



# Zion National Park Profile 2020

Facts and Figures from FY19 (unless otherwise noted)

## Overview

Located in Washington, Iron, and Kane Counties in Southwestern Utah, Zion National Park encompasses some of the most scenic canyon country in the United States. The park is characterized by high plateaus, a maze of narrow, deep sandstone canyons, and striking rock towers and mesas. Zion Canyon is the largest and most visited canyon in the park. The North Fork of the Virgin River has carved a spectacular gorge here, with canyon walls in most places rising 2000-3000 feet above the canyon floor. The southern part of the park is lower desert area, with colorful mesas bordered by rocky canyons and washes. The northern sections of the park are higher plateaus covered by forests.

## Mission Statement

The mission of Zion National Park is to protect and preserve the valuable cultural, geologic, and biological resources while providing safe and sustainable access for visitor experiences and enjoyment. In addition, the park aims to educate both visitors and the general public about the geologic showcase, the convergence of ecoregions, the wilderness character, and the remnants of humanity's past that reside within the park.

## Establishment

- July 31, 1909, Mukuntuweap National Monument established by William Howard Taft
- March 18, 1918, monument enlarged and name changed to Zion National Monument
- November 19, 1919, an act of Congress changed the designation of the monument to Zion National Park
- January 22, 1937, the Kolob Canyons area was designated Zion National Monument by Franklin D. Roosevelt
- 1956, the monument and the park are combined into Zion National Park by Congress
- March 30, 2009, Public Law 111-11 designated 124,462 acres of Zion as wilderness (84% of the park)

## Name

Pioneers from the Church of Jesus Christ of Latter-Day Saints (the Mormons) started referring to the canyon as Zion in the 1860s. The word comes from the Hebrew language and has been used as a synonym for heaven or utopia.

## Human History

Zion National Park contains evidence of at least 8,000 years of human occupation. Prehistorically, the Archaic, the Ancestral Puebloans (known by archaeologists as the Virgin Branch of the Kayenta Anasazi), the Parowan Fremont, and the Southern Paiutes occupied areas of the park. Historically, the Southern Paiutes, Spanish explorers and traders, members of the Church of Jesus Christ of Latter-Day Saints, and other Euro-American pioneers visited or settled in the area. Important segments of Zion National Park history include park establishment, construction of the park's first infrastructure, early tourism, the Civilian Conservation Corps, and Mission 66.

## Natural Resources

### Size:

- 148,732 acres or 232 square miles (600.9 km<sup>2</sup>)
- Designated Wilderness: 124,380 acres or 194.3 square miles (503 km<sup>2</sup>), about 83.6% of total area

- Inholdings: 3,430 acres or 5.36 square miles (13. 9 km2)

**Elevation:**

- Highest Point: Horse Ranch Mountain – 8,726 feet (2660 m)
- Lowest Point: Coalpits Wash – 3,666 feet (1117 m)

**Rivers and Major Streams:**

- 97 miles (156.1 km)

**Intermittent Streams:**

- 458 miles (737 km)

**North Fork of the Virgin River:**

- Length in park: 17.95 miles (28.9 km)
- Average gradient of the Virgin River through the park: ~71 feet per mile
  - Chamberlain Ranch to Temple of Sinawava: 87 feet per mile
  - Temple of Sinawava to South Campground: 55 feet per mile
- Sediment transfer: One million tons per year(907.185 metric tons), extremely variable year-to-year

The Narrows is a section of the North Fork of the Virgin River above the Temple of Sinawava. In places the canyon is only 20 feet (6 m) across with Navajo Sandstone walls towering to heights of 2000 feet (610 m) on each side.

**Zion Canyon:**

The North Fork of the Virgin River has carved out a 6.5 mile (10.5 km) canyon from the Temple of Sinawava to the town of Springdale UT.

