

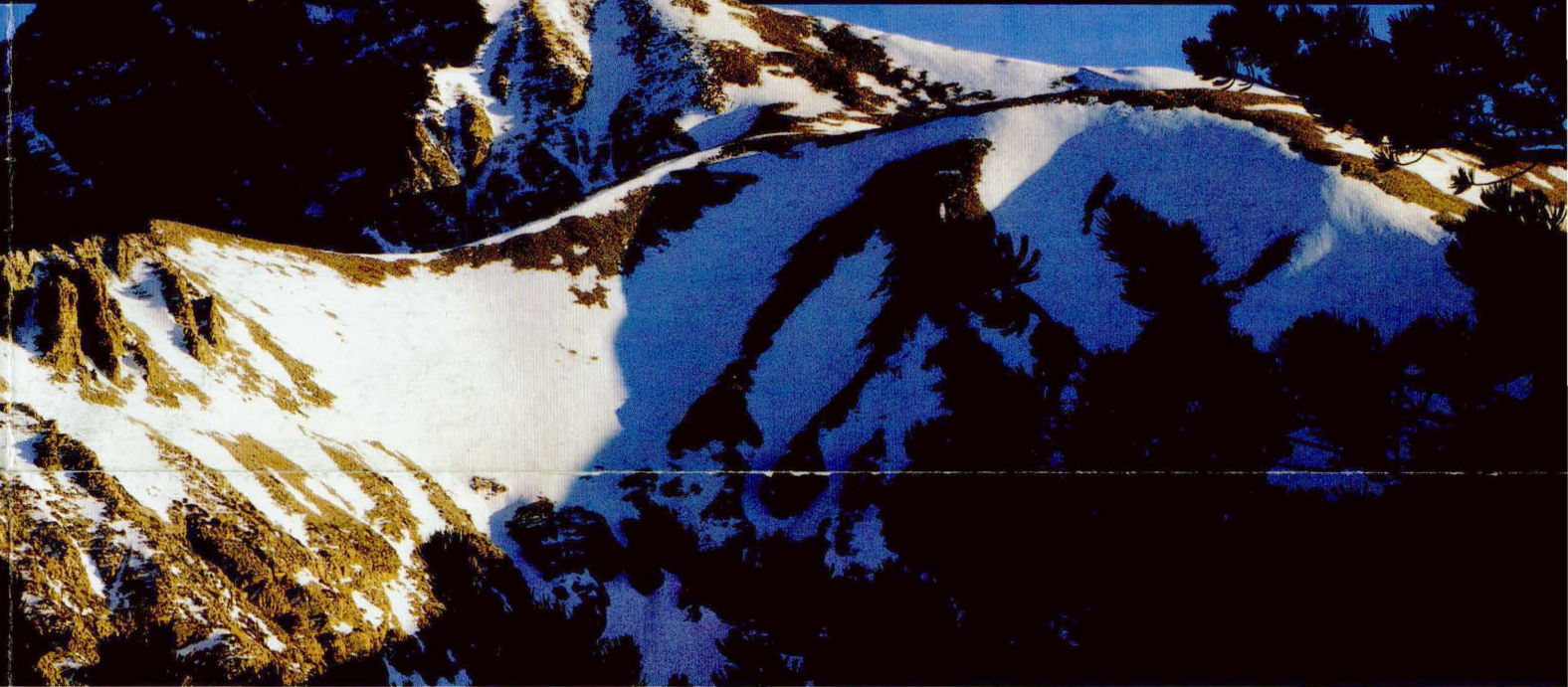
Great Basin

Official Map and Guide



Great Basin National Park
Nevada

National Park Service
U.S. Department of the Interior



Wheeler Peak Jeff Gnass

Mountains in a Sea of Sagebrush

We call it the Great Basin, a vast area of sagebrush-covered valleys and narrow mountain ranges. The name comes from a peculiarity of drainage: over most of the area, streams and rivers find no outlet to the sea. Instead, water collects in shallow salt lakes, marshes, and mud flats, where it evaporates in dry desert air. There is not just one basin here but many, all separated by mountain ranges running roughly parallel, north to south. The landscape plays and replays a single magnificent theme of alternating basin and range—broad basins hung between craggy ranges—from the Wasatch Mountains of Utah to the Sierra Nevada of California in seemingly endless geographic rhythm. At first glance (or even after many miles of driving) you might think of it as a monotonous



