstone and Grand Teton,** Follett, descriptions and habits of 64 of the region's most common species, color photos, 73 pages.....$6.95

___ **Golden Guide To Birds of North America,** Robbins, Bruun, and Zim, 395 pages. What you see in this guide is what you see in nature. Each bird is captured in full color with descriptive text on the immediately facing page.....$9.95

___ **Birds of Yellowstone - Checklist,** Zarki and Follett, 16 pages. Handy 5 1/2 x 8 1/2 in. listing. A must for birders in Yellowstone.....$0.50

Deluxe Trip Planner

Unsure about what to order? We've put together a Trip Planner package at a special price which will give you the information you need to plan your trip and understand what you're seeing once you're here. The Trip Planner includes:

Hamilton's Guide	$3.95
Yellowstone Trails-A Hiking Guide	$4.95
Yellowstone Park Map North	$3.00
Yellowstone Park Map South	$3.00
Birds of Yellowstone	$6.95
Wildlife of Yellowstone and Teton	$4.95
Geologic Story	$3.95
Regular price (if purchased separately)	$30.75
Trip Planner price	**$24.75**

A savings of $6.00

Mail order only. Indicate "Trip Planner" $24.75 on order form.

POSTERS AND PRINTS



___ **We Are All One Family,** Buchfink, striking images of wolf, American Indian and dragonfly symbolizing the circle of life and the link between lifeforms. 32.55in. x 22.25in.

Poster.....$15.00
Signed, limited edition print.....$90.00
Postage and handling.....$5.00

___ **Ansel Adams: Classic Images,** This 24in. x 36in. poster of Old Faithful is a striking contrast in black and white. Photographed in 1942 by the master himself...$25.00

___ **Western Wildlife Portfolio,** Jokerst, twelve 9x12 black and white wildlife prints, major park mammals, descriptive text.....$4.95

WINTER SUBJECTS

___ **Yellowstone Ski Tours,** Barber, 80 pages. Information concerning half-day and one-day cross country ski trails throughout the park.....$3.95

___ **Yellowstone in Winter,** Video, VHS, Bayer, 60 min. A fascinating film about life in Yellowstone during the frigid months.....$29.95

HIKING AND CAMPING

___ **Day Hiking,** Carter. Complete descriptions of 20 great short hikes, including history, geology and wildlife facts, some maps. 80 pages.....$3.75

___ **Yellowstone Trails: A Hiking Guide,** Marschall, 120-page backcountry guide covering over 1000 miles of park trails. Contains useful information on backcountry use rules and how to hike through bear country. $4.95

___ **Teton Trails,** Harry, 56 page guide to the hiking trails of Grand Teton National Park, including illustrations and maps.....$1.95

___ **Short Hikes and Easy Walks in Teton National Park,** Hayden and Freilich. Contains 14 hikes with large clear easy to read maps.....$1.00

MAPS

___ **Yellowstone Maps.** General purpose maps, each covering half the Park. Maps include highways, trails, campsites, boat launches and fishing information.
Yellowstone Map North.....$3.00
Yellowstone Map South.....$3.00

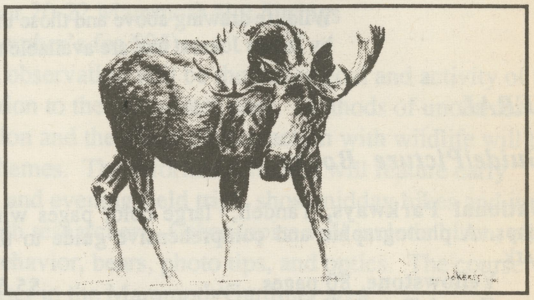
___ **Yellowstone Trail Map,** outdoor, waterproof, illustrated topo map. (1:168,500).....$6.95

___ **Teton Trail Map,** outdoor, waterproof, illustrated topo map. (1:78,000).....$6.95

___ **Landsat: Yellowstone,** aerial photo by the National Aeronautics and Space Administration.....$3.25

___ **U.S.G.S. Topo Map,** 15 min. series, scale 1:62500. Each covers about one-twentieth of the park, so identify areas of interest when ordering.....$2.50

___ **Geologic Map of Yellowstone,** US Geologic Survey in cooperation with NASA and the National Park Service. Large map with major deposits, ash and lava flows indicated by color. Fascinating for those with an interest in geology or as a colorful wall display.....$3.60



GEOLOGY

___ **Geologic Story of Yellowstone National Park,** Keefer, 92 pages, describes in layman's terms the events that shaped present-day land forms and thermal features.....$3.95

___ **Roadside Geology of the Yellowstone Country,** Fritz, 149 pages. Covers geologic formations along all roads in Yellowstone and all major roads leading to the North, East, and West entrances to the park.....$9.95

___ **The Geysers of Yellowstone,** Bryan, 225 pages. Black and white photos and maps. Comprehensive guide to over 400 of the park's geysers and geothermal features.....$11.95

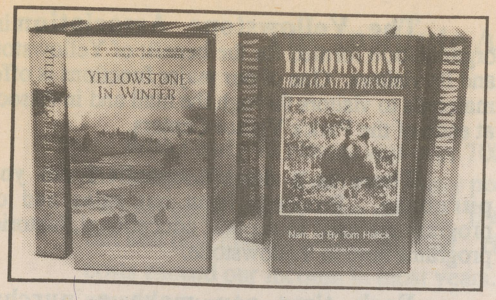
___ **Guide to Geyser Gazing,** Rinehart, 64-page book on geysers, how they function, locations and other interesting facts.....$1.40

___ **Story of Old Faithful,** Marler, 48 pages, color photographs and illustrations. Facts and figures about the famous Yellowstone geyser; charts on frequency of eruptions, height of eruptions, earthquake effects, and more.....$2.50

