



WILDERNESS RECORD

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Monkey Rock in the Elk Creek Roadless Area, one of many areas that will receive only partial protection—at best—if the draft Mendocino forest plan is adopted. Photo by Ryan Henson

Wildlands get the shaft in draft Mendocino forest plan

By Ryan Henson

The Mendocino National Forest, the first of many Forest Preserves established in the United States early in this century, has certainly not been treated like a "preserve" by the U. S. Forest Service. Originally a trackless 800,000-acre wilderness of oak groves, grasslands, ancient forests, brush fields, and wild rivers, the Mendocino has been spoiled by nearly 3,000 miles of roads, countless clearcuts, and over-grazing. Today, only 141,950 acres of inventoried roadless lands (those recognized as roadless by the agency) remain in a reasonably wild and pristine condition, along with an additional 74,540 acres of roadless lands identified by conservationists but never inventoried by the Forest Service.

The agency's recently released draft land and resource management plan for the Mendocino moderates only slightly the Forest Service's historic devotion to road building, clearcutting, grazing, and off-road vehicle use. Indeed, though the draft plan includes the remarkable admission that the Mendocino's timber sale program is no longer necessary to support nearby communities (if it ever was), the document nevertheless details the agency's intention to construct new roads, log more ancient forests, and generally continue—albeit at a slower pace—the destruction of the past.

Roadless lands at risk

The fate of the Mendocino's roadless lands under the draft plan is not very bright. Though proposing to preserve a paltry 51,415 acres of the Deer Mountain, Elk Creek, Big Butte-Shinbone, Thatcher Creek, Thomes Creek, Briscoe Creek, and St. John Mountain roadless areas exclusively for backcountry recreation, forest planners carefully ex-

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Desert bill clears committee, but with fewer wilderness acres

Desert defenders and other wilderness activists may have added cause for thanksgiving this month: The Senate is expected to vote on the desert bill before adjourning for the Thanksgiving recess.

On October 5, the California Desert Protection Act cleared a formerly impassable hurdle, the Senate Energy and Natural Resources Committee. By a 13-7 vote, the committee approved legislation which would designate more than six million acres of wilderness in the Colorado, Great Basin, and Mojave deserts of California.

The bill's sponsor, Senator Dianne Feinstein, had to accept more than 50 amendments before she could move the legislation out of committee, but the most controversial, an amendment to allow hunting in a national park, was defeated. Still more compromises may have to be made before the bill is approved by the full Senate, its next destination.

After Senate passage of the bill, attention will turn to the House, where legislation similar to a desert bill passed by the House in 1991 was introduced by Rep. Richard

Lehman (D-Fresno) early this year. The House is not expected to vote on the bill, which has not yet cleared a Natural Resources subcommittee, until Congress reconvenes next year.

Any differences between the final House and Senate bills would then be negotiated by a joint conference.

Wilderness lost

The wilderness acreage now in the Feinstein bill is significantly less than the 7.5 million acres sought by former Senator Alan Cranston, and less also than the acreage that would be protected by the Lehman desert bill.

The Feinstein bill would add wilderness to Death Valley and Joshua Tree national parks, establish a Mojave Wilderness, and designate 71 other wilderness areas to be administered by the Bureau of Land Management (BLM). The BLM wilderness acreage is now 3.6 million acres, down significantly from the more than four million acres in the House bill.

A much-contested provision to establish a Mojave

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Coalition news

Monthly Report

It's hard to find a meeting date acceptable to the eleven busy women and men who comprise the Coalition's board of directors. That's why we picked meeting dates last February for the remainder of the year, including a Pt. Reyes backpack meeting planned for September.

As the powwow approached, illnesses and crises at work took their toll. Soon it was apparent we could not even muster the half dozen board members needed for a quorum, and the hike was abandoned. In the past few years, we have failed at three (out of four) attempts to meet in the wilderness.

So a few weeks ago we gathered in my living room for yet another indoor meeting.

We covered the standard items—minutes from the last meeting, our financial status (or lack thereof), what the Executive Director has been doing in his copious free time, etc. But we set aside time to discuss the future of the CWC, jokingly referred to as "the vision thing."

The vision thing really is quite simple: What should the Coalition be working on, and how should we do it?

We've been concentrating on three tasks: new wilderness designations, wilderness management, and biodiversity. All three are important and interrelated.

Even after we've achieved final passage of the California Desert Protection Act, many of the state's wildlands will remain unprotected. There are Bureau of Land Management areas from San Diego County to the Oregon border that deserve wilderness designation. Forest Service wildlands remain inadequately protected as well, especially large roadless areas like the White and Inyo mountains. Preserving wild areas always will be the top priority of the Coalition.

But once the lands are designated wilderness, what then? Federal agencies develop management plans for the areas, plans that are not without controversy. Wilderness managers and users alike are embroiled in disputes over which kinds of recreation should be allowed where. Instead of this anthropocentric, recreation-minded approach, the staff and board of the CWC look at management

from a biocentric standpoint—what are the impacts on plants, animals, and other natural elements of wilderness. We know that the number of recreationists is less a factor than the habits of recreationists in determining how much, or how little, the wilderness is harmed by recreation.

Increasingly, the Coalition is concerned with protecting wildness in the long run. What types of buffers and corridors are needed to preserve the biodiversity of these wilderness islands? What is our vision for California in the year 2000, 2050, or 2100? In conjunction with the Wildlands Project, which addresses these questions for the entire North American continent, we will be trying to find answers for California.

