



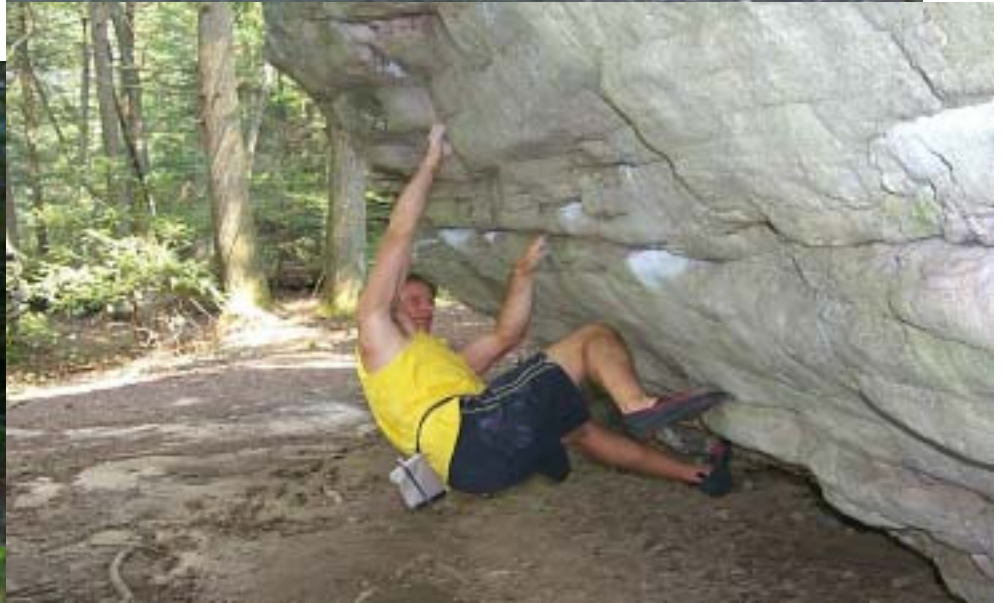
Big South Fork Visitor Guide

2009

The official newspaper of
Big South Fork National River and Recreation Area



**Recreation Opportunities at
Big South Fork**



Welcome from the Superintendent

I would like to welcome you to Big South Fork National River and Recreation Area and I hope that your visit here will be enjoyable and educational. I feel like a visitor also, since I recently transferred to Big South Fork from the Natchez Trace Parkway in Mississippi. In the short time that I have been here I have been impressed with the beauty and diversity of Big South Fork. I have also been impressed with the dedicated staff here at the park. It is evident that they take tremendous pride in what they do. In the next few months I look forward to becoming better acquainted with the land and the people of the area.

The National Area continues to grow and change as the years go by. In 2008 the National Area continued to implement the General Management Plan (GMP). This plan provides guidance for current and future managers in areas of development and change. A good example of this implementation strategy is the multiple use trail concept on Fork Ridge and Terry Cemetery roads. The GMP outlines a gradual transition of these travel ways from a two lane gravel road to a multiple use trail. Multiple use trails are narrow dirt paths that allow motorized vehicle and equestrian travel on the same route. On both Fork Ridge and Terry Cemetery

roads restrictions have been put into place that will reduce their size from a two lane road to a narrow, multiple use trail. In time, these trails will have a more natural appearance as vegetation closes in. They will become more like paths through the woods rather than the large gravel roads they were in the past. This will provide visitors with an experience more in keeping with the natural surroundings.

Other areas where changes have been implemented include Maude's Crack Overlook off of Terry Cemetery Road and Bronco Overlook off of Station Camp Road. In the past horses were allowed to travel the narrow ridge to the overlook above No Business Creek. It was realized that damage was occurring to this environmentally sensitive area. Following recommendations contained in the GMP, a gate was installed near Terry Cemetery to limit use to foot traffic only. The Bronco Overlook Trail was closed to motor vehicle traffic to allow for horse and hiking use only. These changes are consistent with the GMP.

Hardened stream crossings are an example of how implementation of the GMP benefits the environment and National Area users. These fords allow for safer and easier stream crossing for both horses and people. In addition, the

crossings reduce erosion and protect the aquatic ecosystem in these areas. Station Camp crossing is one example of improvements to both a trail and a river crossing. Special concrete blocks were placed on the trail approaches to the river crossing to reduce erosion and alleviate muddy conditions. Large rocks were placed in the river to guide horseback riders across the river and protect the many endangered mussels and fish that live in this diverse biosphere. As you experience the National Area, you will continue to see improvements to several other trails and parking areas in accordance with the GMP.

