# The Hoodoo

The official newspaper of Bryce Canyon National Park Fall/Winter/Spring 2007 – 2008

### **Visitor Center Hours**

September 30 – November 3, 2007 8 a.m. – 6 p.m.

November 4, 2007 – March 31, 2008 8 a.m. – 4:30 p.m. National Park Service U.S. Department of the Interior



Questions? Bring this newspaper to the Visitor Center!

Emergencies Call 911 or 435-676-2411, 24-hours a day or contact a Park Ranger.

Park Headquarters 435 834-5322 Fax 435 834-4102

Web Site www.nps.gov/brca

E-mail brca\_information@nps.gov

Mailing Address PO Box 640201 Bryce, Utah 84764-0201



### What's Inside

## Death at **Bryce Canyon**

#### How many people die at Bryce? Fortunately, Bryce averages less than 1

fatality per year. In order of decreasing abundance fatalities are caused by: Heart attacks

- •Falling off cliffs
- •Lightning
- Vehicle accidents

Unfortunately, hundreds of serious injuries have also needlessly occurred, some out of ignorance, but too many from ignoring park safety warnings.

#### Top 10 Causes of Bryce Injuries #10 Unsafe Driving

•Speeding (speed limits are 35 - 45 mph). •Failure to wear seat belts. •Passing on a double yellow line •Auto vs animal. Watch for Wildlife! ·Rear-ending. Stop in pullouts, never in road. •Not reducing speed while on snow or ice.

#### #9 Climbing / Skiing off the Rim

Bryce's rock forms crumbly cliffs and steep muddy slopes. Hand and toe holds support nothing heavier than chipmunks. Skiing the slopes triggers the lethal combination of mud / snow avalanches.

#### #8 Feeding Animals

Fed animals become aggressive. Even small animals can inflict bites requiring stitches and worse yet transmit disease. Watch wildlife from a distance and discourage animals that approach you.

#### #7 Ignoring Extreme Weather

At Bryce it is possible for the difference between the daily high and low to be as much as 50° F! Lightning is a year-round danger -- even during snowstorms! Seek the shelter of a building or your vehicle whenever the "flash-bang interval" (time between lightning and thunder) is less than 30 seconds.

#### #6 Dehyrdration

Drink 1 quart / liter every 2-3 hours. A hydrated body retains heat better and is more resistant to the delirious effects of hypothermia. Sunburns also lead to dehyrdation. Wear a hat, sunscreen, and sunglasses to protect from the sun overhead and the reflected UV light from snow below.

#### #5 Leaving the Trail

Stay on designated trails and away from cliff edges where snow cornices form. Even on seemingly gentle slopes, it can be impossible to keep your footing. Trails can be especially difficult to follow while under snow. Bring the maps on page 4 and 5 to avoid getting lost.

#### #4 Over-exertion

Park elevations reach 9115 feet (2778 m) subjecting you to 70% of the oxygen you might be used to. Bryce's trails start at the top which means all returns will be uphill. Turn back BEFORE you become tired. Know and respect your own physical limitations.

#### #3, #2, & #1 Bad Choice of Footwear

Wear hiking boots with good ankle support and "lug" traction. Hiking without hiking boots is like SCUBA diving without an air tank. Sport-sandals & "trainers," are NOT safe hiking footwear. When trails are snow-packed or icy, hiking poles and under-boot traction devices are highly recommended.

## **Information and Services**

The historic Bryce Canyon Lodge was built by the

Union Pacific Railroad in 1925 as part of the "Loop Tour" of Zion, Bryce Canyon, Cedar Breaks and

#### Park Roads

The main park road is open year-round but may be temporarily closed immediately following a heavy snowfall. The Fairyland Point and Paria View spur roads are intentionally NOT plowed in the winter to provide a surface for cross-country skiers.

#### Visitor Center

Visitor Center Open daily except Thanksgiving (November 23) and Christmas (December 25) from 8:00 a.m. to 4:30 p.m., with extended hours during the spring, summer and fall. Information, museum, publications, an award-winning film, backcountry permits, and lost-and-found services are available here

#### Emergencies

24-hour emergency response, call 911 or 435 676-2411. Garfield Hospital, 435 676-8811, and Clinic, 435 676-8842 are in Panguitch.

#### Accessibilty

6. Restrooms, the Visitor Center, Bryce Canyon Lodge\*, and General Store\* are fully accessible. The 1/2-mile section of Rim Trail between Sunset and Sunrise points is paved and level. Inquire at the Visitor Center for information on accessible ranger-led programs, and to obtain an Access Guide. (\*April through October)

#### Restrooms

ŧ. Available year-round at the Visitor Center, North Campground and Sunset, Farview, and Rainbow Points. Restrooms are also available April - October at Brvce Canyon Lodge, General Store and Sunset Campground.

#### Phones

Available year-round at the Visitor Center and General Store. Phones are also available April - October at Bryce Canyon Lodge and Sunset Campground.