The second question debated by the board was how the Coalition should go about this work. Should we simply be a coordinating organization, sharing information with others through the *Wilderness Record*? Or should we be leading the charge for more wilderness, better management, and a state replete with biological diversity?

Most of us prefer to take strong stands in defense of wilderness, even in the face of possible defections from our membership. For a broad-based coalition, that's problematic, but we think it's the right thing to do.

On controversial subjects, we will consult our members and debate the issues openly in the *Record* before taking (or not taking) a stand. Recently, we spent more than a year discussing commercial grazing in wilderness before adopting a policy opposing it.

Rather than duck controversy, the Coalition's board wants us to initiate debate on contentious topics. Open discussion, we believe, is the first step to achieving consensus on these issues. But even where consensus is impossible, we can foster understanding of different positions, bearing in mind that all our members share a common goal of protecting wilderness.

Which is why we are all part of this coalition, right?

By Jim Eaton

A testament to wilderness

Putting the California Wilderness Coalition in your will is an excellent way to assure we can continue protecting and preserving California's precious wildlands far into the future.

Currently, the Coalition's Smoke Blanchard fund, an endowment honoring the late mountaineering guide, supports wilderness preservation efforts on the Sierra Nevada's East Side, an area Smoke particularly loved.

To leave a bequest, simply add a paragraph to your will stating: "I bequeath to the California Wilderness Coalition the sum of _____ Dollars [or, for insurance policies, land, or other property, please specify]."

If you would like to discuss leaving a bequest to the Coalition, please call Executive Director Jim Eaton at (916) 758-0380. All information will be held in strict confidence.



Jim enjoys a respite from the press of work at the Kaweah River. Photo by Steve Evans

Job Opening

The California Wilderness Coalition (CWC) is accepting applications for a part-time coordinator for its Davis office. The office coordinator is responsible for maintaining membership records, providing member services, and helping with general office work.

Applicants must be available to start work this fall and must be familiar with Macintosh computers; knowledge of Panorama, Word, or Pagemaker software is helpful.

Applications and inquiries should be addressed to Jim Eaton, Executive Director, CWC, 2655 Portage Bay East, Suite 5, Davis, CA 95616; (916) 758-0380.

A few more points of light

The days may be getting shorter but the CWC office is brighter for the unexpected appearance of two volunteers. Pat Johnson, now retired from U. C. Davis, called to volunteer her office skills. Remarkably, her first visit to our unconventional office didn't deter her, and she's been busy ever since bringing our electronic index of *Wilderness Record* articles up to date. Once she finishes that task, we hope to persuade her to tackle the monumental filing backlog, a task that will be somewhat easier thanks to Sue Rodriguez Pastor's recent donation of file folders.

We were even more astounded when North Coast activist Ryan Henson informed us that he wanted to quit his job to work, unpaid, for the CWC. He'll be helping to develop the conservationist statewide wilderness proposal for the hundreds of thousands of acres of wildlands held by Bureau of Land Management and working on more mundane tasks like writing appeals.

Eaton honored by Desert Protective Council

One of the CWC's original goals (as reflected by the sand dunes that comprise half our logo) was to see the California deserts protected as wilderness. That hasn't happened yet, and when it finally does, other groups and individuals will deserve most of the credit.

So the CWC's longtime Executive Director, Jim Eaton, was especially honored when the Desert Protective Council informed him that he had been selected to receive their Award of Merit in recognition of his contributions to the preservation of deserts. Unfortunately (and characteristically), the press of other work made it impossible for him to accept the award in person.



Wilderness Trivia Quiz Question:

When and where were the first Bureau of Land Management (BLM) holdings in California designated as wilderness?

Answer on page 7

Endangered species

Habitat, not hatcheries, will save endangered fish

An ecologist's critique of captive breeding

By Dr. Chris Frissell

Anybody who thinks it is easy to raise fish has never tried to run a goldfish bowl, let alone a hatchery. It has taken more than a century of failures to fine tune current fish culture technology. But the old ways of salmon and trout management have been criticized lately, and the agencies are beginning to tout hatchery reform. Old Hatcheries are giving way to New Hatcheries, and the age of the so-called conservation hatchery has arrived.

Hundreds of millions of dollars of taxpayer and ratepayer money are being spent by state and federal institutions to upgrade and expand hatcheries and captive breeding. Glossy brochures and thick recovery plans boldly proclaim that the neo-scientific reform of hatcheries and a thousand volunteers releasing baby salmon together will save the nation from the ravages of declining fisheries and endangered species listings.

I'm an ecologist. I work on the watersheds and streams that salmon and trout inhabit, seeking to understand how the salmon, its community, and its ability to survive in its native habitat have been affected by the complex and cumulative changes imposed over the last 150 years. I learn what I can about the diverse, intricate, and often elegant evolutionary and ecological adaptations that fish employ to get by and sometimes even thrive. And I've thought a lot about hatcheries and their role in the salmonid ecosystem. I've considered the vast sums of capital and labor consumed by captive breeding. I've imagined how nice it would be for everybody if hatcheries

Wild salmon benefit from captive breeding about as much as they might from acupuncture.

worked the way they are supposed to. And although I'm still thinking about it, I suggest there's good reason to believe that wild salmon benefit from captive breeding about as much as they might from acupuncture.

