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JANUARY/FEBRUARY 1989

Slerra

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The Ansel letters, tree-huggers unmasked, Colorado high, designing the future, summit signatures.

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Wilderness: It's a bird and a plane: It's Lighthawk, coming to the aerial aid of activists in distress.

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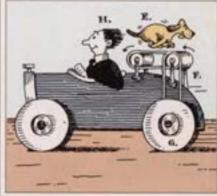
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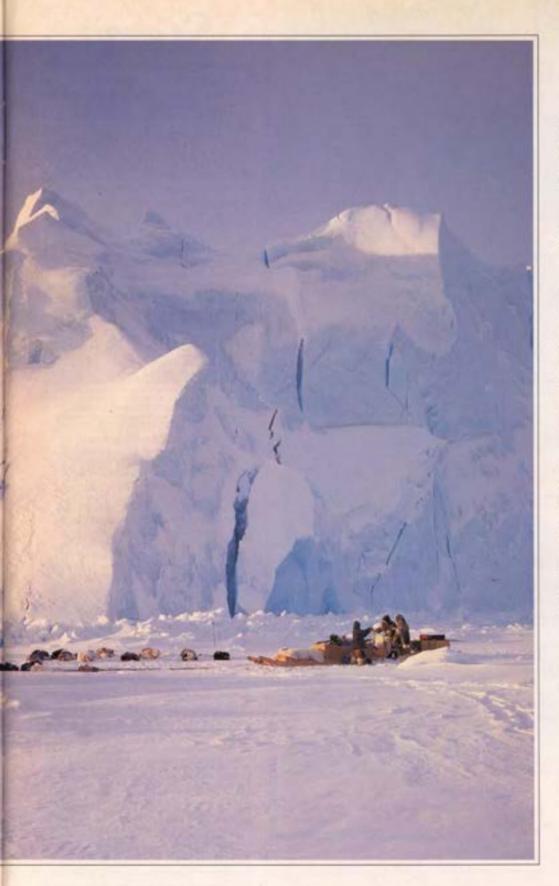
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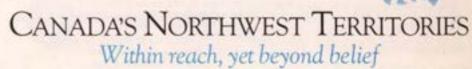
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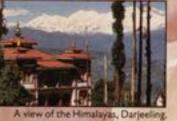
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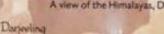
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63

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8 - JANUARY/FEBRUARY 1989

Fact:

"The Cardinal," 1985 first issue in the Birds of Your Garden wildlife series from Knowles China, recently jumped in value again during heavy trading — to an exceptional 221% of issue price.*

Fact:

"The Bald Eagle," a new wildlife issue from Knowles China, is available for \$29.90.

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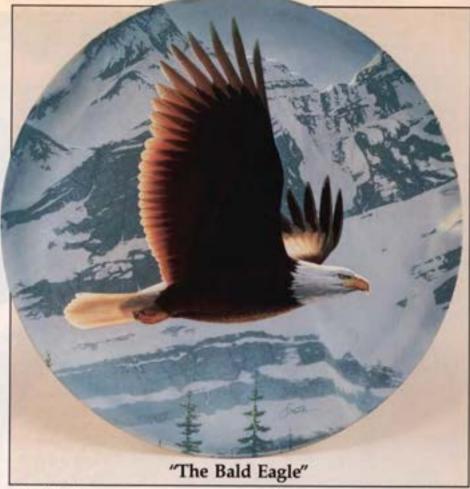
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by Daniel Smith

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issues – have been rising in value lately ("Wood Thrush," 1970 issue in the Boehm Binl series, now trades at 480% of issue price, and "The Landing," 1986 issue in the Wings Upon the Wind series, now trades at 289% of its original price), so it's a good bet that "The Bald Eagle" may quickly rise above its \$29.90 issue price.

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The Discovery Channel 1988

LETTERS

WHO'S INDULGING WHOM?

Felicitations on your fine November/ December 1988 issue, in which you sum up the environmental policies of the Reagan administration. I'm sure you'll receive a number of complaints that you are "indulging" in politics in your articles, but the real issue is whether politicians think that they can indulge in environmental exploitation without any summing up of their actions. If they were assured that they would have to answer for those actions, I am certain that they would be far less flagrant in their violation of the rights and heritage of future citizens.

Wallace W Pancoast New Castle, Delaware

The destructive thing about the extremely biased evaluation of the presidential candidates' environmental records in the November/December issue is not just that it attributed all goodness to one candidate and unadulterated wickedness to the other, but that publishing such a ridiculous piece discredits the entire Club and our lobbying efforts on particular environmental issues.

What a shame that you missed the point of the environmental issues in the campaign: Neither Bush nor Dukakis dared say we have "gone too far" or even that we have "done enough." Both candidates pledged to do more. From one candidate, that was to be expected. From the other, it took a considerable amount of courage to announce a reversal of the course of his still-popular predecessor.

It took no courage at all to trash that candidate for Sierra readers, but how destructive it is to the credibility of environmental protection! Steven D. Livengood Wishington, D.C.

SAY YES TO RAINFORESTS

Congratulations to Sierra for dramatically illustrating the environmental havoc created both by those who grow coca plants in the Upper Huallaga Valley of Peru for the cocaine trade and by those who pretend to control it ("The Big Push," November/December 1988).

Our government must be made accountable for damage caused by its drug-control efforts. Within the United States, a controversial program to dump herbicides on hilly slopes in a high rainfall area would at least warrant an environmental impact assessment. Author Mark Mardon documented that the "assessment" in this case is a ridiculously tiny plot of coca plants where somebody dropped three kinds of herbicides eight months previously. There are no controls, no possibility for statistical analysis, and the "advisers" are thousands of miles away from their "research" plot. When I was in Peru last year. I recall the U.S. Embassy claiming that a real experiment was being conducted to determine not only the effectiveness of its preferred herbicide but also the post-spraying effects on recovering vegetation and the possibility of downstream contamination. Apparently this was not true.

Since it is clear to everybody concerned that the only solution to deforestation and contamination caused by the coca/cocaine trade is a drop in demand for the drug. I strongly urge environmental groups concerned with tropical deforestation to unequivocally condemn its recreational use. This is a much graver issue than boycotting hamburgers from Central America. Saying no to cocaine is saying yes to tropical rainforests.

Kenneth R. Young Department of Geography University of Colorado Boulder, Colorado

Sierra Club policy opposes the application of restricted-use, inadequately assessed herbicides on fragile tropical ecosystems. The proposed aerial broadcast of herbicides over 5,000 square miles of Peruvian rainforest threatens to damage soil, water, and species diversity while posing acute and chronic threats to human health. The environmental assessment prepared for the coca-eradication project in the Upper Huallaga Valley is based on inadequate toxicity data



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and field trials regarding the proposed herbicide tebuthiuron (Spike). The project illustrates a penchant for seeking a technological fix to a complex social problem, a fix that in this case does severe environmental damage without solving the problem.

A major component of Sierra Club policy-one that is accepted throughout the world as well as strengthened by the International Code of Conduct on the Use and Distribution of Pesticides-is the principle of the public's right to know of potential hazards. This includes access to information about active and inert pesticide ingredients, environmental and human health hazards, adequate training materials for applicators, proper labeling, etc. Nowhere is it indicated that either the U.S. State Department or the Peruvian government will adhere to this principle in the current instance.

The new U.S. administration should take the lead by enlisting governments of drug-producing and drug-consuming countries-along with bilateral and multilateral development institutions, multinational chemical companies, and nongovernmental organizations-in a major effort to deal with this global problem. All the actors and agencies involved in controlling drug production and consumption must cooperate in reducing and/or eliminating the demand for drugs while finding alternative ways for people in the developing nations of the tropics to make satisfactory livelihoods without destroying their naturalresource base.

Clare Hilliker Sierra Club International Pesticide and Pest Management Project Medford, Massachusetts

DEBT-FOR-NATURE SWAPS

I was pleased to read "Greenbacks for Greenery" in the November/December 1988 issue, which discussed methods of protecting natural areas in Third World countries by using debt they owe to private banks. If properly managed, much good can come from such innovative programs.

However, the article failed to mention two important and relevant points. Representative John Porter (R-III.) and Senator Robert Kasten (R-III.) introduced



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legislation in the last Congress that, among other things, called for the establishment of a new World Bank program to promote sustainable use of tropical forests and wetlands using debt-fornature swaps. The Sierra Club worked closely with Porter's staff in shaping this initiative, and we were pleased to see Congress adopt it as part of the fiscal 1988 appropriations bill for foreign operations.

The Club is also pressing for the establishment of a program (probably within the U.S. Agency for International Development) that would allow Third World debt owed to the U.S. government to be used as investment capital for the restoration and protection of the debtor country's natural-resource base. As a first step, members of the Sierra Club's International Program have been working with members of Congress, the president of the African Development Bank, and U.S.-AID to establish such a program for qualifying debtor nations in Africa.

Larry Williams

Sierra Club International Representative Washington, D.C.

ASBESTOS: LEAVE IT ALONE?

Susan Peters' article "The ABCs of Asbestos Cleanup" (September/October 1988) was inflammatory and scientifically unjustified, a polemic written by someone unfamiliar with the literature, and not a true effort at understanding a complex and emotional subject. The "experts" she cited—the medical adviser to Asbestos Victims of America and a "legislative specialist for the National Education Association" are not by any stretch experts in risk analysis or in asbestos exposure and asbestos-related diseases.

Numerous investigators have recently addressed the fact that the potential hazard from exposure to asbestos in U.S. public schools is almost immeasurably small. (A child is 38 times more likely to die in a bicycle accident than from exposure to asbestos.) Compare the projected annual death rate for lung cancer or mesothelioma caused by school asbestos exposure (estimated at 0.02 to 0.37 deaths per million exposed) with the projected annual death rate for smoking-related diseases among smokers (estimated at 1,200 deaths per million exposed). Thus, chronic cigarette smoking is many thousands of times more hazardous than exposure to the levels of asbestos found in schools today.

In fact, about as many people will die this year of diseases caused by passive smoking (3,000 to 5,000 deaths) as will die of diseases caused by industrial asbestos exposure (5,000 to 8,000 deaths). And because the asbestos industry in this country essentially no longer exists, the only time people will be exposed to industrial levels of asbestos will be during efforts at asbestos removal. Several authors have remarked on this, and suggest that removal of asbestos is not only extremely costly, but arguably much more hazardous than leaving it in place.

Despite these facts, a stubborn EPA, apparently unwilling to confess to its gross miscalculations in assessing the risks from exposure to asbestos in schools, continues to insist on "cleaning up" what is at worst a minuscule hazard —with the added twist that the hazards from the "cleanup" operations will potentially be much greater than doing nothing. The projected cost for cleaning

Many of our outdoor activities are connected by rapid transit.

up this overblown problem will be up to \$100 billion spent over the next 25 years. Ace Allen, M.D. Division of Clinical Oncology University of Kansas Medical Center Kansas City, Kansas

THAI ENVIROS

In "Local Heroes" (September/October 1988), Dana Sachs effectively described the momentous summer of 1986, when some 50,000 residents of Thailand's Phuket island destroyed a tantalum plant perceived as a threat to their livelihood. However, the assumption that this action was due to a "nascent environmental movement on the island" is, in my estimation, erroneous.

Having lived in Thailand for the past 17 years, I believe that the majority of the residents in Phuket, or in most other areas of the country for that matter, simply don't have the "luxury" of worrying about environmental problems. Their main concern is day-to-day survival.

How else could one explain the fact that environmental threats of even greater proportions are constantly being identified, yet are being met with relatively little opposition? Many studies detail incredible amounts of air and water pollution in Thailand; news reports tell of rapid deforestation due to a surge in illegal logging. In the Phuket area itself, environmental atrocities range from the dynamiting of precious coral reefs by fishermen (who can then easily catch previously inaccessible fish and sell coral fragments to tourists) to the dumping of cyanide into the sea (the target here being rare aquarium species —which must be sold right away, for they usually die within days or weeks).

These deplorable practices are condoned in the name of short-term profit. Many local residents simply don't realize that such resources as fish or coral can be depleted, and because these resources bring in such great immediate profit, opposition to their unwise depletion is ineffectual. In the case of the tantalum plant, however, the potential consequences were much more apparent. Any accident, serious or not, could cause an immediate decline in tourism, which would devastate the local economy. If the citizenry of Phuket were genuinely interested in protecting their environment, they would surely have stopped such practices as dynamiting coral reefs long before they rallied to destroy the tantalum plant. Nathan Victor Ithaca, New York

ACCESS SUCCESS

As a result of the profile of me and my organization, Whole Access, in your July/August 1988 issue ("Whirlwind on Wheels Wants Access for All"), more than 400 Sierra readers have contacted us with requests for information, letters of support, and donations.

For the benefit of resource planners and managers, I'd like to correct two errors that appeared in the article. The Tanoak Flat Nature Trail does not have a paved surface, nor is it a "Braille trail." The surface is a compacted natural one —in this case decomposed (crushed) granite. Some trail projects are also experimenting with a variety of (biodegradable) "soil stabilizer" products already in use for other purposes, such as erosion control. Also, interpretive information for the trail is not, as reported, provided by Braille posts (which would

In nearby Ontario, there's a lake, river, or stream that's waiting to be discovered. With more than 400,000 to choose from, however, picking a favorite could take a little paddling. But whether you're a novice canoeist or an experienced whitewater pilot, you won't be disappointed with our waterways. And should your arms get tired, there are plenty of other activities to keep you amused. Like camping. Or fishing. Or swimming. Take a hike on a walking trail. Or scale a rock face. If the climb doesn't leave you breathless, the view at the top certainly will.

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be accessible only to people who "read" Braille); rather, the information is given in a variety of portable formats, including "regular" and large-print type, Braille, and audiocassette tape. Phyllis Cangemi Redwood City, California

A KINDER, GENTLER E.P.A.

I was disappointed to read writer Susan Stranahan's retort ("Letters," September/October 1988) to claims by the EPA's Kevin Oates that she misrepresented his comments on the Lipari Landfill Superfund site in her May/June 1988 article, "Broken Promises." Instead of dealing with the factual questions raised, or even giving Oates credit for having the intelligence and integrity to raise them, Stranahan seeks to sow doubt among your readers about his true motives. He must, she announces, have been "criticized within the EPA for being readily available to the media and the public, unstinting in his time . . . and frank and forthright."

Apparently, Stranahan doesn't admire frankness when it extends to discussions of her own inaccurate and incomplete reportage. On the contrary, she tries to dodge accountability by impugning Oates' reputation and by throwing out the red herring of a conspiracy within the EPA to silence him. At no time has anyone at the EPA criticized Oates about the "Broken Promises" piece; the decision to respond to Stranahan's distortions of the record was entirely his own. To imply otherwise in an attempt to dismiss Oates' criticism is intellectual dishonesty.

James R. Marshall Acting Deputy Regional Administrator

Environmental Protection Agency, Region II New York, New York

STICKY SUBJECTS

An error on our printer's bindery line resulted in an information-request card being glued onto an editorial page in many copies of November/December's Sierra; our apologies to those readers who were inconvenienced by this snafu. Also, in an "Afield" graphic depicting declining voter turnout in U.S. elections, the colored lines representing presidential and off-year elections were reversed. Readers planning to vote for president again in 1990 may thus be disappointed.

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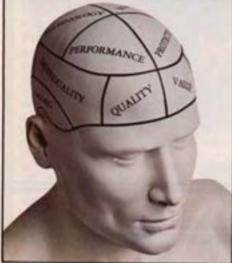
SOFFICIAL STATE VICED ON PLANNER

It takes more than words or pictures to understand the exhilarating sensation of discovering Alaska.

It takes being there.

So take some friendly advice. Put your spirit of adventure in high gear by sending for the 1989 Alaska Vacation Planner, the official publication of the State of Alaska. Write to: Alaska Division of Tourism, P.O. Box E-350, Juneau, AK 99811. new Geo-Logical evolution in imported automobiles. A new kind of 4 x 4 sports/utility vehicle. Now both are at selected Chevrolet dealers.





THE LOGIC OF GEO-LOGIC

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Where most other sports/utility vehicles charge extra for everything beyond bare bones, the base Geo Tracker comes with many comfort and convenience features as standard equipment. Full 4x4 function, extended instrumentation including tachometer, reclining highback bucket seats, rear folding seat, sunroof on the canvas top model, Halogen headlights, 15" argent rally wheels and massive P205/75R15 tires, and on the LSi deluxe model; individual rear bucket seats and air conditioning plus a host of additional niceties are included. And all of this is hauled mightily down the road or across rough country by a masterstroke in efficient power*; a 1.6 liter fuel-injected, single overhead cam engine which smoothly churns out the low speed torque and high speed horsepower that makes dinosaurs of most other small vehicles.

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In keeping with its evolutionary flexibility as passenger car, sports car, pickup truck, station wagon, and recreational vehicle, the Geo Tracker offers two distinctively versatile ways to go: There's the allweather security and tightness of a rigid, non-removable steel roof. Or the sunshine-andfresh joys of a weather-tight, foldand-stow canvas top with a built-in sun roof. And the security of youchoose-when four wheel drive on the Tracker stands ready to take on slick roads, torn up streets, and the pathways and byways of America in the raw.

Top: Geo Tracker Convertible Bottom: Geo Tracker LSi

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Warranties on some new vehicles protect only certain parts but General Motors' surprisingly complete new warranty on every Geo Tracker basically covers the entire vehicle. From front Halogen headlights to rear 4 x 4 differential, this long, strong warranty even covers towing plus all labor and itemized parts that fail due to defect in materials or workmanship (tires are covered by their manufacturer). Complete terms of this limited warranty are available at selected Chevrolet dealerships offering Geo.



REASON

The Exceptionally Low Price of Freedom.

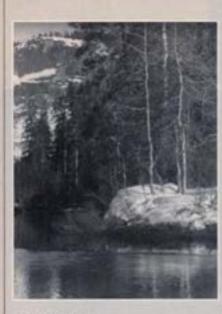
In these days of escalating prices for sports/ utility vehicles, the versatile 4 x 4 Geo Tracker is base priced as low as \$10,195.00**. And the upsale 1.Si model—with air conditioning, rear bucket seats, automatic transmission and other comfort and convenience extras is right around \$12,495.00**, and the value doesn't stop when you buy a new Tracker. There's the ongoing fuel savings with the base 5-speed convertible*.

See your money regain its worth. See Geo Tracker today. It's the logical way to go.

 *EPA commands MPG only 25 and highway 25.
 **Manufacturers's Suggested Renail Priors for orthode described including desker peep. Tax, lecense, destination charges, and other optimized couperpress additional.







to Charles Adams Yosemite National Park June 8, 1920

Dear Pa,

Thanks very much for the \$15.00; I was down to \$1.29 in the bank and just thinking of getting some photographic paper. I have been very careful and economical with my pictures, only using up film in any quantity when on an unusual trip. Around the valley I study every subject thoroughly and am getting some really encouraging results. You will find enclosed a little view taken in the Little Yosemite a month ago; several feet of snow on the level as you can see. The trees are aspens, of course, not in leaf. In the distance are precipices near Cascade Cliffs, snow clinging to every ledge and crevice and filling all the gullies.... If I ever get a chance I am coming to the valley at the very earliest time of year as it is then I think it is the most beautiful....

Sincerely, Ansel

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to Virginia Adamu San Francisco September 22, 1925

My Dear Virginia,

I began a letter to you the other day, but it did not go as I wished, and I am rewriting it. I have played so much today that my hand is tired and I canIthough his photographs are among the century's most familiar, Ansel Adams always kept himself very much out of the picture. A recently published selection of Adams' letters, however, brings to light the artist in all his hope, doubt, wit, and passion. "The photographs give us moments when he held his breath," Wallace Stegner writes in the introduction

to the book. "The letters show him breathing, even panting."

Letters reprinted from Ansel Adams: Letters and Images 1916–1984. Copyright © 1988. By permission of New York Graphic Society.









not produce intelligible writing with a pen; hence the typewriter. . . .

How could I ever describe what the mountains meant to me this summer; what they did for me, and how strongly this new sense has grown within me. My dear, I am an entirely different person. . . .

It is almost a rebirth; I sense another and a much deeper personality. If you only knew what perplexity of mind I am at present entertaining in attempting to adjust myself and consider my future! I feel so much bigger; I feel so much more the duty of life, and the necessity of improving myself and my Art to the last peak of my ability. The world has suddenly opened up to me with tremendous and dazzling effect and I am having the very deuce of a time to realize it all. New personalities, new outlooks, new ideas, new possibilities, all crowding into my consciousness, and above all the nameless dread of having to continue under this life, and the dread also of separating myself from it....

With love, Ansel

to Cedric Wright

Yosemite National Park June 10, 1937

Dear Cedric,

A strange thing happened to me today. I saw a big thundercloud move down over Half Dome, and it was so big and clear and brilliant that it made me see many things that were drifting around inside of me; things that re-



lated to those who are loved and those who are real friends.

For the first time I know what love is; what friends are; and what art should be.

Love is a seeking for a way of life; the way that cannot be followed alone; the resonance of all spiritual and physical things. Children are not only of flesh and blood—children may be ideas, thoughts, emotions. The person of the one who is loved is a form composed of a myriad mirrors reflecting and illuminating the powers and the thoughts and the emotions that are within you, and flashing another kind of light from within. No words or deeds may encompass it.

Friendship is another form of love —more passive perhaps, but full of the transmitting and acceptances of things like thunderclouds and grass and the clean reality of granite.

Art is both love and friendship, and understanding; the desire to give. It is not charity, which is the giving of Things, it is more than kindness which is the giving of self. It is both the taking and giving of beauty, the turning out to the light the inner folds of the awareness of the spirit. It is the recreation on another plane of the realities of the world; the tragic and wonderful realities of earth and men, and of all the inter-relations of these.

I wish the thundercloud had moved up over Tahoe and let loose on you; I could wish you nothing finer.

Ansel

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to Beaumont and Nancy Newhall San Francisco September 6, 1950ne Late

deer folkz

wat a day I tell you I don't want another day just like it. I made many prints but in the meen tyme I saw inzuranze man and get accident polizy which almost makes accident profitable. I tell you I have too thousand dollars for everybody in car for accident expenses and you can soo me for one hundred thousand dollarz if anything untowards heppenz, wow I dropped a martini onion in the typewriter shift and can only rite lower kaze, memo to £b.i.; this is not code. just happyness at twelve midnite, this is the evening of my disconnection .a new life beginz. - fanaticism is when you redouble your efforts when you have missed your aim-santayanaunquote, news for B. love A





to Nancy and Beaumont Neu-hall and Minor White San Francisco June 16, 1959

Dear Nancy, Beaumont, and Minor-

... So, I stand alone and forlorn; unable to agree with the cultural mass, incompetent in adjustment thereto, and not at all unhappy about it! The promise of the world-the dawn wind and the smell of orchards. the inherent sweetness of simple people, the great possibilities of a reasonable life-these things are important and Art (except in a few instances) consistently bypasses them, concerned with introvertal investigations, opportunisms, and the phosphorescent glimmers of elegant egos! . . . I have nothing going on IN my cranium and heart that is more important than the essence of what is going on in the outer world: I am but an instrument, a part of, this outer continuum. I sense a renaissance impending-a different one than we have ever had before. Who has the guts to stand out and welcome it?

Ansel

YOGURT-EATERS FOR WILDERNESS

tatistics can be misleading, but they can be fun. too. And when they try to define something essentially undefinable-such as the "true" nature of a Sierra Club member-the temptation to rummage around in them can be irresistible.

Sierra's staff, no strangers to temptation, have sifted through the results of our latest reader survey, coming up for air with at least a partial demographic profile of the Sierra Club's membership. (This survey, we're assured, is accurate within 1% to 4% and enjoys a 95% confidence level.) One thing seems clear: It's getting tougher all the time to spot the tree-hugger lurking within the well-educated.

well-compensated, middleaged (we average 43.9 years) professional whose image the survey conjures up.

More than 7 in 10 of us hold jobs (the U.S. figure for adults is 62.7%); 7 in 10 of those are employed in a professional, managerial, or technical capacity-true of 30% of all employed Americans. We're paid well for our labors: 49% of us claim an annual household income of \$50,000 or more, and 17% are in the \$100,000-plus bracket (seven times the U.S. figure of 2.4%).

Sierra Clubbers own homes at a rate somewhat higher than U.S. adults overall: 77% vs. 70%. Though one in a hundred of us lives in a mobile home. more than 8 in 10 rent or own a single-family home. The average value of our owned homes is \$187,300 (more than twice the U.S. verage); 35% own a home worth more than \$200,000. Nests provided for, it's off to the marketplace. One statistic stands high above all others in this arena, make of it what you will: Sierra Chub members buy compact-disc players at a rate 57 times that of the general U.S. adult population.

You were expecting, maybe, tents and backpacks? We got 'em, sure, though at slightly less startling ratios. Still, more of us have more



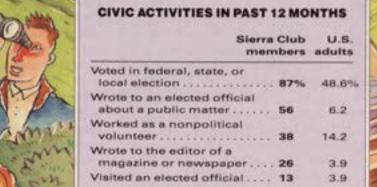
of that kind of stuff than most people do: 78% own a sleeping bag (vs. 23.6% of the U.S. public): 62% a backpack (vs. 10.2%); 58% a tent (vs. 15%); 54% a campstove and 49% a lantern (vs. 13.3% and 15.6%); and so it goes. Six in ten own at least one bicycle (49%) touring, 17% all-terratul

11/10

46% have skis (though only 40% claim they do ski), 36% fishing gear (21% actually angle), 11% climbing gear, and 4% a kayak.

Do we actually go outside with all that stuff? Yes: 50% of us camp, taking an average of two trips annually. Even more of us (62%) backpack and hike-that's 10 times the U.S. rate. Three times as many Sierrans do acrobic exercises as play golf (37% vs. 12%), and there are more than ten times as many gardeners as hunters (54% vs. 5%, though some could be the same people; statistics are funny that way).

We acquire 11.5 times more ski clothing than other citizens. Forty-one percent of us bought walking shoes in the past year. Fifteen percent of us bought more than



Attended a Sierra Club

meeting 13

30 books last year; half purchased 12 or more (true of but 1 in 6 adults nationwide). Nine in ten of us own a color TV. And the list goes on: We've got personal computers (41%), car stereos (73%), VCRs (66%), pets (55%), telescopes (18%), and darkroom equipment (11%).

We consume in the literal sense as well: We eat a lot of yogurt (79%), nutritional cereal (74%), and dried fruit (64%); and we drink wine (76%), beer (64%), and herbal teas (59%) more than white liquor (46%), whiskey (34%), and cognac (13%).

That's just a sketch of what Sierra Clubbers do; we also do many things that don't show up in a survey like this. That's why it's dangerous to put too much stock in statistics . . . even though, like salted peanuts (sorry, no data available), they're hard to leave alone.

-Jonathan F. King

SCORECARD

 Before adjourning,
 Congress added 40
 Oregon rivers to the national Wild and
 Scenic River System.
 Over the objections of the Interior Department, President
 Reagan signed a law protecting three rivers in West Virginia.
 The president also signed legislation adding 14,000 acres to

two wilderness areas in Alabama and designating 52 miles of the Sipsey River as wild and scenic. It is the first such river designation for the state.



Searching for Peak Experiences

n August 1, 1933, three days after a Sierra Nevada storm forced them to leave their gear on one of the Devil's Crags, Jules Eichorn and Glen Dawson went back to retrieve it. In the process, the 21-year-olds climbed Devil's Crag No. 11, where they recorded their names in a register at the summit.

Today that document survives in the Sierra Club Archives as one of the earliest remaining summit registers placed by pioneer Sierra Club climbers. But many such registers-installed in the first decades of the century by such renowned mountaineers as Joseph Le Conte, Francis Farquhar, Bestor Robinson, David Brower, Hervey Voge, and Richard Leonard-have been lost, stolen, or seriously damaged.

In 1987 Robin Ingraham, Jr., 23, and Mark Hoffman, 27, decided to try to preserve the remaining registers. The two climbers, after conferring with Eichorn, Voge, Brower, and Leonard,



Mark Hoffman (left), Robin Ingraham

dubbed themselves the Sierra Register Committee and launched the Sierra Nevada Register Preservation Program.

"Ninety-nine percent of all registers placed on Sierra Nevada summits from 1892 to 1955 were from Sierra Club members," says Ingraham. "The Club has made a tremendous contribution to mountaineering heritage and history."

Ingraham and Hoffman headed up the mountains. Whenever they located a historic register, they brought the original to the Sierra Club Archives at the University of California at Berkeley and returned a photocopy to the summit. At the same time, they installed a new register for the signatures and comments of future climbers. "In our first summer we saved four registers from 1934 and another from 1955," Ingraham says. "Other climbers gave us registers from 1897, 1910, and 1940."

Tragically, on August 11, 1988, as the pair was descending Devil's Crag No. 8, Hoffman was killed in a massive rockslide.

"I thought I'd never climb again," Ingraham says. "But then I realized that if I gave up climbing, I would be giving up part of Mark, and the registers would again be in trouble." Ingraham's task will now be doubly hard: "It's difficult to find a partner who's interested in both climbing and mountaincering history, the way Mark was. Not everybody wants to climb 20 peaks a year."

Climbers interested in helping preserve historical registers can write to the Sierra Register Committee, P.O. Box 3141, Merced, CA 95344, —Mark Mardon

Trailing Colorado

They're an unusual force of laborers, arriving at work on foot or on horseback, often with llamas portaging their gear. They bring with them only tents and sleeping bags; crew bosses supply food, shovels, and picks. For the past 15 summers, innumerable unpaid toilers from preteen to 70 have migrated to the Rocky Mountains to join with local crews in fulfilling a dream: the Colorado Trail.

At an average elevation of 9,000 feet, the 470-mile trail ambles (at moderate grades) from Durango to Denver through some of the state's most spectacular mountain terrain. It crosses the Continental Divide and traverses seven national forests, five trajor river systems, and six designated wilderness areas.

Most of the trail will be open to hikers this year, but there's still work to be done. Organizers estimate that it will take six to eight more summers to finish the job. For information on how you can help the privately funded project, contact the Colorado Trail Foundation at P.O. Box 260876, Lakewood, CO 80226-0876. -M.M.



CAMING MACONTELL

TRUSTEES OF THE FUTURE: HAPPILY INCREASING AMONG US

eventy-six years ago Scottish mountaincer, historian, and statesman lames Bryce delivered a speech before the American Civic Association entitled "National Parks-The Need of the Future." The address, published in the Sierra Club Balletin in 1913, last year provided the inspiration for a design competition sponsored by International Typeface Corporation. Nearly 1,000 graphicarts students from 32 nations accepted the challenge of interpreting a timeless passage from Bryce's speech.



The love of nature is happily increasing among us, and it therefore becomes all the more important to find means for safeguarding nature.... Let us remember that the quantity of natural beauty in the world, the number of spots calculated to give enjoyment in the highest form, are limited, and are being constantly encroached upon....Let us think of the future. We are the trustees of the future. We are not here for ourselves alone. All these gifts were not given to us to be used by one generation, or with the thought of one generation before our minds. We are the heirs of those who have gone before, and charged with the duty we owe to those who come after, and there is no duty which seems clearer or higher than that of handing on to them undiminished facilities for the enjoyment of some of the best gifts that the Creator has seen fit to bestow upon His children. —James Bryce

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173233, James Galw Greatest Hits. (RCA)

154633, Steve Win wood; Roll With It.

100470. Vangelis:

153582. Tracy Chapman

Fast Car, Talvin' Bout A Revolution, Baby Can I Hold You, etc. (Elektra)

HOROWITZ

Plays MOZART

63

152854, Whitney

Houston: Whitney, Didn't We Almost H All, etc. (Acista)

150953. Van Halen: OU612. (Vilarner Bros.)

134073. Richard Mars

--Hold On To The Nights, Endless Summer Nights, Should ve Known Better, etc. (EMI)

163579. Segovia Plays Ponce, Rodrigo & Torroba (MCA)

100579. K.T. Oslin: This Woman, Money, Mir song, Hey Bobby, etc. (RCA)

115436

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164165. Bobby McFer-rin: Simple Pleasures. Don't Work Be Happy. All I Wark, etc. (EMI)

125264. Horowitz in

Moscow - Scarlatti, Mozart, Ractmaninov others. (DG DIGITAL)

144313. Classic Rock: Vol. 1. Elton John: Bennie & The Jets, more. (MCA)

rand Delight, etc.

100516

(RCA)

170348. Guns 'N

130236. Crosby, Stills, Nash & Young: So Far (Greatest Hits). Sute Judy Blue Eyes, more

140

124546. The Moody Bloes: Sur La Mer. Know You're Out There Somewhere, No Lies, stc. (Threshold)

143293. Glenn Miller Orchestra: In The Digital Mood. (GFIP)

114780. Cinderella: Long Cold Winter, Gyo-wy Road, Don't Know What You Got (Till th Gone), etc. (Messury)

154358. Slatkin Co ducts Pictures At An Exhibition, more (RCA DIGITAL)

144659. The Best Of The Spencer Davis Group, Steve Wrwood & Co. on Gimme Some Lovin, etc. (EMI)

100352: Diane Schuur: Talkin' Bout You. Title song, Funny (But I Still YouLetc. (GRI 104857. Benny Good-

man: Sing, Sing, Sing, Title song, more. (PCA)

200583. John Lennon: Imagine Soundtrack. Jealous Guy, Mother. mone, (Carstol)

174328. George Har-rison -- Cloud Nine. Got My Mind Set On You. nr. (Dark Horse)

134347, Huey Lewis: Smail World, Latest good time rockers in clude Perfect Workt. more. (Chrysalis)

115356. Vivaldi, The 4 Seasons - Trevor Pin-nock. (Archiv DIG/TAL)

180187, Bruce Hornsby & The Range: Scenes From The Southside. The Volley Road, more. (RCA)

00008. Randy Travis: Old 8x10.Honky Tonk Moon, Deeper Than The Holler, more. (Warner Tistai.

125179. Tchalkovsky 1812 Overture: Nut-cracker Suite: more Soll, (London (MG/7AL) 163629. Whitesnake

561 Of The Night, Give Me All Your Love, more



200506 U2: Rattie & Hum. Live set inclu 1558 Haven't Found What Fim Looking For Desire, more, (b)

182522. Dirty Dancing Original Soundtrack. (Fve Hact) The Time Of My Life, more. (PICA)

200478. Metallica: And Justice For All. One Blackened, title song more. (Elektra)

100603. Kenny G. Silhouette. We've Saved The Best For Last, more

154404. Chicago 19 Don't Wanna Live With out Your Love, Heart In Pieces, etc. (Reprise)

115457. Rzhak Perlman: French Violin Show pieces: Carmen-Fan (DG D/G/TAL) ise, more 44578. The Judda Greatest Hits, Cive A Little Love, Marna He's Crazy, etc. HCA 223559. Beach Boys: Endless Summer

20 Greatwet Mile 115306, Handel, Water Music Trover Pr (Archiv D/G/TAL)

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134647, J. R. Baker:

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ver, (Angel

Nores, Mar DIG/TAL)

more ICar

153621. Beetha Symphony No. 7; more, Royal Phil. Previn. (RCA DIG(TAL)

<u>PRIØRITIES</u>

Wretched Refuse off Our Shores

As communities shun waste incinerators and landfills, will the oceans become mere dumping grounds for America's garbage?

OCEANS



Every year more than 189 million tons of solid waste are legally dumped off the Atlantic, Pacific, and Gulf coasts, where they mingle with tons of agricultural and urban runoff. (See "Runoff Runs Amok," November/December 1988.) The industrial Northeast is one of the hardest-hit areas: Eight million tons of sewage sludge from New York and New Jersey are dumped annually at a site 106 miles off the Atlantic coast. More than a quarter of a million tons of rotting wood pilings from New York and New Jersey, laced with the carcinogen creosote, burn each year on an open barge 17 miles off New Jersey. And 59,000 tons per year of hydrochloric acid used in chemical manufacturing are jettisoned 15 miles off Sandy

These dumpings are permitted under the Marine Protection, Research, and Sanctuaries Act (known as the Ocean Dumping Act) passed by Congress in 1972. Along with regulations, the law called for a research program charged with "determining means of minimizing or ending all [ocean] dumping of materials within five years."

Hook, New Jersey.

Beth Millemann

HELLS WEREN'T the only things to wash up on the Atlantic coast last summer. Used hypodermic needles, balls of sewage sludge, half-burned wood pilings, vials of blood, and miles-long garbage slicks vied for space with beachgoers desperate to escape one of the hottest summers on record.

Like boomerangs, some of the millions of tons of waste dumped into the oceans each year are returning to the coastal areas that threw them out. As landfills near urban areas overflow, communities balk at proposals to site incinerators within their boundaries, and states squabble over who will accept refuse ranging from household garbage to low-level radioactive waste, industry and government may turn more and more to America's backyard—the oceans—as the ultimate "out of sight, out of mind" disposal sites for some of our most pernicious refuse. But after 16 years, ocean dumping is still in business. In fact, in 1987 Congress authorized a program to study seabed burial of high-level radioactive waste, and it left the door open for ocean burning of garbage and seabed burial of sewage sludge.

The calamitous summers of 1987 and 1988, with their washed-up blood bags and dead dolphins, pushed Congress to partially plug one conduit by passing the Ocean Dumping Ban Act of 1988. Since the debris that washed ashore during those summers came from illegal dumping or overloaded sewage systems and landfills, Congress turned its attention to legal dumping. "One of the few types of legal ocean dumping Congress was willing to address was sewagesludge disposal," says Cindy Zipf, director of Clean Ocean Action, a New Jersey-based conservation group. But as things stand, the recent congressional "ban" really doesn't stop sludge dumping. "The law simply makes dumping more expensive by charging dumpers who continue to use the sea as a toilet after 1991," Zipf says.

While lawmakers scrambled to pass sludge-dumping controls, the National Oceanic and Atmospheric Administration (NOAA) was quietly asking Congress for \$400,000 to fund a study of an "interim option" for dealing with New York City's sewage sludge. The agency's plan: drill 1.4 million holes in a ten-square-mile section of the Atlantic floor and fill them with sludge.

That scheme doesn't wash, says Boyce Miller of the Oceanic Society in Washington, D.C. "There's no way shellfish and other sea life could avoid the effects of battering rams drilling 40inch-diameter holes in the seafloor 400 feet deep and 50 feet apart," she says. And the country's solid-waste problem is more than 1.4 million holes big. "NOAA's plan would just about take care of New York City's sludge," Boyce says. "How many other ten-square-mile grids in the ocean floor would be decimated if other cities were to adopt this disposal plan?"

Some NOAA officials argue that seabed burial is not the same as at-sea dumping and therefore is not subject to Ocean Dumping Act regulations protecting human and marine health. Since the new sludge-dumping law doesn't address this argument, it may not stop seabed burial.

The sludge-dumping law leaves unchecked another proposed use of the ocean as vast wastebasket: at-sea garbage burning. Ocean Incineration Services, a Florida company promoting garbage incineration at sea, touts its process as "vastly preferable to landfilling and most other available options." The firm wants to burn city garbage on ships stationed offshore. A consultant with Our expert international guides are one very special reason why JOCRNEYS will give you:

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Departs U.S.	NEPAL	Total Days	Cost*	Departs U.S.	JAPAN	Total Days	Cor
112,124,29	Himalayan Discovery Safari	20	\$1996	1 700.817	Japan Cultural Odyssey: Fai Provin	088 17	12296
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39	Artists Trek	20	\$1395	6(18, 6/28, 27,			
39, 105	Annapuma Sanctuary Trek	70	\$1095	700.88.817.			
2/20	Medical Service Trek	20	\$1795	821	Noatak Hiking/Canoeing	22	\$195
3/30	Rowaling-Everest Traverse	34	\$2425	1000	AFRICA		
41, 1014	Around Annaputna Trek	28	\$1575		AFRICA		
43	Everest Sherpa Country Trek	23	\$1541	M6,273,972			
	Kangchenjunga Exploratory Trei	k 32	\$2195	8/18, 77, 84,	and the state of the		
613	Tree Planting Trek	20	\$1295		Million Animal Safari	18-23	\$1498
59	Himalayan Discovery Safari	20	\$1295		Kenya Coast	7	1.55
56. NOR. 11/16	Everest Sherps Country Trek	23	\$1425		Turkana/ML Eigon	T.,	164
Spring	Dolpo Trek	. 30	\$1995		Tanzania Wildlife Week		1108
801, 1014, 110	Himalayan Discovery Safari	- 20	\$1295		Mountain Gorilla Trek	- 8	\$1325
105	Everent Monastery Trek	21	\$1535		Kilimanjaro Climb	- T.	. 100
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the firm, Kenneth Kamlet, sees "large societal benefits to municipal-solidwaste incineration at sea and only minute, if any, environmental costs."

Such proposals are opposed by the American Littoral Society, a naturalist group based primarily in New York and New Jersey, which has for years criticized the Army Corps of Engineers' practice of annually burning hundreds of thousands of tons of driftwood, timber, pilings, and other materials on open barges. Although the practice has gone on for more than 20 years, the Environmental Protection Agency has never required the Corps to file an environmental impact statement, nor has it ever officially recognized the "informal" burning site off the New Jersey coast. "The horizon is only six miles from shore," says Dery Bennett, executive director of the Littoral Society. "Once you get over the horizon, no one seems to care."

The Corps has applied to the EPA for a permit to burn 252,000 tons of waste-



wood for another year. Performed on open barges with no air-pollution controls, the burns continue for 24 to 60 hours and shoot flames 75 to 120 feet into the air for up to 20 hours at a time. While the EPA decision is pending, the Corps continues to burn wood left over from the 1988 permit.

Not far from the wood-burning site, Allied Chemical dumps 59,000 tons of hydrochloric acid waste into the Atlantic each year. It also is waiting for the EPA's permission to dump for another three years. Although other industries that once dumped waste like Allied's are now recycling and selling it, Allied contends that the market for recycled waste is too weak to be profitable.

A long with sludge, garbage, wood may become receptacles for the most feared refuse of all: high-level radioactive waste. Although the Ocean Dumping Act specifically prohibits dumping such materials at sea, in 1987 Congress established the Office of Subseabed Disposal, whose charge is to "research, develop, and demonstrate activities on all aspects of subseabed disposal of highlevel radioactive waste and spent nuclear fuel." The office's activities have been halted temporarily for lack of funding.

The debris disgorged onto the Atlantic coast during the past two summers may be the ocean's way of clearing up human ignorance about its ability to absorb civilization's throwaways. At a minimum, the debris alerted us to the dumping that continues, and that may escalate, as an alternative to landfills and incinerators.

But transferring waste from land to sea is hardly the answer. "Just getting the waste farther away from people doesn't solve the problem," says Bennett. "We need to stop producing so much waste, not pile it onto ships and burn it at sea. We need to make sure that what Jacques Cousteau calls the Pilatus Syndrome, the 'dump it and wash your hands of it' outlook, stops both on land and at sea."

BETH MILLEMANN is director of the Coast Alliance, a Washington, D.C.-based coalition of activists, and author of And Two if by Sea: Fighting the Attack on America's Coasts (Coast Alliance, 1986).

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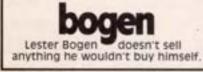
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An Old Foe With New Tricks

Using borrowed tactics and mellowed rhetoric in the battle for open space, off-road-vehicle activists are gaining ground.

Dan Dagget

N 1988, IDAHO'S SENIOR SENATOR, James McClure (R), introduced a wilderness bill with a unique provision: to set up trails in two roadless areas for the exclusive use of off-roadvehicle (ORV) riders. The bill did not pass, but its very existence was evidence of topnotch organizing on the part of Idaho's ORV-users.

The San Rafael Swell, an area in southeastern Utah that conservationists have recommended for national-park and wilderness status, has also caught the eye of off-roaders. Ron Stokes, president of the Utah Trail Machine Association, says his group is lobbying Sen. Jake Garn (R) for a bill that would make the Swell a "national off-highway-vehicle recreation area." Utah's Republican governor, Norman Bangerter, supports the idea.

Off-roaders are gaining influence in disputes over public land. They've made deep cuts in recent wilderness proposals and in some states have even convinced legislators to use gas-tax revenues to promote their sport. Environmentalists and land managers say the wins are attributable to the growing political sophistication of these groups. The BlueRibbon Coalition, an Idahobased ORV organization with member groups throughout the West, has learned many tactics from its opponents. "Coalition members came to the public meetings, watched the environmentalists, and took notes," says Rick Johnson, conservation assistant for the Sierra Club's Northwest office. "Now they're going to meetings and writing letters just like Sierra Club members do. They've become an interest group with clout."

Loyd Barnett, a planner for the Coconino National Forest in northern Arizona, remembers public hearings in which off-roaders "just did a lot of yelling." Now, he says, their tactics are more effective: "I think working with government agencies is proving to be a learning experience for at least some of them."

As ORV activists' tactics have changed, so has their rhetoric. While some still make shrill accusations about Communist conspiracies aimed at closing them out of public lands, they're more apt to sound like Steve Janes, editor of the BlueRibbon Coalition's monthly newspaper. "We don't hate environmentalists," he says. "We're just



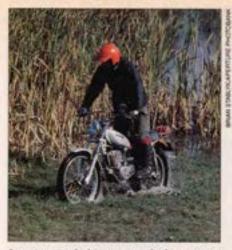
A tangle of vehicle tracks encircles a creosote bush in the Mojave Desert's Johnson Valley.

sick of them taking our rights." Even the coalition's motto sounds reasonable: "Preserving our natural resources for the public instead of from the public."

The names of the machines are also new. Until recently, vehicles not intended for highway travel, such as allterrain and motocross cycles, were all "off-road vehicles." Now manufacturers and ORV groups lump them together with four-wheel-drive pickups, jeeps, and land cruisers under the term "off-highway vehicles."

The distinction is not just semantic, argues Phil Auernheimer, president of the Arizona Desert Racing Association, because many people drive off-highway but stay on primitive roads. "We don't want to give the impression that we're encouraging anyone to drive off-road," he says.

The political victories that have followed this new image are coming at a rate that environmentalists find disconcerting. In Montana, for instance, virtually every area used by off-roaders was deleted from the state wilderness bill that Congress passed (but that President Reagan did not sign) last year.



Leaving no habitat untouched, a motorcyclist roars through a cattail marsh.

"Cross-country skiers outnumber snowmobilers two to one in western Montana," says Ed Madej, a Montanan on the Sierra Club's Public Lands Committee. "Yet snowmobilers were a major force in reducing the wilderness considered last year to 1.5 million acres [from the 2.8 million acres conservationists proposed]."

In California, activist off-roaders played a major role in blocking passage of the California Desert Protection Act in 1988. The legislation, which will be reintroduced this year, would add 4.5 million acres to the wilderness system and set up three new national parks. According to Jeff Widen of the Sierra Club's Southern California office, the bill proposes closing only two of the desert's fifteen designated ORV areas. "Even though off-roaders had little to lose," Widen says, "they were the most vociferous group opposing the bill."

In another important California victory, off-roaders have diverted millions of dollars of state gas-tax revenues to the purchase and development of State Vehicular Recreation Areas (SVRAs)-play areas for off-roaders. They started by persuading the legislature to approve the California Green Sticker Program in 1972, which allowed the state to use ORV registration fees to buy and build new areas. Off-roaders quickly saw, however, that not enough money was being raised to satisfy their appetite for new ride parks-so they convinced lawmakers to tack on a percentage of California's gas-tax revenues.

"We supported the program original-



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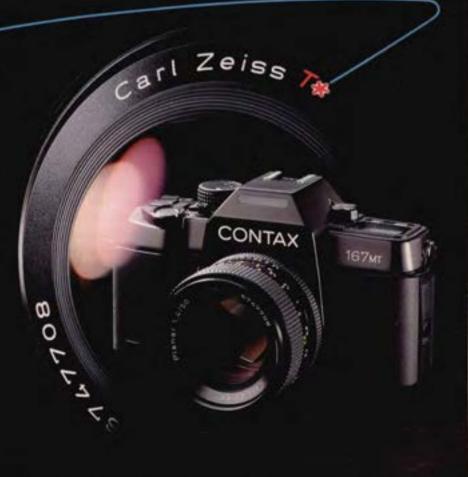
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Whatever you give will make a difference.



ly," says George Barnes of the Sierra Club's Public Lands Committee, "because we felt that every hour spent tearing around one of the SVRAs was an hour not spent in more sensitive areas." But the program has become a "monster," he says, yielding \$15 million to \$16 million a year. With that money California has expanded state-run ride parks by 60,000 acres and made more than 400 grants to local and federal agencies to help develop ORV facilities.

A similar tax in Idaho that raises \$300,000 a year serves as an extremely effective weapon against wilderness, according to Ralph Maughan of the Sierra Club's Northern Rockies Chapter. Each year the state gives part of its gas-tax money to the U.S. Forest Service to construct ORV trails. When trails are built on lands that would otherwise qualify for wilderness designation, Maughan says, "that pretty much takes care of any chance that area has to be protected." Conservationists in both states are doing their best to make these programs work for, rather than against, their objectives. In California, for example, they have helped broaden the sticker program's purview: Now a third of the money in the fund has to be spent on conservation and law enforcement. Part of Idaho's fund is now earmarked for these purposes, too. But last year the legislature there increased gas taxes and removed a legal cap on the size of the fund, assuring a substantially larger amount for future ORV-trail expansion in Idaho.

"We fought to keep the cap on the fund," Maughan says. "But off-roaders out-organized us and beat us." With an impressive list of successes behind them, off-road activists will likely do their best to keep conservationists repeating that frustrating refrain.

DAN DAGGET is a Sierra Club activist and freelance writer in Flagstaff, Arizona.

The Wings of Conservation

Seeing the big picture can be difficult from the ground; sometimes the only way to go is up.

WILDERNESS .

Jon Christensen

HE PACIFIC CREST TRAIL hugs a forested ridge a few miles from Linda Buturain's home in southern Oregon. As her finger traces the trail on a map, Buturain explains that the green, yellow, and white squares it traverses represent timberlands controlled by either the Bureau of Land Management or private companies. One landowner recently logged right across the scenic trail, she says, and five BLM timber sales are in the works.

Buturain surveys the forest and tracks timber sales for Friends of the Greensprings, a grassroots group dedicated to protecting the southern Oregon segment of the trail and a surrounding watershed of roughly 200 square miles. "We're doing all the groundwork we can," she says. "But we need to see our neighborhood whole, from the sky. . . a god's-eye view."

Recently Buturain learned about

Lighthawk, a group of environmentalists that helps nonprofit organizations get just that view. Last summer Lighthawk pilots flew dozens of sorties to document the rapid cutting of oldgrowth stands in the national forests of Washington, Oregon, and California areas where a curtain of trees left standing along highways hides the bare truth from passersby.

Published accounts of Lighthawk's work were "the most encouraging news I'd heard in a long time," Buturain says. But she worried that the group, dubbed "the wings of conservation," might be too high-flying to help her little neighborhood.

Lighthawk was born in the imagination of Michael Stewartt, an adventurous bush pilot who combined his passion for out-of-the-way flying with his love of the earth. In 1974, home in Arizona after stints in the Alaskan, Guatemalan, and Caribbean bush. Stewartt got swept up in a campaign to stop construction of a massive coal-fired power plant on the Kaiparowits Plateau of southern Utah.

Stewartt rounded up three other pilots to fly photographers and television crews over the Grand Canyon and nearby parks that would be clouded by the plant's foul emissions. The group's breathtaking images helped swing sentiment against the plan, which was eventually scrapped.

That victory gave Stewartt a vision of a "green air force" he would name Lighthawk, after a mythical luminescent bird. Stewartt was convinced that a bird's-eye view could help conservationists defend their causes, especially in remote areas of the West. But many earthbound environmentalists were skeptical of supporting such an expensive service in a movement so often strapped for cash.

It took five years before Stewartt finally convinced a wealthy rancher to lend him an old bush plane and 150 hours of fuel to test his idea. Lighthawk found its wings and soon soared into controversy over a proposed dam on the Gunnison River in Colorado.

S ince then the group has provided free and low-cost services for a list of clients—all nonprofit—including the Sierra Club. The Wilderness Society, the National Wildlife Federation, the Environmental Defense Fund, and The Nature Conservancy. Its missions range from the dramatic (tracking wolves and rescuing endangered grouse in Montana) to the prosaic (ferrying activists to remote meetings and public hearings across the West).

Even a meeting can be inspirational under Lighthawk's wings, Sierra Club Executive Director Michael L. Fischer learned recently in Seattle. Lighthawk flew the directors of several environmental groups over checkerboard clearcuts in the Cascades, "then spiraled down like a hawk to a small dirt strip in a steep canyon," Fischer recalls. "When we landed, one wingtip was about a hundred feet from a thundering waterfall, and from there we strolled directly into previously inaccessible old-growth forest." The experience helped spark the directors to work together toward making the preservation of old-growth for-

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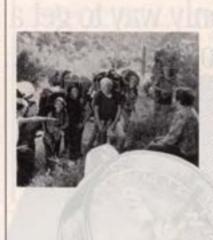
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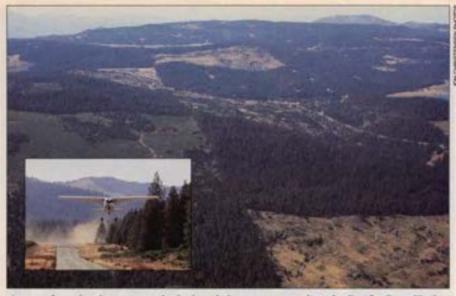
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A view from the sky exposes checkerboard clearcuts surrounding the Pacific Crest Trail in Greensprings forest, Oregon. Inset: A Lighthawk pilot makes the view possible.

ests a national priority, Fischer says.

Lighthawk pilots must be skilled and flexible to meet the job's demands: If a window or door has to come off for a camera crew, off it comes. If seats have to be removed to make way for animal rescue cages, out they go. If a photographer needs to circle over a critical spot in tricky winds, the pilot finds a way.

"Lighthawk understands what conservation is all about," says Daniel Janzen, director of a project to restore a tropical dry forest in Costa Rica. Last year Stewartt spent three days flying the biologist over a 200-square-mile area of Guanacaste National Park so he could take photographs to serve as baseline documentation for the restoration effort there. "I was able to get work done in a few hours that I hadn't been able to accomplish over the last ten years with other pilots," Janzen says.

Since the beginning, "the wings of conservation" have been able to meet the increasing demand for their services. In 1981 donors pooled \$60,000 to buy Lighthawk's first plane, a used six-seat Cessna 210. Four years later Stewartt hired another pilot-Bruce Gordon, based in Aspen, Colorado-and raised enough cash to buy a second used plane. In addition, he has recruited 14 volunteer pilots, who maintain their own planes and donate their time throughout the West. Next he hopes to buy an amphibious plane and a helicopter, and he'd like to add another pilot to the staff to free some of his own time for his biggest ongoing challenge-fundraising. Lighthawk asks its clients to pay only for gas, and sometimes waives even that fee if Stewartt believes an organization is in a position to have a tremendous impact on an issue, as in Janzen's restoration project.

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The StormShield"/EXP



On a typical weekend day, Lighthawk may have as many as four planes in the western skies. Fran Cole, the group's office manager and dispatcher in Santa Fe, New Mexico, juggles schedules and combines flights to accommodate the five or six requests that come in every week. With a growing cadre of volunteer pilots often willing to drop everything to help, the group rarely turns down a call for assistance. Last year it put in more than a thousand hours of flight time.

"When Linda called for Friends of the Greensprings," Cole says, "I knew that her problems were ones we could solve." With both staff pilots busy on other projects, Cole asked Michael Oppenheimer, a volunteer from San Francisco, to head for Oregon.