#### Pets

Pets Pets are not recommended in the park. If you must bring your pet, be aware that it must be on a leash and under control at all times. Pets are not permitted in buildings, at park viewpoints, or on trails.

Horseback Riding Wranglers lead 2-hour and 4-hour horse and mule rides April - October. For same-day reservations, inquire at Bryce Canyon Lodge or call 435 834-5500. For advance reservations, contact: Canyon Trail Rides, P.O. Box 128, Tropic, UT 84776; 435 679-8665. Information: www.canyonrides.com.

Grand Canyon (North Rim) National Parks. Of the four original lodges, the Bryce Canyon Lodge is the only one still standing.





good for 7 days at Bryce Canyon only. Individual: \$12 per person (pedestrian,

bicycle, motorcycle, and organized group), good for 7 days at Bryce Canyon only. Interagency Annual Pass: \$80, good for

one year from date of purchase in all federal fee areas.

Interagency Senior Pass: \$10 lifetime pass for U.S. residents 62 or older.

Interagency Access Pass: Free lifetime pass for U.S. citizens who are permanently disabled.

Commercial Tours: Ask for rates.

#### Camping Δ

North Campground: Open all year, 107 campsites. Available first-come, firstserved October 1-May 14. Campsites may be reserved May 15-Sept 30 by calling 877 444-6777 or www.recreation.gov. Reservations can be made up to 240 days in advance.

Sunset Campground: Open late spring to early fall, 101 campsites. Available first-come, first-served.

Fees: Camping is \$10.00 a night per campsite (half price for Senior/Access Pass holders).

#### Effective January 1, 2008 the per campsite fee will increase to \$15.00 per night.

Group Campsite: One site available by reservation only. Group size is limited to 7-30 people and 8 vehicles. Cost is \$5 per person, with a minimum of \$50 per night. Campsite may be reserved by calling 877 444-6777 or www.recreation.gov.

Dump Station: No hookups are available in the park, but a fee-for-use dump station is available seasonally near North Campground. Year-round dump stations are available outside the park.

Other Campgrounds: For camping reservations at Zion and Grand Canyon National Parks, call 800 444-6777 or visit http://www.recreation.gov. Public campgrounds are available on US Forest Service, BLM, and Utah State Park lands nearby. Private campgrounds with showers and hookups are available outside the park.

## Showers & Laundry

Coin-operated shower and laundry facilities are available at the General Store, open April - October, and outside the park at some nearby establishments.

#### Lodging

Bryce Canyon Lodge: Open April 1 -November 1, has cabins, motel rooms and suites, a restaurant, and gift shop. For lodging reservations, write to: Xanterra Parks and Resorts, Inc., 4001 East Iliff Ave., Suite 600, Aurora, CO 80014, call 888 297-2757; or visit www.brycecanyonlodge.com. Other Lodging: Available near the park entrance and in Tropic, Cannonville, Bryce Junction, and Panguitch.

Food Services Bryce Canyon Lodge: Open April 1 -November 1. Dining room serves breakfast, lunch, and dinner. Dinner reservations are required; call 435 834-5361. The General Store, open April to October, has groceries, quick meals, and camping supplies. Other Food Services: Restaurants are available near the park entrance and in Tropic, Bryce Junction, and Panguitch.

#### Post Office / ATM/ Internet

Ruby's Inn has a post office open Mon-Sat (Bryce, UT 84764), an ATM, and internet services. Personal mail addressed to park visitors will not be accepted at Bryce Canyon National Park.

## Religious Services

Available in the park during summer months and outside the park year-round. For information, inquire at the Visitor Center.

#### Bicycles

Bicycles Bicycles are restricted to paved roadways in the park. The nearby Dixie National Forest has a paved 5-mile bicycle path through Red Canyon, and many miles of challenging and spectacular mountain bike trails. Grand Staircase-Escalante National Monument has countless miles of dirt roads suitable for mountain biking. Contact Dixie National Forest, P.O. Box 80, Panguitch, UT 84759, 435 676-9300, www.fs.fed.us/r4/dixie: or Garfield County Travel Council, P.O. Box 200, Panguitch, UT 84759, 800 444-6689; www.brycecanyoncountry.com; also www. ut.blm.gov/monument.

#### **Picnic Areas**

Picnic Areas Picnic areas are available year-round at Sunset Point, the General Store, Rainbow Point, and from April - October at the south end of North Campground and Mile 4.5 of the park road. Water faucets are available seasonally at all of the above locations except Mile 4.5 and Rainbow Point. Fire grates are available only at the North Campground Picnic Area.

Recycling Recycling bins are located at the entrance to North Campground and Sunset Point (aluminum cans and plastic #1-7 only).