We hope you will enjoy this beautiful place and some of the new and improved facilities in place for you at Big South Fork NRRRA. You are invited to traverse the wide expanse of the park and see all the wonders that it holds just as I will be doing as I learn about my new home.



Stennis R. Young

2009 Special Events Calendar

All events are Eastern Time.

Spring Wildflower Programs -

April 18 - Wildflower Hike to Angel Falls

Join Park Ranger Howard Duncan on a walk to view spring wildflowers along the Angel Falls Trail. Meet at the Leatherwood Trailhead. 10:00 a.m.

April 18 - Wildflower Ride

Bring your horse and meet at the Bandy Creek day use area. Join Park Ranger Sue Duncan on a horseback ride to look for wildflowers along the Coyle Branch and O&W Trail. Pack a lunch and drink. Meet at 9:30 a.m.

Spring Planting Festival - April 25

9:00 a.m. until 4:00 p.m.

Join in a celebration of spring at a 1920s era farm. Demonstrations of horse and mule drawn equipment, plowing, planting, dulcimer music, farm animals and tasks of the homemaker will be presented throughout the day at Bandy Creek and the Lora Blevins homeplace. Craft demonstrations and sales items will also be available.

Astronomy

Paul Lewis from the University of Tennessee will be presenting astronomy programs with the help of astronomy volunteers. (Weather permitting).

May 23 - Solar Viewing - Bandy Creek - 3:00 p.m. until 4:00 p.m.

May 23 - Astronomy - Bandy Creek - 9:30 p.m.

June 27 - Astronomy - Bandy Creek - 9:30 p.m.

August 22 - Astronomy - Bandy Creek - 9:30 p.m.

October - date to be announced- Solar Viewing - Bandy Creek - 3:00 p.m. until 4:00 p.m.

October - date to be announced - Astronomy - Bandy Creek - 8:30 p.m.

NATRC Competitive Trail Ride - May 1 - 3

Contact Vicki Murray (865) 806-4427 for more information. <http://www.natrc5.org>.

National Trails Day - June 6

Volunteers will be working throughout the park on hiking, biking, horse and multiple-use trails. National Trails Day is held each year throughout the United States on the first Saturday in June. Thousands of volunteers participate in work projects in national areas, parks and forests. If you would like to volunteer, contact Wally Linder for further information at (423) 569-2404, ext. 321.

Daily and Evening Programs

Throughout the summer months, Memorial Day through Labor Day, 15 minute programs will be held daily at Blue Heron Mining Community and at Bandy Creek Visitor Center. Evening programs will be offered at Blue Heron and Bandy Creek Campgrounds on Saturdays. These programs will feature different natural, cultural or recreational topics of Big South Fork and the area. Program schedules will be posted at Bandy Creek Visitor Center, at Blue Heron and the Stearns Depot Visitor Center. Check with the visitor centers for exact times and locations of these presentations.

AERC Endurance Ride - September 9 - 12

Contact Eric Rueter for more information at BSFER@KnoxvilleArabianHorsClub.com.

Storytelling Festival - September 19

Dulcimer Workshop

Bring your own dulcimer and learn to play a tune. Beginners' sessions will be held on the hour beginning at 10:00 a.m. until 12:00 p.m. and again at 1:00 p.m. until 4:00 p.m. A limited number of dulcimers will be on hand for the public's use. Please sign up the day of the classes.

Craft Workshops

Learn about some old time crafts of the region through classes, demonstrations and sales. Crafts offered may include the needle art of candle wicking, wood carving, needle felting, survival skills and basket making. Class participants will be asked for a donation to assist with class materials and instructor fees. Sign up for classes the day of the class. Please call Bandy Creek Visitor Center at (423) 286-7275 to check about classes offered. Each class will be a minimum of four hours in length. Classes will be scheduled throughout the day beginning at 10:00 a.m. and ending at 5:00 p.m.

Haunting in the Hills Storytelling Presentations

1:00 p.m. Family Oriented Stories

3:00 p.m. Special Local Tellers

5:00 p.m. Knoxville Area Dulcimer Club Concert

6:30 p.m. Bluegrass Music

8:00 p.m. to 10:00 p.m. Ghost Stories

National Public Lands Day - Sept. 26

This is another opportunity for people to get involved with the park. Volunteers will be working on hiking, biking, horse and multiple-use trails. Public Lands Day is an annual event traditionally held on the last Saturday in September. Thousands of volunteers participate in work projects in national areas, parks and forests. If you would like to volunteer, contact Wally Linder for further information at (423) 569-2404, ext. 321.