On a foggy Sunday morning, Oppenheimer's Cessna 182 breaks through low clouds covering San Francisco Bay into a sky clear, blue, and stretching to infinity. After a smooth flight north he sets the four-seater down at a tiny airstrip just across the Oregon border, in the Greensprings forest.

The Lighthawk volunteer spends the day flying back and forth 2,000 feet above the Pacific Crest Trail. A forestry consultant directs from the backseat while a photographer captures the trail corridor on film through an opened window. As the landscape rushes by, the chatter and excitement rise. Clearcuts and remaining old-growth stands are identified and photographed—important documentation to help convince the BLM to declare the corridor an area of critical environmental concern.

Linda Buturain waits patiently on the ground, sending other group members up before taking her turn. Then, as she climbs into the cockpit at the end of the day, she grins excitedly. Aloft, her enthusiasm is contagious: She exclaims at the sights of deep forests, mountain lakes, and the thin trail running through it all.

Below, she sees what she wanted: her neighborhood whole, almost embraceable, threatened but nonetheless surviving, even thriving, because of people who work to protect it.

JON CHRISTENSEN is a writer and photographer based in Washoe Valley, Nevada.

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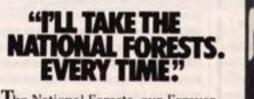
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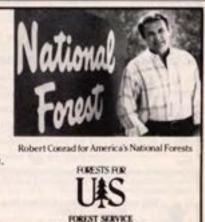
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IN DEPTH

PUBLIC POLICY

Our president-elect says he's "a Republican in the Teddy Roosevelt tradition." Environmentalists have spelled out 700 ways he can measure up to that lofty comparison.

A Green Blueprint for Bush

Michael McCloskey

n 1980 the Heritage Foundation, a conservative think tank, laid out a blueprint for the Reagan Revolution. Among myriad domesticand foreign-policy suggestions, the document recommended rolling back environmental programs across a wide front.

Environmentalists decided to respond with an agenda for a counterrevolution. When they began work two years ago, hopes ran high that the president elected in 1988 would be committed to making environmental protection a priority again.

As 1989 begins, counterrevolution does not seem to be in the cards; the voters did not send the clear call for change that environmentalists had hoped for. But George Bush did pledge in his campaign to pay greater attention to the health of the planet than his predecessor did, and he will want to lay claim to some initiatives in this area. Environmentalists are ready with a comprehensive menu of ideas.

On November 30, 1988, three weeks after the election, environmentalists handed Bush a report entitled "Blueprint for the Environment," a compilation of more than 700 recommendations assembled by the leaders of 30 environmental groups, including the Sierra Club. The document calls for new agencies, new programs, new regulations, reordered funding priorities, and the revival of long-neglected conservation efforts.

Even if the new administration spurns these proposals, the report is still important. For one thing, it will help set the environmental movement's agenda for the 1990s. By pointing out how much can be accomplished administratively, without new legislation, the report may also draw attention to how poorly some of our current environmental laws have been implemented. Congress' statutory goals must be achieved by willing, able agencies. If the movement fails to focus on this challenge, our efforts may yield meager results. Administrative action, the report suggests, will soon be environmentalists' major theater of activity.

The Blueprint suggests elevating the Environmental Protection Agency (EPA) to Cabinet status, creating a Department of the Environment. It also proposes setting up a new fisheries agency; appointing a presidential commission to draw up recommendations to help the Bureau of Reclamation shift from dam building to other missions; reinvigorating the Council on Environmental Quality under the leadership of one person (instead of three); and passing legislation to protect and strengthen the National Wildlife Refuge System.

The Blueprint outlines many other new strategies and programs as well, among them

 a plan to address global warming that would reduce U.S. carbon dioxide emissions 20 percent by the year 2000, protect tropical forests, and help make World Bank and other developmentagency projects more energy-efficient;

 a law that would permit the U.S. government to forgive debt owed to it by Third World nations, to facilitate "debtfor-nature" swaps;

 a global summit meeting, a presidential message, and a White House conference early in the presidency—all focusing on the environment;

 an international treaty to protect biological diversity; a new, environmentally sensitive statute to replace the antiquated 1872 law that now governs the mining of gold, silver, and other hard-rock minerals;

 national efficiency standards for lighting (to save energy) and plumbing (to save water);

 a new program to improve the quality of indoor air;

 a national energy plan aimed at reducing energy use and making wind power competitive by 1995 and solar energy competitive by 1998;

 a Heritage Trust Fund (with \$1 billion available annually) to catch up with the federal land-acquisition backlog;

 wilderness status for 1.5 million acres of the Arctic National Wildlife Refuge in Alaska; and

 federal legislation to protect units of the National Park System from the impacts of development outside their borders.

The Blueprint also identifies existing programs that need to be changed. The report asks the U.S. Forest Service, for instance, to stop building roads, selling timber below cost by 1993, and cutting oldgrowth forests in the Pacific Northwest pending further review. (The Sierra Club had a different approach to all but the roadbuilding

issue, involving bans that are more site-specific.) In addition, the report proposes

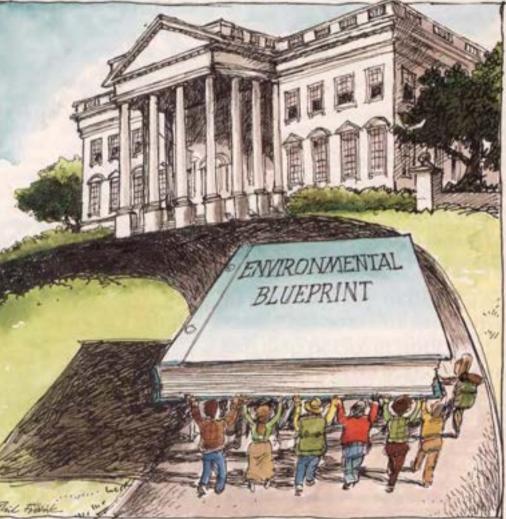
 subjecting onshore federal oil-andgas-leasing programs to the planning regulations that govern U.S. land-management agencies and ensuring that all leases contain environmental safeguards in case of full-scale development;

 revising offshore-oil-drilling plans to protect sensitive areas, especially off Northern California, the Florida Keys, the Everglades, Bristol Bay, and the Bering Sea;

 making crop subsidies contingent on farmers' efforts to protect groundwater from contamination by the pesticides and fertilizers that they use;

 stopping U.S. plutonium production for two years, with a challenge to the making federal highway- and transportation-aid programs consistent with state plans to protect air quality.

The report also calls for new and tighter federal regulations in a variety of areas. To clean up the nation's air, it suggests regulating at least 50 additional airborne toxic substances, seeking at



Soviet Union to do likewise and make the halt permanent;

 approving permits to dredge or fill wetlands only when no net loss of acreage will occur;

 refusing to grant variances to oil and chemical companies for underground disposal of hazardous wastes where these substances are likely to spread;

 withholding federal licenses for dams until a river's eligibility for wild-river status is assessed; and least a 12-million-ton annual reduction in sulfur oxide emissions, protecting the public against short-term surges in air pollution, banning lead in gasoline, preventing the United States from adding to the acid-rain problem in Canada, and disallowing use of tall stacks as control devices for air pollution.

To crack down on cities not meeting the nation's clean-air standards, the report proposes that the EPA require the use of recovery devices on fuel pumps to capture fumes at gas stations, the use of natural gas in industrial boilers, a steady reduction in the number of vehiclemiles traveled, and tightened autoinspection programs.

The report's other regulatory initiatives include

 a phaseout of the use of chlorofluorocarbons within five to seven years, to protect the ozone layer;

 a 45-mile-per-gallon fuel-economy standard for automobiles by the year 2000;

 a ban on coal stripmining on steep slopes and in certain areas subject to acid and toxic drainage;

 required environmental assessments of the projects funded by developmentassistance banks such as the World Bank;

 federal licensing of all nuclear reactors, including those operated by the Department of Energy (DOE) for defense; and
 health standards in pollution control to

protect all citizens, especially children and the elderly.

Finally, the report points to programs that the Bush administration needs to revive or make a higher priority in the post-Reagan years, proposing

 Senate ratification of the Law of the Sea Treaty, an agreement to manage international waters, with environmental safeguards;

 appointment of a commission to devise ways to revive professionalism in the Bureau of Land Management;

 restoration of water rights for wilderness areas, parks, and certain other federal lands;

resuscitation of the program to designate and protect "national marine sanctuaries," including a requirement that at least one new sanctuary be designated annually through the year 2000;

 better compliance with the Resources Conservation and Recovery Act, which regulates the treatment and disposal of hazardous wastes;

 reevaluation of all insecticides within nine years; and

 reinvigoration of the National Park Service interpretive programs, which help explain natural processes to the public. The report calls for increased funding for many established programs. It states, for instance, that

 the EPA budget should grow by 20 percent annually over the next four years;

 mass-transit programs should receive an extra \$2 billion a year by 1990;

 an increase of more than \$200 million should be made in family-planning funds;

 funding for the DOE's renewableenergy programs should be increased by \$400 million annually; and

 major outlays are needed to address the problems of global warming and declining biological diversity.

To meet these and other funding needs, the report recommends drastic cuts in funding for nuclear and "clean coal" research and reiterates past calls to end government subsidies for those who purchase federal timber, forage, water, and minerals and for those who develop oil and gas resources and enrich uranium. Among the new funding sources suggested in the report are

 a \$1-a-pound levy on chlorofluorocarbons sold in 1989, rising to \$5 a pound in 1993;

 a \$1-per-gallon increase in gasoline taxes, phased in over ten years, to encourage and fund energy efficiency;

 a 50-cent-per-gallon fee on diesel fuel for barge operators using inland waterways;

 50-percent cost-sharing requirements for those who benefit from the Corps of Engineers' water-development projects;

a \$2-per-cubic-yard fee for those dumping dredging spoils into the ocean;
fees covering 100 percent of the costs of allowing trucks weighing more than

60,000 pounds to use federal highways; • a road-user fee for those erecting bill-

 boards along highways; and
 a user fee for those legally disposing of wastes in groundwater.

The Blueprint advises examination of other possible income sources as well, including levies on carbon dioxide emissions and products from tropical forests.

Along with its many useful recommendations, the report has its deficiencies. A collection of ideas gathered from more than 50 committees, it lacks a coherent text. Because it was hurriedly assembled, the Blueprint also contains its share of inconsistencies, trivia, and empty exhortations.

It ignores some important problems as well. It fails to cast a searching look at the EPA, and says little about how to improve implementation of the Superfund. It lists neither the wilderness bills that should be passed nor desirable additions to the National Park System.

But "Blueprint for the Environment" does cover a broad range of topics and suggests many steps that may benefit us in the years ahead. It also reflects a continuing hope that the federal government can help solve our environmental problems. Whether that hope is misplaced remains to be seen. At the very least, however, these suggestions will help set the terms of the environmental debate over the next four years.

MICHAEL MCCLOSKEY is chairman of the Sierra Club and served on the "Blueprint for the Environment" steering committee.

A 32-page summary of the report can be obtained from "Blueprint for the Environment," 1400 16th St., N. W., Washington, DC 20036; (202) 797-6650. A 300-page paperback is also in the works at Howe Brothers Press (P.O. Box 6394, Salt Lake City, UT 84106).

Groups that helped draft the Blueprint include Defenders of Wildlife, Environmental Action, Environmental Policy Institute, Friends of the Earth, Global Tomorrow Coalition, Izaak Walton League, National Audubon Society, National Parks and Conservation Association, National Wildlife Federation, Natural Resources Council of America, Natural Resources Defense Council, Oceanic Society, Renew America, Sierra Club, Trout Unlimited, Union of Concerned Scientists, The Wilderness Society, and Zero Population Growth.

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BEYOND THE DURN

IN GREATER YELLOWSTONE, LAND MANAGERS WRANGLE OVER THEIR CONFLICTING MISSIONS YEAR BY YEAR. BUT AS LAST SUMMER'S FIRES DEMONSTRATE, NATURE IS WORKING THINGS OUT ACCORDING TO A LONGER, GRANDER TIMETABLE.

n early July 1988, Ranger John Baglien rode past Enos Lake, a wind-rippled blue oval in the Bridger-Teton National Forest. His smooth-gaited Missouri trotter took him over a ridge east of the lake and down through a dense tangle of splintered lodgepole pine left in the wake of a tornado the summer before. Accompanied by a few other rangers and me, Baglien was wending his way toward Yellowstone Meadows, a backcountry fishing area that is becoming too popular for its own good.

When the horses reached the bottom of the Pacific Creek drainage, we dismounted and looked downdrainage to the northwest, where for days a small, lightning-caused fire had been sending up little puffs of smoke. Across a brief meadow, sheets of orange flame unfurled like flags rising into the wind, advancing toward the deadfall. We could hear

BY GEOFFREY O'GARA



the sucking intake of the fire's breath and the crackling of trees rending as the heat crawled up their trunks. On the slopes around and ahead of us, clumps of pine had begun to smolder, and older trees were already aflame.

"Well," said Baglien, a stocky, laconic man with a mustache, "maybe we better get back on our horses. And go."

With nervous glances at the fire crowning the not-sodistant trees, we decided to scrap our trip to Yellowstone until we were back on the ridge. There Baglien calmly

-

selected a flat rock where he could sit and watch the fire as it leapfrogged along Pacific Creek. He sat for several hours as evening drained color from the landscape and the fire crept up the ridge against the wind. Talking by radio to a fire-spotter in an airplane above and then to a wilderness ranger on the opposite ridge, Baglien made up his mind that no firefighting crews were necessary; he'd let the fire burn.

You had to be watching his face to detect any trace of Meadows. We then picked our way through the blow-down _____ emotion-to see the laugh lines around his squint when he said, "You know, this is the kind of decision that can either

> make you a hero or earn you a transfer to another district."

Now that 1988 has gone down in history as The Year Yellowstone Burned, Baglien's ridgetop comment rings truer than he probably intended. The extraordinary fires here brought the wild country of geysers and grizzlies into living rooms from Miami to Seattle. The debate about the nature and uses of the Yellowstone area -a debate that has been going on since before the park was established in 1872 -has intensified and broadened.

Just as Baglien's trip to examine an overused fishing area was sacrificed to the flames, the fires' spectacle has eclipsed other management controversies that have sparked and smoldered in the Yellowstone area over the last few years. Oil and gas development, grizzly bears and wolves, clearcutting and geothermal power, have all stirred controversy, but the fires were the story of 1988. The questions the conflagrations raised may help us understand this vast expanse of wild, sometimes-ceric grandeur, and our complex responses to it.

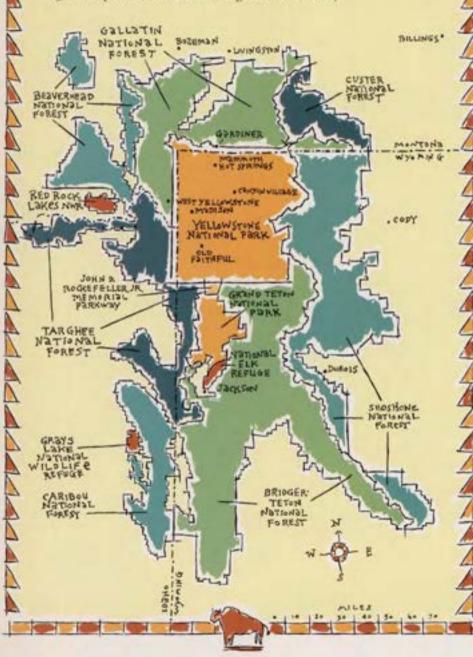


THE HEADS OF TWO NATIONAL PARKS and six national forests gathered on August 22 beneath the soaring log ceiling of Rainbow Lodge in West Yellowstone, Montana. It was Greater Yellowstone's Yalta conference; the war in this case was against wildfires. Transfers, demotions, and reprimands had already crossed the minds of many in the room, but the most urgent thoughts concerned a dozen fires (including the one first monitored by Baglien) burning out of control in and around the park.

In recent years National Park Ser-

PARK AND PARCEL

The Greater Yellowstone Ecosystem extends far beyond the borders of the national park to include three wildlife refuges, seven national forests, and Grand Teton National Park (and some Bureau of Land Management, private, and Indian acreage not shown here).



BURNING ISSUES

Rest Construction of the second secon

In Yellowstone's climate, periodic fires are both an ancient and an essential forest phenomenon. Here, a combination of dryness and cold temperatures dramatically slows decomposition. Dead grasses, leaves, and branches pile up faster than bacteria and fungi can break them down. Essential food and nutrients are bound up in this litter. Were it not for fire, growing plants would deplete the soil faster than decaying plants could replenish it, eventually leading to starvation of the plant community.

A forest in this region that goes too long without a fire becomes sickly and dense. Weakened by starvation, its trees are vulnerable to disease and insects. It is no coincidence that pine beetles reached epidemic proportions in national forests in the Yellowstone area following widespread suppression of fires after World War II.

Certain fires recycle, thin, and clean more effectively than others. Of 235 lightning-caused fires that Yellowstone Park officials allowed to burn between 1972 and 1987, 205 fizzled after burning less than an acre. These blazes eliminated some forest fuel and did some recycling, but not enough. If Yellowstone had (or if we tolerated) only small fires within its borders, the overall health of the forest and the ecosystem would surely decline.

Sometimes, though, our options are limited. Yellowstone's past summer was the driest in the park's 112 years of record-keeping, with fuel-moisture levels dipping to 2 and 3 percent (kilndried lumber is 12 percent). Fuel had



Fire fighters battled overwhelming blazes in the Yellowstone area last summer. In the end, however, the flames did little long-lasting damage—and considerable ecological good.

built up in the park since the last major fires (in the 1800s), and there was two and a half times the normal amount of lightning. Then—a coup de grace the usual August precipitation failed to arrive.

Given these conditions, humans can do little to halt fires. Five out of the eight major fires that scorched the region last summer were fought as soon as they were reported. Yet 9,000 fire fighters were unable to suppress the flames; at best they could slightly alter their paths. It was a September snowstorm, not human effort, that brought the blazes under control.

Seen in this light, current efforts to fight fires on public lands are illogical. Why do we persist when many firecontrol efforts are not only futile but ecologically damaging? The bulldozers used to save the park did more damage to its delicate soils than the searing heat.

Ecology aside, taxpayers might well ask why the U.S. Forest Service spends \$100,000 on fire-fighting equipment and personnel to protect a \$10,000 cabin. Why does the agency spend millions annually to keep fires from burning eight-inch lodgepole pines that timber companies don't even want? The cost of keeping fires from burning a lodgepole forest over the hundred years it takes the trees to mature probably far exceeds the value of the timber.

Fire-suppression money could be better spent on setting carefully controlled fires around towns and buildings to reduce the amount of fuel buildup—or even on establishing a zoning system to keep people out of fire-prone sites in the first place. Diverting funds in this way seems unlikely, however, in light of the negative public reaction to last summer's Yellowstone fires.

The suppression frenzy may only intensify unless the word spreads like wildfire: People don't stop big fires nature does. Yellowstone was not destroyed in 1988—it was born anew.

-George Wuerthner

George Wuerthner is a freelance photographer and writer with degrees in botany, wildlife biology, and science writing. He has worked as a botanist, range technician, wildemess ranger, and fire fighter. vice experts have agreed that lightning-caused fires are nature's way of housecleaning. Since 1972 Yellowstone officials have allowed most such blazes to burn, unless they've endangered people or park facilities. When the agency has fought fires, it has followed a "light hand on the land" policy, minimizing the use of heavy equipment.

When the 1988 Yellowstone fires started, Park Service experts tried to reassure the public. As park botanist Don DeSpain told me in an interview then, "This fire's coming at the right time. The forests we've got out there have burned every 300 years or so. They've been through it 30 to 40 times. This is nothing new to the plant community. It's just new to the people."

But in Rainbow Lodge that day in August there were few reassurances. Since mid-July, when Interior Secretary Donald Hodel visited the park, the policy had been to extinguish all fires. The group, dressed in the browns and greens of the federal land-management agencies and the yellow of fireretardant shirts, listened to dire reports from the "incident commanders," whose job it was to lead more than 9,000 fire fighters into battle against the flames.

Dick Rothermel, a tall, scholarly-looking fire analyst with the U.S. Forest Service, took his turn at the blackboard. In a "worst case" scenario for the fires, he suggested that the Canyon Village development could be surrounded by the Wolf Lake Fire and burned, and that Cooke City, a small town of vacation homes and shops north of the park, could succumb to the Storm Creek Fire in Gallatin National Forest. It went without saying that there would be many thousands of acres of blackened, ghostly forest.

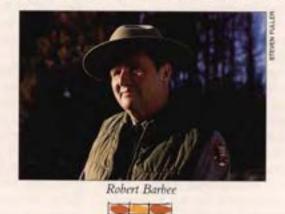
Rothermel reminded everyone that dry, hot years with extensive fires were a part of history, citing 1910 as a year when some 3 million acres had burned across the West. He reviewed the moisture readings taken daily to evaluate the combustibility of forest fuels at various sites; he talked hopefully about the unreliability of wind and weather projections (which were calling for more dry heat); and he outlined various scenarios for stopping the fires short of developed properties. But when his turn was over, he sat slumped in the rear of the meeting and summed the situation up hoarsely: "It's drier than a popcorn fart out there."

By September the press was ridiculing DeSpain's enthusiasm for fire as a kind of nutty-professor pyromania, and Wyoming Senator Malcolm Wallop (R) was calling for the head of Park Service Director William P. Mott. Park officials, who insisted they had fought the fires vigorously from the start, talked about the unprecedented nature of this year's weather. "Never in 112 years have we seen no rain in June, July, and August," said John Varley, a biologist who oversees scientific research in the park. "For the last seven years we've had dry winters followed by cool, moist summers. Our historical data gave us no reason to believe in June that we weren't going into that kind of summer."

The fires burned through September, and gray-and-black landscapes appeared frequently on the evening news. It took, finally, the wet weather of late September to quiet the blazes. Then began the investigations and recriminations, which continue even now. Though the fires have registered as a disaster in many people's minds, in the end they were not. No major structures in or outside the park burned. Canyon Village was saved, for instance, and only a few cabins at Cooke City and elsewhere were destroyed. Nor was the backcountry as badly blackened as most assumed. The fires had indeed encircled 1.4 million acres in and around the park, but they had not "destroyed" or "devastated" that entire expanse, as was often reported. Instead the fires skipped about capriciously, leaving a mosaic of black areas amid the green.

While the fires weren't the disaster depicted on national TV, they were a difficult test for land managers—and they revealed in stark terms the balkanized nature of the 14-million-acre Greater Yellowstone area. Fires in national forests next to the park are not generally allowed to burn except in designated wilderness areas. Anyone not enmeshed in the land-management bureaucracy would have been amused by the jurisdictional etiquette. When the Mink Creek Fire burned into the park from Bridger-Teton National Forest, Forest Service officials formally called their park counterparts and asked if they would "accept" the fire—that is, let it burn into the park. Park officials accepted it. But when the same fire turned in the opposite direction and threatened to enter the national forest again, Bridger-Teton officials said no they wouldn't take it back.

There are probably a dozen stories like that circulating in off-the-record conversations—one for each fire. Park Service officials say that Shoshone National Forest officials were slow to decide what they wanted to do when the massive Clover-



Mist Fire crossed from park to forest, thus hindering firefighting efforts. Targhee Forest officials wouldn't allow park employees to use the Falls Road to stop the Falls Fire, according to Yellowstone sources; they would have allowed it if absolutely necessary, say the Targhee Forest folks, but they felt that it wasn't.

One man deeply concerned about this kind of confusion is Robert Barbee, who became superintendent of Yellowstone National Park in 1983. Barbee has sometimes been criticized by conservationists for a lack of forcefulness, particularly when developments on adjacent national forests and private lands have threatened the park. But last summer, with "Burn Barbee" signs appearing in café windows outside the park, he seemed to have found a stronger voice.

"I will not be swayed from the 'light hand on the land'

Yellowstone National Park, October 1988 - Gerrer

with the

MERCHIN.

policy," he said in an interview, sitting in his office with eyes red-timmed from fatigue. "This may not be convincing to anybody, but here it is: The role of a national park is to be a repository for natural processes. When an avalanche roars down a slope and leaves a jumble of trees, the Chamber of Commerce calls up and says, 'Why don't you clean that up?' But you don't *want* to clean it up.

"Sure, Madison Junction was nicer with green lodgepole pine. It's a lot starker now. But it's a powerful expression of the natural world."

Barbee turned in his chair and looked out the window; an inversion was concentrating the smoke around his Mammoth, Wyoming, office complex, obscuring the view of Sepulchre Mountain. "One thing I know—we've got to get rid of these boundary lines, for many purposes. There can't be a Targhee fire or a Yellowstone fire. Everybody's got to buy into the program."

But what are the chances, really, that everyone will buy in? And which program—that of the preservationist Park Service? The rare and clarifying occurrence of these fires sweeping across forest, park, and private lands did not convince any officials in the surrounding national forests to drop their mission and join the park in unleashing a "powerful expression of the natural world." If anything, last summer's events have left the impression that the park is run by ecological romantics fussing with obscure scientific theories, while only the practical, commodity-oriented Forest Service managers have their feet on the ground.



IN AUGUST, WITH THE GRAY PLUME OF THE HELL ROARING FIRES rising like a fist over the ridge behind me, I hiked into Yellowstone's Lamar Valley. I was off on a scientific excursion, trying to decide for myself whether to "buy into the program." Burnt needles carried miles from the fires by the wind fell on the ground around me as I made my way with Elizabeth Hadly, a paleontologist working in the park, to the mouth of a small cave.

Once inside, we were surrounded by evidence of another fire—one that burned about 960 years ago, according to radiocarbon-dating estimates. It had left its mark in the form of a black-and-gray line encircling the inside of the pit about four feet below the cave floor. By the light of a Coleman lantern, Hadly was digging even deeper with a trowel, a few layers beneath the charcoal.

She has found scat, bone fragments, duff, hair, pinecones, bird bones, and bits of fish, the latter perhaps regurgitated by raptors and retrieved by rodents. No wolves or bears so far, but evidence of coyotes and possibly bison, elk, deer, and mountain lions.

Outside, she put glops of the dirt from the cave on circular screens piled on top of each other like Chinese steamers, with the finer mesh on the bottom. Using water to break up the dirt, she washed it through the screens repeatedly until only small clods of dirt and bone fragments remained.

With thousands of fire fighters struggling to save devel-



oped areas of the park, the work of deciphering Yellowstone went on. Were elk here before Europeans, or did new settlers drive them into Yellowstone from the plains? Hadly may have some data that will help answer that question soon: She has discovered what she thinks are elk-bone fragments up to 1,000 years old in her cave.

That may not seem like an earthshaking find, but the information could actually be useful to managers and, to some degree, help determine the future of the Yellowstone area. Many scientists think that too many elk are grazing on the northern end of the park, crowding out other wildlife species, but they differ on the extent of the overpopulation and the causes.

One school of thought based on the work of independent researchers suggests that the park's elk herds are not natural at all, but were driven into the area by outside pressure and in modern times have been greatly enlarged by the absence of wolves and hunters. Should this theory prevail, then a "natural" Yellowstone might have no elk at all.

Here comes that tricky term natural again. Just as the park's fire plan was predicated on the idea that Yellowstone's forests will reach a healthy equilibrium if natural fires are allowed to run their course, so the park's biologists seek a natural balance of thriving species here—an equilibrium that scientists believe existed hundreds of years ago, before the arrival of European explorers.

The park's elk biologist, Francis J. Singer, has not conceded that the elk on the northern range are unnatural, or that they have overgrazed and pushed out other species. The unarguable decline of aspen and willows, which has led to the demise of the beaver in northern Yellowstone, may have other causes, he suggests, such as a lengthy dearth of natural fires until last year.

Scientific research, like fire management, also gets snared in the imaginary fences that divide the Greater Yellowstone into national forests, parks, and wildlife refuges, and Bureau of Land Management, Indian, and private lands. When Mark Boyce of the University of Wyoming began studying the Jackson Hole elk herd a decade ago, he collected reams of material from Yellowstone and Teton national parks, the Wyoming Game and Fish Department, and the U.S. Fish and Wildlife Service. "But when I came to the Forest Service, they had zip," Boyce says, even though much of the elk herd's range lies within the Bridger-Teton National Forest. "There's



The 1988 fires left behind a patchwork of green and black, as shown here in the Shoshone National Forest. They blackened about 20 percent of Yellowstone National Park's 2.2 million acres, subjecting less than 1 percent of the park to soil-damaging, high-intensity heat.

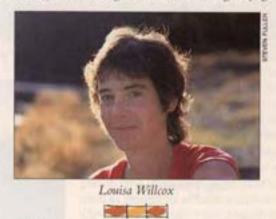
a tremendous need to get a better handle on what's happening in the national forests," he insists.

Indeed there is, because much of the activity deemed threatening to the wildlife and other special features of the Yellowstone area is taking place in the forests around the park. Forest officials are under intense pressure to produce timber, oil, gas, and other commodities. In the Bridger-Teton Forest, for example, officials have decided to offer all of their nonwilderness lands for oil and gas leasing—including critical grizzly bear habitat. "Put that together with timber sales," says Larry Mehlhaff, the Sierra Club's Northern Plains representative, "and you've got serious problems."

In response to such controversy, communication has improved between the various agencies playing host to Yellowstone fauna. The Park Service and Forest Service have produced a colorful, expensive publication called "The Greater Yellowstone Area," a summary of park and forest management plans. They also participate in interagency grizzly, elk, and bald eagle teams, which coordinate research and help set policy for the protection of these species. The Forest Service even has a Greater Yellowstone coordinator, the man who introduced everyone at the August meeting in West Yellowstone; but some would say that kind of work epitomizes the symbolic but punchless post.

Despite the new overarching entities, Yellowstone agencies

haven't been able to work together effectively, complains Louisa Willcox, program director of an umbrella group called the Greater Yellowstone Coalition, which includes the Montana, Northern Rockies, and Wyoming chapters of the Sierra Club. She says that the government's interagency groups



start out "full of fire and brimstone," then gradually fade.

"We've got glossy maps and reports," she says. "But none of the problems are fixed."

What is needed is a "vision in defense of place," Willcox says—a shared idea of what Yellowstone was, is, and should be that transcends the political present. Such a vision could help managers decide what should happen here, help them sort out good changes from bad ones, help them define "the program." But the vision Willcox longs for implies distance and breadth, and political and economic forces keep narrowing and foreshortening the program.

Hadly, oblivious to the frenzy of nearby fires, kept to her slow, methodical sifting through the paleontological record. "I like thinking in this time frame," she said, shaking her sieve. "Even a 100-year perspective isn't enough. It takes more to explain how these elk respond."

As I walked back to the truck after my visit with Hadly at her cave, I felt satisfied to have seen a small piece of the Yellowstone puzzle, but I was anxious for more. With the twin crowns of smoke from the Hell Roaring and Storm Creek fires bullying the horizon, I wondered how far one would have to go—in time, in distance—to evade the political present and find a broader vision.

THE SPRING

EARLY ONE MORNING IN SEPTEMBER 1 DROVE OVER CRAIG PASS to Old Faithful. The village's parking lots were nearly empty, but the Old Faithful Inn was still renting rooms, and a scattering of tourists sat waiting on wood benches around the venerable geyser. Though the smoke finally seemed to have driven off the masses, I saw a few visitors, including a family from India in saris and turbans wandering among the smoldering stumps, taking pictures.

Rick Hutchinson, the park geologist based at Old Faithful, had promised to show me a scientific mecca called Octopus Spring. When I arrived, Hutchinson was suffering from a withering cough that had been exacerbated by two months of smoke, but he dragged himself out of bed to guide me.

BEYOND THE BOUNDARIES

HEN YELLOWSTONE NATIONAL Park was established by Congress in 1872, the states of Wyoming, Montana, and Idaho did not exist, nor did the science of ecology. Working from the accounts of a few exploration parties, Congress drew the park's boundaries in the shape of a giant rectangle 54 miles wide and 62 miles long, designed mainly to encompass the region's major geysers, hot springs, and mud pots.

Today it is clear that the park does not include all of the area's key thermal resources. Moreover, ecologists have learned that the biological health of the park depends on the integrity of the entire Greater Yellowstone Ecosystem, which extends far beyond the park's boundaries. Forty percent (1.7 million acres) of the grizzly habitat in the area lies outside the park. The six elk herds that summer in the park migrate to winter ranges within the adjoining national forests and the National Elk Refuge near Jackson, and on private lands. The bald eagles frequently seen during the summer months are almost all born and fledged near, but not within, the park's boundaries.

Yet these outlying areas—and sometimes even the park itself—are not well protected. In 1986 about 80 percent of the nonwilderness lands in national forests surrounding Yellowstone were leased for oil and gas development. While that figure has shrunk somewhat because of a recession in the energy industry, forest officials continue to advocate leasing. The management plan for the Bridger-Teton National Forest, for example, proposes leasing all land not protected as wilderness—even in grizzly habitat and prime tourist areas. The result could be air pollution, displaced wildlife, and even disruption of the underground plumbing that links the area's thermal features.

Mining has also made its mark on the region. In the northwest corner of the park, acid drainage from gold mines has poisoned Soda Butte Creek. Active platinum, palladium, and gold opera-



A clearcut in the Gallatin National Forest along Yellowstone's western border: The park's preservation efforts stop here, but its grizzlies and other wildlife do not.

tions lie north of Yellowstone. Farther west, the Church Universal and Triumphant is building a religious community for thousands of people where bighorn sheep, elk, and grizzlies once roamed freely. The church's plans include a geothermal development on private land that could alter thermal features in the park.

The timber industry has also claimed significant portions of Greater Yellowstone. In the past four years, timber roads and cuts penetrated some 26,000 acres of once-pristine wildlands. In addition, the Forest Service plans to build a thousand miles of new timber roads over the next ten years.

Then there's the problem of recreation development. Resorts, towns, and heavily developed campgrounds all represent virtual black holes for Yellowstone's grizzlies. Lured into settlements by humans' food or garbage, the bears tangle with people and are drugged and removed from the area-or killed-as a result. One of the most notorious black holes lies within Yellowstone Park's own boundaries: More grizzlies have been evicted from Fishing Bridge Campground than from any other site in the entire ecosystem. Yet the Park Service has refused to close this popular recreation area.

The list of threats to Greater Yellow-

As we drove north, Hutchinson explained that Octopus Spring was a favorite of researchers funded by private industry. Here, and in many other thermal features in the park, microbiologists are searching for genetic material in "microbial mat communities"—groupings of algae, enzymes, and other organisms that paint the brilliant colors of the thermal pools. The environments are so diverse, and the organisms have been evolving so long, that researchers are always hoping to find something useful. If they succeed, the genetic material can be cloned for practical applications.

In the past the Yellowstone area's 10,000 thermal features have yielded foaming agents for laundry detergents, bacteria that might be useful in breaking down toxic waste, and organisms for extracting minerals from the ocean floor, Hutchinson told me. Researchers hope to find cancer-fighting agents, enzymes that can detect nerve gas, and many other microbial wonders. But it's a big, new field. So much is unknown about some of these organisms," Hutchinson said, "that researchers don't even know what questions to ask."

North of Midway Geyser Basin, we turned onto a threemile loop off the main road. Octopus Spring lies a short walk from the road, among a nondescript assortment of thermal features near White Creek. It is unprepossessing at first glance: a bright blue pool on a gentle rise, with neat mushrooms of silica along its wandering border. Hutchinson, a slight, intense man with a brown beard, stood by the edge and breathed in the steam, straightening up a little. His primary interest is not the springs, though he's conversant with their attributes, but the volcanic oven that heats them.

The Yellowstone area was once a basin surrounded by towering mountain ranges. At least twice, about 1.3 million and again 600,000 years ago, molten rock pushed upward from beneath the basin, bursting forth in a huge cloud of

stone goes on, but certain questions arise even before one gets to the end. Is the beleaguered grizzly doomed in one of its last refuges in the Lower 48? Is it impossible for the nation to maintain an expanse of wildland this vast in the northern Rockies?

Land managers and scientists are honing such questions, but the answers are emerging from the political process. The Sierra Club, for its part, has taken a firm stand against compromise of either the Greater Yellowstone Ecosystem's wildlife or its magnitude. The Club's current efforts include:

 battling unwise oil and gas leasing and drilling decisions;

working to pass strong wilderness bills in Montana and Idaho and to gain federal protection for the Clarks Fork River in Wyoming by placing it in the Wild and Scenic River System;

 helping shape management plans for the national forests and Bureau of Land Management holdings surrounding Yellowstone Park;

 opposing national-forest timber sales that harm wilderness, water, or wildlife (about half of the Targhee and Shoshone national forests' proposed timber sales are in areas currently inhabited by grizzly bears);

 helping the state of Montana assess the environmental impact of the



Conservationists breathed a sigh of relief when this Exxon drilling rig (shown in 1986) yielded a dry hole. Had oil been found, development could have blocked a major elk migration route just a mile and a half from Grand Teton National Park.

Church Universal and Triumphant's proposed development;

 supporting the Park Service's recent proposal to reintroduce wolves to Yellowstone;

 and lobbying for the closure of Fishing Bridge Campground.

If last summer's fires proved anything conclusive, it is that Americans care deeply about this park and its adjacent public lands. Now that the flames have disappeared, Greater Yellowstone still urgently needs public attention.

-Larry Mehlhaff



If you are interested in participating in any of the Sierra Club's efforts to protect the Greater Yellowstone Ecosystem, write to Larry Mehlhaff, Northern Plains Representative of the Sierra Club, 23 N. Scott, Room 25, Sheridan, WY 82801.



ash. The magma chamber, thus emptied, collapsed and left a caldera on the surface, a roundish depression of about 100 square miles.

Geologists who have studied the Yellowstone area should be forgiven if they chuckle about the "natural disaster" of 1988's fire season—they're probably thinking of a volcanic event that would make us forget the fires in a moment. Geologist Robert O. Smith of the University of Utah has estimated that the magma below Yellowstone could be only a few kilometers from the surface. If the last big eruption was 600,000 years ago, and the one before that 1.3 million years ago, we're due for another right about. . .

Well, sometime in the next 100,000 years or so. Just as park botanist Don DeSpain could not contain his excitement about the fires of 1988, Rick Hutchinson has his own nuttyprofessor fantasy. He hopes that in his lifetime a small rhyolite flow at Le Hardy Creek will dam up the Yellowstone River just above the Grand Canyon of the Yellowstone. Hutchinson would then walk down the canyon and look, for the first time, at the geology and the steam vents covered up by the river. Just a small eruption, please. . . .

I returned to Octopus Spring by myself on another day. Unimpressive though it first appeared, it had become the center of my thoughts about the Greater Yellowstone area. As Hutchinson had said, the people who study these pools look for answers even before they know the questions.

The spring, no more than 20 feet across, was a rich blue, descending to a craggy and indeterminate depth. The runoff flowed west, cooling as it crossed the bald flats, picking up color as it went. First a brilliant yellow, next pink, then orange, and finally brown. Near White Creek were thick, green mats.

When microbiologist David Ward had talked to me about this place, he got an excited edge in his voice, much as Elizabeth Hadly did when she discussed her cave. "The whole planet was once anaerobic, like these springs," he said. "They give us really our only chance to study a pre-Cambrian environment in the modern era."

Another scientist, Joan Combie of JK Research, had told me of discoveries of 3- to 4-billion-year-old stramatolytes in various parts of the world—fossil-like remnants of microbial mats like those at Octopus. Earth itself is estimated to be about 4.6 billion years old.

The realization didn't strike like lightning; my guts didn't clutch, and Milton's poetry didn't flood my head. But I closed my notebook and stuck it in the breast pocket of my yellow fire-retardant shirt, and I walked up the bank above Octopus and sat down against a tree. I looked from a sky gray with drifting smoke down to the blue of Octopus, then closed my eyes and fell half-asleep. My Yellowstone wanderlust had subsided. I had come as close as I could ever hope to come to the spring where life began.

MANAGERS, SCIENTISTS, CONSERVATIONISTS, AND EVEN VISITORS strive in Yellowstone to understand an enormous calculation working itself out in the landscape over thousands, millions, billions of years. We try to adjust to it, help it along, and find the objective toward which it moves.



But our experts were not even close in 1988; the fires took them by surprise. Managers' best guesses about what could be expected in the natural course of things were off, and the agencies that run the place, while better coordinated than ever, were still out of sync with one another.

Now all the old questions about stewardship of the Yellowstone area are being raised again. All sorts of ways to subvert the natural world, at least momentarily, will be considered as politicians fuss over what they perceive as the failure of Yellowstone's management to read the tea leaves correctly in 1988. The biggest threat may in fact be the politicians' sense that they must do *something*.

If they must, perhaps they should examine their expectations. Have they been harboring the notion that the natural world will, if protected from human meddling, preserve itself as an unchanging sylvan glade? Did they hope that nature in its wisdom would always provide a harmless good show, even during this extraordinary fire season?

No geologist who has studied the ferocious bubbling under the Yellowstone caldera would accept that. The stark evidence on this plateau is of nature in violent flux, with a force beyond our meddling, and a time frame beyond our grasp. In the short term, nature can make a horrendous hash of things.

We must ask ourselves if we still want to solve that mysterious calculation, the one written and constantly rewritten in the landscape of Yellowstone. When we drop the saccharine notion that nature's way is always good for humans, or at least benign, are we still interested? I would hope so, though perhaps we return to the task with more fear in our hearts.

The scientists still haven't revealed the equation in full; there is more to it than we know. But now we have seen a larger piece of this extraordinary corner of the world—ferocious and unexpected—and the equation goes on working itself out.

GEOFFREY O'GARA, a Wyoming writer who covered the Yellowstone fires for the Washington Post, has just completed A Long Road Home (W. W. Norton and Company), scheduled for publication this spring.

High Tripping tarting in 1901, and continuing for more than 40

Doin' the cat's cradle (1915) and the floradors (1912): Sierra Clubbers while away the in-camp hours.



tarting in 1901, and continuing for more than 4 years, the Sierra Club each summer conducted a large-scale outing into California's Sierra Nevada. This month-long foray, in which as many as 200 members participated (supported by a sizable pack train), became known as the High Trip, and was the forerunner of today's richly varied Outing program. That program's emphasis on low-impact exploration likewise has its origins in the High Trip experience, for it was a growing concern over the effect of such large groups on the ever-more-popular Sierra wilderness that led the Club to forsake the High Trips in favor of smaller, more numerous, and more varied outings in different locales.

From the beginning, retrospective accounts of each year's High Trip were a regular feature of the Sierra Club Bulletin, the Club's journal. These essays—some florid, others more matter-of-fact—share several traits, including their authors' conviction that the High Trip was the highlight of the

Sierra Club year. Each writer speaks of the anticipation with which he or she had looked forward to that year's adventure; each admits to more than a touch of regret

> when, seemingly all too soon, the last day of the trip finally dawned. In between they recall experiences from a series of beautiful layover campsites, from which the more adventurous "knapsackers" would strike out on multiday side trips to nearby peaks, while the relatively laid-back (though necessarily quite fit) "meadoweers" explored the streams, lakes, and slopes around their temporary base camps. The net result: a contented throng of mostly urban adventurers, who returned to their homes at month's end renewed mentally as well as physically.

The High Trips were not only a keenly awaited annual tradition for

many and the source of much enduring Club lore; they were also a proving ground for "conservation warriors" people who, having happily wandered the mountains and valleys of the Range of Light at length, became determined to protect them. It was from their ranks that the Sierra Club's firstand second-generation leadership was largely drawn, just as today so many of the Club's activist leaders can say they were introduced to the organization by its program of local, national, and international outings.

This issue of Siena contains the 1989 Outings catalog, and the editors are happy to complement it with a scrapbook of mountain memories compiled from the Sierra Club's photo archives and the written reminiscences of High Trippers past.

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A happy group of mountaineers atop Mt. Brewer in the Kings River Canyon, 1902. Years later, a young David Brower (above) would pore over maps in camp prior to a more difficult ascent.

hat did we do when we weren't busy getting somewhere else? Just what other high trippers had done before us. Between moves there may be two or three days in the same campsite. Then come all sorts of activities, from trying for a first ascent to laundering and darning of socks, or even to a hand of bridge. And what else? Nature walks, photography or sketching or painting, planning of campfire entertainment, attempts at cobbling, ... reading carefully selected books brought in the dunnage or borrowed from the library kayak, writing letters, tea parties, singing in small groups or listening to Cedric [Wright] and his violin, Polemonium Club, helping in an ever busy commissary, swimming, a ball game, sun bathing, gossip or endless friendly argument, learning to glissade on snowbanks, discussions ranging from politics to metaphysics, botanizing or snake hunting, digging rocks out of a bed site,



helping the wood cutters, fishing, simply dreaming—all of this may make up the wondrous varied pattern of a day in camp.

CHARLOTTE E. MAUK "The Nth Itinerary" SIERRA CLUB BULLETIN, August 1942 Witness to a close shave, 1911.



Two views (above and below left) of the Club's 1992 Fourth of July celebration. Sometimes (below right) the High Trip high times could be a little fatiguing.

en I have mentioned the fact that there were over two hundred of us, people have usually exclaimed in horror

at the thought of going into the mountains with such a crowd, and have seemed to imagine us all as marching in a solid phalanx along a dusty trail. But as a fact two hundred people do not populate a wilderness, especially a mountainous one, so that the result is a pleasant mixture of solitude and gregariousness. It was always possible to get some of those priceless times alone, with nothing to do but to let the grandeur of the mountains, their silent, brooding calm, soak in on you; or to lie beside a creek and examine the incredibly detailed tiny life which finds a shelter in all this vastness.

DOROTHY M. EMMET "A British Student Looks at the Sierra Club Outing" SIERRA CLUB BULLETIN, February 1930





The supper-call was the melodious whanging of a tin pan, and in line, like soldiers, we held out the individual and ubiquitous tin cup for the first course of soup and hardtack. A log or handy stone was the dining-chair, and no true mountaineer ever rinsed his cup for the following black coffee or nut-brown tea. A tin plate heaped with beans, potatoes, and a remarkable corned-beef stew was the next course, and this progressive dining permitted conversation with a second partner and a different seat





for this part of the feast. Our mountain appetites disposed of everything, and ladies used to nibbling bonbons, chicken-wings, and sweetbreads ate what was in sight, polished up their tin plates, and called for more.

ELLA M. SEXTON "Camp Muir in the Tuolumne Meadows" SIERRA CLUB BULLETIN, January 1902 Commissary scenes.

The evening campfire—a High Trip ritual beloved by all. This one was at Benson Lake in 1941.

hy is it that memories of campfires are so long-lasting? They don't fill a particularly large portion of the day. Just the quiet hours after dusk, when we're too healthily tired to want to do anything else. Perhaps we remember these hours best because here, at last, the mind is in the ascendancy; unfettered by demands of a body, now only too willing to rest, it becomes hypersensitized. A brief exposure in firelight, and a balanced composition of human values is deep-etched.

DAVID R. BROWER "Tripping High—1939" SIERRA CLUB BULLETIN, February 1940





The "meadoweers" back in camp listened enviously when these 1935 High Trip peakbaggers returned to tell of their view of the Middle Fork Kings River.

hat is it that appeals to people and draws them year after year like an irresistible magnet into the High Sierra? Those who have joined repeatedly in the outings have doubtless done so in part, at least, because of fine comradeship under delightful surroundings. . . . But as important as this is, friendship is not all. We may not consciously realize it, but it is quite certain that one powerful reason which induces us to go back to the high mountains year after year is their cleansing effect on body, mind, and soul. They take us far from the jarring, jangling noises and jazz of modern life-where we are forced to be constantly on the alert to avoid the real dangers which confront us at every crossing. Telephone-bells constantly ringing, automobiles honking, newspaper headlines screaming deeds of crime-these are not conducive to the best life. It is little wonder that our nerves get on edge. The very best antidote is the heavenly peace and quiet which pervades the forests and open spaces of the high mountains. . . . Crystal clear air, crystal pure water, pineneedles for a bed after a day of healthful hiking along trails that unfold inspiring views to delight the eye, all combine to give us fundamental relief and cure for our many ills. . . . Somehow or other . . . we find ourselves for the time being dwelling nearer to God, and it is little wonder that when we return we unconsciously bring back with us some of that rare peace and contentment which pervade the high places the world over.

WILLIAM E. COLBY "29 Years With the Sierra Club" SIERRA CLUB BULLETIN, February 1931

Sierra Club OUTINGS 1989

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Cover: Bryce Canyon National Park, Utab, by Jeff Gnass.

PHOTOS WANTED

The Outing Department thanks our photographers and requests that black-andwhite prints and color slides for outing publications be sent to Steve Griffiths, Sierra Club, 730 Polk St., San Francisco, CA 94109. The deadline for the 1990 outings catalog is October 1, 1989.

DEDICATION

Helen Jordan has served as a volunteer in the Outing Department since February 1976. The Outing program has benefited greatly from her contribution of time, energy, and patience. We dedicate this year's catalog to Helen in appreciation and with affection.



IMPORTANT Please Read Carefully

 The Outing Department will begin processing reservations for summer and fall trips on January 5, 1989. Applications received before then will be processed beginning January 5. Supplements will also be available on that date.

 To order supplemental information on specific trips, please see page 131.

 Make sure you read the Reservation and Cancellation Policy carefully before applying.

 Many trips can accommodate special dietary needs (e.g., vegetarianism, allergies) while others cannot. Check individual trip supplements or contact trip leaders about your particular situation.

 Make sure to include your membership number on your trip application. It can be found on your membership card and on the mailing label of your copy of Sierra.



Outing Staff (L to r.): front row, Charles Hardy and George Winsley; back row, Parashita Marschall, Sven Serrano, Kim Escobar, Karen Short, Debra Asher, Steve Griffiths, and John DeCock.

OUTING STAFF

Director George Winsley Reservations Manager John DeCock Publicity Manager & Reservations Steve Griffiths Financial Manager & Reservations Karen Short Information & Customer Service Coordinator Parashita Marschall Communications Coordinator & Reservations Kim Escobar Bookkeeper & Reservations Charles Hardy Inner City Outings Coordinator Debra Asher Outings Secretary Sven Serrano Volunteer Helen Jordan

CATALOG STAFF

Director George Winsley Catalog Editor & Production Coordinator Steve Griffiths Art Director/Designer Dale Smith Production Graphically Speaking

MORLEY FUND

Created in 1951 by the bequest of Mrs. F. H. Morley, the Morley Fund has money available to help defray the trip costs of teachers and other educators who could not otherwise afford to go on trips. If you think you might qualify, request an application from the Outing Department, Sierra Club, 730 Polk St., San Francisco, CA 94109.

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CHAIRMAN'S MESSAGE

LL OF US ARE BOM-BARDED DAILY WITH PLEAS TO BUY, TO SPEND, TO DO SOME-THING. WHY, THEN, JOIN A SIERRA CLUB NATIONAL OUTING? OTHER OUT-INGS MAY SUPERFICIALLY AT LEAST RE-SEMBLE OURS. WHAT DO WE HAVE THAT IS SPECIAL?

WE OFFER YOU THE OPPORTUNITY TO MEET PEOPLE WHOSE VIEWS OF EARTH AND ITS ENVIRONMENTAL CHAL-LENGES ARE APT TO RESEMBLE YOURS. ALTHOUGH THE FOCUS OF OUR TRIPS IS ON CLUB MEMBERS GETTING TO KNOW EACH OTHER AND ENJOYING THEM-SELVES, THE OUTINGS ALSO PROVIDE A FORUM FOR SHARING CONCERNS FOR THE PROTECTION AND STEWARDSHIP OF OUR ENVIRONMENT.

IN ITS OWN WAY, EACH OUTING IS A FORCE FOR CONSERVATION. IN NEPAL WE ARE USING KEROSENE STOVES IN A DRAMATIC BREAK WITH A WOODBURN-ING TRADITION. IN BRAZIL WE VISIT RAPIDLY VANISHING RAINFORESTS AND LEARN WHAT'S BEING DONE TO SLOW DEFORESTATION. IN ASIA, AFRI-CA. AND EUROPE WE VIEW FIRSTHAND HOW CIVILIZATIONS AND CULTURES OLDER THAN OURS HAVE MANAGED THEIR RESOURCES.

OUR TRIPS ARE CAREFULLY SE-LECTED AND PLANNED TO MINIMIZE IM-PACT BY CHOICE OF ROUTE AND MANNER OF CAMPING. MANY EXPLORE AN ENVI- TRIPS IS LOW BECAUSE THEY ARE SUB-



Dolph Amster on a photography trip in Wrangell-St. Elias National Park, Alaska.

RONMENTALLY SENSITIVE AREA OR RE-GION AND INFORM TRIP MEMBERS OF SPECIFIC CONSERVATION ISSUES. FOR EXAMPLE, THIS YEAR THE ARCTIC RE-GIONS AND THE DESERTS GET MORE AT-TENTION THAN USUAL OUR TRIPS FOR BEGINNERS HELP ASSURE THAT WHEN THESE PARTICIPANTS VENTURE INTO THE WILD PLACES ON THEIR OWN. THEY'LL DO SO SAFELY AND SENSI-TIVELY. ON SERVICE TRIPS, PARTICI-PANTS CONTRIBUTE MANY HOURS OF HARD WORK BUILDING OR REPAIRING TRAILS OR CLEANING UP WILDERNESS AREAS.

THE PRICE FOR WORK-ORIENTED

SIDIZED BY OUR OTHER NATIONAL OUTINGS. ALSO, REVENUE FROM OUR OUTINGS HELPS SUPPORT OTHER CLUB CONSERVATION ACTIVITIES. SIMPLY BY GOING ON ONE OF OUR TRIPS, YOU ARE HELPING TO PRESERVE AND PROTECT THE WILDERNESS.

SO, AS YOU JOIN US FOR AN ENJOY-ABLE VACATION, YOUR CONSCIENCE SHOULD FEEL GOOD - YOU AND YOUR NEW FRIENDS WILL BE MAKING A SUB-STANTIAL CONTRIBUTION TO THE SIERRA CLUB AND ITS MANY ACTIVITIES.

DOLPH AMSTER **OUTING COMMITTEE CHAIRMAN**

INNER CITY OUTINGS



NNER CITY OUTINGS (ICO) IS THE SIERRA

CLUB'S COMMUNITY OUTREACH PRO-GRAM. ICO VOLUNTEER LEADERS WORK IN COOPERATION WITH COMMUNITY AGENCIES AND SCHOOLS TO PROVIDE RECREATIONAL AND EDUCATIONAL WIL-DERNESS EXPERIENCES AND LEAD-ERSHIP TRAINING TO URBAN POPULA-TIONS WHO WOULD OTHERWISE NOT HAVE THESE OPPORTUNITIES. OUTING PARTICIPANTS INCLUDE YOUTHS, ADULTS, SENIOR CITIZENS, AND HEAR-ING-, SIGHT-, AND MOBILITY-IMPAIRED PERSONS.

INNER CITY OUTINGS OFFERS THESE SPECIAL GROUPS A CHANCE TO MEET THE PHYSICAL AND MENTAL CHAL-LENGES OF TRAVELING IN THE WILDER-NESS: TO DEVELOP COOPERATIVE AND LEADERSHIP SKILLS; TO ESTABLISH FRIENDSHIPS WITH PEOPLE OF DIFFER-ENTAGES, CULTURES, AND ETHNIC BACK-GROUNDS: TO LEARN ABOUT THE GEO-LOGICAL, BOTANICAL, ZOOLOGICAL, AND HISTORICAL ASPECTS OF A PARTICU-LAR AREA: TO DEVELOP AN AWARENESS OF THE ENVIRONMENTAL ETHIC: AND TO HAVE A LOT OF FUN IN THE PROCESS. IN 1988, OUR VOLUNTEER LEADERS PRO-VIDED 275 OUTINGS FOR MORE THAN 2,600 PARTICIPANTS.