# Hoodoos: The Odyssey of an Oddity

Hoodoo Pronunciation: 'hü-dü noun:

- Etymology: West African; from voodoo 1: a body of practices of sympathetic magic traditional especially among blacks in the southern United States
- 2: a natural column of rock in western North America often in fantastic form
- 3: something that brings bad luck
- 4: nonsense, hokum, bunkum

transitive verb

- to cast a spell on; broadly
  to be a source of misfortune to
  - Merriam Webster online (www.m-w.com)

The striking scenery that makes Bryce Canyon unique, has been created by the forces of nature sculpting the brilliantlycolored Claron Formation into a series of beautiful and unusual erosional features.

Bryce Canyon's beginnings take us back to the end of the earth's tumultuous Cretaceous Period, 65 million years ago. It was a time that brought cataclysmic changes worldwide, including the extinction of the dinosaurs.

#### Deposition

The creation of this unique landscape can be traced back to a network of braided rivers and streams which transported a variety of sediments into a large freshwater lake that once covered southwestern Utah. Colorful minerals such as iron (yellow and red) and manganese (pink and violet) mixed with dissolved calcium carbonate to create this unusually colorful limestone. Over time, the water disappeared, leaving behind the multicolored Claron Formation from which Bryce Canyon's unusual scenery is carved.

#### Uplift & Faulting

About 10-15 million years ago, a period of uplift began in the large region of the southwest known as the Colorado Plateau. Such tremendous stress on the earth's crust led to a period of faulting, stretching and fracturing, thereby creating a series of smaller plateaus.

The highest of these plateaus, the Table Cliff, is visible to the east of Bryce. Bryce Canyon has been carved from the eastern rim of the Paunsaugunt Plateau. The Paunsaugunt Fault, which separates these two plateaus, initiated the sculpting process by breaking the surrounding rock with vertical mini-fractures called joints. A series of perpendicular joints were also created by another earthquake zone called the Ruby's Inn Over-thrust Fault. Earthquakes along these two faults left a checkerboard pattern of fractures, priming Bryce Canyon for the forces of weathering and erosion.

#### Weathering & Erosion

Although Bryce Canyon receives a meager 18 inches of precipitation annually, it's amazing what this little bit of water can do under the right circumstances!

Sub-freezing nighttime temperatures and relatively warm days result in over 200 freeze-thaw cycles annually. During the afternoon, snow and ice will melt, and water seeps into the joints of the Claron Formation. Once the sun sets, temperatures plummet and the water re-freezes, expanding up to 9% as it becomes ice. Exerting tremendous force on the adjacent rock, this process, known as frost wedging, shatters and pries the weak rock apart.

At the same time, rain water, which is naturally acidic, is slowly dissolving away the limestone, rounding off the edges of these fractured rocks, and washing away the debris. The plateau continues to erode westward in a process called headward erosion.rock apart. In addition, rain water, which is naturally acidic, slowly dissolves the limestone, rounding off edges and washing away the debris.

Small rivulets of water run down Bryce's rim, forming gullies (A). As gullies are cut deeper, narrow walls of rock known as fins



Utah region 50 million years ago. Sediment eroded from mountains in Northwestern Utah was deposited in a lake, lithified (turned to stone), and later uplifted to be re-eroded into hoodoos.

begin to emerge (B). Fins eventually develop holes known as windows (C). Windows grow larger until their roofs collapse, creating hoodoos (D). As old hoodoos age and collapse, new ones are born.

The conditions and processes at work here are not unique, but the distinctive way in which all of the elements operate together results in the fantastic scenery that makes Bryce Canyon worldly unique.









#### Future Geology:

The "Real" Canyon and Hoodoo Extinction Sadly, Bryce Canyon won't last forever. With the average rate of erosion being 1-4 feet every hundred years, it is estimated that in 3 million years, hoodoos will cease to exist here. In that distant future, Bryce will have eroded far enough to the west that it will capture the East Fork of the Sevier River. Once the river flows through Bryce all hoodoos will be toppled and no more will form because flowing water is a much more powerful erosive force than frostwedging. So, enjoy this worldly unique landscape while you can, because alas, Bryce Canyon will eventually become just another "real" canyon.

## **Park Profile**

#### Established

1923 as Bryce Canyon National Monument administered by the U.S. Forest Service; 1924 as Utah National Park administered by the National Park Service 1928 name changed to Bryce Canyon National Park

#### Significance

Established to preserve and protect outstanding scenic and scientific values. Best known for the beautiful and bizarre rock spires called hoodoos and the dark night sky.

#### Hoodoo

[hoo'doo] n. 1. A pinnacle or odd-shaped rock left standing by the forces of erosion. 2. v. To cast a spell or cause bad luck. 3. Voodoo.

#### Elevation / Size

Lowest: 6,620 feet (2018 m) Yellow Creek. Highest: 9,115 feet (2778 m) at Rainbow Point. 55 square miles (35,835 acres)

#### Name

Ebenezer and Mary Bryce lived in the area from 1875-1880 and aided in the settlement of southwestern Utah and northern Arizona.