The general hypothesis behind captive breeding is that by capturing a relatively small number of fish and sheltering their offspring in an artificial environment, we can deliberately inflate their survival, at least through early life stages. The release of large numbers of the cultured progeny, the theory goes, should overwhelm any sources of mortality later in their life cycle, producing more fish for recreationists to catch

and, in the case of supplementation hatcheries (hatcheries designed to supplement the numbers of a declining species), more adults on the spawning grounds. Fishery managers call it the "jump-start" theory of population dynamics, but you probably won't find it described in any textbook on population ecology.

Yes, hatchery fish do contribute immensely to some fisheries. Yes, stocked hatchery fish sometimes do come back to the spawning grounds, and sometimes they even manage to spawn successfully. But before we congratulate ourselves and invest further in captive breeding to solve or circumvent conservation problems, maybe we should consider the old proverb: Be careful what you wish for, for you are likely to get it.

Let's examine the role of hatcheries in conserving and restoring endangered species with a medical analogy. Ecologically, captive breeding does not perform the preventive or restorative function of a vaccine or antibiotic. It rarely, if ever, facilitates healing or hastens natural recovery. Rather, hatcheries function as an ecological prosthetic. They're intended to replace some missing or dysfunctional component of natural habitat. Dozens of case studies support the conclusion that hatchery fish do not supplement wild populations. They supplant them. And to the extent captive breeding succeeds, it is an effective social anesthetic—preventing us, at least temporarily, from seeing and responding to the fundamental causes and costs of environmental degradation.

Most problems with hatcheries stem from the undisputed fact that they are artificial environments, where artificial stresses are exerted on fish and natural stresses are precluded. Lately, some scientists have argued that we should make hatcheries more like natural habitat to reduce artificial selection. But if hatcheries become more like natural environments, hatchery death rates will rise. If survival is not higher in the hatchery than in the real world, why have a hatchery? Instead of stocking more captive-bred fish into a ghetto-like habitat, we should think about investing resources in the habitat itself.

For producing large numbers of fish in a hurry, modern methods of fish culture work rather well. The fish that succeed in hatcheries are domesticated, however. They've been developed through generations of artificial selection, both deliberate and inadvertent, in hatchery environments. These fish are the descendants of those few oddball wild ancestors who were somehow pre-adapted to dixie-cup conception, competitive raceway feeding, and riding around in trucks and barges.

When wild fish are brought into a captive breeding situation, they either adapt to the foreign environment or die. Many die. In fact, numerous studies show that the genetically-effective size of a captive population (roughly, the number of fish that successfully contribute to the following generation) is but a tiny fraction of the total number of wild adults sacrificed for breeding purposes. In the few supplementation programs that have been carefully monitored, survival rates are so low that more wild adults are sacrificed each year for brood stock than would return if the fish had been left to spawn naturally. Why? Because most of these fish, and most of their offspring, are not adapted to the ecologically bizarre conditions they face in an artificial environment.

Since relatively few genotypes are suited to such a novel and simplified environment, a few families dominate the returning population, and the incidence of inbreeding among subsequent generations is high. In view of this, does it make any sense to continue to sacrifice large numbers of dwindling wild salmon on the chance that a few might inject their "wild genes" into a hatchery supplementation program?

Let's face it: Wild fish are not adapted to hatchery life, and hatchery fish are not well-suited for survival and reproduction in the wild. This is a fundamental and insurmountable barrier to applying fish culture technology to the recovery of wild populations. Supplementation hatcheries are virtually certain to narrow genetic variability and ecological diversity, compromising and perhaps crippling the ability of wild fish populations to adapt to their habitat.

When hatchery fish do come back to spawn in streams, we should consider ourselves fortunate if they fail to reproduce. Usually, they do fail, because they neglect to hide from predators, or they spawn or migrate at the wrong time, or put their eggs in the wrong place, or grow just a little too quickly or slowly. Sometimes a few are lucky and manage to survive, but the mongrel fish that

result from crossing domestic and wild populations are poorly suited to either environment. Such genetic pollution can destroy the fine-scale adaptive structure and diversity that have evolved among locally-adapted wild fish populations over centuries and millennia. Generations of natural selection may be required before maladapted, artificially favored genotypes are purged

from a wild population. If hatchery releases are not discontinued, natural selection may be permanently altered, and the adaptive capacity and productivity of a wild stock permanently diminished. A large wild population might be better able to withstand such stress than a small one. Yet increasingly, New Hatcheries are being prescribed to resuscitate small, depleted wild fish runs.

In addition to the snag that hatcheries don't work, there are plenty of other reasons for an ecologist to oppose hatcheries. By separating the fish from their environment, for instance, hatcheries ensure that the population no longer functions in the ecosystem. Fish in the hatchery don't take prey, check competitors, accrue and transport nutrients, or serve as food for predators. Native carnivores like bears and bald eagles suffer from the loss of access to their natural food source. The depletion of wild salmon populations and the nutrients they historically provided may contribute to the decline of other native aquatic species such as lampreys.

If hatchery releases are not discontinued, natural selection may be permanently altered, and the adaptive capacity and productivity of a wild stock permanently diminished



By protecting habitat, like Mill Creek in Lassen National Forest, we can preserve wild rivers, wild fish, and wildlands. Photo by Jim Eaton

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Roadless areas

Fate of Mendocino wildlands isn't bright under draft plan

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cluded from protection the remaining 38,250 acres of inventoried and uninventoried roadless lands within these areas. Indeed, none of the roadless areas selected for preservation is entirely protected under the plan since forested areas and other sensitive habitats will not receive backcountry designation. To make matters worse, 115,239 acres of the Mendocino's roadless lands are released outright for "multiple use," a move that will allow over 10,000 acres to be lost to logging alone (see chart on page 5). These unprotected lands include the Black Butte, Reister Canyon, Grindstone Creek, and Skeleton Glade roadless areas and critical additions to the Yolla Bolly-Middle Eel and Snow Mountain wilderness areas.

