

# Yosemite

Paul Todd

**It's been another day of thrashing** along a small creek through dogwood and willow, trying to decide whether it's better to have on long clothes and be hot, or to uncover and get scratched by shrubs and be bitten by mosquitos. I am supposed to love this "hands on" wildlife biology as I search for the famed (who am I kidding?) and elusive mountain beaver, right? It's what every outdoors fanatic dreams of doing when he or she grows up—valiantly exploring for a rare species seen by only a handful of people over the past 100 years. But as usual, I've already eaten my lunch (it's only 10 a.m.) and I've still got 12 more miles and 3,000 feet of elevation gain through mud and shrubs to go!

After a summer of this, I discovered the primary reason that so few Sierra mountain beavers (*Aplodontia rufa californica*) have been seen in Yosemite: it's their lust for mosquito-ridden, muddy, and shrub-covered creeks. It assures them a niche that we humans would prefer not to visit! Measuring 12 to 15 inches long and weighing up to 3 pounds, mountain beavers have been described as "voracious and vicious," "pugnacious," "cantankerous" and simply "anti-social." They have grey-black to red-brown fur, are chunky in build, short-limbed, and come equipped with a stubby one half inch long tail. Their whiskers (vibrissae) are particularly long and used for navigation in their subterranean and primarily nocturnal world.

The mountain beaver is masterfully designed to burrow—like an overgrown pocket gopher—and does so passionately in both

dirt and snow. Their burrow entrances litter the ground and their tunnels often divert running water completely under ground. Their strategy of storing food and existing below ground avoids many of the problems associated with environmental extremes. As a result, mountain beavers don't hibernate. With a year-round sup-

ply of lightly running water, they do extremely well, even where snow lies 12 feet deep during the winter months.

When I saw my first mountain beaver in a live trap, I was taken by his supple and hand-like paws which are well-designed for

grasping and excavating. He seemed unusually calm and in spite of the stories I'd heard about viciousness, I thought to myself, "Maybe this one is especially amiable and will let me hold him." After all, I had treated him to a feast of apples and carrots, the



## In Search of the Elusive Sierra Mountain Beaver

caviar of mountain beaver food. I carefully opened the door and slowly moved a gloved hand into the cage. Suddenly, a savage bundle of fur was rushing at me, and we both dove for the nearest shrub! Following a quick check, I was thankful to find that I still had all ten digits, even though I probably didn't deserve them.

The mountain beaver is only distantly related to the "true" beaver (*Castor canadensis*). Though they are both rodents, it is unfortunate that they share the same common name. *Castor*, unlike the burrowing *Aplodontia*, is aquatic in its habits and physical characteristics. True beavers can weigh up to 40 pounds — 13 times the size of the 3 pound mountain beaver. The latter sports claw-like feet which are used for digging, while the true beaver possesses webbed feet and a large flat tail for locomotion in the water. No other rodent has the mountain beaver's primitive jaw muscle attachment which has led to its classification as the only species in the taxonomic family *Aplodontiidae*. The Greek term actually means "simple teeth" and relates to the unique molariform cusp pattern of the animal.

So, you're probably asking, why were mountain beavers named mountain beavers? The answer lies in the experiences of early California miners who saw these rodents clipping small trees and shrubs, and neatly constructing 1 to 2 foot high "haystacks" from twigs and herbs on dry ground near their burrows. While



PAUL TODD

this activity certainly resembles the behavior of the true beaver, it has nothing to do with dam building or large tree felling.

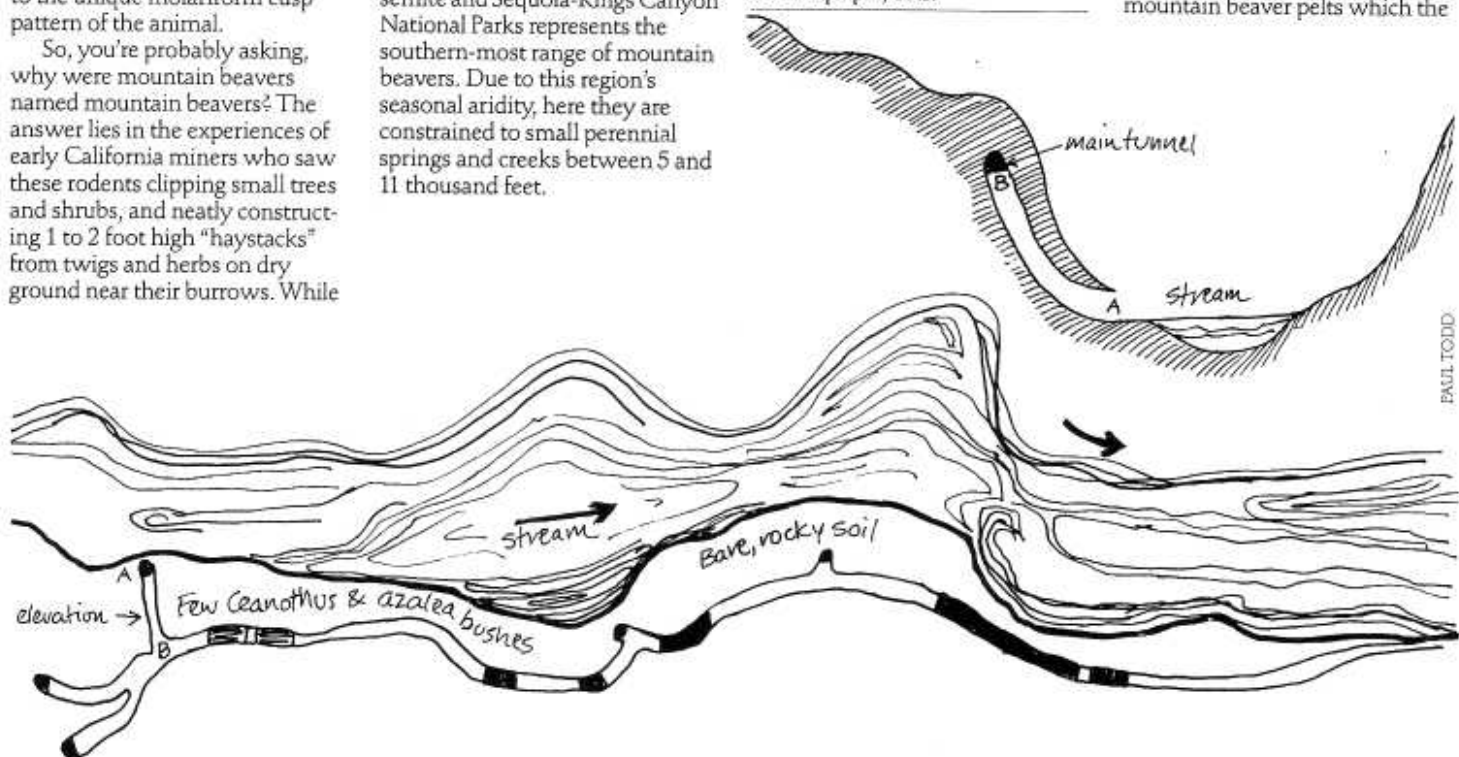
Physiologists claim that mountain beavers have one of the least efficient mammalian kidneys, requiring the consumption of up to one third of their body weight in water per day. But unlike their aquatic namesake (the "real" beaver), mountain beavers don't use, need or swim in deep water. A quick dip to get across the creek or dabbling in a shallow stream is the extent of their aquatic activity. In humid Pacific coastal areas, open water is not necessary because their environment and food are so saturated with moisture.

The region encompassing Yosemite and Sequoia-Kings Canyon National Parks represents the southern-most range of mountain beavers. Due to this region's seasonal aridity, here they are constrained to small perennial springs and creeks between 5 and 11 thousand feet.

### Evolution

The evolution of the mountain beaver is particularly interesting and has earned the attention and respect of many natural historians. Fossil records go back 35 to 45 million years for this animal that is considered the world's most primitive living rodent. Before the Sierran uplift and the Cascade formation that began 5 to 10 million years ago, mountain beavers ranged far into and beyond what is now the Great Basin. The uplifting topography brought about extreme climatic

The Sierra mountain beaver (above) and its impressive underground habitat. This plan and partial elevation shows a beaver tunnel system at Chinquapin, YNP.



changes, resulting in the reduction of the coniferous forest that once blanketed much of the west.

Interestingly, there is a strong correlation between this forest reduction and the contraction of mountain beaver distribution. Fossil records indicate that most mammals change, become extinct, or migrate with the advent of climatic extremes. The mountain beaver, however, has changed little and has moved to remain within its environment. Grinnell and Storer, who studied Yosemite animals in the early 1900's, drew a parallel between the sequoia forests and mountain beavers due to the once wide-spread but now limited ranges along the Pacific coast for both. "No other mammal," says one leading scientist, "has a distributional history that can be so well-defined, studied and correlated with floral change."