#### Humans

Ancestral Puebloans, known as the Anasazi, probably lived in the area from 2,000 years ago. They were followed by the Fremont Culture through the 1200s, then the Southern Paiutes until 100 years ago. Mormon settlers arrived in the 1870s. Park visitation in 1929 was 22,000. In 2006 it reached 1.4 million.

#### Plant Life

More than 400 native plant species live in the park. Pinyon pine and juniper grow among the hoodoos at low elevations; ponderosa pine forests dominate the plateau top; and spruce, fir, and aspen thrive at the highest elevations. Bristlecone pines, some more than 1,600 years old, live at elevations throughout the park.

#### Animal Life

Utah Prairie Dogs, a threatened species, can be seen in open meadows. Mule Deer and Pronghorn (mistakenly known as Antelope) are the most common large mammals seen. Mountain lions and black bears live in the park, but are rarely seen. About 210 species of birds visit Bryce.

#### Bryce Canyon Lodge

Designed by Gilbert Stanley Underwood and built in 1925, it is a National Historic Landmark. Of the four original lodges in the Union Pacific Loop Tour (Bryce Canyon, Cedar Breaks, Zion, and Grand Canyon-North Rim), the Bryce Canyon Lodge is the only one still standing.

## What Can I Do Here?

## Making the most of your time

### **Less Than 4 Hours**

Visitor Center

Stop at the Visitor Center for information, museum exhibits, and a 22minute award-winning orientation film.

#### Auto Tour of the Overlooks

Drive to Bryce, Inspiration, Sunset and Sunrise points first. If you still have more time, visit overlooks in the southern portion of the park as described below.

#### Short Walk

Hike a short segment of the Rim Trail or select one of the other hikes from the "Easy to Moderate" group in the hiking table on page 5.

### **More Than 4 Hours**

Visitor Center, Auto Tour, Short Walk and:

#### Day Hike(s)

Bryce is best viewed from its trails. Select one of the combination loops from the "Moderate" or "Strenuous" groups in the hiking table on page 5

#### Ranger Program(s)

Attend a free Ranger Program to learn more about the natural and cultural history of this region. Rangers offer a limited number of programs in the fall, winter and spring. Inquire at the Visitor Center for a current schedule.



#### Where is the Best Overlook?

There are 13 viewpoints along Bryce Canyon's 18-mile road (one-way distance) and everybody determines his or her favorite for a multitude of reasons. Furthermore, for every 15 minutes you extend your visit you can see another overlook. If you drive to the very southern end first, and stop at the overlooks as you return to the north, the entire park can be seen in as little as 3-4 hours. The northern overlooks have the most hoodoos, but the southern overlooks offer the most expansive views.

Park roads are plowed and sanded after each snowstorm but may be temporarily closed during and following winter storms. In the winter, the roads to Fairyland Point and Paria View become trails for cross-country skiers and snowshoers, and are NOT plowed.

### Cross-country Skiing & Snowshoeing

#### Where can I ski / snowshoe?

Snow depth at Bryce can be variable, so it's important to make back-up plans. With 3-4 feet of snow the entire park is skiable. The only area that is always "Out-of-Bounds" is skiing off the rim. If you want to slalom through hoodoos, you will have to go to Red Canyon. When snow depth is less than 1 foot, the only skiable surfaces are the groomed trails at Ruby's Inn, the Red Canyon Bike Path and the Fairyland and Paria Roads.

Unlike skiers, snowshoers are allowed to follow the hiking trails below the rim. When snow depth is less than 1 foot, the awkwardness of snowshoes outweighs any "flotation" advantage. On the popular trails where the snow quickly becomes packed and icy, hiking boots with traction devices are often more helpful than snowshoes.

Ski and snowshoe equipment can be rented at Ruby's Inn. Traction devices for hiking boots can be purchased at the Visitor Center or Ruby's Inn

### Avalanche Safety

Although uncommon, Bryce avalanches can take the lethal form of mixed snow and mud. • Keep back from the canyon rim, as hidden cornices will collapse under your weight. • Turn back if you hear hollow or "whumping" sounds as you walk or ski.

• "Swim" to keep your head above the surface if caught in a slide.

4 The Hoodoo

· Avoid traveling alone and stay on designated trails.

### **Bryce Canyon National Park**



## Hiking the Park



### **Backcountry Camping & Hiking**

Trail

Bryce Canyon's backcountry consists of two trails: the 9-mile Riggs Spring Loop, and the 23-mile Underthe-Rim Trail. Backcountry camping is by permit only on a first-come, first-served basis. Permits may be purchased at the visitor center from 8:00 a.m. until one hour before the visitor center closes.

Bryce's backcountry is not for everyone. Water sources are few and unreliable, fires are prohibited, and these trails are difficult - if not impossible - to follow in Winter or Spring when under several feet of snow. More importantly, unlike most national parks, Bryce's backcountry is the least scenic section of the park. If you came to see hoodoos, windows, and slot canyons, you should choose long day hikes instead. However, if you have come to get away from everybody and you are an experienced backpacker, ask at the visitor center for a Backcountry Information brochure to aid in planning your trip.