The Great Basin
Centered on Nevada but extending into neighboring states, the Great Basin stretches from California's Sierra Nevada Range on the west to the Wasatch Mountains of Utah on the east. The region is one of high, silent valleys, numerous mountain ranges, and few rivers. Great Basin National Park protects the South Snake Range near the Utah border east of Ely, Nevada.

landscape—nothing out there but sagebrush, a vast sea of pale green shrubs. Appearances are deceptive. As in the ocean, there is much life not immediately apparent. And above the valleys, rising thousands of feet from the sagebrush sea, mountain ranges form a high-elevation archipelago, islands of cooler air and more abundant water. Here we find a rich variety of plants and animals that could not survive in the lower desert. Great Basin National

Park, established in 1986, includes much of the South Snake Range, a superb example of a desert mountain island. From the sagebrush at its alluvial base to the 13,063-foot summit of Wheeler Peak, the park includes streams, lakes, alpine plants, abundant wildlife, a variety of forest types including groves of ancient bristlecone pines, and numerous limestone caverns, including beautiful Lehman Caves.

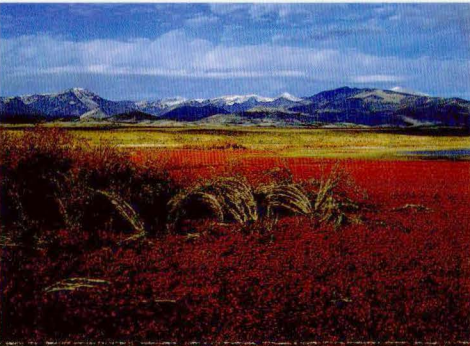


Bristlecone pine Tom Bean

On the Edge of the Desert

The Snake Range provides a good example of biogeography, the relationship between living things and the landscape. As elevation increases, the climate changes, creating habitats for different plants and animals. During the most recent Ice Age, glaciers sprawled across the high peaks. The air was cooler, allowing forests of bristlecone and limber pine to grow on the valley bottom, along the shores of long sinuous lakes. The largest body of water was Lake Bonneville, of which the Great Salt Lake is today a shrunken remnant. About 15,000 years ago, its waves lapped a shoreline just 10 miles from the current park boundary.

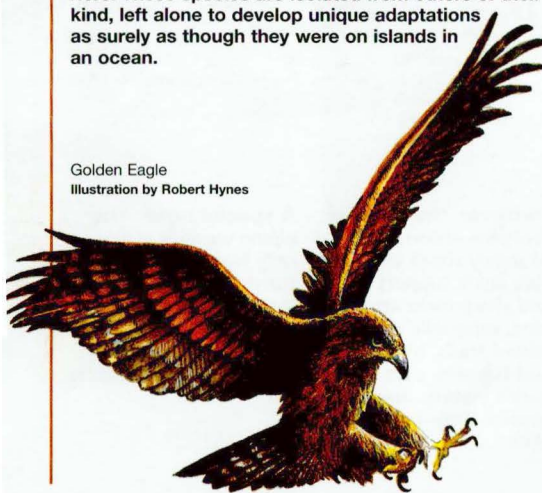
That changed around 10,000 years ago, when the climate turned warmer. Glaciers melted, lakes dried up, and the desert plants we see today invaded the des-



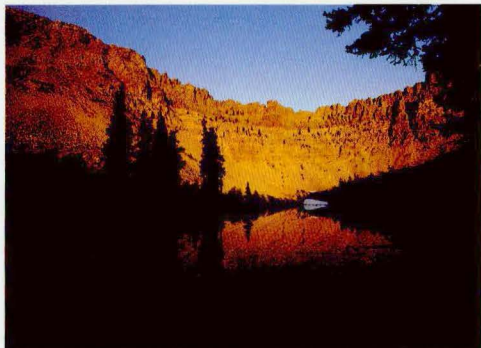
Basin meets range: park peaks from the southeast Jeff Foott

iccated valleys. The Snake Range became an island surrounded by desert, a refuge for temperate-climate dwellers. For many organisms with no means of transport, the desert basins present impassable barriers. These species are isolated from others of their kind, left alone to develop unique adaptations as surely as though they were on islands in an ocean.

Golden Eagle
Illustration by Robert Hynes



A Land of Lakes and Forests



Sunrise at Baker Lake Tom Bean

Close beneath the summit of Wheeler Peak, a bit of the Ice Age exists in the form of a small glacier, the only one of its kind in the Great Basin. A mere token, it calls to mind the powerful glaciers that capped the Snake Range only a few thousand years ago. Evidence of glacial activity is easy to find. Piles of glacial debris—boulders, sand, gravel—form mounds and ridges. Sparkling Teresa and Stella Lakes occupy hollows gouged by ice.