### History

Lewis and Clark made the first written account of the mountain beaver while visiting the Clatsop people of Astoria, Oregon, during the winter of 1805-1806. The two explorers observed robes made of mountain beaver pelts which the

THERE ARE SO MANY TUNNELS, IN FACT, THAT IN PLACES THE CREEK RUNS ENTIRELY UNDER THE SURFACE . . . THEY CONTINUE ALONG THE CREEK HUNDREDS OF FEET AT A TIME AERATING THE SOIL AND CREATING A DIVERSE MEADOW COMMUNITY.

natives called "She-wal-lal." Lewis mistakenly took this name to be that of the animal rather than the robe, an error that is still perpetuated.

Other common names are show'tl, mountain boomer, whistler (no one has ever heard them "boom" or "whistle" but these names are popular with Oregon loggers), chehalis, and North American short-tailed beaver.

Even today, most people living near the mountain beaver don't know of its existence. Due to crop and seedling damage in the Northwest, however, many gardeners and loggers are quite aware and resentful of the mountain beaver. A study in western Oregon indicated that 40 percent of all damage to Douglas Fir seedlings was caused by mountain beaver.

In the central and southern Sierra, this unappreciated mammal plays a fascinating and significant role in natural communities. John Muir wrote eloquently about the mountain beaver in Yosemite: "The shy, curious mountain beaver, *Haplodon*, lives on the heights, not far from the woodchuck (marmot). He digs canals and controls the flow of small streams under the sod. And it is startling when one is camped on the edge of a sloping meadow near the homes of these industrious mountaineers, to be awakened in the still night by the sound of water rushing and gurgling under one's head in a newly formed canal."

#### Activity and Burrows

The most conspicuous evidence of mountain beavers is the intricate and disorderly burrow systems that they form along small bubbling creeks and springs. In the meadow and head waters of Grouse Creek that run up from Badger Pass Ski Area, one can find a typical array of mountain beaver tunnels with hundreds of 5 to 7 inch diameter burrow openings littering the ground. There are so many, in fact, that in places the creek runs entirely under the sur-



-  *A. r. nufa*
-  *A. r. rainieri*
-  *A. r. pacifica*
-  *A. r. humboldtiana*
-  *A. r. nigra*
-  *A. r. californica*
-  *A. r. phaea*

face. These tunnels continue along the creek hundreds of feet at a time, undoubtedly aerating the soil and creating a more diverse meadow community. You may find yourself in up to your knees as the animals ordinarily don't repair cave-ins!

Long-abandoned tunnels are used by many other mammals, reptiles, amphibians and insects. Coyotes, bobcats, owls, and weasels occasionally prey on mountain beaver, but these spirited and belligerent fighters represent a formidable and reluctant food source.

Imagine yourself six inches tall and exploring a mountain beaver burrow. You would wander into a maze of radiating tunnels, eventually coming upon an immaculate domed chamber approximately 12 by 5 inches. Well-drained and flood proof, this is the secure nest of a single mountain beaver woven in two layers from a bushel of clipped shrubs and herbaceous plant material. Here the mother produces and feeds one litter per year of 2 to 3 young which are hairless and blind for their first ten days. She suckles and then weans them to plants brought into the burrow. At the end of 2 or 3 months they dis-

Distribution of the seven subspecies of mountain beaver and, below, *Aplodontia rufa californica*.



perse to find an abandoned dwelling or make a new burrow.

The nests are remarkably free of odor of any kind. The mountain beaver's abode is complete with separate fecal, refuse and food storage chambers! The animal has the ability with its mouth to toss pellets from 6 to 15 inches into the fecal pile. Vegetation is often intermixed in this pile, presumably to promote decomposition. Some wildlifers feel that these clean and sanitary habits may have played a major role in the evolutionary survival of the mountain beaver.

From 2 to 10 mountain beavers usually live in a group which, particularly in the Sierra, can be extremely isolated from other populations. Various authors refer to these groups as "colonies," a term that improperly implies a social or hierarchical system. Unlike true beavers, ground squirrels or marmots, mountain beavers are very asocial. They vigorously defend their own nests and prefer not to mingle with kin. Easy going? No! Irrascible? Yes! During the breeding season which lasts only a few weeks annually, the mountain beaver quickly pairs, mates and separates.

Mountain beavers are definitely not picky eaters, probably another reason why they've been around so long. Within 30 yards of their tunnels, virtually every species of plant has been clipped at least once! But they seem to be particularly fond of bracken fern, lupine, and corn lily, all of which are toxic to most other animals. Chinquapin, willow, dogwood, azalea, labrador tea, red fir and white fir are also favorites. Some of these will be denuded of all their branches smaller than one-half inch in diameter up to 25 feet above the ground by these able climbers. Conspicuous on nearby shrubs and trees, these stems are easily recognized by their clean 45 degree cuts. Mountain beavers also reingest fecal pellets, probably as a means of absorbing undigested food.

Clipped herbs and twigs are

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# Restoring Yosemite's Wildlands

Ben Alexander

Imagine that you have just arrived in Yosemite National Park, the crown jewel of the national park system, for your summer vacation. You feel the tension draining away as you settle down atop a rocky dome for a midday picnic. The sun glints off the polished golden granite, and deep grooves trace the inexorable movement of ancient glaciers where they etched out deep valleys and lofty spires. Below you, the rushing waters of the Tuolumne River wind like a ribbon of liquid silver across a verdant subalpine meadow. Shooting stars and Indian paintbrushes adorn the marshes with splashes of purple and crimson. Slashing through the meadow, a decades-old trail, eight lanes wide, bleeds granite dust like an open wound.

Perhaps this scene seems harsh and incongruous, yet this is just one of many injuries which Yosemite's revegetation program has attempted to heal. From the numerous azure mountain tarns scarred by illegal campfires to the rapidly vanishing black oak woodlands of Yosemite Valley, the park's resources desperately need the help that trained restorationists can provide.

In 1987, the Yosemite Fund generously provided seed money to initiate a subalpine revegetation program. Targeting the severely damaged areas around Tuolumne Meadows, a crew of revegetation specialists began to restore the native flora and rejuvenate the delicate soils of the High Sierra. The deterioration caused by years of human impact began to reverse itself.

Since that time, the revegetation crew has scored an impressive number of successes. Working with such diverse groups as the Sierra Club, the California Youth Authority, and the San Francisco Conservation Corps, park personnel has restored much of the lost beauty to such spectacular destinations as Cathedral Lakes and Elizabeth Lake. Sections of the

popular John Muir Trail were rerouted many years ago, and the closed segments have been filled in and replanted, arresting a severe erosion problem. Refined planting techniques raised the survival rate of native transplants to almost 100 percent.

Continuing support from the Yosemite Fund allowed the revegetation crews to tackle some of the worst problems in the most heavily abused area of the park: Yosemite Valley itself. A large restoration project in Stoneman Meadow worked wonders on this scenic treasure. Over one and a half miles of unmaintained trails — a veritable spider web when viewed from the air — are returning to meadow grasses and sedges, while a maintained trail through the center allows visitors to continue to enjoy the plants and wildlife.

A denuded wasteland of dusty mineral soil surrounded the last remaining pure stand of black oaks in Yosemite Valley one year



A variety of volunteer help has been of assistance to the skeleton NPS crews responsible for repairing the damaged resources throughout Yosemite.

ago. Today, dense colonies of bracken fern and dragon sagewort carpet the oak grove floor, and seedlings born of planted acorns raise their new leaves toward the sky. Thick tufts of deergrass and wild rye grass protect the once-barren ground.

Much work remains to be done. Recent publicity by the United Nations has focused the

The John Muir Trail near Tuolumne Meadows "before" a revegetation crew began work to eliminate the proliferating foot paths in 1988, and, below, the same section of trail "after" extensive repair and replanting, photographed only three months later.



PHOTOS BY RICHARD HADLEY

world's attention on the alarming decrease of biological diversity. Nationwide recognition of this problem recently led to the creation of America's first organization of professional environmental restorationists. California will celebrate 1990 as the "Year of the Oak," emphasizing the need for more research and restoration to stop the disturbing loss of Yosemite Valley's oak woodlands. Many native plant species in Yosemite are listed as threatened or endangered by the federal government and the State of California. The experience gained by Yosemite's revegetation specialists can be instrumental in helping to restore the park's resources.

In the face of shrinking budgets, the revegetation program has been forced to rely more and more on the contributed labor of volunteer groups. Members of the Yosemite Association will make an invaluable contribution this summer by donating their labor power to revegetating trails and campsites in the Tuolumne Meadows area. Without continued funding, those people who wish to restore the resources of Yosemite must fight an uphill battle. The revegetation program urgently needs the support of the Yosemite Association to help win the fight against continued degradation of our treasured wildlands.

*Ben Alexander presently works as a revegetation specialist in Yosemite's Resources Management Division. A graduate of The Evergreen State College, he previously worked in subalpine revegetation and road restoration at Olympic National Park. He is responsible for the Wilderness Restoration Project at Tuolumne Meadows this summer.*

## Association's New Film a Huge Success

# The Fate of Heaven

After three years of development and hard work, the hour-long documentary film entitled "Yosemite: The Fate of Heaven" has been released. The project, a joint undertaking of the Yosemite Association and Sundance Institute, was funded by a grant from Polaroid Corporation. The movie has opened to excellent reviews and warm receptions wherever it has shown.