The situation is neither quite so grim nor so uncomplicated, however, because provisions of President Clinton's northern spotted owl recovery plan, if adopted in its present form, will supercede some of the Forest Service's tragic plans for the Mendocino. For example, the Clinton plan (known as Option 9) would designate 42,055 acres of roadless land in the Mendocino as late-successional reserves and would prohibit road construction—but not helicopter or roadside logging—on the 35,470 acres of inventoried roadless lands within the Middle Fork Eel River, Black Butte River, and Thatcher Creek watersheds. In addition, the Clinton plan requires that a lengthy watershed analysis be conducted before logging, road building, or other high-impact management activities may occur in roadless areas, a provision that should make it a bit more difficult for the Forest Service to justify logging in extremely isolated and inaccessible roadless areas. Unfortunately, the president's plan fails to make any roadless area, in the Mendocino or elsewhere, inviolate, a failure that will leave roadless areas vulnerable until a more protective policy is adopted.

Wild rivers at risk

The wild-and-scenic river proposals in the draft forest plan are also disappointing to conservationists. The three watercourses proposed for wild-and-scenic status (the upper Middle Eel River, Balm of Gilead Creek, and the Middle Fork of Stony Creek) are within the Yolla Bolly-Middle Eel or Snow Mountain wilderness areas. Their designation as wild-and-scenic rivers, though desirable as an added layer of protection, would fail to protect any of the wildlands now at risk in the Mendocino. The plan does propose, however, that Black Butte River and Clear Creek, both famed for their anadromous fisheries, and the geologically-fascinating and ecologically-diverse Thomes Creek be studied for their wild-and-scenic potential. Conservationists are determined to push for wild-and-scenic designation of other important waterways in the Mendocino, including the Grindstone, Elk, North Fork Stony, Cold, and North Fork Cache creeks and the Eel River above Pillsbury Reservoir.

And wilderness at risk

Increasingly, wilderness advocates are realizing that proper management of designated wilderness areas is critical to maintaining the health of these ecosystems. This is especially true in the Mendocino, where cattle grazing and heavy recreational use currently threaten

many parts of the Snow Mountain and Yolla Bolly-Middle Eel wilderness areas. The draft plan, unfortunately, adopts a defensive rather than a preventive approach to protecting wilderness from overgrazing and intensive recreational use. Instead of removing cattle from the forest's two

designated wilderness areas, for example, the plan suggests that grazing practices be "adjusted," a proposal which could lead to the installation of fences, salt licks,

and other developments. When wilderness "protection" requires wilderness domestication, conservationists should be wary.

Proper wilderness management also requires trails outside of designated wilderness areas to more evenly disperse hiking and horseback riding throughout the forest. With more opportunities for hiking and horseback riding outside of designated wilderness areas, conservationists hope that use within the wilderness can be moderated. The Forest Service's failure to commit to trail building, coupled with its plans for clearcuts adjacent to wilderness boundaries, means conservationists will have to be vigilant to ensure that the Mendocino's designated wilderness areas (let alone the undesignated ones) are adequately protected in the coming decades.

The failure of the draft plan to recognize the inherent value of the Mendocino's roadless lands, wild rivers, and designated wilderness areas is disappointing but not surprising. But it is not too late for the Mendocino National Forest to become the preserve it was meant to be when it was created in 1907. For despite the best (or worst) efforts of the Forest Service, there is still a great deal of wilderness left in the Mendocino, lands that, if protected now, may one day serve as the seedbed for ecological recovery in the northern Coast Range.

