

How To Use The Shuttle

Easy as 1-2-3

The Zion Canyon Scenic Drive is by shuttle bus only. *Private vehicles are not allowed*. It's easy to visit this part of the park, follow these three steps:

1. Park

Parking at the visitor center is full between 10 a.m. and 3 p.m. daily. To avoid parking hassles, leave your car in the town of Springdale and ride the free town shuttle to the park. Enter the park on foot at the Zion Canyon Giant Screen Theater. Tune your radio to 1610 AM for more information.

2. Pla

Use the exhibits at the Zion Canyon Visitor Center to plan your visit based on your time (less than 3 hours or more than 3 hours) and your interests (sightseeing, hiking, and more). Check the schedule of Ranger-led activities and the park bookstore for maps and books to enhance your visit.

3. Rid

Free buses run from 5:45 a.m. to 11 p.m. as often as every six minutes. See page 12 for shuttle schedule. Buses are fully accessible. Pets are not allowed.

Making The Most of Your Time

Less Than 3 Hours

Zion Canyon Scenic Drive

The easiest way to see some of the park's most beautiful sights in a limited time is to ride the Zion Canyon Shuttle. A round trip will take a minimum of 90 minutes.

Weeping Rock Trail

An easy walk on a paved path where springs continually drip from overhead. .5 miles/.5 hours round trip/climbs 98 feet. Shuttle stop: Weeping Rock.

Court of the Patriarchs

Short but steep trail leads to views of the Sentinal and the Three Patriarchs. 100 yards/.25 hours round trip, climbs 40 feet. Shuttle stop: Court of the Patriarchs.

Zion-Mt. Carmel Highway

The 10-mile road that connects the east and south entrances is a steep drive up switch—backs and through the mile-long tunnel. This is the main access to Bryce Canyon and the North Rim of Grand Canyon. See large vehicle restrictions on page 12.

More Than 3 Hours

Emerald Pools Trail

One spot in the park where you'll often find at least a small waterfall. Easy, 1.2 miles/ 1 hour round trip, climbs 200 feet. Warning! Steep Cliffs. Shuttle stop: Zion Lodge.

Riverside Wall

Beautiful, shaded walk meanders through forested glens, following the path of the Virgin River into a high-walled canyon, Easy, 2 miles/1.5 hours round trip, climbs 57 feet. Shuttle stop: Temple of Sinawava.

Watchman Trail

Great views of West Temple and lower Zion Canyon. Best hiked early or late in the day, often hot in summer. Moderate, 2.7 miles/2 hours round trip, climbs 368 feet. Trailhead: Zion Canyon Visitor Center.

Hidden Canyon Trail

Steep climb to the mouth of Hidden Canyon. Hikers may continue but there is no maintained trail. Strenuous, 2 miles/3 hours round trip, climbs 850 feet. Warning! Steep Cliffs. Not for anyone fearful of heights. Shuttle stop: Weeping Rock.

Angels Landing Trail

Steep trail climbs Walter's Wiggles past dramatic views at Scout Lookout, with spectacular views of Zion Canyon. Strenuous, 5 miles/4 hours round trip, climbs 1,488 feet. Warning! Steep Cliffs. Not for anyone fearful of heights. Shuttle stop: The Grotto.

Observation Point

High on the east rim, the trail ends on a slender peninsula overhanging the valley

floor offering spectacular views on three sides. Strenuous, 8 miles/5 hours round trip, climbs 2,148 feet. Warning! Steep Cliffs. Not for anyone fearful of heights. Shuttle stop: Weeping Rock.

Visitor Centers

Zion Canyon Visitor Center

At the south entrance. It is the main access for the Zion Canyon Shuttle. Exhibits help you plan your visit and make the most of your time. Rangers are available to answer questions and issue backcountry permits. Books, maps, and film available.

Kolob Canyons Visitor Center

Interstate 15 at Exit 40, 45 miles north of Springdale and 17 miles south of Cedar City. Rangers are available to answer questions and issue backcountry permits. Exhibits, books, maps, and film available.

Zion Human History Museum

First shuttle stop. Exhibits explain how humans have interacted with Zion. Orientation film, information desk, books, and film available.

Orientation Film

Twenty-two minute film highlights the park. Shown daily 8:30 a.m. to closing on the hour and half hour in the Zion Human History Museum.

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Visitor Center Hours

October 1, 2002 - April 18, 2003

Zion Canyon 8 a.m. – 5 p.m. History Museum 8 a.m. – 5 p.m Kolob Canyons 8 a.m. – 4:30 p.m.

April 19 - May 23

Zion Canyon 8 a.m. – 6 p.m.
• Permits 6:30 a.m. – 6 p.m.
History Museum 8 a.m. – 6 p.m.
Kolob Canyons 7 a.m. – 6 p.m.

May 24 - September 7

Zion Canyon 8 a.m. – 7 p.m.
• Permits 6:30 a.m. – 7 p.m.
History Museum 8 a.m. – 7 p.m.
Kolob Canyons 7 a.m. – 7 p.m.

September 8 – October 5

Zion Canyon 8 a.m. − 6 p.m. • Permits 6:30 a.m. − 6 p.m. History Museum 8 a.m. − 6 p.m. Kolob Canyons 7 a.m. − 6 p.m.

October 6 - October 26

Zion Canyon 8 a.m. – 5 p.m. History Museum 8 a.m. – 5 p.m Kolob Canyons 8 a.m. – 4:30 p.m.

Emergencies

Call 911 or 772-3322 24 hours a day or contact a Park Ranger.



Zion National Park

Mailing Address

Zion National Park Springdale, Utah 84767

Web Site

www.nps.gov/zion

Park Headquarters

435 772-3256 Fax 435 772-3426 Backcountry Information 435 772-0170

E-mail

ZION_park_information@nps.gov

Lost and Found

May be reported at any visitor center.

For employment with the National

Park Service: www.usajobs.opm.gov. Seasonal jobs are listed on www.sep.nps.gov.

This is Canyon Country

Steep Cliffs

Loose sand or pebbles on stone are very slippery. Be careful of cliff edges when using cameras or binoculars. Never throw or roll rocks; there may be hikers below.

- ·Stay on the trail.
- ·Stay back from cliff edges.
- ·Observe posted warnings.
- •Parents-watch your children!



This symbol is a warning. Falls from cliffs on these trails have resulted in death.

lash Floods

All narrow canyons are potentially hazardous. Flash floods, often from storms miles away, present a real danger and can be life threatening. By entering a narrow canyon, you are assuming a risk.

Judgement

Whether hiking, climbing, or driving, your safety depends on your own good judgement, adequate preparation, and constant



Flash floods occur without warning.

attention. Don't ruin your vacation by having an accident. Your safety is your responsibility.

Water

The desert is dry, even in winter. Carry enough water for everyone in your group. Water is available at visitor centers, campgrounds, and Zion Lodge. Do not drink untreated water.



This one took place in seconds. A hiker would not survive

Information and Services

Emergencies

For 24-hour emergency response, call 772-3322 or 911. Zion Canyon Medical Clinic is in Springdale, reduced winter hours, 772-3226. The nearest hospitals are in St. George, Cedar City, and Kanab.

Accessibility &

Restrooms, visitor centers, the museum, and Zion Lodge are fully accessible. Several campsites are reserved for people with disabilities, and two trails are accessible.