Cross Country Foot Race - September 26

Contact Bobby Glenn (865) 688-0715 for more information.

Cumberland Heritage Month

October Saturdays at Blue Heron Mining Community

Enjoy a different cultural heritage activity each Saturday in October. Demonstrations and presentations might include blacksmithing, woodworking, spinning, old timey toys, dulcimer music, pioneer history, and coal mining displays. Activities will be located at the Blue Heron Depot and surrounding area. Times and schedules will be announced.

All Interpretive Programs are Subject to Change. All events are Eastern Time.

Contact Bandy Creek Visitor Center at (423) 286-7275 (PARK), the Stearns Depot Visitor Center (606) 376-5073 or the Blue Heron Interpretive Center (606) 376-3787 for program details.

For more special events information check on page 6.

On the Cover:

Photographs courtesy of the NPS, Joe Cross and Rob Turan. Clock wise from left top: Numerous recreational opportunities await visitors to Big South Fork NRRRA. The American Hiking Society at Devil's Jump Overlook, kayaking on Big South Fork River, rockclimbing, horseback riding at Zenith crossing of East Laurel Fork, mountain biking with volunteer Joe Cross from Oneida, Tennessee, and hiking along one of the many trails in the area.

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General Information

Accessibility

Visitor Centers

Tennessee - Bandy Creek Visitor Center
(423) 286-7275 (PARK).

Kentucky - Stearns Depot Visitor Center
(606) 376-5073.

Kentucky - Blue Heron (606) 376-3787.

Bandy Creek Visitor Center

The visitor center and its restrooms are accessible to mobility impaired visitors. One or more rangers are trained, to some degree, in sign language.

Stearns Depot Visitor Center

The visitor center and restrooms are handicapped accessible.

Campgrounds

Bandy Creek and Blue Heron campgrounds have designated mobility impaired accessible sites for families and groups. Restroom facilities are also handicapped accessible. Water and electric hook-ups are available at both campgrounds also. Alum Ford in Kentucky is also handicapped accessible, but restrooms are primitive and there are no water or electric hook-ups.

Overlooks and River Access

East Rim and Honey Creek Overlooks in Tennessee and the Devils Jump Overlook in Kentucky are accessible to individuals with mobility impairments. Leatherwood Ford river access offers handicapped accessible trails and restrooms.

Blue Heron/Mine 18

The scenic train ride into Blue Heron is fully accessible to individuals with mobility impairments. Blue Heron offers accessible restrooms and is partially accessible to individuals with mobility impairments (some steep grades and steps exist).

Backcountry Camping

Backcountry camping is allowed in Big South Fork National River and Recreation Area. **Backcountry permits are required** to camp in the backcountry overnight. The permit provides valuable information in case of an emergency. There are no designated campsites, but there are rules that indicate where you can and cannot camp. Rangers may check backcountry campers for permits. Visit the Bandy Creek or Stearns Depot Visitor Center or at Blue Heron for more information. Please contact (423) 286-8368 for more information.

Permit fees are as follows:

1 - 6 people	\$5.00
7 - 12 people	\$10.00
13 - 18 people	\$15.00
19 - 24 people	\$20.00
25 - 30 people	\$25.00

A yearly permit is available for \$50.00. In addition to the visitor centers, see the following list of vendors for authorized backcountry camping permits.

Kentucky Vendors

Fastway Marathon	(606) 376-2364
Big M's Discount	(606) 376-8500
Sheltowee Trace Outfitters	(606) 526-7238
One Stop Chevron	(606) 376-9200
Roger New Grocery	(606) 376-2579



Tennessee Vendors

Bandy Creek Stables	(423) 286-7433
Big South Fork Lodge	(931) 879-4230
Big South Fork Regional V. C.	(423) 663-4556
BSF Discovery Center	
and Concierge Services, LLC	(931) 752-4273
Country Store	(423) 569-5010
Rugby Commissary	(423) 628-5166
R & M Brooks and Son	(423) 628-2533
Buckhorn	(423) 569-9452
Stop N Go Market, Elgin	(423) 627-4100
Allardt Express Market	(931) 879-8051
Willie Lee's	(931) 879-6987

River Information

The Big South Fork of the Cumberland River is a free flowing river. Sections of the river are calm enough for beginners while other parts are more challenging and have exciting whitewater. Peak times for river use are in the spring and sometimes late fall or winter. There is only one commercial company which provides equipment and trips for canoeing and rafting the river. If you are planning on embarking on the river with your own equipment and expertise, please check in at the Bandy Creek Visitor Center to file a trip plan, register for overnight river trips, and obtain information that will help you have a safe trip. The website for current stream flow information is: <http://waterdata.usgs.gov/tn/nwis/current/?type=flow>.