At least six different Academy Award winning film makers were involved in the production of the film. Its main architect was Jon Else, a gifted artist who wrote, directed and photographed "Yosemite." Robert Redford served as executive producer and read the voiceover narration. Noted editor, Michael Chandler, whose credits include "Never Cry Wolf," "Amadeus" and "Mishima," wrote with and edited for Else. Impressive contributions were made by Alan Splet (post-production sound), Todd Boekelheide (composer of the original music for the film), and the three-man film crew of Dan McCann, Michael Chin and John Haptas.

The movie portrays modern-day Yosemite from the perspectives of park residents and park visitors and explores the special significance of Yosemite as a place of escape, renewal and awe-inspiring grandeur. Remarkable camerawork captures Yosemite's magnificent scenery while including the human presence, human activities, and human effects on the park in the overall picture. Juxtaposed against these scenes of today are the words of Lafayette Bunnell, the Army doctor who accompanied the Mariposa Battalion (the first white party to enter Yosemite Valley) on its search for Yosemite Indians in 1851. Bunnell's chronicle is the only narration; the persons who appear in the film speak for themselves.

One star of the show well-known to Yosemite Association members is Carl Sharsmith. The 87-year-old naturalist is shown conducting a field seminar, guiding a nature walk in the snow,

***"The movie is at once a stirring reminder of Yosemite's inglorious discovery by the white man in 1851, a celebration of its spectacular beauty, and a challenge to preserve that wonderland from further depredation."***  
— Judy Stone, San Francisco Chronicle



Filmmaker Jon Else presents a copy of the new film, "Yosemite — The Fate of Heaven," to Association Board Chairman Tom Shephard and President Steve Medley.



***"... ace documentarian Jon Else and musician Todd Boekelheide create their own special mood... The film is simply gorgeous."***  
— Variety Magazine

and reflecting on the prospects of returning Yosemite to a "primitive, primeval condition." Segments are also included featuring trail-builder Jim Snyder, climber Ron Kauk, and postmaster Rusty Rust.

Robert Redford has been enthusiastically supportive of the film, and helped shape it as it progressed. In reference to the movie's title he has said: "It should probably be 'Yosemite: The Fate of Heaven: Dilemma.' The essential dilemma is how to preserve the park's beauty, and simultaneously keep it open to the public." Redford's patronage of the project included an appearance at a benefit screening of the film in San Francisco in early June. Thanks to the media attention generated by Redford's presence, Yosemite, the movie and the Yosemite Association all received considerable publicity.

Members interested in seeing "Yosemite: The Fate of Heaven" can attend a screening of the film in Yosemite Valley this summer. It is being shown as one element of the Yosemite Theatre Program. The movie is also now available as a videocassette from the Yosemite Association. Produced in VHS format only, the cassette sells for \$19.95 (less a 15% discount for members). Please use the catalog order form at the back of this journal to make your order.

Everyone at the Yosemite Association wishes to express deep gratitude and thanks to Polaroid Corporation, which made the film possible, and to the following talented people who worked to make the movie such a good one: Eelco Wolf, Jon Else, Robert Redford, Sterling Van Wagenen, John Korty, Michael Chandler, Todd Boekelheide, Dan McCann, Kaye McKinzie, John Haptas, Michael Chin, Alan Splet, Bob Roney, Raye Santos, and David Riggle.

# Fire Lookouts and Guard Stations

Robert Pavlik

The detection and prompt suppression of wildland fires has been a concern of Yosemite park managers since the days of Army administration. An uncontrolled fire raging through the forest was long perceived as a threat not only to timber, wildlife, and watershed, but to the recreational values of the park itself. Army personnel and, later, civilian rangers were responsible for patrolling large tracts of land, searching out trespassers on the public lands, and controlling, in many cases single-handedly, wildfires that were started through either natural or human events. After the creation of the National Park Service in 1916, a number of temporary lookout structures were erected throughout the park on prominent points for the purpose of detecting fires. Some of these buildings were staffed for one or two seasons; others were occupied for many years, according to their location, need and construction.

It was not until 1928 that the National Park Service began to make a concerted effort to create a systematic and carefully planned organization for fire control in the national parks. It was in that year that Horace Albright assumed the duties of Director of the NPS and forester John D. Coffman was appointed National Fire Officer for the national parks. Under Coffman's direction, a fire protec-

tion plan was developed for every park in the system. Each plan included specifications for fire detection, staffing requirements, equipment, and training. By 1930, Yosemite had augmented its ranger staff with a force of six fire guards who were stationed at Miguel Meadows, Aspen Valley, Crane Flat, South Fork, and in the Mariposa Grove. A fire dispatcher was located in an office in the maintenance yard in Yosemite Valley, and all field personnel received some rudimentary training in fire fighting techniques.

In 1931 the construction of fire lookouts in areas of high fire potential was authorized by the Park Service, and Yosemite lost no time in building its first lookout. According to Coffman's plan, the structures were to be located along the western boundary of the park, adjacent to the cutover lands of the Stanislaus National Forest and to logged-over areas within the park. The first built was the Crane Flat lookout. The site was selected by landscape architect John Wosky

## The fire lookout on Henness Ridge.

as an effective and logical location for fire detection.

Perched on the crest of a hill and offering sweeping views of almost one half of the park and much of the Stanislaus Forest to the west, the Crane Flat fire lookout was built in the months of September, October and November of 1931. Unlike many fire lookouts since constructed in California and other parts of the United States, the Crane Flat facility combined the observation tower, residence and garage in one building. The structure is rustic in nature, resting on battered stone foundations and built of redwood and split shake shingles. The two-story Crane Flat lookout served as a prototype for the second tower built during 1934, this one at Henness Ridge. It is a three-story lookout located south of the Merced River and commanding a vista of the southern portion of the park, including the thousands of acres logged by the Yosemite

Lumber Company in the teens and 1920's.

A permanent fire detection station was constructed at Miguel Meadows in October, 1934, after the Henness Ridge fire tower was completed. The cabin took twenty days to build, and was occupied by a fire guard who patrolled the fire-prone area and did not limit himself to the small confines of the fire tower. That the City and County of San Francisco had begun the work of raising the level of O'Shaughnessy Dam on Hetch Hetchy Reservoir south of Miguel Meadows, may have had something to do with the improvement of the fire guard's quarters in this remote region of Yosemite.

The park also cooperated with the Stanislaus National Forest in the construction of a fire lookout at North Mountain on the north side of the Tuolumne River in 1940. A truck trail from Miguel Meadows to North Mountain was constructed by Civilian Conservation Corps crew members stationed inside the park, while the Forest Service was responsible for the erection of the fire tower.

The location of the fire lookouts and guard stations along the park's western boundary was not random, but based on a careful study of potential fire hazard areas, the best locations for fire lookouts, and the amount of area to be surveyed from any one van-

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NPS PHOTO





# Yosemite in Stereo

Louis H. Smaus

## Stereographs? Stereo views?

What are these things? High fidelity photos? The term "stereo" is from the Greek "stereos" meaning solid or three-dimensional (3-D) in popular terminology. A stereograph, or more commonly, a stereo view, consists of a pair of images which, when viewed through an appropriate optical device, gives the appearance of depth. The different images represent what each individual eye, normally separated by about 2 and 1/2 inches, sees.

Many of us remember our grandmother's stereoscope in her parlor, that funny hand-held device with two glass lenses used for viewing a basket full of double picture cards. (See Figure 1.) In a way, stereo views served as the TV of their day. They even preceded postcards which did not become popular until the end of the 1800's. During the last century and the early part of this one, photographers traveled far and wide to capture in stereo beautiful scenes, disasters, hometown views, local events, fairs, and both famous and infamous personalities. The resultant views were sold in photographers' studios, by mail order houses, and door to door. As might be expected, Yosemite was one of the most popular stereo subjects in the United States, with only Niagara Falls being photographed more.

The Yosemite Museum has 4400 stereographs (and counting) in its collection dating from 1859 through the 1940's. In fact, the first photograph taken in the Valley was probably a stereograph of Yosemite Falls made by Charles Leander Weed. Since that time, hundreds of stereo photographers and publishers have covered every feature of Yosemite and the adjacent High Sierra including hotels, cabins, and other structures, plus Indians, tourists and residents. As a group, these views form an extraordinary historical record of Yosemite.

Stereographs have been made



PHOTOS BY BRIAN GROGAN/NPS

almost since the discovery of photography by Louis Daguerre in 1839. The earliest stereos were daguerrotypes, made by shifting the camera a few inches between exposures made on separate plates. Improved processes were available by the time of the first visits by photographers to Yosemite. The collodion wet-plate negative process was used until dry plates and film became practical toward the end of the century. Cameras with side-by-side twin lenses were employed very early in order to eliminate the problem of movement of the subject (leaves, waterfalls) between the two images. Thus "instantaneous" stereo negatives were ob-

mentioned above. Weed accompanied James Hutchings to the Valley in 1859 to provide photographs from which woodcuts could be made to illustrate Hutchings' *California Magazine* and publicize Yosemite. On the trip Weed made some 40 stereographs, the first ever of Yosemite, as well as twenty 10 by 13 inch plates. Most of these stereos, published by the New York firm of E. Anthony, are represented in the Museum along with numerous copies and pirated views.