Pet

Pets must be under physical control on a leash no longer than six feet at all times. They are not allowed in the backcountry, on trails, or in public buildings. Pets may be walked on the Pa'rus Trail. Boarding kennels are available in Rockville, Hurricane, Kanab, St. George, and Cedar City.

Driving

- •Watch carefully for animals, especially at dawn and dusk.
- •Never stop in the road. Use established pullouts.
- •Bicyclists and pedestrians have the rightof-way.
- •Drive only on established roads, and park only in designated areas. Watch for rocks or other debris on the roadway.

Entrance Fees

Private Vehicle \$20 per vehicle, good for 7 days in Zion National Park. \$10 per vehicle for Kolob Canyons section only.

Individual \$10 per person (pedestrian, bicycle, motorcycle, and organized group), good for 7 days in Zion National Park.

2 Zion Map & Guide

Zion Annual Pass \$40, good for one year from date of purchase at Zion National Park only.

Commercial Tours Ask for rates.

Golden Age Passport \$10 lifetime pass for U.S. residents 62 or older.

National Parks Pass \$50, good for one year from date of purchase in all areas of the National Park System.

Golden Eagle Passport \$65, good for one year from date of purchase in all federal fee areas.

Golden Access Passport Free lifetime pass for U.S citizens who are permanently disabled.

Camping

Watchman and South Campgrounds Near the south entrance to the park. Watchman Campground is open all year, sites are first-come, first-serve November 1-April 7. The fee is \$14 a night, \$16 per night with electric hookups (half price for holders of Golden Age/Access Passports). Reservations may be made for Watchman Campground five months in advance for April 11-October 31; 800 365-2267 or http://reservations.nps.gov. Group Campsites Available March through October by reservation to organized groups of 9-40 people for \$3.00 per person per night; 800 365-2267 or http:// reservations.nps.gov.

Facilities Restrooms, drinking water, picnic tables, fire grates, dump stations, and utility sinks.

Other Campgrounds Private campgrounds with showers and hookups are available outside the park.

Fire

Fires are permitted only in the fire pits provided at campgrounds and some picnic areas. Bring or purchase your firewood; collecting wood is not permitted. Fires are not permitted in the backcountry at any time.

Backpacking

Permits are required for all backcountry camping: \$5 per permit. Maximum group size is 12 people. Permits and hiking information are available at both visitor centers. See the *Zion Backcountry Planner* for more information.

Bicycling

Bicycles and other vehicles are not allowed off roadways. Bicycles are allowed on the Pa'rus Trail. When riding from the south entrance to the Zion Canyon Scenic Drive, it is safer to use the Pa'rus Trail instead of the main road. When riding on the Zion Canyon Scenic Drive where traffic is restricted to shuttle buses, please allow buses to pass by pulling over.

Climbing

Climbing on Zion's sandstone requires appropriate hardware and technical skills. Climbing information is available at visitor centers. Climbing and rappelling is prohibited on the cliffs above Middle and Lower Emerald Pools and Weeping Rock. Some routes may be closed to climbing when Peregrine Falcons are nesting. A \$5 permit is required for overnight climbs.

Horseback Riding

Guided trips are available March through

October, 435 679-8665. For private stock use contact a visitor center.

Watercraft

All watercraft use in the park requires a backcountry permit. Permits are issued when the river is flowing in excess of 140 cubic feet per second. Inner tubes are not permitted at any time on any watercourse in the park.

Food Service

Zion Lodge Dining room serves breakfast, lunch, and dinner. Dinner reservations are advised: 435 772-3213.

Other Food Service Restaurants available in Springdale, east entrance, Mt. Carmel Junction, and Kanab.

Groceries Grocery stores available in Springdale and Kanab. Convenience stores available in Mt. Carmel Junction.

Lodging

Zion Lodge Three miles north on Zion Canyon Scenic Drive. Open year-round. Rooms, cabins, and suites, gift shop, and post office. Reservations recommended: 303 297-2757 or www.Xanterra.com. Other Lodging Available in Springdale, Rockville, east entrance, Mt. Carmel Junction, Kanab, Cedar City, and other nearby towns.

Worship Services

Offered during summer, check bulletin boards for times.

Interdenominational Zion Lodge and South Campground.

Church of Jesus Christ of Latter Day Saints Springdale.

Roman Catholic Zion Lodge.

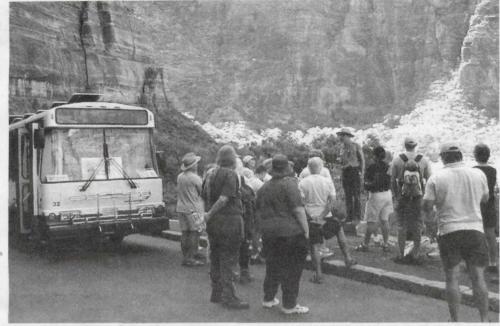
Ranger-led Activities

Ranger-led activities are a great way to learn more about Zion National park. Topics include:

- · geology
- · plants
- · animals
- human history
- · more

All programs are free. Check at visitor centers, Zion Lodge, and bulletin boards for program topics. Allow time for shuttle transportation to the presentation.

Check for additional programs offered in the off-season.



Program	Dates	Times	Description					
Morning Hike April 25-Oct. 4 9		9 a.m. daily	One to three-hour hike. Be prepared to walk two to three miles. Wear sturdy footwear and bring a hat, sunglasses, sunscreen, and water. Che bulletin boards for meeting places.					
Ride With A Ranger Shuttle Tour	April 25-Oct. 4	9 a.m. daily	Two-hour narrated shuttle bus tour on the Zion Canyon Scenic Drive. Seating is limited—obtain free tickets at the Zion Canyon Visitor Center. Tickets are not required for the regular shuttle system.					
Museum Talk	April 25-Oct. 4	11:25 a.m. daily 1:25 p.m. daily	20 to 30-minute talk on the shaded Zion Human History Museum patio.					
Zion Lodge Evening Program	April 25-Aug. 23 Aug. 24-Sept. 13	8 p.m. nightly 7:30 p.m. nightly	30 to 45-minute presentation in the Zion Lodge Auditorium.					
Watchman Camp- ground Evening Program			30 to 45-minute presentation at the Watchman Campground Amphitheater.					

Entrance Fees at Work

About 80% of your entrance fees now stay in the park. The Fee Demonstration Program and other recent legislation has enabled Zion to continue to enhance your visit and protect park resources. Entrance fees are being used to establish and operate the new shuttle system. In addition, user fees make the following projects possible:

- •Rehabilitate Weeping Rock and Emerald Pools Trails
- •Re-roof Zion Museum
- •Replace Oak Creek sewer
- •Rehabilitate Watchman Campground
- •Repair historic CCC retaining walls

Your entrance fees make these and other projects possible. Thank you.



Zion Human History Museum exhibit installation, spring 2002.

Junior Ranger Program

Junior Ranger Explorer Who

This summer discovery program is developed especially for children 6 to 12 years of age. *The 6-year-old minimum age is strictly followed.* For children under 6, see "Self-Guided Programs."