Permitted Outfitters

Sheltowee Trace Outfitters - River Trips

P.O. Box 1060
Whitley City, Kentucky 42653
1-800-541-RAFT
(606) 376-5567

Southeast Pack Trips, Inc. - Horseback Trips

299 Dewey Burkes Road
Jamestown, Tennessee 38556
(931) 879-2260

Saddle Valley - Horseback Trips

350 Dewey Burkes Road
Jamestown, Tennessee 38556
(931) 879-6262

Safety Facts

To help you enjoy your trip to Big South Fork National River and Recreation Area, be aware of some safety precautions:

- (1) There are poisonous snakes (copperheads and timber rattlesnakes), ticks, chiggers, and poison ivy found in this area. Be cautious as you hike the trails or use the backcountry. Always use a flashlight when walking at night to avoid stepping on a snake.
- (2) Leave information about your trip with someone at home.
- (3) Backcountry camping permits are required. These provide information to park rangers in case of emergencies. File a trip report with rangers at the Bandy Creek Visitor Center, Stearns Depot Visitor Center or at any of the vendors mentioned in the list above.
- (4) Store all food, food containers and coolers out of reach from wildlife. Hang food in the backcountry so bears cannot reach it. A copy of the food storage regulations can be obtained from the visitor centers or the campground kiosks.
- (5) Ticks and chiggers can cause irritating itchy bumps and sometimes a rash. Other insects like gnats, deer flies and mosquitoes can also be a nuisance while camping, horseback riding or hiking. Use a good insect repellent, when venturing out into the park. Remember pets need protection from insects also. (See article about ticks on page 5).

Lost and Found

Lost items may be reported to rangers at the Bandy Creek or Stearns Depot Visitor Center or at Blue Heron Mining Community. Items that have been found should be turned in at the Bandy Creek or Stearns Depot Visitor Center or at Blue Heron.

Concessionaires

Bandy Creek Stables - (423) 286-7433
Big South Fork Scenic Railway - (800) GO-ALONG
Charit Creek Lodge - (865) 429-5704
Eastern National - (423) 286-7275
Station Camp Horse Camp - (423) 569-3321
Bear Creek Horse Camp - (423) 569-3321

Emergency Numbers

When emergency assistance is needed, dial 911 or:

Tennessee

Bandy Creek Visitor Center

(423) 286-7275 (PARK) -
8:00 a.m. to 4:00 p.m. Eastern Time daily.
Memorial Day through Labor day -
8:00 a.m. to 6:00 p.m. Eastern Time daily.

Scott County Hospital, Highway 27, Oneida, TN
(423) 569-8521

Scott County Ambulance, Oneida, TN
(423) 569-6000

Scott County Sheriff
Huntsville, TN
(423) 663-2245

Jamestown Regional Medical Center
W. Central Avenue, Jamestown, TN
(931) 879-8171

Fentress County Ambulance
(931) 879-8147

Fentress County Sheriff
Jamestown, TN
(931) 879-8142

Kentucky

Stearns Depot Visitor Center

(606) 376-5073.
9:30 a.m. - 4:30 p.m. Eastern Time -
April through November.

Blue Heron Interpretive Center
(606) 376-3787

McCreary County Ambulance
(606) 376-5062

McCreary County Sheriff
(606) 376-2322

Parks on the Internet

Most national park areas have a web page, and camping reservations for many parks may be done online. To find more information about camping and park facilities, special events and programs that each National Park Service area has to offer, use www.nps.gov. Big South Fork National River and Recreation Area's page may be directly accessed through www.nps.gov/biso.

Campgrounds

Big South Fork National River and Recreation Area offers three campgrounds (Bandy Creek, Blue Heron, and Alum Ford) operated by the National Park Service and two horse campgrounds (Station Camp and Bear Creek) operated by a concessionaire. Bandy Creek Campground is located in the Tennessee portion of the park; Blue Heron and Alum Ford campgrounds are located in Kentucky. Station Camp Horse Camp is in Tennessee and Bear Creek is in Kentucky. Holders of Senior and Access Passes are entitled to a 50% discount for campsites. Discounts do not apply at the concession operated horse camps.