Currently there are 29 ICO groups, each affiliated with a Sierra Club chapter or regional group: Albuquerque, NM* Atlanta, GA*



ICO youth on a backpack trip to Feather Falls, California.

Austin, TX Boston, MA Charlotte, NC Chicago, IL Cincinnati, OH Dallas, TX Denver, CO Detroit, MI El Paso, TX Ft. Worth, TX* Houston, TX Indianapolis, IN* Laramie, WY Los Angeles, CA Louisville, KY Miami, FL New Orleans, LA New York, NY Philadelphia, PA Phoenix, AZ Raleigh, NC Sacramento, CA San Francisco, CA San Francisco, CA San Jose, CA Santa Cruz, CA Seattle, WA Washington, DC *Established in 1988

Each ICO group is supported primarily by donations of money and equipment. All contributions to the program are taxdeductible. Checks should be made out to Inner City Outings/The Sierra Club Foundation. If you would like your donation to be earmarked exclusively for use by a particular ICO group, please indicate this on your check. Donations and requests for information about becoming an ICO leader or forming an ICO group should be sent to: ICO Subcommittee Sierra Club 730 Polk St. San Francisco, CA 94109

The subcommittee is grateful to those individuals who contributed to Inner City Outings in 1988. The subcommittee also thanks the following corporations and foundations for their support.

Chemical Bank The Cincinnati Foundation First Interstate Bank of California Foundation International Business Machines Corporation The Isaac and Esther Jarson / Stanley and Mickey Kaplan Foundation The Andrew Jergens Foundation James Starr Moore Memorial Foundation The Ralph M. Parsons Foundation

<u>Alaska</u>

N AN AREA ONE-FIFTH THE SIZE OF ALL THE LOWER 48 STATES, ALASKA HOSTS A POP-ULATION LESS THAN THAT OF SAN FRAN-CISCO, WITH NEARLY HALF LIVING IN AND AROUND ANCHORAGE.

THE ALASKAN WILDERNESS AL-MOST DEFIES COMPREHENSION. THE PERMAFROST OF THE ARCTIC SLOPE, THE GRANDEUR OF THE BROOKS RANGE, THE TAIGA (WINTER TERRITORY OF THE CARIBOU), THE GLACIAL FJORDS, THE IMMENSE RIVER-DRAINAGE SYS-TEMS OF THE YUKON, PORCUPINE, AND LITERALLY THOUSANDS OF OTHER RIVERS AND STREAMS, ALL ARE PART OF THIS MAGNIFICENT LAND THAT CULMI-NATES, IN A SENSE, AT MT. MCKINLEY, THE HIGHEST POINT ON THE NORTH AMERICAN CONTINENT.

SIERRA CLUB TRIPS OFFER A WIDE RANGE OF POSSIBILITIES FOR STUDYING A FASCINATING DIVERSITY OF WILDLIFE AND FLORA THAT MIRRORS THE COUN-TRY ITSELF – OPPORTUNITIES TO EN-COUNTER WILDERNESS OF SUCH MAG-NITUDE AND POWER THAT THE EXPERIENCE IS AT ONCE HUMBLING AND UPLIFTING.

CONSERVATION ISSUES ARE OF CRITICAL CONCERN IN ALASKA. BEYOND THE PURE WILDERNESS EXPE-RIENCE. OUR TRIPS PROVIDE A CHANCE FOR ACTIVE CONSERVATIONISTS TO STUDY AN AREA FIRSTHAND AND TO USE



Katmai National Park, Alaska

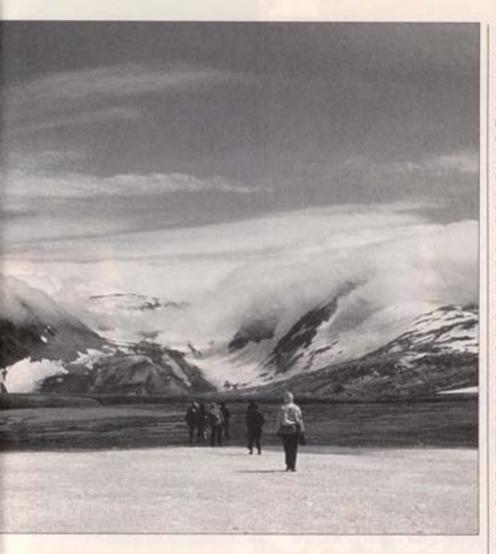
THAT KNOWLEDGE TO HELP DETERMINE ITS FUTURE.

NOTHING YOU HAVE DONE BEFORE CAN QUITE PREPARE YOU FOR YOUR FIRST ENCOUNTER WITH ALASKA. NOTHING YOU DO AFTERWARD WILL EVER COMPARE.

ALL ALASKA TRIPS REQUIRE LEAD-ER APPROVAL. TRIP PRICES DO NOT IN-CLUDE TRAVEL TO ALASKA OR CHARTER AIR COSTS.

[89072] Brooks Range-Arctic Wildlife Refuge Backpack, Alaska-June 16-26. Leader, Wilbur Mills, 3020 N.W. 60th, Seattle, WA 98107. Price: \$995; Dep: \$100. The 19-million-acre Arctic National Wildlife Refuge contains some of the most spectacular tundra and mountain wilderness in North America. June is the best time to visit; insects are minimal, flowers are blooming, and wildlife is abundant. Our route covers a total of approximately 50 miles-through glacier-carved mountains to the North Slope, the calving grounds of the great Porcupine caribou herd. Almost certainly we will see caribou with their newborn fawns, as well as an array of other wildlife, including Dall sheep, musk-oxen, grizzly bears, a host of nesting birds, and perhaps the tundra wolf. Hiking is moderately strenuous and

ALASKA



requires frequent stream crossings. Backpacking experience is required.

[89073] Admiralty Island Canoe Trip, Alaska-June 19-28. Leader, Harry Permi, P.O. Bay 1571, Output CA 95971

Rerves, P.O. Box 1571, Quincy, CA 95971. Price: \$995; Dep: \$100. After spending two days in Juneau for an introduction to the region, we will ferry to the community of Angoon and from there canoe through the Kootznahoo Narrows to the chain of lakes that crosses 5-million-acre Admiralty Island. Portages will be short between lakes, and our pace over some 35 miles of paddling will allow time for exploratory hikes, fishing, and watching for birds and other wildlife. Our journey will end on the shores of Mole Harbor, where we will be met by a floatplane to return to Juneau. Previous canoe or kayak experience is desirable and leader approval is required. Costs of air charter, ferry, and accommodations in Angoon are not included in the trip price.

[89074] Kenai Fjords Sea Kayaking, Alaska—June 20–28. Leader, Ian Walton, 430 Hampstead Way, Santa Cruz, CA 95062. Price: \$1,095 Dep: \$100. We'll explore the fjords and tidewater glaciers in Aialik Bay, a wild corner of Kenai Fjords National Park. We'll use stable, two-person, ocean kayaks to slip along close to the shore, through narrow channels, and among ice floes packed with wildlife. We might see otters, seals, whales, and many sorts of seabirds, all in the magical setting of coastal Alaska. This is the finest introduction to travel in Alaska and its many moods. Layover days will allow for hiking, fishing, or relaxation. You do not need kayaking experience, but you must feel comfortable in a small boat in deep water.

[89075] Valley of Precipices, Gates of the Arctic Park, Alaska—June 24–July 8. Leaders, Bob Hartman and Sharon Wilkinson, 1988 Noble St., Lemon Grove, CA 92045. Price: \$1,295; Dep: \$100. From Anantuvuk Pass, on the park's northern boundary, we will hike cross-country for a week through tundra and taiga in the extraordinary Valley of Precipices and Gates of the Arctic in the central Brooks Range. At Red Star Lake we will pick up a cache of food and our canoes for a hundred-mile trip on the North Fork of the Koyukuk River to the community of Bettles.

[89076] Alaska Range, Mt. Hayes to Mt. Deborah, Alaska-July 2-15. Leader, Cal French, 1690 N. Second Ave. Upland, CA 91786. Price: \$1,295; Dep: \$100. Icy facets of the north side of Mt. Deborah (12,339 feet) gleaming through the mist, or Dall sheep basking on the slopes of a multicolored mineral lick are among the grand sights awaiting visitors. to the eastern part of the Alaska Range. Abundant wildlife, including caribou and grizzly bears, inhabit this seldom-visited region. By using the services of a sourdough mule skinner to lighten our loads, we will cover about 70 miles of mountain tundra and cross Haves and Gillam glaciers along the northern side of the range, then cross a pass to Yanert Glacier on the south slopes. Our bush pilot will meet us there and fly us back to his base south of Fairbanks. A moderate pace will allow time for exploration. The rugged, unpredictable nature of this country requires backpacking experience.

[89077] One Park, Four Alaskas: Lake Clark Park and Preserve, Alaska—July 3–12. Leader, Bill Bushy, 4 Carolyn Ct., Mill Valley, CA 94941. Price: \$995; Dep: \$100. Lake Clark National Park is blessed with snowcapped mountains, winding glaciers, turquoise lakes, boreal forest, rolling tundra, superb trout fishing, and vast herds of wildlife. Many believe that it epitomizes our last frontier. From Anchorage we embark on a charter flight to this remote wilderness 200 miles west for a moderate all-cross-country, 40-mile

<u>ALASKA</u>

backpack trip with several layover days. We will explore a high plateau where wildlife is abundant and follow the shores of lakes where fish are waiting to be caught. Backpacking experience is required.

[89078] Hulahula Paddle Raft, Arctic Wildlife Refuge, Alaska-July 3-14.

Leader, Pete Bengston, 19526 40th Pl. N. E., Seattle, WA 98155. Price: \$1,595; Dep: \$100. From the Arctic village of Bettles, we will fly by floatplane over the Brooks Range and land on a small lake near the headwaters of the Hulahula River. Paddling 60 miles on Class I-III water, we will pass between the two highest peaks in the Brooks Range, Mts. Michelson and Chamberlin, and see a variety of wildlife, including eagles, grizzlies, Dall sheep, wolves, foxes, musk-oxen, and Porcupine caribou. We will end our raft trip at Camden Bay on the Beaufort Sea after paddling through the heart of the refuge's controversial coastal plain. Finally, we will take a floatplane for an aerial tour of the plain en route to Prudhoe Bay. Previous river experience is required, and

LEADER PROFILE



Wilbur Mills

We couldn't interview Wilbur for this profile, so we talked to bis wife, Lola, who said he was in Mexico taking an intensive Spanish course in preparation for the foreign trip he is leading to Belize [#89851]. Wherever be leade trips, Wilbur is determined to be sufficiently fluent with the people he'll meet. He's a photographer by trade and was the principal photographer for the recently published Vanishing Arctic. Wilbur also is active in lobbying to preserve the Arctic National Wildlife Refuge (see trip #89072). To keep himself out of mischief, and in no particular order, bes a woodworker, wine connoisseur, newphyte guitar player, and new father. According to Lola, Wilbur enjoys sharing his own sense of wonder in nature with his trip members, and seeing it again through their eyes.

participants must be in good physical condition.

[89079] Leisure-Photo Backpack, Gates of the Arctic Park, Alaska-July 17-28. Leader, Dolph Amster, P.O. Box 1106, Ridgecrest, CA 93555. Photographer, Martha Murphy. Price: \$1,095; Dep: \$100. Astride the Brooks Range, north of the Arctic Circle at the eastern edge of Gates of the Arctic National Park, is one of the least-visited sections of Alaska. We begin our trip in the Oohlah Valley and then move to Summit Lake, crossing the Continental Divide en route. Aided by a food cache, we plan to establish three successive base camps. Daily sorties will allow us to explore this marvelous land. We will have time for fishing, watching for birds and wild animals, and photography. This trip is suitable for those with an artistic bent or simply a desire for a more relaxed visit. Opportunity will be provided for refinement of photographic skills. Though hiking is leisurely by Alaska standards and moves are short, members must be experienced backpackers in good condition. A sense of humor and a taste for adventure are mandatory.

[89080] Noatak-Gates of the Arctic Backpack, Alaska-July 23-August 4. Leader, Lola Nelson-Mills, 3020 N.W. 60th, Seattle, WA 98107. Price: \$1,095; Dep. \$100. The Noatak region offers exceptional cross-country hiking. Starting at a lake in Gates of the Arctic National Park, we will explore some of the Noatak River's glacier-carved tributaries. Outstanding scenery, fine alpine camping, and the opportunity to view numerous species of arctic wildlife and plants are among the highlights of this trip. Our route will cover about 40 miles; we will have time for four or five days of exploration without full packs. Hiking is moderate but requires frequent stream crossings. Trip members must be experienced backpackers in good physical condition.



[89081] Nahanni Paddle Raft, Nahanni Park, Northwest Territories, Canada -July 24-August 2. Leader, Lynn Dyche, 2747 Kring Dr., San Jose, CA 95125. Price: \$1,595; Dep: \$100. The long-kept secret is out: Americans are beginning to discover the wonders of the Nahanni River, a



United Nations World Heritage Site. From Yellowknife in the Northwest Territories, we will travel to Ft. Simpson and take a floatplane to the foot of Virginia Falls, one-and-a-half times as high as Niagara Falls. The trip could end here and be a complete success, but more is in store. The Nahanni River flows through remote wilderness with deep canyons, hot springs, and excellent fishing. Low-key layover days are planned for hiking, relaxing, or fishing. After leisurely paddling and floating downstream on this Class I-II river, we will take out at Blackstone Landing, 20 miles down the Laird River from the confluence with the Nahanni. A scenic bus tour will return us to Ft. Simpson, where we will make connections with commercial flights home.

[89082] Denali Bicycle Tour, Alaska— July 25–August 2. Leader, Jim Carson, General Delivery, Soda Springs, CA 95728. Price: \$965; Dep: \$100. Riding through the heart of interior Alaska, we will venture along the Denali Park Highway between Anchorage and Fairbanks. Famous for the great diversity of its terrain, the highway allows us to ride 60 miles per day comfortably with the aid of a support van. Layovers include the Agricultural Center near Palmer, historic Talkeetna, and the park itself. Bring your own tour bike or rent one in Anchorage.



Combination Trip in the Thelon Oasis, Northwest Territories, Canada

The first Sierra Club outings were organized by members who cared deeply about wilderness.



Some Things Never Change.

Today, with nearly a half million members, the Sierra Club is this nation's largest and most effective grassroots conservation organization. As a member, you will have the satisfaction of knowing you carry on this century long commitment.

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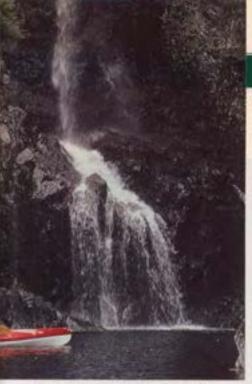
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Sierra Club

Attention: Membership P.O. Box 7959 San Francisco, CA 94120-9943



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Kenai Fjorðs National Park, Alaska Harbor seal



-July 28-August 11. Leader, Sigrid Miles, 1056 First Ave., Napa, CA 94558. Price: \$2,095; Dep: \$100. Experience the indescribable vastness of the far north of Canada as we take a journey back in time. The hauntingly beautiful Barrenlands of the Northwest Territories is the most remote region of the entire North American continent and one of the few places left on Earth that has not been altered by the hand of man. Discover sites used centuries ago by Inuit Indians as they pursued the caribou. Step from Pleistocene glacier deposits onto the Precambrian Canadian Shield, among Earth's oldest exposed rocks. Then stalk primeval musk-oxen roaming the Thelon game sanctuary. We will spend the first week of this unusual trip canoeing and hiking from a base camp as we explore a glacial esker system. Then a floatplane will take us to the Thelon River for a short backpack trip and more canoeing to Hornby Point, the gravesite of the 1927 Hornby Expedition. Our trip starts and ends at Yellowknife.

[89084] Noatak River Canoe Exploration, Gates of the Arctic Park, Alaska -July 29-August 11. Leader, Steve Tor-

<u>Alaska</u>

rence, P.O. Box 82720, Fairbanks, AK 99708. Price: \$1,195; Dep: \$100. The Noatak River in the Brooks Range of northern Alaska offers a unique opportunity for the adventurous trekker. Freeflowing and crystal clear, it is recognized as a national Wild and Scenic River as well as a World Biosphere Reserve. We will be exploring the upper reaches of the river valley, which is surrounded by precipitous mountain peaks. On layover days we will hike up side valleys to further appreciate the grandeur and expanse of this wilderness. Bring an inquisitive mind and be prepared to see diverse bird life, Dall sheep, caribou, grizzly bears, and possibly wolves, foxes, and moose. Grayling and arctic char will be available for the angler. Some paddling and wilderness travel experience are required. Participants must be in good physical condition.

[89085] Glacier Bay Sea Kayak, Alaska -July 30-August 12. Leaders, Carol and Howard Dienger, 3145 Bandera Dr., Palo Alto, CA 94304. Price: \$1,195; Dep: \$100. Come with us to explore the islands, fjords, and tidewater glaciers of Glacier Bay National Park. Discover the excitement and the solitude of sea kayaking as we paddle among forested islands; across the flat, open bay; and finally through floating ice near calving glaciers. We expect to see birds by the thousands, killer and humpback whales, seals, harbor porpoises, and possibly moose. Our twoperson Sea Eagle kayaks will enable us to visit areas inaccessible to backpackers or



Denali National Park, Alaska

other boaters. Several days are planned for hiking, wildlife observation, and day tours in the kayaks. This trip is suited to beginner and veteran paddlers, but you must be comfortable in a very small boat in deep water.

[89086] Denali Base Camp/Resurrection Trail Leisure Backpack, Alaska-August 5-18. Leader, Serge Puchert, 11025 Bondshire Dr., Reno, NV 89511. Price: \$1,295; Dep: \$100. You've always wanted to go on an Alaska outing, but those long, tough backpack trips sound just too strenuous. If you're looking for a leisurely introduction to some of Alaska's most scenic country, this trip is for you! From Fairbanks we will travel by vans to Denah National Park, where we will establish a base camp for a week of dayhikes and overnight backpacks. Then it's on to Anchorage, where we'll spend two days exploring the city before driving to the Kenai Peninsula. Starting at the town of Hope, we will backpack for five days on the famous 35-mile-long Resurrection Trail. We'll stay in huts each night, and our trip will end in Anchorage.

[89087] Alaska Range Bicycle Exploration, Alaska-August 13-26. Leader, Stephen Kasper, 1681 Crescent Ave., Castro Valley, CA 94546. Price: \$1,295; Dep: \$100. Mountain biking is a great way to experience the grandeur and diversity of our largest, wildest state. Our tour will follow the unpaved Denali Highway east along the base of the tallest range in North America. We'll pedal past glaciers, through spruce forests, and across tundra meadows along the Nelchina caribou migration route. The icy peaks of Mts. Deborah and Hayes will tower above us much of the way. At Richardson Highway we'll turn north for a 45-mile downhill cruise (vahoo!) through the heart of the range. Enormous glaciers pour virtually to roadside along this awesome stretch of road. If we're lucky, we'll catch a glimpse of the Delta bison herd near Donnelley before heading south to explore the seldom-traveled dirt road to McCarthy in Wrangell-St. Elias National Park and Preserve. Sag vans will provide support. Bring your own mountain bike or rent one in Anchorage.

NOTE: See Service trips for other Alaska outings.

PERIENCE THE WIL-DERNESS ON A RE-WARDING AND ADVENTUROUS BACK-PACK TRIP. PACKING EVERYTHING YOU NEED FOR THE TRIP ADDS AN EXTRA DI-MENSION OF FREEDOM AND SATISFAC-TION TO YOUR OUTING. AND BACKPACK-ING HAS ANOTHER BENEFIT: IT'S THE LEAST EXPENSIVE WAY TO GO.

OUR TRIPS ARE REALLY SMALL EX-PEDITIONS. EACH IS INDIVIDUALLY PLANNED BY THE LEADER. WHO SEEKS CHALLENGING ROUTES AND ATTEMPTS TO GET OFF THE TRAILS AND SET UP CAMP IN UNTRAMPLED, OUT-OF-THE-WAY PLACES WHEREVER POSSIBLE. THE TRIPS ALMOST ALWAYS PROVIDE ONE OR MORE LAYOVER DAYS FOR RELAXING OR EXPLORING.

ALL BACKPACK TRIPS ARE RUN WITH A CENTRAL COMMISSARY, TRIP MEMBERS SHARE COOKING AND CLEANUP CHORES. ALL ARE EXPECTED TO CARRY A FAIR SHARE OF FOOD AND COMMISSARY GEAR IN ADDITION TO PERSONAL BE-LONGINGS.

YOUR TRIP LEADER SERVES AS A TEACHER AS WELL AS A GUIDE, AND WILL DEMONSTRATE WAYS OF TRAVELING THAT SUSTAIN THE LAND AND MAKE PAR-TICIPANTS MORE AWARE OF GOOD WIL-DERNESS MANNERS. FOR EXAMPLE, IN ALMOST ALL CASES WE COOK ON STOVES INSTEAD OF FIRES.

THERE ARE MORE THAN 80 BACK-



Backpackers approaching the crest of Discovery Pass, Sierra.

PACK TRIPS BEING OFFERED THIS YEAR | COUNTRY ROUTE FINDING. STRENUOUS THROUGHOUT THE UNITED STATES. THEY VARY IN LENGTH AND DIFFICULTY. TO HELP YOU MAKE A SELECTION BASED ON YOUR OWN FITNESS AND EXPERI-ENCE, WE HAVE DIVIDED THE TRIPS INTO FIVE CATEGORIES. LEISURE (L) TRIPS HAVE FAIRLY EASY WEEKLY MILEAGES OF UP TO 35 MILES IN FOUR TO FIVE TRAV-EL DAYS, THE REMAINING DAYS BEING LAYOVERS. MODERATE (M) TRIPS COV-ERLONGER DISTANCES, CLOSER TO 35 TO 55 MILES A WEEK, AND MAY INCLUDE ROUGHER CLIMBING AND MORE CROSS-

(S) TRIPS COVER AS MANY AS 60 TO 70 MILES PER WEEK, WITH GREATER UPS AND DOWNS AND CONTINUOUS HIGH-ELEVATION TRAVEL. LEISURE-MODERATE (L-M) AND MODERATE-STRENUOUS (M-S) ARE INTERIM RAT-INGS. INDIVIDUAL TRIP SUPPLEMENTS EXPLAIN EACH TRIP'S RATING IN MORE DETAIL.

LEADERS ARE REQUIRED TO AP-PROVE EACH APPLICANT BEFORE FINAL ACCEPTANCE, AND WILL ASK YOU TO WRITE RESPONSES TO THEIR QUES-



TIONS. THESE RESPONSES HELP THE LEADER JUDGE YOUR BACKPACKING EX-PERIENCE AND PHYSICAL CONDITION. UNLESS SPECIFIED, THE MINIMUM AGE FOR TRIPS IS 16.

[89031] Salmon Creek, Coast Ranges, California-March 19-25. Leaders, David and Frances Reneau, 330 Nimitz Ave., Redwood City, CA 94061. Price: \$225; Dep: \$50. The Santa Lucia Mountains include high ridges with ocean views, colorful wildflower displays, and rugged, forested canyons. From the coast at Salmon Creek we will climb across scenic meadows, with views from the southern Big Sur coastline to Buckeye Flat. We will then hike past the southernmost coastal redwood groves, up Alder Creek, and along the coast ridge to the sycamore groves of San Carpoforo. We will have one layover day for nature

study, relaxation, and exploration. (Rated M)

[89033] Phantom Creek and Crystal Creek Loop, North Rim, Grand Canyon, Arizona—April 1–15. Leaders, Bert Fingerhut and George Steck, 225 W 83rd St., New York, NY 10024. Price: \$580; Dep: \$100. On our two-week trip we will explore upper Phantom and Crystal creeks. Although we will meet at the South Rim of the Grand Canyon, most of our trip will be on the north side and much of it off-trail in less-traveled parts of the park. This trip is for experienced backpackers only. (Rated S)

[89034] Galiuro Wilderness, Galiuro Mountains, Arizona—April 9–15. Leader, Sid Hirsh, 4322 E. Seventh St., Tucson, AZ 85711. Price: \$240; Dep: \$50. If your idea of wilderness is a place where trails are not superhighways and where seeing other hikers is the exception and not the rule, you'll love the Galiuros in southeastern Arizona. Our route will take us along dry, bushy ridges with impressive rock formations to heavily forested canyons with (we hope) running streams and irresistible pools. Some of the hike will be off-trail. Although we will move every day, we will still have time to explore and enjoy this extraordinary wilderness. (Rated M-S)

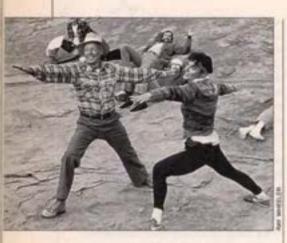
[89035] Thunder River and Kanab Canyon, Grand Canyon, Arizona-April 15-23. Leader, John Malarkey, 861 S. Kachina, Mesa, AZ 85204. Price: \$285; Dep: \$50. The scenery in this remote area of the North Rim is the best the Grand Canyon offers to off-trail adventurers. The steep Bill Hall Trail leads down the North Rim across the Esplanade to the explosive headwaters of Thunder River. Our first camp will be at the beautiful riparian area near Deer Creek Falls. Next we will go to the Colorado River; then to twisting Kanab Canyon with its redrock walls, swimming holes, and waterfalls; and, finally, the narrows of Jumpup Canyon. The terrain is difficult, but the adventure will be worth it. (Rated S)

NEW

TRIP

[89036] South Guardian Angel, Zion Park, Utah-April 16-22, Leader, Don McIver, 7028 W. Behrend Dr., Glendale, AZ 85308. Price: \$270; Dep: \$50. Zion National Park's South Guardian Angel is a landmark of Great West Canvon in the park's very remote western section. This immense sandstone dome stands isolated and nearly inaccessible on a peninsula between two deep and narrow canyons. Bands of red-orange and stark white sandstone are offset by pines and aspens, providing vistas to satisfy even the most demanding photographer. Our elevation of 6,000 feet, together with the absence of any trails, will provide ample challenge for the adventurous backpacker who wants to explore and help find routes under the guidance of the leader. (Rated S)

[89042] Navajo Mountain–Rainbow Bridge, Arizona–April 16–23. Leader, Nancy Wahl, 325 Ore Valley Dr., Tacson, AZ 85737. Price: \$320; Drp: \$50. Visible for a hundred miles, the rounded dome of Navajo Mountain (10,388 feet) rises on the Navajo Reservation of northern Arizona. Overlooking the San Juan River,



this isolated mountain is often called the grandest natural edifice in the southern end of the canyon country. Around the base is a land of colorful, twisting sandstone canyons, clear creeks and pools, natural bridges and arches, giant domes and abundant spring wildflowers. This trip in the Southwest is a photographer's delight. (Rated M)

[89037] Kanab Canyon and Thunder River, Grand Canyon, Arizona-April 19-29. Leader, Howard Newmark, P.O. Box 2429, Page, AZ 86040. Price: \$280; Dep: \$50. Geared to the photographer, our offtrail route will allow extra time for exploration and picture-taking in one of the most remote and beautiful areas of the Grand Canvon, Panoramic views, sinuous narrows, hidden turquoise pools, waterfalls, and flower gardens are all part of the Kanab experience. Our trip will culminate in visits to Deer Creek and Thunder River, where we will see two of the canyon's largest cascading waterfalls. The hiking is strenuous, but photographic opportunities will make this grand experience one of a kind. (Rated S)

[89038] Grand Canyon in the Spring: From the Tonto Plateau to the Colorado River, Arizona—April 22-30.

Leader, Bob Poiner, 3216 Rittenhouse St. N.W., Washington, DC 20015. Price: \$390; Dep: \$50. Experience the grandeur of the Grand Canyon from the Tonto Plateau and the power of the Colorado River from beaches at Granite, Crystal, Boucher, and Hermit rapids. On this nine-day trip, you'll enjoy gourmet food, wildflowers, and lush streams. (Rated M) [89039] California's North Coast: Redwoods and the Sea-April 30-May 6.

Leader, Jenny Holliday, 1170 Cloud Ave., Menlo Park, CA 94025. Price: \$240; Dep: \$50. Come and enjoy spring weather on California's uncrowded North Coast. We will spend three days hiking through the filtered sunshine of the deep redwood forest and four days combing the beaches of the Lost Coast, a 26-mile stretch of beach sequestered by the precipitous King Range. Accessible only on foot, the remote land- and seascape of the Lost Coast offer spring flowers, sea lions, tidepools, pounding surf, and, we hope, fair spring weather. Our pace will be leisurely, but hiking the beach rock and sand may be more difficult. (Rated L-M)

[89040] Appalachian Serenity, Nantahala and Cherokee Forests, North Carolina and Tennessee-May 20-28. Leader, Chuck Cotter, 1803 Townsend Forest Lane, Brown Summit, NC 27214. Price: \$315; Dep: \$50. South of Great Smoky Mountains National Park on the North Carolina/Tennessee state line is a perfect place to escape the trials and tribulations of our society. Here are the Joyce Kilmer/ Slickrock and Citico Creek wilderness areas. These two areas provide 30,000 acres of beauty unmatched anywhere in North Carolina or Tennessee. They contain open balds, rhododendron-draped streams, and occasional stands of virgin timber. Our trip dates coincide with the peak of the spring wildflower display. (Rated L)

[89041] Arch Canyon, Utah-May

28-June 3. Leader, Belva Christensen, 715. IV. Apache, Farmington, NM 87401. Price: \$300; Dep: \$50. Arch Canyon is an important archeological site. The cliff dwellings of the ancient Anasazi are located in high alcoves on the canyon walls. We will explore these dwellings as well as several intriguing side canyons where years of wind and rain have formed three magnificent arches among the pine and fir trees. (Rated L-M)

[89093] Black Elk Wilderness, Black Hills Forest, South Dakota–June

11-17. Leader, Faye Sitzman, 903 Mercer Blod., Omaha, NE 68131. Price: \$385; Dep: \$50. Nestled between Mt. Rushmore and the grand Cathedral Spires of the Needles is the heart of the sacred "Paha Sapa." We will traverse Harney Peak (7,242 feet)— Black Elk's "center of the earth"—enjoy the vista from granite ridges, and camp in lush forested canyons. Exceeding the Appalachians in altitude and the Alps in age, this wilderness is generously graced with wildflowers, beaver ponds, butterflies, mushrooms, and mountain goats. Travel days average five miles, and we plan to have one layover day. This trip is ideal for well-conditioned beginners as well as experienced backpackers who enjoy stimulating treks. (Rated L-M)

[89094] Summits and Wildflowers: The Appalachian Trail in Georgia— June 18–24. Leaders, Marjorie Richman and Linda Tillman, 8106 Whittier Blvd., Bethesda, MD 20817. Price: 8305; Dep: \$50. This 60-mile, moderate backpack will take us from Amicalola Falls State Park,



Common loon

over the trail's southern terminus at Springer Mountain, to Unicoi Gap. Our seven days will be divided between ascents of the balds that characterize the southern Appalachian range and descents through hardwood forests. Highlights include panoramic views, mountain laurel and rhododendron, and the spectacular ascent of Blood Mountain. (Rated M)



[89095] Rush Creek—No Rush! Ansel Adams Wilderness, Sierra—June 25–July 1. Leader, Jim Maas, 1411 Holly St., Berkeley, CA 94703. Price: \$270; Dep: \$50. Here's a new wrinkle in backpacking: We carry our personal gear and a minimal amount of commissary five miles (three steep miles of trail and two roller-coaster) to a camp and stay there for the entire outing! The setting is Gem Lake, which is

<u>BACKPACK</u>

fed by Rush Creek in the Ansel Adams Wilderness. Here we'll have oodles of time for taking optional dayhikes in alpine terrain, counting tadpoles, snoozing, and just getting away from it all . . . all except the nearby Minarets and Mts. Banner and Ritter. If you like being lazy in the mountains, this trip is for you. (Rated L)

[89096] Northeast Yosemite Peakbagging, Yosemite Park, Sierra-June

29-July 8. Leader, Howard Drossman, 906 Lake Ct., Madison, WI 53715. Price: \$440; Dep: \$50. Our trip will start at Tuolumne Meadows in Yosemite National Park and finish at Twin Lakes, the park's northeastern border. We will hike 37 crosscountry miles in six days. This earlyseason adventure features glacial canyons, flowering alpine meadows, azure lakes, rushing creeks, and snowcapped mountains. Four layover days can be spent climbing any of the 12 peaks along the route, including Mt. Conness, Whorl Mountain, and Matterhorn Peak. Vegetarians will be gladly accommodated. This trip is designed for experienced hikers who like a challenge. (Rated M-S)

[89097] Palisade Crest High Route, Sierra—June 30–July 8. Leader, Stephen Kasper, 1681 Crescent Ave., Castro Valley, CA 94546. Price: \$350; Dep: \$50. We'll camp above 11,500 feet every night as we circumnavigate the Palisades, an impressive line of 14,000-foot peaks.



Sawtooth Range, Sierra

Starting on the eastern side of the Sierra, our route will take us over 13,000-foot Agassiz Col into lake-filled Dusy Basin, through cross-country passes along the rugged western shoulder of the Palisades, then back across the crest at challenging South Fork Pass. Three layover days will provide ample time for swimming in glacial lakes (well, dipping anyway!), climbing a few 14,000-foot peaks, or glissading on late-spring snowfields. Heavy snow may slightly alter our route. Experienced cross-country backpackers are welcome to join our small group on this high-altitude tour of the glacier-clad Sierra crest. (Rated M-S)

[89098] A String of Lakes/Photography, Yosemite Park, Sierra-July 6-14.

Leader, Wes Reynolds, 4317 Santa Monica Ave., San Diego, CA 92107. Instructor, Phil Binks. Price: \$375; Dep: \$50. Our leisurely outing will be over less-frequented trails and includes one easy cross-country route. The trip is designed to help backpackers improve their photographic skills while enjoying Yosemite's southern lake country. Three layover days are planned to complement several short moving days, allowing ample time for instruction and practice in photographic composition, scenics, and macro arts. There will also be time to swim, fish, and relax. Elevations on the trip will range between 7,000 and 9,600 feet. (Rated L)

[89099] Glacier Peak Wilderness/ North Cascades Park, Washington-July 7-16. Leader, Rodger Faulkner, 412 Jewell St., San Rafael, CA 94901. Price: \$475; Dep: \$50. Enjoy the quiet and grandeur of the North Cascades with its rugged peaks and long valleys. We begin our journey in the Stehekin Valley, which is reached by a three-hour ferry-boat ride on Lake Chelan. On our first two days of hiking we will encounter waterfalls, wildflowers, and a long valley with lakes fed by glaciers. Cloudy and Suiattle passes will most likely have snow on our journey to the Image Lake basin, where we will see ice-covered Glacier Peak. Sunsets should be beautiful, with pink skies and bright rose peaks. Hiking down the Agnes Valley on a new section of the Pacific Crest Trail brings us to North Cascades National Park. There we will take dayhikes to North Cascades Pass and Horseshoe Basin. Our last evening features a country-cooked meal, and we'll be able to take hot showers. Throughout the trip we'll enjoy nutritious gourmet backpacking food, and we will even have time for baking pizza and fresh bread while on the trail. (Rated M-S)

[89100] Cranberry Rendezvous, Monongahela Forest, West Virginia-July 8-15. Leader, Chuck Gotter, 1803 Townsend Forest Lane, Brown Summit, NC 27214. Price: \$345; Dep: \$50. About two hours east of Charleston in the Monongahela National Forest lies the newly

created Cranberry Wilderness. The terrain is typical of the Allegheny Plateau: Broad mountains surround the deep, narrow val-

LEADER PROFILE



Barry Bolden

Although it may sound corny to say that Barry joined the Sierra Club to support and contribute to the preservation and enjoyment of the wilderness, it is as true today as it was eight years ago. Item: He's been on five backpack outings and one river-eafting outing since then. Item: He has aseisted on two national backpack outings and completed the rigorous week-long backpack training last year. As if those are not solid enough credentials, be aware that Barry's been backpacking since he was a Boy Scout, and he's heavily involved in alpine skiing, running, and bicycling. In his leisure time, he dabbles in photography and tinkers with cars. He describes himself tensely as "early riser, flexible, teachable." Test his and your mettle; try teaching him a thing or two this summer (see trip #89109).

leys of the Williams and Cranberry rivers. Three layover days will give us ample time for exploring—or for just being lazy. At the southeast edge of the wilderness lies the Cranberry Glades Botanical Area, where a boardwalk winds its way through an extensive bog harboring flora common in Canada. This will be a fitting conclusion to our hike. (Rated L)

[89101] Pacific Crest Trail, Lakes Basin to Belden, Sierra-July 8-17. Leader, Tina Welton, 1319 Victoria Terrace, Sunnyvale, CA 94087. Price: \$335; Dep: \$50. Experience the beauty of the northern Sierra while hiking on a seldom-used portion of the Pacific Crest Trail. We will enjoy panoramic views from the crest and hike through canyons and lush green forest, past many creeks and streams. We will see unusual rock formations, lots of wildflowers, and possibly the remains of an old gold mine or two. We will climb a couple of mountain peaks and travel through the Bucks Lake Wilderness, one of the newest wilderness areas in California. One layover day at the Wild and Scenic Middle Fork of the Feather River will allow us time to swim and relax. The trip will cover approximately 75 miles. (Rated M)

TRIP

NEW

[89102] Porcupine Mountain Wilderness Park, Upper Peninsula, Michigan -July 9-15. Leader, Donna Small, 1426 Ambleside Dr., Deerfield, IL 60015. Price: \$295; Dep: \$50. We will explore the forests; clear, rushing streams; and the Great Lakes shoreline of the "Porkies," a state wilderness park. The park's deep, irregular ridges and virgin hemlock forests are nestled along the southern shore of Lake Superior. Our first layover day will be at a small lake with opportunities for dayhiking, fishing (a small rowboat is available), and swimming. Our second layover will be on the shore of Lake Superior. A midweek food drop will keep our packs light, and we've reserved a rustic cabin at our two layover sites to use for food preparation and rain shelter. Seasoned backpackers seeking a North Woods experience and well-conditioned beginners (including teens accompanied by an adult) are welcome. (Rated L)

[89103] Castle Domes Loop, Kings Canyon Park, Sierra-July 13-22.

Leader, Sy Gelman, 1906 15th St., San Francisco, CA 94114. Price: \$380; Dep: \$50. Spectacular scenery and high mountain lakes are the highlights of this area of Kings Canyon National Park. Our trek will take us through beautiful canyons and a high pass for expansive views of the park. Two layover days will allow us to rest, fish, and explore Sixty Lake Basin. A pack drop midway in the trip will help lighten our load. Well-conditioned beginners are welcome. (Rated M)

[89104] Fourteen Lakes Natural History, Sequoia Park, Sierra—July 15–23. Leader, Fred Schlachter, 7185 Homewood Dr., Oakland, CA 94611: Naturalist, Judy Donaghey: Price: \$405; Dep: \$50. We will loop through the spectacular high country of the Great Western Divide northeast of Mineral King in Sequoia National Park, camping in the Big Five Lakes and Nine Lake basins. We will have some vigorous hiking days, with layover days for exploring, climbing peaks (Mts. Stewart, Eisen, or Needham), or relaxing. A naturalist will accompany us to describe and discuss lake breezes. We'll spend two nights at each campsite and have plenty of time for exploring, taking leisurely dayhikes or simply relaxing. (Rated L)

[89106] Northern Yosemite Natural History Leisure Trip, Sierra—July 16–22. Leader/Naturalist, Suzanne Swedo, 2145 Basil Lane, Los Angeles, CA 90077. Price: \$260; Dep: \$50. We'll enter the rugged north boundary country of Yosemite National Park from the east side of the Sierra near Bridgeport. In the company of a professional Yosemite naturalist, we'll travel a gentle itinerary of about five miles per day. This will give us time to enjoy the rich variety of wildflowers, birds, animals, and geologic formations afforded



Route finding, Crabtree Pass, Sierra.

our surroundings, and a food drop will lighten our packs. We will have plenty of time for swimming and photography, excellent food, and camaraderie. (Rated M)

[89105] Lake George Backpack, New York—July 16–22. Leader, Sally Daly, 11 Birch Dr., R.D. I, Albany, NY 12203. Price: \$295; Dep: \$50. The solitude of backpacking can be found in the vast Lake George Wild Area on the east side of this renowned resort lake. Swimming to islands in the clear water, climbing peaks to enjoy vistas of the lake and distant mountains, and camping by mountain ponds that invite fishing, swimming, or dozing will fill our warm summer days. During our two full days of hiking (with climbs of up to 2,000 feet), we will be cooled by by an elevation range of 7,000 to 11,000 feet. Plenty of time for fishing, photography, dayhiking, or loafing is planned. (Rated L)

[89107] West Elk Wilderness, Gunnison Forest, Colorado—July 17–26. Leader, Bob Berges, 21 Stone Harber, Alameda, CA 94501. Price: \$385; Dep: \$50. West Elk is one of Colorado's newer wilderness areas, and it is the location of our loop trip to explore various facets of this mountainous terrain. Although peaks here are not as high as Colorado's famous 54 peaks over 14,000 feet, on layover days we'll climb some of them and may get over 13,000 feet. We'll also have time to fish in streams and small lakes. This trip is suited to the well-conditioned beginner as well as the experienced backpacker. (Rated M)



[89108] Weminuche Wilderness Leisure Loop, San Juan Forest, Colorado-July 18-25. Leader, Eric Sieke, 1717 Walnut Ave., Manhattan Beach, CA 90266. Price: \$380; Dep: \$50. Our eight-day loop will take us through the heart of the largest wilderness area in Colorado. Aspen groves and the jagged Needle Mountains provide the backdrop for our wanderings. We will follow Vallecito Creek up to a 12,000-foot pass near the Continental Divide and return via Flint Lakes. Our two lavover days will allow us to visit several alpine lakes, cross the Divide into the headwaters of the Rio Grande, or just relax around camp. We will travel a total of 38 miles with a daily elevation gain not exceeding 1,500 feet. (Rated L)

[89109] Red Mountain Basin Lakes, John Muir Wilderness, Sierra—July 21–29. Leader, Barry Bolden, 1535 Frankfurt Way, Livermore, CA 94550. Price: \$295; Dep: \$50. Beneath the Le Conte Divide are many alpine lakes to delight the angler, swimmer, artist, and dreamer. Experienced backpackers will enjoy this high trail and cross-country route that starts and ends at Courtright Reservoir (8,200 feet), east of Fresno. Two layover



Yarrow



Fishing in Crabtree Creek, Sierra

days will allow an ascent of Red Mountain (11,297 feet) and Hell-for-Sure Pass to view Goddard Canyon. (Rated M)

[89110] Collegiate Peaks, San Isabel Forest, Colorado—July 22–29. Leader, Barbara Beaumont, R.R. 2, Box 341, North Liberty, 1A 52317. Price: \$385; Dep: \$50. The central portion of the Sawatch Range is known as the Collegiate Peaks; the summits are named after the alma maters of early surveyors. We plan to climb three of these peaks: Yale (14,196 feet), Harvard (14,420 feet), and Columbia (14,073 feet). We'll be rewarded with spectacular views. No technical ability is needed for climbing these peaks, but they do require strong legs and lungs. (Rated M)

[89111] Ionian Adventure, Kings Canyon Park, Sierra—July 22–30. Leader, Jim Halverson, 7845 Skyline Blvd., Oakland, CA 94611. Price: \$305; Dep: \$50. We will start at Courtright Reservoir and loop around to Wishon Reservoir. The Ionian Basin is southeast of Mt. Goddard at 11,000 feet—and 25 miles from our trailhead. On last year's trip we whispered to the gods. This year we'll sit in their laps and visit the Three Sirens on one side and Scylla on the other. We'll exit via Blue Canyon and Kettle Dome. (Rated M-S)

[89112] Lots-of-Lakes Leisure, Emigrant Wilderness, Sierra-July 22-30. Leaders, Ed and Helen Bodington, 697 Faum Dr., San Anselmo, CA 94960. Price: \$315. Dep: \$50. From our roadhead at Crabtree Camp, we will travel east and south through the gentle Emigrant Wilderness. We will camp at Hyatt, Big, and Jewelry lakes. Two layover days will give us time to climb nearby peaks, fish, or just relax. Travel days will average six miles with 1,000 feet of climb. This is a leisurely trip for well-prepared newcomers and veterans alike. We will use Canelo, our friendly llama, to carry equipment on this trip. (Rated L)

[89113] Kings-Kern Divide, Sequoia and Kings Canyon Parks, Sierra-July 23-30. Leader, Jack Wickel, P.O. Box 996, Manhattan Beach, CA 90266. Price: \$330; Dep: \$50. The Kings-Kern Divide harbors many alpine lakes and meadows in the headwaters of the Kern and Kings rivers. Our 45-mile trek in this region, mostly on-trail, will include a challenging crosscountry pass on the divide and a panoramic view from Bighorn Plateau. Two lavover days allow for climbs of Mt. Brewer (13, 570 feet) on the Great Western Divide and Mt. Barnard (13,990 feet) on the main Sierra crest or fishing for golden trout at Wright Lakes. A packer assist lightens our load the first day over Kearsarge Pass. As we exit over Shepherd Pass, perhaps we'll see some bighorn sheep. (Rated M-S)

[89114] Mt. Whitney Loop, Sequoia Park, Sierra-July 23-30. Leader, Chuck Schmidt, 4292 Wilkie Way, Apt. N. Palo Alto, CA 94306. Price: \$300; Dep: \$50. Our approach to the Mt. Whitney area will begin southeast of the great mountain and will circle to the northwest on the Pacific Crest Trail. That trail will guide us over several easy passes, through lodgepole pine forests, and across sandy meadows. Then the John Muir Trail will lead us to the top of Mt. Whitney (14,494 feet), the highest peak in the Lower 48. To finish our loop, we will take a cross-country route through the Rock Creek Basin. One lavover day will give us time to climb a peak, fish, or just relax. (Rated M)

[89115] Rock Creek Ramble, Sequoia Park, Sierra—July 23–30. Leader, Don Endicott, 10707 Smerdon Circle, San Diego, CA 92131. Price: \$285; Dep: \$50. Hiking cross-country in the dramatic alpine country of castern Sequoia National Park, we will approach the Sierra from Cottonwood Pass trailhead (9,920 feet) southwest of Lone Pine. We will enter the park via New Army Pass (12,360 feet) and exit via one of several alternative cast-side



On the summit of Mt. Whitney, Sierra.

passes or cols depending on snow conditions. Two layover days provide opportunities for photography, fly fishing for golden trout, wildflower viewing, and peak scrambling. Potential Class I and II climbs include Mts. Irving (13,770 feet) and Chamberlin (13,169 feet), and Barnard (13,990 feet). Total distance is 40 miles. This trip is not for beginners; prior experience on talus is necessary. (Rated M)

[89116] Beartooth Mountains. Absaroka-Beartooth Wilderness, Montana, July 23-August 1. Leader,

Dave Derrick, 1916 Spring Dr., Louisville, KY 40205, Price: \$435; Dep: \$50. The Beartooth Mountains offer abundant granite peaks, high plateaus, carved valleys, lakes, glaciers, and wildlife. We will begin our hike by wandering across the 10,000-foot Beartooth Plateau to descend East Rosebud Creek Canyon. We will then climb the East Rosebud Plateau. cross Sundance Pass, and walk down the Lake Fork of Rock Creek. Hard days ontrail will alternate with four layover days for peak bagging, fishing, and wildlife observation. This outing is for wellseasoned, well-conditioned backpackers who wish to experience one of America's premier alpine wilderness areas. (Rated M-S)



[89117] The Glacier Trail, Jasper Park, Alberta, Canada-July 23-August 1. Leader, Rob Jacobs, 6376 Pawnee Ridge, Loveland, OH 45140. Price: \$410; Dep: \$50. In 1924 pioneer outfitter Jack Brewster began running commercial pack trips from Maligne Lake to Lake Louise using what he called the Glacier Trail. The Icefields Parkway has paved over much of this spectacular route, but 80 miles remain intact. In eight strenuous moving days and two layover days, our group of experienced hikers will follow Brewster's trail through the heart of the Canadian Rockies, traversing six major passes. Peaks and glaciers will be our constant companions.



Wilson Mesa, Glen Canyon, Utab

The moving days will be long and hard but the rewards great. We may even sight grizzly or caribou, or fall asleep to the howl of wolves amid these wild mountains. (Rated S)

[89118] Huckleberry Panorama, Emigrant Wilderness, Sierra-July 24-30. Leader, Louise French, 1690 N. Second Ave., Upland, CA 91786. Price: \$270; Dep: \$50. From our roadhead at Crabtree Camp we will travel to Huckleberry Lake for a layover day of fishing, peakbagging, and relaxing among the wildflowers. Then, staying mostly on-trail, we will pass sapphire lakes and granite towers on travel days averaging six to eight miles and 600 to 900 feet of elevation loss/gain. All camps will be below timberline at around 8,000 feet. Beginners and laid-back veterans are welcome. (Rated L)

[89119] Rosy Finch Lake, John Muir Wilderness, Sierra-July 28-August 5. Leader, Cal French, 1690 N. Second Ave., Upland; CA 91786. Price: \$335; Dep: \$50. Trout streams, lakes, and alpine meadows abound among the colorful 12,000-foot peaks of the Silver Divide. Our 42-mile route is mostly on-trail, and the off-trail hiking is fairly easy-and spectacular. With one layover day and two short hiking days, we'll have opportunities to study the flora and geology, to fish, and to rest. Climbers will find several attractive. nontechnical summits worth attempting. All will find refreshment in this mountain fastness. (Rated M)

[89120] Buck Lakes Leisure, Emigrant Wilderness, Sierra-July 29-August 5. Leader, Carolyn Kinet, 1636 Stuart St. Berkeley, CA 94703. Price: \$270; Dep: \$50. Emigrant Basin, east of the resort community of Pinecrest, is an easily accessible wilderness with spectacular Yosemite-like granite and gentle meadows and clear lakes. On our loop from the Crabtree Camp trailhead we'll sample the swimming holes of West Fork Cherry Creek. the ceric moonscape of Buck Lakes, the alpine ambiance of Wire Lakes, and the cool, inviting waters of Gem and Jewelry lakes. Two layover days will give us time to get to know the area in more detail. Travel days will average six miles. This is a good trip for well-prepared newcomers as well as experienced hikers who like a casual pace. (Rated L)

[89121] Cloud Peak Wilderness, Bighorn Forest, Wyoming-July

29-August 5. Leader, Faye Sitzman, 903 Mercer Blvd., Omaha, NE 68131. Price: \$395; Dep: \$50. Through this lake-studded alpine wilderness in north-central Wyoming, we will travel six to nine miles a day with routes and camps mostly above 10,000 feet. One or two lavover days will provide time for fishing, hiking, photography, and wildlife observation. Spectacular views of Cloud Peak (13,165 feet) will grace this uncrowded region. Expect excellent food, weather, and trip planning. Although extensive backpacking experience is not required, all participants must be energetic and undertake serious physical conditioning prior to the trip. (Rated M)

[89122] Maroon Bells and Snowmass, Elk Wilderness, Colorado-July

29-August 5. Leader, Carol Benson, 7738 Dusk St., Littleton, CO 80125. Price: \$335; Dep: \$50. Starting our hike at Maroon Lake, ten miles southeast of Aspen, we will enjoy spectacular mountain scenery as we cross two or three 11,000-foot passes and hike cross-country through pine and aspen forests. Our route includes Trail Rider Pass, the three Maroon Bells, Pyramid Peak, and West Maroon Pass. We will have impressive views of Snowmass Peak and glacier. The fishing is excellent, and photographers will have plenty of wonderful photo opportunities. Come and share the best of Colorado! (Rated M-S)

[89123] Women's Beginner Backpack, Ansel Adams Wilderness, Sierra-July 29-August 5. Leader, Carol Hake, 12830 Viscaino Rd., Los Altos Hills, CA 94022. Price: \$265; Dep: \$50. South of Yosemite, granite-lined creeks with alternating pools and cascades will lead us to lakes and high country. We will travel short distances onand off-trail (with some rock-scrambling) to have most afternoons free to swim. sketch, relax, or explore without packs. This trip is suitable for beginners or experienced backpackers who want to perfect their wilderness skills. We'll practice using topo maps and compasses, lighting stoves, cooking, setting up tarp shelters, as well as learn about natural history and minimal-impact camping. Elevations are from 7,000 to 10,500 feet. Total hiking distance will be less than 30 miles. (Rated L)

[89124] Le Conte Divide, John Muir Wilderness, Sierra-July 29-August 6.

Leader, Bob Anderson, 65 Madrone Ave., Morgan Hill, CA 95037. Price: \$300; Dep: \$50. This moderately paced trip explores the alpine valleys leading west from the imposing crest of the Le Conte Divide. Two 11,500-foot cross-country passes offer spectacular entries to Bench Valley and Blackcap Basin. Starting at Courtright Reservoir, the trip covers 41 miles at altitudes mostly above 10,000 feet. About half the route is cross-country. Two layover days provide time for swimming. fishing, or peak climbing. (Rated M)





[89125] Wheeler Peak, Great Basin Park, Nevada-July 30-August 5. Leader, Ted Doll, 530 Sweet Birch Lane, Roswell, GA 30076. Price: \$380; Dep: \$50. lagged peaks soaring 8,000 feet above neighboring valleys, a tremendous cirque where the only glacier in the Great Basin lingers, ancient bristlecone pine trees. mountain lakes more than 10,000 feet high, and extensive underground caverns await the adventurer in America's newest national park. Three layover days with optional hikes/climbs make the trip suitable for both the novice and the experienced backpacker. Enjoy Great Basin Park on this new trip! (Rated L-M)

[89126] Up and Over the Great Western Divide, Kings Canvon Park, Sierra-July 30-August 6. Leader, Lasta Tomasevich, 2610 Regent St. #202, Berkeley, CA 94704. Price: \$270; Dep: \$50. The Great Western Divide arcs north to south in an impressive array of 13,000-foot peaks, secluded alpine bowls, and pristine lakes and streams. Our route climbs to the northern crest of the divide via Sphinx Lakes basin, then loops cross-country over the divide itself and heads east to Vidette Lakes. Remote spaces, spectacular scenery, and opportunities for peakbagging are the rewards of this moderately paced trip. One layover day is planned. (Rated M)



Emigrant Basin, Sierra

[89127] Kern Arena, Sequoia Park,

Sierra-July 31-August 9. Leader, Jim Watters, 600 Caldwell Rd., Oakland, CA 94611. Price: \$300; Dep: \$50. Stupendous is the word for the grand amphitheater of the Kern River, whose sparkling alpine basins are formed by three soaring divides: the Great Western, Kings-Kern, and main Sierra crest. We approach over the 12,400-foot New Army Pass, swing north through some of the highest of the Sierra high country, and for five days savor views from the exclusive balconies of our "arena." As a treat, we visit a choice out-of-the-way, almost unknown lake and view spot. Sorry, no hints! The trip covers 55 miles and includes two lavover days and three short moves. Some crosscountry hiking is involved. (Rated M-S)

[89129] Lost Trail to Tablelands, Kings Canyon and Sequoia Parks, Sierra-August 5-13. Leader, Phil Gowing, 2730 Mabury Sq., San Jose, CA 95133. Price: \$345; Dep: \$50. A "lost trail" leads to the scenic and dramatic Tablelands located in the border area between Kings Canyon and Sequoia national parks. This trail through Ferguson Meadow is a seldomused, true wilderness route and worth a visit all by itself. The Tablelands is the heart of the High Sierra, and offers spectacular views in all directions-a veritable photographer's paradise. There will be at least two layover days for exploring, climbing, swimming or fishing. A packer drop will lighten our commissary loads as we hike a moderate cross-country route at about 10,000 feet. (Rated L-M)



Hoover Wilderness, Sierra

[89128] Minarets Loop Cross-Country, Inyo Forest, Sierra-August 3-11. Leader, Bob Paul, 13017 Caminito Mar Villa, Del Mar, CA 92014. Price: \$375; Dep: \$50. At an unhurried pace, we will explore the spectacular Minarets Wilderness area. Although our trip is leisurely in nature, it will nevertheless entail crosscountry scrambling and twice crossing the Ritter Range over 11,000-foot passes. A midtrip food cache, short travel days, and several layover days will allow for easy travel and ample opportunity for photography, fishing, swimming, peakbagging, and loafing. (Rated L-M)

[89130] Natural History Along the Great Western Divide, Sequoia Park, Sierra-August 5-13, Leader, Gerry Dunie, 831 N. Garfield Ave. #C, Alhambra, CA 91801. Naturalist, Suzanne Swedo. Price: \$295; Dep: \$50. Starting at Mineral King, our 45-mile loop, with more than 10,000 feet of elevation gain, offers several views of the southern portion of the rugged Great Western Divide. Far and near, we'll interpret these views through our naturalist's eyes and the perspective of our group leader, an avid peakbagger. Suzanne, a Sierra naturalist for the past ten summers, will share her



botanical and geological expertise with us. We will have a layover day for optional peakbagging, fishing, or loafing. Two 12,400-foot summits await us near Columbine Lake, (Rated M-S)

[89131] High Country Hiking in the Sawatch Range, San Isabel Forest,

Colorado-August 6-12. Leader, Jim Urban, 5170 S. Alton Way, Englewood, CO 80111. Price: \$260; Dep: \$50. Beginning near Buena Vista, two days of hiking at or near timberline will acclimatize us to high altitude while we experience the beauty of mountain vistas and wildflowers. We will then be ready to climb several of the 14,000-foot Collegiate Peaks-the backbone of the continent. None of the peaks involve technical climbing. Two layover days are planned-for climbing or relaxing. (Rated M-S)

[89132] Presidential Range, White Mountain Forest, New Hampshire-

August 6-12. Leader, Pete Frorer, 115 Broadway, 2nd Floor, New York, NY 10006. Price: \$295; Dep: \$50. This six-day, 45mile loop offers "le tour complet" of the Presidential Range. We'll ascend the peaks of Mts. Eisenhower, Washington, and Adams. We'll pass by Carter Dome, Mt. Isolation, and Mt. Resolution. In addition to the panoramic views, highlights will include numerous streams and hidden lakes. (Rated M-S)

[89133] Sequoia Peaks and Basins, Sequoia Park, Sierra-August 6-13. Leader, Lisa Quinn, 5145 Coronado Ave., Oakland, CA 94618. Price: \$295; Dep: \$50.