What

Junior Ranger Explorers learn about Zion National Park and their world through hands-on activities, games, hikes, and lessons. Topics vary and range from plants and animals to geology and archeology. Plus, children can earn awards: a pin and certificate for attending one session, and a patch for attending a second session or a ranger-led program (guided shuttle tour, walk, talk, evening program).

When

Available May 24 to August 30, 2003. Two sessions are offered daily: 9:00 to 11:30 a.m. and 1:30 to 4:00 p.m.

Where

The programs are held at the Zion Nature Center, 1/2 mile north of the park entrance, near the entrance to the South Campground. The shuttle does not stop at the Nature Center. You may drive your vehicle to the Nature Center any time of the year. For accessibility information call 435 772-0169.

What to Wear

Many activities are outdoors, so dress comfortably and wear closed-toe shoes; *no sandals*. Hats and sunscreen are good on hot, sunny days. Bring rain gear if the weather looks stormy.

Registration

A parent or guardian must register children. Register at 8:30 for the 9:00 a.m. session, and at 1:00 for the 1:30 p.m. session. There is a one-time, \$2.00 per child fee.

Parents

Children must be with their parents between sessions if attending both morning and afternoon programs. Please be prompt dropping off and picking up children. Food is not available, so ensure children have eaten before coming to the program.

Self-Guided Programs

Ages 6 to 12 Junior Ranger

Children 6 to 12 years old can earn a badge by completing an activity booklet during their visit. Booklets are available at the Zion Canyon and Kolob Canyons Visitor Centers year-round. A different Junior Ranger Badge is offered at each visitor center.

Ages Under 6 Junior Ranger Helper

Children under 6 years old can earn a decal by completing an activity sheet available at the Zion Canyon Visitor Center and Human History Museum year-round.

The Zion Natural History Association provides additional funding for this program.



Zion Map & Guide 3

Hiking & Canyoneering Emerald Pools Trails

HIKING IN CANYONS, EVEN SHORT HIKES, REQUIRES ADVANCE PLANNING. MANY HIKES INVOLVE WALKING in water, and the rivers and creeks are subject to flash flooding. River flows vary greatly depending on time of year and weather conditions. Check the National Weather Service weather forecast and flash flood potential before entering any canyon; posted daily in visitor centers. See the Zion Backcountry Planner for additional information.

Permits

Permits are required for all overnights, through hikes of the Narrows and tributaries, Left Fork of North Creek (the Subway), Kolob Creek, and all canyons requiring the use of technical equipment. Subway permits. may be reserved by visiting www.nps.gov/ zion. Permits are issued at visitor centers (see hours, page 1) the day before your hike. Cost: \$5 per permit.

Group Size

The maximum group size is 12 people of the same affiliation on the same trail or in the same drainage on the same day.

Be Prepared

All narrow canyons are potentially hazardous. Flash floods, cold water, and strong currents present real dangers that can be life-threatening. Your safety depends on your own good judgement, adequate preparation, and constant attention. By entering a narrow canyon, you are assuming a risk. Your safety is your responsibility.

Zion Narrows

Weather and water conditions permitting, there are three ways to hike the Zion Narrows:

Short Day-hike Continue upstream beyond the end of the Riverside Walk. 1 to 5 hours, round trip. No permit required.

Through Day-hike Hike downstream from Chamberlain's Ranch. This long all-day hike requires a shuttle to the trailhead and a \$5 permit.

Overnight Hike Hike downstream from Chamberlain's Ranch. This two-day hike requires a shuttle to the trailhead and a \$5 permit. Maximum stay is one night. Fires are not allowed.

Zion Narrows Checklist

- · Obtain weather and flash flood potential forecasts before starting your trip.
- · Wear sturdy boots or shoes with ankle support.
- · Take a walking stick. Do not cut tree branches for sticks.
- · Small children should not hike in the river due to strong currents and deep pools.
- · Carry out all trash: food wrappers, apple cores, fruit peels, tissue paper-everything you carried in.
- · Carry one gallon of drinking water per person for a full-day hike, food, sunglasses, sunscreen, and first aid kit.
- · Take a sweater or windbreaker. The Narrows is much cooler than Zion Canyon.
- · Pack gear in waterproof bags.
- · Use the restroom at the Riverside Walk Trailhead before hiking. There are no toilets in The Narrows.

THIS SERIES OF POOLS AND WATERFALLS MAY BE ACCESSED BY THREE DIFFERENT ROUTES. THESE trails, as well as a short trail to the upper pool, connect and can be combined as a loop. There is always a small waterfall at the lower pool. If it rains there may be larger waterfalls at both the upper and lower pools.

Lower Emerald Pool Trail

Easy, .6 mile one-way, 69-foot ascent. Paved trail to the pool, then continues behind the waterfalls that cascade from the middle pools into the lower pool.

Middle Emerald Pools Trail

Moderate, 1 mile one-way, 150-foot ascent. Unpaved climb to a sandstone ledge that parallels the lower trail but at a higher level. Connects to lower pool trail to form a 1.6 mile loop. Do not go near the edge. Deaths have occurred from falling from the middle pools. Loose sand and pebbles on stone are very slippery.

Upper Emerald Pool Trail

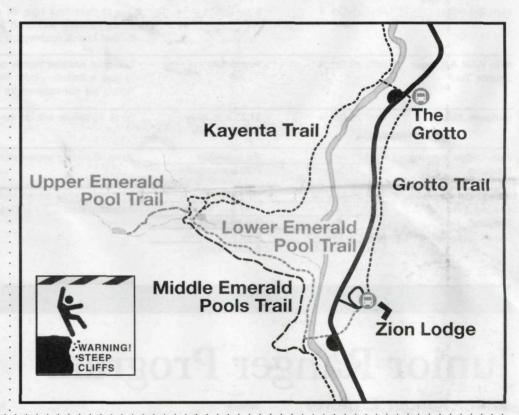
Moderate, 3 mile from Middle Pool Trail one-way, 200-foot ascent. A sandy, rocky trail climbs to the base of the cliff.

Kayenta Trail

Moderate, I mile one-way, 150-foot ascent. Unpaved climb to a sandstone ledge, connects The Grotto to the Emerald Pools.

Grotto Trail

Easy, .5 mile one-way, level. Trail connects Zion Lodge to The Grotto Picnic Area. Can be linked with Emerald Pools and Kayenta Trails allowing a 3-mile loop hike.

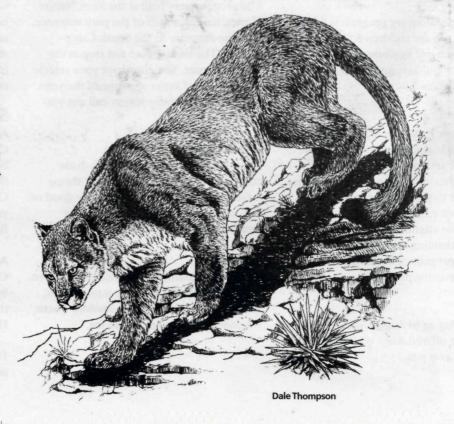


Mountain Lions

MOUNTAIN LIONS ARE WILD ANIMALS AND CAN BE DANGEROUS. THEY HAVE BEEN OBSERVED frequently in the park. An attack by one is unlikely—there is a far greater risk of being struck by lightning. Zion National Park has never had a reported attack on people or pets. However, mountain lions have attacked in other areas.