Bandy Creek Campground

Bandy Creek Campground is open year round. Sites may be reserved April 1 through October 31 **online at www.recreation.gov** or by calling **1-877-444-6777**. Although a reservation system is in place, campers are still welcome on a first-come, first-served basis for unreserved campsites. It is always a good idea to call the Bandy Creek Campground at (423) 286-8368 before arriving. The campground does fill up during holidays, special events, weekends and the whole month of October. Check-in for the campground is at the entrance station kiosk.

From November 1 through March 31, campsites are only taken on a first-come, first-served basis. During this time campers self-register by filling out an envelope from the entrance station, picking their site and then placing the fee into the provided envelope. Drop the envelope into the fee collection box at the campground entrance station.

Areas B, C and D offer 98 sites which have electric/water hookups. Area A offers 49 tent sites. Restroom/bathroom facilities are located in areas A, C and D which have hot showers and are handicapped accessible. By the end of the 2009 season all restrooms/bathhouses in the campground will be mobility impaired accessible. Once the upgrades are completed there will be a total of three accessible campsites in area A, one campsite in area C, four campsites in area D and one campsite in each group camp area.

Bandy Creek sites in areas B, C, and D are **\$22.00 for water/electric hookups** per night and **\$19.00 for tents** per night in Area A. Although Area A has no electric hook-ups, RVs, pop-ups, and horse trailers are permitted in sites **A1 – A12**. Sites **A13 – A49** are restricted for **tents only**.

Bandy Creek Group Area E-1 and E-2 are for large groups of 25 or more. E-1 offers 19 individual sites and E-2 offers 16 individual sites. These sites do not have electric/water hookups. The group areas offer a covered pavilion with electric/water and a cooking area. A fire ring for campfires is available. Separate bathhouses for each area offer hot showers. The cost is **\$75.00** minimum charge per night for up to 25 persons, plus **\$3.00** for each additional person. Reservations can be made for the group camp April 1 through November 7 online at www.recreation.gov or by calling 1-877-444-6777.

Blue Heron

Blue Heron Campground sites may be reserved from April 1 through October 31 by calling **1-877-444-6777**. Blue Heron is closed during the winter season.

Blue Heron offers 45 sites, with one site designated as accessible to mobility impaired individuals. Restroom facilities are also handicapped accessible. There is a fire ring and a dump station provided. Sites are **\$17.00 per night** with water/electric hookups. Although a reservation system is in place, campers are still welcome on a first-come, first-served basis for unreserved campsites. For additional information call **(606) 376-2611**.

Alum Ford

Alum Ford is a primitive campground and offers seven campsites. There are no restroom facilities or drinking water located at this area. The fee is **\$5.00 per night**. For additional information call **(606) 376-2611**. Alum Ford also has a boat ramp, but due to Lake Cumberland draw-down the boat ramp is not usable at this time.

Horse Camps

Both Station Camp and Bear Creek are operated by a concessionaire. There are water and electric hookups plus a tie out area for four horses at each site. The bathhouses have hot water showers. For more information about the horse camps or to make reservations call (423) 569-3321.

Horseback riders coming to stay at Bandy Creek Campground make separate reservations for their horses at Bandy Creek Stables which is located just across the road from the campground. Paddocks and stalls are available for rent. For more information about Bandy Creek Stables please call (423) 286-7433.

The Bandy Creek Pool

The Bandy Creek Pool will be open for the 2009 summer season from Memorial Day through Labor Day weekend. The pool will be open from 10:30 a.m. until 7:30 p.m. ET daily. After hours pool rentals are also available by calling (423) 286 8368.

	Regular Rate*	Discount Rate*
Individual Adult	\$3.00	\$1.50
Child 12 and under	\$2.00	\$1.00
Annual Pool Pass (family)	\$35.00	\$17.50
Annual Pool Pass (individual)	\$25.00	\$12.50

*Holders of Senior/Access Passes only pay half the fee. Pass holders must have their card with them in order to receive the discount.

America the Beautiful - National Parks & Federal Recreational Lands Pass



ANNUAL PASS

America the Beautiful - National Parks & Federal Recreational Annual Pass replaces the Golden Eagle Passport, the National Parks Pass, and the National Parks Pass with Golden Eagle Sticker. The annual pass will be replaced each year. A Federal Lands photo contest will be held each year. The grand prize winning image will be featured on the subsequent year's annual pass. Information on the current contest for the 2010 annual pass image can be found at <http://www.sharetheexperience.org>.