It was not until 1861 that Carleton E. Watkins entered the Valley to make his famous mammoth plate views, 18 by 22 inches in size, as well as 100 stereo negatives. Of particular interest is the Watkins set of 72 albumen on glass signed stereographs with manuscript titles, made from the 1861 negatives. The stereos were received in the original custom-made wood case fitted with 72 slotted grooves. This priceless and beautiful collection belonged to Professor Spencer F. Baird, Assistant Secretary for the Smithsonian Institution, and was a most fortunate acquisition of the Yosemite Museum only a few years ago. Paper prints were also made from these negatives, and most are represented at the park. Watkins, who made five more trips to Yosemite and took many more stereos, did much to bring Yosemite to the attention of the public, as his work was displayed in galleries in the U.S. and at World Fairs in Europe. The Museum collection has a total of 521 paper stereographs by Watkins, an unusually strong showing. (See Figure 2.)

The San Francisco optical firm of Lawrence and Houseworth began publishing stereo views of Yosemite taken by Weed in 1863. Other photographers later made stereos for the firm which became the well-known Thomas Houseworth & Co. The Museum has 152 such stereos.

Eadweard J. Muybridge was the next photographer to arrive on the scene. In 1867 he made 160

Figure 4. Mt. Lyell in the High Sierra by M. Hazeltine.  
Figure 5. Tourist Party before Yosemite Falls by J.J. Reilly.

tained. From these plates, prints were made on albumen paper and occasionally on glass. Stereos from other early processes, such as tintypes and ambrotypes, were apparently not made at Yosemite. Stereographs of this century are generally the familiar silver images of today. Stereo lithographs, most often colored, were also made with Yosemite subjects. Every known type of stereo shot in Yosemite is represented in the Yosemite Museum collection.

A survey of the Yosemite stereos begins with C.L. Weed

Of particular interest is the Watkins set of 72 albumen on glass, signed stereographs with manuscript titles, made from the 1861 negatives.

Yosemite stereographs, publishing them under his "HELIOS" trademark, and another 379 in 1872. Of particular interest are his views of Indians and their encampments in the Valley. Muybridge also produced standard and mammoth plates of Yosemite which are classic examples of early and outstanding landscape photography. Muybridge later became famous for his studies of animal and human locomotion, and his photographic series were precursors to motion pictures. A recent acquisition, made possible by the support of the Yosemite Association, has boosted the park's Muybridge holdings to 230 views. (See Figure 3.)

Martin M. Hazeltine also made the first of many trips to photograph Yosemite and the High Sierra in 1867. He was a prolific photographer, but published relatively few stereographs under his own name (the Museum has 82). However, he sold stereos to Houseworth & Co., John Soule of Boston, Kilburn Brothers in New Hampshire, and others. The Yosemite collection contains several hundred stereographs attributed to Hazeltine. (See Figure 4.)

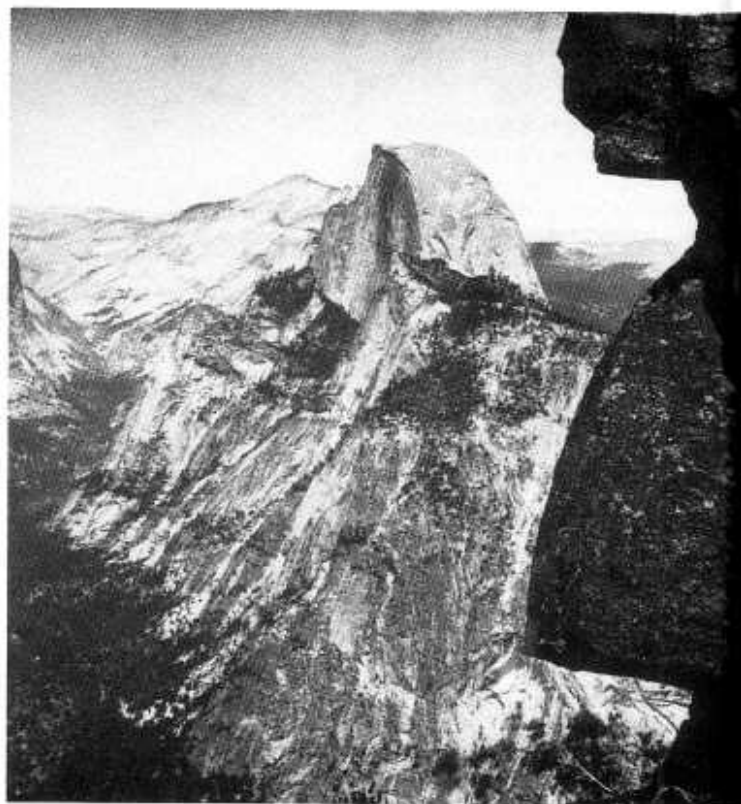
In 1870, the first stereo photographer from the eastern United States made his way from Niagara Falls to the Yosemite. John J. Reilly established the first picture gallery in the Valley and returned every summer for the next 6 years to photograph the scenery as well as the tourists. His work provides a wonderful record of the people who visited Yosemite and the fashions of the day. (See Figure 5.) Reilly also sold negatives to eastern publishers and many of his stereos were copied or pirated. The Museum holds 241 stereos directly attributed to Reilly plus many more published by others.

Thomas C. Roche, for the E. & H. Anthony Co., and Charles Bierstadt of Niagara Falls also came to Yosemite in 1870. Each made over one hundred stereos. Bierstadt was the older brother of the famous artist, Albert Bier-

stadt. The following year Roche returned to make many more stereos and was joined by Charles Pond, from Buffalo, who made about 160 stereographs. All are well represented in the Museum collection.

The grand flowering of stereography was the period from 1868 to 1878, and Yosemite certainly had its share of the glory. But after the financial panic of 1873, hard times gradually led to a great proliferation of copy views, sometimes authorized, but often pirated. Many established photographers were driven out of business by the difficult times and by the cheap copies offered by their competitors. The cost and rigors of a photographic expedition to the Valley must have severely limited new work as well. There are hundreds of these copy views in the Museum. Most of the 116 stereo photographers and publishers represented in the collection worked during this period, roughly 1880 to 1890, with only a handful doing original work. One interesting exception was the Continent Stereoscopic Co. of New York, whose photographer made views throughout the west including Yosemite. His work was always a little different, even unusual, as though he had in hand the familiar Yosemite views and consciously avoided taking similar pictures.

In the last decade of the 19th century, stereo photography was revived with the mass production and marketing of curved views and boxed sets. These are the stereographs most commonly found today at antique stores and flea markets. The giant publishers were Underwood and Underwood and later the Keystone View Company. Keystone eventually swallowed up all other publishers and continued production up until World War II. Almost every home had a stereoscope during the early part of the century, and one could readily view Yosemite through the medium of the stereograph. The Museum





Almost every home had a stereoscope during the early part of the century, and one could readily view Yosemite through the medium of the stereograph.

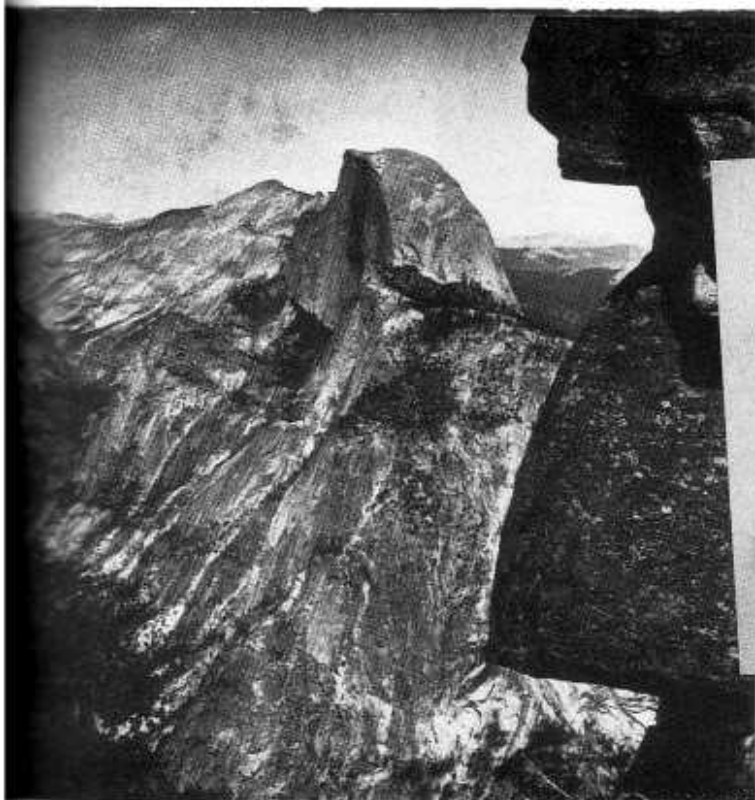
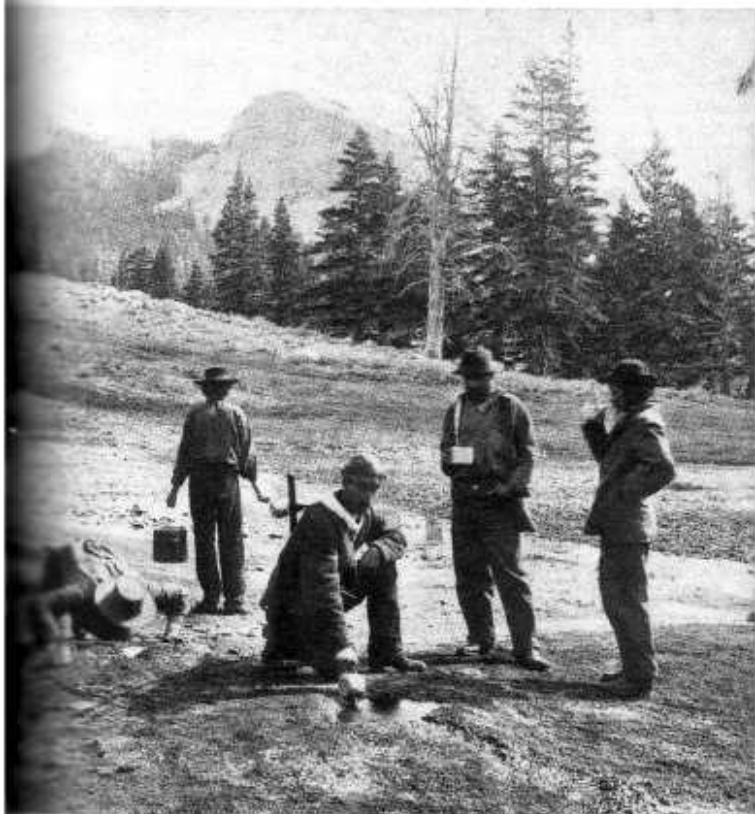