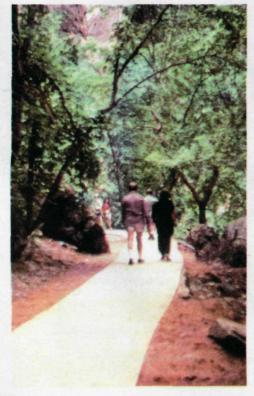
Recommendations For Your Safety

- · Watch children closely, and never let them run ahead or lag behind.
- · Solo hiking or jogging is not recommended.
- · Never approach a mountain lion. Most will try to avoid a confrontation. Always give them a way to escape.
- · Do not run! Try to look large. Put your arms up.
- If a mountain lion approaches, wave your arms, shout, and throw rocks or sticks at it.
- · If attacked, fight back.
- · Report any mountain lion sightings or encounters to a Park Ranger as soon as possible.



Maintaining Sanctuary

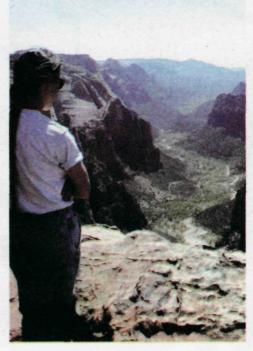




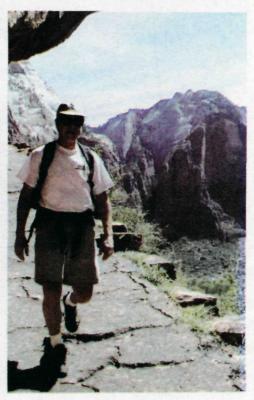
Please stay on marked trails. Hiking off trails can lead to loss of vegetation, soil compaction, erosion, and unsightly scars on the landscape.



Keep wildlife wild. Human foods are not healthy for wildlife. Feeding wild animals is illegal and can cause injury or death to the animal. Wild animals are capable of hurting you as well. Keep a safe distance and do not feed them.

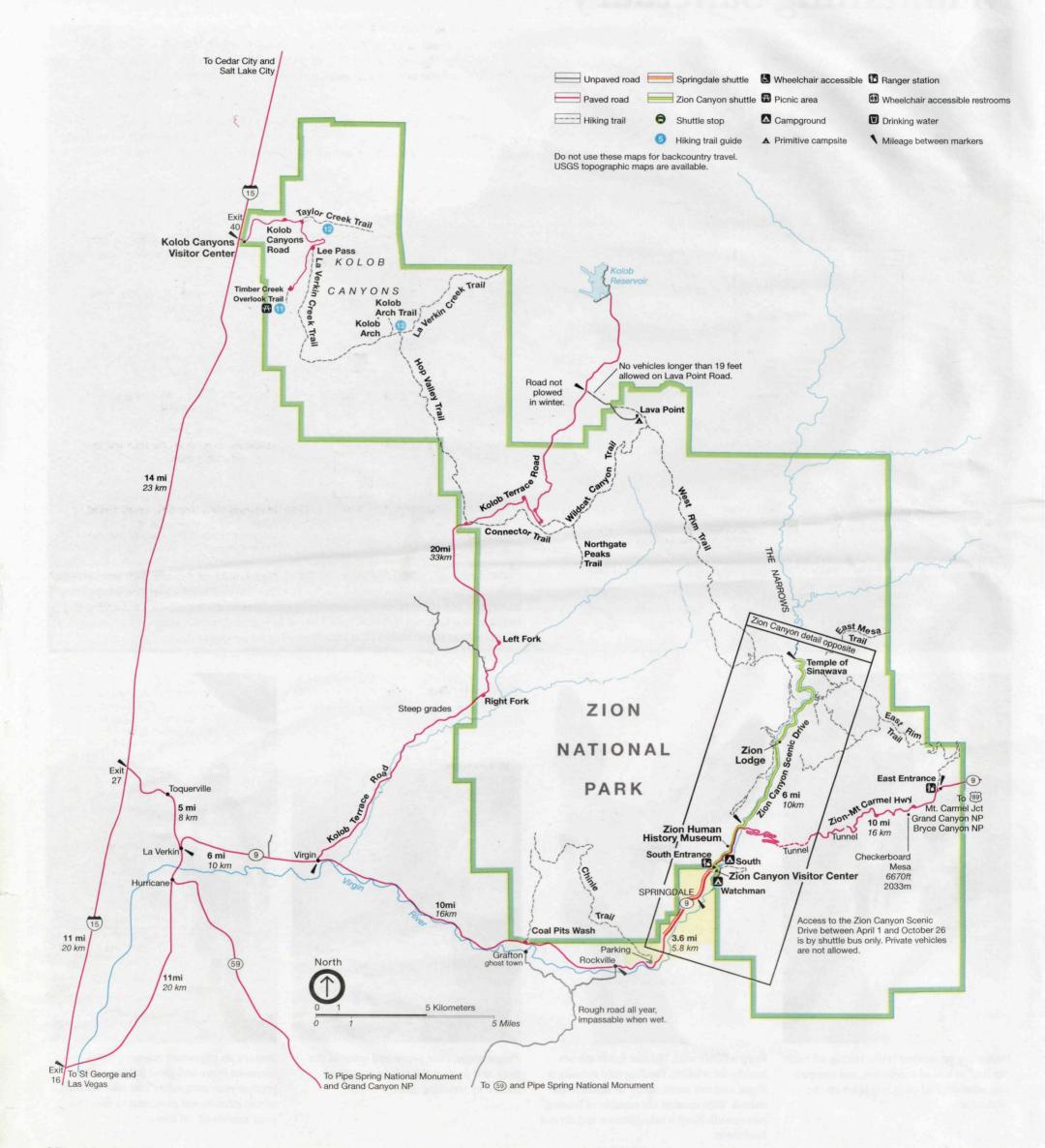


Please respect the peace and quiet of the park and protect the subtle sounds of nature by traveling quietly.



You are an important resource too. Use common sense and good judgement to protect your own safety and take advantage of our educational programs to enhance your knowledge of Zion.

Zion National Park



Zion Canyon **Emerald Pools Trails detail page 5** The Grotto 0 Court of the Patriarchs South Ca Zion Canyon Visitor Center 怪で奔伽 -Watch Zion Park Inn Shuttle stop SPRINGDALE

Trail Guide

Use the Shuttle to Access Trailheads

Access to trailheads along the Zion Canyon Scenic Drive is by shuttle only. *Private vehicles are not allowed*. Shuttles depart early morning from Springdale and the Zion Canyon Visitor Center and run late into the evening. Check page 12 for schedule. Plan your hike so you do not miss the shuttle

For Your Safety

Stay on established trails and watch your footing, especially at overlooks and near drop-offs. Always stay back from edges. Watch children closely. People uncertain about heights should turn around if they become uncomfortable. Never throw or roll rocks; there may be hikers below.