These were alpine glaciers, not the huge continental ice sheets that enveloped the northern part of the continent. Here, ice never reached the valley floor. Instead it melted at an elevation of about 8,000 feet. You can see this in the shape of the Baker Creek drainage. Above the melting point, glaciers plucked and carried bedrock, widening and smoothing the mountain slopes. Below the melting point, cascading streams cut sharp-sided canyons.

Wheeler Peak Scenic Drive provides good views of the range. Beginning near the park entrance, it leaves Lehman Creek to climb across a dry shoulder of the mountain, ending near treeline. In 12 miles, it gains 3,400 feet in elevation, passing through a variety of habitats: from pinyon-juniper woodlands, along a creekbed lined with aspen trees, through a zone of shrubby mountain mahogany and manzanita, into deep forests of Englemann spruce and Douglas fir, to the flower-spangled meadows and subalpine forest of limber pine, spruce, and aspen at the Wheeler Peak campground.

Prehistoric peoples, known from archeological evidence, lived in this area along the shores of ancient Lake Bonneville. Later American Indian residents lived in small villages near the present towns of Baker and Garrison from about 1100 to 1300. Known as members of the Fremont Culture, they irrigated corn, beans, and squash in the valley and hunted in the mountains. Numerous rock art sites in the park remind us of their presence.

Shoshone and Paiute peoples lived in the area from about 1300 until recently in small kin groups near

Hiking opportunities abound in the park. Easy to moderate trails lead to alpine lakes and a bristlecone pine forest. More strenuous is a climb up Wheeler Peak, the park's highest point. Rangers lead nature walks and tours of Lehman Caves.



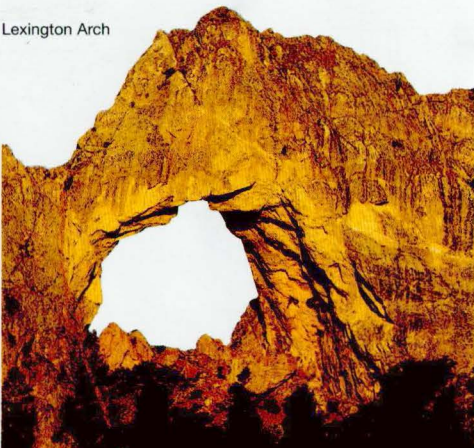
Tom Bean



Parry's Primrose Suzi Moore

springs and other water sources. They gathered and hunted a variety of wild foods, but their mainstay, especially in winter, was the pinyon nut. Descendants of these peoples still live in the area and share this harvest with other residents: pinyon jays, rock squirrels, wood rats, and other small animals.

Lexington Arch



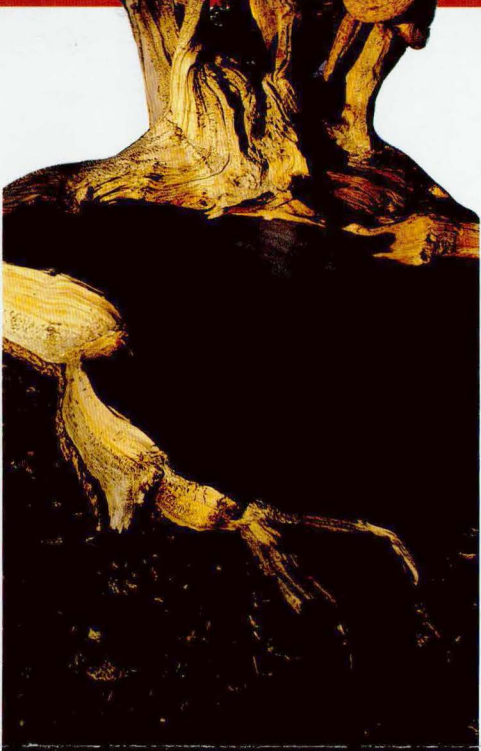
Tom Bean

Treeline and Above

In the South Snake Range, 13 peaks rise above 11,000 feet. On those lofty exposed summits, winter is never far off. Snow can fall during any month, even in July. At night, freezing temperatures are common. To survive, plants must cope with a short growing season, poor soil, thin air, and intense solar radiation. High winds also buffet the peaks, punishing anything that rises above the horizon—including transient visitors such as hikers. Whatever lives here must keep a low profile. Lichens cling to rocks like paint. Dwarfed plants grow tight to the ground, firmly anchored in crevices. Shrubs appear pruned by a bonsai gardener. Trees live in cavities or hollows.