- Highest Point in Zion Canyon: West Temple, 7,810 feet (2380 m)
- Lowest Point in Zion Canyon: Watchman Campground, 3,920 feet (1195 m)

**Climate and Weather**

**Zion Canyon:**

Year of Maximum Precipitation: 2005 31.65 inches (80.4 cm)

Year of Minimum Precipitation: 2002 5.01 inches (12.7 cm)

Highest Recorded Temp: July 1, 1950 115 °F (46.1 °C)

Lowest Recorded Temp: Jan. 21, 1937 -15 °F (-26.1 °C)

Month	Normal Low Temp	Normal High Temp	Mean Temp	Days over 100°F (38°C)	Days below 32° F (0°C)	Normal Precipitation*
Jan.	30.3°F (-1°C)	54.2°F (12.3°C)	42.3°F (5.7°C)	0	20.2	1.8” (4.57cm)
Feb.	33.5°F (0.8°C)	58.3°F (14.6°C)	45.9°F (7.7°C)	0	12.8	1.98” (5.03cm)
Mar.	38.3°F (3.5°C)	66.2°F (19°C)	52.3°F (11.3°C)	0	9.0	2.04” (5.18cm)
Apr.	43.9°F (6.6°C)	74.3°F (23.5°C)	59.1°F (15.1°C)	0	3.0	1.31” (3.33cm)
May	52.7°F (11.5°C)	85.2°F (29.6°C)	68.9°F (20.5°C)	0.4	0.3	0.67” (1.70cm)
Jun.	62°F (16.7°C)	95.7°F (35.4°C)	78.8°F (26°C)	6.4	0	0.31” (0.79cm)
Jul.	69°F (21°C)	101°F(38.3°C)	85°F (29.4°C)	16.0	0	1.22” (3.10cm)
Aug.	67.7°F (19.8°C)	98.3°F(36.8°C)	83°F (28.3°C)	9.9	0	1.45” (3.68cm)
Sep.	60.3°F (15.7°C)	91°F (32.8°C)	75.6°F (24.2°C)	1.7	0	1.04” (2.64cm)
Oct.	48.8°F (9.3°C)	78.3°F (25.7°C)	63.6°F (17.5°C)	0	1.4	1.30” (3.30cm)
Nov	37°F (2.8°C)	63.5°F (17.5°C)	50.3°F (10.2°C)	0	9.5	1.42” (3.61cm)
Dec.	29.5°F (-1.4°C)	53.3°F (11.8°C)	41.4°F (5.2°C)	0	18.0	1.63” (4.14cm)
Annual	45.7°F (7.6°C)	76.3°F (24.6°C)	62°F (16.7°C)	34.3	74.3	16.19” (41.12cm)

\*Precipitation data from the Utah Climate Center; “Normal” period 1981-2010.

## Cultural Resources

### Archaeological:

- Archaeological sites are defined as locations of purposeful human activity from the prehistoric, protohistoric, and historic periods. Zion has 563 archaeological sites.
- 36 of these sites occur within the Parunuweap Archaeological District listed in the National Register of Historic Places

### National Register of Historic Places:

- 94 listed sites
  - Two prehistoric archaeological sites and 92 historic structures/buildings
    - Selected list of historic structures: two roads, eight hiking trails, four irrigation ditches, 12 residences, 15 cabins

### Cultural Landscapes:

The National Park Service defines a cultural landscape as a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. There are two cultural landscapes in Zion; Zion Canyon and Zion Lodge/Birch Creek.

### Museum Collection:

45.06% of the collection is cataloged

Fields Represented in Museum Collection	Archaeology	Ethnology	History	Archival	Art	Biology	Paleontology	Geology
Number of Objects in Museum Collection	31,390	109	6,150	439,902	105	25,181	611	482

## Biological Resources

### Flora:

1074 Taxa (including subspecies and variations)

- Tree taxa, 40
- Shrub taxa, 137
- Perennial forb taxa, 492
- Annual forb taxa, 213
- Perennial graminoid taxa, 129
- Annual graminoid taxa, 35
- Fern taxa, 28

162 species are introduced, 10 listed as noxious weeds by the state of Utah

46 local endemic species

### Fauna:

- 70 mammal species
- 258 bird species
- 28 reptile species
- 7 amphibian species
- 4 fish species

Non-native fauna: 3 species of birds, 5 species of fish, 2 species of mammal

### Species of Special Concern/Rare Species:

- Zion snail (endemic)
- Virgin River spinedace
- Flannelmouth sucker
- Desert sucker, Arizona toad
- Common chuckwalla
- Gila monster
- Western banded gecko
- Bald eagle
- Black swift
- Ferruginous hawk
- Lewis's woodpecker
- Mountain plover

- Northern goshawk
- Short-eared owl
- Big Free-tailed bat
- Fringed myotis bat
- Townsend's big-eared bat

**Threatened or Endangered Species:**

- Mexican Spotted owl
- Southwestern Willow flycatcher
- California Condor
- Mojave Desert tortoise
- Yellow-billed Cuckoo

**On-Going Projects:**

Desert Bighorn Sheep

A project with Zion National Park, Zion Forever Project, Utah Department of Wildlife Resources, and Utah State University to understand current and forthcoming disease risk for the Zion herd and to collect information describing the life history of the Zion bighorn population.