Whether you are a photographer, mountaineer, or spiritual explorer, a trip into Sequoia National Park has much to offer. The jagged peaks of the Great Western Divide rise 5,000 feet above the Kern River to the east and 7,000 feet above the middle fork of the Kaweah River to the west. On this eight-day, 48-mile loop, we will follow the High Sierra Trail, enjoying conifer forests, glaciated canyons, alpine lakes, and 12,000- to 13,000-foot peaks. Our hiking is mostly on-trail, although layover days provide opportunities for additional cross-country exploration and peakbagging (Triple Divide and Mt. Kaweah) for those so inclined. The person who will enjoy this trip most is the enthusiastic individual who has experience backpacking at higher altitudes (9,000 feet and up) and who enjoys, sharing both the quiet and the storm of the Sierra with like-minded companions. (Rated M-S)



[89134] Big Arroyo, Sequoia Park, Sierra—August 7–18. Leader, Mac Downing, 2416 Grandview St., San Diego, CA 92110. Price: \$390; Dep: \$50. This will be a classic trip from Mineral King into the Great Western Divide. Four layover days on this 12-day trip will allow peakbagging, fishing, nature walks, and loafing. A packer food drop will ease our loads. We will cross Franklin Pass to Rattlesmake Creek; then we'll move to Willow Creek, Big Arroyo, Big Five Lakes, and Loast Canyon, and recross the range at Sawtooth Pass. Camp altitudes range from 8,500 to 10,700 feet, Trails are mostly good, but two of our hiking days near Willow Creek will be on overgrown, eroded paths. (Rated L-M)

[89135] High Sierra Meadows and Mountains, John Muir Wilderness, Sierra-August 10-19. Leader, Diane Cook, 631 Elverta Rd., Elverta, CA 95626. Price: \$325; Dep: \$50. This leisurely to moderate trek offers a sparkling sampler

moderate trek offers a sparkling sampler of the beauty the Sierra offers at moderate altitudes. We will hike a loop from Wishon Reservoir, exploring high meadows filled with flowers; the starker, open granite country of Blackcap Basin backed by the Le Conte and White divides; and wooded trails over easy passes. Two layover days will give us a chance to enjoy some of Blackcap Basin's 50 lakes and the view from Kettle Ridge—or a chance to nap in a meadow of lupine. Vegetarians will be accommodated. (Rated L-M)

[89136] Sawtooth Ridge, Yosemite Park and Toiyabe Forest, Sierra-August 13-20. Leader, Kate Froman, 378 Chorro St., San Luis Ohispo, CA 93401. Price: \$375; Dep: \$50. For a minimum investment of energy, this trip will give us a maximum return of some of the finest scenery anywhere along the Sierra crest. We will enter the Hoover Wilderness at Virginia Lakes near Bridgeport on the eastern side of the Sierra. A packer will carry most of our load for two days while we acclimatize to our average camp elevation of 9,500 feet. Our route will take us up Matterhorn Canyon, the most spectacular canyon in the Yosemite north country, and right under spiny Sawtooth Ridge: Matterhorn Peak (12,264 feet) may be climbed on one of our two lavover days. Our average day's hike is six miles. There will be a major climb over Burro Pass (10,560 feet) and two descents of 2,000 feet. Novices and experienced backpackers will enjoy the mountain highs in the heart of the Sierra. (Rated L-M)

[89137] Anaconda-Pintler Wilderness, Bitteroots Range, Montana—August 17–25. Leader, Wayne Chamberlain, 1708 Gold Rush, Helena, MT 59601. Price: \$410; Dep: \$50. Hike along the Continental Divide Trail in southwest Montana in country prospected by Charles Pintler and Moose Lake Johnson. We'll view a combination of dense forests and spectacular cirques, valleys, and glacial moraines in the 160,000-acre Anaconda-Pintler Wildemess. Our pace should allow time for fishing and climbing peaks up to 10,793 feet; we'll have opportunities to observe wildlife, including elk, mountain goat, moose, and black bear. Trail altitude ranges from 6,500 to 9,000 feet. A food drop midway through the trip will help ease our loads. (Rated L-M)

[89138] The Mono Recesses, John Muir Wilderness, Sierra Forest, Sierra-August 17-26, Leadery, Frances and David Reneau, 330 Nimitz Ave., Redwood City, CA 94061. Price: \$355; Dep: \$50. For the experienced backpacker, the recesses of Mono Divide are great for cross-country exploration. Our ten-day loop leads up McGee Creek to the remote Pioneer Basin lakes, weaves back through the upper Recesses, crosses Gabbot Pass (12,200 feet), and then exits via Granite Park. We'll be circling some spectacular 13,000-foot peaks and will probably climb one or two of the easier ones during time off from general loafing and lake-bagging on our two layover days. (Rated M-S)

[89139] Yosemite's High Sierra Wilderness, Sierra-August 19-26. Leader, Hilary Bray, 41 Hawthome Ave., Los Altos, CA 94022. Price: \$260; Dep: \$50. After one night at base camp, we will explore alpine meadows, lakes, high mountain passes, and a host of dramatic peaks on this eye-popping, seven-day loop. Our route will combine hiking on segments of the John Muir/Pacific Crest Trail with cross-country excursions. A possible hike includes a climb up Yosemite's highest peak, Mt. Lyell (13,144 feet). Two layover



Meadowfoam

days allow time for peakbagging, exploring hidden lakes, or doing nothing at all. Good physical condition and previous backpacking experience are necessary. Come discover the austere beauty of Yosemite's Sierra wilderness. (Rated M)

[89140] Bear Lakes High Route, Sierra Forest, Sierra-August 19-27. Leaders, Marilyn and Dan Smith, 817 Lexington Ave., El Cerrito, CA 94530. Price: \$330; Dep: \$50. Our first destination on this scenic trip is Bear Lakes Basin, nestled high among the white-bark pines in the eastern Sierra. This group of 13 delightful and seldom-visited lakes has bear names ranging from Teddy to Claw. We will follow portions of the cross-country Sierra High Route to connect Bear Lakes Basin with Humphreys Basin to the south. Lavover days will allow us to explore both basins and scale some attractive nearby peaks. (Rated M)

[89141] Nine to Five Lakes, Sequoia Park, Sierra – August 19–27. Leader, Joe Uzaraki, 4240 Montgomery St., Oakland, CA 94611. Price: \$375; Dep: \$50. Escape your 9-to-5 routine on this unforgettable trip to sparkling lakes and high alpine peaks. From Giant Forest to Mineral King we will pass through Nine Lake Basin, seldom-visited Kaweah Basin, and Little and Big Five lakes. We will have two layover days, 15 miles of cross-country hiking, and 52 miles total. A car shuttle will allow us to travel in one direction only. Packers will help carry some of our load on the first day. (Rated M-S)

[89142] Missouri Basin, Sawatch Range, San Isabel Forest, Colorado-August 20-27. Leader, Al Ossinger, 12284 W. Exposition Dr., Lakewood, CO 80228. Price: \$295; Dep: \$50. The Sawatch Range -the backbone of the Colorado Rockies -stretches nearly a hundred miles in a north-south line and includes 15 peaks higher than 14,000 feet. Between the towns of Buena Vista and Leadville, we will backpack to Missouri Basin and set. up a base camp near timberline at 11,600 feet. We will have time for fishing in streams and beaver ponds and exploring old gold mines. Climbs are planned for Mt. Belford (14, 197 feet) and Missouri Mountain (14,067 feet), among others. On our last day we will visit the Mt. Princeton Hot Springs pool. Our pace

will be moderate, but due to the high elevation, participants need to be in good physical condition. (Rated M)

[89143] Palisade Basin Loop, Inyo Forest and Kings Canyon Park, Sierra-August 20-27. Leader, Mari Calhoun, 475 19th Ave., San Francisco, CA 94121. Price: \$295; Dep: \$50. From South Lake we will follow a chain of lakes-with peaks and granite walls on either side-to the Sierra crest at Bishop Pass (12,000 feet). Just below the pass are Dusy Lakes. From here a cross-country route mostly on smooth terrain takes us to the Palisade Basin and Barrett Lakes (11,460 feet), where we'll spend our layover day. Possibilities for fishing, exploration, and peakbagging abound. A climb of Mr. Sill (14, 162 feet) is recommended for its inspiring views. We meet the John Muir Trail at lower Palisade Lake and follow it to Le Conte Canyon (8,800 feet), enjoying lower elevations where campfires are permitted. Other peaks we will pass or climb include Aperture, Isosceles, and Columbine, as well as Mts. Goode and Agassiz. Total trip mileage is approximately 40 miles. (Rated M)

[89144] Red and White Lake, John Muir Wilderness, Sierra-August

20-27. Leader, Jim Gilbreath, 98-703 Iho Pl., #1203, Aiea, HI 96701. Price: \$300; Dep: \$50. This trip features eastern High Sierra alpine valleys during the best part of summer. We will begin at the McGee or Convict Creek trailhead northwest of



Bishop and finish eight days later at Mammoth Lakes. We will have three layover days for fishing, photography, peak scrambling, or simply admiring the wildflowers and dramatic geology. Numerous Class II peaks are nearby, including Red Slate and Red and White peaks. Total distance is 33 miles, of which about eight will be cross-country. Prior experience is necessary. (Rated M)

[89145] Beginner-Leisure Family Backpack, Ansel Adams Wilderness, Sierra-August 21-29. Leaders, Frances and Patrick Colgan, P.O. Box 325, La Houda, CA 94020. Price: adult \$350; child \$250, Dep: \$50. This special packer-supported and easy-paced backpack trip will focus on introducing new members to the joy of backpacking. Learn the ABCs from the pros. Mules will carry food and supplies up to our 10,000-foot "layover camp" in a



remote, lake-studded granite cirque. Here we will enjoy overnight side trips and dayhikes to places of special interest. An introduction to nontechnical peak-climbing will supplement an itinerary of leisurely frolics, with lots of time for swimming, snoozing, or contemplating the curvature of your navel. This trip is for mellow old pros, physically capable beginners, and extra-special young people 8 years of age and up. (Rated L)

[89146] Majestic Mineral King, Sequoia Park, Sierra-August 21-29. Leader, Andy Johnson, 111 Lundys Lane, San Francisco, CA 94110. Price: \$285; Dep: \$50. Come experience the beauty and splendor of the southern Sierra on this nine-day



Hiking over the Sierra crest.

trip into the heart of the Great Western Divide. Mineral King is unique in both its history and abundant flora and fauna. Two layover days are planned. Most hiking will be moderate, with seven days to cover 35 miles, one third of which will be cross-country. Most of the trip is more than 9,000 feet in elevation and our highest pass is 11,200 feet. High peaks abound -several of them easy enough to climband we will have breathtaking views of the Sierra crest to the east. With numerous lakes to swim in and campsites near timberline, the stage is set for a grand time. If you've enjoyed backpacking before and would like to explore a place of great beauty, come on this trip! (Rated M-S)

[89147] Thunder Mountain, Kings Canyon and Sequoia Parks, Sierra-August 24-September 3. Leader, Gordon Peterson, 222 Royal Saint Ct., Danville, CA 94526. Price: \$335; Dep: \$50. Thunder Mountain, at the junction of the Great Western Divide and the Kings-Kern Divide, is the midpoint focus of our highcountry trip. Our daily travel will be short in mileage but high in interest as we wind our way along and over (at 12,800 feet) these two great divides by way of Longley and Harrison passes. Trip members must be prepared for cross-country talus travel, which accounts for the trip's rating. (Rated M-S)

[89148] Big Five Lakes, Sequoia Park, Sierra-August 26-September 3.

Leader, Hal Fisher, 6111 Baltimore Dr., La Mesa, CA 92042. Price: \$325; Dep: \$50. Join us for a leisurely backpack trip in a unique subalpine valley directly beneath the towering peaks of the Great Western Divide. We will camp at three different lakes on layover days. There will be time for photography, peakbagging, fishing, or the backpacker's favorite—relaxation. Our trip will cover 30 miles in five moving days, and we'll be at elevations of 9,000 to 11,000 feet. (Rated L-M)

[89149] Kaweah Basin, Sequoia Park, Sierra-August 26-September 3. Leader, Don Lackowski, 2483 Caminito Venido, San Diego, CA 92107. Price: \$325; Dep: \$50. Featured is a visit to the scenic Kaweah Basin, perhaps the most remote and pristine area of the Sierra Nevada. From a trailhead at Mineral King, our routeabout half off-trail-twice crosses the Great Western and Kaweah Peaks divides and includes visits to several lake basins. deep canyons, and the most scenic of the Sierra Nevada alpine meadows. Somewhat exploratory in nature, this outing should appeal to the more adventurous backpacker. (Rated M-S)

[89150] West Elk Wilderness Wanderabout, Gunnison Forest, Colorado-August 27-September 2. Leader, John Latz, 11563 Lillis Lane, Golden, CO 80403. Price: \$385; Dep: \$50. The West Elk Wilderness is an area of rugged mountains and gentle valleys. Our journey will take us past the rock formations known as The Castles, over 11,000-foot Castle Pass, and around Storm Ridge. A moderate pace combined with two layover days will allow us time for fishing, dayhiking, observing wildlife, and quiet reflection. Bring your camera and capture the grandeur of Colorado. (Rated L-M)

[89151] Three Forks Basin, South San Juan Wilderness, Colorado-August 27-September 3. Leader, John Lemon Sell-

NEW

ers, 112 N. University Ave., Enid, OK 73701. Price: \$305; Dep: \$50. Near the crest of the Continental Divide southwest of Alamosa, the Three Forks area gathers the headwaters of the Concios River. famed for its trout fishing. The high elevation (10,160 feet at the trailhead) provides expansive mountain vistas, with minimal elevation gain. Camps will be made at high alpine lakes and along the upper forks of the Conejos River. There will be free time for dayhikes and fishing, while two layover days allow visits to Conejos Falls and the Continental Divide and a climb of Summit Peak (13,300 feet). (Rated L-M)

[89152] Peakbagging in Evolution Country and the Palisades, Kings Canyon Park, Sierra-August 27-September 4. Leader, John Kerr with Tom McNicholas, 1010 Walker Ave. #3, Oakland, CA 94610. Price: \$330; Dep: \$50. A pair of "charming rogues"-in the Gaelic tradition-invite you to join them in the High Sierra to bag some peaks, eat good food, and listen to some very tall tales around the campfire. In order to make things easier for the flatlanders, we shall go north to south-over Piute Pass and Alpine Col, then down to Darwin Canyon and Evolution Basin. Then it's over Muir Pass to Dusy Basin, with a final heave over Bishop Pass at the end of the trip when our packs are light. We will lay over every other day for peakbagging. Your choice of mountains includes Mt. Goethe, The Hermit, Mt. Mendel, Charybdis, Mt. Goddard, and Mt. Agassiz. Since our gaze will be fixed on the Palisades throughout the trip, climbing a couple of them will make a fitting climax to the trip. (Rated M-S)

[89153] White Divide Peakbagging, Sierra Forest and Kings Canyon Park, Sierra-August 27-September 4. Leader, Vicky Hoover, 735 Geary St. #501, San Francisco, CA 94109. Price: \$285; Dep: \$50. Our gentle west-side approach to the high country of the central Sierra Nevada accentuates the drama of a multitude of majestic peaks rising from stark canyons and remote lake-studded basins. As we backpack southward in the granite-clad White Divide, we'll concentrate on ascents of some memorable mountains from Finger Peak to Tchipite Dome. A couple of trail days at beginning and end

frame a 50-mile trip that's mostly crosscountry; several long hiking days are likely and two layover days are planned. (Rated M-S)

LEADER PROFILE



Diane Cook

If good chow on a backpack trip makes the difference between a good outing and a fantastic outing, then you ought to meet Diane Cook, hecause that is her "thing." At home, cooking is her bobby; in camp it is her forte. She prides herself on light hat delicious food on her trips. Diane is a transplanted Chicagoan who's been a backpack participant, assistant leader, or leader every year since she moved to California in 1978. Camping wasn't new to her even then, because she'd been camping ever since childbood. Her hobbies are aerobic dance and hiking, anywhere, anytime, and the best part of her trips, beside food organization, are rock hopping and route finding. Find your route to Diane (see trip #89135)!

[89154] The Indian Lakes, John Muir Wilderness, Sierra-September 6-14.

Leader, Bill Engs, Drawer 3248, Crestline, CA 92325. Price: \$315; Dep: \$50. We start and end our trip at Courtright Reservoir at the headwaters of the North Fork of the Kings River. In this area of the High Sierra we will see beautiful forests, meadows, and lakes-as well as peaks rising to 12,000 feet along the Le Conte Divide. Beginning at 8,200 feet, we will climb less than 1,000 feet the first day. Our all-trail loop includes two layover days to allow for a variety of exploratory side trips or for loafing, fishing, and photography. On travel days we will hike 4 to 8 miles for a total trip mileage of 40. Our lake and stream campsites will be at 8,000 to 11,000 feet. If you are over 50 and fit, this trip is for you, (Rated L)

[89155] Big Bird Lake, Kings Canyon and Sequoia Parks, Sierra-September 6-15. Leader, Patty Biasca, 1139 Westmoreland Circle, Walnut Creek, CA 94596. Price: \$375; Dep: \$50. What is more idyllic than late summer in the Sierra? The days are warm, the nights cold and clear—and the summer crowds are back at school or work. Our highlights will include cross-country hiking over the granite slabs of the Tablelands and gentle walking through the gorgeous canyons of Deadman and Cloud. About one third of our route is cross-country. (Rated M)

[89156] Tahoe—Desolation Wilderness Loop, Sierra—September 8–16. Leader, Modesto Piazza, 614 Bayview Ave., Millbrae, CA 94030. Price: \$305; Dep: \$50. High above the southwest shore of Lake Tahoe, 130 lakes crowd into 100 square miles of mountain scenery in Desolation Wilderness. We will hike along high passes and camp near some of these beautiful lakes. Two layover days will give us the opportunity to explore and climb Mt. Tallac (9,983 feet). A food drop midtrip will keep our backpacks light. This paradise is ours to explore and enjoy for a full eight days, and there is something for everyone: photography, fishing, and swimming. (Rated L-M)



[89157] Strathcona High Ridges, Strathcona Park, Vancouver Island, British Columbia, Canada-September 9-16. Leader, Ian D. Brown, 328 Stewart Ave., Victoria, B.C. V9B 1R8, Canada. Price: \$275; Dep: \$50. These high ridges (4,000 to 5,000 feet) are all above treeline. We will enjoy plentiful alpine flowers and have a few snowfields to cross. Ascending from Battle Lake between Ralph River and Shepherd Creek. we will follow Rees Ridge to Tzela Lake and exit via Flower Ridge. Along the way we will have continuous views of the high mountains of Vancouver Island, and we will pass by several areas the Sierra Club has recently convinced the Canadian government to save from mining and logging. (Rated M-S)

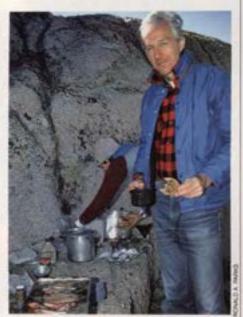
REFLECTIONS



"Have you ever wanted to whisper to the god?" Jim Halverson asked his 1988 trip participants. These trip members took him up on the offer, and here they address the "god" of Thunder Mountain in the High Sierra. The "god" kindly waited until the trip members returned to their packs – and raincoats – before he responded with two bours of rain, thunder, and lightning.

<u>BACKPACK</u>

[89158] Continental Divide Trail, La Magna to Elwood Pass, Colorado— September 10–17. Leader, John Lemon Sellerr, 112 N. University Ave., Enid, OK 73701. Price: \$305; Dep: \$50. South of Wolf Creek Pass, the Continental Divide Trail traverses alpine meadows and high mountain crests as it approaches New Mexico. Abundant wildlife and numerous alpine lakes make the southern San Juans ideal for photographers and anglers. Approximately two thirds of the trip will be on the Continental Divide Trail, with seg-



ments along Rio Blanco and a side trip to Crater Lake. Trail elevations will range from 9,500 to more than 12,500 feet. There will be opportunities to climb three peaks in excess of 13,000 feet. (Rated M-S)

[89159] Chuska Mountains, Navajoland, Arizona-September 16-23.

Leader, Lynn Krause, P.O. Box 398, Many Farms, AZ 86538. Price: \$370; Dep: \$50. The Chuska Mountains of northcastern Arizona soar above blue deserts and fieryred Windgate sandstone. Located north of Canyon de Chelly, Boiling Over Wash and Hasbitibito Canyon cut into the Chuska range, providing access at 8,900 feet to ancient lava flows covered with aspen. Much of our hiking will be on slickrock, following Anasazi routes and



Navajo sheep trails. Our Navajo guide will help us find Basketmaker, Anasazi, and Navajo rock art as well as provide an orientation to Navajo history and customs. A family will broil lamb for us one evening, and we may have an opportunity to use a sweatlodge. (Rated M-S)



Golden rod and purple loosestrife

[89160] Summer's End in the Adirondacks, New York-September 18-24.

Leader, Kenneth S. Limmer, 3817 Logans Ferry Rd., Pittsburgh, PA 15239. Price: \$340; Dep: \$50. Summer is ending, the crowds have gone, and the fall foliage is approaching the zenith of color. What better time to be backpacking in the 2.5million-acre Adirondack State Park. We will hike into the High Peaks region of the forest preserve, where 46 of the peaks are over 4,000 feet. The highest, which the Indians called Tahawus, or "Cloud Splitter," stands at 5,344 feet. We know it as Mt. Marcy. We will climb this mountain and several others, and camp along the lakes, ponds, and streams that feed the Hudson River. Celebrate the fall season in this magnificent state park. (Rated M-S)

NEW TRIP

[90325] Dark Canyon, Utah-September 30-October 7. Leader, Dianne Leeth, P.O. Box 440289, Aurora, CO 80044. Price: \$365; Dep: \$50. Numerous plunge pools and waterfalls, ancient Anasazi ruins, intriguing side canyons, and natural arches make up this remote and unspoiled canyon system near Natural Bridges National Monument. Beginning in the pines, we will descend 4,200 feet through spectacular canyon scenery to just above the mouth of Dark Canyon. Our moderate pace and one layover day will allow time to explore, photograph, and savor the beauty of this fascinating area. (Rated M)

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8

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Bluebells

(Rated S)

[90326] Kanab and Tapeats Creeks, Grand Canyon, Arizona-September 30-October 8. Leader, Bob Madsen, 3950 Fernwood Way, Pleasanton, CA 94566. Price: \$370; Dep: \$50. Entering the Grand Canyon from the North Rim, we will enjoy a great variety of scenery on this trip. Sinuous Kanab Creek, with its waterfalls, fern grottoes, and narrow rock formations, will lead us to the Colorado River. We will hike and boulder-hop along the river, stopping to explore Deer Creek Falls and its scrpentine canyon before continuing to Tapeats Creek. Then we will pass appropriately named Thunder River Falls on our way to Surprise Valley, and finally leave the grand, expansive views of the Esplanade at Indian Hollow. Half of our trip is off-trail. We will have no layover days, but the extraordinary scenery is well worth our extra effort!

[90327] Navajo Mountain-Rainbow Bridge, Arizona-October 1-7. Leader, Barry Morenz, 7620 E. Plaza del Pajaro, Tueson, AZ 85715. Price: \$365; Dep: \$50. Our hike will take us through magnificent slickrock and sandstone canyons and around 10,338-foot Navajo Mountain. Lovely creeks, amphitheaters, fall wildflowers, and evidence of ancient Indian dwellers await us. The area is a photographer's delight. Time is allotted for exploration. (Rated M)

[90328] Maze District, Canyonlands Park, Utah-October 6-14. Leader, Bert Fingerhut, 225 W. 83rd St., New York, NY 10024. Price: \$455; Dep: \$50. Our group of experienced canyon-backpackers will explore the Maze District of Canyonlands National Park. After a strenuous fourwheel-drive ride to the Maze District overlook, we will hike down into Morse and Jasper canyons and possibly to Shot and Water canyons as well. (Rated S)

[90329] Escalante Wildlands, Box-Death Hollow Wilderness, Utah-

October 7–14. Leader, Bob Hartman, 1988 Noble St., Lemon Grove, CA 92045. Price: \$340; Dep: \$50. Congress has designated Box-Death Hollow part of the National Wilderness System, but controversy surrounds the Forest Service's plans to assure its long-term environmental protection. On this challenging backpack trip we will explore the sandstone canyons, with their slot washes and pools, as well as the pinecovered Antone Bench above a tributary of the Escalante River. We will learn about cut deep gorges and created a multitude of cascades and waterfalls. We will enjoy views of Lake Jocassee and fall colors at their peak. We will cover 6 to 10.5 miles daily for a total of about 50 miles. After we set up camp, we can make side trips along the river valleys. (Rated M)

[90331] Ozark Highlands Trail, Ozark Forest, Arkansas-October 15-21.

Leader, Larry Ten Pas, 2413 S. 15th St., Sheboygan, WI 53081. Price: \$380; Dep: \$50. Fall colors should be at their peak during our outing in the ridge and valley country of northwest Arkansas near Clarksville. Expect steep climbs and descents, but our efforts will be rewarded by mountaintop vistas, rock formations, lakes, and rivers. Highlights of our trail include White Rock Mountain, Lake Ft. Smith, and the Arkansas and Mulberry river valleys. (Rated M)



Near Lone Pine Creek, eastern Sierra.

the potential effects of industrial development on this rugged wilderness as well as enjoy solitude in a setting that rivals Zion National Park in beauty. (Rated M)





[90330] Foothills Trail, South Carolina/North Carolina—October 14–21. Leader, Helene Baumann, Rte. 6, P.O. Box 909, Hillsborough, NC 27278. Price: \$265; Dep: \$50. Skirting the Blue Ridge escarpment in western South Carolina, this beautiful trail crosses some rugged and remote terrain and several rivers. Fed by 80 inches of annual rainfall, these rivers have [90332] Nankoweap and Kwagunt, Grand Canyon, Arizona—October 15–22. Leader, Sid Hirsh, 4322 E. Seventh St., Tücson, AZ, 85711. Price: \$275; Dep: \$50. Indian ruins, the highest natural arch in the canyon, the sky island of Nankoweap Mesa, a waterfall—there is so much to see in this part of the Grand Canyon that two layover days are planned, one at Nankoweap and one at Kwagunt: Our route in and out of the Grand Canyon will be on the Nankoweap Trail. (Rated S)

NOTE: See Alaska, Hawaii, and Foreign trips for other backpack outings.

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ASY ACCESS TO PRISTINE OUT-

DOOR SETTINGS, PLENTY OF FREE TIME FOR A VARIETY OF RECREATIONAL AC-TIVITIES, EXCELLENT FOOD AND AFFA-BLE COMPANIONSHIP – ALL THIS WITH-OUT THE HARDSHIP OF STAGGERING INTO CAMP WITH A BURDENSOME BACK-PACK. THAT'S WHAT BASE CAMPS ARE ALL ABOUT.

Base camps usually begin with dinner and introductions at the roadhead. Bright and early the next morning, pack animals begin ferrying all our food and equipment to the leader-selected base camp while you hike along the trail carrying only a daypack with your lunch, camera, and perhaps rain gear.

IN CAMP YOU'LL HELP THE LEADERS AND STAFF SET UP AND YOU'LL TAKE TURNS COOKING AND PREPARING MEALS. BEYOND THAT, YOUR TIME IS YOUR OWN.

YOU CAN GO ON ONE OR ALL OF THE DAILY HIKES YOUR LEADERS WILL OR-GANIZE – SOME STRENUOUS, SOME LEI-SURELY. YOU CAN FISH, BAG PEAKS, SKETCH WILDFLOWERS, OBSERVE WILD-LIFE, READ, WASH SOCKS, SNOOZE, LOLLYGAG, OR FROLIC IN THE MEADOW SOME BASE CAMPS HAVE PHOTOGRAPHY INSTRUCTORS OR NATURALISTS ON STAFE QUITE A MENUTO CHOOSE FROM!



Havaou Canyon, Arizona

NOMATTER WHICH BASE CAMP TRIP YOU SELECT, YOU CAN BET THAT WHETHER CAMP IS IN A CALIFORNIA DESERT OR A WYOMING VALLEY, THE LO-CALE WILL BE A SCENIC JOY.

[89044] America's Paradise Base Camp, Virgin Islands Park, Virgin Islands—March 5–11. Leader, Chuck Cotter, 1803 Townsend Forest Lane, Brown Summit, NC 27214. Price: \$530; Dep: \$100.

[89047] America's Paradise Base Camp, Virgin Islands Park, Virgin Islands—March 26–April 1. Leader, Jim Absher, 225 Ansley Dr., Athens, GA 30605. Price: \$550; Dep: \$100. Join us for a weeklong exploration of tropical splendors on St. John, the least developed of the U.S. Virgin Islands. Almost 65 percent of the island is included in Virgin Islands National Park. We'll stay in rustic beachfront cottages and hike or drive to various locations for short walks, snorkeling, and visits to cultural sites. We'll also take advantage of some ranger/naturalist programs. Other days will be free for sunbathing, sailing, or shopping. Jeeps will take us to corners of the island and into town for the nightlife and Caribbean dining. Meals are not included in the trip price, but the cottages have stoves and ice chests. You'll be amazed at the diversity and beauty of this national park—its tropical forests, white-sand beaches, coral reefs, tropical fish, and more.

[89045] Anza-Borrego Natural History, Anza-Borrego Park, California-March 18-25. Leader, Carol Baker, 3146 Udall St., San Diego, CA 92106. Price: \$270; Dep: \$50. The Anza-Borrego Desert comprises more than a million acres in Southern California cast of the Coastal Range. Uniquely juxtaposed terrain and landforms vary from 6,000-foot piney crags to fossilized badlands to a low inland sea, supporting a rich variety of desert plants and animals for study with our accompanying naturalist. Participants will ride in carpools to camps and

trailheads. Hikes are easy to moderate; energetic walkers may climb a peak. Weather should be mild, but rain, wind, and snow are possible at this time of year.

[89046] East Mojave Scenic Area, California—March 18–25. Leader, Ken Homer, 1223 Yale Ave., Claremant, CA 91711. Price: \$410; Dep: \$50. Spring is the perfect time to visit the desert region proposed as Mojave National Park in Sen. Alan Cranston's California Desert Protection Act. From our camp at 5,600 feet, we will take leisurely to moderate dayhikes to 600-foot sand dunes, caverns, canyons, cinder cones, volcanic spires, mesas, and petroglyphs. A naturalist will help us learn about the unique and beautiful flora and fauna of the Mojave Desert.

NEW

TRIP

[89052] Arches and Flora of the Red River Gorge, Kentucky—May 6–13. Leader, Susan Lassiter, 212 Northwestern Phuey, Louisville, KY 40212. Prior: \$330; Dep: \$50. Just 45 minutes from Lexington in the Daniel Boone National Forest lies the largest concentration of natural arches in the eastern United States. This area is also known for its sandstone cliffs and vistas of heavily forested valleys. We will set up our base camp at Koomer Ridge Campground and hike on trails to see several of the rock arches, plus Chimney Top Rock, Angel Windows, Rock Bridge, and other geological points of interest. During this time of year the region abounds with wildflowers, and we will be able to identify and photograph an extensive number of them.

[89050] Hiking Virginia's Rooftop, Mt. Rogers Recreation Area, Virginia

-May 21-28, Leader, Ray Abercrombic, 5409 Crossrail Dr., Burke, VA 22015. Price: \$265; Dep: \$50. This national recreation area covers 154,000 acres of Jefferson National Forest in southwestern Virginia and includes every 5,000-foot peak in the state. We will stay in a group camp at Beartree Gap, east of the town of Damascus, and take dayhikes along the Appalachian and Iron Mountain trails in preparation for our moderately strenuous ascent of Mt. Rogers. During these hikes we will pass through hardwood forests, mountain meadows, and, on the higher summits, spruce and fir stands. Much of the rhododendron along the creek banks should be in bloom. The Virginia Creeper Trail, which follows an old railroad grade through Laurel Creek gorge, will provide an opportunity for some level walkingand more fine scenery.

[89051] Mono Basin Natural History, Inyo Forest, California—June 3–10. Leader, Len Leueis, 140 Stacry Lane, Graar Valley, CA 95943. Price: \$385; Dep: \$50. For about a million years the blue water of Mono Lake has reflected the beauty of the eastern Sierra Nevada. Cradled by glaciated canyons, extinct volcanoes, and snow-covered peaks, this lake is unique in its geology and wildlife. We will camp in a cottonwood grove in the shadow of the eastern escarpment and explore the enigmatic Mono Basin with the guidance of our geologist/naturalist. The energetic may also hike to High Sierra granite country and climb a peak or two. This is a glorious trip for all ages and interests.





[89165] Clarice Lake-Minarets, Ansel Adams Wilderness, Sierra-July 8-15. Leader, Jo-Ann Nicola, 1213 Panhie Dr., Davis, CA 95616. Price: \$585; Dep: \$100. Just south of Garnet Lake, slightly off the John Muir Trail, lies Clarice Lake (9,600 feet). We will reach it after a nine-mile gradual climb from the trailhead at Agnew Meadows (8,335 feet) near Mammoth. Our campsite offers a stunning view of the jagged, snow-covered Ritter Range. We will have time for fishing, dayhikes, identifying wildflowers, or peakbagging.



[89166] Stehekin Valley, North Cascades, Washington—July 9–15. Leaders, Irma and Wayne Martin, 350 Brey Rd., Santa Rosa, CA 95409. Price: \$625; Dep: \$100.

[89170] Stehekin Valley, North Cascades, Washington-August 13-19.

Leader, Marilyn Gifford, 3814 N.E. Wasco St., Portland, OR 97232. Price: \$625; Dep. \$100. Stehekin, the "enchanted valley," is reached by a 50-mile ferry ride on Lake Chelan, a 6,000-foot rift in the North Cascades. We will stay in rustic cabins on the Courtney Ranch, at the base of McGregor Mountain in isolated Stehekin Valley. Each day we will have a choice of hikes, both easy and strenuous, from the hypnotically beautiful Agnes Gorge to spectacular Cascade Pass. Meals will be delicious, homemade, and family-style. Optional activities include trailrides on horseback and perhaps a dip in Lake Chelan. This trip is suitable for families, couples, and singles of all ages.

Mt. Wallace. The trailhead at Lake Sabrina (9,100 feet) is the starting point for our 5.5-mile hike through slopes covered with aspen, mountain mahogany, and lodgepole pine. Our route will take us past Blue, Emerald, and Dingleberry lakes. Dayhikes will provide opportunities to scramble up peaks, explore any of the 18 nearby lakes, fish, identify wildflowers and trees, or simply relax in the high mountain environment and enjoy the camaraderie.

[89168] Donner-Tahoe Discovery and Photography Base Camp, Sierra-

July 30-August 6. Leaders, Betty Watters and Jim Maas, 600 Caldwell Rd., Oakland, CA 94611. Price: \$425; Dep: \$50. Our base camp is at the Sierra Club's own Clair Tappaan Lodge at 7,000 feet, near Norden, California. The trip features optional dayhikes near historic Donner Pass and Lake Tahoe. Since it's camera-ready country, we'll have a photography instructor [89169] Northern Yosemite—Virginia Canyon, Yosemite Park, Sierra—July 30-August 6. Leader, Alan Stahler, P.O. Box 1006, Nevada City, CA 95959. Price: 5580; Dep: \$100. The emphasis of our trip will be on natural history: the plants, wildlife, geology, weather, and—after the sun goes down—the stars. Dark, clear skies will provide a chance for participants to learn their way around the galaxy. Virginia Canyon is in a part of Yosemite where the granite rocks of the Sierra meet the older, metamorphosed rocks of an ancestral mountain range that existed here millions of years ago. A number of





[89167] Midnight Lake, John Muir Wilderness, Sierra—July 19–27. Leaders, Fran Grothers and Ken Pefkaros, 1410 Pearl, Alameda, CA 94501. Price: \$675; Dep: \$100. Enjoy eight days among some of the most scenic alpine lakes and jagged, snow-streaked spires and ridges of the Sierra crest. Rising just behind our camp are 13,435-foot Mt. Haeckel and 13,377-foot on staff—so there's no way you can lose photo contests back home. Hikers and camera bugs ages eight and up will enjoy the rugged beauty of the central Sierra as well as the creature comforts of the lodge. This trip is a repeat of last year's highly enjoyable base camp tour, with the same leaders. Start your own discovery by signing up. Pricklepoppy

glacier-carved lakes are rewarding destinations for dayhikes. We'll also hike up several of the 11,000- and 12,000-foot peaks to get a sense of the history of the rocks and landforms . . . and to enjoy great views of the High Sierra!

[89171] Stehekin Valley Base Camp and Pack Trip, North Cascades, Washington—August 13–19. Leader, Bill Gifford, 3814 N.E. Wasco St., Portland, OR 97232. Price: 5895; Dep: 5100. The highlight of our trip to the Stehekin Valley will be two nights camping near Park Creek Pass. Horses will pack in our gear, and tents will be provided. Views from the pass are among the most magnificent in the North Cascades. The rest of the week we will stay in tent cabins on the Courtney Ranch at the foot of McGregor Mountain. We will have a choice of



[90335] Nature Photography, The Barrier Islands of Maryland and Virginia -October 15-20, Leaders, Otto and Viv Spielbichler, 9004 Sudbury Rd., Silver Spring, MD 20901. Price: \$380; Dep: \$50. Our trip is timed to catch the height of the bird migration along the Eastern Flyway. We'll see a variety of geese, ducks, and shorebirds and observe Chincoteague ponies and white-tail deer prepare for winter in one of the few National Seashores on the East Coast. Wildlife enthusiasts interested in photographing birds and animals and learning about island ecology will enjoy this trip. We also plan to include a visit to Chrisfield, one of the major fishing centers on Chesapeake Bay, and sample the seafood for which this area is famous. Our accommodations will be in picturesque Chincoteague.

NOTE: See Family and Foreign trips for other base camp outings.

dayhikes to Walker Park, Horseshoe Basin (with its many waterfalls and an old gold mine), and spectacular Cascade Pass. Known as the "enchanted valley," Stehekin is reached by a 50-mile boat ride on Lake Chelan.

[89172] Canada's Coast Mountain Wilderness, Tweedsmuir Park, British Columbia-August 14-20. Leaders,

Katie Hayhurst and Dennis Kuch, Cambridge Bay, Northwest Territories X0E 0C0, Canada. Price: \$1,045; Dep: \$100. Daily excursions into the wilderness of British Columbia's largest and least-known park will be followed by fine dining and relaxation before the fireplace in historic Tweedsmuir Lodge. Tailored to the interests and abilities of the group, the hikes are designed to be educational journeys into the natural and cultural history of this fascinating area. We will hike in the deep forests of the coastal valleys, stroll in the alpine meadows of the Rainbow Mountains, walk up the sides of the valley to waterfalls and overlooks, and explore the delta of the Bella Coola River looking for Indian petroglyphs, bald eagles, and salmon.

[89173] Havasu Canyon, Grand Canyon, Arizona-September 24-30. Leader, Gail Solomon, 2521 Eighth Ave., Oakland, CA 94606. Price: \$740: Dep:

Maroon Bell-Snowmass Wilderness, Colorado



\$100. Camping between turquoise waterfalls and red cliffs fringed by cool green cottonwood trees, you'll think you've found Shangri-La in this oasis of the Grand Canyon. If you're looking for leisure, just hike the 9.5 miles to camp while horses carry your gear, then spend your days relaxing. The 2,000-foot elevation gain from our camp by the Havasu Indian Reservation to the trailhead at Hualapai Hilltop is the trip's most strenuous part. The weather should be perfect for splashing in the pools of Havasu Creek next to our camp, but for more of a challenge join us on explorations of the surrounding canyons and plateaus. A trip highlight will be a trek to the canyon bottom to marvel at the mighty Colorado River.



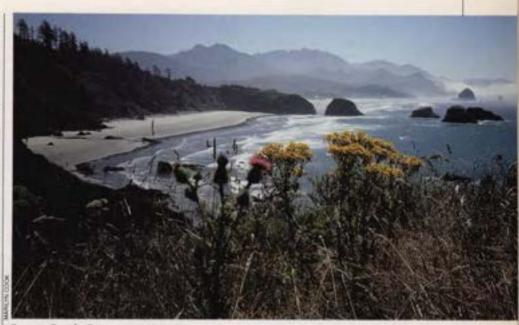
BICYCLE

OING NO MORE IARM TO THE ENVI-RONMENT THAN WALKING DOES, BICY-CLING PUTS YOU CLOSELY IN TOUCH WITH YOUR NATURAL SURROUNDINGS AND COVERS MUCH MORE COUNTRY. SOME TRIPS INTERSPERSE TRAVEL DAYS WITH LAYOVER DAYS, BUT ALL INCLUDE AMPLE TIME FOR ACTIVITIES SUCH AS SWIMMING, HIKING, AND SIGHTSEEING. TERRAIN AND DISTANCE VARIATIONS RE-QUIRE DIFFERENT LEVELS OF SKILL AND PHYSICAL CONDITIONING. MOST TRIPS ARE SELF-CONTAINED (NO SAG WAGONS). SO TRIP MEMBERS CARRY ALL GEAR ON THEIR BIKES AND BUY GROCERIES DAILY. LEADER APPROVAL IS REQUIRED.

[89178] Canyon Country Mountain Bike Loop, Arizona and Utah-May 21-June 2. Leader, Deborah Northcutt, 5400 Evergreen, Farmington, NM 87401. Price: \$1,040; Dep: \$100. Riding mountain bikes, we'll travel on paved and unpaved roads into the remote, colorful slickrock canyons and fragrant high forests of southern Utah and northern Arizona. Beginning and ending our trip at Marble Canyon, we'll visit such places as the Paria Plateau, Kodachrome Basin, Bryce Canvon National Park, Kaibab National Forest, Lee's Ferry, Buckskin Gulch, and House Rock Valley. The spectacular vistas and hikes along the way will make this an unforgettable trip. We'll average 30 miles a day and a sag wagon will carry our gear. We plan to camp out or stay at inns.

NEW TRIP

[89179] Great River Ramble, Saint Croix and Mississippi Rivers, Minnesota—June 11–17. Leader, John Arthur, 1301 Hury. 7 #141, Hopkins, MN 55343. Price: \$345; Dep: \$50. Enjoy seven days behind bars (handlebars that is) on a bicycle trip along the scenic Saint Croix and



Cannon Beach, Oregon

upper Mississippi rivers. Highlights of this trip include a stay in a bed-and-breakfast inn and a visit to the birthplace of water skiing. We will average about 50 miles per day. Find out what the famous "Prairie Home Companion" country is really like. We do speak Minnesotan here.

[89180] Vermont Bicycle Tour-June 18-24. Leaders, Bob Anderson and Maggie Seeger, 239 Chalmette Rd., Livermore, CA 94550. Price: \$355; Dep: \$50. Starting. from the shores of Lake Champlain, we will spend six days bicycle-touring central and southern Vermont, stopping each night at a campground. We will cycle through rolling countryside, passing numerous historic sites and antique shops along the way. We'll travel through open farmland, quaint New England villages, and covered bridges. Moderate mileages each day should allow enough time to swim (at least once in an abandoned quarry), visit antique shops, picnic, and generally relax. A sag wagon will transport both community and personal gear between campgrounds.

[89181] East-West Wisconsin Bicycle Tour-June 24-July 1. Leader, Alice Honeywell, 441 Virginia Terrace, Madison WI 53705. Price: \$355; Dep: \$50. Passing through country once frequented by John Muir and Aldo Leopold, our route extends from Lake Michigan to the Mississippi River. It traverses both glaciated and unglaciated terrain, taking advantage of Wisconsin's fine network of paved secondary roads. A layover day at Devil's Lake State Park will allow time for photography, swimming, and hiking in the bluffs. The trip ends with a ride on the famed Elroy-Sparta bicycle trail through tunnels along a historic railroad route. We will average 55 miles per day carrying our own gear and camping each night. This is a moderately strenuous trip.



soak in the tranquil environment. We will explore the culture and tradition of the Micmac Indians, Acadians, and Irish, Scottish, and English settlers as we visit historical villages, savor local maritime cuisine, and seek out local fairs and

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BICYCLE

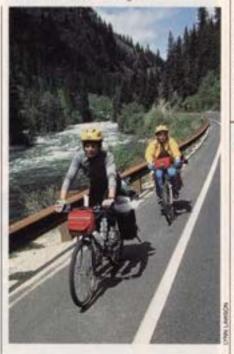


festivals. We will stay in cottages and provincial park campgrounds in this selfcontained, 350-mile tour.

[89183] Lake Placid Circuit, Adirondack Park, New York-August 6-12. Leader, John Borel, 130 Lancaster St., Albany, NY 12210. Price: \$495; Dep: \$50. Come join our tour through the ancient Adirondacks. Averaging 35 miles a day, we will circle the Adirondack High Peaks Wilderness area, allowing time for sightseeing, swimming, and shopping. On our layover day we can enjoy Lake Placid or a climb in the High Peaks. Our route through 2.5-million-acre Adirondack Park offers panoramic mountain views, including views of Mt. Marcy at 5,344 feet. We'll ride through the 100-year-old Forest Preserve and along the shores of numerous lakes, including Long, Tupper, the Saranacs, Placid, Mirror, and the Cascades. The tour is appropriate for beginners and experienced bicyclists. A sag wagon will transport our gear, and we'll camp three of seven nights.

[89184] Oregon Coast Bicycle Tour-August 6-12. Leader, George Neffinger, 207 Lexow Ave., Nyack, NY 10960. Price: \$390; Dep: \$50. Spend a week cycling Oregon's spectacular coastal highway from Astoria to Florence. Riding at a moderate pace with only occasional

Joe Pye Weed Field, Massachusetts Wenatchee River, Washington



climbs, we will average 45 miles per day. Along the way we will explore beaches, tidal pools, dunes, and headlands and visit historic forts, lighthouses, and museums. There will be plenty of time to sample the local arts, crafts, wine and cheese, and to enjoy good fellowship. Each night will be spent at a state campground with swimming and showers. A sag wagon will transport community and personal gear between campgrounds and provide an extra measure of safety and convenience.

[89185] Grand Tetons-Yellowstone Bicycle Tour, Wyoming and Idaho-August 6-13. Leader, Paul Von Normann, 732 S. Juniper St., Escondido, CA 92025. Price: \$440; Dep: \$50. Bicycling around the Grand Tetons and through the heart of Yellowstone National Park will surely fulfill the eager cyclist. Our layover day will allow us to explore scenic Yellowstone, renowned for its geysers, hot springs, wildlife, and geological features. Our 350-mile, moderately strenuous, self-contained loop tour will begin and end in Jackson. Overnights will be at Jackson Lake, Bridge Bay, West Yellowstone, Ashton, and Swan Valley.

[89186] Acadia Experience, Maine-August 13–19. Leader, Edith Schell, 2671 Brown St., Collins, NY 14034. Price: \$380; Dep: \$50. Combining mountains, cliffs, and beaches, Acadia—the only national park in the Northeast—is coastal Maine at its very best. From our base camp we will bike through villages, past inlets and bays studded with lobster buoys, and along the

LEADER PROFILE



Frank J. Traficante

Frank bas been a Club member for seven years. Wby did he join? "In response to James Watt." Nuff said. From 1983 to 1987 he has assisted on hike and backpack trips in Wyoming, Colorado, North Carolina, Tennessee, New York, Nova Scotia, New Jersey, and Maine. In 1988 he led a backpack trip in the Adirondacks. And in 1989, he's leading trip #89187. Thank you, James Watt! He has a two-word answer to the question, What do you enjoy most about leading club outings? "The camaraderie." And his most memorahe experience as a trip leader? "Nothing I can think of. Every trip is memorable."

BICYCLE



Central Vermont farm

park's beautiful lakes. When we reach trailheads, we will hike to the summits of the bare-topped mountains of Acadia for views of Frenchmans Bay and Somes Sound, the only true fjord on the East Coast. One day we will have the option of renting canoes and paddling the length of Long Pond. We will also have time for identifying flora and fauna and for swimming. The combination of hiking, hilly biking, and canoeing makes this a moderate trip.

[89187] Discover New Hampshire Bicycle Tour-August 13-19. Leader.

Frank J. Traficante, 9 Sherbone Pl., Sayreville, NJ 08872. Price: \$355; Dep: \$50. Our exploration of the Granite State begins as we follow the sweeping curves of the Connecticut River. We will cross secluded covered bridges and travel through 200-year-old villages. Leaving the lush river valley, we will cycle through the White Mountain National Forest by way of the Kancamangus Highway, the loftiest mountain highway in the East. Then our route turns to the Lakes Region -home of Winnipesaukee, Squam, and hundreds of other lakes and golden ponds. We will average 55 miles per day over rolling and hilly terrain. A sag

wagon will carry our gear to each night's camp.

[89188] Finger Lakes Lark, New York -Sept. 17-23. Leader, Irwin Rosman, 293 Grew Dr., New Milford, NJ 07646. Price: \$365; Dep: \$50. The Finger Lakes region in western New York is superb bicycling country. Freshwater lakes lie in valleys flanked by long, glacier-carved ridges, which offer broad vistas of the surrounding countryside. We will enjoy the scenery, as well as swim, visit some of the better wineries, see towns dating back to pre-Civil War days, and roam through deep gorges. We will average 50 miles a day with one layover day. A sag wagon will carry our gear.



Wild turkey

[89189] Bicycling the North Woods, Wisconsin-September 17-24. Leaders, Larry Ten Pas and Max Cannon, 2413 S. 15th St., Sheboygan, WI 53081. Price: \$350; Dep: \$50. Savor the fall colors of northwestern Wisconsin while pedaling through county forests, state parks, and along rustic roads. We plan to camp each night and carry our own gear on a ride of 40 to 80 miles per day. On our layover day, we'll have the option of taking a ferry to one of the Apostle Islands, where we can explore, swim, and comb the beaches. Highlights of the route include the Chippewa Flowage, Copper Falls, Amnicon Falls, Lake Superior shore, and Apostle Islands National Lakeshore.

NEW

TRIP

[90337] Cycling in Puerto Rico-December 24, 1989-January 1, 1990. Leaders, Tali and Boh Mathis, 2208 Colston Dr. #103, Silver Spring, MD 20910. Price: \$485; Dep: \$50. Puerto Rico's coastline offers beautiful sights both above and below the water. Our cycling trip around the perimeter of the island will allow time for enjoying the beaches and diverse scenery of this island. We hope to catch a glimpse of humpback whales, tropical fish, and coral reefs. We'll average 40 miles per day of moderate riding, carrying our own gear and camping most nights.

NOTE: See Foreign and Alaska for other bicycle outings.



Cannon Beach, Oregon

<u>Burro</u>

HE FRIENDLIEST AND GENTLEST OF PACK ANI-MALS, BURROS ARE YOUR COMPANIONS ON THESE WILDERNESS OUTINGS. SUITABLE FOR THE NOVICE CAMPER OR SEASONED OUTDOORSPERSON OF ANY AGE, A BURRO TRIP IS TRULY A DIFFER-ENT TYPE OF OUTING. THE BURROS ARE LED BY PARTICIPANTS AND CARRY MOST OF THE LOAD. ALTHOUGH THE BURROS' PACE ON THE TRAIL IS NOT FAST, PARTICI-PANTS MUST BE IN GOOD PHYSICAL CON-DITION. MOST ROUTES ARE AT HIGH ELEVATIONS (8,000 TO 12,000 FEET), AND A TYPICAL DAY COVERS FIVE TO TEN MILES.

EVERYONE TAKES PART IN THE TRIP ACTIVITIES, INCLUDING BURRO CARE AND WRANGLING, AS WELL AS COOKING AND DISHWASHING. LAYOVER DAYS ALLOW FREE TIME FOR RELAXATION OR MORE STRENUOUS ACTIVITY. THE BURROS PROVIDE ELEMENTS OF ADVEN-TURE AND GENTLENESS NOT FOUND ON OTHER OUTINGS. A BURRO TRIP IS A FINE OPPORTUNITY TO GET TO KNOW THESE DELIGHTFUL ANIMALS, SEE SOME BEAU-TIFUL WILDERNESS, AND LEARN ABOUT THE OUTDOORS.

[89193] Margaret Lakes Family Trip, John Muir Wilderness, Sierra-July 30-August 6. Leader, Don White, 411 Walmut Dr., Mommouth, OR 97361. Price: adult \$495; child \$415, Dep: \$50. Margaret Lakes lie in a high alpine basin just below the Silver Divide. Our trip starts at Vermillion campground on Lake Thomas A. Edison. We will take two days to cover



Ansel Adams Wilderness, Sierra

about 13 miles and climb 2,500 feet to cross the 10,600-foot pass between Arch Rock and Saddle Mountain before dropping to our Margaret Lakes campsite at 9,300 feet. We will have plenty of time for dayhikes, fishing, loafing, and climbing Silver and Sharktooth peaks.