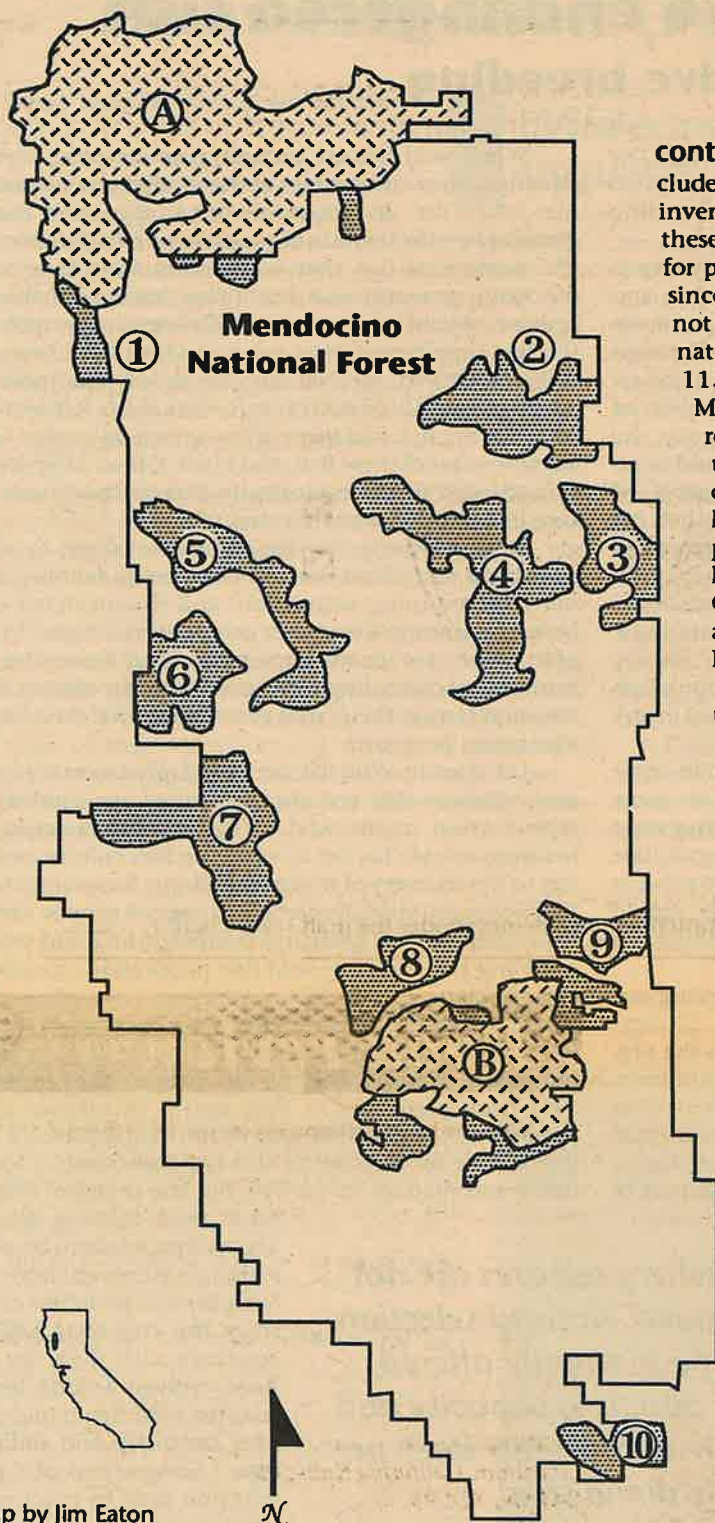
Time for a change

You can help bring about this needed protection by writing to the Forest Supervisor (Mendocino National Forest) *continued on page 5*

The new, creationist Forest Service: taking up where Mother Nature left off

If we can't fool Mother Nature, the Forest Service seems to think it can do her one better. How else to explain the agency's proposal, delineated in its draft land and resource management plan for the Mendocino National Forest, to create reservoirs to fill what forest planners consider an unmet demand for lake-based recreation?

True, the northern Coast Range is noticeably lacking in natural lakes. True, lots of people enjoy waterskiing, fishing, and boating at reservoirs across the state. But should the Forest Service be damming wild streams and flooding glades and meadows to entice more people to come play in the "land of many uses?" It's a hell of a development.



Map by Jim Eaton

Key

- A Yolla Bolly-Middle Eel Wilderness and potential roadless additions
- B Snow Mountain Wilderness and potential additions
- 1 Big Butte-Shinbone Roadless Area
- 2 Thomes Creek Roadless Area
- 3 Deer Mountain Roadless Area
- 4 Grindstone Roadless Area
- 5 Black Butte Roadless Area
- 6 Thatcher Roadless Area
- 7 Elk Creek Roadless Area
- 8 Skeleton Glade Roadless Area
- 9 Briscoe Roadless Area
- 10 Reister Canyon Roadless Area

Wilderness management

Mendocino plan

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Forest, 420 East Laurel Street, Willows, CA 95988) who will oversee the development of a final plan after the public comment period for the draft plan ends on January 6, 1994. Request that:

1. All inventoried and uninventoried roadless lands in the Mendocino be kept inviolate from all resource exploitation;
2. The supervisor ask Congress to designate the upper Middle Fork Eel River, Balm of Gilead Creek, and the Middle Fork Stony Creek as wild-and-scenic rivers;
3. The Forest Service study the Black Butte River, the Eel River above Pillsbury Reservoir, and Cold, Thomes, North Fork Cache, North Fork Stony, Clear, Grindstone, and Elk creeks for their potential as wild-and-scenic rivers;
4. No logging or road building be allowed near designated wilderness areas to prevent their becoming biological islands in a sea of destruction;
5. Horse and foot trails be built throughout non-wilderness portions of the forest to more evenly distribute recreationists and protect designated wilderness areas from overuse;
6. Cattle be removed from the Snow Mountain and Yolla Bolly-Middle Eel wilderness areas as soon as possible; and
7. The Mendocino's timber sale program, acknowledged to have little value, be abandoned so that the funds now used for this destructive subsidy can be devoted to ecological recovery.

Draft plans for the three other "spotted owl" forests in northern California were released in conjunction with the Mendocino plan. Analyses of the Klamath, Shasta-Trinity, and Six Rivers forest plans will appear in the December issue of the *Wilderness Record*. The comment deadline for the draft plans is January 6.

Ryan Henson represents the Northern Coast Range Biodiversity Project.

Cache Creek planning begins with public meetings

A series of public meetings will be held in November to assist the Bureau of Land Management (BLM) and Department of Fish and Game (DFG) planners determine how to accommodate recreationists and endangered wildlife in the Cache Creek Management Area in Lake, Colusa, and Yolo counties.

The Cache Creek area, which includes the 33,561-acre Cache Creek Wilderness Study Area, supports one of California's largest populations of bald eagles and a herd of tule elk. The area also is increasingly popular with recreationists who raft the creek and hike in the surrounding hills. Hunting and shooting are allowed year round.

The Cache Creek area is especially popular in spring and winter, when other, higher-elevation wildlands are cloaked in snow. With popularity have come conflicts, conflicts both among recreationists and between recreation and wildlife management.