rail shuttle Stop Zion Canyon		(avg.time)	(ft/m)	Description
Pa'rus Trail Zion Canyon /isitor Center	3.5/5.6	1-1/2 hrs.	50/15	Easy Paved trail follows Virgin River from South Campground to Canyon Junction.
Weeping Rock Weeping Rock	0.5/0.8	1/2 hour	98/30	Short but steep Minor drop-offs. Paved trail ends at a rock alcove with dripping springs. Trailside exhibits.
Riverside Walk Temple of Sinawava	2.0/3.3	1-1/2 hrs.	57/17	Easy Minor drop-offs. Paved trail follows Virgin River along bottom of narrow canyon. Trailside exhibits.
cower Emerald Cool Cion Lodge	1.2/1.9	1 hour	69/21	Easy Minor drop-offs. Paved trail to lower pool and waterfalls.
Middle Emerald Pools Cion Lodge	2.0/3.3	2 hours	150/46	Moderate Long drop-offs. Loop trail to lower and middle pools.
Canyon Overlook Cion-Mt.Carmel Highway-east of long tunnel	1.0/1.6	1 hour	163/50	Moderate Long drop-offs, mostly fenced. Rocky, uneven trail ends at spectacular viewpoint of lower Zion Canyon and Pine Creek Canyon.
Vatchman ion Canyon visitor Center	2.7/3.3	2 hours	368/ 112	Moderate Minor drop-offs. Ends at viewpoint of lower Zion Canyon, Oak Creek Canyon, and town of Springdale.
Hidden Canyon Veeping Rock	2.0/3.2	3 hours	850/ 259	Strenuous Long drop-offs. Not for anyone fearful of heights. Ends at mouth of narrow canyon.
Angels Landing The Grotto	5.0/8.6	4 hours	1488/ 453	Strenuous Long drop-offs and narrow trail. Not for anyone fearful of heights. Ends at summit high above Zion Canyon. Last 0.5 mi (0.8 km) follows steep, narrow ridge; chains have been added.
Observation Point Veeping Rock	8.0/12.0	5 hours	2148/ 655	Strenuous Climbs through Echo Canyon to Observation Point. Excellent views of Zion Canyon. Trail gives access to other East Rim plateau trails: Cable Mountain and Deertrap Mountain.
Vest Rim to Labin Spring The Grotto	10/17.2	8 hours	2640/ 880	Strenuous Long drop-offs. Climbs to high country view of canyons. Trail continues to Lava Point. Trip to Lava Point should not be attempted as a one-day hike.
Colob Canyons Timber Creek Overlook Colob Canyons Sicnic area	1.0/1.6	1/2 hour	100/30	Moderate Follows ridge top to small peak with views of Timber Creek, Kolob Terrace and Pine Valley Mountains.
raylor Creek mi. east of colob Canyons fisitor Center	5.0/8.6	4 hours	450/ 137	Moderate No drop-offs. Follows Middle Fork of Taylor Creek past two home- stead cabins to Double Arch Alcove.
Colob Arch ee Pass	14/22	8 hours	699/ 213	Strenuous No drop-offs. Follows Timber and LaVerkin Creeks and ends at Kolob Arch, possibly world's largest freestanding

The Geology of Zion

ZION NATIONAL PARK IS A SHOWCASE OF geology. Geologic processes have played an important role in shaping Zion. The arid climate and sparse vegetation allow the exposure of large expanses of bare rock and reveal the park's geologic history.

Zion is located along the edge of a region called the Colorado Plateau. Uplift, tilting, and erosion of rock layers formed a feature called the Grand Staircase, a series of colorful cliffs stretching between Bryce Canyon and the Grand Canyon. The bottom layer of rock at Bryce Canyon is the top layer at Zion, and the bottom layer at Zion is the top layer at the Grand Canyon.

Sedimentation

Zion was a relatively flat basin near sea level 275 million years ago. As sands, gravels, and muds eroded from surrounding mountains, streams carried these materials into the basin and deposited them in layers. The sheer weight of these accumulated layers caused the basin to sink, so that the top surface always remained near sea level. As the land rose and fell and as the climate changed, the depositional environment fluctuated from shallow seas to coastal plains to a desert of massive windblown sand. This process of sedimentation continued until over 10,000 feet of material accumulated.

Lithification

Mineral-laden waters slowly filtered through the compacted sediments. Iron oxide, calcium carbonate, and silica acted as cementing agents, and with pressure from overlying layers over long periods of time, transformed the deposits into stone. Ancient seabeds became limestone; mud and clay became mudstones and shale; and river sand and sand dunes became sandstone. Each layer originated from a distinct source and so differs in thickness, mineral content, color, and eroded appearance.

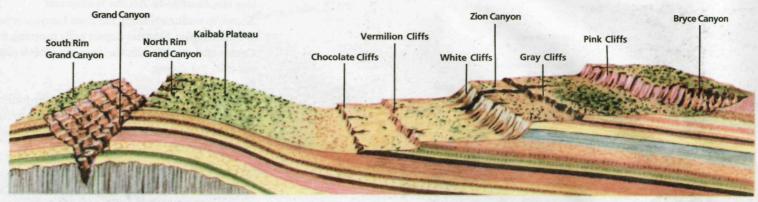
Uplift

In an area from Zion to the Rocky Mountains, forces deep within the earth started to push the surface up. This was not chaotic uplift, but slow vertical hoisting of huge blocks of the crust. Zion's elevation rose from near sea level to as high as 10,000 feet above sea level.

Uplift is still occurring. In 1992 a magnitude 5.8 earthquake caused a landslide visible just outside the south entrance of the park.

Frosio

This uplift gave the streams greater cutting force in their descent to the sea. Zion's location on the western edge of this uplift caused the streams to tumble off the plateau, flowing rapidly down a steep gradient. These streams began eroding and cutting into the rock layers, forming deep and narrow canyons. Grain by grain the Virgin River has carried away several thousand feet of rock that once lay above the highest layers visible today.



The Grand Staircase

The Virgin River is still excavating. Upstream from the Temple of Sinawava, the river cuts through Navajo Sandstone, creating a slot canyon. At the Temple, the river has reached the softer Kayenta Formation below. Water erodes the shale, undermining the overlaying sandstone and causing it to collapse, widening the canyon.

Volcanic Activity

Volcanic vents, created as a result of the weakening of the Earth's crust during uplift, allowed lava flows and cinder cones to form. Cinder was piled several hundred feet high in classic cone shapes and lava flowed into valleys. Cinder cones and black basalt flows are visible west of Rockville and on Kolob Terrace.

Geology In Action

A landslide once dammed the Virgin River forming a lake. Sediments settled out of the quiet waters, covering the lake bottom. When the river breached the dam and the lake drained, it left behind a flat-bottomed valley. This change in the character of the canyon can be seen from the scenic drive south of the Zion Lodge near the Sentinel

Slide. This slide was active again in 1995, damaging the road.

Flash floods occur when sudden thunderstorms dump water on exposed rock. With little soil to absorb the rain, runoff occurs quickly. These floods often occur without warning and can increase water flow by over 100 times. In 1998, a flash flood increased the volume of the Virgin River from 200 cubic feet per second to 4,500 cubic feet per second, again damaging the scenic drive at the Sentinel Slide.



The Colorado Plateau



Geology is not something that "happened" in the past. It is a constant force that continues to change the landscape. Earthquakes, flash floods, and rock falls

are sudden reminders that the Earth is dynamic. Rock falls are common in Zion. This one occurred on Bridge Mountain in 1991.