The trees found highest in the Snake Range, limber and bristlecone pines, appear between 9,500 and 11,000 feet. While both species are obviously hardy plants, bristlecone pines are the stuff of legend. True masters of longevity, they endure not centuries but millennia. On rocky slopes beyond the end of the Wheeler Peak Scenic Drive, you can walk among trees that have kept their grip on life for two to three thousand years—some much longer than that. A bristlecone pine found here was determined to be the world's oldest living tree: 4,950 years of age.

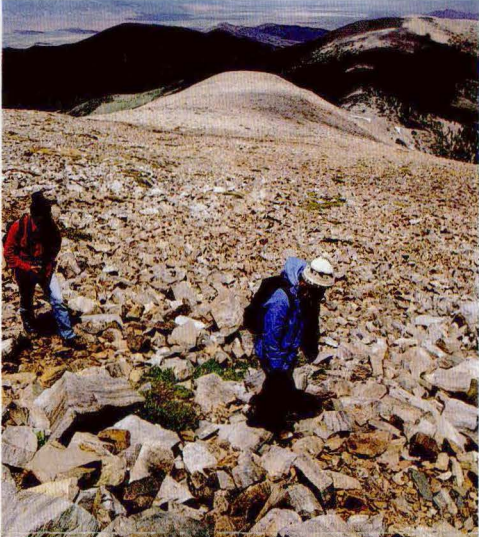
Not all bristlecones live that long. Ironically, the oldest trees are the ones growing near treeline where survival is most difficult. Adversity, it appears, promotes long life. These trees grow slowly, one branch at a time. Even their needles can live up to 40 years. Often, a tree will appear nearly dead, with only a thin strip of living tissue clinging to a gnarled, naked trunk. Ordinary trees would decay under those con-



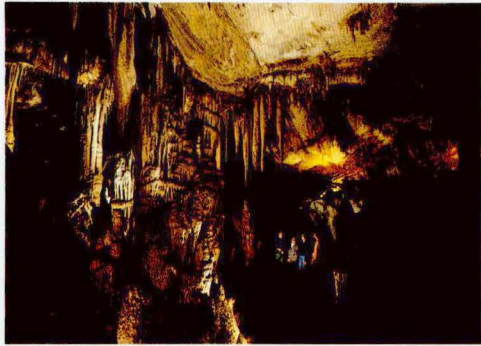
ditions, but bristlecone wood has a high resin content, preventing rot. Instead, the wood erodes like stone, from wind and ice crystals. Even dead wood endures and is of scientific value; a piece 9,000 years old was found. At lower elevations, where conditions are less extreme, bristlecones grow faster and larger, but they die at the tender age of 300 or 400 years.

Climbing Wheeler Peak

Tom Bean



The Underground World



Touring Lehman Caves Tom Bean

Lehman Caves (a single cavern despite the name) extends a quarter-mile into the limestone and marble that flanks the base of the Snake Range. American Indians knew of the cavern long before rancher and miner Absalom Lehman explored it in 1885. It is one of the most profusely decorated caves in the region.

What we see today began hundreds of thousands of years ago. Surface water, turned slightly acidic from carbon dioxide gas, mixed with water deep below the surface, dissolving the soluble rock at the horizontal water table. Evidence of the dissolving action from the slowly circulating water was recorded in the rock walls of the cave, in the form of spherical domes in the ceilings and spoon-shaped scallops on the walls. Eventually, the water drained from the cave, leaving behind hollow rooms and sculptured walls.

Then came the second stage of cavern development. Water percolated downward from the surface, carrying with it small amounts of dissolved limestone (calcite). Drop by drop, over centuries, seemingly insignificant trickles deposited wonders of stone. The result is a rich display of cave formations, or as scientists call them, speleothems. Lehman Caves has such familiar cave formations as stalactites, stalagmites, columns, draperies, flowstone, and soda straws. There are also some rarities such as shields,

which consist of two roughly circular plates fastened together like flattened clam shells, often with graceful stalactites and draperies hanging from their lower plate. Lehman Caves is most famous for its abundance of shields.