Figure 6. Indian Basket Weaver by J. Boysen.

Figure 1. The Holmes Stereoscope.

Figure 2. Half Dome from Glacier Point by C.E. Watkins.



has many views of this era including boxed sets with guide books of Yosemite.

In spite of the enormous output of the big firms around the turn of the century, a few individual stereo photographers continued to portray Yosemite. Outstanding among them was Julius T. Boysen who maintained a studio and resided in the Valley from 1900 until his death in 1939. There are 285 Boysen stereos in the Yosemite collection which appear to be one and two of a kind views. There are no Boysen views known outside the Museum collection besides a few duplicates, and these unique photographs afford a rare opportunity to study everyday scenes of people, events and buildings not covered by the big firms. (See Figure 6.)

The stereographic collection of the Yosemite Museum is an important and interesting historic resource. The collection preserves an accurate record of the past with the detailed realism that only 3-D can achieve. Views of

familiar and unfamiliar scenes, buildings, roads, tourists, and Indian life show what impressed visitors at the time. These stereos serve as a primary source for writers, historians and preservationists. Much of the material has been obtained by generous donations which are always gratefully received. The Yosemite Association also has been actively supporting the acquisition program by providing the funds to purchase significant stereo views and collections when they become available.

The Yosemite Museum collection is well-protected in a climate controlled, secure room adjacent to the new Museum Gallery. Access to the collection is limited and by appointment only. Photocopies of many of the major photographers' stereo views including Anthony, Bierstadt, Houseworth, Pond and Soule are available for easy reference in the Museum office. Photocopies of additional views are in process.

*Louis H. Smaus, who made his first visit to Yosemite in 1926, is a photographer and photographic collector with a special interest in the stereographic process. He has volunteered at the Yosemite Museum doing photo-historical research for several years.*

# Bighorns and Peregrines Doing Well

The populations of two of Yosemite's species at risk are apparently in relatively good shape in 1989. The herd of bighorn sheep that was reintroduced to the Park's Tioga Pass area in 1986 survived the winter without a single lost animal. Some observers believe that this fact, in light of the reported birth of 8 new lambs, signals the turning of the corner in the re-establishment of this long absent Yosemite dweller.

In other good news, resource managers at Yosemite report the discovery of a new peregrine falcon nest on the face of Half Dome. Until recently, the only known nest in Yosemite Valley was that located on El Capitan. Also encouraging is the fact that the pair of El Capitan peregrines which researchers had feared had abandoned its nest has successfully hatched a brood of young without human nest manipulation or intervention. This brings to three the total number of pairs now known to exist in Yosemite.

## Bighorns Drift Northward

One interesting trend noted by researchers is that the bighorns in Yosemite are gradually drifting northward away from Lee Vining where they were reintroduced towards Lundy Canyon. This move was initiated over the winter when the herd stayed at an elevation higher than normal, failing to drop down into Lee Vining Canyon. N.P.S. officials attach no particular significance to the movement, and figure it is part of an effort to find the most suitable habitat.

The population of the group of sheep is now estimated to be 40. There is concern, however, that five sheep which splintered off from the main herd and relocated in Bloody Canyon may be endangered. There is no male with that group, and it cannot be considered a viable reproduction unit.

## Falcons Still Endangered

Park Service personnel intend to continue the efforts to re-establish the peregrine in its

PHOTOS BY MICHAEL DIXON/INPHOTOS



native habitat. A program of nest augmentation and the use of hacking boxes (devices for releasing captive-born peregrines in the wild) are showing results. In California, some 83 pairs of peregrine are now nesting, but this population still requires their inclusion on the endangered list. If and when that number reaches 120 (in 4 or 5 years<sup>+</sup>), that status could be shed.

One unusual side effect of the peregrine's expanding nest sites is the closure of climbing routes



## Beavers

*Continued from page 5*

stacked up to 15 inches high near burrow entrances where they wilt for a few days before being taken inside for winter storage and nest building. Stacks are constructed with stem and stalk ends together as if a person had begun to make a bouquet but left it forgotten on the ground.

## Current Status and Research

Recent work by Dale Steele, an ecology graduate from U.C. Davis, has revealed possible declines in Sierra mountain beaver populations near Yosemite. Habitat loss from over-grazing and water diversions in the Mono Basin has led to the promotion of those *Aplodontia rufa californica* populations for consideration for the endangered species list. A coastal subspecies near Point Arena (*Aplodontia rufa nigra*) is now being listed as a federal and state endangered species.

General concern and lack of knowledge about Yosemite's populations prompted my mountain beaver research which is now in its second and final season. Objectives have been to: 1) survey Yosemite for mountain beaver and recommend or not recommend listing as an endangered (or threatened) species, 2) visit historic sites to note changes in distribution, and 3) develop a model to predict mountain beaver habitat on riparian areas in the park.

The first two objectives were accomplished in 1988 by surveying 120 miles of potential and historic habitat. The work was based entirely on observation and no disturbance of the animals or habitat occurred as a result of this study. Populations in the park are relatively healthy and don't need endangered or threatened listing at the present time. The third objective will be realized in the fall of 1989.

*Continued on page 12*



# Yosemite Viewpoints

## Don't Alter Master Plan

I just got through reading the Spring 1989 edition of the Association newsletter and was particularly interested in the article entitled "The Fate of the Master Plan." I took part in the building of the Plan in 1980 as one of the interested people who responded to the many, and lengthy, questionnaires that were sent out as part of the decision making process. I feel that the Plan should not be changed and the decisions made were carefully thought out after many hours contributed by many people.

Moving employee housing out of the Valley was an important part of the plan. I don't think traffic congestion will increase when employees are moved out. On the contrary, it will be decreased if there is an employee shuttle used to transport them to and from the Valley. Eventually all traffic within the Valley will be limited to visitor shuttle service and visitors driving only into the Valley and their campsite or out again.

I wish to voice my opinion loudly that the Plan should be initiated unaltered and that I would like to be included in any decision-making process involving the Plan.

Kirby Yale

Woodland Hills

## Don't Feed the Animals

I just walked in the door from spending a week in the Valley. Up until now I have only spent a few days at a time there. I left feeling very attached to the Valley as I am sure everyone does. "Living" in the Valley for seven days was a real experience and I learned and saw much more than I ever have.

I have only one complaint which has to do with the "not feeding" of the park animals. On one occasion we were watching climbers on El Capitan from the meadow and a herd of deer came near. Some of the visitors started coaxing the deer to come nearer for their kids to pet. I was very disappointed and worried for their children.



BRIAN GREGG/INPS

Secretary of the Interior Manuel Lujan stopped by the Yosemite Association membership booth and visited with volunteers Bob and Ginny Wilson during his recent trip to the park.

I would like to see more posted signs and warnings around the park to inform people about the danger and cruelty of feeding wild animals. (I did not see one sign.) I feel very strongly about this because I have a child and I love seeing the wild animals wild.

If there is anything I can do to promote this, please let me know. By the way, I am a new member and I am very excited about it.

Patricia Law

Oakland

## Kind Words Appreciated

I'm proud to be a member of your (our) Association. If all your members are as nice and supportive of "newcomers" to Yosemite Park as Ms. Penny Otwell, I'm sure my experience will be a positive one. She was a savior in my most recent attempt to coordinate a trip to Yosemite. Thanks again

Penny and I hope to see you all again soon.