[89194] Up Bear Creek, John Muir Wilderness, Sierra-August 6-13. Leader, Peter Ohara, 1264 Ninth Ave. #6, San Francisco, CA 94122. Price: \$495; Dep: \$50. Our trip begins at Lake Thomas A. Edison and climbs over Bear Ridge to join the John Muir Trail. We then follow the chutes and cascades of Bear Creek for the rare opportunity of visiting the creek's source in high alpine lakes. Eventually we will descend into the canyon of the South Fork of the San Joaquin River, which will lead us to our destination at Lake Florence. This route, and side trips on layover days, will allow us to sample the many pleasures offered by the Sierra, from wooded valleys to alpine meadows and granite-skirted lakes. This is a moderate trip.

[89195] Over Hell-for-Sure Pass, John Muir Wilderness and Kings Canyon Park, Sierra-August 13-21. Leader, Mark Roderick, 367 Ivy #1, San Francisco. CA 94102. Price: \$495; Dep: \$50. I don't know why it has the name it does, because this 11,300-foot pass over the Le Conte Divide is the gateway to some of the most awesome and remote wilderness areas in the central Sierra. Sounds like a heavenly place to me. Crossing this lofty pass is just a small part of the trip; our route will wind through dense forests, high alpine basins, and deep glaciercarved canyons. If rugged mountain travel is your idea of heaven, please join our burro friends for some devilishly good mountain fun! This is a strenuous trip.

[89196] Over the Goddard Divide Family Trip, Kings Canyon Park, Sierra-August 21-September 2. Leader, Dan Holmes, 6 Via San Inigo, Orinda, CA 94563. Price: adult \$765; child \$635, Dep: \$100. This is your invitation to two magnificent weeks of adventure traversing the best alpine scenery of Kings Canyon National Park and the John Muir Wilderness. Going west to east, we will cross the Sierra Nevada by way of Evolution Valley, Goddard Divide, Le Conte Canyon, Dusy Basin, and Bishop Pass. Moderate hiking at elevations to 12,000 feet among towering peaks and glaciated valleys makes this trip an excellent choice for families or anyone seeking spectacular mountains.

FAMILY

KING IT EASY FOR FAMILIES TO ENJOY THE OUTDOORS TOGETHER IS THE ONE SPECIFIC GOAL SHARED BY ALL WILDERNESS THRESHOLD TRIPS. WE IN-TRODUCE FAMILIES TO THE JOYS OF CAMPING IN A COOPERATIVE ATMOS-PHERE AND ALLOW CHILDREN TO EXPE-RIENCE THE FUN OF OUTDOOR LIVING WITH OTHERS THEIR AGE. ADULTS AND OLDER CHILDREN SHARE COMMISSARY DUTIES AND OTHER CAMP CHORES. BESIDES HELPING LESS-EXPERIENCED FAMILIES LEARN BASIC OUTDOOR SKILLS. THE PROGRAM TRIES TO IN-CREASE AWARENESS OF AN AREA'S PLANTS AND ANIMALS AND APPRECIA-TION OF ECOLOGICAL RELATIONSHIPS. IN ADDITION TO TWO-PARENT FAMILIES. WE WELCOME SINGLE PARENTS, GRAND-PARENTS, AND AUNTS AND UNCLES.

THRESHOLD CAMPS VARY. ON WIL-DERNESS TRIPS, PACK ANIMALS TRANS-PORT FOOD, DUNNAGE, AND EQUIPMENT FROM ROADHEAD TO CAMP. ON OTHER TRIPS MOTOR VEHICLES MAY BE USED TO TRANSPORT GEAR WHILE PARTICIPANTS HIKE FROM CAMP TO CAMP. ON LODGE-BASED TRIPS THE "CAMP" IS BUT A FEW YARDS FROM THE ROAD. IN ALL CASES THE AREA SURROUNDING EACH CAMP-SITE OFFERS OPPORTUNITIES FOR FAMI-LY ENJOYMENT, NATURE STUDY, DAYHIKES, SOLITUDE, FISHING, AND SWIMMING. THE GROUP MEETS IN CAMP



Middle Velma Lake, Sierra

FOR BREAKFAST AND SUPPER. AND PACKS A LUNCH. MOST ACTIVITIES, INCLUDING EVENING GATHERINGS, ARE INFORMAL AND UNSTRUCTURED.

BEFORE YOU CHOOSE A TRIP, BE SURE TO READ THE TRIP DESCRIPTION CAREFULLY. THERE ARE DIFFERENT LEV-ELS OF DIFFICULTY AND SOMETIMES AGE OR CONDITIONING RESTRICTIONS. GENERAL GOOD HEALTH IS REQUIRED. AND SOME PHYSICAL CONDITIONING IS ADVISABLE. FAMILIES GOING INTO HIGH-COUNTRY CAMPS SHOULD PLAN TO SPEND A DAY AT HIGH ALTITUDE BE-FORE THE TRIP FOR ACCLIMATIZATION.

[89032] Easter Family Backpack, Aravaipa Wilderness, Arizona-March 24-29. Leaders, Beth and Bob Flores, 2112 W. Portobello, Mesa, AZ 85202. Price: adult \$255; child \$170, Dep: \$50. In southeastern

FAMILY



Arizona is a canyon of outstanding natural beauty, rich in western lore, Indian ruins, homesteads, and wildlife. We'll backpack three to five miles to each of our two base camps. Two layover days, a food cache, little elevation gain, and sunny days will make the hiking enjoyable for the entire family. Hiking Aravaipa is a rewarding experience for both the casual outdoorsperson and the dedicated backpacker, and a great adventure for families with children ages seven and up.

[89200] Canyon de Chelly Family Outing, Arizona-June 12-18. Leaders, Beth and Bob Flores, 2112 W. Partobello. Mesa, AZ 85202. Price: adult \$365; child \$255, Dep: \$50. We will spend a week on the Navajo Reservation experiencing Navajo culture, customs, and history firsthand. A Navajo guide will help us explore and interpret the rich archeological treasures, which include ancient Anasazi, Hopi, and Navajo cliff dwellings and petroglyphs. We will employ a "traveling base camp" format, having our gear transported for us. This means we will be able to explore the canyon carrying only daypacks and water. Our longest hike will be ten miles. This trip is suitable for families with children six and older. Participants without children are welcome.

[89201] Clair Tappaan Family Week, Tahoe Forest, Sierra-July 4-11. Leaders, Beth and Bob Flores, 2112 W Portobello, Mesa, AZ 85202. Price: adult \$360; child \$250, Dep: \$50. The Sierra Club's own Clair Tappaan Lodge is nestled high in the Sierra Nevada near Lake Tahoe. This rustic old ski lodge is situated close to natural and historical areas, hiking trails, lakes, streams, and meadows. Interpretive hikes with a naturalist are planned, as well as special nature-related activities for the youngsters. The comforts of the lodge. with its hot tub, fireplace, great meals, family-style bunks, and much more, make for a great family experience in the Sierra. This trip is suitable for families with children five and older.

[89202] Donner Pass Family Week, Tahoe Forest, Sierra-July 12-19. Leaders, Ellen and Jim Absher, 225 Ansley Dr., Athens, GA 30605. Price: adult \$325; child \$230, Dep: \$50. Join us for a week-long exploration of the historic and scenic Donner Pass area. The Sierra Club's own Clair Tappaan Lodge will provide us with rustic comforts. Each family will get its own dormitory-style room, and we will eat prepared meals in a dining hall. The charming lodge also has a large lounge with fireplace and a library. But the focus of our trip will be the natural and cultural features nearby. We'll hike or drive to various locations for half- to full-day walks, and we'll take advantage of ranger/naturalist programs. Special nature-related activities for the children are planned to encourage a participative; family atmosphere. The trip is suitable for children four years or older.

NEW

TRIP

[89203] Finger Lakes Toddler Tromp, Buttermilk Falls Park, New York— July 23–29. Leaders, Claudia and John Rogers, P.O. Box 474, Tramansburg, NY 14886. Price: adult \$295; child \$195, Dep: \$50. Using a state park as a base camp, we will explore the waterfalls, gorges, lakes, hiking trails, and nature centers of the Finger Lakes region. Our pace and perspective will be suited to the needs and capabilities of families with small children. We will have opportunities for swimming, bicycling, fishing, and sailing—all around family fun in a remarkable setting.

FAMILY



[89204] Rocky Basin Lakes Family Base Camp, Sierra-July 23-29. Leaders, Ellen and Jim Absher, 225 Ausley Dr., Athens, GA 30605. Price: adult \$395; child \$285, Dep: \$50. For a full week we'll explore the southernmost High Sierra. From our base camp at about 10,700 feet. we'll be close to a diverse array of mountain splendors: meadows, lakes, streams, and peaks. We will fish, hike, swim, botanize, climb a peak, or relax. We'll all work together to cook and do camp chores. Nature-related activities for the children are planned to encourage a participative, family atmosphere. The hike to our base camp over Cottonwood Pass (10,800 feet) is about nine miles with a total climb of 2,000 feet. This trip is suited to children seven years and older. Younger children are welcome if they can make the hike into camp.

[89205] Graveyard Lakes, John Muir Wilderness, Sierra Forest, Sierra—August 12–19. Leaders, Carol and Tom Baker, 3146 Udall St., San Diego, CA 92106. Price: adult \$465; child \$330, Dep: \$50. This is a perfect trip for families with children six years or older. We'll camp near Graveyard Lakes in the Silver Divide and spend our time hiking, swimming, fishing, and peakbagging. Some peaks, like Graveyard



Peak at 11,500 feet, are suitable for youngsters; others, like Silver Peak at 11,900 feet, are harder but provide spectacular views of the rugged Sierra peaks to the east. The hike to our base camp is long. In eight miles we will climb 2,300 feet from our trailhead at Lake Thomas A. Edison to Graveyard Lakes at about 10,000 feet.





[89206] Tuolumne Meadows Toddler Adventure, Yosemite Park, Sierra-September 10-16. Leader, Ellen Andrew Kasper, 1681 Crescent Ave., Castro Valley, CA 94546. Price: adult \$335; child \$240, Dep: \$50. The crowds will be gone, days are still warm, nights cool and clear. These are perfect conditions for a visit to the Sierra. At 9,000 feet on the edge of Yosemite's high country, Tuolumne Meadows is an ideal base camp. It offers easy access to a wide range of activities well-suited to families with toddlers. We'll hike to beautiful Tuolumne Falls, picnic at Tenava Beach, take a boat across Saddlebag Lake, scramble on tot-sized versions of Yosemite Valley domes, and tell tales around the campfire. Pack mules will carry our gear four miles to a backcountry lake, where we'll spend our last night camping beneath the magnificent spire of Cathedral Peak.

NOTE: See Backpack, Base Camp, Burro, Foreign, Hawaii, Service, and Water trips for other family outings.



Half Dome, Yovemite

<u>AFRICA</u>

N A SIERRA CLUB FOR-EIGN OUTING, TRIP PAR-TICIPANTS ENJOY WILDERNESS-ADVEN-TURE TRAVEL TO SOME OF THE MOST EXOTIC LOCATIONS ON EARTH. AS A TRIP PARTICIPANT, YOU MAY FIND YOUR-SELF TOURING MADAGASCAR, TREK-KING IN THE HIMALAYAS, RIVER RAFT-ING IN CHINA, OR WHALE WATCHING IN BAJA CALIFORNIA.

YOUR FOREIGN TRIP WILL ALSO BE A SOCIALLY AND CULTURALLY REWARD-ING EXPERIENCE. YOU WILL MEET LO-CAL PEOPLE, VISIT THEM IN THEIR HOMES, ENJOY THEIR CUISINE, AND LEARN TO APPRECIATE THEIR CUSTOMS AND TRADITIONS. YOU WILL ALSO LIKE-LY DEVELOP LIFELONG FRIENDSHIPS WITH OTHER TRIP MEMBERS.

LIKE ALL SIERRA CLUB OUTINGS, FOREIGN TRIPS CAN BE PHYSICALLY DE-MANDING OR MORE LEISURELY. ON SOME TRIPS YOU CAMP IN REMOTE AREAS: ON OTHERS YOUR ACCOMMODA-TIONS COULD BE GUEST HOUSES OR COMFORTABLE AND QUALITY-CON-SCIOUS HOTELS. BE SURE TO READ THE TRIP ANNOUNCEMENT AND SUPPLE-MENT TO DETERMINE WHICH TRIP IS RIGHT FOR YOU.

UNLIKE ORDINARY TOUR AGEN-CIES. THE SIERRA CLUB IS CONSERVA-TION-ORIENTED IN ALL ITS OUTINGS AND SEEKS TO PROMOTE AN UNDER-STANDING OF LOCAL ENVIRONMENTAL



Lake Tanganyika, Tanzania

ISSUES. ON FOREIGN TRIPS, PARTICI-PANTS ARE OFTEN WITNESS TO THE TRAGIC RESULTS OF DEFORESTATION, SOIL EROSION, INDUSTRIAL AIR AND WATER POLLUTION, AND OTHER MAN-MADE ECOLOGICAL DISASTERS. WE TRY TO LEARN ABOUT THE COUNTRY AND ITS CONSERVATION PROBLEMS BY TALKING WITH LOCAL CONSERVATIONISTS.

ON A SIERRA CLUB FOREIGN OUT-ING, YOU WILL BE IN CAPABLE HANDS. YOUR TRIP WILL BE ORGANIZED, COOR-DINATED, AND LED BY EXPERIENCED AND COMPETENT LEADERS WHO ARE SENSITIVE TO THE NEEDS OF TRIP MEM-BERS AS WELL AS THOSE OF THE HOST CULTURE AND NATURAL ENVIRONMENT. YOUR TRIP WILL BE A RICHLY REWARD-ING EXPERIENCE. BE SURE TO BRING WITH YOU A SPIRIT OF ADVENTURE. LEADER APPROVAL IS REQUIRED FOR ALL FOREIGN TRIPS. PLEASE NOTE THAT FOREIGN TRIP PRICES DO NOT IN-CLUDE AIRFARE.

NEW

[89890] Madagascar-Mysterious Island at the End of the Earth-June 13-July 3. Leader, Patrick Colgan, P.O. Box 325, La Honda, CA 94020. Price: \$2,590; Dep: \$100. Madagascar: An exotic habitat for rare and unique species of plants, insects, birds, and animals beckons us. Despite rapidly diminishing wilderness, there still remain dense rainforests with stupendous waterfalls, vast coastal desert plains with strange forests of "upsidedown" baobab trees, and magnificent coral reefs. Roads are rough here, and amenities sometimes primitive. On this exclusive Sierra Club first, we will travel from point to point by minibus, small plane, narrow-gauge railway, and perhaps outrigger canoe. Accommodations will range from reasonably modern hotels to picturesque old French-colonial guest houses with groaning plumbing. We will visit places of cultural significance, and enjoy a rich mixture of ethnic food, folk art and music. Participants will be required to join a reasonably priced group flight to and from Madagascar.

TRIP

ASIA

[89855] Annapurna-Chitwan Trek, Nepal—February 20-March 11. Leader, Peter Owens, c/o Cheryl Parkins, 4285 Gilbert St., Oakland, CA 94611. Price: \$1,245; Dep: \$100. Spring comes early to Nepal, whose national flower, the rhododendron, will be in full bloom during our moderate trek along the southern slopes of the most beautiful mountains in the world. After the trek we will visit Royal Chitwan National Park for three days of elephant safaris and jungle walks.

[89875] The China Kaleidoscope-

April 4-23. Leader, Bud Bollock, 1906 Edgewood Dr., Palo Alto, CA 94303. Price: \$3,195; Dep: \$100. Join us on this odyssey into exotic China; a long walk atop the Great Wall, the vast expanse of Beijing's Tian'anmen Square and Forbidden City, an encounter with the Qin Dynasty terracotta warriors in Xi'an, observation from a bicycle of farmers in Sichuan Province, an intimate glimpse of those beloved and protected pandas, an all-around sighting of Dafu (the Grand Sitting Buddha), a brief climb of Emei Shan (from 8,700 to 10,150 feet), an afternoon in a marketplace, a river trip through the Yangtze gorges, a walk through the prehistoric Dawn redwoods, and a possible stay at a farm home. We'll end our trip with shopping opportunities in bustling Shanghai. Travel will be by plane, train, bus, boat, bicycle (optional), and on foot. Accommodations will be the best available hotels or guest houses.

[89880] Manaslu Circle Trek, Nepal-

April 30-May 27. Leader, Peter Owens, c/o Laurie-Ann Barbour, 3131 Quintara St., San Francisco, CA 94116. Price: \$1,595; Dep: \$100. Manaslu, one of the world's highest peaks at 26,760 feet, can be circled to the north by crossing 17,100-foot Larkya La Pass. Starting in Gorkha, we follow the Buri Gandaki, the Dudh Khola, and the Marsyangdi Khola rivers. This 25-day trek passes by the Tibetan border and ends in Pokhara. We will cross spectacular terrain, visit villages rarely seen by trekkers, and see Buddhist gombas along the way.

[89920] Kulu-Kashmir Himalayan Traverse, India–July 4-August 5. Leaders, Bob Madsen and Peter Owens, 3950 Fermievod Way, Pleasanton, CA 94566. Price: \$2,350; Dep: \$100. High in the Indi-



Gasa Dzong, Bbutan

an Himalaya on the Tibetan Plateau lie Zanskar and Ladakh—remote, mysterious, and fascinating. We will cross five major passes in 20 days of moderate trekking, visiting three culturally distinct areas of northern India. Our route will take us from the verdant Hindu Kulu Valley into the arid Buddhist Zanskar region and the glaciers and wildflowers of Moslem Kashmir. The route is never less than 10,000 feet in elevation and reaches 16,700 feet at Shingo La Pass. Ponies will carry our gear. The trip will end at Srinagar with two days at Dal Lake.

[89935] Hunza-Nanga Parbat, Pakistan—July 15–August 15. Leader, Jerry Clegg, 9910 Mills College, Oakland, CA 94613. Price: \$3,985; Dep: \$100. Hunza Valley was the inspiration for the fictional Shangri-La in Lost Horizon. Those who have walked about its apricot orchards and barley fields say that the valley is the epitome of mountain grandeur. We will reach it by a flight through the Indus Gorge and via the Karakoram Highway, and a trail skirting Earth's longest glacier outside polar latitudes. Once made fit by our trek, we will hike to the mountaineers' aerie on the westernmost wall of the Himalaya, the Nanga Parbat Base Camp, for views of the gigantic volcano Rakaposhi and the ice peaks of the Hindu Kush and the Karakoram.



[89937] Midsummer in Northeast China—July 22-August 11. Leader, Sharon C. Cupp, 8927 20th Ase. N.E.,

ASIA



Seattle, WA 98115. Price: \$3,845; Dep: \$100. Remote northeast China (Manchuria) abounds in expansive landscapes and offers the finest outdoor recreational opportunities in the country. Westerners were first invited to visit rural areas in northeast China only last year. Traveling on foot and by raft, jeep, and train, our tour will take us to monuments, villages, cities, valleys, and mountaintops. We will visit the Changbai Nature Reserve (China's largest nature reserve and remaining virgin forest), Tianchi crater lake, and falls on the North Korean border. We will hike in the unique Bing Yu Valley in Liaoning Province and enjoy three days of paddling down the mild Er Dao Sung Hua River, which passes through isolated villages. We will also visit major cities such as Beijing, Dalian, and Hong Kong. Highlights will include

shopping for gifts and artwork, mingling with city people, relaxing on beachfronts, and visiting the Forbidden City and Great Wall. This trip promises to be an extraordinary opportunity to have cultural exchanges with Chinese people and their country.

[90500] China Study and Walking Tour, China-September 17-October

7. Leader, Phil Gowing, 2730 Mabury Sq., San Jose, CA 95133. Price: \$2,925; Dep: \$100. A highlight of this moderate walking tour in some of China's most beautiful and scenic areas will be a one-week stay and study at Qufu, the birthplace of Confucius. We will participate in low-key morning classes on Chinese customs, culture, language, history, philosophy, and cooking. In the afternoons and evenings we will be exposed to Chinese lifestyles firsthand by visiting schools, collective farms, and hospitals. In addition to this week of study, we will visit the Great Wall; tour the Forbidden City; Summer Palace, and Great Hall of the People in Beijing; explore the two jewel cities of Suzhou and Hangzhou; and possibly climb Tai Shan, one of China's most sacred mountains. The trip will begin in Beijing and end in Shanghai.



[90505] Trekking in the Dragon Kingdom, Central and Eastern Bhutan-September 23-October 21. Leaders, Jane and John Edginton, 2733 Buena Vista Way, Berkeley, CA 94708. Price: \$4,415; Dep: \$100. Among the last unexplored frontiers, the Himalayan border of central and eastern Bhutan is the site of colorful village life and glorious mountain scenery that few westerners have been able to experience. The eastern portion of this secluded, remote kingdom was just opened to visitors in 1988. Imposing temple forts, picturesque carved and painted rural architecture, people in native dressthese are parts of Bhutan's Tibetan Buddhist culture without parallel. The trip mixes trekking with cultural exploration. Altitudes will range from 7,000 to 18,000 feet as we traverse the Lunana area. Bhutan's green alpine valleys, towering under white Himalayan peaks, and forested canyons in fall colors will delight photographers.

[90515] Makalu Trek, Nepal-October

2-28. Leaders, Emily and Gus Benner, 155 Tamalpais Rd., Berkeley, CA 94708. Price: \$2,850; Dep: \$100. The base camp for climbers of Makalu, the world's fifthhighest peak, is one of the most spectacular and remote in Nepal. Five days from the nearest village, the pleasant, grassy campsite at 15,744 feet is directly beneath Makalu and includes access to a magnificent and unusual view of Mts. Everest and Lhotse. Our 15-day trek starts in the foothills at 6,000 feet, passes through Nepalese villages as it ascends to the Arun River, then crosses historic Shipton Pass to the Barun River and the base camp. A flight to Kathmandu will shorten our return trek to seven days. This moderately difficult trek is great for veterans as well as strong hikers new to Nepal and the trekking experience.

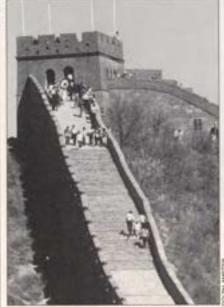
ASIA



[90520] One Trip, Four Chinas, China -October 15-November 4. Leader, Dwight Taylor, 2 Marston Rd., Orinda, CA 94563. Price: \$3,115; Dep: \$100. Our odyssey will take us through four regions of China, beginning with tours of Beijing (including the Forbidden City) and the Great Wall. Then we'll travel to central China to the remote mountain home of the giant pandas for a leisurely naturalhistory trek in the Sigunian Valley. Few westerners have seen this uninhabited valley, which is at an elevation of 11,000 feet and is surrounded by 20,000-foot-high granite spires. We will acclimatize for the trek by staying nights at a panda preserve and at a village. On our return we will visit the famous mist-covered limestone mountains near Guilin in southern China, which have inspired artists for centuries. We end our trip in fascinating Hong Kong, arguably the world's most interesting port.

[90521] Kangchenjunga Himal, Nepal –October 30–December 2. Leader, Wayne R. Woodruff, P.O. Box 614, Livermore, CA 94551-0614. Price: \$2,295; Dep: \$100. Kangchenjunga, the world's thirdhighest peak at 28,208 feet, is in eastern Nepal on the Sikkim border. Our trek will take us on an up-and-down route from thick rhododendron and bamboo forests through terraced fields, along mountain ridges, and across glaciers to the crowning finale—huge towering Kangchenjunga as seen from Pangpema. We'll also have vistas of the beautiful "mystery peak," Jannu, and the mountains surrounding Yalung Glacier. This will be a moderate to strenuous trip.

[90522] Annapurna Sanctuary, Nepal-November 2-20. Leader, Frances Colgan, P.O. Box 325, La Honda, CA 94020. Price: \$1,455; Dep: \$100. The trip starts with sightseeing in Kathmandu followed by a 16-day moderate trek to the fabulous Annapurna Sanctuary, where we will be surrounded by peaks ranging in elevation from 20,000 to 26,545 feet. Our circle route will take us through the interesting Gurung villages of Dhampus, Ghan-



Great Wall, China

drung, and Chumrong. After trekking to both Annapurna and Machhapuchhare (Fish Tail peak) base camps, we will return via the beautiful rhododendron forests of Gorapani Ridge, with views of Dhaulagiri and adjacent peaks. Our highest camp will be at 13,000 feet.

[90524] Lamjung Christmas Trek, Nepal-December 18, 1989-January 6, 1990. Leaders, Cheryl Parkins and David Hordey, 4285 Gilbert St., Oakland, CA 94611. Price: \$1,560; Dep: \$100. Leave the shopping mall behind this holiday season



Bbutanese villagers

to hike beneath some of the highest and most beautiful mountains in the world. On this little-known trekking route mainly along ridges on the eastern slopes of the Annapurna range, we will enjoy the solitude of a true Himalayan wilderness. The ascent to this seldom-visited region will take us through delightful Gurung villages, where terraced fields are planted with winter wheat. Direct contact with the local people and their life-style, the warmth and friendliness of our Sherpa and Tamang staff, and the watchful presence of Machhapuchhare, Annapuma IV, Annapurna II, and Lamjung Himal make this pilgrimage to the "roof of the world" of considerable reward. Maximum elevation reached will be approximately 13,000 feet.

[90525] Trekking Among the Hill Tribes of Northern Thailand—December 21, 1989–January 7, 1990.

Leader, Fred Schlachter, 7185 Homewood Dr., Oakland, CA 94611. Price: \$1,930; Dep: \$100. While trekking among the hill tribes of northwest Thailand, we will see spectacular scenery and visit the villages of many tribes, including the Karen, Meo, Lisu, Lahu, Yao, and Shan. Traveling on foot and by bus, truck, taxi, riverboat, raft, and elephant, we will briefly visit several beautiful and fascinating cities and towns-but the heart of our trip will be the jungle and mountains. We'll complete our trip by flying to the island of Phuket in southern Thailand. Here we'll relax, swim, snorkel, and explore neighboring islands. This trip is for people who are prepared to walk a lot and travel with minimal comfort to experience adventure, beauty, and excitement in an exotic and remote corner of the world.

<u>Europe</u>

NEW

TRIP

[89885] Southern Spain and the Balearics-May 5-20. Leader, Joe Lee Braun, 1323 Brandy Lane, Carmichael, CA 95608. Price: \$1,940; Dep: \$100. This is Don Quixote country. We will travel from one end of "La Mancha" to the other, starting at Toledo and visiting the fabled white cities of Cordoba, Seville, and Granada. We will have opportunities to hike through wildlife preserves, the Sierra Nevada and Sierra Segura ranges, and to visit such national treasures as the Alhambra and the Alcazar. This land seems not to have changed for centuries-which contrasts with our next destination, the Balearic Islands. After an overnight ferry ride to Ibiza, we will continue on to Mallorca and Menorca for a blend of the old and the new. Here we'll spend much time close to the crystal-clear Mediterranean, swimming from secluded beaches and taking interesting dayhikes among the old villages and ancient ruins. We'll also make sure we have time just to relax in this delightful setting.

[89887] Paris, France: A Non-Tourist View-May 11-22. Leaders, Sidney Hollister and Sandy Tepfer, 42 August Alley, San Francisco, CA 94133. Price: \$2,495; Dep: \$100. A repeat of a successful 1988 outing, this trip will introduce you to parts of Paris the tourist doesn't usually see-from the wholesale produce market at Rungis to the basement ovens of a famous bakery, and from a restored park to walking paths along a recently polluted but now healthy river just south of the city. Environmentalists will talk to us about the role Paris plays in the ecology of its region-how the city gets its water, food, and energyand what it is doing to keep its air clean and its streets free of gridlock. We'll take a tour of the subway, train, and bus system that moves millions of people every day, and we'll use that system to reach places Parisians go to escape the city's bustle. And, of course, we'll walk-through parks filled with blooming chestnut trees and scarlet tulips, markets filled with carly spring vegetables, immigrant neighborhoods filled with exotic sights and sounds, and remarkable new urban housing areas. Our Parisian home will be a hotel in the heart of this ever-changing yet timeless City of Light.



Leopoldstron Castle, Salzburg, Austria

[89888] Ireland Bike Trip-June

25-July 8. Leader, Don Donaldson, 4125 Terra Granada #1B, Walnut Creek, CA 94595. Price: \$1,940; Dep: \$100. Ireland is a land revered in song and verse, a land of tumultuous history in 40 shades of green. We'll visit castles, keeps, and ruins through counties Clare, Galway, Mayo, and Sligo. Our nights will be in Irish guest houses and farmhouses. For two memorable weeks we'll find our way on pastoral backroads along Erin's beautiful west coast, through the land of Joyce and Yeats. There'll be optional hiking, biking, or relaxing on layover days; a sag wagon will ferry dunnage on moving days. Our trip starts at Shannon Airport (near Limerick), visits Galway and Sligo towns, and ends on the northern coast, near Donegal Town, where we'll bus back to Limerick.

[89903] The Best of Wales and the Welsh Borders, United Kingdom— June 25–July 10. Leader, Jane Edginton,

2733 Buena Vista Way, Berkeley, CA 94708. Price: \$2,145; Dep: \$100. This special, uniquely Welsh outing will include adventures at lakes, in deep valleys, and on rugged mountains. The Welsh are an independent people with a language and

place names that most Americans can't pronounce: Blaenau Ffestiniog (Heads of the Valley in the Land of the Ffestin), Betws-y-Coed (Prayer House in the Woods), Nantgwynant (Whitewater Stream), and Beddgelert (Grave of Gelert). We will visit all these places in the company of Dr. Franklyn Perring of the Royal Society of Nature Conservation. Highlights of the trip will include locally guided town walks; hikes' to view wildlife, and scenic grandeur; countryside rambles; visits with local conservationists; a ride on the long boat or a walk on the towpath along the canal to Llangollen; a hike or train ride to the top of Mt. Snowden, the highest peak in Wales at 3,560 feet; a visit to Bodnant, one of Britain's finest gardens; and exploration of an island seabird sanctuary with carpets of wildflowers. We'll also have castles to enjoy, and we may attend an evening concert in a magnificent 12th-century cathedral. Accommodations will include a historic coach inn, and hikes will generally be six to seven miles long.

[89905] Hut-Hopping in the Rondane Mountains, Norway-June 27-July 8. Leader, Serge Pachert, 11025 Bondshire Dr., Reno, NV 89511. Price: \$1,350; Dep. \$100.

<u>Europe</u>

Northeast of Oslo, the Rondane Mountains are dotted with lodges and tourist huts. After a bus ride from Oslo, our hike will start from Hjerkinn. Carrying only daypacks, we will hike over moderate terrain three to six hours every day at about 5,000 feet in elevation, enjoying marvelous mountain scenery, as well as the famous hospitality of the Norwegian people. We will stay overnight at staffed tourist huts where meals and bedding will be provided. Our trip will start and end in Oslo with hotel accommodations the first and last nights.



Convent in San Gimignano, Italy.

[89915] A Walking Tour of Southwest France-July 3-14. Leader, Nancy Auker, 120 Sheridan Rd., Oakland, CA 94618. Price: \$2,275; Dep: \$100. This is "la belle France" at its best! Beginning at Bordeaux, we will focus on the less-visited Gascogne and Dordogne regions of France. Walks in the regional park of Landes de Gascogne, one of the country's most scenic areas, will take us through preserves of pine forests and lowland coastal areas. Moving east, we will leisurely explore a medieval walled city, a chateau, truffle country, the prehistoric Lascaux II cave, and gastronomic delights. Accommodations will be in hospitable rural inns.

[89925] Classic Highland Ridges of Scotland-July 5-19. Leader, Ian Walton, 430 Hampstead Way, Santa Cruz, CA

95062. Price: \$2,795; Dep: \$100. Join me on an exploration of the country of my childhood: mountainous, mystical, western Scotland. We'll hike spectacular ridges and peaks from the dark history of Glen Coe to the romantic mists of the Isle of Skye. We'll travel by minibus, stay in hearty Highland hotels, and relax in the evening at old village pubs. Weather permitting, expect some long days of hiking and scrambling on the hills-eight hours and 3,000 to 4,000 feet of ascent. We'll also have rest days to visit the golf courses of St. Andrews and historic National Trust for Scotland properties such as Culloden Moor.

[89930] The Austrian Alps and Italian Dolomites-July 15-29. Leader, Modesto Piazza, 614 Bayview Ave., Millbrae, CA 94030. Price: \$2,560; Dep: \$100. We will spend the first week of our two-country trip in the Stubai-Tyrol region of Austria. From Neustift we will hike on-trail and take cable cars to mountains more than 7,000 feet high (including Eisgrad at 9,470 feet) and to the Stubai Glacier at 10,320 feet. We will stay in a very good hotel in the Stubai Valley. The second week we will transfer to Selva in Italy's Dolomites, the most striking mountains in Europe. Geologically distinct from the rest of the Alps, the Dolomites consist of coral reef uplifted from the sea millions of years ago. Their fairy-tale spires and rounded domes are unique. Carrying only daypacks, we will reach several passes on foot and by cable car, including Sasso Lungo, Ciampinoi, and Gardena. With views of scenic glaciers and majestic peaks, this trek is a photographer's dream.

New TRIP

[89945] Central Italy by Bike—September 17–30. Leader, Thelma Rubin, 899 Hillside, Albany, CA 94706. Price: \$2,345; Dep: \$100. Enjoy the gently rolling farmland and medieval hilltowns of Tuscany and the spectacular coastal region of Liguria. Our tour will take us south and west of Florence. We will ride through farm and wine regions meticulously nurtured for more than 20 centuries and spend nights and layover days in towns famous for art, history, and architecture. On the coast of the Cinque Terra in Liguria we will take a break from biking and hike along the terraced bluffs between villages. Accommodations will range from *pensiones* to a convent. Continental breakfasts, picnic lunches, and dinners in local trattorias will be our daily fare. A support vehicle will carry our baggage.

LEADER PROFILE



Ian Walton

Ian Walton has climbed mountains in his native Scotland since be was a boy, and has scaled peaks in Norway, Switzerland, New Zealand, Greenland, and the United States as well. He joined the Sierra Club in 1973 under the impression that it was a mountaineering organization. Since then, he's learned that the Club is far more than that. If anything, his membership in the Club bas enriched bis participation in Alaska trips - eight of them since 1982, the last two as leader. He says he'll always remember wolves bowling at the group in the pouring rain and the humpback whale cruising off the beach on his Glacier Bay sea kayak trip last year. His trip members recall that if things got a bit tough, Ian usually began whistling "He Ain't Gonna Climb No More." But climb be will, and his trip to Scotland (trip #89925) this year is a winner.

[90510] Autumn Colors in Idyllic East Bavaria, West Germany-September 24-October 7. Leaders, Sigrid and Ken Miles, 1056 First Ave. N., Napa, CA 94558. Price: \$2,200; Dep: \$100. Experience autumn on this leisurely to moderate hiking trip through friendly Bavaria. From the Roman-founded town of Regensburg ("Castra Regina"), we will hike through the Bavarian forest (central Europe's largest mixed mountain forest) to Passau on the Danube. We will encounter not only great natural beauty but also historic sites, castles, and villages. We will stay in local gasthofs where a friendly welcome and cheerful service are still tradition. Our luggage will be transported for us each day; we need carry only daypacks and cameras as we enjoy this wonderful region.

<u>LATIN AMERICA</u>

[89851] Belize: Reef and Ruins, Central America-February 18-27. Leader, Wilbur Mills, 3020 N.W. 60th St., Seattle, WA 98107. Price: \$1,360; Dep: \$100. The second-longest barrier reef in Central America's tropical jungle, an amazing variety of wildlife, mysterious Mayan ruins -we'll explore these and more in Belize. South of Mexico's Yucatán Peninsula, Belize is politically stable, safe, and seldom visited. English is the official language. Using a rustic ranch as our base, we'll spend several days in Belize's lush interior exploring limestone caves, a jungle river, and local ruins. A highlight will be an overnight visit to the magnificent Mayan ruins of Tikal in neighboring Guatemala. Then we'll move to the Caribbean coast and a palm-studded island adjacent to the barrier reef. We'll stay at a guest house on the beach, snorkel in crystal-clear 80-degree water, and feast on fresh seafood.

[89850] Magdalena Bay Sea Kayaking, Baja California, Mexico—February 20–26. Leader, Kern Hildebrand, 288 Fairlawn Dr., Berkeley, CA 94708. Price: \$895; Dep: \$100.

[89860] Magdalena Bay Sea Kayaking, Baja California, Mexico-February 27-March 5. Leader, J. Victor Monke, 9033 Wilshire Blud. #403, Beverly Hills, CA 90211. Price: \$895; Dep: \$100. Few methods of travel allow a more intimate bond with nature than kayaking. Journey with us on the narrow waterways of tranquil Magdalena Bay, winter home of hundreds of California gray whales that come to these protected waters each year to mate or bear young. We'll also see a wide variety of migrating shore- and seabirds as we paddle through miles of mangrove-lined channels. On the barrier island, huge rolling barchan dunes await exploration. while miles of uninhabited shoreline are a paradise for beachcombers. These trips are designed for inexperienced to expert paddlers. Instruction will be given, and a support boat will carry duffel, food, and fresh water. Airline schedules require coming to La Paz a day ahead of the trip and leaving a day after.

[89868] Family Paradise in Belize, Central America – March 18-26. Leaders, Karen Short and Stephen Pozigai, 1160

TRIP

NEW



Kayaking in the Sea of Cortez, Baja California, Mexico.

DHA DECCO

St. Francis Dr., Petalama, CA 94952, Price: adult \$1,280, child \$855; Dep: \$100. Relax on virtually uninhabited beaches in the Caribbean and swim and snorkel in its warm, aquamarine waters. Walking to the nearby Creole fishing village of Placencia, exploring the jungle interior by boat, examining Mayan ruins, visiting the secondlongest barrier reef in Central America all these opportunities and more await you in the charming country of Belize. We will stay in cottages on the beach and eat family-style meals of such seafood delicacies as lobster, conch, and snapper.

[89870] Sea of Cortez Kayaking, Baja California, Mexico—April 8–14. Leader, Bill Bricca, P.O. Box 159, Ross, CA 94957. Price \$895; Dep: \$100. Espiritu Santo and Partida islands lie in the Gulf of California north of La Paz. Explore sandy coves and inlets where you will find excellent fishing and snorkeling, hidden canyons, fascinating geology, and spectacular desert vegetation. Spend a day snorkeling at Los Islotes, a sea lion rookery. These trips are designed for inexperienced to expert paddlers and will include instruction and a support boat to carry duffel, food, and fresh water. Airline schedules require coming to La Paz a day ahead of the trip and leaving a day after.

[89872] Jungle and Beaches-Sea Kayak in Costa Rica-April 8-15. Leader, Carol Dienger, 3145 Bandera Dr., Palo Alto, CA 94304. Price: \$1,475; Dep: \$100. Costa Rica is unsurpassed in its rich diversity of wildlife and plant species. A world center for tropical research, the country leads the Third World in its effort to conserve natural resources. Our itinerary will include spectacular birdwatching in Palo Verde National Park. A two-day float down the jungle-lined Rio Canas allows us close-up wildlife observation. For five days we will paddle and snorkel along untouched palm-fringed beaches on the Pacific Coast. Some basic kayak experience is required, but a support boat will carry our food, water, and gear. You must schedule your arrival in San José one day before the trip begins and your departure the day after the trip ends. The price includes hotel accommodations in San José.

[89877] River Rafting, Jungle, and Beach Adventure, Costa Rica-April 29-May 6. Leader, Mary O'Connor, 2504 Webster St., Palo Alto, CA 94301. Price:

\$1,475; Dep: \$100. We'll pack a variety of activities in diverse environments into this one-week trip, beginning with three days of paddle-rafting with professional river guides on the Rio Pacuare. We'll experience the thrills of whitewater and the serene beauty of deep river canyons, jungle beaches, clear pools, and spectacular waterfalls. A short flight will take us to Manuel Antonio National Park, one of Costa Rica's most beautiful areas, where jungle and beach meet. A variety of birds and wildlife can be seen on jungle hikes. The beach offers swimming, bodysurfing, and snorkeling. Marine life abounds. We will spend two days in the historic city of San José and have the option of further exploration on side tours.



Sea lion pup, Galápagos Islands

navigates the Rio Negro. Then we'll fly to Quiaba and the Pantanal, home to more than 600 species of bird and thousands of rare animals. From an isolated camp, we will explore this breathtaking natural habitat on foot, and by jeep and boat. Our explorations of the backcountry will end with a visit to the unusual rock formations at Chapada Dos Guimaras. Finally, we will readjust to "modernity" with a day in Rio de Janeiro, where we will stay in a hotel on Copacabana Beach. Our accommodations include simple and comfortable camps, hammocks on the deck of our riverboat, and fine hotels in the cities.

[89900] Ecuador and the Galápagos Islands—June 16–29. Leader, David Horsley, 4285 Gilbert St., Oakland, CA 94611. Price: \$3,180; Dep: \$100. Ecuador's astonishing variety of natural habitats makes this exploration a marvel of flora and fauna. After touring the capital city, Quito, we will hike through the Andean rainforest to observe rare birds, butterflies, and plants; then we'll move up to the highlands and view the world's highest active volcano, Cotopaxi. Before returning to Quito, we will visit the famous Indian market at Ambato, the weaving



Blue-footed booby, Galápagos Islands

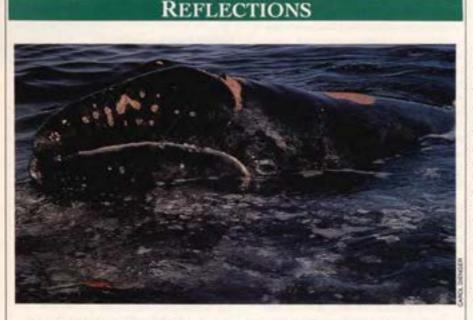
village of Salasaca, and the hot springs at Banos. Next we fly to the world's premier wildlife preserve, the Galápagos Islands. We will board luxurious chartered yachts, then sail in style for a full week from island to island observing the fascinating birds and animals that inhabit this showcase of evolution. These creatures can be approached to within a few feet; snorkeling is excellent; and photographic opportunities are fantastic. From the famous giant tortoises to the outrageously colored iguanas, boobies, and tropical fish, we will witness a display of wildlife found nowhere else on Earth.

[89902] Tropical Potpourri: Turtle Beaches, Jungle Rivers, and Volcanoes, Costa Rica—July 1–10. Leader, Ruth Dyche, 2747 Kring Dr., San Jose, CA 95125. Price: \$1,965; Dep: \$100. Enjoy diverse and exciting Costa Rica on this multifaceted trip. We will visit one of the richest wildlife areas in the world: Tortuguero National Park on the Caribbean coast. Here we will have the extraordinary



TRIP

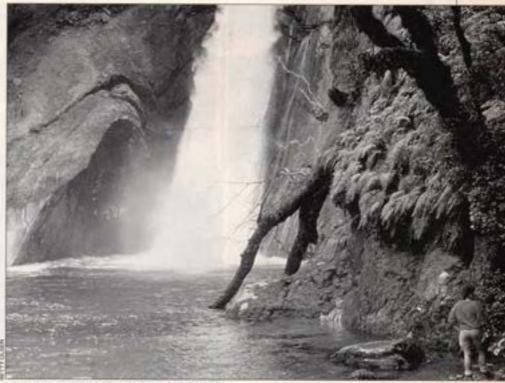
[89878] Brazilian Jungle and Wildlife Adventure, Brazil-June 14-26. Leader, Dolph Amster, P.O. Box 1106, Ridgecrest, CA 93555. Price: \$2,195; Dep: \$100. Our trip will begin in Manaus, where the abundant flora of the Amazon Basin will surround us for four days as our riverboat



This curious baby whale "beacher" itself atop its mother for a good, close-up look at some Sierra Club whale-watchers in a nearby skiff. Each yean, California gray whales migrate to their winter bome in Magdalena Bay, Baja California, to mate and give birth. Protected by a sandy barrier island, the warm, narrow mangrove-lined channels of Magdalena Bay serve as a whale nurvery. After approaching the skiff for this friendly encounter, the mother and infant dipped beneath the surface and swam gently away.

PACIFIC BASIN

opportunity to see giant leatherback and green turtles come ashore to lay their eggs on the ocean beach. Small skiffs will enable us to explore the lush lagoons and waterways of this "Venice of the jungle." We'll see a great variety of birds and small animals such as sloths, monkeys, and anteaters. Then we travel to a premier whitewater river, the Rio Pacuare, for a thrilling three-day paddle-raft and camping trip. The rapids are Class IV-V at this time of year. We will also visit Poas Volcano National Park, the site of one of the deepest and most active volcanoes in the world, and spend a day at the worldrenowned Tropical Research Institute, where we will learn about research being done in tropical jungles and rainforests. Our trip will include two small-plane rides. We will stay in comfortable lodges or hotels in Tortuguero and San José, and we'll camp while whitewater rafting on the Rio Pacuare.



MIDDLE EAST

[89895] Turkey: A Classic Overview-June 13-July 7. Leader, Ray Des Camp, 510 Tyndall St., Los Altos, CA 94022. Price: \$3,995; Dep: \$100. Ancient Turkey has hosted a long procession of peoples: Hittites, Urartians, Assyrians, Phrygians, Greeks, Romans, Armenians, and Turks. Here is the site of the earliest known city, Catal Hüyük (6,000 B.C.). And in Hatushas, the Hittite capital, thousands of intact clay tablets with cuneiform writing dating from 1200 B.C. were found. The country abounds with significant archeological sites, and we will visit many of them. Starting at Istanbul we'll tour Turkey from the Black Sea in the north to the Mediterranean and from the Aegean to Cappadocia and the Anatolian Plateau. By air-conditioned bus on a comfortable itinerary, we'll visit the most interesting sites. including Hatushas, Troy (made famous by Homer's Iliad), and Ephesus (perhaps the best-preserved Roman city). We'll visit fantastic museums in Istanbul and Ankara, see the fairy chimneys and underground cities of Cappadocia, spend several days along the Turquoise Coast from Bodrum and Marmaris to Antalya and Alanya, and have time to meet the Turkish people.

Waterfalls on the Milford Track, New Zealand.

[89865] Backpack New Zealand-

March 5–26. Leader, Jim W. Watters, 50 El Gavilan, Orinda, CA 94563. Price: \$2,440; Dep: \$100. New Zealand is bulging with contrasts. We might hike in rainforests among tree feros and waterfalls and then visit a glacier the same day—and we'll see forests of huge ancient Kaori trees, hot springs, unique native birds, sheep, more sheep, and friendly people. Beginning and ending our trip in Auckland, we'll backpack and car-camp on the North and South islands and travel on the famous Milford Track in Fiordland.

NEW

[89910] Indonesia—Land Below the Wind—July 1-21. Leader, Ray Simpson, 4275 N. River Way, Sacramento, CA 95864. Price: \$2,875; Dep: \$100. Indonesia is a land rich in history, a varied tapestry of cultures, scenery, dances, music, and food. We have planned visits to four islands: Sumatra, central Java, Sulawesi, and Bali. Each location has been selected to highlight a specific cultural heritage or area of particular beauty. In addition to

TRIP

conservation issues, we will look at Buddhist, Moslem, Hindu, and European contributions to these island cultures.

[89940] Western Australia Outback-Perth to Darwin-July 31-August 19. Leader, Don McIver, 7028 W. Behrend Dr., Glendale, AZ 85308. Price: \$3,475; Dep: \$100. Perth, capital city of Western Australia, is the starting point for this fourwheel-drive outback tour of Australia's remote northwest coast. Highlights will include Namburg National Park, the Hammersley Range with its dramatic gorges, the western fringe of the Great Sandy Desert, and Broome, an unusual city with a history of pearling and its own unique Chinatown. Continuing northward, we'll visit the spectacular Kimberly Ranges, the former gold center of Hall's Creek, Katherine Gorge National Park, and Kakadu National Park near Darwin. This trip will emphasize exploration of the more remote sections of Western Australia for special opportunities to observe unusual geography and wildlife. Tents, sleeping bags, outdoor meals, and dayhikes will compose our life-style.

<u>HAWAII</u>

HE HAWAIIAN ARCHIPEL-AGO OFFERS A UNIQUE MID-PACIFIC SETTING FOR A NUMBER OF INTERESTING SIERRA CLUB TRIPS. HAWAII TRIPS ARE DESIGNED TO LET PARTICIPANTS ENJOY THE NATURAL SPLENDOR OF THE ISLANDS AS FEW OTHER TOURIST GROUPS DO. CAMP-SITES ARE USUALLY IN COUNTY, STATE. NATIONAL, OR PRIVATE PARKS, OFTEN WITHIN SIGHT AND SOUND OF THE PACIFIC. ON MOST TRIPS TRAVEL FROM CAMP TO CAMP IS BY CAR. ALL HAWAIIAN OUTINGS INCLUDE DAYHIKES, AND AL-THOUGH THERE ARE OVERNIGHT HIKES ON SOME, NONE ARE MANDATORY. WHETHER YOU JOIN A HIKING TRIP. SPEND A DAY ON THE BEACH, OR READ A BOOK IN CAMP IS UP TO YOU.

[89054] Molokai and Maui, Hawaii-March 17-25. Leaders, Lynne and Ray Simpson, 4275 N. River Way, Sacramento, CA 95864. Price: \$775; Dep: \$100. Molokai, our first destination, invites us to celebrate the arrival of spring in a land of tropical sunshine and showers. We plan to visit Kalaupapa, the isolated peninsula where Father Damien worked so diligently, during this 1989 centennial of his death. For a century this peninsula has been sparsely populated and only rarely visited. Because of its history, pristine quality, and beauty, Kalaupapa was made a National Historical Park in 1980. Our second destination will be the island of Maui, where we will snorkel, hike, or just lie on the beach. We will camp on both islands, travel by rental car, and feast on foods of various Pacific Island cuisines.

NEW TRIP [89210] Sea Kayak the Na Pali Coast, Kauai, Hawaii—June 18–25. Leader, Carolyn Braun, 1323 Brandy Lane, Carmichael,



Haleakala National Park, Maui

CA 95608. Price: \$815; Dep: \$100. Explore Kauai's magnificent Na Pali coastline in sea kayaks! This week-long trip on Kauai is for those who enjoy the challenges of sea kayaking and who like dayhiking in deep valleys and tent camping on remote beaches. With our guide, we will spend five days leisurely traveling along the coast. Among the sights we will see are arches, sea caves, and waterfalls. Visiting valleys where ancient Hawaiians lived, we'll explore the well-preserved remnants of their civilization. In our kayaks we'll play among sea turtles, flying fish, and dolphins, and we'll snorkel in a reef-protected bay. Leader approval required.

[89211] Maui: From the Mountain Top to the Sea, Hawaii—July 15–23. Leader, Lou Wilkinson, 155 Cazneau Ave., Sausalito, CA 94965. Price: \$940; Dep: \$100. We'll explore Maui's extraordinary variety of environments as we make our way from the top of the dormant volcano Haleakala (10,023 feet) to the coastline near Hana. After backpacking in the moonlike crater of Haleakala for two days, we will hike through a gap in the crater's rim down to the sea. There we will have time for swimming, sunbathing, snorkeling, picture-taking, and even shopping. A special treat will be a dayhike through a spectacular bamboo forest. Hospitable Maui has a slogan—Maui no ka oi ("Maui is the best"). Come on this journey from Haleakala to Hana and find out why! Leader approval required.

[89212] Kauai Family Adventure,

Hawaii-August 1-8. Leaders, Karen and Stan Johnsen, 3842 LaDonna Ave., Palo Alto, CA 94306. Price: adult \$745; child \$515, Dep: \$100. Families are welcome on this camping trip through the tropical environment of the Garden Isle. Beginning in the Kokee region, with its canyons, swamps, and beautiful views, we will continue to the magnificent north shore near Haena. Here we will have ample opportunity for dayhiking, snorkeling, birdwatching, and learning about Hawaiian culture. Choices between leisurely and more challenging activities will be offered. Both cabin and tent camping are planned.

HAWAII





St. Peter's Church, Kabalun, Hawaii



Nene (Hawaiian goose)

[89213] Beaches, Jungle, and Volcano Summit, Hawaii-September 9-17. Leader, Wayne Martin, 350 Brey Rd., Santa Rosa, CA 95409. Price: \$710; Dep: \$100. Two backpacking trips on Hawaii's Big Island will allow us to visit both the lush windward side of the island and the summit of Mauna Loa volcano. On our first trip we will swim under mountain waterfalls, frolic in the surf, and hike to remote black-sand beaches. On our second, more strenuous, trip we will hike to the top of Mauna Loa. From its base on the ocean floor to its 13,680-foot summit, Mauna Loa is the largest single mountain mass in the world. Taking time to acclimatize ourselves, we will enjoy the mountain's unique terrain, crossing smooth pahoehor lava flows as well as rough a'a. Two nights at the summit cabin will give us an opportunity to explore the rim of the caldera and to investigate some of the volcano's steam vents. We'll also enjoy the beauty of the shadows of the clouds on the volcano's slopes. Leader approval required.

NEW

TRIP

[89214] Introduction to Oahu, Hawaii —September 19–27. Leader, Ned Dodds, 19 Erin Ct., Pleasant Hill, CA 94523. Price: \$1,225; Dep: \$100. The island of Oahu is one of the most populated areas on Earth. Come with us to find out how the island gets its water, how the native and exotic species of plants and animals interact, and how human activity has affected this fragile ecosystem. We'll get about by rental cars and stay at bed-and-breakfast inns. Each evening and morning we'll rendezvous to dine together, talk about the day's events, and plan the next day's activities.

REFLECTIONS



Trips to Hawaii give participants an opportunity not only to enjoy its scenic wonders but also to meet its people. Kia Fronda, a resident of magnificent Waipio Valley on the Big Island, is one of the few remaining taro farmers in the archipelago. Kia is also a conservationist, working to preserve the valley for native agriculture. Here he polishes a kna bowl, made from the same kind of tree the ancient Hawaiians used to carve their great vayaging canoes.

[90341] Fall Big Island Leisure Trip, Hawaii-September 29-October 8.

Leader, Eunice Dodds, 2013 Skycrest Dr. #1, Walnut Creek, CA 94595. Price: \$875; Dep: \$100. This trip is for adults who want to explore the Big Island leisurely and comfortably and who are only mildly interested in strenuous activity. No tent camping for us! There are many things to see on this largest island in the Hawaiian chain: orchids, ruins of ancient Hawaiian temples (heiaus), an active volcano, deep valleys, and even black-sand beaches. We'll circle the island in rental cars driven by trip participants. Accommodations include national- and state-park cabins and a historic hotel. Pacific Island cuisine will be emphasized.

HIGHLIGHT

ERRA CLUB HIGH-LIGHT TRIPS OFFER A FLEXIBLE FORMAT FOR THOSE WHO EN-JOY THE WILDERNESS BUT WANT TO HIKE WITHOUT A FULL PACK. PACK ANI-MALS OR MOTOR VEHICLES CARRY EACH PERSON'S 25-POUND DUFFEL BAG (PLUS ALL THE FOOD AND COMMISSARY EQUIP-MENT) FROM CAMP TO CAMP. ON MOV-ING DAYS PARTICIPANTS ARE FREE TO HIKE TO THE NEXT CAMP AT THEIR OWN PACE, PROVIDED TRAVEL IS BY TRAIL. ON SOME TRIPS TRAVEL FROM CAMP TO CAMP IS BY VAN, ENABLING PARTICI-PANTS TO VISIT A WIDER RANGE OF ENVIRONMENTS.

ROUTES AND MILEAGES ARE USU-ALLY WITHIN THE ABILITY OF ANYONE WHO HAS DONE A REASONABLE AMOUNT OF CONDITIONING AND ACCLIMATIZA-TION PRIOR TO THE TRIP. FAMILIES WITH CHILDREN NINE OR OLDER ARE WELCOME.