## Day Hiking Trail Guide

#### Where's a Good Hike?

Bryce Canyon has 8 different day-hiking trails. Because many of these trails are interconnected, our most popular hikes are combinations of two or more of these basic trails. If you can only do one hike, the Queen's / Navajo Combination Loop

might be the best choic	e. Take this pag	e with you whil	e hiking.
TRAIL NAME / STARTING POINT	ROUND TRIP	ELEVATION CHANGE	DESCRIPTION
Easy to Moderate	Hikes (gentle	grades & minim	al elevation change)
MOSSY CAVE North end of Bryce along Hwy 12 (not a loop)	0.8 mi 1.3 km 1 hour	200 ft 62 m ↓ 200 ft 62 m	Streamside walk up to a mossy overhang and small waterfall. (Waterfall flows May-October.)
RIM TRAIL* Anywhere along rim (not a loop)	1.0-11.0 mi 1.6-17.7 km (you pick start and end points)	34-1734 ft 10-535 m 34-1734 ft 10-535 m	Outstanding views of hoodoos from above. Trail is paved and fairly level between Sunset and Sunrise Points.
BRISTLECONE LOOP Rainbow Point	1.0 mi 1.6 km 1 hour	150 ft 45 m ↑ 150 ft 45 m	Hike through spruce-fir forests to cliffs with bristlecone pines and expansive vistas.
QUEENS GARDEN Sunrise Point (not a loop)	1.8 mi 2.9 km 1-2 hours	320 ft 98 m ↑ 320 ft 98 m	The least difficult trail into the canyon. See Queen Victoria at the end of a short spur trail.
Moderate Hikes (st	eep grades with	n <b>"down &amp; bac</b> k	" elevation change)
NAVAJO LOOP Sunset Point	1.3 mi 2.2 km 1-2 hours	550 ft 167 m 167 m 550 ft 167 m	Highlights on this steep loop trail include Wall Street, 2 Bridges, and Thor's Hammer.
QUEENS/NAVAJO COMBINATION LOOP Sunset or Sunrise Point	2.9 mi 4.6 km 2-3 hours	580 ft 177 m ↑ 580 ft 177 m	Combine the two trails described above. Hike the Rim Trail back to your starting point.
TOWER BRIDGE Small segment of the larger Fairyland Loop (not a loop)	3.0 mi 4.8 km 2-3 hours	950 ft 290 m 1 950 ft 290 m	See bristlecone pines and the China Wall. A shady 1/4-mile spur trail leads to the bridge.
HAT SHOP Bryce Point (not a loop)	4.0 mi 6.4 km 3-4 hours	1336 ft	Descend Under-the-Rim Trail to see a cluster of balanced-rock hoodoos.
Strenuous Hikes (s	teep grades wit	h MULTIPLE elev	vation changes)
FAIRYLAND LOOP Fairyland Point or north of Sunrise Point	8.0 mi 12.9 km 4-5 hours	2309 ft 704 m 2309 ft 2309 ft 704 m	See the China Wall, Tower Bridge and tall hoodoos on this less-crowded trail.
NAVAJO/PEEKABOO COMBINATION LOOP Sunset Point	4.9 mi 7.8 km 3-4 hours	1755 ft 535 m ↑ 1755 ft 535 m	Combine Navajo and Peekaboo Loop Trails into a mini figure 8.
THE 'FIGURE 8' (NAVAJO/PEEKABOO/ QUEENS GARDEN COMBINATION) Sunrise or Sunset Point	6.4 mi 10.2 km 4-5 hours	1785 ft 544 m 1785 ft 544 m	Combine Queens Garden, Navajo Trail and Peekaboo Loop into one ultimate hike! (Overachievers may start at Bryce Point)

## **Hiking Reminders...**

- Wear hiking boots with "lug" traction and ankle support.
- Carry plenty of water; 1 guart (liter) per 2-3 hours of hiking.
- Park elevations reach over 9100 feet (2774 m). Even mild exertion may leave you feeling light-headed and nauseated.
- = Trails also used by horses April-October. Hikers must yield to horses. Hike clockwise to avoid meeting a horseback ride.
- Stay on maintained trails. DO NOT use "social" trails.
- Be respectful of others; keep noise levels down-no yelling.
- Remember, ultimately, you are responsible for your own safety.
- Do not feed wildlife.