Dr. David L. McCoy

Dallas, Texas

## Plans for Hite's Cove?

This letter is intended to bring the public up to date on the planning process for the U.S. Forest Service proposal to interpret the cultural resources at Hite Cove on the South Fork of the Merced River.

We have received over 150 letters and comments in response to our requests for public input into our environmental analysis of this proposal. I have read most if not all of the comments. Our analysis is continuing but, there seems to be a consensus that most respondents do not want to see any type of commercial development or improved vehicle access into the Hite Cove area.

We are also continuing our archaeological reconnaissance of the Hite Cove area. The cultural resources in this area are extensive and represent both multi-cultural historic and prehistoric occupancy and use. The Forest

Service is initiating the process to have Hite Cove listed on the Federal Register of Historic Sites.

Due to the sensitivity of the area and the potential impact on the management of the South Fork Merced Wild and Scenic River, I have recommended to Jim Boynton, Forest Supervisor, that we incorporate the project planning of this proposal with the area planning required under the wild and scenic river management planning process. Jim has agreed with this approach. So what does this mean?

The Forest Service is required to conduct an environmental analysis prior to deciding on the Boundary and Classification of the Wild and Scenic Rivers. This has been done and has been sent to Paul Barker, Regional Forester, for approval. The second phase is another environmental analysis to aid in determining how each river segment will be managed. It is in this second phase that the Forest Service will incorporate the planning for the Hite Cove proposal. The potential impact of interpretation of the cultural resources in the Hite Cove area will be addressed as a component of the management of the adjacent river segment.

The comments we have received for the Hite Cove proposal will be considered in this area planning effort. There will be additional opportunity to comment at future public meetings and/or by letter. More information will be made available over the 18 months that the Comprehensive Wild and Scenic River Management Plan will be developed. A decision on the interpretation of cultural resources at Hite Cove will be based on this area management environmental analysis.

Thomas C. Efrid, District Ranger  
US Forest Service, Mariposa

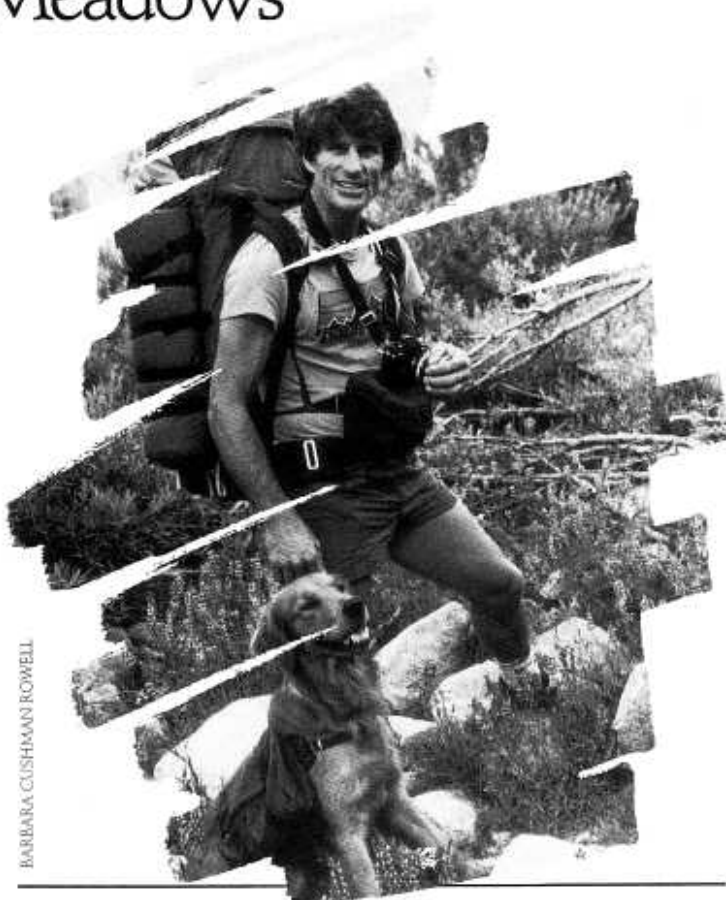


# Members to Meet at Tuolumne Meadows

**Final plans are in the making** for the Yosemite Association's 14th Annual Meeting which will be held at Tuolumne Meadows on Saturday and Sunday, September 16 and 17. Galen Rowell, the noted outdoor photographer, will be the guest speaker at the Saturday afternoon session. His appearance will mark the publication of his newest work, a centennial version of John Muir's "The Yosemite" illustrated with Rowell's handsome color photographs. After speaking to the group, Mr. Rowell will be available to sign books (a special YA edition will be available for purchase) and socialize with members.

Registration for the meeting begins at the Tuolumne Meadows Lodge at 10:30 a.m. on Saturday and continues through noon. The day's official activities start with a spaghetti lunch at noon outdoors at the Lodge. The Members' Meeting follows at 1:30 p.m. It is held outside near the Tuolumne River, and members should bring their own lawn chairs or blankets since seating will be on the ground. After the meeting, at about 4:30 p.m., there will be a wine and cheese reception along with a raffle. Members make their own arrangements for dinner, and afterwards there will be an evening program around the campfire. In addition to these events, there are a number of walks with National Park Service naturalists scheduled on Saturday and Sunday mornings.

Competition for the tent cabin accommodations is always lively for Members' Meetings at Tuolumne Meadows Lodge. In the interest of fairness, a lottery for rooms has been held, and the results were mailed out August 1. Anyone who would like information on alternative lodging in Lee Vining should call the YA office at 209-379-2317. Members without housing are welcome to come and enjoy the day's activities. Reservations for lunch (\$9.50 adult, \$5.00 child) can be made ahead with the Y.A. office, or



BARBARA CUSHMAN ROWELL

## Beavers

*Continued from page 9*

### Results

Some 39 populations were found last summer, two thirds of which were on the head waters of Grouse and Bridalveil Creeks. Two extremely isolated groups were discovered near the head waters of Kuna Creek on Kuna Crest at 10,700 feet, and one above Shepherd Lake (upper Virginia Canyon) at 10,300 feet. These are the highest elevations at which mountain beaver have been reported. The lowest population in Yosemite was found at 5,200 feet on Grouse Creek, with the overall average for the 39 populations at 7,200 feet. Contrary to the beliefs of some, they truly are "mountain" beavers!

### What Can We Learn?

In 1877, a noted zoologist by the name of M.D. Matteson said of the mountain beaver: "He is neither useful nor ornamental, and the sole purpose of his crea-

tion appears to be to furnish a rare and queer animal for curious naturalists to place in their collections." I have come to appreciate and respect this animal which was unknown to me only a short time ago despite its 35 million year history. Any critter that has survived for so long must be doing something right!

Maybe if we observe and listen we can learn. What is it? The pugnacity? The burrows? Or is it that the mountain beaver minds its own business and takes care of the world in which it lives? We all know of one abundant mammal species that no longer does either of these.

If this fellow Matteson were around today, I would be tempted to seek him out and pose the following question to him: "Of what use and ornamental value are you?"

*Paul Todd is a master's student in Wildlife Biology at the University of Montana. He hopes to complete his thesis on Yosemite's mountain beaver during the winter of 1990. His research was funded by the Yosemite Association.*

members can purchase lunch tickets during registration at Tuolumne Meadows.

At the meeting members may nominate by petition candidates for the two board seats to be filled by election this fall. Petitions will be available at the registration area, and must be signed by 50 or more current members in attendance at the meeting. For petitions to be valid, they must be filed with the Chairman or the President by 5:00 p.m. on September 16.

Tuolumne Meadows can be lovely in the clear, crisp days of early fall, and sometimes the mountains surprise the gathering with a shower or two. Whatever the case, be prepared for all conditions and a weekend of good times and good people.

## Concessioner Wins National Award

**The Yosemite Park and Curry Company** was recently named the national corporate winner in the 1988 "Take Pride In America" competition which recognizes achievement on behalf of the nation's public lands, natural and cultural resources.

As the chief concessioner at Yosemite, the YP&CCo. has been active in funding and implementing environmental projects including river cleanups, backcountry cleanups, recycling, elimination of environmentally damaging products, and removal of obsolete buildings. The company has also worked to restore areas within the park and to protect sensitive environmental areas surrounding the park.

The 103 winners in the third "Take Pride In America" program were announced in Washington, DC, on June 20 by Interior Secretary Manuel Lujan, Jr., and others.