Peregrine Falcon

Zion National Park provides critical sanctuary for Peregrine Falcon nesting. This annual program monitors nesting activity beginning in March until chicks fledge, usually in late July.

Bats

In the Southwest United States limited data exists regarding the location and structure of bat winter roost sites. This project will define key characteristics and locations of bat winter roost sites, monitoring for the presence of the fungus that causes white-nose syndrome (WNS), a disease that has caused precedent-setting mortality in eastern U.S. bat populations.

**Fire Management**

The Fire and Aviation Management Program at Zion National Park provides oversight and management for the Utah Parks Group which includes Zion National Park, Bryce Canyon National Park, Capitol Reef National Park, Glen Canyon National Recreation Area, Rainbow Bridge National Monument, Pipe Spring National Monument, Cedar Breaks National Monument, Golden Spike National Monument, and Timpanogos Cave National Monument.

Fire Management activities in 2019 included:

- Management of 12 fires that burned 439 acres (178 hectares)
- Fuel reduction treatment of 908 acres (367 hectares) including prescribed fire, mechanical thinning, and herbicide applications
- 29 aviation missions for Search and Rescue operations, Wildland Fire Management, and project implementation

**Frontcountry Facilities and Development**

**Watchman Campground:**

- 164 sites (95 electric, 69 tent, 18 walk-in, 15 accessible)
- 7 group sites, reservations from March-November (available up to 6 months in advance)
- open year-round

**South Campground:**

- 117 sites (3 accessible)
- 4 group sites
- reservations from March-November (available 14 days in advance)
- closed December-February

### Lava Point Campground:

- 6 sites (primitive)
- no reservations
- closed in winter based on road conditions

4 Picnic Areas (Grotto, Kolob Canyons, Zion Nature Center, Zion Canyon Visitor Center)

89.4 miles (144 km) of hiking trails

36.6 miles (59 km) of roads, 2.4 miles (3.8km) are unpaved

### Zion/Mt. Carmel Tunnel:

Constructed 1927-1930, cost: \$1,896,000, length: 1.06 miles (1.7km), width: 22 feet (6.7 m), height: 16 feet (4.9 m)

### Visitor Services

#### Visitation:

- 4,423,098, up 2% from 2018 (2018: 4,341,933, 2017: 4,526,712)
- Average # of visitors per day during the peak months: May – 17,142; June – 19,890; July – 20,376; August – 17,328

In 2019 visitation hit over 500,000 four months (May, June, July, August) and September was nearly as high with 499,243 visitors. Compared to 2018 when visitation was over 500,000 in only three months.

2017 was the only year that visitation hit over 500,000 for six consecutive months (April - September).

2016 only saw two months with more than 500,000 visitors.

2015's highest visitation month was July with 481,398 visitors.

2007-2013 annual visitation numbers stayed between 2.5 and 3 million visitors annually.

#### Visitor Protection (Calendar Year 2019):

- Search and Rescue Incidents: 90
- Emergency Medical Services Calls: 192
- Law Enforcement Incidents: 4,400
- Structural Fire Callouts: 26
- Mutual Aid Calls: 44
- Visitor Assists: 496

#### Zion Wilderness Use:

Type of Permit	Number of Permits	Number of Visitors
Overnight Backpacking, not including Narrows	4,242	10,633
Canyoneering Permits, including Narrows	7,648	29,379
Whitewater Permits	160	307
Overnight Climbing Permits	161	521
Overnight Canyoneering Trips, including Narrows	847	2,729
Totals	13,058	43,411