Many hikers and horseback riders who come to see wildlife and enjoy a wilderness experience are distressed to hear frequent gun fire. The limited trail system can be clogged with recreationists hiking, riding horses, and pedaling mountain bikes.

At the height of the wildflower season, the DFG closes the heart of the area, Wilson Valley, to minimize stress for calving elk. The impact of visitors on wintering bald eagles is another concern.

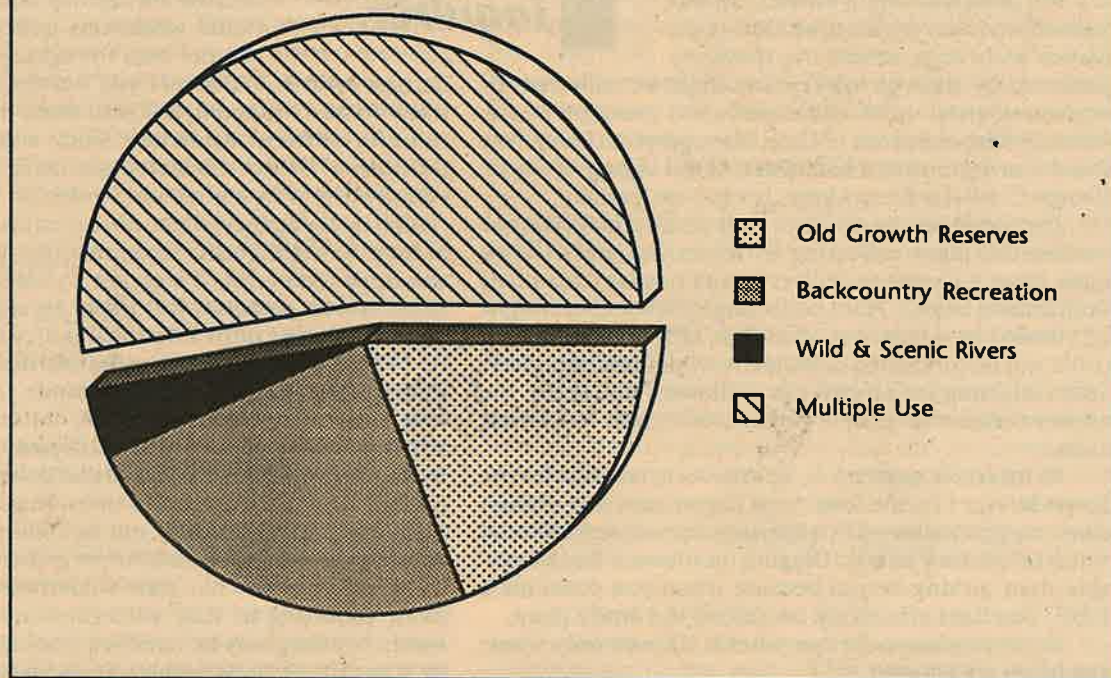
The BLM and DFG will be developing a coordinated resource management plan for the area, based in part on the input received at the public scoping meetings. Meetings are scheduled November 2 in Woodland (County Planning Commission Chambers), November 16 in Clear Lake (Yuba College, Room 201, 7105 Center Drive), and November 30 in Napa (Board of Supervisor's

Room, 1195 Third Street). All meetings start at 7:00 p. m. For more information, call the BLM's Ukiah District office at (707) 462-3873.



Oak trees are reflected in the waters of Cache Creek. Photo by Jim Eaton

Roadless Area Designations
Mendocino National Forest



As is apparent from this pie chart, most of the Mendocino's roadless lands are consigned to uses inconsistent with wilderness under the draft plan. Chart by J. Eaton

Book review

With the holiday shopping season (and three more forest plans) in the offing, it seemed like a good idea to print two book reviews in this issue of the *Wilderness Record*. The second review appears in the usual space on page 7. —Ed.

A plant's-eye view of the Golden State

California's Changing Landscapes: Diversity and Conservation of California Vegetation

By Michael Barbour, Bruce Pavlik, Frank Drysdale, and Susan Lindstrom, California Native Plant Society, Sacramento, 1993, 244 pp., \$24.95.

This profusely illustrated book describes how human occupation has changed California's plant communities and, along the way, provides an excellent guide to California's present-day vegetation. Highlights are a foreword by Gary Snyder, a thorough introduction to the dynamics of California's plant communities, a very interesting chapter on the use and management of plants by Native Americans, and a discussion of options for restoring vegetation. Throughout, the book is well-written and a pleasure to read.

Five main chapters named for bioregions (The Coastal Interface, Coastal Forests, Valley Heat, California's Spine, and In The Rainshadow) comprise most of the book, and together these chapters provide a surprisingly complete description of California's diverse vegetation and a wealth of information on the dynamics of plant communities and the mechanisms plants have evolved for dealing with environmental stresses. A list of references with recommendations for further reading will be of value in the likely event that the reader's interest is piqued.

The cover photograph (of California poppies and *continued on page 7*)

Wilderness news

Plant collection (revisited) and tick removal (yuck)

What happens when we ask the wrong expert?

We print the wrong answer. In our September issue, we asserted that plant matter and fungi, unless the species is protected by state or federal law, could be collected for non-commercial use in wilderness areas managed by the Forest Service or Bureau of Land Management (BLM). We should have consulted botanists. At the urging of reader George Clark we did, and this is what we learned.