\* The Rim Trail between Sunset and Sunrise Points is undergoing reconstruction and may be subject to temporary closures. In addition, the Bryce Connecting Trail (from Bryce Point to the Peekaboo Loop) is closed indefinitely due to a rock and mud slide. The Hoodoo 5

## Is This Weather Normal?

	MONTH										
J	F	М	Α	М	J	J	Α	S	0	Ν	D
TEMPERATURE (°F)											
n 39	41	46	56	66	76	83	80	74	63	51	42
n 9	13	17	25	31	38	47	45	37	29	19	11
h 62	66	76	82	89	96	97	94	91	85	75	67
v -30	-29	-13	-5	5	20	25	17	17	-2	-20	-23
= 0	0	0	0	0	1	4	0	0	0	0	0
F 31	28	31	20	20	6	0	9	9	22	29	31
al 1.7	1.4	1.4	1.2	0.8	0.6	1.4	2.2	1.4	1.4	1.2	1.6
d 9.2	6.8	6.8	3.8	2.3	2.7	3.8	4.8	4.2	4.5	5.4	6.2
n 2.3	1.5	1.5	1.8	1.2	1.7	1.8	3.8	3.4	1.7	1.5	3.2
II 63	75	75	62	18	6	Т	Т	4	22	22	49
n 7	7	8	6	5	3	5	6	4	4	5	6
s 0	0	0	1	5	6	14	19	7	2	0	0
			•	•				•			
	n 39 n 9 h 62 w -30 F 0 F 31 al 1.7 d 9.2 n 2.3 il 63 n 7	m 39 41 m 9 13 h 62 66 w -30 -29 F 0 0 F 31 28 al 1.7 1.4 d 9.2 6.8 n 2.3 1.5 n 2.3 1.5 n 7 7 is 0 0	1      39      41      46        m      9      13      17        h      62      66      76        w      -30      -29      -13        F      0      0      0        F      31      28      31        al      1.7      1.4      1.4        d      9.2      6.8      6.8        n      2.3      1.5      1.5        ll      63      75      75        n      7      7      8        s      0      0      0	n    39    41    46    56      m    9    13    17    25      h    62    66    76    82      w    -30    -29    -13    -5      F    0    0    0    0      F    31    28    31    20      al    1.7    1.4    1.4    1.2      d    9.2    6.8    6.8    3.8      n    2.3    1.5    1.5    1.8      II    63    75    75    62      n    7    7    8    6      s    0    0    0    1	m    39    41    46    56    66      m    9    13    17    25    31      h    62    66    76    82    89      w    -30    -29    -13    -5    5      F    0    0    0    0    0      F    31    28    31    20    20      al    1.7    1.4    1.4    1.2    0.8      d    9.2    6.8    6.8    3.8    2.3      n    2.3    1.5    1.5    1.8    1.2      III    63    75    75    62    18      n    7    7    8    6    5      s    0    0    0    1    5	m    39    41    46    56    66    76      m    9    13    17    25    31    38      h    62    66    76    82    89    96      w    -30    -29    -13    -5    5    20      F    0    0    0    0    1    1      F    31    28    31    20    20    6      al    1.7    1.4    1.4    1.2    0.8    0.6      d    9.2    6.8    6.8    3.8    2.3    2.7      n    2.3    1.5    1.5    1.8    1.2    1.7      II    63    75    75    62    18    6      n    7    7    8    6    5    3      is    0    0    1    5    6	m    39    41    46    56    66    76    83      m    9    13    17    25    31    38    47      h    62    66    76    82    89    96    97      w    -30    -29    -13    -5    5    20    25      F    0    0    0    0    1    4      F    31    28    31    20    20    6    0      al    1.7    1.4    1.4    1.2    0.8    0.6    1.4      d    9.2    6.8    6.8    3.8    2.3    2.7    3.8      n    2.3    1.5    1.5    1.8    1.2    1.7    1.8      III    63    75    75    62    18    6    T      n    7    7    8    6    5    3    5      s    0    0    1    5    6    14	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Number of Clear Days		7	9	10	12	17	16	16	18	17	11	10
Number of Partly Cloudy Days		8	8	9	10	8	10	10	8	7	8	8
Number of Cloudy Days		13	14	11	9	5	5	5	4	7	8	13
% Possible Sunshine		64	60	68	74	83	77	79	80	75	63	60

## Hypothermia: Dangerous Low



EXPOSURE TO COLD, WET OR WINDY CONDITIONS CAN lead to hypothermia , a life-threatening lowered body temperature. Hypothermia symptoms include uncontrollable shivering, disorientation, apathy, slurred speech, loss of coordination, followed by unconsciousness and death.

The best treatment for hypothermia is prevention. Wear warm clothing in layers which can be added or removed, especially when exerting yourself in cold weather. Wear a hat and gloves. Drink lots of water and eat high energy foods.

Most importantly, when you feel cold, it's time to go inside and warm up!

# Fire's Role for a Healthy Forest



Drip-torch being used to ignite a prescribed burn.

PERHAPS YOU'VE NOTICED SCORCHED TREES AND OTHER signs of forest fires. A few fires were started by lightning; most were intentionally set by park rangers using a modern ecological practice called prescribed burning.

For millions of years, forest fires have been shaping the globe. Plants and animals have evolved with, and many depend on, the role fire plays in creating a diversity of habitats.

In the past, natural fires swept through plant communities at intervals that provided conditions for many plant species to regenerate. Wildland fire thins competing species, recycles nutrients into the soil, and opens holes in the forest canopy for sunlight to enter. All of these are critical to forest health and natural cycles of growth and decomposition.