___ **Geologic Map of Yellowstone,** US Geologic Survey in cooperation with NASA and the National Park Service. Large map with major deposits, ash and lava flows indicated by color. Fascinating for those with an interest in geology or as a colorful wall display.....$3.60

___ **Geysers: What They Are and How They Work,** Bryan, 23 pages. This is a book of "hows." After establishing just what geysers are, the book will develop the current understanding of how they work, how they differ, and how they change through the passage of time. Ages 8 through adult.....$5.95

VIDEOS



___ **Yellowstone: High Country Treasure,** Landis, VHS, 78 min. An excellent introduction to the park ranging from rare wildlife footage to mesmerizing sequences on mudpots.....$29.95

___ **Yellowstone in Winter,** Bayer, 60 min. VHS. A fascinating film about life in Yellowstone during the frigid months.....$29.95

___ **Yellowstone: The First National Park,** Reader's Digest, 60 min., VHS. Captures the beauties and oddities of the Park from wildlife to geothermal features during all seasons of the year.....$24.95

___ **Yellowstone : The Unfinshed Song.** Shown for the first time in the summer of 1990, this 20 minute video presents the story of the fires and the park's natural recovery. The film has extraodinary scenes of animals adapting to the fires. We also see the new diversity of life the fires created. Wonderful video for teachers and parents.....$19.95

CALENDARS

___ **Calendar, Yellowstone and Grand Teton,** Dream Garden Press. Gorgeous color photography of Teton and Yellowstone with interpretive information relevant to each month. Beautiful useful gift or reminder of your trip...$9.95

HISTORY

The Yellowstone Story, Haines, two-volume history classic on Yellowstone Park with black and white photos.

___ **Volume I** traces the buildup of knowledge of the Yellowstone area gained from Indians, fur trappers, prospectors and explorers. Covers the enactment of federal legislation to establish the world's first national park. Paperback..$11.95

___ **Volume II** is a record of the first hundred years of the park. Traces construction of park roads and facilities, visitor activity and experiences from stagecoaches and tents through autos and hotels. Paperback...$11.95

___ **Colter's Hell and Jackson's Hole,** Mattes, 88-page story of trapper days in Yellowstone and Grand Teton National Parks, with drawings and maps.....$2.25

___ **Mountain Man & Grizzly,** Gowans, 210 pages. An illustrated collection of early observations and stories about the great bear.....$11.00

___ **Chief Joseph's People and Their War,** Josephy Jr., 21 pages. This book tells of the flight of Chief Joseph and the Nez Perce from Oregon through Yellowstone National Park to their surrender in the Bear Paw Mountains of Montana.....$1.25

___ **Roadside History of Yellowstone National Park,** Blevins, 106 pages. Learn about the Indians who lived around Yellowstone, the mountain men and the government explorers. This easy to read guide with photographs allows you to begin your visit at any park entrance and follow the park's history as you follow the road.....$7.95

PLANT LIFE

___ **Plants of Yellowstone and Grand Teton,** Shaw, 160 pages of color photos and descriptions of park vegetation from trees to flowering plants.....$6.95

___ **Plants of the Alpine Tundra,** Marinos and Marinos, 64 pages. Beautifully illustrated alpine plant guide. Color photos and pen and ink drawings with descriptive text.....$6.95

___ **Wildflowers of Yellowstone and Grand Teton,** Shaw, 56 pages with color photos and descriptive text.....$4.95

RECOMMENDED FOR CHILDREN



___ **Yellowstone: A Children's Guide,** Balthis, 32-page guide for children with pictures to color.....$2.75

___ **Park Ranger!** Hoofnagle & Dunmire, 32-page coloring book telling what park rangers do, with strong environmental message.....$1.95

___ **Family Fun in Yellowstone National Park,** 49 pages, an informative guidebook for the entire family..$2.95

___ **Young People's Guide to Yellowstone National Park,** Tawney, guidebook to be used by the entire family, 143 pages.....$7.95

___ **Expedition Yellowstone: A Mountain Adventure,** Robinson, 190 pages. A fantasy adventure book for children grades 4, 5 and 6. Fascinating tales of early Yellowstone.....$9.95

Expedition Yellowstone was developed as part of a pioneering environmental program by the naturalist staff of Yellowstone. A **Teacher's Workbook** and related in-park program is also available. Call or write for further information.

___ **Wolf Pack,** Johnson and Aamondt, 96 pages. Well researched and written book about the life of a wolf pack with full-color, close-up photographs sure to capture the imagination of children ages 10 and up.....$5.95

___ **Geysers What They Are and How They Work,** Bryan, 23 pages. This is a book of "hows.". After establishing just what geysers are, the book will develop the current understanding of how they work, how they differ, and how they change through the passage of time. Ages 8 through adult.....$5.95

___ **How Do Bears Sleep,** Bird, 30 pages. An endearing book about the habits of hibernating bears. The comical bear drawings and silly bear questions will keep children laughing and learning. Hardcover, ages 5 to 8.....$12.95

The Yellowstone Association

for Natural Science, History & Education, Inc.

P.O. Box 117
Yellowstone National Park, Wyoming 82190

The Yellowstone Association is a not-for-profit organization formed for the benefit of Yellowstone National Park and its visitors. One of our major functions is offering educational materials to visitors through the mail and in Association sales areas at each of the Park's Visitor Centers.

There is a double benefit from your Association purchase. Proceeds from our sales and our membership program are used to support educational, historical and scientific programs here in Yellowstone.

Each time you make a purchase from the Yellowstone Association, you are not only increasing your own knowledge, you are providing additional educational opportunities for all who visit this wonderful, historic park and are helping to ensure its preservation for future generations.

New Releases

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