Rock Layer	Appearance	Where To See	Deposition	Rock Type
Cinder cones and lava flows	black layers and cones	Kolob Terrace and west of Rockville	lava flows and cinder cones	basalt and cinders
Carmel Formation	cliffs	Mt. Carmel Junction	shallow sea and coastal desert	limestone, sandstone and gypsum
Temple Cap Formation	cliffs	top of West Temple	desert	sandstone
Navajo Sandstone	steep cliffs 1,600 to 2,200 feet thick	tall cliffs of Zion Canyon; highest exposures are West Temple, Checkerboard Mesa	desert sand dunes covered 150,000 square miles	cross-bedded sandstone
	red lower layers are €olored by iron oxides	believed to be the tallest sandstone cliffs in the world	shifting winds during deposition created cross- bedding	
Kayenta Formation	rocky slopes	throughout canyon	streams	siltstone and sandstone
Moenave Formation	slopes and ledges	lower red cliffs seen from Zion Canyon Visitor Center	streams and ponds	siltstone and sandstone
Chinle Formation	purplish slopes	above Rockville	streams	shale, loose clay, and conglomerate
Moenkopi Formation	chocolate cliffs with white bands	rocky slopes from Virgin to Rockville	shallow sea	shale, siltstone, sandstone, mudstone, limestone
Kaibab Formation	cliffs	escarpment of Hurricane Fault along I-15 near Kolob Canyons	shallow sea	limestone

Managing Fire



Fire plays a major role in shaping many of Zion's ecosystems.

THE NATIONAL PARK SERVICE USES MANY TOOLS TO MANAGE OUR natural and cultural resources. Fire is one such tool. By using a combination of techniques, we can best manage wildland fire to reduce the risk to the public and to maintain healthy ecosystems on federal lands.

Fire Suppression

Extinguishing or limiting wildland fires at their discovery by utilizing the safest and most efficient suppression methods available.

Prescribed Fire

Any fire ignited by management specialists under predetermined conditions to meet specific objectives related to hazardous fuels or habitat improvement. An approved prescribed fire plan must exist prior to ignition.



Public and firefighter safety is always the main priority in all of Zion's fire management operations.

Wildland Fire Use

The management of naturally ignited (lightning) wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in Fire Management Plans.

Mechanical Fuel Reduction

The removal of natural vegetation with mechanized equipment and/or hand tools. Usually limbing and thinning vegetation and disposing of the material through pile burning.

Chemical Fuel Treatment

The use of herbicides to control unwanted vegetation. Follow-up treatments may include mechanical fuel reduction.

Weather and Climate

Month	J	F	M	A	M	J	1	A	5	0	N	D
Temperature (°F)												
normal daily max	52	57	63	73	83	93	100	97	91	78	63	53
normal daily min	29	31	36	43	52	60	68	66	60	49	37	30
extreme high	71	78	86	94	102	114	115	111	110	97	83	71
extreme low	-2	4	12	23	22	40	51	50	33	23	-13	6
days above 90°F	0	0	0	1	8	21	30	28	18	3	0	0
days below 32°F	19	14	10	3	0	0	0	0	0	1	9	18
Precipitation (inches)												
normal	1.6	1.6	1.7	1.3	0.7	0.6	0.8	1.6	0.8	1.0	1.2	1.5
maximum	7.5	6.7	7.1	4.4	3.0	4.0	3.6	4.8	6.7	3.3	3.2	4.3
max 24 hour	1.6	1.3	0.9	1.2	1.8	2.2	1.1	1.6	1.4	1.3	1.3	2.0
maximum snowfall	26	18	14	3	T	0	0	0	T	1	5	21
days w/precipitation	7	7	8	6	5	3	5	6	4	4	5	6
no. thunderstorms	0	0	0	1	4	5	14	15	5	2	0	0

Be prepared for a wide range of weather conditions. Temperatures vary with changes in elevation and day/night temperatures may differ by over 30°F.

Spring

Weather is very unpredictable. Stormy, wet days are common, but warm, sunny weather may occur too. Precipitation peaks in March. Spring wildflowers bloom from April through June, peaking in May.

Summer

Days are hot (95-IIO°F), but overnight lows are usually comfortable (65-70°F). Afternoon thunderstorms are common from mid-July through mid-September. Storms may produce waterfalls as well as flash floods.

Fall

Days are usually clear and mild; nights are often cool. Autumn color displays begin in September in the high country. Colors in Zion Canyon usually peak in late October.

Winter

Winters in Zion Canyon are fairly mild. Winter storms bring rain or light snow to Zion Canyon, but heavier snow to the higher elevations. Clear days may become quite warm, reaching 60°F; nights are often in the 20s and 30s. Winter storms can last several days and cause roads to be icy. Zion roads are plowed, except the Kolob Terrace road, which is closed in winter. Be prepared for winter driving conditions from November through March.

Profile

Established

1909 as Mukuntuweap National Monument; expanded in 1919 as Zion National Park. Kolob section added in 1937.

Significance

Established to preserve and protect aesthetic and scientific values:

- Zion features stunning scenery found nowhere else on earth.
- Zion is a geologic showpiece with sandstone cliffs among the highest in the world
- Zion features one of the last mostly freeflowing river systems on the Colorado Plateau.
- Zion features a large, diverse plant and animal community.
- Zion features evidence of human occupation both historic and prehistoric, including excellent examples of Civilian Conservation Corps work.

Size

229 square miles (147,551 acres).

Elevation

Lowest: 3,666 ft (1,128 m), Coalpits Wash in the southwest corner. Highest 8,726 ft (2,660 m), Horse Ranch Mountain.

Precipitation

Average: 15 inches.

Name

Zion, a Hebrew word referring to a place of safety or refuge, given to this canyon by Mormon pioneers in the 1860s. Kolob, in Mormon theology, is a heavenly place close to God.

Humans

Evidence of Ancestral Puebloans, known as the Anasazi, date from 2,000 years ago; Paiutes from about 800 years ago to present. Mormon settlers arrived in the 1860s. Park visitation in 1920 was 3,692; in 1996 it reached 2.5 million.

Plant Life

Richest diversity of plants in Utah—almost 800 native species. Differences in elevation, sunlight, water, and temperature create "microenvironments," like hanging gardens, forested side canyons, and isolated mesas that lend to this diversity.

Animal Life

75 species of mammals, 271 birds, 32 reptiles and amphibians, 8 fish. Commonly seen animals include mule deer, lizards, and many species of birds. Rare or endangered species include the Peregrine Falcon, Mexican Spotted Owl, Southwest Willow Flycatcher, desert tortoise, and the Zion snail, found nowhere else on earth.

Zion Canyon Shuttle

Includes 30 propane buses and 21 trailers. In 2002, there were 2.3 million riders. When full, each bus/trailer combination replaces 28 cars that otherwise would drive up the Zion Canyon Scenic Drive.

Zion Map & Guide 9

Traveling In The Area

Zion National Park is part of the Southwest's "Grand Circle" of national parks, monuments, historic areas, and recreation areas—one of the world's great concentrations of outstanding natural and cultural features. Even though these areas seem close, do not try to visit too many in a short period. Allow plenty of time for each and plan return trips if you miss some this time around.