GROUP SIZES VARY FROM 12 TO 25 PLUS A SMALL STAFF. ROUTES ARE CHOSEN TO COMBINE MAXIMUM ENJOY-MENT WITH MINIMUM WILDERNESS IM-PACT. TRAVEL BETWEEN CAMPS OFTEN PROVIDES UNENCUMBERED OPPOR-TUNITIES TO FISH, CLIMB, HIKE TO ISO-LATED VIEWPOINTS, OR PURSUE OTHER INDIVIDUAL ACTIVITIES. LEADERS EM-PHASIZE CONSERVATION ISSUES AND IN-TERPRET THE NATURAL HISTORY OF THE AREAS VISITED.



Glen Canyon National Recreation Area, Utab

[89048] Cedar Mesa Geology and Archeology, Utah-April 16-21. Lead-

er, Bill Huntley, 1313 Clay St., Ashland, OR 97520. Price: \$615; Dep: \$100. Starting from Bluff, we will travel in a 6,500-foot remote tableland south of Canyonlands National Park in famous Four Corners country. A geologist will accompany us as we travel by jeep in short cross-country moves to explore and investigate Anasazi ruins, deep canyons, unusual geological formations, and long ridges with spectacular views. All participants must be surefooted. Leader approval required.

[89049] Chiricahua Mountains Van and Hiking Tour, Coronado Forest, Arizona—April 19–28. Leader, Edith Reeves, 1739 E. San Miguel Ave., Phoenix, AZ 85016. Price: \$550; Dep: \$100. Stronghold of Cochise and Geronimo in a bygone era, these mountains remain largely untouched by man. The area is home to a variety of wildlife; hundreds of songbirds —including a breeding population of the coppery-tailed trogon, the rarest and perhaps most gorgeous bird in the United States—return each spring to nest in the lush riparian woodlands. Each day we will take hikes of varying length. A highlight will be a visit to The Nature Conservancy's Mule Shoe Ranch at Hooker Hot Springs. Our trip will start in Tueson.



[89220] Eagle Cap Wilderness Llama Trek, Oregon-July 15-21. Leader, Lois Snedden, 3595 Rosalinda, Reno, NV 89503. Price: \$965; Dep: \$100. Leading llamas that carry our food and gear, we will walk past high mountain lakes, along rocky ridges, and down valleys cut by glacial streams. Since Oregon wildflowers fill the meadows in mid-July and Ilamas are just naturally photogenic, photo opportunities will abound. Bed and breakfast at a small inn in Joseph will precede and follow our five-day, leisurely trip through this wilderness in northeastern Oregon. Participants-no dieters, please!-can look forward to gourmet food from start to finish.

DESIGNED ON PRINCIPLE

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HIGHLIGHT



Yellow-breasted marmot

[89221] Grand Tetons Leisure Trek, Targhee Forest, Wyoming-July

23-30. Leader, Len Lewis, 140 Stacey Lane, Grass Valley, CA 95945. Price: \$890; Dep: \$100. With the splendor of the Grand Tetons as our backdrop, our leisure trek will take us through glaciated valleys and high granite basins. Short hiking days will lead us to camps by fish-filled lakes and clear, rushing streams. Four layover days will give us time to do and go wherever our fancy takes us. This will be my third trip to the Tetons—a place that I never tire of sharing with others. Come along with me for a grand vacation in this rugged, magnificent, high wonderland.

[89222] Grand Tetons-West Slope, Targhee Forest, Wyoming-August 3-12.

Leader, Ernie Jackson, 12414 Gold Starr Lane, Grass Valley, CA 95945. Price: \$965; Dep: \$100. The grandeur of the Tetons is yours to embrace for this ten-day, relatively leisurely hike along the western slope of the Grand Tetons. There will be time for fishing, photography, peakbagging, reading, or just to be by yourself in the magnificent ruggedness of one of the most beautiful mountainous settings in the United States. Our four layover days and six days of moderate hiking make the trip easy for anyone in reasonably good condition.

[89223] Big Five-Little Five Lakes, Sequoia Park, Sierra-August 6-15. Leader, Bert E. Gibbs, P.O. Box 1076, Jackson, CA 95642. Price: \$840; Dep: \$100. Come join us for ten glorious days in Sequoia National Park. Our loop trek from Mineral King starts at 7,800 feet and goes over Timber Gap (9,600 feet). After crossing Black Rock Pass (11,200 feet) the second day, we will reach the gorgeous Big Five and Little Five lakes. We will return to Mineral King over Franklin Pass (11,400 feet). There will be something for everyone on our three layover days: dayhikes to spectacular views of the Kaweah range, peak climbing, swimming, fishing, birdwatching, or simply relaxing in this beautiful setting. Our moderate 60-mile hike is open to anyone who sincerely wants to enjoy a wilderness experience and is in reasonably good physical condition.

[89224] The Glacial Basin Route, Inyo Forest, Sierra-September 3-15. Leader, Bud Bollock, 1906 Edgewood Dr., Palo Alto, CA 94303. Price: \$920; Dep: \$100. Our pack-supported trip traverses the Sierra Nevada crest into Evolution Valley and its surrounding glacial basins. Starting our loop trek at North Lake, we enter the Sierra Nevada via the desolate granite

LEADER PROFILE



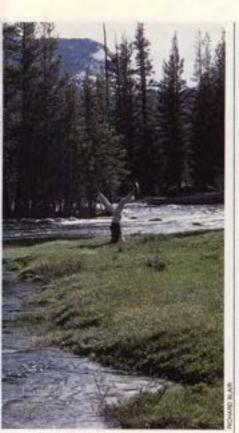
Ernie Jackson

Ernie Jackson bas been "a card-carrying [Sierra Club] member about 12 years, but in spirit more like 40, "Ernie assisted on an Anza Borrego Desert trip two years ago and on a Mineral King Base Camp trip last year, and this summer be'll be leading bis first Highlight trip. When be's not being a counseling psychologist, be leads local ski- and biking-trips around the Donner Pass area of California.

world of Humphreys Basin and proceed westward past Glacier Divide. If you love glacial canyons, alpine meadows, ragged scarps, and lofty peaks, generously laced with magical lakes and bubbling streams, this is your trip! Five layover days will allow us to explore the Humphreys, Evolution, Ionian, Dusy, and Palisade basins. Our most strenuous day is a 13-mile hike across 12,000-foot Muir Pass. Our loop is completed at South Lake.



<u>HIGHLIGHT</u>



Merced River, Yosemite

[89225] To the Crest of the Sierra Nevada, Sierra-September 10-17. Leader, Len Lewis, 140 Stacey Lane, Grass Valley, CA 95945. Price: \$740; Dep: \$100. We will hike some of the highest trails in the Sierra, and the scenery will be breathtaking! Our route will take us over Piute Pass and into beautiful Humphreys Basin and Hutchinson Meadow. From there we will turn north through French Canyon to our trail's end at the tungsten mine at Pine Creek. Three of our moving days will cover about six miles per day and one will be about ten miles. Three layover days will give us time to fish, dayhike, bag peaks, or just loaf and get in touch with the high country. Our highest pass will be 11,420 feet; our camps will be at about 9,400 feet. Beginners in good physical condition are welcome.

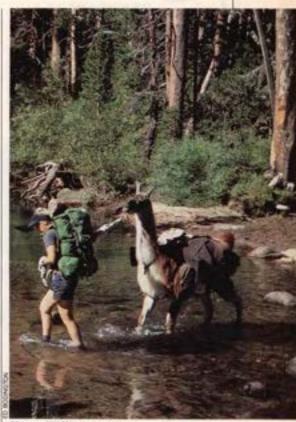
[89226] Three Sisters Llama Trek, Three Sisters Wilderness, Oregon-September 18-22. Leader, Maggie Seeger, 60 Beacon St., Arlington, MA 02174. Price: \$895; Dep: \$100. Your dignified llama companions will carry your load while you hike through this area of tremendous diversity. High volcanic peaks, glaciers, lava flows, thick forests, lush meadows, gushing springs—you'll sample them all on our 25-mile route through this gem of the Oregon Cascades.

[89227] Southern Utah Parks and Monuments Van and Hiking Tour-September 19-29. Leader, John Ricker, 2610 N. Third St., Phoenix, AZ 85004. Price: \$710; Dep: \$100. Southern Utah is a country of layered sandstone cliffs, deep canyons, spires, and high mountains. This spectacular country includes many state and national parks. Originating in Las Vegas, our car-camping and hiking trip will take us up the canyon of the Virgin River to St. George, Utah, where we will visit Snow Canyon State Park. Our next stop will be Zion National Park for hikes to the rim and through the narrows of the Virgin River. We will also stop at Cedar Breaks National Monument, Bryce Canyon National Park, and the North Rim of the Grand Canyon. Long or short, our hikes will not require exceptional skill or conditioning. We will travel in 12- to 15person vans and drive from two to six hours to our campsites. At this time of year fall colors should be stunning and we should experience pleasant days and cool nights. Plentiful and tasty meals will be planned by the trip leader and prepared by trip members.

[90344] Thanksgiving in the Desert Van and Hiking Tour, Arizona and Mexico-November 17-24. Leader, John



Hummingbird moth



Hoover Wilderness, Sierra

Ricker, 2610 N. Third St., Phoenix, AZ 85004. Price: \$575; Dep: \$100. By November, the heat of southern Arizona has abated and it is a fine time to enjoy and observe the Sonoran Desert scenery. From Phoenix we will travel in 12- to 15person vans to Organ Pipe Cactus National Monument. There we will spend several days hiking the desert and climbing some of the rugged mountains. Returning to our vans, we will then cross the border into Mexico to explore the Pinacate region of craters, calderas, cinder cones, and lava flows. We will also travel in the Cabeza Prieta Game Range along the El Camino del Diablo where a century ago many people died of thirst and exposure en route to the gold fields of California from northern Mexico. A traditional Thanksgiving meal will be provided by the leaders and prepared by trip members. The hikes will be relatively easy, and no special skills or conditioning are required.

NOTE: See Base Camp, Foreign, and Hawaii for other highlight type outings.

OMBINE THE ENJOY-MENT OF A BACKCOUNTRY OUTING WITH THE SATISFACTION THAT COMES FROM DOING SOMETHING POSITIVE FOR THE ENVIRONMENT. ON MOST SERVICE TRIPS, HALF THE DAYS ARE LEFT FREE TO ENJOY THE WILDER-NESS: HALF ARE WORKDAYS TO ACCOM-PLISH SOMETHING WORTHWHILE. OUR TRIPS ARE FUN AND SPONTANEOUS AND THE PARTICIPANTS ENERGETIC AND EN-THUSIASTIC. YOU'LL COME BACK HEALTHIER AND HAPPIER, HAVING LEARNED ABOUT THE WORK THAT'S NEC-ESSARY TO KEEP THE WILDERNESS CLEAN AND HEALTHY.

PICK A TRIP THAT'S RIGHT FOR YOU. Our trips run through the spring, summer, and early fall, and take place all across the country. Some cater to a particular clientele, such as families or beginning backpackers. Some are in backcountry base camps and some are at roadheads. Many are supported by pack animals to carry food and tools. Several are based at cabins or lodges. Work experience is not necessary on any of the trips, we will train you.

SERVICE TRIP FEES ARE LOW BE-CAUSE THE PROGRAM IS SUBSIDIZED BY THE SIERRA CLUB AND TAX-DEDUCT-IBLE DONATIONS FROM CORPORATIONS AND INDIVIDUALS. ALL SERVICE TRIPS



Near Pinte Pass, Sierra

REQUIRE LEADER APPROVAL. TRIP AP-PLICANTS WILL RECEIVE A QUESTION-NAIRE TO FILL OUT AND SEND TO THE TRIP LEADER, WHO WILL LET YOU KNOW WHETHER THE PARTICULAR TRIP IS SUIT-ABLE FOR YOU. MEMBERS YOUNGER THAN 16 MUST CONTACT THE LEADER FOR SPECIAL APPROVAL.

IF YOU HAVE BEEN LOOKING FOR A CHANCE TO CONTRIBUTE SOMETHING TO THE WILDERNESS, A SERVICE TRIP IS SURELY THE ANSWER.

A small fund is available to pay trip fees for anyone who could not otherwise afford to go on a Service trip. For an application, write: Sierra Club Outing Department 730 Polk St. San Francisco, CA 94109

[89057] Deer Creek Trail Maintenance, Mazatzal Wilderness, Arizona-

March 5–12. Leader, Vance Green, 437 E. Pierce, Tempe, AZ 85281. Price: \$130; Dep: \$50. Located in the Mazatzal Mountains approximately 70 miles northeast of Phoenix, Deer Creek cuts an eight-mile canyon while descending 2,600 vertical feet from Mt. Peeley. Plant and animal life in this high desert canyon are plentiful and varied. Work will consist of improving and possibly rerouting an existing trail by clearing bush and repairing tread. Participants will alternate work and play days to allow ample time to explore this littleused area.

[89058] Dutchman Grave Trail Maintenance, Mazatzal Wilderness, Tonto Forest, Arizona-March 25-April 1.

Leader, Jim Vialer, 4644 E. Montecito, Phoenix, AZ 85018. Price: \$145; Dep: \$50. In the Sonoran Desert, not far from the recently designated Wild and Scenic Verde River, we will reconstruct an old Basque sheepherder trail first built early this century. We will hike in about six miles and establish base camp at Dutchman Grave Spring, at an elevation of 2,950 feet. We will have time to explore Sycamore Creek

<u>Service</u>

and visit scenic Mountain Spring. Many other desert trails start from this area and can be hiked during free time.

[89059] Superstition Wilderness Trail Maintenance, Arizona-April 2-8.

Leaders, Will Passow and John Ricker, 8422 E. Vernon Ave., Scottsdale, AZ 85257. Price: \$125; Dep: \$50. The Superstition Wilderness lies east of Phoenix in legendary Apache Indian country. The mountains and canyons in this remote and rugged area are forested with oak and pinyon pine at lower elevations and with ponderosa pine at higher elevations. We will backpack three miles to a base camp at 4,000 feet. Our trail work will be on a route that has been used by cowboys and miners since the 1860s. It won't be all work: We will have time to explore, climb a peak, and look for evidence of Indian culture. Plan for cool nights and clear, warm days.

[89060] Trail Building, Buffalo National River, Arkansas—April 16–22. Leader, Janie Grussing, P.O. Box 225, R.R. #1, LaOtto, IN 46763. Price: \$155; Dep: \$50. Along the cliff-ringed valley of Cecil Creek, a Buffalo National River tributary,

LEADER PROFILE



Janie Grussing

Although Janie Grussing joined the Sierra Club in 1972, she didn't go on an outing for ten years. Once she did, she started making up for lost time. Since 1982 she has bagged eight national service trips, five of them as assistant leader or cook, and this year she's the honebo on yet another (see trip #89060). She brings to the outing her commitment to wilderness preservation and her lose of meeting people from all parts of the country. For Janie, a successful outing is one in which she's taken basically inexperienced individuals and helped meld them into an energetic and happy group. Welcome aboard, Janie Grussing! And welcome aboard to the Sierra Clubhers looking forward to an exchilarating trip. we'll open a new hiking trail following the path of early settlers to this region. We'll work from a base camp a mile from the nearest road and have time to hike and swim. Waterfalls, caves, pioneer homestead ruins, surrounding hardwood forest, and springtime Ozark wildflowers all invite exploration and picture-taking. cairns along this remnant trail that will eventually become part of a longer trail from Yellowstone National Park to the Mexican border. Used for centuries by Native Americans and sheepherders, the Navajo Trail crosses the pinyon and ponderosa forests of the Kaibab Plateau north of the Grand Canyon. As we work, we'll



Baxter State Park, Maine

[89061] Red Rock Trail Maintenance, Munds Mountain Wilderness, Coconino Forest, Arizona-April 23-29. Leader, Jim Ricker, P.O. Box 730, Alta, CA 95701. Price: \$100; Dep: \$50. This rugged and beautiful land of deep canyons and pine-covered mountains is located on the southern edge of the Colorado Plateau. Our trip will have two parts. First will be construction of the final leg of the Hot Loop Trail, which we started in 1987. Work will consist of clearing brush, moving rocks, and building switchbacks. Second will be a moderate backpack trip into one of the many colorful sandstone canyons. Elevations range from 4,500 to 6,500 feet. Expect warm days and cool nights.

[89062] Navajo Trail Maintenance, Kaibab Forest, Arizona-May 5-14. Leader, Rob Dorival, P.O. Box 1065, Ojo Caliente, NM 87549. Cook, Deborah Northeast. Price: \$150; Dep: \$50. Join us as we continue clearing brush and building be able to view the scenic pastel cliffs of the surrounding canyon country. Following our work project we'll hike along a primitive trail into South Canyon, down to the Colorado River. Here we'll spend a couple of days visiting Vasey's Paradise and Stanton Cave, fishing, or just relaxing. This will be a strenuous trip.

New TRIP

[89231] Southern Utah Archeological Service Trip—May 14–26. Leader, Bonnie Sharp, 832 E. Bastanchury Rd., Placentia, CA 92670. Price: \$380; Dep: \$50.

[89232] Southern Utah Archeological Service Trip—May 28–June 9. Leader, To be announced. Price: \$380; Dep: \$50. The southeast corner of Utah is rich in remains of the ancient Anasazi. This service trip will focus on surveying and mapping a number of archeological sites. Our work will be directed by Dr. Harvard Ayers of Appalachian State University. He is a member of the Native American Sites

Committee of the Sierra Club. Local residents will be encouraged to participate in our project so they can see firsthand the importance of preserving the relics of Anasazi culture.

[89233] Grand Canyon North Rim Trail Maintenance, Kaibab Forest,

Arizona—May 30–June 9. Leader, Tim Bernette, 7461 E. Calle Managna, Tucson, AZ 85710. Cook, Muir Matteson. Price: \$175; Dep: \$50. Along the Grand Canyon's North Rim, we'll clear brush and build trail tread and cairns. We'll be working amidst pines and aspens with spectacular vistas of the Grand Canyon. Following the work project, we'll hike into the canyon and down to the Colorado River. This trip will be very strenuous.

[89234] Chaco Canyon Archeological Service Trip, Chaco Culture Historical Park, New Mexico-June 10-17. Leader, Bonnie Sharpe, 832 E. Bastanchuery Rd., Placentia, CA 92670. Price: \$240; Dep: \$50. Northwest of Albuquerque are the stone ruins of an ancient society. Chaco Canyon is the mysterious and beautiful location of hundreds of archeological sites, from tiny granaries to monumental pueblos. In addition to continuing maintenance work begun in 1988, the 1989 project will include stabilization work and stone-masonry reconstruction in the most imposing prehistoric ruins in the Southwest. Free days provide opportunities for hiking, exploring, and photography. Hard work and a hot, dry climate will make this a moderately strenuous trip.

[89235] Schell Canyon Trail Project, Apache Forest, Arizona-June 10-17. Leader, Rod Ricker, P.O. Box 1357, Camp Verde, AZ 86322. Price: \$130; Dep: \$50. Bear Wallow Wilderness is a small, isolated canyon near Hannagan Meadow in the lush spruce and fir forests of eastern Arizona. Starting on the north side near Reno Lookout (9,094 feet) we will backpack four miles to our camp near the confluence of Schell Canyon and the South Fork of Bear Wallow Creek (7,700 feet). Our work will consist of completing a trail construction project started last year: one more mile of trail up to the 9,000-foot Mogollon Rim. We will have time to explore and photograph some of the rugged side canyons and possibly to

hike down Bear Wallow Creek to its confluence with the Black River, just inside the San Carlos Indian Reservation.

[89236] Linville Gorge Wilderness, Pisgah Forest, North Carolina—June 17-25. Leader, Howard Luehrs, Rte. 1, P.O. Bex 65B, Roxboro, NC 27573. Price: \$185; Dep: \$50. Cascading down 2,000 feet in 12 miles, the Linville River has carved one of the most exciting and rugged wildernesses in the East. The resulting gorge,

which lies just northeast of Great Smoky Mountains National Park in North Carolina, has retained much of its virgin timber and dense vegetation on its steep



slopes and sheer precipices. From our base camp beside the river, we will work in small groups in one of the wilderness's primary use areas. Our work will involve all aspects of trail maintenance and building as well as campsite renovation. Opportunities on free days include hiking to waterfalls or peaks and swimming or trout fishing in the river.

[89237] Bear Creek Trail Reconstruction, Klamath Forest, California— June 21–July 1. Leader, Lee Bowen, P.O. Box 737, Front Royal, VA 22630. Cook,



Barhara Poole. Price: \$175; Dep: \$50. Beautiful Marble Mountain will be easily accessible from our base camp at Bear Lake (5,980 feet). Our hike will take us through six miles of coniferous forest and along refreshing Bear Creek within the Marble Mountain Wilderness. We will reconstruct the Bear Creek Trail, rerouting and reclaiming an overgrown section. Marble Valley and Turk and Paradise lakes will be enticing dayhikes for botanists, swimmers, and fishers. This will be a moderate trip.

[89238] Sierra Club's Own Trail Maintenance, Sierra Forest, Sierra-June

21-July 1. Leader, Mary Grisco, P.O. Box 202045, Anchorage, AK 99520. Cook, Dan Bittle. Price: \$175; Dep: \$50. Here's our traditional, early-summer trip to put the Goodale Pass Trail back into shape for another season. When the snows melt in the spring, we'll survey the damage from last year's use, the winter's snows, and the spring runoff—and plan the work accordingly. Free days offer opportunities for hiking, swimming, botanizing, reading, snoozing, and enjoying the fine Sierra scenery. Join us on this moderate to strenuous trip.

<u>Service</u>

NEW

TRIP

[89239] Allagash Wilderness Waterway Restoration Project, Maine-June 24-July 2. Leader, John Beime, 108 Little Neck Rd., Ipswich, MA 01938. Cook, Allen Jalbert. Price: \$295; Dep: \$50. This chain of

lakes and rivers in northern Maine forms a 100-mile waterway through some of the most remote wilderness in the East. Cooperative public and private interests work to preserve the area, granting limited access for recreation. We will start our trip at the head of Chase rapids (Class II–III) and assist the Waterway staff in erosion control and site restoration as we travel by canoe down the waterway. We will have ample time for fishing, swimming, and viewing a great diversity of wildlife. Some canoeing experience is required. The canoe rental is covered in the trip price.



Timberline Trail, Mt. Hood, Oregon

[89240] Santa Barbara-Trampas Lakes, Pecos Wilderness, New Mexico–June 25–July 2. Leaders, Linda and John Buchser, P.O. Box 430, Sandia Park, NM 87047. Price: \$170; Dep: \$50. Bighorn sheep, beaver ponds, and cutthroat trout are found in this high mountain setting. Our base camp is at 9,700 feet, and nearby mountains rise to more than 13,000 feet. We will hike five miles to camp, then work on rebuilding an old sheepherders' trail over an 11,260-foot pass. The work will be moderate to strenuous.

[89241] Cliff Lake Sixth Annual Women's Trip, Marble Mountain Wilderness, Klamath Forest, CaliforniaJune 28-July 8. Leader, Didi Toaspern, 851 Lindo Lane, Chico, CA 95926. Cook, Wendy Ward. Price: \$175; Dep: \$50. We will return to the Marble Mountain Wilderness in Northern California to rehabilitate wilderness areas and trails. We will eradicate campsites, remove fences and brush and clear trails. It will be hard but satisfying work. Our base camp at Cliff Lake is in the northeast corner of the Marble Mountain Wilderness at 6,110 feet. Cliff Lake and nearby Campbell Lake offer swimming, fishing, and relaxation after work, and we are within a day's hike of at least ten other lakes. The possibilities for adventure on our free days abound. This is a moderately strenuous trip with a sixmile hike from the trailhead.

[89242] Minam Lake Restoration, Wallowa-Whitman Forest, Oregon-June 28-July 8. Leader, Ralph Keating, 14 Henry St., Albany, NY 12203. Cook, Eric Theise. Price: \$175; Dep: \$50. The glaciated Eagle Cap Wilderness is an oasis in the eastern Oregon desert. We will make our camp below Minam Lake at 7,600 feet; our primary project is to seed native plants to help restore the area's natural beauty where campers and horses have trampled the lakeshore vegetation. Free days offer a possible climb to Eagle Cap peak (9,600 feet) and fishing and relaxing at nearby lakes. The hike to our base camp is about seven miles up Lostine Canyon. The trip is moderately strenuous.

[89243] Glacier Bay Park, Alaska-

July 1–11. Leader, To be announced. Price: \$275; Dep: \$50. Working near Bartlett Cove and the Beardslee Islands, we'll build a trail through the gentle, forested terrain of lower Glacier Bay. Seals, whales, bald eagles, grouse, black bears, and numerous waterfowl should be visible from our campsite, which is nestled in a spruce forest with plush, six-inch-deep moss. We can kayak around the Beardslee Islands and later paddle "up-bay" to view the tidewater glaciers calving into the sea.

[89244] Airplane Wreck Removal, Sierra Forest, Sierra—July 5–15. Leader, To be announced. Price: \$175; Dep: \$50. Help us remove wreckage of a small twinengine plane that crashed in 1986. It's at 6,500 feet on the Sierra's west side. Stock can't get into the area, so we'll be carrying pieces of the plane to the nearest stock trail. We'll spend our free days dayhiking or relaxing in camp.

[89245] Piute Pass, Inyo Forest, Sierra —July 10–20, Leader, Mary Hess, 2033 Delaware #2, Berkeley, CA 94709, Price: \$175; Dep: \$50. A myriad of lakes and poetic views awaits you on the Piute Lake Trail. Amid the stark beauty of the eastern Sierra at 11,000 feet, we will work on the trail, building causeways across steams, installing steps, and constructing waterbars. On free days, Humphreys Basin will appeal to anglers and botanists while Mt. Humphreys (13,986 feet) is a challenge not to be missed. This will be a moderate trip.



Routt National Forest, Colorado

[89246] Deer Creek Trail Maintenance, Trinity Alps, California-July 12-22. Leader, David Stern, Department of Botany, University of California, Berkeley, CA 94720. Cook, Gail Perkins. Price: \$175; Dep: \$50. In the high country of the Trinity Alps, we'll clear brush and reconstruct tread over four miles of the Four Lakes loop, and up Siligo, Seven Up, and Gibson peaks. Our work sites offer panoramic views of Mts. Shasta and Lassen. We can count on good fishing and plentiful wildflowers. The hike to our base camp via the Long Canyon trail and Upper Siligo Meadows climbs more than 4,000 feet and is seven miles long. This trip is moderate to strenuous.

[89247] Meteor Lake Trail Maintenance, Klamath Forest, California— July 12–22. Leader, Warren Griffin, 657 Idlewild Circle, Suite C., Birmingham, AL 35205. Cook, Libby Hillhouse. Price: \$175; Dep: \$50. On this moderate trip into the Marble Mountain Wilderness, we'll hike about seven miles along the Sandy Ridge Trail to our base camp. We will work at about 6,000 feet rerouting the trail, continuing the work started last year. There'll be free time to enjoy the California sunshine and to swim or fish in nearby lakes. The ranger usually brings his Dutch ovens so that special meals can be cooked.



Beaver lodge

NEW

TRIP

[89248] Chelan-Sawtooth Wilderness **Revegetation Project**, North Cascades Forest, Washington, July 15-25. Leader, Tim Cronister, Upper Valley Rd, Cambridge, VT 85007. Cook, Gretchen Muller. Price: \$175; Dep: \$50. Join us in the Lake Chelan-Sawtooth Wilderness on the castern side of Washington's North Cascades as we repair erosion and revegetate trampled areas along the Summit Trail on Sawtooth Ridge. On free days we can relax, fish, investigate the botany and geology of the area, or hike to nearby lakes, ridges, and peaks. Since it's a substantial hike to our secluded base camp, the trip is moderately strenuous.

[89249] Seventh Annual Beginning Campers' Trail Reconstruction and Wilderness Restoration, Washakie Wilderness, Wyoming-July 17-27. Leader,



Ed Thomas, 1215 Cleveland St., Wilmette, IL 60091. Cook, Eric Theise. Price: \$175; Dep: \$50. Beginning and less-experienced backpackers are invited to develop new skills and sharpen old ones, do important work, and enjoy unusual scenery. The Brown Basin area ranges from low-lying moose habitat (9,000 feet) to fragile high meadows (11,000 feet). Workdays will be divided between cleaning up sites near an abandoned mining town and reconstructing part of the Cascade Canyon Trail. Free days can be spent fishing, enjoying the abundant wildlife and wildflowers, scrambling up nearby peaks, or just relaxing. Local conservationists will talk to us about current environmental issues in Wyoming. This is a moderately strenuous trip. Note: Although this is the only Service trip offered specifically for beginning backpackers, most Service trips welcome beginners in good physical condition.

[89250] Dark Divide and Mt. St. Helens Trail Reconstruction, Gifford Pinchot Forest, Washington-July

17-28. Leader, Michael Blaschke, 8 Judith Place, Longview, WA 98632. Price: \$195; Dep: \$50. The Dark Divide between Mt. St. Helens and Mt. Adams is the largest unprotected contiguous roadless area in Washington. Our work will involve relocating and reconstructing trail near deeply circued Blue Lake (5,000 feet) in alpine meadows with abundant wildflowers and views of Mt. Adams, Mt. St. Helens, and the largest expanse of solid virgin forest in Washington. Underfoot will be a good bit of gray ash—a reminder of the 1980 eruptions. At trip's end there will be time for an optional strenuous climb to Mt. St. Helen's rim as well as moderate dayhikes in the volcanic blast area. This is a moderate trip.

NEW

TRIP

[89251] Sundance Pass, Beartooth Wilderness, Montana-July 19-29. Leader, Kathy Sos, P.O. Box 2691, Gillette, WY 82717. Cook, Paula vanHaagen. Price: \$175; Dep: \$50. Nestled deep in the Absaroka Range, the trail to our base camp at 9,600 feet offers a grand view of Granite Peak, Montana's highest at 12,799 feet. The forest vegetation is lush and the wildlife abundant, even among the jagged granite peaks. Our project will consist of rockwall reconstruction, tread repair and rerouting, and waterbar installation. During layover days, we can explore the Beartooth Plateau and climb several peaks. Our moderately strenuous trip is not in the recently fire-damaged areas.

[89252] El Rito Azul Trail Construction, Rio Grande Forest, Colorado-

July 21-31. Leader, Dennis Grzezinski, 3025 N. Farwell Ave., Milwaukee, WI 53211. Cook, Debbie Northcutt. Price: \$175; Dep: \$50. Join us in the remote south San Juan Wilderness, where we'll work on the recently rerouted El Rito Azul Trail. We'll camp just below the Continental Divide near Blue Lake. The water is frigid and the fishing excellent. Our free days can be spent traversing the high meadows of the Continental Divide Trail up to Conejos Peak (13,172 feet) or visiting any of several remote alpine lakes. We may also take dayhikes to Navajo River Canyon, former habitat of the state's last grizzly bear. The six-mile hike in and the work project at 11,000 feet make this a strenuous trip.

[89253] Mt. Whitney One-Week Trail Maintenance, Inyo Forest, Sierra-

July 22–29. Leader, John Albrecht, 3550 Willamette, Eugene, OR 97405. Price: \$175; Dep: \$50. Work your way to the top ..., maintaining one of the most heavily used hiking trails in the world. We'll work at high altitude, rolling boulders, digging trail, and possibly constructing a causeway. Strong hikers will have the opportunity to ascend 14,494-foot Mt.

Whitney, the highest peak in the lower 48 states. This shorter-than-usual trip will be moderate to strenuous depending on how high you want to go and how hard the group wants to work.



Routt National Forest, Colorado

[89254] Third Annual Clair Tappaan Lodge Family Trip, Tahoe Forest, Sierra-July 22-30. Leaders, Marylouise and Vince White-Petteristi, 320 S. Maple, Oak Park, IL 60302. Price: adult \$200; child \$140, Dep: \$50. This third-annual family service trip will again be hosted by the Sierra Club's Clair Tappaan Lodge. Adult participants will work on reconstruction of the Pacific Crest Trail while the children plant flowers to help restore a meadow. Dayhike destinations may include Warren Lake, Castle Peak, or Sand Ridge Lake, and overnight hut stays will be possible. We look forward to working for the preservation of the wilderness and to the special joy of sharing the experience with our children. The trip is limited to two children, four years or older, per family.

[89255] Appalachian Mountain Club Collaboration, White Mountain Forest, New Hampshire—July 23–29. Leader, Keein Karl, 15 June Ave., Norwalk,

CT 06850. Price: \$175; Dep: \$50. The Great Gulf Wilderness, surrounded by the Presidentials, will be the site of this year's joint venture. Working out of our base camp about four miles into the Great Gulf Wilderness, we will be doing a variety of maintenance tasks on the Appalachian Trail where it crosses this glacial cirque. During time off we might hike through boreal forest to waterfalls and ledges, or venture above treeline for views of the Pinkham Notch area. At the end of the week we'll return to Camp Dodge, the Applachian Mountain Club's volunteer center, for a barbecue and to decide which peak to climb.

[89256] Piute Canyon Trail Maintenance, John Muir Wilderness, Sierra— July 26–August 5. Leader, Anne Stork, 1304 Virginia Ave., Havertown, PA 19083. Price: \$175; Dep: \$50. We start with a ferry ride across Florence Lake to our trailhead, from where we'll follow the San Joaquin River to our base camp near the edge of Kings Canyon National Park. We will work on a variety of construction projects including causeways, rock walls, and waterbars. The High Sierra's granite peaks, glacial lakes, alpine meadows, and a nearby hot springs await us on our free days.

[89257] Baxter Park Bridge Construction, Maine-July 29-August 6. Leader, Laurie J. Buck, 108 Juniper Dr., Ithaca, NY 14850. Price: \$195; Dep: \$50. Our base camp will be in the "undiscovered" Kidney Pond area, where we will spend several days repairing and constructing bridges. This location will provide many opportunities for hiking, canoeing, fishing, and observing the area's wildlife. Before our work begins, we will take a dayhike up a nearby mountain to view the surrounding countryside. The week will end with a two-day traverse of Mt. Katahdin; we'll take a different approach to the summit each day. This trip will be moderately strenuous.

[89258] West Fork Lake Trail Maintenance, Panhandle Forest, Idaho-July 29-August 9. Leader, "Electric" Bill Weinberg, 1663 Oak St., San Francisco, CA 94117. Price: \$175; Dep: \$50. You won't believe the beauty of West Fork Lakebring your camera! We will set up our base camp at the lake, 1,200 feet below scenic peaks. We will repair the West Fork Lake trail by moving rocks, clearing brush, and putting in new tread. Nearby lakes beckon for free-day enjoyment (including excellent fishing), as do the easily accessible peaks. Local wildlife includes moose, elk, deer, and marmot; we may possibly sight caribou and both black and grizzly bear. The work will be hard and the rewards many.



Cow moose



Timberline Trail, Mt. Hood, Oregon

[89259] Solitude Lake Trail Reconstruction, Bighorn Forest, Wyoming -July 31-August 10. Leader, Kathryn Hannay, P.O. Box 108, Moss Landing, CA 95039, Price: \$175; Dep: \$50. Solitude Lake is one of the largest lakes in the Cloud Peak Wilderness. At 9,500 feet, the scenery is grand, wildflowers abound, and fish are plentiful. We'll be repairing and reconstructing the Solitude Loop Trail. Because of the altitude and the seven-mile hike to our base camp, this is a moderately strenuous trip.

NEW

TRIP

[89260] Grand Teton Park Wilderness Restoration, Wyoming-August 2-12. Leaders, Eric and Virginia Scott-Bourman, Rte. 100, P.O. Box 179, Rochester, VT 05767. Price: \$175; Dep: \$50. Come to Marion Lake in the southwest corner of Grand Teton Park, which has suffered many years of overuse. We will close some campsites and trails and rehabilitate or relocate others. It's hard but rewarding work. Marion Lake is at 9,220 feet at the head of Granite Canyon. Death Canyon, Death Canyon Shelf, and the Teton Crest Trail are nearby—available for exploration on our free days.

[89261] Mt. Evans Wilderness, Pike Forest, Colorado-August 2-12. Leader, Bob Hayes, 1891 Happy Lane, Eugene, OR 97401. Cook, Janie Grussing. Price: \$175; Dep: \$50. Just below the 14,000-foot peaks of Mts. Evans and Bierstadt lies Abyss Lake, the end of the trail we'll be upgrading. Working at altitudes above 12,500 feet, we'll bypass the bog where the old trail runs and move rocks and cut willows to construct new tread. We'll be in the midst of alpine flora, Rocky Mountain bighorn sheep and goats, elk, and eagles. Free days provide time for good fishing and swimming, dayhikes to ridges and peaks, and photography. Our camp will be at 11,800 feet, approximately five miles and 2,200 feet up from the trailhead. This is a strenuous trip; acclimatization is advised due to the high altitude.

of our days with saws, pruning shears, picks, and shovels repairing some of the damage. On our free days there are canyons and rock outcroppings to explore and opportunities for photography and botany—or we can just stay in camp and relax. With the five-mile hike in, work at 11,000 feet, and the possibility that our trip will not be pack-supported, this is a strenuous trip.

[89263] Wind River Trail Maintenance, Popo-Agie Wilderness, Wyoming-

August 10–20. Leader, Jan Moraczewski, 1047 Columbia Ase., Whitefish, MT 59937. Cook, Mark Easter, Price: \$175; Dep. \$50. Join us in the spectacular Wind River Range, where we'll improve badly eroded trails. Free days offer some of the best fishing in the country at nearby lakes, as well as dayhikes to the area's granite ridges and peaks (12,000 feet), offering panoramic views of the Continental Di-



Mule deer

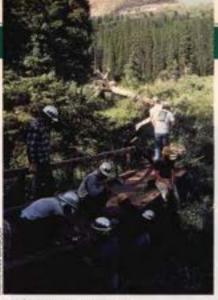
[89262] Rolling Creek Trail Maintenance, Pike Forest, Colorado-

August 2–12. Leader, Wally Mah, 1301 Eddy St., Chicago, IL 60657. Cooks, Bruce and Carmen Johnson. Price: \$175; Dep: \$50. Alpine meadows, some of Colorado's 12,000-foot peaks, and the birds, wildlife, and wildflowers associated with "spring" in the Rockies will enchant our timberline-meadow base camp. The trails in the area were constructed many years ago and have deteriorated. We'll spend about half vide and perhaps sightings of bighorn sheep. It is a long hike to our base camp at 10,000 feet. Join us for this enjoyable but strenuous trip.

[89264] Thorofare Trail Fire Damage Repair, Yellowstone Park, Wyoming— August 12–22. Leader, Conrad Smith, 838 Eddystone Ave., Columbus, OH 43224. Price: \$175; Dep: \$50. After an 18-mile boat trip across Yellowstone Lake, we will hike through the partly scorched upper Yellowstone River Valley to out base camp in the most remote section of the park. Using hand tools and chainsaws, we will work with a park crew to repair fire damage to the Thorofare Trail and its backcountry campsites. On free days we can explore Yellowstone's highest peaks, fish and swim in the Yellowstone River, watch for wildlife in the many large meadows, or lounge in camp. This strenuous trip will be an excellent opportunity to examine the role of fire in the Yellowstone ecology.



[89265] Sylvania Wilderness Trail and Campsite Maintenance, Ottawa Forest, Upper Peninsula, Michigan— August 13–19. Leader, Conrad Krinock, 1705 Harvard, Berkley, MI 48072. Price: \$195; Dep: \$50. The Sylvania Wilderness sits on top of the divide that separates the Lake Michigan, Mississippi River, and Lake Superior watersheds. The water quality of its lakes is among the purest of all lakes in the country. The area has never felt the blade of the ax or the teeth of the chainsaw. We'll be canoeing 10 to 15 miles per day and clearing uprooted trees and



Rocky Mountaine, Colorado

overgrowth on portage trails and campsites. Layover days will allow plenty of time for swimming, fishing, and hiking throughout this unique emerald of the North Woods.

[89266] Yosemite Park Revegetation and Trail Project, Sierra-August 13-24. Leader, C.E. Vollum, Rte. 5, P.O. Box 66A, Alberta Lea, MN 56007. Price: \$175; Dep: \$50. In some of Yosemite's most spectacular backcountry we will revegetate trampled areas and do light trail



Desert sunflower

maintenance. Layover days offer a variety of peaks to climb and lakes to enjoy—all close at hand! Based above 10,000 feet, this trip is moderate to strenuous. All ages are welcome.

REFLECTIONS



Under the expert guidance of Navajo stone masons, participants on the Sierra Club's first Service trip to New Mexico's Chaco Culture Historical Park in 1988 worked to stabilize and restore the ruins of the ancient Anasazi. This trip was so successful that leader Bonnie Sharpe has planned a second in 1989 (see trip #89234), as well as two new archeological service trips in southern Utab (see trips #89231 and #89232). In Utab, participants will map siles.

[89267] Targhee Teton Trail Maintenance, Targhee Teton Forest,

Wyoming—August 15–25. Leader, John Albrecht, 3550 Willamette, Eugene, OR 97405. Cook, Carla Moreno. Price: \$175; Dep: \$50. Within sight of the Teton crest in the Jedediah Smith Wilderness, we will repair and relocate damaged trails at 9,000 to 10,000 feet. Layover days provide time to explore this area on the western boundary of Grand Teton National Park, or to relax. With a mile hike in from the trailhead and 2,000 feet of elevation gain, this will be a moderate trip.



[89268] Isle Royale Trail Maintenance, Michigan-August 18-26. Leader, Roger Aiken, 4360 N. Hamline Ave., Arden Hills, MN 55112. Price: \$195; Dep: \$50. An island wilderness park in the northwestern corner of Lake Superior, Isle Royale offers a combination of land, sky, and water of rare beauty: rugged ridges, expansive vistas, and sheltered harbors. We will be working with the National Park Service to reroute a heavily used trail. Weather is never predictable here, but it is often excellent in August with daytime temperatures in the 70s and cool nights in the 40s. Our longest hike will be to the interior of the island, where we will work for



Baxter State Park, Maine

four days and have one layover day to hike, explore, fish, or just relax. While our work will be moderate, the unpredictability of the weather makes this a moderate to strenuous trip.

[89269] High Uintas Trail Construction, Wasatch Forest, Utah-August 19-29, Leader, Tod Rubin, 26 Bishop Lane, Portola Valley, CA 94025. Cook, Laurie-Ann Barbour, Price: \$175; Dep: \$50, The rangers are especially fond of this area where wildflowers and animal life abound in high meadows. We will help them build a trail in a little-used area in the Lakes District, and we'll have ample opportunity on free days to climb the peaks (some over 13,000 feet) and swim in the lakes nearby. Our camp and worksites will be in forest and alpine meadows at about 10,000 feet, so this will be a moderately strenuous but very rewarding trip.

[89270] The Old Oregon Skyline Trail-Ramona Falls Wilderness Restoration Project, Oregon-August 21-27. Leader, Rick Zenn, 2533 N.E. 64th, Portland, OR 97213. Price: \$155; Dep: \$50. Beginning in the lush Eagle Creek canyon of the famous Columbia River Gorge, we'll ascend the old Oregon Skyline Trail into the heart of the Mt. Hood Wilderness. This scenic 50-mile backpack features countless waterfalls, wildflower meadows, mountain lakes, and stunning views of the glaciated, volcanic high peaks of the Cascade Range. We'll camp three nights at beautiful Ramona Falls and complete wilderness restoration projects begun last summer. This rigorous, adventure-packed seven-day trip will end at the Timberline Lodge on the spectacular south slope of Mt. Hood.

[89271] Wonderland Trail Reroute, Mt. Rainier Park, Washington-August

21–31. Leader, Scoby Beer, 2318 Edward St., Berkeley, CA 94702. Cook, Ian Campbell. Price: \$175; Dep: \$50. Join us on this moderate trip in the shade of the big firs on the north slopes of Mt. Rainier. We will continue construction of a two-mile reroute of the Wonderland Trail where it passes above Ipsut Creek Campground and beside the Carbon River. Creeks and rivers tumble through this rugged country from their snowmelt sources on the formidable north face of majestic Mt. Rainier. Alpine lakes, meadows in full flower, glaciers,



Baxter State Park, Maine

<u>Service</u>

and nearby peaks are all within an easy dayhike range. We'll have many opportunities to explore this seldom-used section of the park.

[89272] Boundary Waters Canoe Area, Minnesota—August 30-September 9. Leader, Bob Wolf, 1601 Lee Trevino, #2056, El Paso, TX 79936. Price: \$275; Dep: \$50. Experience the land of sky-blue waters as summer merges into fall. We'll canoe and work on portions of the Boundary Waters Canoe Area that voyagers used during the heyday of the fur trade. The cries of loons will accompany us as we maintain portages and trails and revegetate campsites. Free days will offer a variety of activities fishing, swimming, canoeing, or just relaxing in camp. This will be a moderate trip.

DOCTORS WANTED

Some service trips attempt to include a doctor as a staff member. These are individuals who donate their time and skill for a waiver of the trip price. They are not required to work on the trip project, but many do so out of the same concern for wilderness shared by regular participants.

All trip leaders have the Advanced Red Cross First-Aid Card, and the Club provides a first-aid kit. Although our accident record with projects requiring the use of tools has been very good, we try to provide a staff doctor just in case.

What better way to spend ten days of your summer vacation than in the great outdoors, sharing companionship with environmentally concerned citizens and putting some work back into the wilderness in exchange for the joys received from it. If you think you might be interested in this rewarding experience, please contact:

Dr. Bob Majors 3508 Williamsborough Ct. Raleigh, NC 27609

[89273] Denali Park, Alaska—August 30–September 9. Leader, Conrad Smith, 838 Eddystone Ave., Columbus, OH 43224. Cook, Scott Larson. Price: \$275; Dep: \$50. Come join us on the west fork of the Chultna River in the country's largest national park, where we'll clean up the



remains of an abandoned cabin. The Chultna River flows down the south side of the Alaska Range, dominated by Mt. McKinley at 20,320 feet. The scenery is legendary and opportunities abound for viewing wildlife. Now the bad news: This will be a strenuous trip. It's a 15-mile cross-country hike through creek beds and tundra to our base camp. But the magnificent countryside is well worth the effort.

[89274] Baxter Park Trail Improvement, Maine-September 2-9. Leader, Scott J. Whitcomb, 12 Shirley St., Lynn, MA 01904. Price: \$175; Dep: \$50. This pristine 200,000-acre wilderness in northcentral Maine is graced with clear streams and lakes; it is also home to beavers, otters, foxes, and moose. We'll backpack to our base camp at seldom-visited Russell Pond. Our work will include clearing blow-downs and brush, repairing eroded trails, and replacing bog bridges. There will be ample time for dayhikes and canoeing. Weather permitting, at trip's end we'll attempt to climb Mt. Kathadin (Maine's highest peak at 5,267 feet) for a spectacular view of the North Woods.

[89275] Ice Age Trail, Medford District, Chequamegon Forest, Wisconsin —September 9–19, Leader, To be announced, Price: \$175; Dep: \$50. Trees decked out in fall colors make a pleasant umbrella to work under as we complete a portion of the Ice Age Trail. On workdays we will relocate and maintain trails and possibly build a bridge. On free days we'll hike, fish, and explore. We will car-camp at one of the numerous streams and lakes in the area and commute to and from the worksite, making this a moderate trip.

[90347] Cumberland Island National Seashore, Georgia-October 16-21.

Leaders, Linda D. Tillman and Dana Sorkin, 361 Valleybrook Dr. N.E., Atlanta, GA 30342. Price: \$195; Dep: \$50. Cumberland is a 16-mile-long island with the remains of antebellum homes as well as undisturbed wilderness. Off the coast of Georgia, this barrier island is home to wild horses, armadillos, egrets, fiddler crabs, and fields of sea oats. In between backcountry camping and exploring remote parts of the island, we will be working on trail maintenance and clearing away palmettos and marsh overgrowth. This is a leisurely to moderate trip





XPERIENCE THE UNIQUE WINTER WILDERNESS IN PLACES EVEN BACK-PACKERS CAN'T GO. OUR SKI TRIPS USU-ALLY FOLLOW ONE OF TWO FORMATS. PARTICIPANTS MAY STAY IN A CENTRAL CAMP AND TAKE DAY OR OVERNIGHT TRIPS, OR THE TRIP MAY BE A SERIES OF MOVES FROM CAMP TO CAMP. SOME TRIPS COMBINE BOTH FORMATS. TRIPS VARY IN DIFFICULTY FROM THOSE SUITABLE FOR BEGINNERS TO THOSE REQUIRING SOME SKI-TOURING EXPERIENCE.

[89370] Adirondack Hut-to-Hut Ski Tour, New York-January 28-February 3. Leader, Tom Kligerman, R.D. #1, P.O. Box 242, East Chatham, NY 12060. Price: \$505; Dep: \$100. Join our adventure in the Siamese Ponds Wilderness Area. Each day we will ski a new leg of our journey, and each night we will come to a different hut. Jeeps and snowmobiles will transport our gear for us. The huts, comfortable lodgings spaced about eight miles apart, are heated by wood stoves; some are not accessible by road, making them feel genuinely remote. The first day is instructional and will include some telemark lessons. A certified cross-country instructor will accompany us.

[89371] High Peaks Ski Tours, New York-February 20-24. Leader, Larry White, D #2, Teacy Creek Rd., Vestal, NY 13850. Price: \$420; Dep: \$50. We will spend five days cross-country skiing through the Adirondack High Peaks region. Our trip will include climbs and descents of two major mountain passes, tours of remote glacial lakes, a lap around the Olympic ski area at Mount Van Hovenberg, and treks down abandoned Adirondack roads. With our luggage transported for us each day, we will ski from hut to hut. The huts are heated, hot meals are provided every day, and we'll be able to take hot showers every night except the first. This trip is designed for the



Mt. Lincoln, Sierra

intermediate to expert skier interested in touring majestic mountain terrain.

[89372] Yellowstone Winter Wildlife and Geology, Wyoming-February 26-March 5. Leader, Bert Fingerhut, 225 W. 83rd St., New York, NY 10024. Price: \$1,225; Dep: \$100. Some people consider Yellowstone in winter to be the most beautiful place on Earth. Join us and see for yourself. During the day we will ski with geologist Charles Woodward and biologist Jim Halfpenny to remote spots in the park. This will give everyone an opportunity to improve skiing techniques and to learn about winter animal behavior and tracking, the geology of the park, snow and avalanche conditions, and regional ecology and history. Although it will be cold during the days, our nights at three different Yellowstone lodges will be warm as well as entertaining and educational. Being comfortable on crosscountry skis is the major prerequisite for this trip. More strenuous ski excursions for those interested will also be available. Price includes all meals, lodging, and transportation from the airport.



Mt. Rainier Park, Washington

<u>WATER</u>

RAVELING BY WATER OF-FERS A VERY SPECIAL WAY TO EXPLORE THE WILDERNESS PHYS-ICALLY AND MENTALLY. TO BECOME PART OF A RIVER, GOING WHERE IT FLOWS, ON A MOVING PATHWAY THROUGH TIME AND SPACE, IS AN UNFORGETTABLE EXPERIENCE. CLOSE-NESS TO NATURE IS A CONSTANT.

VOLUNTEER TRIP LEADERS TRAINED WITHIN THE SIERRA CLUB ADD A MEANINGFUL DIMENSION OPTEN MISS-ING ON COMMERCIAL WATER TRIPS.

CANOE

Experience a unique, do-it-yourself way to reach pristine wilderness. Canoe trips offer everything from the tranquility of paddling placid water to the exhilaration of running whitewater; add beach camping, exploring side canyons, swimming, and just plain relaxing, and you have the ingredients for a great wilderness experience. Trips are scheduled for most months of the year in many parts of the country and are planned to accommodate a wide range of skills. Food, river equipment, and some instruction are generally provided, but rental information will be supplied by the trip leader. Participants must be in good health and, except where otherwise noted in the trip supplement, capable of paddling, kneeling, lifting, and swimming. Participants are expected to share in camp chores. Leader approval is required.

Canoe trips are graded as follows:

Grade A: No canoeing experience required.

Grade B: Some canoeing experience required.

Grade C: Canoeing experience on moving water required.

Grade D: Canoeing experience on whitewater required.