Wildland fires also benefit many animal species through a process called the Phoenix Effect. The abundance of new plants arising from the ashes increases herbivore populations, which supplies enough prey to increase carnivore populations. Not all animals benefit. Fires can be bad for bark beetles and other insects which woodpeckers depend upon for food.

Despite evidence that fire can be beneficial, a proud tradition of fighting forest fires has arisen over the last

6 The Hoodoo

century. Yet ironically, the harder we fight to keep fire out of the forests, the harder Mother Nature tries to burn them. Fire-free forests produce dangerously high accumulations of flammable materials—dead logs and deep carpets of pine needles. Once these ferocious fires get started, they are very hard to stop, burning the forest beyond its normal ability to recover, and costing taxpayers 40 times the money per acre that prescribed fires do.

At Bryce, the wise use of fire is an important tool in the effort to restore a healthy balance to our forest ecosystems. Fire managers use both prescribed fires, which are intentionally set, and wildland use fires, which are ignited naturally by lightning and closely monitored to ensure that specific safety and resource objectives are met.

New practices also take into consideration smoke management to minimize the negative impacts park visitors may experience, such as decreased visibility and respiratory discomfort. Fires are planned when atmospheric conditions are most likely to dissipate smoke.



Prescribed burn in the vicinity of Fairyland Canyon, October 2004.

## Bryce Canyon's Wildlife



Pronghorn Buck. Do NOT approach or attempt to feed any wild anima

For a small park, Bryce has several types of habitat. While you may not see lots of any one species, you will see a diversity of animals if you know when and where to look.

Main habitat: Sagebrush, Meadow, Forest, Canyon, All habitats Season: W=Fall/Winter, S=Spring/Summer, A=all seasons Best time to look: d=day, t=twilight, b=both day and twilight Difficulty in finding: e=easy, h=hard, u=unlikely

irie	Mammal	s:	Birds:		Birds (cont):	
untless	Mule Deer	A,b,e	Turkey Vulture	S,d,e	Dark-eyed Junco	A,d,e
rds	Pronghorn	A,d,h	Golden Eagle	A,d,h	Violet-green Swallow	S,d,h
ere	Elk	W,t,h	Red-tailed Hawk	S,d,h	W. & Mtn. Bluebirds	S,d,h
ur	Prairie Dog	S,d,e	Peregrine Falcon	S,d,u	Western Tanager	S,d,e
cessful	Coyote	A,b,h	Wild Turkey	A,d,h	Pygmy Nuthatch	A,d,h
of	Gray Fox	A,b,h	Dusky Grouse	A,d,h	Reptiles/	
cations	Ringtail	A,t,h	Mourning Dove	A,d,h	Amphibians:	
we are	Black Bear	A,b,u	Great Horned Owl	A,b,u	GB. Spadefoot Toad	S,d,u
	Mtn. Lion	A,b,u	N. Saw-whet Owl	A,t,u	N. Leopard Frog	S,d,h
way to	Jackrabbit	A,b,e	C. Nighthawk	S,t,e	Short Horned Lizard	S,d,e
re.	Cottontail	A,b,e	C. Raven	A,d,e	Sagebrush Lizard	S,d,h
	squirrels	S,d,e	Clarks Nutcracker	A,d,e	Gophersnake	S,d,u
	chipmunks	S,d,e	Stellers Jay	A,d,e	W. Rattlesnake	S,b,h

## **Bryce Canyon Natural History Association**

PO Box 640051, Bryce, UT 84764-0051 888-362-2642 Fax 435 834-4606 www.brycecanyon.org

Established in 1961, Bryce Canyon Natural History Association is a non-profit organization dedicated to assisting Bryce Canyon National Park and Dixie National Forest in furthering their scientific, educational, historical, and interpretive activities. This is accomplished, in part, by making educational publications and materials available for sale and/or free distribution, and supporting existing interpretive activities, like the Junior Ranger Program.

Every purchase from a Bryce Canyon Natural History Association bookstore helps support our mission.



#### As a Natural History Association member, you can help us:

- Publish nearly one million pieces of free literature for park visitors each year.
- Support resource management research activities.
- Support educational outreach programs to schools in southern Utah and beyond.
- Continue National Park Service research projects that document the natural and human history of Bryce Canyon National Park.
- Support the Junior Ranger Program.
- Help publish interpretive books, maps, posters, and audio-visual products that educate visitors about Bryce Canyon National Park and Dixie National Forest.
- Support the Bryce Canyon Interpretation Division of the National Park Service.
- · Provide scholarships to deserving students and universities.