Yosemite Association and Yosemite Association Presents  
**YOSEMITE**  
THE FATE OF HEAVEN



Narrated by Robert Redford

# THE Yosemite

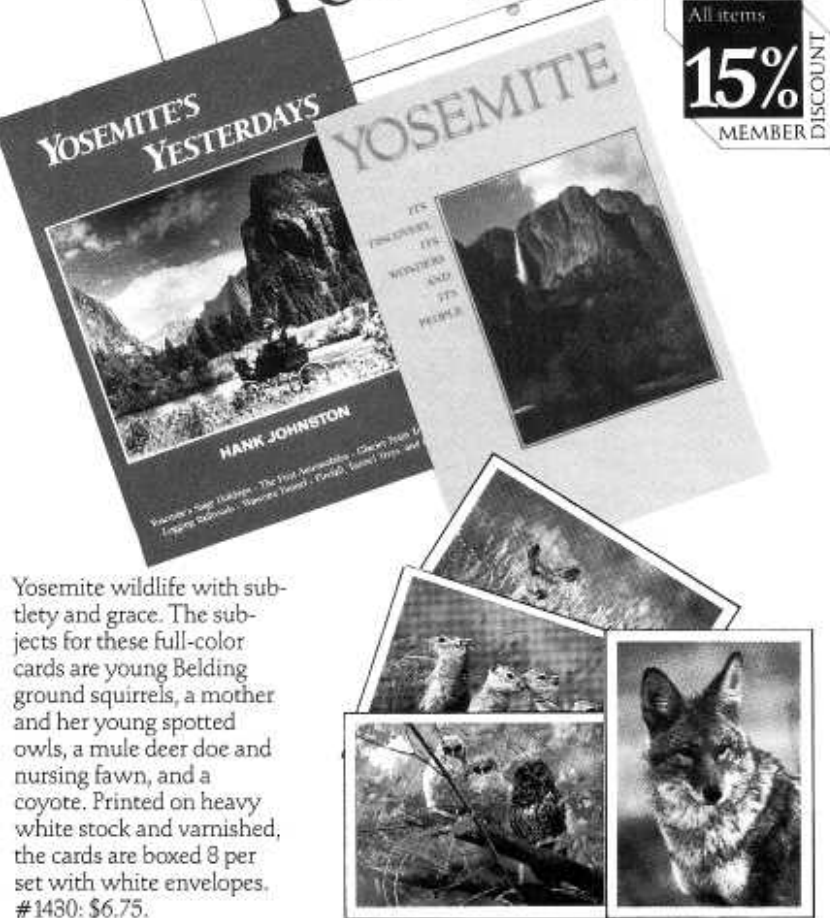
C A L E N D A R

**A** *Yosemite: The Fate of Heaven* narrated by Robert Redford. This is the new video cassette produced by the Yosemite Association and Sundance Institute. The documentary takes a look at the many forces at play in Yosemite from the varied perspectives of rock climbers, trail builders, rangers, visitors, backpackers, visitors and residents. The result is a compelling and thought-provoking work with high entertainment value. The color photography is stunning and captures Yosemite's moods in all four seasons. An original musical score adds immeasurably to the film, and all its elements combine to produce a remarkable vision of Yosemite past, present and future. Running time: 58 minutes. #1570 (VHS), #1571 (VHS/PAL). \$19.95.

**B** *Yosemite's Yesterdays* by Hank Johnston. This book contains pictorial accounts of six different stories from Yosemite's past. Topics range from the coming of the automobile to Yosemite through the construction of the Wawona Tunnel to Yosemite's unusual attractions over the years. Liberally illustrated with plenty of black and white historic photographs, the 64-page work provides an in-depth look at some of the lesser-known aspects of Yosemite from bygone times. Flying Spur Press, 1989. #20800 (paper): \$6.95.

**C** *Yosemite Animal Notecards* by Michael Frye. Here is a series of four cards which capture

Yosemite wildlife with subtlety and grace. The subjects for these full-color cards are young Belding ground squirrels, a mother and her young spotted owls, a mule deer doe and nursing fawn, and a coyote. Printed on heavy white stock and varnished, the cards are boxed 8 per set with white envelopes. #1430: \$6.75.



**D** *Carleton E. Watkins: Photographs 1861-1874* with essay by Peter E. Palmquist. This volume presents more than 100 images made by Watkins in his travels through California, Oregon and Utah between 1861 and 1874. Some of the finest are of Yosemite. Many of the included photographs are published here for the first time ever. Through sophisticated laser printing technology, the original albumen prints are reproduced with delicate tonalities and extraordinary detail. This 230 page large format book is elegant and fine. Fraenkel Gallery in Association with Bedford Arts, Publishers. #6375 (casebound): \$75.00.

**E** *Yosemite 1990 Centennial Calendar* by Dream Garden Press. This Yosemite calendar has become a favorite of Y.A. members with its beautifully reproduced full-color images of Yosemite's landmarks and scenery. This special centennial edition features quotations from Carl Russell's classic "One Hundred Years in Yosemite," and includes the usual notations of the birthdates of notable environmentalists and Yosemite-philis. Sized in a 10" x 13" format with 13 large photographs. It's not too early to buy your 1990 calendar now (while we still have some!). #4180: \$8.95.

**F** *Yosemite: Its Discovery, Its Wonders and Its People* by Margaret Sanborn. This is a never-before-available paperback edition of an excellent historical study of Yosemite Valley originally published by Random House in 1981. Long out of print, the 300 page book was reprinted by the Yosemite Association to fill an obvious void in the Yosemite literature. The focus is on the people of Yosemite like John Muir, Grizzly Adams, James Mason Hutchings, Carleton Watkins and Frederick Law Olmsted. Eminently readable, "Yosemite" is a work of both love and insight. Yosemite Association, 1989. #835 (paper): \$9.95.

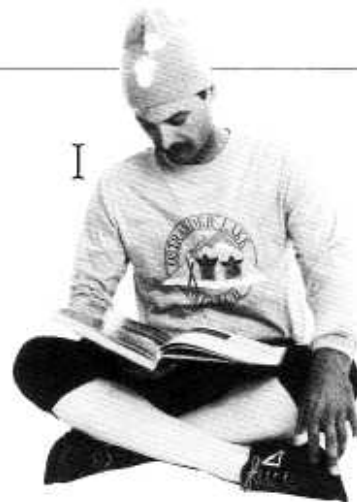
All items  
**15%**  
MEMBER DISCOUNT

# THE Yosemite CATALOG

**G** Yosemite Association Cap. Complete your outdoor wardrobe with this trendy item from the Association collection! It's the perfect hat for a hot, sunny day in the great outdoors—mesh fabric to keep a cool head, a generous bill to shade your face, and adjustable strap in the back to insure a good fit for everyone. All of this plus the Yosemite Association patch to let everyone know what your favorite organization is! Brown with white accent. #1600, \$6.00.

**H** Yosemite Association Mug. This distinctive and functional white ceramic mug has our logo and name imprinted in brown. Holds eight ounces of your favorite beverage. #1625, \$5.00.

**I** Ostrander Lake T-shirts. Become affiliated with an elite Yosemite ski club with one of our fashionable "Ostrander Lake Ski Club" t-shirts. Available in both long-sleeve (light blue) and short-sleeve (white) models, the Ostrander shirts are heavy-weight 100% cotton printed in four colors. Short-sleeve (S,M,L,XL), \$10.50. #1670  
Long-sleeve (S,M,L,XL), \$15.00. #1674



**J** Yosemite Enamel Pin. Designed especially for the Association, our enamel metal pin is a work of art. Each of the 10 different glazes is hand placed and separately fired. The result, from William Spear Design, is an eye-catching and colorful piece. The metal enamel pins are relief engraved in a 7/8 x 2" size. #1695, \$11.95.



**K** Pelican Pouch, Wilderness Belt Bag. The Pelican Pouch is not only perfect for carrying field guides, but also offers instant access to all the small items that are usually buried in your pack—pocket camera, lenses, maps, or your favorite trail mix! The Pouch is designed with front snap fasteners on the straps. This allows comfortable positioning on your belt—even between belt loops; no need to take your belt off first. The material is high quality Cordura pack cloth with a waterproof coating on one side. Beige with the dark brown and white Yosemite Association patch, the Pelican Pouch measures 8 x 5 x 2 1/2 inches. #1690, \$11.95.



**L** Yosemite Association Decals and Patches. Our association logo, depicting Half Dome is offered to our members in these two useful forms. Help announce your affiliation with our organization to others by purchasing and using Yosemite Association patches and decals. Patch #1635, \$1.50; Decal #1636, \$1.00.

**M** Black Bear Hand Puppet. Here's a soft and cuddly pet who becomes animated at your whim. By manipulating his moveable head and legs, you can involve him in serious conversation or simply amuse the kids (who love to stow their pajamas inside him). A favorite of young and old alike. He is 11 inches tall and hand washable. #50200: \$28.00. **Special Sale Price: \$16.95.**



**Order Form** Credit card orders call: **(209) 379 2648** Monday-Friday, 8:30am-4:30pm

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## New Members

We would like to welcome to the Yosemite Association the following fine persons who became members within the past three months. Your support is greatly appreciated.