[89065] Buffalo Bluffs Paddle, Buffalo National River, Arkansas—April 10–15. Leader, Sarah Rust, 1282 Reaney Ave., St. Paul, MN 55106. Price: \$325;



Colorado River, California

Dep: \$50. Paddle our premier national river and watch the Ozark spring unfold! The clear waters of the Buffalo National River will take us past imposing bluffs crowned with flowering dogwoods in the heart of the Ozark hill country. Lazily chase a heron downriver, or fall asleep to a whippoorwill's call and wake to mists rising above the gravel bars. Our leisurely to moderate pace will allow plenty of time for swimming, taking short side hikes, and stargazing. While the bends and riffles of the upper Buffalo may challenge novices, they are fairly forgiving. (Grade B)

[89066] California's Great Delta Canoe Journey—April 23–29. Leader, Barhara B. Sharpe, 2921 Bedford Ave., Placerville, CA 95667. Price: \$410; Dep: \$50. The Sacramento—San Joaquin Delta is a maze of meandering waterways created by the confluence of a vast network of California rivers. Besides canoeing the lower Stanislaus and San Joaquin rivers, we will visit the historic Chinese-American community of Locke before resuming our river exploration of the Mokelumne and Consumnes rivers and Snodgrass Slough. A special treat will be a visit to The Nature Conservancy's River Nature Preserve. Overnight camping will be in state recreation sites, at private boat marinas, and—at least one night—on a riverbank. Families with children who have good swimming ability are welcome. All of our canoeing will be on Class I water. (Grade B)



[89067] Blackwater Sampler, Little Pee Dee and Edisto Rivers, South Carolina-May 13-20. Leader, Barry Beasley. 125 W. Idlewood Circle, West Columbia, SC 29169. Price: \$290; Dep: \$50. Four days on the quick-moving blackwaters of the Little Pee Dee River will take canoe paddlers down one of the Southeast's true wilderness rivers. The Little Pee Dee meanders through bottomland hardwood and cypress swamps, slips past white-sand beaches, and finally meets the Great Pee Dee. We will spend our last night in a treehouse deep in the swamp. From here we'll go to the Edisto River for three more days of paddling. A premier recreational river, the Edisto has clear waters, white sandy bottoms, and sandbars that make swimming irresistible. Expect to

WATER

see abundant bird life and perhaps beavers or otters as we float down two of the Southeast's best-kept river secrets—the cool, clear waters of the Little Pee Dee and the Edisto. (Grade B)

[89282] Adirondack Canoe Trip, New York-July 9-15. Leader, Walter T. Blank, R.D. #1, P.O. Box 85, Ghent, NY 12075. Price: \$295; Dep: \$50. In the northern portion of Adirondack Park is the Saint Regis Canoe Area. Few areas in the East contain as many ponds and lakes per square mile. We will begin our trip paddling through a dozen of these small lakes, and we will finish by paddling all three of the Saranac Lakes. Many lakes and ponds are connected, but some short portages will be necessary. At least one long portage will be done by motorized transportation. A layover day will give us the opportunity to climb Ampersand Mountain. We will start at Paul Smiths College and take out in the vicinity of Saranac Lake Village. (Grade B)

[89283] Wild and Scenic Rogue River, Oregon—July 10–14. Leaders, Iila and Chuck Wild, 3862 Rosetta Ct., San Diego, CA 92111. Price: \$580; Dep: \$100. Our trip

LEADER PROFILE



Barry Beasley

Ever seen or beard a prothonotary warbler? Well, Barry has shown them, as well as river otters, to members of his kayak trips in South Carolina. Barry grew up hiking and camping in the Smokies, and he has backpacked and paddled extensively through South Carolina's blackwater rivers. His experiences nurtured his belief in the importance of keeping the rivers and mountains alive. He was chapter chair in 1982, and he's now the coordinator of the South Carolina Scenic Rivers Program. Although he's new to Sierra Club national outings, if you want an experience like watching a sumise over a barrier island, or seeing a prothonotary warbler, Barry will show it to you (see trip #89067).



starts at Agness Lodge, at the confluence of the Illinois and Rogue rivers. The lodge is easily accessible from Gold Beach. We will provide instruction on canoeing skills and practice canoeing on the crystal-clear Illinois River before traveling leisurely downstream on the Rogue to Gold Beach at the coast. Exploring, swimming, and a layover day to relax will complete this river experience. "Beginners of good spirit" are welcome. A special lodge meal and river gear are included in the trip price. (Grade A)

[89284] Boundary Waters Canoe Area Wilderness Paddle and Portage, Minnesota—July 11-20. Leader, Tom Sitzman, 903 Mercer Blod., Omaha, NE 68131. Price. \$495; Dep: \$50. Experience the silence of the North Woods, hear the eerie laughter of the loon, sit under the northern skies, photograph Indian pictographs, stalk a moose, and paddle a misty lake at sunrise. On this ten-day trip through a land of interconnecting lakes and rivers shaped by the last glacial period, we will swim, fish, and enjoy fresh-picked blueberries and fish on the grill as we portage, paddle, and camp. All participants must be strong, love adventure, and follow a serious conditioning plan prior to the trip. (Grade B)

[89285] The Wide Missouri, Montana-

July 21-28. Leader, Dodie Johnston, 15187 Hobby Way, Nevada City, CA 95959. Price: \$680; Dep: \$100. Nicknamed "Big Muddy," the Missouri River flows through country rich with memories of Blackfeet and Cree Indians, the Lewis and Clark expedition, gold seekers, and homesteaders. Beginning in historic Fort Benton, we will paddle the Wild and Scenic portion of the upper Missouri from the uplifted plains at the eastern foot of the Rockies to Kipp State Park. We will cover about 20 miles a day, setting aside time to hike through the striking White Rock country, explore old settlements, and observe an abundance of wildlife. Canoe rental and shuttle are included in the trip price. (Grade A)

[89286] Trinity River Canoe Trip, California—July 23–28. Leader, Chuck Schultz, 1024-C Las Gamos Rd., San Rafael, CA 94903. Price: \$465; Dep: \$50. The Trinity River flows through deep pools and canyons as it makes its way to join the Klamath. Our trip on the river's



Raquette River, New York

<u>WATER</u>

lower reaches will offer the challenge of whitewater as well as tempting swimming holes. The area is rich in the history and legends of the Hoopa Indians, and we'll learn some of the legends during the trip. This section of the Trinity is suitable for those with experience on moving water who can handle a canoe in Class II water. Canoe rental is included in the trip price. (Grade D)

[89287] Kipawa Reserve, Quebec, Canada-July 31-August 11. Leader,

Dick Williams, 609 S. Taylor St., Arlington, VA 22204. Price: \$555; Dep: \$100. Float planes will take us to the heart of the reserve. From there we will paddle a leisurely circuit on lakes and streams in this extensive wilderness before returning to our roadhead in the hamlet of Kipawa. Four layover days will provide plenty of time for loafing, swimming, and fishing. The reserve offers vistas of sparkling water and rocky shores backed by densely wooded hills. We will hear the calls of loons and may spot, moose, beavers, and other wildlife. Occasional portages make this a moderate outing. (Grade C)

[89288] Canoeing in the West Grand Lakes Chain, Maine-August 13-19. Leader, Jo Claghorn, P.O. Box 149, Princeton, MA 01541. Price: \$370; Dep: \$50. Our flat-water canoe trip will be in the beautiful lakes of northeastern Maine, an area of deep forests and rolling hills. We will travel about 55 miles through the lakes and interconnecting streams and camp at primitive sites. On the way, we'll enjoy the loons calling and playing around us, sample blueberries, and perhaps spot deer, moose, and beavers. On our layover day we will explore an intimate system of tiny ponds, streams, and bogs, with a choice of hiking or paddling. Although the pace of our trip will be moderate, some endurance and experience in canoeing will be necessary as we will be carrying all our gear and food. We will have at least one short portage, and could have an occasional tough day of paddling against the wind. (Grade B)

[89289] Raquette River Sampler, Adirondack Park, New York-August 27-September 2. Leaders, Edith Schell and Irwin Rosman, 2671 Brown St., Collins, NY 14034. Price: \$300; Dep: \$50. New York's 2.5-million-acre Adirondack Park contains a network of wide-open lakes with views of surrounding mountains and quiet, meandering rivers. We will begin our tour of the Raquette River at Blue Mountain Lake, which is considered by some to be its actual headwaters. We willpaddle on lakes and on two scenic rivers. carrying our gear and staying in a different campsite most nights, with one layover day. A car shuttle midweek will help us avoid four miles of portaging. The possibility of strong winds on the open lakes requires that participants have some prior canoe experience. (Grade B)

[89290] Boundary Waters Canoe Area Wilderness, Minnesota-August 31-September 8. Leader, Sharen Kaufman, 3299 Irish Ridge Rd., Burlington, IA 52601. Price: \$495: Dep: \$50. Explore this

- 4th Annual -

Sierra Club Environmental Workshop for Educators

A Family Camping Experience

Field explorations of diverse babitats, including forest, stream, lake, and bog. Teaching techniques for investigating ecosystems, and the human environment of the Lake Taboe Basin including Donner Pass.

Seminars with experts in the environmental education and environment advocacy fields on domestic and international issues.

Special electives, including photography, trips to gold rush towns, biking, swimming, and other outdoor skills.

WEST COAST WORKSHOP

Clair Tappaan Lodge in the Sierra at Norden, California

SAT July 15-SAT July 22, 1989

COST*: Adults \$200 Teens 185 Children (7-12) 150 This workshop is designed to serve environmental education professionals and volunteer leaders and their families. The week-long workshop offers broadly diversified exposure to the communities—natural and built—which comprise our total environment.

The staff will include former Sierra Club President Michele Perrault, Dr. Arthur Shapiro, University of California, Davis, Dick Buegler, Sierra Club National Education Chair, and Ray Pfortner, environmental educator and professional nature photographer.

*Cost includes room, board, tuition, insurance, trips, snacks and counselors for young people.

PRE-REGISTRATION FORM

Participant Name	
Address	
City, State	
Pbone	

Other family members attending

Deposit (non-refundable)

\$50 Adults, \$10 Teens and children, \$10 Late fee after May I. For general information, call.

Micbele Pernault (Director) [415-283-6683]

D Please check if interested in teacher advancement credit.

To register, send to: Sterra Club Educators Worksbop, cb Executive Office Sterra Club, 730 Polk Street, San Francisco, CA 94109 wilderness of lakes and loons beneath the northern lights. Our naturalist-led canoe trip includes an educational component for those who wish to learn more about this area, which is as rich in cultural history as it is in natural beauty. A layover day and plenty of time for swimming, photography, and solitude highlight this canoeing adventure. (Grade B)

[89291] Fall Adirondack Canoe Trip, New York-September 25-30. Leader, Walter T. Blank, R.D. #1, P.O. Box 85, Ghent, NY 12075. Price: \$285; Dep: \$50. Few experiences can match the visual splendor of a fall canoe trip in Adirondack Park. We will begin our adventure at Stoney Creek Ponds near Axton. Paddling down the Raquette River, we eventually reach Tupper Lake and then the wonderful Bog River Canoe Area, which has recently been acquired by the state. The area offers wonderful opportunities for viewing wildlife and wilderness scenery in a relatively remote environment. We will have a layover day at Lowes Lake. During the trip there will be two short carries, a pullover or two, and one motorized portage. (Grade B)

NEW

TRIP

[90350] Bayous and Beaches, Louisiana and Mississippi—October 22–28. Leader, Ernie Bauer, 8109 Fenavay Rd., Betheada, MD 20817. Price: \$365; Dep: \$50. On this canoe trip through the water wildernesses of Louisiana and Mississippi, we will explore the Atchafalaya River basin in Louisiana, enjoying this bald cypress swamp in its fall colors. Then we'll move east to Mississippi for an overnight paddle on a blackwater stream. We'll finish our trip at Gulf Islands National Seashore, where we'll taste Cajun culture and cooking and view unique wildlife. (Grade B)

KAYAK

Nothing can compare with the excitement and solitude of sea-kayaking on the sheltered island waterways and the deepwater fjords of the Pacific Northwest coast. Stable, double kayaks are large enough to carry all gear as participants paddle from one secluded beach camp to another. Trip members enjoy participating fully in camp chores, including equipment care and preparing and cooking meals.



Nashua River, Massachusetts



[89281] Oueen Charlotte Islands Sea Kayak, British Columbia, Canada-July 2-15. Leader, Carol Dienger, 3145 Bandera Dr., Palo Alto, CA 94304. Price: \$1,280; Dep: \$100. In the solitude of a sea kayak, explore Gaawa Hanas, the South Moresby region of the Queen Charlotte Islands. Canada just recently declared this jewel of natural and cultural history a national park. We will paddle two-person Tofino kayaks among the forested islands off the east coast of South Moresby, camp on secluded beaches, hike through mossy rainforests to alpine slopes, snorkel in waters rich with life, and see thousands of nesting seabirds. The highlight of the trip will be a visit to the abandoned Haida village of Ninstints on Anthony Island, a United Nations World Heritage site. Previous paddling experience is desirable. The cost of transport (about \$100) from Sandspit to and from South Moresby is not included in the trip price.

RAFT

Raft trips combine the excitement of whitewater rapids with the natural wonder of wild river areas. On paddle-raft trips, participants quickly learn to read the river and maneuver their raft under the guidance of experienced leaders. Trip members also participate fully in the chores of a river camp and enjoy working, together.

[89280] Klamath Parent and Child Paddle Raft, Klamath Forest, California-June 26-30. Leader, Jon Kangas, 10141 Bon Vista Ct., San Jose, CA 95127. Price: adult \$495; child \$395, Dep: \$50. This 60-mile paddle down the Klamath River from Sarah Totten Campground to Presido Bar is for parents who want to share quality time with their children in a wilderness setting. All aspects of the trip will be geared to parents with children: cooking hot dogs on a stick, roasting marshmallows, telling campfire stories, and sharing our wilderness experiences. A videotape will be produced and a copy given each family. This trip is suitable for children eight years or older who have swimming skills,

NOTE: See Alaska, Foreign, and Service trips for other water outings.



Green River, Utab

OUTING RESERVATION FORM

YOUR NAME		
STREET ADDRESS		_
CITY	STATE	TIP.
PLEASE PRINT YOUR NAME AND THE NAMES OF OTHER PEOPLE IN YOUR P	MIY	
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4.		
PER PERSON COST OF OUTING:	TOTAL COST THIS APP	LICATION

PLEASE MAKE CI MAIL TO: SIERRA CLUB OUTING D

OUTING	RESERVATION FOR	M
MEMBERSHIP NO.		

YOUR NAME.

STATE	237
	_
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	OTAL COST THIS APPLICATI

PLEASE MAKE CE MAIL TO: SIERRA CLUB OUTING DI

Sierra Club Outing Dept Dept. #05618 San Francisco, CA 94139

AFFIX STAMP HERE

Important Information On Sierra Club Outings



Mail To:

- All reservations, including those confirmed
- pending leader approval, are subject to the reservation/cancellation policy of the Outing Committee.
- A signed liability release is required for all foreign trip participants.
- All participants age 12 and over must be Sierra Club members to attend an outing.
- Your address may be released to other trip
- participants for purposes of ride-sharing or other trip-related purposes.
- Not all trips can accommodate special dietary needs or preferences. Contact the leader for this information before applying.
- Applications for trip space will be accepted in the order that they are received at the following address: Sierra Club Outing Dept.
 - Dept. #05618 San Francisco. CA 94139
 - Please do not send Express Mail to this
- address. Doing so will delay your application.

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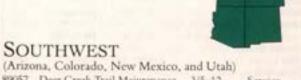


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RESERVATION &

Eligibility: Our trips are open to Sierra Club members, applicants for membership, and members of organizations granting reciprocal privileges. You may include your membership application and fee with your reservation request.

Children must have their own memberships unless they are under 12 years of age.

Unless otherwise specified, a person under 18 years of age may join an outing only if accompanied by a parent or responsible adult or with the consent of the leader.

Applications: One reservation form should be filled out for each trip by each person; spouses and families (parents and children under 21) may use a single form. Mail your reservation together with the required deposit to the address below. No reservations will be accepted by telephone.

Reservations are confirmed on a firstcome, first-served basis. However, when acceptance by the leader is required (based on applicant's experience, physical condition, etc.), the reservation is confirmed subject to the leader's approval, for which the member must apply promptly. When a trip is full, later applicants are put on a waitlist.

Give some thought to your real preferences. Some trips are moderate, some strenuous; a few are only for highly qualified participants. Be realistic about your physical condition and the degree of challenge you enjoy.

The Sierra Club reserves the right to conduct a lottery to determine priority for acceptance in the event that a trip is substantially oversubscribed shortly after publication.

Reservations are accepted subject to these general rules and to any specific conditions announced in the individual trip supplements.

Deposit: A deposit is required with every trip application. The amount of the deposit varies with the trip price, as follows:

Trip Price	Deposit per
per person	person
Up to \$499	\$50 per individual (
	a maximum of \$100
	family on family tri
\$500 and above	\$100 per individual

with per (ps)

The amount of a deposit is applied to the trip price when the reservation is confirmed. All deposits and payments should be in U.S. dollars.

Payments: Generally, adults and children pay the same price; some exceptions for family outings are noted. You will be billed upon receipt of your application. Full payment of trip fee is due 90 days. prior to trip departure. Trips listed in the "Foreign" section require additional payment of \$200 per person six months before departure. Payments for trips requiring the leader's acceptance are also due at the above times, regardless of your status. If payment is not received on time, the reservation may be canceled and the deposit forfeited.

No payment (other than the required deposit) is necessary for those waitlisted. The applicant will be billed when placed on the trip.

The trip price does not include travel to and from the roadhead or specialized transportation on some trips (check trip supplement). Hawaii, Alaska, and foreign trip prices are all exclusive of airfare.

Transportation: Travel to and from the roadhead is your responsibility. To conserve resources, trip members are urged to form carpools on a shared-expense basis or to use public transportation. On North American trips the leader will try to match riders and drivers. On some overseas trips you may be asked to make your travel arrangements through a particular agency.

Infrequently, the Sierra Club finds it necessary to cancel trips. The Club's responsibility in such instances is limited in accordance with the Trip Cancellation Policy. Accordingly, the Sierra Club is not responsible for nonrefundable airline or other tickets or payments or any similar penalties that may be incurred as a result of any trip cancellation. You may protect yourself against such penalties by purchasing trip cancellation insurance as described in the brochure enclosed with your reservation confirmation, or you can check with your travel agent for other remedies.

Confirmation: A reservation is held for a trip applicant, if there is space available, when the appropriate deposit has been received by the Outing Department. A written confirmation is sent to the applicant. Where leader approval is not required, the confirmation is unconditional. Where leader approval is required, the reservation is confirmed, subject to the leader's approval. Where there is no space available when the application is received, the applicant is placed on the waitlist and the deposit is held pending an opening. When a leader-approval trip applicant is placed on the waitlist, the applicant should seek immediate leader approval, so that in the event of a vacancy the reservation can be confirmed. When a person with a confirmed reservation cancels, the person at the head of the waitlist will automatically be confirmed on the trip, subject to leader approval on leaderapproval trips. The applicant will not be contacted prior to this automatic reservation confirmation, except in the three days before trip departure.

Refunds: You must notify the Outing Department directly during working hours (weekdays, 9-5; ph. 415-776-2211) of cancellation from either the trip or the waitlist. The amount of the refund is determined by the date that the notice of cancellation by a trip applicant is received at the Outing Department. The refund amount may be applied to an already confirmed reservation on another trip.

A cancellation from a leader-approval trip is treated exactly as a cancellation from any other type of trip, whether the leader has notified the applicant of approval or not.

The Outing Committee regrets that it cannot make exceptions to the Cancellation Policy for any reason, including personal emergencies.

Cancellations for medical and other reasons are often covered by traveler's insurance, and trip applicants will receive a brochure describing this type of coverage. You can also obtain information regarding other plans from your local travel or insurance agent. We encourage you to acquire such insurance.

Trip leaders have no authority to grant or promise refunds.

Transfers: For transfers from a confirmed reservation made 14 or more days prior to the trip departure date, a transfer fee of \$50 is charged per application.

Iransfers made 1-13 days prior to the trip departure date will be treated as a cancellation, and the Cancellation Policy will apply. No transfer fee is charged if you transfer from a waitlist.

CANCELLATION POLICY

A complete transfer of funds from one confirmed reservation to another alreadyheld confirmed reservation will be treated as a cancellation, and will be subject to cancellation fees.

Medical precautions: On a few trips, a physician's statement of your physical fitness may be needed, and special inoculations may be required for foreign travel. Check with a physician regarding immunization against tetanus.

Emergency care: In case of accident, illness, or a missing trip member, the Sierra Club, through its leaders, will attempt to provide aid and arrange search and evacuation assistance when the leader determines it is necessary or desirable. Costs of specialized means of evacuation or search (helicopter, etc.) and of medical care beyond first aid are the financial responsibility of the ill or injured person. Since such costs are often great, medical and evacuation insurance is advised, as the Club does not provide this coverage for domestic trips. Participants on foreign outings are covered by limited medical, accident, and repatriation insurance. Professional medical assistance is not ordinarily available on trips. Be sure your insurance covers you in the countries involved.

The leader is in charge: At the leader's discretion, a member may be asked to leave the trip if the leader feels the person's further participation may be detrimental to the trip or to the individual.

Please don't bring these: Radios, sound equipment, firearms, and pets are not allowed on trips.

Amount forfeited per person	Amount refunded per person
None	All amounts paid toward trip price
None	All amounts paid toward trip price
None	All amounts paid
	toward trip price
\$50	All amounts paid toward trip price exceeding forfeited amount
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20% of trip fee, plus \$50 processing fee, but in no event more than 50% of total trip fee	As above
40% of trip fee, plus \$50 processing fee, but in no event more than 50% of total trip fee	As above
Trip fee	No refund
Trip fee	No refund
	per person None None None S50 20% of trip fee, but not less than \$50 20% of trip fee, but not less than \$50 20% of trip fee, plus \$50 processing fee, but in no event more than 50% of total trip fee 40% of trip fee, plus \$50 processing fee, but in no event more than 50% of total trip fee Trip fee

Sierra Club Outing Department Dept. #05618, San Francisco, CA 94139

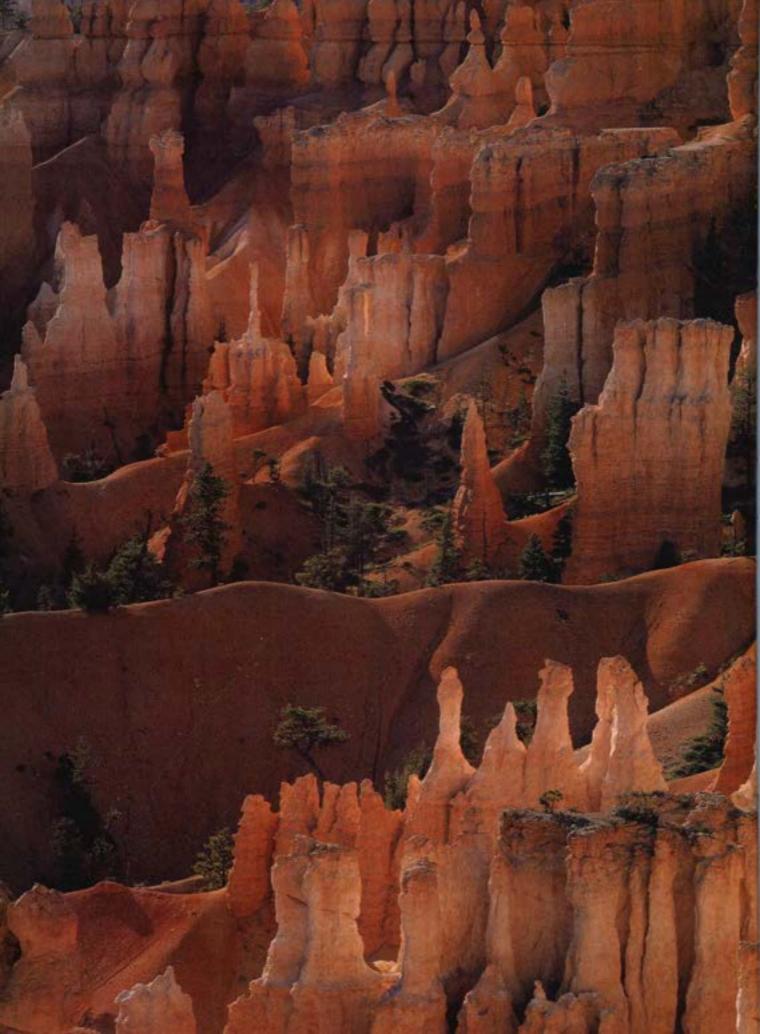
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For More Details on Outings

Outings are described more fully in trip supplements, which are available from the Outing Department. Trips vary in size, cost, and the physical stamina and experience required. New members may have difficulty judging which trip is best suited to their own abilities and interests. Don't sign up for the wrong one! Ask for the trip supplement before you make your reservations, saving yourself the cost and inconvenience of changing or canceling a reservation. The first three supplements are free. Please enclose 50 cents apiece for extras. Write or phone the trip leader if any further questions remain.

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Send supplements (order by trip number; see the



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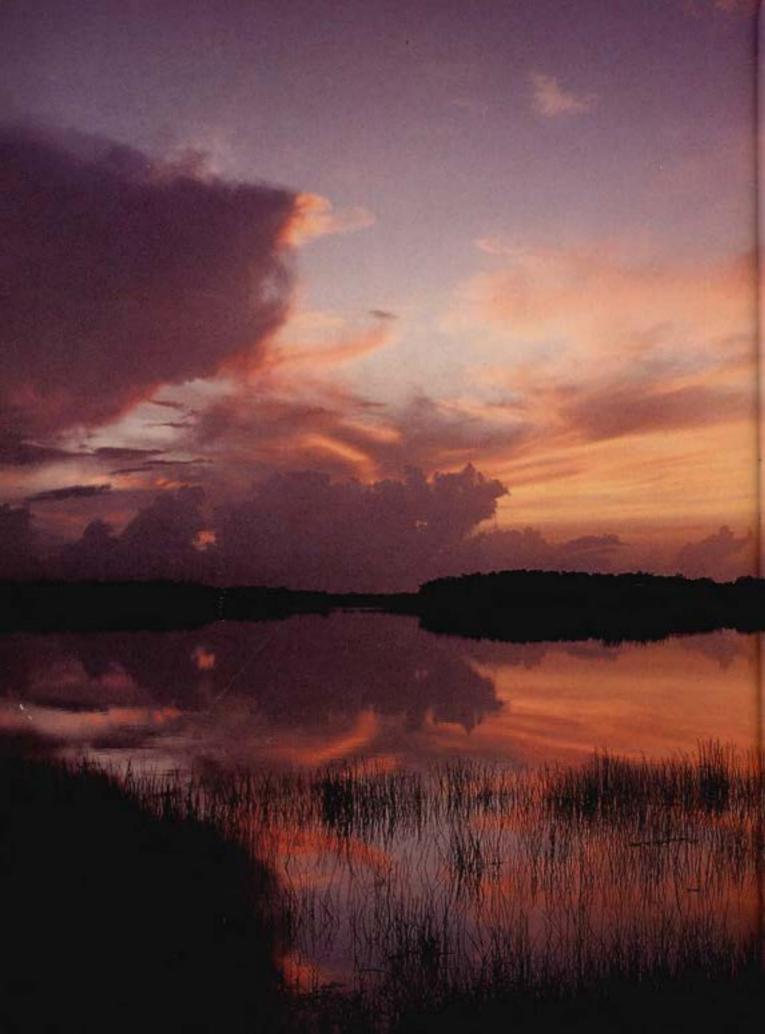
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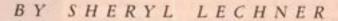
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Herons, alligators, and canoeists are right at home in the mangroves and meanders of the Everglades.



NIGHT FALLS IN SWEETWATER BAY, PULLING A BLANKET OF lights across an enormous sky. Here in the Everglades, 50 miles west of Miami in some of the flattest terrain in the world, the view of the stars is unobstructed by hills or lights or buildings.

My husband and I are camped at a chickee, a wooden, roofed platform set in the water at the bay's edge. The shelters are modeled after the thatched huts of the Seminoles who once lived in what is now Everglades National Park, but the Park Service version sports a walkway leading to a prefabricated plastic outhouse. We perch on the narrow walkway, our necks craned skyward, trading a pair of binoculars back and forth.

We are so mesmerized by the stars and planets and the nebula in Orion's belt that more than a half hour passes before we notice the *other* lights—the ones that are dancing under our feet. Beneath the glossy green surface of the water, flashes of turquoise appear and disappear. The



small, hidden bay blazes with phosphorescence.

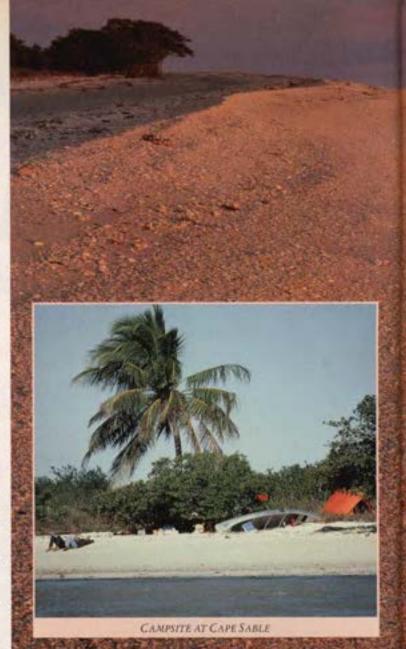
Tiny bioluminescent dinoflagellates fill the water, glowing like blue neon when they're disturbed. Near the surface, roving minnows orchestrate strobelike streamers of light. Deeper down, diffuse ice-blue patches reveal larger fish. Now and again splatters of light signal small fish scattering as a bigger one preys. A frantic flare-up along the shore of a nearby island signals an even larger calamity, perhaps an alligator on its nightly rounds.

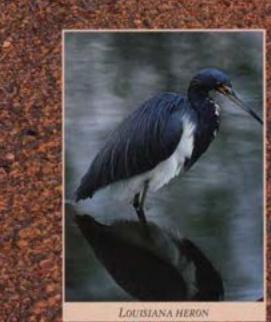
We're in the middle of a six-day canoe trip through the aptly named Ten Thousand Islands region of the park. During the first three days we've received scattered clues that the inscrutable medium we're traveling through in fact teems with life. Yesterday, while paddling across an open stretch of the Gulf of Mexico between two keys, a manta ray shot six feet into the air just a canoe's length away from us, wings extended and tail thrashing, before falling back into the sea. Earlier today a bottlenose dolphin flirted with us for miles as we headed up a river away from the Gulf, surfacing on one side of our boat, then the other, and finally leaping clear out of the water a few feet from my face. Each time we've seen dolphins, their stellar performance has been backed by a chorus of small jumping fish whose splashes punctuate the quiet: pffink for small fish, pflunk for larger ones.

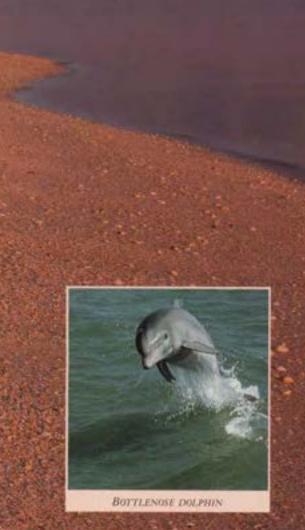
Staring into the illuminated water, I feel like a kid looking at an X-ray of my hand for the first time. Frank and I dangle our feet from the wooden dock and drop bits of our dinner, gaping at the miniature fireworks set off by fish darting to grab the food. Beginning to grasp the mechanics, we untie our canoe from the chickee, hop in, push off, and look back in delight at the sizzling blue wake we've created. When I feather my paddle, beads of blue light run down the blade and slide into the water.

The extraordinary underwater light show somehow typifies this place. The Everglades abound with life: a bluish-gray Louisiana heron perched stark-still on a branch, the buzzing of a horde of insects hovering over an island, the subtle shading of the red, black, and white mangrove leaves. But like the bioluminescent fish, these quiet beauties are not always immediately apparent. In his book *Man in the Everglades* (University of Miami Press, 1968), Charlton Tebeau writes: "It is an area without any single point of powerful impact. Many other national parks that are chiefly of geological interest exhibit great peaks, deep gorges, or spectacular scenes of one kind or another. This park, which is chiefly of biological interest, requires a different perspective on the part of the visitor."

It's not hard to adjust your perspective in the Everglades: You don't have a choice. People are out of their element here. The islands are so dominated by dense, impenetrable tangles of mangrove and their prop roots, and by a thick muck that passes for soil, that they might as well be made of barbed wire and quicksand. Campers stay at chickees, on beaches along the coastal keys, or in old mangrove clearings—remnants from the turn of the century when recluses, entrepreneurs, and fugitives carved tenuous homesteads from the watery terrain.









O saturday morning in March at Chokoloskee Island, a key on the Gulf connected by a causeway to Everglades City and surrounded by the park. During our first mile of paddling, we paralleled the developed island's snarl of TV antennas, motorboats, and piers guarded by yawning pelicans. Chokoloskee slipped away slowly and we were drawn into a maze of indistinguishable, untouched islands.

A route marked by signposts sunk into the channel bottom winds through the archipelago to the Gulf; while searching for the first marker, we stopped to rest and get our bearings at a fledgling island whose sole inhabitants appeared to be a dozen mangroves. The spot proved less than restful: Each little wave sweeping across shallow Chokoloskee Bay pushed our aluminum canoe into prop roots encrusted with barnacles, producing a horrible, rhythmic screeching. We were eager to push off.

Sighting the first channel marker, we fell into a rhythm. Arm, shoulder, back, and stomach muscles awakened suddenly from their winter slumber to pull the boat, our gear, and a week's food and water against an incoming tide. There's something special about those first few miles —before the stiffness in the palms, before the tight knot at the base of the neck, and before the sunburn.

A group of motorboats roared out of the bay to the Gulf, but after they passed, only small sounds stood out against a deep silence. Water lapped against prop roots like small waves breaking on a beach. The call of a prairie warbler, a dozen crisply whistled ascending notes, spread through the mangroves as if amplified over a cosmic public-address system. As we headed out to the Gulf, a shrick like an agitated chimpanzee split the air. We looked up to see a brown and tan osprey atop a mangrove defending its nest against the alien canoe. A few trees away, his mate sat quietly in a deep nest of gray mangrove twigs, her two young just visible through the tangle.

Canoeists can paddle the Everglades without venturing into the Gulf of Mexico. The Wilderness Waterway, a hundred-mile water trail, follows an inland route between Everglades City and Flamingo, in the southern part of the park. But if you stick solely to the waterway, you miss the coastal keys and their lovely, breezy beach campsites.

The Gulf's moods, however, range from placid to punishing. On an earlier trip, Frank and I tried to paddle a 65-mile loop from Flamingo and Florida Bay through the Gulf to Cape Sable and back to Whitewater Bay. We tacked across a three-foot chop for an hour, covered one mile, and turned back when we realized that if we capsized, we could never right a boat laden with hundreds of pounds of food, water, and gear.

This time the Gulf was forgiving. We camped at Pavilion Key on a wide beach of fine, broken shells. At dusk the key came alive: Flock after flock of white ibis, with improbably long down-curved beaks, landed on a sweep of water beyond one end of the key. On the beach hundreds of brown sandpipers gathered by the surf, silently feeding in the waning light while the water chased them up and down the sand on their delicate legs. Before night fell, raccoons joined the sandpipers. We'd been warned of the coons: They once found fresh water by licking rain and dew off leaves but have since learned that the payoff is better from campers' plastic water bottles. We secured our supplies in the canoe with a tarp and string. The next morning our gear was damp and clammy with dew, and the boat was surrounded by the tiny pawprints of frustrated raccoons.

Our next destination, Mormon Key, seemed unreachable across miles of open Gulf water whipped like egg whites by the wind. We tried to match what we saw around us to what we saw on our map, but the landmarks were so flat we effectively had only two dimensions to work with. We couldn't distinguish an island from a promontory until we passed it (and sometimes not even then). We took a compass bearing and headed into the wind. For an hour I fought from the stern to keep us on course. Each wave lifted the boat, then dropped the bow in its trough with a fierce slap and a biting spray of salt water.

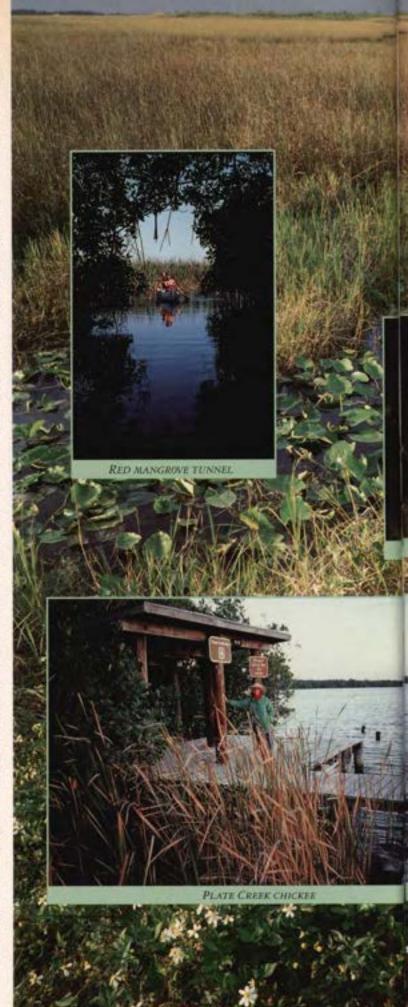
Fins periodically cut the water nearby. They were always dolphin fins, but each time I saw them adrenalin kicked in. In a canoe, the distance between people and the water and its mostly unseen creatures below diminishes: Dolphins, sharks, manatees, sea turtles, and, farther inland, gators, snakes, and crocodiles are a canoeist's aquatic neighbors. This shedding of barriers, this communion with water, gives the place its excitement.

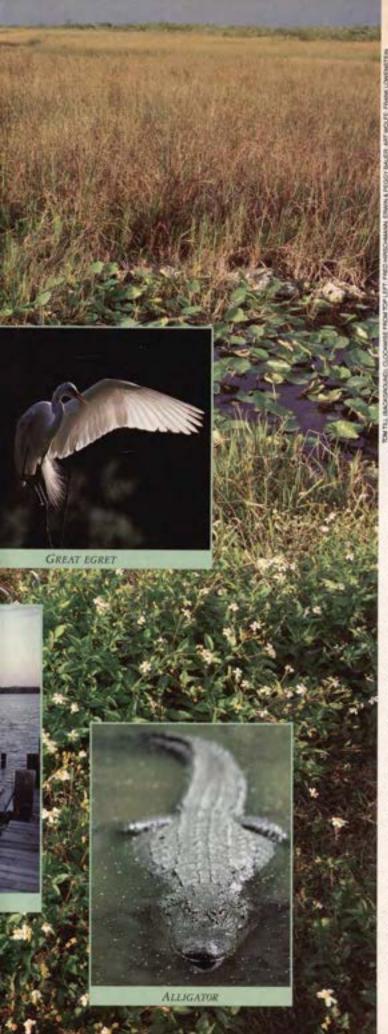
After we landed on a secluded strip of beach, we realized we were probably not on Mormon Key: There was no place to camp and the shape was all wrong. Frank took out the compass and a pencil, drew lots of lines on the map, and announced that Mormon Key was more likely the larger island we just passed, the one that looked very much like a promontory. By this time the wind had died, and backtracking over the still water made us chuckle rather than grumble.

As we sat devouring peanut butter and jelly sandwiches on the beach at Mormon Key, we spotted a motorboat heading toward us. It slowed to a halt and Park Ranger Mark Lewis alit. The park's busy season was already drawing to a close, Lewis told us. Winter is really the ideal time here. By December the rainy season has ended, and the bugs don't emerge until later in March. By late spring and summer, rains will bring sudden storms that can fill canoes with water from above or below. Heat, humidity, and biting insects make summer nearly intolerable, and autumn is hurricane season.

Although navigating the Everglades is challenging, Lewis assured us that few people ever get truly lost. Storms are the bigger concern. On New Year's Day, 1988, rangers rescued a tour group on the Gulf when a heavy storm occurred simultaneously with already-high newmoon tides.

As if to illustrate Lewis' tales, a storm swept in that night; we woke to hear small-craft warnings on our weather radio. Fortunately, we had planned to turn away from the Gulf and up the Chatham River, where salt and





fresh water meet and mix, forming rivers, creeks, and bays in those places where mangroves have not taken over.

A heavy chop greeted us at Chatham Bend, the mouth of the Chatham and Huston rivers. We caught a tailwind and an incoming tide and the boat seemed to move on its own. We fought to keep a good angle to the waves and not miss the Chatham's mouth. We weren't sure where it was, but there was no time to stop and check the map. Frank yelled, "Double time!" from the stern; I paddled so hard it hurt, and we barely cleared a rough-looking point of land before emerging in the calm of the Chatham River.

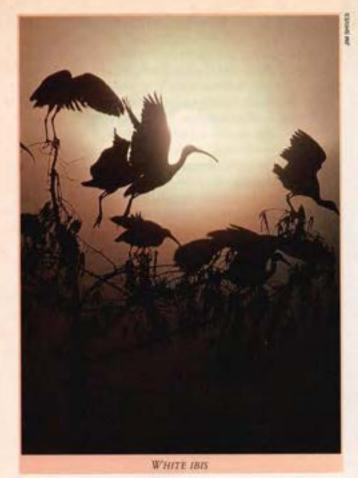
Detouring into a side channel, we saw two white ibis in a tree, a great blue heron perched directly below them, and a raccoon scurrying along a higher branch. Nearby we scared up an elegant purplish-blue heron. Back on the Chatham the tide was still rushing in; a line of yellowed leaves and red pods from mangroves floated languorously along the tide line. We let the water carry us.

The morning after our Sweetwater Bay light show, we decide to pursue a quixotic dream: to penetrate the mangroves into the saw grass. A sedge that grows in the freshwater marsh of the park's interior, saw grass once covered most of south Florida up to Lake Okeechobee. Called *pa-hay-okee* (grassy waters) by the Seminoles and dubbed "river of grass" by author Marjory Stoneman Douglas, the saw-grass prairie is actually a shallow river spread over an area 50 miles wide. The man who rented us our canoe had warned us that trying to find a route through the mangroves to the grassy waters would only get us hopelessly lost in a network of tiny, twisting channels. Somehow, though, looking at the maps, we figure there *must* be a way.

Deer Island Creek, like many streams in the Everglades, is the size of a river. Perhaps a hundred feet across, it is open and airy overhead, and framed by walls of mangroves. On the map it gradually thins, then peters out at the point where the creek leaves the green color that signifies mangrove and hits the mustard yellow of saw grass. We head upstream and soon detour up an unnamed creek to isolated Jungle Bay. We're four days into our journey, and the stiffness in my upper back seems permanent; I ache with every stroke.

The little creek feels pleasantly intimate after the breadth of the Gulf and the wide rivers. It's barely as wide as our canoe, and lined with short, young mangroves. Sunny sandbars and cool mudbanks line the elbows of its sharp bends. An Everglades guide had mentioned a place near Sweetwater where sandbars and deep water make for ideal 'swimming—albeit for alligators as well as people.

A few bends upriver we spot an odd imprint in a mudbank, three feet long and curving to a narrow point. We round another bend and suddenly find four precious feet of water separating us from a seven-foot gator loafing on the sandbar. I stop paddling, and my end of the canoe swings toward the surprised reptile as I look it in the eyes. It lies completely still, eyeing me back. It doesn't blink. I don't blink. Instinct takes over: I shove my paddle in the



water a foot from the gator, lunge into a powerful stroke, and drive the boat away. My heart is still pounding ten minutes later as we cross Jungle Bay.

We pry through the muck of a very low tide in Jungle Bay. On the far shore a dozen tall palms protrude above the mangroves, and we head up a small channel toward them. As the waterway dwindles and disappears, we notice that the terrain is different. It's not strictly mangrove swamp or saw grass, but a transitional, drier coastal prairie consisting of shrubs, thorny plants, saw grass, palm stumps, sea grape, and plenty of mosquitoes. This is our only glimpse beyond the swamp: Our venture up Deer Island Creek is cut short by zealous mangroves that choke off the channel.

Our stop at Possum Key is more startling than the encounter with the gator. Here we find the belongings of another group of campers at a clearing. Theirs is clearly a different wilderness aesthetic than ours: A powerboat is pulled up on the muddy shore next to a huge canvas tent with cots, a pile of brush ready for a fire (though no fires are allowed at this campsite), cases of beer stacked two feet high, shopping bags full of burgers, hot dogs, buns, chips, and cigarettes, and a half-full bottle of vodka. An electrical cord strung across the campsite supports a string of lights, its plug trailing back into the woods in search of a generator.

We want to respond to this backwoods frat party the way we reacted to the alligator: by hightailing it out of there. But in Everglades National Park, you can't simply hike or paddle a bit farther to the next good camping spot. Park rules restrict campers to designated sites, so we resign ourselves to sticking it out. It's just another peculiarity of this park: We may have paddled for four days to get here, but someone else can do the same thing in a powerboat in a few hours.

Our campmates turn out to be three very friendly guys, although a bit rowdy, down from central Florida for a bit of fishing. They offer us fresh pan-fried snook and blackened redfish. Despite a camping ideal radically different from ours, they have a profound appreciation for the Everglades. They've been fishing the region for 20 years, and they once owned a cabin here before the federal government expanded the park. They know the area's labyrinthine passages so well that they can find their way in the dark; five of their buddies, in fact, would be motoring in later that evening.

After an uncommonly noisy night, the next morning our neighbors suggest we explore Gopher Key, an old Indian shell mound. In the early light, Gopher Key Creek is what I imagined a mangrove swamp was like before I came here narrow and dark, with tall trees closing in overhead.

As we paddle, rippling light and shadows dance up the tree trunks. The creek opens out into mile-long, shallow Gopher Key Bay. Birds are everywhere—in the air, on stumps in the water, perched in trees. Perhaps they find more food in the rich, muddy shallows, or else prefer being away from the motorboat traffic, which must keep to the deeper channels of the marked waterway.

The Calusa, one of the Indian tribes that lived here before the Seminoles, left shell mounds scattered throughout the area. Anthropologists debate whether the mounds were built to create dry ground upon which to live, or were simply refuse heaps, the by-product of a steady diet of shellfish. The mound is hardly noticeable at first, just a ten-foot strip of shell beach interrupting the mangrove shore. When we walk through the trees 20 or 30 yards, another level of shells rises up to create a plateau a few feet taller. Still farther back is another mound, and another, each creating higher ground. The tallest looks like a natural hill, with a mixture of soil and decomposed shells supporting upland trees. We climb a giant strangler fig; there's no sign of the tree it entwined to gain its footing. We see gumbo-limbo trees, with their peeling, papery red bark and spring-green trunks underneath. A pileated woodpecker soars through the forest canopy, sets up shop near us, and commences loud hammering.

After returning to camp and bidding farewell to the boys, we follow the Wilderness Waterway to the Plate Creek chickee for our last night. Tomorrow we will paddle 22 miles back to Chokoloskee. As a last gesture, the Everglades serve up a final helping of delights: Against a roseate sunset over placid Plate Creek Bay, a flock of pure-white birds flies low over the water, swirling up and down, shimmering in the evening light. A kaleidoscope of shapes, at last the birds dozens of snowy egrets and one white ibis—alight in the trees. Next a flock of white ibis flies high overhead, followed by a mixed group of ibis and snowy egrets, and then a few darting purple martins. As the sun sets, we can see in the east the distant glow of a faraway land called Miami.

SHERYL LECHNER is a freelance writer in Burlington, Vermont.

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CONSERVATIONISTS, OIL COMPANIES, AND DEVELOPERS LAID DOWN THEIR LAWSUITS TO HELP CREATE A VAST WILDLIFE PRESERVE IN CALIFORNIA'S HEARTLAND.

Speeding along Interstate 5 through California's Central Valley, it's hard to imagine the view the region's settlers had 150 years ago. The lush, manicured valley stretching some 430 miles between Redding and Bakersfield was then an untamed prairie. Where a patchwork of orderly crops and leveled fields now covers the land, colorful wild-



flowers and native, fire-tolerant bunchgrasses once bloomed in mad profusion. Huge herds of tule elk, deer, and pronghorn roamed the gently rolling plains while condors wheeled overhead and hundreds of thousands of migrating waterfowl touched down on an unbroken chain of vernal ponds.

Today oilfields, farms, and housing tracts have gobbled up the landscape. Nearly 97 percent of the valley's original 4 million wetland acres have been drained. With them have vanished the condor and countless other species of native wildlife. Of those that remain, many hover near extinction.

Unlike the rest of California's "biogeographic provinces" (areas containing distinct plant and animal communities), the Central Valley has never had a major chunk of habitat set aside for the protection and preservation of endangered species. Until now.

In one of the most unusual alliances ever formed, conservationists, oil companies, ranchers, and government agencies have teamed up to establish the largest wildlife sanctuary of its kind in the state—a 180,000-acre "macropreserve" encompassing an entire ecosystem.

Oil companies and conservationists have traditionally mixed as well as offshore crude and water, but in this instance the two sides were able to find some common ground—

specifically a parched and isolated tract in eastern San Luis Obispo County, 120 miles from Los Angeles.

Known as the Carrizo Plain, this section of the valley has the distinction of being home to the largest and most diverse concentration of rare and endangered vertebrate species in California. There are eight altogether, including the San Joaquin kit fox, bhintnosed leopard lizard, San Joaquin antelope squirrel, and giant kangaroo rat. The plain is also critical wintering habitat for 4,000 to 6,000 rare sandhill cranes. Three plants found here are proposed for inclusion on the federal endangered species list as well.

"From a biological standpoint, the Carrizo Plain is one of the most important areas of the state," says Gail Kobetich, field supervisor of the California endangered species office of the U.S. Fish and Wildlife Service (FWS). "Preserving the Carrizo is vital to anchoring the whole southwestern range of these species." In addition to those listed as threatened or endangered, at least 11 reptile, 100 bird, and 40 mammal species also find seasonal or year-round habitat on the plain.

Biologists say the Carrizo is the largest raptor wintering and feeding area in California, and a significant part of the condor's historic range. This Noah's Ark of wildlife and the

stark landscape that supports it have all the earmarks of a North American version of East Africa's Screngeti.

Agribusiness and Interstate 5 have bypassed the Carrizo Plain. The 8-milewide, 50-mile-long expanse of arid scrub and grassland is hemmed in by two ranges, the Caliente to the south and west and the Temblor to the north and east. The infamous San Andreas Fault, the longest continuous earthquake fault in California, borders the plain on the east.

The Carrizo was formed some 30 million years ago when movements along the San Andreas and San Juan faults caused the area in between to subside. Runoff from the adjacent slopes transformed the basin into a vast lake at the same time the ancestral Temblor and Caliente mountains were pushing upward. This combination of basin subsidence and mountain uplift accelerated erosion. For ages sediment washed from the mountains, filling the basin now known as the Carrizo Plain.

As sediment built up over geologic time, the lake became shallower, more saline, and more prone to evaporation. Today Soda Lake is a drastically reduced version of the original. But at 3,000 acres, it is the largest remaining natural alkali wetland in central and southern California. The FWS considers it one of the four rarest wildlife habitats in the state.

Over the years the Temblor Range has obstructed access to the plain and made it difficult to import water for irrigation. As a result, Carrizo's human population and its impacts are exceptionally low compared with the rest of the Central Valley. Agriculture is limited mainly to a dozen or so sheep and cattle ranches, and crops—mostly wheat and barley—are cultivated primarily on the west side of the basin.

One of the region's farmers is a spry octogenarian named Eben McMillan. A self-taught naturalist and an ardent conservationist, he understands the complexities of the area's ecosystem as few others do.

"Nature is just filled with messages, and few places hold as many answers as the Carrizo does," marvels McMillan, who lives on a rustic homestead dotted with fruit trees and sycamores at the edge of the plain. "If you go out in the evening when it's quiet and cool, and roll out your blankets and just lie there and listen—why, the values of nature will just creep into your soul."

Years ago McMillan began telling anyone who would listen about his dream of preventing the plain from going the way of the rest of the Central Valley. "My idea was to get an area of reasonable size set aside and walk away and leave it alone so that people could come back in 50 or 100 years and see the functions of nature," he explains.

It was a dream shared by others, most notably The Nature Conservancy. The nonprofit Conservancy, which operates the largest system of private nature preserves in the world, began looking for a way to acquire the Carrizo in the late 1970s. The plain came to its attention by way of a computer search, which identified the region as prime habitat for most of the endangered species in the San Joaquin Valley, the southern portion of the Central Valley.

"Not only did the Carrizo support [endangered species], but it had the size to become a manageable, self-sustaining



Blunt-nosed leopard lizard

unit," says Steve McCormick, executive director of the organization's California chapter. "Everything pointed to the Carrizo. It had Soda Lake, a rare aquatic habitat. It had sandhill cranes. It had the potential for habitat restoration and the reintroduction of large mammals. And it was in the range of the condor."

The Conservancy quickly discovered that creating a macropreserve was too big a job to take on single-handedly. "Frankly, we were repelled at first because of [the area's] size and number of owners and price tag," McCormick concedes. "We needed a way to leverage our involvement."

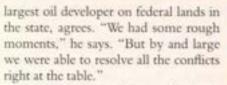
The organization found its fulcrum in a conflict brewing on neighboring public land the Bureau of Land Management (BLM) had leased to oil companies. The FWS was threatening to halt future energy exploration and development on the oilfields unless a plan could be worked out to protect endangered species throughout the region.

The Conservancy stepped in and offered a solution. The Endangered Species Act allows the "incidental" loss of a protected species once a set of areawide conservation measures, known as a habitat conservation plan, has been enacted. In exchange for permission to drill, the oil companies would pay a fee for each acre of habitat loss they caused. These "mitigation" fees would be used to buy property at Carrizo for a permanent wildlife preserve.

Naturally, hammering out such a plan and getting everyone to agree to it was no simple matter. "What we needed was a coordinated approach," says Ed Hastey, state director of the BLM. Hastey arranged a summit meeting in Bakersfield for the 16 parties with a stake in the outcome, including The Nature Conservancy, Audubon Society, FWS, BLM, California Department of Fish and Game (DFG), San Luis Obispo County, Chevron, and Santa Fe Energy.

Tension at the first meeting was high. "A lot of antagonism and distrust had built up over the years between industry and governmental agencies," the FWS's Kobetich admits. "It took a while to get over that." Jim Robinson, environmental specialist for Santa Fe Energy, the

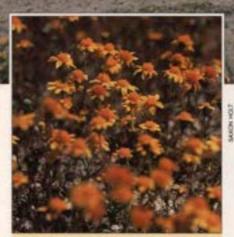




Pat O'Brien, coordinator of ecological services for Chevron, explains his company's matter-of-fact response: "It wasn't like we started out saying, 'Gee, isn't this a whiz-bang idea.' But it made sense to be involved in the project so we could influence the outcome instead of staying out and hoping the agenda wouldn't affect us."

At first, oil companies resisted the project because they felt they were being held liable for damage they hadn't caused. Historically, agriculture, not oil development, is responsible for ruining most wildlife habitats in the San Joaquin Valley.

Conservationists realized the legitimacy of the oil companies' concern, but pressed on nonetheless. "It's very hard to retroactively charge [industries] that



Winter rains fill Soda Lake and nearby ponds (top); goldfields (inset)

contributed to a problem, " says McCormick. "You can't go to the J. G. Boswell Company [the state's largest agriculture firm] and say, 'You put 100,000 acres in agriculture way back when and destroyed a lot of habitat. Now you've got to pay up.' "

What eventually convinced the oil companies to go along with the plan was the realization that they really didn't have a choice. The Endangered Species Act, recently reauthorized by Congress, is considered one of the strongest environmental laws in the United States. "We knew what the laws were and we wouldn't violate them," says Santa Fe's Robinson.

As negotiations ensued, conservationists also worried that the Carrizo plan might inadvertently undermine other attempts at wildlife conservation in the San Joaquin Valley.

"At the time, this was the only project being considered to protect endangered species," McCormick explains. "There was concern that it might be perceived as the only solution." Conservationists involved in the negotiations made it clear that this was just the first in a series of protective measures areawide.

The biggest obstacle to the whole deal remained the preserve's price tag. At \$40 million, it left many of the players gasping. Where would all the money come from? It took time and lots of tough bargaining, but finally a solution was hatched: Everyone would participate in the purchase; that way no one would feel singled out to shoulder the burden. The Conservancy kicked things off last January by putting down \$2 million of its own money toward the purchase of 82,000 acres of ranchland owned by Oppenheimer Industries, an absentee landlord based in Kansas City, thus securing the core area of the preserve.

The Conservancy's initial purchase proved to be just the encouragement the others needed. The BLM agreed to contribute \$10 million worth of land exchanges, and the state Wildlife Conservation Board—the land-acquisition arm of the DFG—plans to pledge upward of \$2 million. Though oil-company fees have already been paid into the fund, the exact formula for the mitigation payments was still being worked out at *Sierna*'s press time. It's expected, however, that over the next five years the oil companies will pump in approximately \$10 million. An additional \$20 million may come from the federal Land and Water Conservation Fund. Already the steering committee has successfully lobbied Congress for two (of an expected four) \$5-million appropriations.

Conservationists say the oil industry's political clout proved crucial to getting congressional funding. "The first year we asked for the money was the most difficult," says the Conservancy's Mc-Cormick, "but the oil companies went on record supporting the project. That helped sway the decision."

Eventually the Conservancy will turn all but 5,000 acres over to the BLM. The preserve will be managed under a cooperative agreement between the three principal landowners: The Nature Conservancy, BLM, and DFG. Responsibility for law enforcement will fall to the BLM; the Conservancy will assign two managers to the preserve and be in charge of habitat restoration; and the DFG will supervise the return of large



Wintering sandhill cranes above the Carrizo Plain

animals, such as elk, to the plain.

Although it will take another five years to assemble the full 180,000 acres, efforts are under way to restore the Carrizo to its native state. Thanks to an ambitious relocation project engineered by the DFG, the hoofbeats of tule elk and pronghorn antelope once again thunder across the plain after a 60-year silence. In addition, the Conservancy is studying ways to reestablish native grasses. When saltbush makes a comeback, the theory goes, so will such species as the sage sparrow and Le Conte's thrasher, two rare birds once common in the valley.

Once the Carrizo Plain is restored, many conservationists would like to see it turned into an undeveloped national park along the lines of the newly created Great Basin park in Nevada. "It certainly has that size and that kind of biological significance," McCormick says. Besides, he adds, the Carrizo offers another attraction as well: "You can stand in the middle of the preserve and feel very, very remote. Considering that you're only 90 minutes by car from the Los Angeles basin, that's very appealing —and rare."

That any land inhabited by endangered species will be developed at all is upsetting to some conservationists. But when you examine the political and economic realities of the situation, it appears that the deal made was probably the best possible. In the end, everyone came out a winner. Conservationists got their preserve, the fish and wildlife agencies are able to protect listed species, the BLM will continue to earn revenue from leased lands, and the energy companies will be able to develop with fewer restrictions.