## A membership with Bryce Canyon Natural History Association includes these benefits:

- 15% discount on all books, maps, posters, and other products sold by Bryce Canyon Natural History Association in our stores, by phone (888 362-2642), or online (www.brycecanyon.org).
- Discounts to hundreds of other stores operated by more than 60 nonprofit cooperating associations at numerous national parks and other public lands throughout the United States (you must present your membership card to receive discount).
- Bryce Canyon Natural History Association members receive a discount on most High Plateaus Institute courses. These courses offer in-depth outdoor education to visitors. Call or check our website for listings.

## Thank You to Our Donors & Partners

Bryce Canyon National Park wants to thank its generous donors and park partners for helping to improve programs and services here at the park.

The Bryce Canyon Natural History Association provides the park with booklets and badges for the Junior Ranger program, printing costs for this Hoodoo newspaper and other publications, and housing for Volunteers and interns. The Association also funds a full time Education/Outreach Specialist for the park.

The **donation box** in the lobby of the visitor center has funded interpretive equipment that directly benefits the visiting public. A "state of the art" projector for the visitor center auditorium was purchased in 2007.

Two Geoscientist-in-Parks interns have been granted by the **Geologic Society of America**. These interns will assist with research, present public geology programs throughout the summer, and provide training for park staff on the geology of the Colorado Plateau. Our Natural History Association is also helping to fund these two positions.

#### The Bryce Canyon Lodge and Ruby's

Inn Resort have implemented a Dollar Check-Off Program. Guests at their hotels have the option of donating a dollar per night of their visit. These programs have funded seasonal employees for interpretation and the trail crew.

A hearty "thanks" to our generous donors and park partners. We couldn't do it without you!



Become a personal

partner with Bryce

Canyon National Park to

help preserve and protect

the wonder and resources

for this and future generations.

### **High Plateaus Institute**



In the spring of 2004, the Bryce Canyon Natural History Association (BCNHA) and Bryce Canyon National Park, in collaboration with the local business community, school officials, universities, and city, county, state and federal government entities, initiated efforts to facilitate the inaugural year of the High Plateaus Institute (HPI). This exciting educational endeavor provides researchers, students, teachers, local residents, and visitors with expanded opportunities for exploration, discovery, and science-based learning.



High Plateaus Institute, Bryce Canyon National Park

Many exciting programs will be offered through the HPI during the 2008 season. Some examples include: educational programs in geology, astronomy, plants, cultural history (ranching and cowboy poetry) and photography. The HPI plays host to a variety of researchers each year, as well as provides a location for ranger-led programs for kids and families.

For further information, contact the BCNHA Executive Director at (435) 834-4603 or email gaylep@scinternet.net.

### V.I.P.s (Volunteer-In-Parks)

Last year, more than 280 volunteers donated over 28,000 hours to Bryce Canyon National Park! If **you've** got time and talents to share, why not become a Volunteer-In-Park (V.I.P.)?

For more information, log on to: www. nps.gov/brca (click on volunteer) or www. volunteer.gov/gov.

To learn more about our astronomy volunteer program, log on to: www.nps.gov/brca/planyourvisit/ astronomyvolunteer.htm.





Capitol Reef National Park 121 miles northeast via Utah 12 and 24

The Waterpocket Fold, a giant wrinkle in Earth's crust, features a jumble of colorful cliffs, massive domes, soaring spires, twisting canyons, and graceful arches. Ancient rock art and historic orchards tell of its cultural history. Orchards are open June-October for "self-serve picking" of cherries, pears, apricots, peaches, and apples. Visitor Center: 435-425-3791 www.nps.gov/care Card of the

**Cedar Breaks National Monument** 83 miles west via Utah 12, US 89 & Utah 14

At 10,350 feet (3155 m), Cedar Breaks features a spectacular amphitheater of walls, fins, spires, and columns eroded out of colorful Claron limestone. Forests of spruce, fir, and aspen are separated by alpine meadows ablaze with brilliant summer wildflowers. Temperatures are usually cool. Utah 148 is closed late fall through spring because of snow; however, the park can still be enjoyed by cross-country skiers and snowshoers. Headquarters: 435-586-9451 www.nps.gov/cebr



Grand Staircase-Escalante Nat'l Monument South and east via Utah 12 & US 89

Administered by the Bureau of Land Management, this 1.9 million acre area features diverse and ruggedly beautiful landscapes. Utah 12 and US 89 skirt the fringes of the monument and offer numerous scenic pull-outs. All of the roads in the monument's interior are unpaved, and many require 4-wheel drive.

Escalante Visitor Center: 435-826-5499 Cannonville Visitor Center: 435-679-8981 Kanab Headquarters: 435-644-4600 www.ut.blm.gov/monument

Red Canyon / National Scenic Byway 12 124-mile route between US 89 and Utah 24

National Scenic Byway 12 stretches 124 miles from Red Canyon to Capitol Reef National Park and provides breathtaking views across the Grand Staircase and into the Escalante Canyons. The Federal Highway Administration designated this route an "All-American Road," making it a "destination unto itself." Ask for a Byway 12 Route Guide at any visitor center along the way.



rinted on recycled paper. Please recycle again. 10-2006 80K

8 The Hoodoo