The Forest Service does not issue permits for private or commercial plant collecting in wilderness areas. (You must have a permit to collect plants or plant materials from federal lands.) Plant collecting by researchers might be allowed in wilderness areas, but only if the research could not be conducted outside the wilderness boundary. Seed collecting for private use is allowed, but again, the agency prefers that people gather seed in non-wilderness areas.

As for edible vegetation, Jim Shevock, botanist for the Forest Service's Pacific Southwest region, says that though consumption is allowed in wilderness, recreationists should think before they snack. Digging up tubers is less acceptable than picking berries because when you consume a tuber, you have effectively consumed the entire plant.

Collecting wood for campfires is allowed only where campfires are allowed.

Wilderness Inquirer

The rules for plant collecting in BLM wilderness areas are more complicated because the agency does not have a national wilderness policy for plants yet. Neither does the agency have many wilderness areas in California yet, but the latter absence is likely to be remedied first. Until then, there are different rules for different wilderness study areas (WSAs) in the California Desert Conservation Area, depending on whether the WSA was recommended for wilderness designation by the agency. Since few recreationists distinguish, or care to distinguish, recommended WSAs from non-recommended ones, it's easiest to abide by the stricter rules, which probably will apply to all the BLM desert wilderness areas until a national policy is adopted.

These are the stricter rules for desert collecting as interpreted by the BLM's state botanist, John Willoughby. Live plants may be collected only for scientific purposes and only with a permit. Live plant *parts* may be collected by anyone with a permit. Dead and down plant parts (like pinyon firewood or creosote stems that are used in dried flower arrangements) may not be collected for private or commercial use, but wood can be gathered for campfires.

California also has state wilderness. The policy for plant collecting in state wilderness areas is straightforward: Nothing may be removed from wilderness (except by scientists or Native Americans who hold permits), but

moderate consumption of firewood or edible vegetation is allowed.

Individual federal or state wilderness areas may have additional prohibitions; check with a local manager or ranger to learn what rules apply.

If I get bitten by a tick, do I remove it and if so, how?
G. L., San Diego

If you're going into areas where ticks live (grasslands and brush are particularly hospitable to ticks), the best advice is carry sharp-pointed tweezers and wear long pants and long sleeves. If a tick attaches itself to you, do try to remove the little bugger (preferably after your initial revulsion has faded) by grasping it with the tweezers as close to its head (which will be, yuck!, under your skin) as you can reach and pulling steadily. Be careful not to crush the tick (as tempting as that may seem) because its body fluids can transmit disease. If you are unable (or too squeamish) to completely remove the tick or if you develop a rash, headache, or fever after being bitten, you need to see a doctor.

Do you have a question about California's wilderness or the plants, animals, and pests therein? Send your questions—who, what, where, when, why, or how—to Wilderness Inquirer, CWC, 2655 Portage Bay East, Suite 5, Davis, CA 95616; we'll try to find answers.

Full Senate to debate desert bill

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National Park survived the committee process despite numerous attempts to block it. The size of the park has been diminished, however, by the exclusion of the private lands in Lanfair Valley and the potential wilderness lands that adjoin it, notably portions of Fort Piute, Signal Hill, Woods Hole, Table Mountain, Mid Hills, and the New York Mountains. In all, 274,000 acres have been excised from the park's boundaries.

Amendments are also to blame for four vehicle corridors that subdivide and consequently shrink wilderness areas. The Saline-Eureka Corridor, Bright Star Trail, McIvers Spring Road, and Piper Mountain Pass/Chocolate Mountain Road had been slated for closure in earlier versions of the Feinstein bill because the wilderness areas they lead to are accessible from other routes.

Artifacts lost

More than just wilderness has been carved out of the Feinstein bill. Some smaller but just as special places have been lost as well, including:

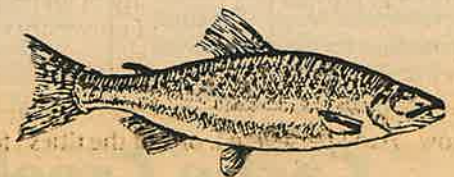
- Rebirth Rock, a large volcanic formation pierced by a natural hole and adorned with petroglyphs. The rock is an important archaeological and ceremonial site.
- Gold Valley, a recent acquisition valued for its native grassland ecosystem.
- Watson Wash, an area rich in village sites and petroglyphs and carpeted with lush gardens of yucca and barrel cactus.
- Woods Wash, with its famed set of petroglyphs in strikingly dense and elaborate patterns.

If the danger remains that the bill will be further weakened as it makes its way through the legislative process, the hope also remains that the bill can be strength-



The Saline-Eureka corridor (dirt road at left) leading to the Eureka Dunes had been slated for closure. An amendment to the desert bill leaves the corridor open, and outside the wilderness.

ened. Certainly, desert activists will continue to press Senator Feinstein and her colleagues to grant these fragile, much-abused places the protection they need.



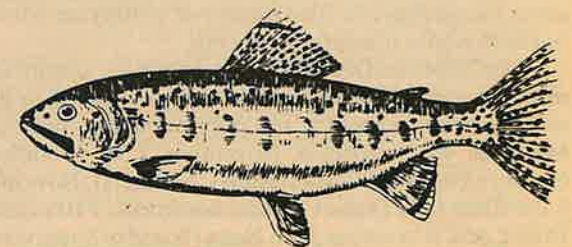
Habitat

continued from page 3

When resources are abundant, habitats pristine, and populations large and resilient, we may have considerable leeway in management. Then, even the most hare-brained schemes might not jeopardize the integrity and survival of wild populations. But when fish populations are depleted and declining, the risks and consequences of artificial interventions such as captive breeding are enormous. It's a treatment that has a higher probability of killing the patient than curing the disease.