#### Interpretation and Education:

##### Contact Station Visitation

- Zion Canyon Visitor Center, open year-round: 1,270,171 visitors
- Zion Human History Museum, open March -November: 445,239 visitors
- Kolob Canyons Visitor Center, open year-round: 128,305 visitors
- Zion Nature Center, open Memorial Day through Labor Day: 12,258 visitors
- Information Hot-Line, open year-round: 7,895 phone calls and 7,017 emails
- Junior Ranger Program, available year-round: 27,400 booklets and 20,000 badges

<b>Interpretive Programming</b>	<b>Number of Programs</b>	<b>Number of Contacts</b>
Ranger-led Programs (Traditional Interpretation)	1,391	58,997
Informal Ranger Roves (Traditional Interpretation)	1,791	48,258
Ranger-led Programs (Youth Programming/Nature Center)	443	23,069
Junior Ranger Stations	263	25,246
Informal Ranger Roves (Youth Programming)	330	16,691
Distance Learning	56	1,683
Classroom Outreach	43	1,713
Field Trips	31	1,813
Concrete-To-Canyons, Zion and Dinosaur (3-day program)	9	745

**Volunteers-in-Parks (Calendar Year 2019):**

920 volunteers (155 recurring volunteers and 765 one-time volunteers) contributed 31,207 hours of service. This is the largest number of volunteers Zion has ever hosted representing a total value of \$793,594 donated to the park. Most hours were contributed by Campground hosts and interpretation volunteers; 13,091 and 7,342 hours respectively. Two visitor center volunteers crossed the 4,000-hour mark!

In addition to the "normal" duties our volunteers performed, this year they also provided visitors extra opportunities to see and learn about Zion's condor chick, helped throughout the park on busy holiday weekends, and assisted in all aspects of Angels Landing test operations, results of which will be used to implement a pilot program in the summer of 2020 or 2021.

The park hosted four AIRs (Artists in Residence) in 2019. A photographer, two painters, and a ballerina each contributed 160 volunteer hours to the park (640 hours total).

**Service Contractors**

**Zion Transportation Shuttle System**

In May 2000, Zion implemented a mandatory transit bus system for park visitors along the eight-mile Zion Canyon Scenic Drive from the Zion Canyon Visitor Center to the Temple of Sinawava. The system also provides connecting service in the town of Springdale. Currently, the buses operate full-time mid-March through November, with service on weekends in February (dates vary). 39 propane-powered buses, 23 with accompanying trailers, and 2 electric buses may be in service on any given day. The park route consists of nine stops made by a bus with a trailer and the town route consists of 10 stops made by a bus without a trailer.

**Ridership:**

6,777,100 riders in 2019 (up 2.67% from 2018)

Busiest days of 2019:

- Memorial Day Sunday, 5/26/2019: 47,008 riders
- Memorial Day Saturday, 5/25/2019: 46,969 riders
- Independence Day Friday, 7/5/2019: 45,682 riders

**Ranger-led Shuttle Tours (Ride with a Ranger):** 1 per day mid-May through September

Total Programs: 142

Total Attendance: 3980

**Concession Operators**

**Xanterra Parks and Resorts, Inc.**

Zion Lodge (motel units, historic cabins, restaurant, snack bar, gift shop) - open year-round

**Canyon Trail Rides, Inc.**

Guided horse trips in Zion Canyon – March through October

**Commercial Use Authorizations (CUA) and Special Park Uses (SPU)**

The CUA program includes commercial interpretive services such as guided hiking, bicycle tours, motorcycle tours, photography and painter workshops, and trailhead shuttles. In 2019, Zion issued 182 CUAs (compared to 160 in 2018 and 140 in 2017).

SPUs are special events or activities that provide a benefit to an individual or group and that require a written authorization and management control from the NPS. Zion issued 177 special use permits in 2019 for weddings, filming, 1<sup>st</sup> Amendment activities, church services, and more (compared to 148 in 2018 and 116 in 2017).

### **Zion Forever Project**

The Zion Forever Project (ZFP) is the official nonprofit partner of Zion National Park, Cedar Breaks and Pipe Spring National Monuments. ZFP provides curated educational opportunities through interpretive products in its park stores, seasonal field courses, and lectures. ZFP serves as the park's philanthropic partner.

ZFP provides funding to address the priorities represented by the project's three mission areas: Improving Today, Informing Tomorrow, and Protecting Forever. Visit [zionpark.org](http://zionpark.org) to learn more.