Utah's 13 National Park Service areas comprise a small part of the public land in the state. The Bureau of Land Management and U.S. Forest Service manage large areas including some strikingly beautiful and some very remote places. In addition, the state of Utah administers 44 state

Zion Host Program

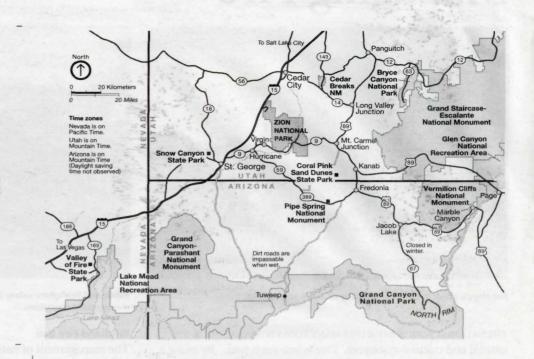
The Zion Host Program is a cooperative effort between Zion National Park and local businesses. Look for this logo at businesses employing certified Zion Hosts, trained to provide accurate park informa-



Travel Information

You can get more information on traveling in the area at the information desks in the park visitor centers. The nearby towns of Kanab, St. George, and Cedar City have offices for some or all of these other land management agencies. They also have travel councils and chambers of com-

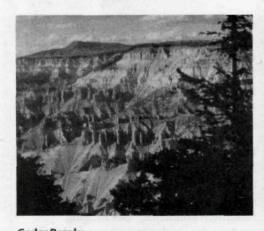
Utah Travel Council 800 200-1160, www.utah.com Utah State Parks and Recreation 801 538-7220, Reservations 800 322-3770 www.stateparks.utah.gov National Park Service www.nps.gov Bureau of Land Management 801 539-4001 www.blm.gov U.S. Forest Service www.fs.fed.us National Weather Service www.nws.noaa.gov Utah Department of Transportation Recorded road conditions and construction, dial 511



Area Mileages

One-way from Zion Canyon Visitor Center.

West Bound		East Bound	
St. George, UT	45	Kanab, UT	41
Las Vegas, NV	158	Page, AZ	125
Death Valley, CA	284	Albuquerque, NM	500
South Bound		North Bound	
Grand Canyon North Rim	120	Bryce Canyon	86
Grand Canyon South Rim	253	Salt Lake City, UT	325
Flagstaff, AZ	243	Moab, UT	333



Cedar Breaks **National Monument**

Seventy-five miles north of Zion lies Cedar Breaks. At a 10,350-foot (3,155m) elevation, the park features a spectacular wonderland—a brightly colored amphitheater filled with spires, fins, and hoodoos against a backdrop of subalpine greens and brilliant blue skies. In summer, the meadows are ablaze with colorful wildflowers. Cedar Breaks features a visitor center, daily ranger programs, trails, picnic area, campground, and scenic drive with views into the "breaks." Temperatures can be cool. The road is closed because of heavy snow, fall through spring. For more information call 435 586-0787. www.nps.gov/cebr



Pipe Spring National Monument

Pipe Spring National Monument is rich with American Indian, early explorer, and western pioneer history. In the 1870s, Mormon pioneers built a fort on the site, "Winsor Castle," laying claim to one of the few perennial springs on the Arizona Strip. The visitor center, tours of Winsor Castle, living history demonstrations, garden and orchard, and a half-mile trail offer a glimpse into Indian and pioneer life in the Old West. A bookstore operated by the Zion Natural History Association, and a campground operated by the Kaibab Paiute Tribe are nearby. For more information call 928 643-7105. www.nps.gov/pisp



New National Monuments

The rugged landscape of southern Utah and northern Arizona is home to three new Bureau of Land Management (BLM)/ National Park Service (NPS) managed national monuments. Many of the roads are rough and require 4-wheel-drive. Before venturing into the interior, call for current information:

Grand Staircase-Escalante National Monument (BLM) 435 644-4600

(Kanab), 435 826-5499 (Escalante). www.blm.gov

Vermillion Cliffs National

Monument (BLM) 435 688-3246 (St George) www.blm.gov

Grand Canyon-Parashant

National Monument (NPS/BLM) 435 688-3246 (St. George). www.nps.gov or www.blm.gov



Bryce Canyon National Park

Erosion has shaped a colorful amphitheater of "hoodoos," unique formations whimsically arranged and tinted with colors too numerous and subtle to name. We encourage you to use the Bryce Canyon Shuttle during your stay. It is easy and convenient and you'll be doing your part to reduce traffic, conserve fuel, reduce pollution, and protect park resources. Ample parking is available at Ruby's Inn. Parking is limited elsewhere. Buses run from May 16 through Labor Day. For detailed shuttle information, tune your radio to 1610 AM as you approach the park. For more information call 435 834-5322. www.nps.gov/brca



Learn, Explore, Enjoy!

Join us for an exciting, intensive educational experience with the majesty of Zion National Park and its surroundings as your living classroom.

The Zion Canyon Field Institute (ZCFI) is a nonprofit educational organization created by the Zion Natural History Association in cooperation with Zion National Park. Its mission is to educate and inspire local, national, and international visitors. Workshop participants investigate the natural and cultural resources of the greater Zion ecosystem with visiting instructors in science, the humanities, and the arts. Learning through adventurous, hands-on outdoor programs is emphasized.

Workshops take place in Zion National Park, Cedar Breaks National Monument, Pipe Spring National Monument and nearby locales. They provide excellent opportunities to learn about and view local flora, fauna, and cultural sites up-close with engaging expert instructors. Enrollment is limited to ensure a quality experience.

The Field Institute operates year round and offers 1, 2, and 3-day workshops. Course fees include books and materials and will allow ZCFI to expand its offerings. Fees range from \$25-\$80/day.

Field Institute Classes 2002

Spring Workshops Spring Photography May 14 Edible Plants May 17 Spring Photography May 28 Geology Seminar May 29-31

Summer Workshops

Zion "101" June 6 Wildlife Photography June 12 Interpreting the Narrows June 14 Zion "101" June 20 Peregrine Falcons June 21 Summer Photography June 25 Interpreting the Narrows June 28 Ecology of Cedar Breaks July 10 Geology of Cedar Breaks July II Wildflowers of Cedar Breaks July 12 Project WET July 15 Bat Biology and Conservation July 16 Interpreting the Narrows July 19 Interpreting the Narrows July 26 Zion by Moonlight Aug. 12 Zion "101" Aug. 15 Geology of Zion Aug. 23

Fall Workshops

Painting in Zion Sept. 5 Fall Photography Sept. 9 Nature Journal Sept. 23 Riparian Service Project Sept. 24-26 Dutch Oven History Dinner Sept. 27 Interpreting the Narrows Sept. 27 Descending Grand Staircase Oct. 11-12 Bighorn Sheep Oct. 14 Archaeology Service Project Oct. 15-17 Cable Mountain Horseback Oct. 18 Fall Foliage Photography Oct. 23-25 Mountain Lion Service Project Oct. 28-29

Winter Workshops

Native Plants Oct. 31 Native Plants Nov. 1 Geology Nov. 7-8 Winter Photography Dec. 13

Service Projects

ZCFI offers opportunities for workshops that benefit participants and the parks. Service projects, like archaeological studies, river restoration, and mountain lion field work, allow participants to join professionals and help inventory seldom-visited sites within the park.

Custom Classes

We can design a custom course for your group. Even small family groups can participate in our individualized classes.