"Sure, some land will be lost. But it would be unrealistic to say that we could get everything that is left," McCormick says. "If you try to be too persistent in preserving it all, the development interests—oil, agriculture, and real estate are strong enough to force significant changes in the Endangered Species Act. They would argue that the economics of the situation outweigh the benefits of preserving the species. We would get into a snail darter issue, and we can't



atford that." (Although the tiny fish was saved, in the late 1970s Congress amended the Endangered Species Act to allow completion of Tennessee's multimillion-dollar Tellico Dam.)

The FWS's Kobetich agrees that this is one case where compromise was the only way to create the preserve, "If we didn't give a little, we wouldn't have saved anything," he explains. "There never would have been enough funding from the federal government. We needed the private sector's support."

Kobetich believes this type of cooperative venture could be used around the country. "Naturally, it won't work for those species that can't give anything up. But as long as there is some wiggle room—room for compromise—it should work for other states as well."

The making of the Carrizo Plain preserve has already inspired similar plans. Several members of the original steering committee are now helping develop a habitat-conservation plan for all of



On the shore of Soda Lake (top); pronghorn antelope on the plain (inset)

neighboring 8,130-square-mile Kern County. This time agricultural and urban development are being addressed along with energy development. The project's size invites complications, but the people involved are optimistic.

"It's the biggest undertaking we've tackled so far, and we're still working out the details," Kobetich says, "but it's going very well. The benefit will be a program of countywide preserves. They'll assure the survival of the kit fox, leopard lizard, giant kangaroo rat, and five different plant species that probably will be listed throughout Kern County before long." Nearby counties are keeping a close watch on the plan's progress. It's expected that they too will develop habitat-conservation plans, leading to the creation of additional preserves that will help guarantee the survival of the San Joaquin Valley's endangered species.

Back on the Carrizo, 80-year-old Eben McMillan is a little surprised at how everything turned out. "Why, in the beginning there were just a couple of us who wanted to make this a preserve," he says. "Now everybody's jumped on the bandwagon." He looks up at the cloudless sky where he used to watch condors soar by the dozens. "It's amazing what a little momentum will do."

DWIGHT HOLING is the author of California Wild Lands, published last summer by Chronicle Books.

CONSERVATION PROFILE

Lewis & Nathan Clark: Friends and Brothers

Barbara Fuller

HEN THE Clark brothers and their companions skied the Sierra Nevada in the 1930s, no chair lifts helped them up the slopes, no warm hotels with restaurants or entertainment comforted them at night. They pulled themselves through the snow and carried their food and lodging on their backs. At day's end they pitched their bivouac tents and heated dinner on small campstoves. If they wanted music before they slept, they sang.

"The Sierra Club way of skiing was quite different from the way many skiers ski today," recalls Nate, 82, the younger of the two brothers. "We went out into the mountains and picked our way through the wilderness. Then, years and years later," he says, his blue eyes sparking, "after ski lifts had taken over, somebody invented cross-country skiing."

"They discovered what we'd been doing for years," adds Lewis, 88.

The brothers reminisce in Alameda, an island in San Francisco Bay, at the old house where they grew up and where Lewis currently lives. Their father, who hiked with John Muir in the early 1900s, designed and helped build the house, which the family occupied in 1908. The neighborhood has changed since then, says Nate, who has stopped by with his wife, Joan, to visit Lewis before returning home to Los Angeles. Once surrounded by open fields, the street is now lined with houses and imported acacias.

The neighborhood isn't the only thing affected by population growth. The Sierra Club also has changed from a small group of about 2,000 members when Lewis joined in 1928 to more than 500,000 today. Lewis recalls a time when the organization admitted only individuals who could arrange for sponsorship from two active members, and Nate remembers purchasing a lifetime membership for \$50 in the mid-1930s. The tab now is \$750. The Club isn't what it once was, Nate says somewhat ruefully. Originally a cohesive and sociable group, many of its current members are strangers to each other; the organization's individual chapters are scattered and often work on independent, local concerns.

Despite the Club's population explosion, however, Nate and Lewis agree that its central purpose has remained consistent. "From the outside, people see lots of change," Lewis says, "but that's because they don't see the whole picture. From the inside, I know there hasn't been any change in the Club's orientation." The Clark brothers have been inside as much as anyone—together they have contributed 50 years to the Board of Directors, and each has served one term as president.

The Sierra Club started in 1892 purely as a conservation organization, Nate ex-

"As the fabric of the Sierra Club gets more complicated, it becomes more difficult to trace the patterns. It's like a Persian rug: It's beautiful and it functions, but it's frustrating when you try to analyze it." –Lewis Clark



plains, with Muir's early crusade to protect the great meadows and granite peaks of the Yosemite backcountry. "Some people thought we were just a hiking club," Lewis says, "but that's a misconception. We were a conservation club long before we began hiking." Even the first High Trip, in 1901, was intended to inspire participants to join Muir's cause by bringing them face to face with wilderness.

S till, hiking and mountaineering brought the young Clarks, like so many others in those early days, into the fold. Both remember vividly the event that kindled their involvement: a 1928 backpacking trip to Kings Canyon in the High Sierra. "We'd been camping with our family, but the 1928 trip was the first time we encountered a large number of Sierra Club people," Lewis recalls.

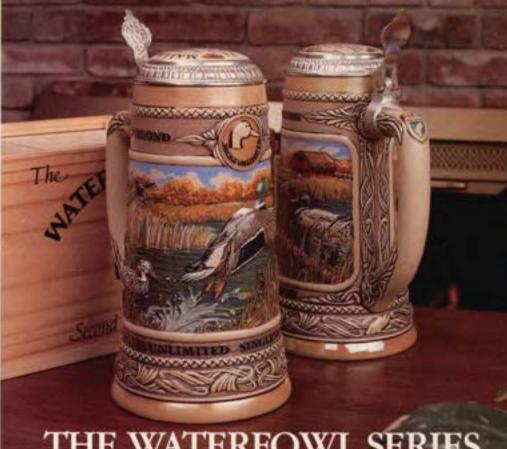
Although that expedition was not an official Club outing, most of the participants were Club members who had been on earlier High Trips. It was the first year the Club's summer outing was held outside the United States (in the Canadian Rockies), and a lot of people didn't want to go that far away. So one member, Stuart Ward, invited a few of his Sierra Club friends (one a good friend of Nate's) to join him and his new wife on an outing in the Sierra. Some 80 people turned out—for what was supposed to be a honeymoon.

That was the first time Nate, then 22, had ever packed into the mountains and camped out at high elevations; he relished walking on summer snow, glissading down glaciers, and climbing high peaks. "We had a pack train and professional cooks," he says. "It was just like a Sierra Club High Trip."

The Ward party was so enjoyable, Lewis recalls, that he joined the Club that fall and has been active ever since. Nate followed a year later.

Since then the brothers have explored the world's mountains and rivers by foot, ski, and raft. Between them they have been members of nearly a dozen environmental and outdoor-recreation groups, including the American Alpine Club and the Audubon Society (Lewis) and the National Parks Association, Zero Population Growth, and The Wildemess Society (Nate). Lewis was also a

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leader in the Sierra Club's international outings program, developing and leading trips to Spain, France, and Yugoslavia in the 1960s and '70s. Even now the brothers continue to explore the world around them; they traveled to Peru together in 1986.

Nate and Lewis have left strong impressions along the way. Bob Cates, chair of the Sierra Club's Southern California history committee, calls them "two of the most wonderful and inspirational people in the organization."

Lewis has been "the most consistent and devoted leader in the history of the Sierra Club," says longtime friend Richard Leonard, a former Club president and its current honorary president. The elder Clark, who worked as an engineer for Pacific Telephone, served on the Board for 36 years (from 1933 to 1969), longer than any other director elected since 1900 except photographer Ansel Adams, who served 37 years. Now, as honorary vice-president, he still attends Board meetings whenever he can.

Lewis joined the San Francisco Bay Chapter and became its chair in the early '30s. At the time, he and several other members, including Leonard, were experimenting with new rock-climbing techniques, using ropes and belays. According to Leonard, they were making first ascents, tackling "difficult climbs, things that people thought were totally impossible," like Cathedral Spires in Yosemite National Park.

"The Sierra Club was at the forefront of organized climbing," Lewis says. "We were encouraging people to use safe methods rather than just go out and climb around." As Bay Chapter chair, Lewis convinced the Club to allow that first rock-climbing group into the organization. Recently he was disappointed to learn that the Board had voted against sponsoring future rockclimbing activities because of sky-high liability-insurance premiums.

Just as the summers of the '30s were for rock climbing, winters were for skiing. During those years a group of Sierra Club skiers decided they needed their own hut in the Sierra Nevada, and as the first chair of the Huts and Lodges Committee, Lewis supervised the building and maintenance of the shelter. Clair Tappaan Lodge, located at Norden (near Donner Summit) at 7,000 feet, now provides respite for some 140 mountain adventurers at a time throughout the year.

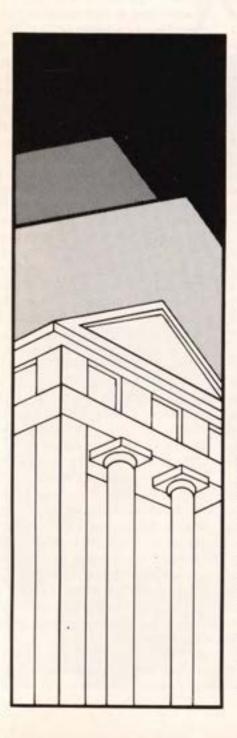
"Lewis was always ahead of me," Nate says. "He found out about things." Nate did follow in his brother's footsteps in some ways: He joined the Club a year after Lewis; participated in outings and served as assistant leader under Lewis on one 1968 trip to France; sometimes joined work parties at Clair Tappaan; and served on the Board from 1955 to 1968, including a two-year term as president beginning in 1959.

But Nate has hardly been a little brother tagging behind. Trained as an electrical engineer, he moved to Los Angeles in 1930 to teach at the University of Southern California and later worked for Lockheed. Like his brother, Nate had a passion for skiing and rock climbing and was a member of Ski Mountaineers, a group of young, enthusiastic skiers in the Southern California (now Angeles) Chapter. The crowd sometimes had conflicts with the older members of the chapter, Nate says, because "the old-timers wanted to have Fridaynight dinner programs and lots of parties" while the younger members wanted to ski and go rock climbing. But Nate walked the line between the two groups, serving concurrent terms as chair of Ski Mountaineers and as a member of the chapter's executive committee during the 1940s.

Nate's conservation activities have centered on his home turf. "I've been here for almost 60 years and concentrated on the problems of Southern California and Arizona," he says. The brothers have sometimes worked together, as in their efforts to prevent the subdivision of Washington's Olympic National Park in the 1940s, he says, but "Lewis puts his emphasis more in the north and I put mine in the south." One of Nate's pet projects has been fighting "the commercialization of our lofty mountains," including Mts. San Gorgonio and San Jacinto, both visible on a clear day from the house he built soon after he moved to Los Angeles. The Angeles Chapter showed its appreciation of Nate's decades of work by presenting him with its highest honor, the Weldon

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Heald Conservation Award, in 1983.

Nate's reputation as a photographer is widespread, and the Southern California history committee is making a videotape from his film footage of the early High Trips. "It's a wonderful historical document," says committee chair Cates. "It shows young, skinny Ansel Adams hopping around, sort of a Charlie Chaplinesque figure, and some of the early prominent rock climbers of the Sierra Club. There's another scene of the first winter ski trip across the Sierra with Dave Brower."

Nate's wife, Joan, also has a long history with the Club; she was working in the Southern California Chapter office and living in a house she and her roommates called Base Camp when she met Nate in the early '40s. The couple, now parents of three, were married at Sentinel Peak in Yosemite National Park and, like Nate's friend Stuart Ward, spent their honeymoon in the Sierra. Unlike Ward, however, they spent it alone.

n 1987 the Clark brothers attended the Sierra Club annual dinner in San Francisco. Lewis knew that Nate was to receive the Club's Walter Starr Award, given each year to a former director who has continued to be a leader in Club affairs; Nate knew that Lewis would receive the William E. Colby Award, the Club's highest honor for service to the organization. Neither knew of his own award.

"They were elated for each other," recalls Julius J. Werner, chair of the Honors and Awards Committee. "Both of them are that type of person. They appreciate what other people do and are very modest." Werner's point is evident when the brothers speak: Lewis, who refers to Nate as his "fraternal friend," often talks of his brother's accomplishments; Nate, who says his elder sibling has always been kind and inspirational to him, does the same.

"Nate resurfaced in one of the chapters by becoming again a tremendous activist in the last few years," Werner says, "and Lewis, from the time he left the Board, has been a behind-the-scenes person. He's been chair of the Elections Committee for the last thousand or so years."

Lewis started his tenure on the Elec-

tions Committee nearly 20 years ago, at a time when "a bunch of volunteers got together to count votes," and revised the system as the organization grew. Now, with half a million Club members, he says, the tabulating is done commercially and with the help of sophisticated computers.

Nate and Lewis are gently critical of the Club's growth and fragmentation. The Angeles Chapter now has some 30 groups and sections, "and that's too many," Nate says, comparing the current national organization to a large business. "You have to make all these decisions: how to elect members, how to spend money, whether or not to criticize public officials. Now you have to change directors every two years, and you can't do this, and you have to do that." He, too, brings up the Board of Directors' recent decision to no longer sponsor high-liability activities, but blames it entirely on "the absolute, unmitigated greed of the trial lawyers."

Nate believes that the changes were inevitable and that "they are all for the good. But it's not what interests me. I still believe in conservation wholeheartedly, but I don't like all the troubles with the rules of command."

Lewis understands his brother's frustration. "The Club is a great deal more bureaucratic now than it was before," he says; in fact, it has gotten so big "that you have sort of a dilemma, because the more groups you have, the more complicated the bureaucracy becomes. As the fabric of the Club gets more complicated, it becomes more difficult to trace the patterns. It's like a Persian rug: It's beautiful and it functions, but it's frustrating when you try to analyze it."

The Sierra Club may be different from the organization the brothers joined in the 1920s, the group of intimate friends out hiking, skiing, or rock climbing. Nonetheless, Lewis and Nate continue to contribute to what it has become. "One nice thing about knowing the Club's history," Nate says, "is that you begin to understand why it does the things it does." To the Clark brothers, that history is personal, and it continues.

BARBARA FULLER is an associate editor of Sierra.

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SIERRA NOTES

The Sierra Club's Third International Assembly, focusing on the global environment, will be held July 6, 7, and 9 in Ann Arbor, Michigan, and July 8 in nearby Windsor, Ontario. Some 2,000 Sierra Club members and others are expected to attend the conference, which is sponsored by the Club's Mackinac Chapter and the Sierra Club of Eastern Canada.

The international assembly offers activists an opportunity to meet with world leaders in the environmental movement. Workshops and forums will focus on a broad range of global environmental issues, including the greenhouse effect and the pollution of air and water shared by neighboring countries. All events will emphasize action people can take to stop and reverse environmental deterioration.

For program information and details about registration, lodging, and transportation, write to the Sierra Club Third International Assembly, 19827 W. 12 Mile Rd., Suite 344, Southfield, MI 48076; phone (313) 646-5317. Those wishing to help in planning the assembly should contact Brian MacKenzie, chair of the International Assembly Task Force, at the above address.

Sierra Club Books will publish several new titles in March:

Rocks Around the World (\$24.95), an exhibit-format book, offers a close-up look at the athletic feats of world-class rock climber Stefan Glowacz. Photographs by fellow West German climber Uli Wiesmeier show Glowacz climbing freestyle—using equipment only for security, not support—on some of the most challenging cliff faces in France, the United States, East and West Germany, Australia, Japan, and Britain.

Natural-history writer David Rains Wallace, whom the Chicago Sun-Times has called a "modern Thoreau," explores a subtropical Florida woodland in Bulow Hammock: Mind in a Forest (\$17.95). The author's imagination leads him to speculate on the function of dreams and the destiny of the human species. Wyoming's Gretel Ehrlich wrote the foreword to the John Muir Library edition of *The Mountains of California* (\$9.95, paper), a classic by Muir in which the famed naturalist celebrates the Sierra Nevada, the range he dedicated his life to preserving. And *Outside* magazine columnist David Quammen provides the foreword to *The Story of My Boyhood and Youth* (\$9.95, paper), in which Muir recounts his childhood in Scotland, emigration to America, and other early events that led to his career as a wilderness disciple.

Worldwide technological contamination is rapidly spiraling out of control, James Bellini writes in *High Tech Holocaust* (\$10.95, paper), and the process is aided by governments and vested interests that put economic expediency ahead of human life. Bellini exposes the greed and deception that support industrial pollution and poisoning.

The human spirit of adventure and nature's unspoiled beauty are the subjects of John Beatty's Earthbom: In Celebration of Wild Places (\$15.95, paper). In photographs and prose the author, a renowned British explorer and mountaineer, documents his odyssey through the wild regions of the Antarctic, the southwestern United States, Greenland, Scotland, and the Alps.

These books may be ordered from the Sierra Club Store, Dept. T-150, 730 Polk St., San Francisco, CA 94109. Include \$3 per order for shipping and handling; California residents should also enclose applicable sales tax. Club members may subtract a 10-percent discount from prices listed. Allow four weeks for delivery.

Audiotapes of performances by actor Lee Stetson, well known for his one-man shows about John Muir, are now available by mail. Conversation With a Tramp: An Evening With John Muir (90 minutes; \$10.95) features Stetson speaking as though he were Muir in 1913, pondering the fate of his beloved Hetch Hetchy Valley. In John Muir's Stickeen (38 minutes; \$8.50), Stetson-as-Muir recounts his adventures while trapped in a storm on a glacier, accompanied by Stickeen, a "little, black, short-legged, bunchy-bodied toy dog." To order these tapes, send a check or money order payable to Lee Stetson, Wild Productions, P.O. Box 811, Yosemite, CA 95389. Add \$1.50 per tape for shipping and handling.

Northern Lights, the quarterly, tabloidformat magazine of the Northern Lights Research and Education Institute in Missoula, Montana, showcases creative writing about the people and the land of the northern Rockies. It is sent in appreciation to those making tax-deductible donations of any amount to the Northern Lights Institute. The suggested minimum is \$15. To contribute, write to Northern Lights, P.O. Box 8084, Missouh, MT 59807-8084.

Ostrander Lake Ski Hut caretaker Howard Weamer is preparing a booklet about the hut's history. Anyone who helped establish the hut in Yosemite National Park in the 1930s or who skied into the area in the '40s and has reminiscences or photographs should write to Howard Weamer, 3812F Happy Valley Rd., Lafayette, CA 94549; phone (415) 284-4470.

Statement required by the Act of Congress of August 24, 1912, amended by the Acts of March 3, 1933, July 2, 1946, June 11, 1960 (74STAT.208), and October 23, 1962, showing the OWNERSHIP, MANAGEMENT, AND CIRCULATION of Sirra, published six times yearly at San Francisco, Californiafor September/October 1988.

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4. The average number of copies of each issue of the publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown was 359,453.

(signed) Jonathan F. King

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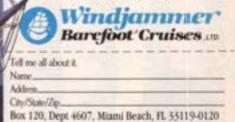
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HEN SNOW COVERS A forest, animals that don't hibernate or migrate to warmer areas must adapt to cold temperatures and the meager food available. For large animals such as moose and elk, winter is a season to be endured until warmer weather comes; although winter kills most green plants or buries them under deep snow, the animals must keep searching for food. Some small animals, however, use the snow cover to their

advantage, becoming kings of the forests at least until spring.

Rodents such as voles dig intricate tunnels through the snow, where they find seeds and grasses, insulation from the cold "outside," and protection from predators such as red foxes and ermines. The snowpack that they dig through is made of hard and soft bands stacked like layers of a cake. Some are thick and consistent, evidence of heavy snowfalls. Some are icy, signifying that they were once at the surface and have melted and

Text by Kim Fadiman . Illustration by James Stage

refrozen. The lowest layers, made of a fragile network of ice crystals called "depth hoar," are the easiest to tunnel through. The middle layers are usually the heaviest; sometimes even oxygen cannot pass through them. A vole may dig ventilation shafts up to the surface, only to find a hungry fox.

When deep, soft snow piles up, some large animals (especially elk and deer) sink and flounder, becoming easy prey for packs of wolves. Snowshoe hares avoid this particular problem by packing down lanes in the snow with their broad feet. The lanes are just firm enough to support a hare. The heavier lynx may break through the snow and be forced to go without dinner.

Icy crust, which forms when cold nights follow warm, sunny days, is also hazardous for the large animals. They break through the hardened snow, sometimes cutting their leg muscles. Rodents and other lightweight animals can run easily across the crust, but the firm surface also makes hunting easier for owls, one of a rodent's natural predators. A shrew foraging for insects on crusty snow makes more noise than it would on soil; it may be unable to tunnel to safety fast enough to avoid the owl's sensitive ears and sharp talons.

Some birds, such as the willow ptarmigan, take advantage of snow's insulation by burying themselves at night. When the snow is soft, the ptarmigan flies in at full speed; in harder snow it tunnels with its claws.

Winter's birds must forage wherever they can. Chickadees, for example, often hang upside down from snowcovered branches searching for food. They rarely find adult insects because only a few species can survive the cold: Ladybugs hibernate underground, huddled together by the thousands, and paper wasps replace part of their body fluid with a natural antifreeze.

KIM FADIMAN is a freelance writer in Jackson, Wyoming.

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BOOKS

No Special Revelations

Simple in Means, Rich in Ends: Practicing Deep Ecology by Bill Devall Peregrine Smith Books \$12.95, paper

Michael McCloskey

HE ESCALATION of global environmental crises and the frustration many people feel over governmental inaction have refueled interest in a radical form of environmentalism as a means of addressing critical issues.

Radical environmentalists claim to see more deeply than anyone else into the nature of existing problems and to best understand the possible solutions. This is particularly true of the self-styled deep ecologists. In a literature that has been developing since the early 1970s, these people have staked out a territory in which they claim to have the deepest vision of all.

The high priest of this sect is Norwegian academic Arne Naess, and his chief disciple in the United States is California sociologist Bill Devall. In a book coauthored with George Sessions in 1984, Deep Ecology (Peregrine Smith), Devall laid out the tenets of deep ecology based on Naess' texts.

Some reviewers criticized Deep Ecology for rarely connecting with the real world. Now, in an attempt to make that connection, Devall has written Simple in Means, Rich in Ends, addressing questions of life-style and political activism. He also attempts a restatement of what this school of thought is all about and how it relates to other philosophies. This time around, one can see more clearly where deep ecology fits within the scope of environmentalism.

One should not read the book hoping to find a cogent, well-marked route into the deeper meaning of things. Indeed, Devall makes it clear that deep ecology is primarily a religious and spiritual movement and as such is "best expressed, not explained." Simple in Means, Rich in Ends is not straightforward expository writing attempting to build a well-reasoned case; rather, it is a kind of preachment or tract that expresses the author's intuitions. Many assertions stand unsupported by any argument whatsoever.

Devall's religion seems to be a mixture of environmental philosophy, pantheism, Buddhism, Taoism, and the martial art aikido. He obviously believes that the practice of this religion is paramount, that it is "the end in itself." He concludes by questioning whether results matter. In relating a story about efforts to stop construction of roads in the Siskiyou high country of Northern California, he says that "it matters not, in a certain sense, if the [Gasquet-Orleans] road is built because no logging trucks. . . can really penetrate the mysterious existence of the high country." He seems to suggest that the idea of places can transcend the reality of what happens to them.

In discussing political action, the author invokes a familiar religious distinction, stressing that the important thing is bearing witness, not what happens in this world. According to Devall, the act of standing for something—or "right action"—rather than winning per se is central to deep ecology. Like most practitioners of radical philosophies, he believes that in the long run these acts of bearing witness will change minds, though he acknowledges that "there is little probability that public policy will change as a result of any specific act."

Nonetheless, Devall asserts that deep ecology is partly a political movement. He characterizes its political philosophy as "eco-anarchism" and cites Lao-tzu in favoring less government because "formal laws and government intervention do not improve society." He identifies with those who call for "radically restructuring policies and organizations," with the qualifier that practitioners are "neither left nor right" and should "avoid taking sides between capitalism and Marxism." He rails against hierarchies, bureaucrats, experts, cities, centralized institutions, and intellectuals. He identifies those people and entities with "grand solutions which usually create more problems."

In sum, Devall says deep ecologists stand for the establishment of a harmonious Ecotopia. While this Ecotopia might sound like a peaceful idyll, the path to achieving it may be a bit rough. Devall does not eschew the aggressive tactics of Earth First!; in fact, he endorses them. While generally embracing nonviolent tactics, he interprets the practice to mean only that people should not be injured. He parts company with Gandhi and encourages "ecotage and monkey-wrenching." He says that disabling a bulldozer "is an act of resistance, not vandalism." However, he does say that bombing Forest Service offices is going too far.

The political action Devall contemplates is at the local level, largely direct action such as sit-ins; however, he does not entirely disown those who would testify before a local government, and he sometimes holds out a faint hope of changing public policy. He seems undecided about whether such testimony legitimizes the very institution one is fighting against.

Indeed it is surprising that Devall sees any need at all for connections with practical political action; but apparently he is seeking relevance. Whereas most utopian groups want to withdraw from a world that they believe is corrupt, Devall seems to think that engaging that world is still worthwhile and that political action may occasionally succeed. A note of pragmatism creeps into his counsel. He suggests, for instance, that one might withhold some of the full message of deep ecology when testifying in public. He also points out that civil-disobedience tactics can be overused, losing their dramatic impact.

Devall's endorsement of working within established political systems is fickle, however, for he then criticizes political Green parties for having too superficial a grasp of ecology. "The ecological component of Green politics in West Germany, Great Britain, and North America," he writes, "has not gone very deep. Most policy statements



have focused on only the worst abuses to the environment-toxic wastes, acid deposition, nuclear reactors, and water pollution."

Also surprising is the fact that Devall does not demand an austere life-style, though he does endorse a simple one in line with the nature of one's bioregion. He rejects calls for sacrifice, deprivation, and low income. He believes "humans can have a full, rich life without unduly destroying other life forms." He is not at all dogmatic about the nature of that life-style, saying there is no "code of conduct," that ideas are evolving. He speaks about practices "being consistent with deep ecology," not mandated by it.

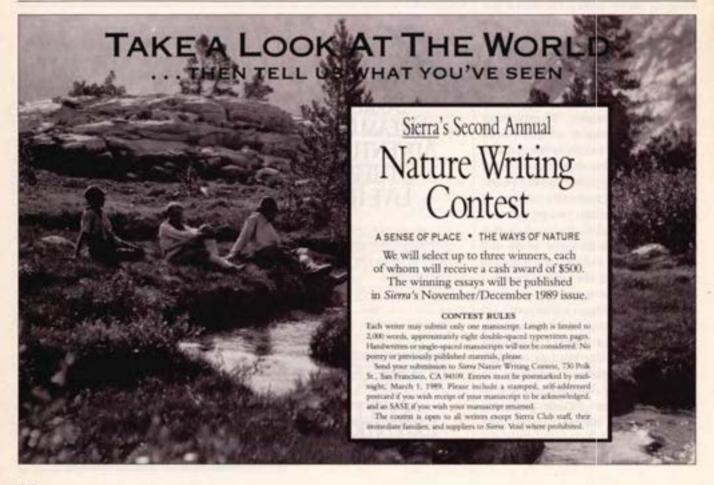
Devall's ideas on trade and development are also provocative, though expressed only in passing. He accepts the idea that in Ecotopia, bioregions could prudently export surpluses under some circumstances, which suggests a version of international trade. He also sees a role for "soft path" (low-impact) tourism as a way for developing nations to buttress their economies. On the other hand, he has no patience with the aspirations of developing countries to improve their lot by felling rainforests for farms, with the aim of reaching the First World's standard of living. He labels that "chauvinistic anthropocentrism." These observations suggest that Devall takes a middle stand between those who would develop the Third World up to the standards of the First, and those who would have everyone withdraw to the self-sufficiency of their bioregions. To use ecologist Raymond Dasmann's terms, he would have us be neither global "biosphere peoples" nor local "ecosystem peoples."

Actually, Devall is very unclear about where he stands in dealing with such global crises as warming and damage to the ozone layer—crises that will require global levels of organization and commitment. Deep ecology, on the other hand, focuses on the place where one lives. This localism can cause one to ignore systemic problems that transcend localities and nations.

Throughout the book, Devall refers with disdain to "reform environmental groups" such as the Sierra Club. These are the supposedly "shallow" groups seeking limited, rather than radical, social and environmental change. He suggests that reform groups are caught up in the power games of the established order and lack an ultimate vision. They are becoming "a refugee camp for dissident experts from corporations and academia" who bring their institutional mind-sets with them. As such, they are destined to fight the same battles over and over again, though they occasionally make temporary gains.

Devall attempts to discredit reform environmentalists by identifying them with the so-called Dominant Social Paradigm of unlimited growth and human domination of the biosphere. He claims that only deep ecologists champion the New Ecological Paradigm of limits to growth, ecological thinking, and restraint in exploiting nature. Basically, he implies that deep ecologists are biocentric and that reform environmentalists are anthropocentric.

Here Devall is just plain wrong. It is the developers who champion the Dominant Social Paradigm, and environmentalists of almost all stripes who champion the New Ecological Paradigm. There are differences among en-



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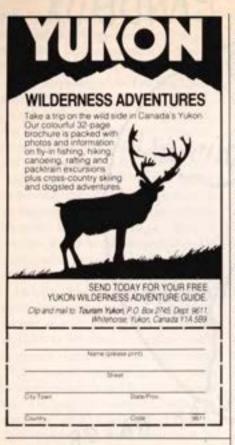
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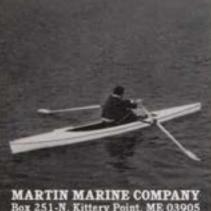
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vironmentalists in interpreting and applying this new paradigm, but it is grossly misleading to suggest that reform groups have the same views as developers, or that they are basically anthropocentric.

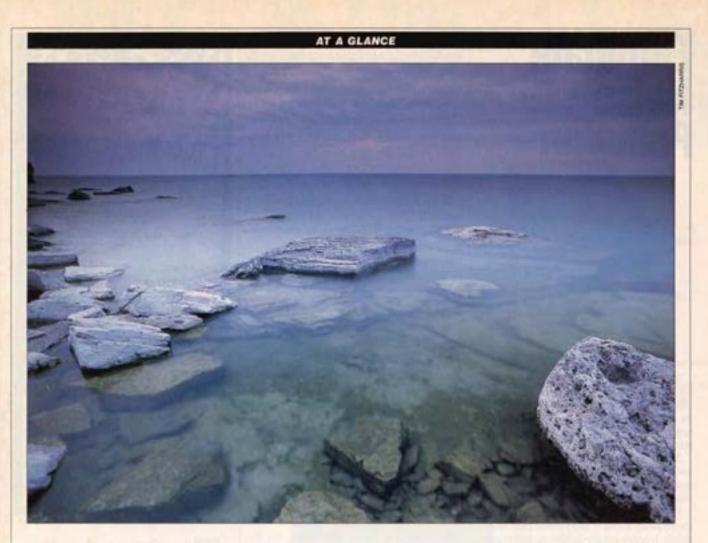
In fact, one of the most annoving aspects of Devall's writing is the way he appropriates fundamental elements of environmental thinking and claims them as special revelations of deep ecologists. Many of the concerns he discusses are ones all of us share: the rights of all forms of life; protection of endangered species; the importance of biodiversity; humility in trying to govern nature; restraint in introducing change; the importance of place and bioregions; perpetuation of native species; the interdependence of all living things; and empathy with nature and places.

What Devall has to say on these topics is occasionally useful and illuminating, but the concerns are by no means the sole property of deep ecologists. In fact, the Sierra Club has expounded these themes in its books and activities for close to a century. Moreover, Sierra Club leaders helped draft the United Nations' Charter for Nature, which Devall cites with some approval for its enunciation of these themes.

Devall is more compelling when he shifts his concern from the ownership of ideas to the implementation of them. An issue he handles particularly well is the question of when and how humans should be able to kill other species. He sets forth four guidelines: First, kill only when necessary to serve vital human needs (for sustenance, for example) and not to serve nonessential desires; second, use the means that are least damaging (presumably to populations and ecosystems) and that avoid waste; third, base actions on the best available information; and fourth, avoid causing unnecessary pain when killing. Devall also advocates giving special consideration to native species so that they may be perpetuated.

But after stressing peacefulness and compassion early on, Devall concludes Simple in Means, Rich in Ends on a strange note. He advocates that his followers become "warriors" for their place. Positing a kind of "ecological realism," he tells his readers to be serious, to





Canada: A Natural History Photographs by Tim Fitzharris Text by John Livingston Viking Studio Books \$40, cloth "M y assignment," writes Tim Fitzharris, "was to make a pictorial record of Canada's natural history, be it of a tiny Ontario woodlot, an expanse of alpine tundra, or a coastal tide pool." Accordingly, Fitzharris explored the length and breadth of Canada, framing images of places like Georgian Bay (above), which is separated from Lake Huron by the limestone of Bruce Peninsula.

drop any notions of romanticism. He urges them to be "passionate, aroused," and even angry, for they live in a war zone. "Life is a war dance," he writes. "Warriors take on the suffering of the world, feeling immense compassion. They also act effectively in politics."

In a last philippic, Devall leaves his readers wondering whether as warriors they should really do anything at all apart from practicing aikido. "What then are warriors to do?" Devall asks. "Paradoxically," he answers, "they must attempt to change everything in the culture that is anthropocentric and human-centered, and do nothing."

MICHAEL MCCLOSKEY is chairman of the Sierra Club.

Academics and Sentimentalists

Pacific Visions: California Scientists and the Environment, 1850–1915 by Michael L. Smith

Yale University Press \$26.50, cloth

Richard H. Dillon

STENSIBLY, Michael L. Smith's topic in *Pacific Visions* is the leadership role played by scientists at the beginning of the environmental and wilderness movements in the United States. But the book calls to mind Kevin Starr's seminal study, *Americans and the California Dream;* both books have as much to do with California's cultural and philosophical histories —the state's ethics, aesthetics, and attitudes toward life—as with science. As a general history or collective biography of pioneer scientists on the Pacific Coast, Smith's book is almost cursory, though its brief profiles of individuals are deft and often insightful.

Gold Rush San Francisco—indeed, all of 19th-century California—was pioneered by a mix of adventurers and visionaries. Most of the latter were simply the more benign speculators, entrepreneurs, and gamblers who came in the

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westward rush. But among them was a small cadre of naturalists-mostly earth and life scientists-who because of California's isolation from the East Coast developed strong identifications with the region. With scientific facilities few and inadequate, they made California itself-and especially Yosemite Valleya huge laboratory, exploring, surveying, and studying its geography and natural history in depth, and eventually publishing their findings.

Though most of the early naturalists were academically trained professionals, they were not necessarily tied to Joseph Le Conte's University of California or David Starr Jordan's Stanford. George Davidson's base was the California Academy of Sciences, the sole bastion of Bay Area science in the 1850s. State Geological Survey salaries made possible the field work of I. D. Whitney, William Brewer, and Clarence King, although Whitney detested having to shake a figurative tin cup before a tightfisted, tight-headed legislature that he characterized as a herd of jackasses.

Alone among these early scientists was John Muir, an amateur-in the best, European sense of the word: a dedicated student, not an idling dilettante. Muir's university was Yosemite Valley; his institutional base, the Sierra Club, was remarkable because it was not content simply to make mountain regions more accessible to the public for enjoyment. The Club insisted upon the preservation of the Sierra Nevada. Small wonder: 14 percent of the organization's charter members were scientist-naturalists, and 40 percent were also members of the California Academy of Sciences.

It was Muir, not Le Conte or Whitney, who was able to transform the new, conservation-oriented perspective of a handful of naturalists into a mass movement rolling across the country from west to cast. Although he was insecure in the role of "scientist" because he lacked credentials, Muir was better able to relate to the ordinary citizen than were many purely academic scholars, whom, Smith notes, the public suspected of elitism. University of California zoologist William Ritter sensed this suspicion and commented: "An aristocracy of learning is but a little better than an aristocracy of wealth."



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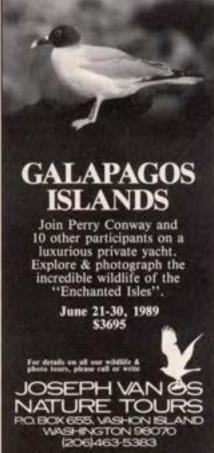
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The theme of Pacific Visions is the early conflict between the many who still saw humankind as the center of the universe (and thereby entitled to gorge on nature's supposedly inexhaustible bounty) and the few, mostly scientists, who came to regard humans as one of many elements in an interdependent world. Botanist William Dudley spoke for this vocal minority when he described California's typically wasteful lumbering as criminal indifference to "the lessons of the landscape." The main lesson, of course, was what Muir liked to call nature's interconnectedness, the vital links among all species, including Homo sapiens.

A fascinating aspect of the dynamic between conservationists on the one hand and self-styled pragmatists-those wishing to see nature's resources used "properly"-on the other was the genderization of the conflict. The debate over California's landscape became an absurd exercise in sexual stereotyping. Time after time, Smith points out, critics labeled environmentalists "sentimentalists," with the adjective effeminate implied if not stated. The tactic was a powerful one in a century in which women were expected to be submissive, especially on a hard-won frontier where manliness was right up there next to godliness. In the 19th century it was manly to be strong, adventurous, militant, practical, useful, expert, evenalas-scientific. But to admire beauty, artistry, scenery, poetry, aesthetics, and sublimity-all qualities naturalists attributed to Yosemite-was considered sentimental and female in character.

By the outbreak of World War I (the end of an era in a much broader sense). the generation of wilderness-ranging scientists was dying out. It was replaced by professionals who were no longer isolated from the mainstream, thanks to improved public communications and transport and to belated recognition by scholarly organizations, publications, and conferences. Some of the modern breed probably "bought" Gifford Pinchot's utilitarian, managerial style of conservation. Others preferred theoretical science to activism, or considered such extracurricular work as environmental advocacy to be unprofessional. Today professional scientists continue to



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We Offer You The World 3540 NW 13th St., Gainesville, FL 32609 1-800-451-7111 • (800-345-7111 in FL) (904) 377-7111 play a strong role in the battle to save the West's wildlands, but more and more of the burden has shifted to the membership-at-large of the Sierra Club and its Audubon and Wilderness Society kin, drawn directly from a concerned public.

Smith's reworking and polishing of his doctoral thesis for the making of *Pacific Visions* is well done; he uses an easy, "popular" (but not colloquial) style that is highly readable. The book has a few rough spots—some of the material could be better organized, and repetitious facts could be eliminated—but these are minor flaws. This is not a great book, but it is a good one.

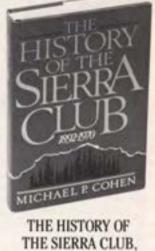
Today we honor Muir and his allies, who were denigrated in their time as nature lovers, butterfly collectors, nature fakers, and "tree huggers," not only for what they accomplished in saving Yosemite or the coastal redwoods, but for their dedication to and enlightened advocacy of an idea and an ideal that were so far ahead of their time. Their scientific and social values are still controversial, but no politician today dares ignore the force of environmentalism in our society. This fact of life is the legacy of *Pacific Visions*' Pacific visionaries.

RICHARD H. DILLON is a freelance writer in Mill Valley, California.

BRIEFLY NOTED

"I have spent twenty-five years of Christian ministry in the ravaged coalfields of Appalachia, where the earth bleeds from human oppression," writes Richard Cartwright Austin in the introduction to Baptized Into Wilderness: A Christian Perspective on John Muir (John Knox Press; \$6.95, paper). "People in my congregations opened my eyes to see that the land mattered in their spiritual health." Austin took leave from his traditional pastoral responsibilities in the Presbyterian Church to rethink Christian faith in the light of environmental responsibility. In so doing he discovered that in John Muir, America has "an advocate for nature whose spiritual insights rival those of Francis of Assisi." In another volume of the John Knox Press environmental theology series, Hope for the Land: Nature in the Bible (\$12.95, paper), Austin elaborates on

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express a theology that supports a more ecological, less technological approach to the land, . . . Natural-history writer John A. Murray keeps a photograph above his desk to remind him of the 1979 killing of what was perhaps the last grizzly in the southwestern United States. The image depicts the headwaters of the Navajo River in Colorado's San Juan Mountains, a site Murray believes is worthy of an epitaph: "Here one species, persecuted by another species, became extinct." In The Last Grizzly and Other Southwestern Bear Stories (University of Arizona Press; \$19.95), Murray and David E. Brown, a writer and veteran Arizona Game and Fish Department wildlife manager, have assembled 22 stories about contacts between grizzlies and humans written by such literary notables as Zane Grey and I. Frank Dobie. Too often the encounters described led to the demise of the bears, but Murray and Brown believe that these grim stories can inspire us to redress past mistakes and to restore the grizzly to the Southwest. . . . A Mary Austin novella, Cactus Thorn, apparently written in 1927 and rejected by Houghton Mifflin, has been published for the first time by the University of Nevada Press (\$14.95). Like her 1903 essay collection, The Land of Little Rain, the novella demonstrates Austin's affinity for the southwestern desert. The story centers around the relationship between a male politician with "new" ideas and a self-sufficient woman wanderer. In her foreword, Melody Graulich points out that the work reveals the progressive point of view that made Austin one of America's foremost turn-of-the-century feminists. . . . "Texas is an imperfect place in which to seek epiphanies about nature," writes Stephen Harrigan in A Natural State (Texas Monthly Press; \$14.95). "It is a state that still takes pride in its continuing triumph over the land." Nonetheless Harrigan, a senior editor with Texas Monthly magazine, sees the Texas landscape as "resonant and full of secrets." He wanders from place to place there, one day finding fascination in the morning clouds that engulf his tent in Big Bend National Park, another day being dismayed by 142 tons of trash lining the



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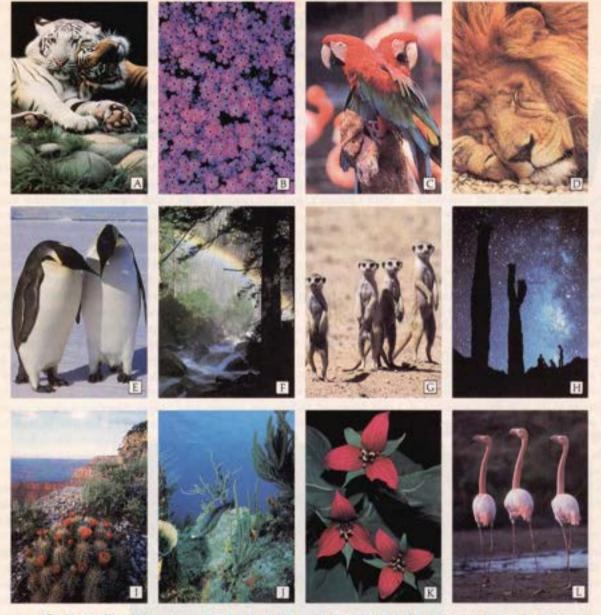
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beaches of Padre Island National Seashore. . . . Fulcrum, Inc., has published the complete proceedings of 1987's Fourth World Wilderness Congress in a single volume, For the Conservation of the Earth (\$15.95, paper). Among the many contributors to the work are Gro Harlem Brundtland, prime minister of Norway, who chaired the World Commission on Environment and Development, and a number of Sierra Club leaders, including Chairman Michael McCloskey, Executive Director Michael L. Fischer, Conservation Director Douglas Scott, and Vice-President for National Parks and Protected Areas Edgar Wayburn. . . . In 1986 South Carolina biology teacher Bill Hilton, Jr., was living with his wife and sons in an old Piedmont farmhouse, studying birds and other wildlife on his 12 acres of land and writing natural-history columns for a newspaper in Rock Hill. He used his desktop computer to publish a year's worth of those columns in The Piedmont Naturalist (\$9.95, paper). For a copy, write to Bill Hilton, Jr., Governor's School for Science and Mathematics, 306 E. Home Ave., Hartsville, SC 29550. . . . According to Susan Weber, executive director of Zero Population Growth, too few Americans recognize that traffic gridlock, overflowing garbage dumps, homelessness, child poverty, smog, and water pollution are largely consequences of the nation's expanding population. The public's ignorance is not due to a lack of curiosity, Weber says: it is the result of a lack of comprehensive, easy-to-understand demographic data. To address that deficiency, she and ZPG have prepared USA by Numbers: A Statistical Portrait of the United States (Zero Population Growth, 1601 Connecticut Ave., N.W., Washington, DC 20009; \$8.95, paper). The book offers a wealth of population charts and graphs. . . . For the third year in a row, the World Resources Institute and the International Institute for Environment and Development have assessed the resources upon which the world economy depends. This year's findings are editorially and graphically presented in World Resources 1988-89 (Basic Books; \$32.95, cloth; \$16.95, paper). It is a valuable report on the condition of the planet. -Mark Mardon



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OUTDOORS

No (More) Mean Feet

Walking and hiking shoes make strides by adopting running-shoe technology.

Gregg Williams

ANY PEOPLE exercise to relieve stress—so it's a bad omen if buying a pair of athletic shoes raises your blood pressure. But the jumble of styles, shapes, colors, and trademarks lining the shelves of athletic-shoe stores is enough to convince you to take up whist. How can the weekend Olympian make a wise decision?

Simple as it sounds, comfort and fit are the most important considerations for someone selecting walking or hiking shoes. Even the most technically advanced shoe is worthless if it binds or rubs your feet. Naturally, each manufacturer argues that its shoes are superior to the competition's, but the truth may have more to do with the particulars of your own feet than with the uniqueness of one company's designs.

The first step is to do some sole-searching: Inspect the bottoms of an old pair of shoes to identify your particular walking or running pattern. You may overpronate (roll your feet inward excessively) or supinate (roll them outward). In general, overpronators need shoes that are stiff along the inner side to limit inward rolling. Underpronators' rigid feet absorb shock poorly; they need wellcushioned shoes. Because shoemakers base their designs on standard molds, you may find that one manufacturer's products conform to your feet better than others' do. If your feet are particularly wide or narrow, you may do well to consider only those shoemakers that offer their wares in more than one width.

Footwear manufacturers didn't stumble into the walking-shoe market. Rockport, founder of the Rockport Walking Institute, works with 35 podiatrists nationwide. Brooks conducts research with Michigan State University. Nike studies biomechanics in its own Sports Research Lab. Their not-so-surprising consensus: A walker's stride is different from a runner's, and thus requires a different shoe.

"Walking is more of a rolling motion than running," says Nike's Karen Sparks. Because a walker's "heel strike" and "push off" exert half the force of a runner's, a walker's foot follows a more natural heel-toe motion. The average flexion, or bend, of a walker's foot is 45 degrees, while a runner flexes only 30 degrees. Also, given extra room, the walker's toes splay more.

Armed with reams of data, labcoatclad footwear technicians plunge into their task. Much of their effort goes into maximizing a shoe's capacity to cushion and support, two contradictory requirements. The result: as much attention as your feet will get without being taken to a podiatrist. Multiple-layer insoles absorb odor and dissipate moisture, while biomechanically designed foam inserts, arch supports, and foam- and air-filled or concave midsoles pamper and brace your feet simultaneously. Walking shoes usually cost \$55 to \$65 and may weigh as little as one pound per pair.

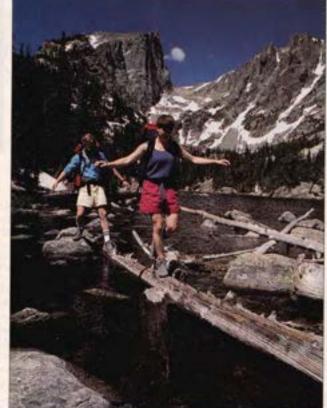
For those who prefer hills and forests to city sidewalks, many companies offer walking shoes designed to withstand the rigors of the trail. These low-cut shoes typically have mesh nylon-and-leather uppers with a dense hiking-boot-style waffle sole for traction, and typically cost \$55 to \$85. They're heavier and less slipperlike than walking shoes designed for the city, but they provide better trac-

tion and stability on uneven terrain.

Steadfast wearers of allleather hiking boots have watched skeptically as running-shoe companies dabbled in the bootmaker's art. Nothing can match leather's durability and comfort, they say. But even hikers who cling to their leather boots like baseball players to well-worn mitts recognize the advantages of the new technology.

Ankle-high boots with uppers made from a mix of textured or Cordura nylon and leather may weigh as little as 34 ounces, a pound less than many all-leather boots. Reduced weight translates into less leg fatigue, which is especially meaningful when you're carrying a hefty pack over long distances.

Since nylon "breathes" more easily than leather, these boots can also help prevent your feet



Lightweight fabric-and-leather boots turn a trudge into a stroll.

from drowning in sweat. (The average foot perspires about a cup of moisture each day.) They also dry out faster than their all-leather counterparts, and because the uppers and midsoles of synthetic boots are made of softer and more pliable materials, they don't require the blister-burning break-in period sometimes exacted by leather boots. Finally, synthetic hiking boots may cost half or even a third as much as a pair of allleather boots, which can set your allleather wallet back \$125 to \$200.

Unfortunately, what nylon-andleather boots offer in breathability they tend to lose in waterproofness, although some bootmakers now line their higherpriced hybrids with waterproof fabrics like Gore-Tex. Leather-and-nylon boots also won't stand up to abuse as well as all-leather boots because a mix of fabrics requires more seams, and nylon is less durable than leather.

Ultimately, with any walking or hiking shoe, you balance lightness with durability, comfort with stability, breathability with waterproofness. If you're trekking through Nepal for two months shouldering an expeditionweight pack (and gaping at the barefoot Nepalese villagers), then you want the abrasion-resistance and stability of a full-grain leather boot. But for most trail-stompers who enjoy the outdoors a few days or a week at a time, synthetic boots are a fitting alternative.

Skeptics might still ask, "What's wrong with hiking in tennis or running shoes?" The answer: nothing, really. But unless you have ankles of steel, you run a higher risk of injury. (This is especially true with running shoes, which provide a maximum of cushioning and a minimum of stability.) Boots offer an important degree of support as well as broad soles for surefootedness.

Manufacturers continue to experiment with inventive lacing patterns, Velcro straps, plastic-clip systems, lace locks, and new materials. But you are your own quality-control expert; it's up to you to make sure the shoes fit. If synthetic walking or hiking shoes aren't supportive and comfortable in the store, they won't be on the street or trail.

GREGG WILLIAMS is a freelance writer in San Francisco, California.



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QUESTIONS & ANSWERS

I've been told that solarpowered cars are being sold in Europe. Can you please find out from whom they're available and how much they cost? (Pete Mimmack, Fort Collins, Colorado)

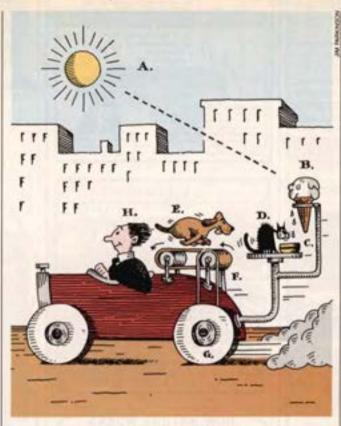
Solar-powered cars are being constructed in home garages around the globe, but Switzerland has taken the biggest step toward getting practical models on the road. By mid-1988 more than 50 street-legal "solarmobiles" were tooling around that country, and hundreds more were projected to be available by the end of the year.

Solarmobiles are essentially battery-powered cars charged by solar cells mounted atop the vehicles. The batteries can also be charged like common car batteries. The most popular models, including the twoperson "Sulky Solar" from SunCraft of Zürich and the "Solarmobil" from Rotaver of Lützelflüh, can cover about 100 kilometers (60 miles) on 4 to 6 kilowatthours of electricity-as little as one-twentieth the energy required by a conventional small car.

The solarmobiles travel at an average speed of 40 mph, though some racing models can exceed 60. The cars are also light, silent, and nonpolluting. Prices start under \$10,000.

For purchase information, a leaflet entitled "Existing Solarmobiles" is available from Tour de Sol, P.O. Box 73, 300 Bern 9, Switzerland.

To mitigate the ill effects of acid rain on lakes, couldn't a quantity of some "base" chemical be dumped in the



water to neutralize its acidity? (George Moskowitz, Springfield, New Jersey) Base compounds-the chemical opposite of acidshave in fact been used for years to lower the acidity of lakes. Scientists in Scandinavia, Canada, and the northeastern United States have found that limestone. a base substance, is an effective tool for maintaining some fisheries. Unfortunately, "liming" is in many cases too little too late.

Acid rain, which forms when emissions from fossilfuel combustion combine with oxygen and moisture in the atmosphere, contains highly caustic sulfuric and nitric acids. These acids alone are potent enough to kill fish, but they can also leach lethal amounts of toxic metals such as aluminum from lake sediments and surrounding land. While liming is successful in preserving lakes that still support fish, repeated treatments are necessary as polluted rainfall washes more acid into the water. In New York's Adirondack Mountains, where liming has been used since the 1950s, only 30 to 40 of the region's 2,800 lakes are included in the program, largely because most flush too quickly to make the treatment worthwhile.

According to Jim Colquhoun, chief of New York State's Bureau of Environmental Protection, the biggest drawback of liming is that the treatment is a palliative. "It doesn't remediate all the effects of acid deposition," he says, "and it creates the illusion that the problem is solved."

I need to replace my old refrigerator. How can I make sure that I get an energy-

efficient model? (Susan Allen, Clovis, New Mexico)

Generally speaking, energy costs go up with the size of a refrigerator and the number of bells and whistles it has, but design is a big factor too. According to the American Council for an Energy Efficient Economy, refrigerators with the freezer compartment on top are about 35 percent more efficient than side-by-side models.

The longer walls of sideby-sides require more energy to cool than the boxier top-freezer style does; sideby-side models also tend to be larger and to have such features as water dispensers and automatic ice-makers, which need additional electricity.

Be sure to read the yellow "Energy Guide" label posted on all new refrigerators. Required by the Federal Trade Commission, the label lists the annual cost of operating a particular unit based on an electricity rate of 6.75 cents per kilowatt-hour. To estimate actual costs, use your local utility rate.

If possible, consider postponing your purchase long enough to take a look at what appears on the market in the next couple of years. Federal legislation passed in 1987 requires refrigerator manufacturers to meet energy-efficiency standards by 1990 that amount to a savings of 7 percent for refrigerator compartments and 13 percent for freezers.

Meanwhile, you can help keep energy costs down by regularly defrosting the freezer and dusting the heatdissipating condenser coil located behind or beneath the appliance.

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It takes a special caliber to conquer the grueling Australian Outback. A combination of four-by-four strength and stamina found only in the legendary Toyota Land Cruiser. For thirty years it's won the heart of every Aussie lucky enough to own one. And now the 1989 Land Cruiser is ready to take on the most demanding test of all: the American family.

Born of the rugged Outback, with a harddriving 155-hp six-cylinder EFI engine and sturdy underbody construction. Yet bred with luxury appointments like automatic transmission and spacious interiors that go with any suburban territory.

Take a look at what won over Down Under. You'll find it's also winning over, over here.

Toyota's 36-mo. 36,000-mi. Limited Warranty

You're covered with Toyota's 36-mo./36000-mile basic new vehicle limited warranty." No deductible no transfer fee, and a 5-yr./unlimited-mileage warranty on corrosion perforation. See your Toyota dealer for details.

TOYOTA QUALITY WHO COULD ASK FOR ANYTHING MORE!

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