A shield called the Parachute (right) and other formations make touring Lehman Caves an unusual and rewarding experience. Delicate helictites, small branching formations that defy gravity, are found throughout the caves. Cave popcorn, resembling the edible variety, adorns many walls and formations.

Text by Jeremy Schmidt



Tom Bean

Exploring Great Basin

Location and Services

The visitor center is five miles west of Baker, Nev., near the Nevada-Utah border. Driving distances in miles are: Las Vegas, 286; Salt Lake City, 234; Reno, 385; and Cedar City, 142.

The visitor center has information, exhibits, and a bookstore. It is open daily (longer hours in summer); it is closed on Thanksgiving, December 25, and January 1.

Entrance to the park is free. Fees are charged for cave tours, campgrounds, and the RV sanitary station.

A cafe and gift shop are open from April to October. Motels, restaurants, groceries, and gasoline

are available in the Baker area. The nearest cities are Ely, Nev., 70 miles west, and Delta, Utah, 100 miles east.

There are unpaved and unmaintained roads on the park's west and south sides. This area has no services.

You can order publications about the park from Great Basin Association (address below). Write for a price list and order form.

More Information
Great Basin National Park
100 Great Basin NP
Baker, NV 89311-9700
775-234-7331
www.nps.gov/grba

National Park Service:
www.nps.gov

Things to See and Do

For a One-day Visit Stop at the visitor center and tour Lehman Caves. Drive to Wheeler Peak; from there, follow trails to alpine lakes and the bristlecone pine forest.

For a Longer Visit You can climb Wheeler Peak, explore the canyons, and see the glacier. Snake Creek flows through aspen groves beneath limestone outcroppings. Visit Lexington Arch in the south end of the range. At the north end, Strawberry Creek runs through stands of aspen and open meadows. Picnic sites along the way offer views of the basin. All of the park roads except Wheeler Peak Scenic Drive are unpaved and infrequently traveled. (Snow closes many roads in winter.) Ask for details at the visitor center.

Activities There are guided walks, evening programs (summer only), and tours of Lehman Caves. **Cave tours**—up to a ½-mile walk on paved trail with stairways and indirect lighting—take up to 90 minutes, with shorter walks available. Dress warmly; the cave is 50°F year-round. Those under 16 must be accompanied by an adult. For advance ticket sales call 775-234-7331, ext. 242. **Fishing** requires a Nevada fishing license; state regulations apply. **Hunting** is prohibited; firearms must be cased and unloaded. **Horseback riding** is permitted on some trails. **Mountain-biking** is allowed only on designated motor vehicle roadways. Vehi-

cles and drivers on park roads must be licensed.

Camping Four campgrounds have water (summer only), restrooms, fire rings, tables, and tent pads. One campground is open year-round (no water in winter). Primitive campsites along Strawberry Creek and Snake Creek have tent sites, fire grates, and tables; some Snake Creek sites have pit toilets but no water. Some sites have road access in summer only.

Backcountry Backpacking opportunities abound, but there are few maintained trails. Routes generally follow ridgelines or valleys. Plan ahead: bushwhacking through mountain mahogany can be arduous or impossible. Get topographic maps and information on conditions at the visitor center. Backcountry registration is strongly recommended.

Regulations •Pets must be leashed; they are prohibited in buildings or caves, on trails, or more than 100 feet from roads. •Campfires are permitted only in campgrounds and picnic areas in designated grills. Above 10,000 feet use a portable stove. •All plants, animals, and natural and cultural features are protected and may not be disturbed or damaged. •Do not feed wildlife. •In caves, stay on the trail and with the ranger. Caves are fragile environments—touching a cave feature causes damage.

GREAT BASIN NATIONAL PARK

Hiker Warnings

Many trails reach elevations above 10,000 feet. Avoid overexertion. Be prepared for sudden weather changes. When storms threaten and when hiking above tree-line, take rain gear and warm clothing. Avoid exposed areas and ridges during electrical storms.

Water Surface water may not be available in summer; carry at least one quart per person—more for day-long hikes. The visitor center has drinking water (year-round) as do all four campgrounds (summer only). Untreated water must be purified before drinking.

Footgear Wear proper footwear—hiking boots or sturdy shoes that provide ankle support. Loose and sharp rocks are common, especially off maintained trails. Mineshafts and tunnels, part of the park's history, are dangerous. Stay out—stay alive.

A special note The alpine world is ecologically fragile. Plants grow slowly at high elevations; their margin of survival is thin. To protect these areas, stay on roads or trails wherever possible.