High School Field Trips

This 3-hour class is designed for high school students and provides an academic overview of the park and its resources. Students learn about area flora, fauna, geology, and cultural history in the field.

Registration

A registration packet is available on our website: www.zionpark.org, by calling 800 635-3959 or 435 772-3264, or at any bookstore in Zion National Park









Zion Natural History Association

Springdale, Utah 84767 phone 435 772-3264 fax 435 772-3908 www.zionpark.org

The Zion Natural History Association is a nonprofit organization established in 1931 to support education, research, and other programs for the benefit of Zion National Park, Cedar Breaks National Monument, and Pipe Spring National Monument. Financial support by ZNHA members is pooled with sales from our bookstores to provide the parks with approximately \$300,000 in aid annually. Members receive a 20% discount on Field Institute classes and purchases at ZNHA bookstores. Order by phone: 800 635-3959.

Zion Trip Planning Package

Answers questions most often asked when planning a trip to Zion National Park. Includes the books: Zion, Towers of Stone; Zion Shuttle Guide; Guide To Zion National Park; Introduction to the Geology of Zion National Park; and a Zion topographic map. (\$29.30 value) \$22.95

Zion National Park Orientation Video/DVD

This is the official National Park Service orientation video shown daily in the Zion Human History Museum. Covers plants, animals, geology, history, and what to do and see with magnificant photography. 23 minutes, color, VHS \$9.95 DVD \$14.95



Expert instructors help you learn about the exciting world of Zion National Park.

Join Us!

Become a member and create a lasting relationship with Zion National Park. As a member you will help us publish nearly 1 million pieces of free informational literature for park visitors each year, support the very successful Junior Ranger Program and educational outreach programs to local schools, and additional projects.

☐ Individual \$35 per year

Includes membership card allowing you a 20% discount at ZNHA stores, and discounts with other cooperating associations in the U.S., member pin, a newsletter twice a year, and an annual Christmas gift.

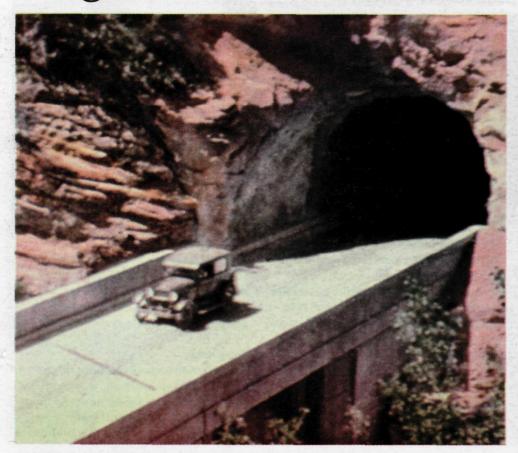
Family \$50 per year

Includes everything above, plus extra membership cards.

Address _

Make checks payable to ZNHA Mail to: Zion Natural History Association, Zion National Park,

Large Vehicles



The tunnel was built for cars like this 1930s model.

THE ZION-MT. CARMEL TUNNEL IS BEWTEEN THE EAST ENTRANCE AND ZION CANYON. IT WAS BUILT IN in the 1920s when cars were small and few in number. Some large modern vehicles will not fit without assistance.

Vehicle Size

Vehicles sized 7'10" in width or II'4" in height, or larger, are required to have an "escort" (traffic control) through the Zion-Mt. Carmel Tunnel. Vehicles this size are too large to stay in their lane while traveling through the tunnel. Nearly all RV's, buses, trailers, 5th wheels, campers, and boats will require an escort.

Arranging An Escort

Visitors requiring an escort *must pay a \$10* fee per vehicle in addition to the entrance fee. Pay this fee at either park entrance before proceeding to the tunnel. The fee is good for two trips through the tunnel for the same vehicle during a 7-day period.

You will not be following an escort vehicle through the tunnel. Rangers will stop oncoming traffic and when the tunnel is clear you will drive down the middle of the road. We apologize for the delays that many visitors will encounter as a result of this safety precaution. Rangers are stationed at the tunnel:

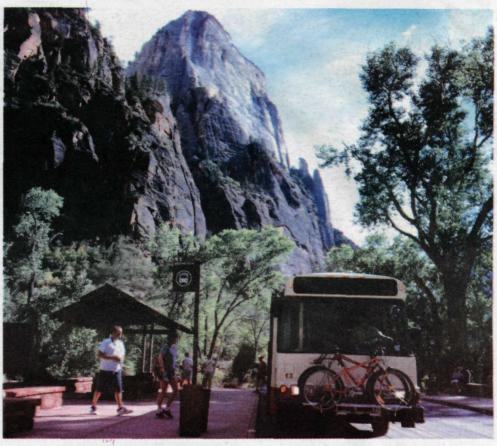
April 1-April 19, 8 a.m. to 6 p.m. daily April 20-October 18, 8 a.m. to 8 p.m. daily October 19-November 1, 8 a.m. to 6 p.m. daily

Prohibited Vehicles

•Vehicles over 13'1" tall. •Semi-trucks. •Commercial vehicles. •Vehicles carrying hazardous materials. •Vehicles weighing more than 50,000 lbs. •Single vehicles over 40' long. •Combined vehicles over 50' long. •Bicycles and pedestrians.



Shuttle Schedule



Shuttle at Weeping Rock with the Great White Throne in the background.

THE ZION CANYON SCENIC DRIVE IS BY SHUTTLE ONLY FROM APRILTHROUGH OCTOBER. *Private vehicles are not allowed.* Plan your trip to include using the shuttle. There is room for backpacks and climbing equipment. Buses are fully accessible. Pets are not allowed.

Spring & Fall

April 1-May 17 Sept. 7-Oct. 26

Zion Canyon Loop

Visitor Center departures first bus 6:45 a.m.
15 minute service 6:45-8:30 a.m.
7-10 minute service 8:30 a.m.-8 p.m.
15 minute service 8-9 p.m.
last bus 9:30 p.m.

last departure from

Temple of Sinawava 10 p.m.

Springdale Loop

Express bus up-canyon leaves

Majestic View
6:30 a.m.
10 minute service
7-11 a.m.
15 minute service
10 minute service
4-9 p.m.
15 minute service
9-10 p.m.
last bus
10 p.m.

Majestic View 10:15 p.m.



Avoid parking hassels—ride the Sprigdale Shuttle and walk into the park

Summer

May 18-Sept. 6

Zion Canyon Loop

Visitor Center departures first bus 5:45 a.m. 30 minute service 6:30-7 a.m. 10-15 minute service 7-9 a.m. 6-10 minute service 9 a.m.-8 p.m. 15 minute service 8-9 p.m. 30 minute service 9-10:30 p.m. last bus 10:30 p.m. last departure from

II p.m.

Temple of Sinawava

Springdale Loop

Express bus up-canyon leaves

Majestic View 5:30 a.m.
20 minute service 6:40-7 a.m.
10-15 minute service 7 a.m.-10 p.m.
30 minute service 10-11 p.m.
last bus 11 p.m.
last departure from

estic View II:15 p.m.



Shuttles take you to all trailheads and points of interest in Zion Canyon.





Printing made possible by the Zion Natural History Association. Storage space provided by Wal-Mart Distribution Center, Hurricane, Utah.