In the ecological world, every change comes with a trade-off. We should remember the conservation biologist's rule of thumb: "If there ever was a free lunch, we already ate it."

Dr. Chris Frissell is a research associate at Oregon State University in Corvallis. A longer version of this article previously appeared in the July/August issue of *Wild Fish*, a publication of the Wilderness Society, 610 SW Alder, #915, Portland, OR 97205.



Book reviews

Wilderness research made simpler

The Island Press Bibliography of Environmental Literature

Compiled by the Yale School of Forestry and Environmental Studies, Island Press, Washington, DC, 1993, 396 pp., \$48.00.

The new annotated *Bibliography of Environmental Literature* from Island Press does not purport to be exhaustive, though it does list and briefly describe more than 3,000 books and publications on subjects ranging from A (acid rain, afforestation, . . .) to Z (zoology, what else?). Several types of indexes make it easy to find book titles on whatever subject you are researching.

Of course, you can find only those titles that were included in the bibliography. Since it's hard to review a reference book without using it for a research job, I tried it out. We had been wanting to compile for publication in the *Wilderness Record* a list of the laws enacted since the 1964 Wilderness Act that had refined the legal definition of wilderness or the practice of wilderness management and protection in California.

I looked for entries under "wilderness" and "law." The bibliography lists just 21 entries under "wilderness," confirming what we already knew—there simply haven't been a lot of books published on the topic. I found *Wilderness Management*, of course, but this text, though indispensable in many ways, does not contain a comprehensive list of wilderness laws. I found a couple other titles that looked mildly promising, though none was exactly what I was seeking.

So I turned to that old standby, the telephone. After three calls I had learned of a University of Idaho publication, *103 Wilderness Laws*, by a trio of university researchers that includes one of the deans of wilderness research in America, John Hendee. Bingo.

Was this a fair test of the *Island Press Bibliography*? I don't know. Had I persevered, one of the titles I found in

the bibliography might have led me to the same place. And without the mantle and contacts of the California Wilderness Coalition (CWC), my telephone forays might have proved fruitless.

(The epilogue to this story is quintessentially CWC: Several days after ordering a copy of *103 Wilderness Laws* from the University of Idaho, I was in the office riffling through a box labeled "Miscellaneous Publications 1992" in search of a newsletter from one of our fellow-traveler groups. Mixed in among the *Redwood Needles* and *Wilderness Watchers* was, yes, a copy of *103 Wilderness Laws* that had been ordered, paid for, and then lost for three and a half years.)

Good reference books are wonderful things (but great reference books, like great reference librarians and orderly offices, are treasures beyond price), and even an incomplete bibliography of environmental literature is better than none. For some jobs, the *Island Press Bibliography* is a good reference book; for wilderness research, most of the good and the great reference books have yet to be written. Or perhaps they already exist and are lost in the CWC office!

—Lucy Rosenau

California's plants

continued from page 5

purple owl's clover) by Robert Haller is by itself almost worth the price of the book. The illustrations within the book are not just stunning but germane; with their informative captions, they not only decorate the book but enhance its content.

California's Changing Landscapes marks a new direction in publishing for the California Native Plant Society, which until now has confined its efforts to books of fairly narrow scientific interest. Although marred by some minor typographical errors, this book will undoubtedly find its way into many classrooms and will be of interest to a broad readership. It will also make a handsome gift for anyone interested in California.

—George M. Clark

George Clark is a Director of the California Native Plant Society.



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California Wilderness Coalition

Purposes of the California Wilderness Coalition

...to promote throughout the State of California the preservation of wild lands as legally designated wilderness areas by carrying on an educational program concerning the value of wilderness and how it may best be used and preserved in the public interest, by making and encouraging scientific studies concerning wilderness, and by enlisting public interest and cooperation in protecting existing or potential wilderness areas.

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DATES TO REMEMBER

November 2, 16, and 20 SCOPING MEETINGS on a recreation and wildlife plan for the Cache Creek Management Area, to be held in Woodland, Clear Lake, and Napa. (See article on page 5 for details.)

November 20 ACTIVISTS' MEETING of the California Ancient Forest Alliance in Davis. For details, contact Jim Eaton at the CWC, (916) 758-0380.

December 9 COMMENTS DUE on a draft environmental impact statement for motor vehicle use on the Sierra's East Side. To comment on the plan or for more information, contact the Inyo National Forest (Forest Supervisor, 873 North Main St., Bishop, CA 93514; (619) 873-5841) or the Bureau of Land Management's Bishop Resource Area (Area Manager, BLM, 787 North Main St., Bishop, CA 93514).

January 6 COMMENTS DUE on the draft land and resource management plan for the Mendocino National Forest. Send to: Forest Supervisor, Mendocino N. F., 420 East Laurel St., Willows, CA 95988. (See article beginning on page 1.)

Wilderness Trivia Answer:

In 1978 the 20,399-acre Santa Lucia Wilderness was established. It included 1,733 acres of BLM land.

from page 2

The Wilderness Record

The *Wilderness Record* is the monthly publication of the California Wilderness Coalition. Articles may be reprinted; credit would be appreciated. Subscription is free with membership.

The *Record* welcomes letters-to-the-editor, articles, black & white photos, drawings, book reviews, poetry, etc. on California wilderness and related subjects. We reserve the right to edit all work.

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*"If there ever was a free lunch,
 we already ate it."*

—Dr. Chris Frissell
 (See article on page 3.)

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