### Regular Members

Janet Nahorney, Edward Lofgren, Teri Ponticello, Wallace Boss, Lisa Meyers, Matthew Rainey, Dave Matson, Tom Lampietoo, Ellen Seay, Rhonda Card, Kathy Wienelt, John & Mary Herbert, Helio Gomez Family, Deborah Kiser, Blaine Rogers, Elizabeth Williams, Charles Cooper, Pat Rossaell, O Ydrogo, Bob Collie, Dorothy Bolt, Harry Byrne, Karen & John Leipelt, Robert & Ingeborg Scott, Sylvia Huddelson, Nicholas & Aileen Stillo, Marlo Johansen, Shana Miller, John & Sandra Early, Debra DeCoster, Laura Stockton, Mr Donald Hannah Jr, Edith Slemmor, Ted Clausen, K Hannay, Zelda Bronstein, Nancy Praetzel, James Jacqueline, Ricki & Alan Schermerhorn, George & Lucille Lange, Elizabeth Davison, Mr & Mrs Michael Nguyen, Freda & Carl Gregory, Christopher Cruz, Marilyn Howard, Darel & Betty Sorensen, Lynne Rasmussen, Howard & Susan Meyers, Sonya Fouts, Mr & Mrs Michael Augustine, Anne Marie Piczarka, Bernard Butcher, Fred Oaurtermann, Judith Meyers, Gail & Rick Stephens, Mary Rasmussen, Lon Bailey, Jay & Kathleen Krumholtz, Elizabeth Weidman, David & Linda Murphy, Alan Harvey, Eleanor Richards, Warren & Barbara Byers, Niki Gousios, Larry & Cyndee Gilpin, Vernon Johnson, Walter & Marlene Harrison, Sally Keane, Michael Potter, Sarah Hampson & David Capell, James Martin, Sara Jane Self, William & Helene Leonard, William & Marilyn Rammerer, Raymond Packard, Virginia Powers, Julia Holt, Ruth Higgins, BJ Wishinsky, Alvin Reece, Charles Corp, Cal Stone, Barry Mary, Joan Ferguson, Mike & Sandra Anderson, Dinesser Whitmore, Charles Clark, Earl Corp, Peter Mann, Thomas Mitchell, Dana & Tony Mekisich, Greg Wilson, Frank & Roberta McNally, Myron Glaser, Kirk & Linda Wilson, Sundara & Shanti Wertz, Mary Kerwin, Kay Kahn, Bruna & Herb Finney, Tim Thometz, Diane Tucker Hart, Linda Horvath, Raymond Bright, Cathy Sherill, Robert & Phalba Henderson, Sharon Wilcoxon-Ascarate, Lois Swinney, Peter Ryan, Thom Bernitsky, Mary & John Filler Basile, Edward Lincoln, Diane Becker, Alicer & Bill DeBolt, Marsha & Robert Gifford, Pedro Larana, Vito Violante, Alice Bacarti, Denise Mazure, Barbara Thomas, William McClure, KS Bower, Thomas Bryce, Esther & Ken Cooperman, Meryl Millet, Katherine King, Pierre Neu, WH & Phyllis Wilson, Florence McKenna, Katherine Richey, Rob Ryan, Judith Swerling, Sue & Ron Black, Lois Binns, Dona Senning, Mr & Mrs JK Hull, R Muralidaaran,

Mrs Eugene Snell, Alice & Lerner Hinshaw, Bruce Ceaser, Robert Cowdrey, Ms Eve Milton, Kathy Jones, Eileen Shoemaker, Kenneth McClain, Robert & Martee, Greenspan, Mr & Mrs Lawrence White, Vicky Napier, Barbara Lenore, Francis Uelman, Lorin DeYoung, Bob Johnston, Mr & Mrs Robert Boyle, Mrs Pat Mayer, Richard & Susan Tellier, Sara J Weigel, Marion Steinbach, Barbara Poat, Nancy Woods, Dennis Carey, Sylvia Mallot, Joy Francine, Cindy Read, Mrs Larry Smith, Sharon & Phil Lindsey, Carolyn Wright, Mr & Mrs John Ellard, Ted Hilbourn, Dorothy Loizeaux, Jonathan Seagle, John & Nancy Snyder, Barbara Blackford, Phoebe Tanner, Fred Traganza, Mr & Mrs Jim Campbell, Cheryl Rookwood, Mr & Mrs Dean Ashcraft, Ranell Hansen, Elden & Bea Sandy, Bill & Claire Wilson, Judy Duncan, Mary Elena Boyer, Mr & Mrs Joseph Young, John Rupp, J McFarland, Emil, Edward & Thelma Mikles, Fred & Jeanne Smelter, Bob Sciortino, Edward Kulik, Larry McCarty, Maris Chacon, Ted Schulze, Sam Lowrie, Dr & Mrs William Morris, Suzette & Terry Kyner, Guy & Mary Pitman, Don Gundenberg, Brad Wurley, Celeste Burrows, Elaine Miller, Cheryl McMichael, Don Creagh, Doris McGowan, Victoria Salia, Carol Sisco, Lisa Hansen, Morgan & Mary Mussell, Mrs PF Bowden, Carolyn McKearney, Mrs Millie Harmer, Akio Inouye CPA, Karen Horr, Mr & Mrs Jack Greenstein, Jean Bennett, Nick Iwanisziw, PM Janssen, John Finnessy, Massoud Vameghi MD, Stephen Mengos, Georgette Karavas, Ruth & Middlekauff Sutner, Gerald Rosen & Dee Nathans, Jody Taber, Linda Cisneros, Jane Doyle, George & Barbara Stein-Manes, Chuck & Pat Gilstrap, Janet Zarem, Anita Petranich, Julie Plank, Patrick & Shelly Toomey, Phyllis Jean Georgeson, Robert McCowan, Dee MacDonald, Karen Commanday, Lawrence Hughs, Paulette Davis, Eric Penn, CW Brown, Marc Meacham, John & Margaret O'Conner, Brian Kelle, Luther Holloway, Richard Forehan DDS, Randy & Elizabeth Walburger, Kathy Denning, David Schwabin, Virginia Stevens PHD, Patricia Sanchez, Steven Shewchuck, Kurt Kloeffer, Alan Taylor, Mark Holloway, James Neilson, William Hansen, Diane White, Debra Hollis-Diaz, Mr & Mrs Earl Culbertson, Beaver Creek Model Co, Barbara Womack, Michael Colunga, Teresa Somers, Maurice Belanger, Mary Strong, Steve Daniels, Nancy Martin, Bill & Florence Buckman, William & Bonnie Hodge, Roy & M Hammond Hirstle, Barbara & Ken Johns, Ronald F Cornett, Doug Hendrix, Lisa Jo Melton, Joyce Carlson, Anthony & Jeanette Saporito, Irene & Sam Hayes, Patricia Webster, Jesse Sanchez, Corae Bardell, Greg Sampson, Howard & Dorothy Granger, Bea Swanson, Mary Sweeney, Barbara Johnston, Robert Freeman, Mary Moffitt, William Dearborn, Stuart Ackenberg, Tyna Jensen, Jim Cain, Owen Gillbergh, John Downey, Denise Allen, Anne Workman, Tomoko Sugano, Dolores Moore, Thad Wakeman, Richard

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## Fire Lookouts

*Continued from page 12*

tage point. Because the fire lookouts were constructed close to roads and within easy access of the inquisitive public, and because public education has long been the cornerstone of fire prevention, the lookouts were designed with aesthetics, uniformity of design, and harmony with the surrounding landscape in mind.

Changes in fire detection techniques and attitudes toward fire suppression have rendered the lookout towers almost obsolete. Even so, they not only provide sweeping views of large portions of the park, but they stand as symbols of the changes in the park's history and its land management policies. The catwalk of a fire lookout tower is an inspiring place to contemplate the evolving management philosophies in Yosemite and our national parks.

*Robert Pavlik is an historian for the California State Parks at Hearst Castle. He was formerly employed at Yosemite's Research Center.*



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**You can help support** the work of the Yosemite Association by becoming a member. Revenues generated by the Association's activities are used to fund a variety of National Park Service programs in Yosemite. Not only does the Yosemite Association publish and sell literature and maps, it sponsors field seminars, the park's Art Activity Center, and the Ostrander Lake Ski Hut.

A critical element in the success of the Association is its membership. Individuals and families throughout the country have long supported the Yosemite Association through their dues and their personal commitments. Won't

you join us in our effort to make Yosemite an even better place?

### Member Benefits

As a member of the Yosemite Association, you will enjoy the following benefits:

- ★ *Yosemite*, the Association bulletin, published on a quarterly basis;
- ★ A 15% discount on all books, maps, posters, calendars and publications stocked for sale by the Association;
- ★ A 10% discount on most of the field seminars conducted by the Association in Yosemite National Park;
- ★ The opportunity to participate in the annual Members' Meeting held in the park each fall, along with other Association activities;

★ A Yosemite Association decal; and

★ Special membership gifts as follows:

*Supporting Members:* Matted print from an illustration by Jane Gyer in "Discovering Sierra Trees";

*Contributing Members:* Full color poster of Yosemite's wildflowers by Walter Sydorik;

*Sustaining Members:* A colorful enameled pin depicting a Yosemite waterfall by William Spear,

*Life Member:* Matted color photograph by Howard Weamer of a Yosemite scene; and

*Participating Life Member:* Ansel Adams Special Edition print, achivally mounted.

Membership dues are tax-deductible as provided by law.

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## Moving?

If you are moving, or have recently moved, don't forget to notify us. You are a valued member of the Association, and we'd like to keep in touch with you.

# YoseMite

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