The annual pass sells for \$80.00 and is good for one year from date of purchase. The pass covers entrance fees at National Park Service and Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation and Forest Service sites. The pass can be purchased at federal recreation sites that charge entrance or standard amenity fees.



SENIOR PASS

The new Senior Pass replaces the Golden Age Passport. Golden Age Passports will continue to be honored.

The Senior Pass sells for \$10.00 and is good for life. Any permanent resident of the United States 62 years or older may purchase the Senior Pass.

This pass covers the entrance fees to National Park Service and Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation, and Forest Service Sites. Camping and guided tour fees are discounted 50% for cardholders. The pass can be purchased at federal recreation sites that charge entrance or standard amenity fees.

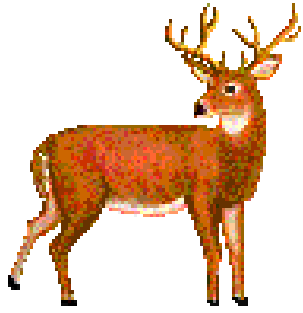


ACCESS PASS

The new Access Pass replaces the Golden Access Passport. Existing Golden Access Passports will continue to be honored.

The Access Pass is free. Any age U.S. citizen or permanent resident who has medical proof of a permanent disability can apply.

The Access Pass covers the entrance fees to National Park Service and Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation, and Forest Service Sites. Camping and guided tour fees are discounted 50% for cardholders. The pass can be obtained at federal recreation sites that charge entrance or standard amenity fees.



Hunting Seasons

Big South Fork National River and Recreation Area does allow hunting during regular state seasons. Check with the visitor centers or at Blue Heron for maps of the safety (no hunting) zones and regulations. Hunters must be licensed in the state in which they will be hunting.

Kentucky Big Game Hunting Seasons

Deer Archery - Zone 1-4: Third Saturday in September through third Monday in January.

Deer Muzzleloader - Zone 1-4: Two consecutive days beginning the fourth Saturday in October and seven consecutive days beginning the second Saturday in December.

Deer Modern Gun - Zones 1-2: 16 consecutive days, beginning the second Saturday in November. Zones 3-4: 10 consecutive days, beginning the second Saturday in November.

Deer Youth Hunt - Zones 1-4: Two consecutive days beginning the third Saturday in October.

Boar - Wild hogs may be taken during open deer season and during the extended hog season. Extended hog season is from January 21 through February 28. Hunters must have a valid hunting license and a Big South Fork hog permit during the extended hunt.

Big South Fork NRRRA is in Zone 4.

For exact dates, contact Kentucky Department of Fish and Wildlife Resources, 1 Game Farm Road, Frankfort, Kentucky 40601, (502) 564-4336. Website: www.fw.ky.gov.

Tennessee Big Game Hunting Seasons

Permanent Opening Dates

Quail and Rabbit - Second Saturday in November.

Squirrel - Fourth Saturday in August.

Deer/Archery - Last Saturday in September.

Deer/Gun - Saturday before Thanksgiving.

Deer/Juvenile only - First Saturday and Sunday in November.

Boar - Wild hogs may be taken during open deer season and during the extended hog season. Extended hog season is from January 21 through February 28. Hunters must have a valid big game hunting license and a Big South Fork hog permit during the extended hunt.

For exact dates, please contact Tennessee Wildlife Resources Agency, Region III, 216 East Penfield, Crossville, Tennessee 38555, (931) 484-9571 or 1-800-262-6704 in Tennessee. Website: www.tnwildlife.org.

Check Kentucky and Tennessee hunting guides for small game seasons.

Eastern National

If you are looking for information and unique items concerning Big South Fork, check out the bookstores located at Bandy Creek and Stearns Depot Visitor Center. The bookstores are operated by Eastern National, a non-profit cooperating association founded in 1947 and authorized by Congress to work with America's national parks and other public trusts. The mission of Eastern National is to provide quality educational and interpretive products to the public.

Eastern provides a variety of unique items that will enhance your visit. Items offered for sale include maps, trail guides, books of local interest and unique craft items. By purchasing an item from the bookstore, you are supporting Big South Fork. Eastern returns a percentage of its profits to use for promoting the historical, scientific and conservation activities of the National Park Service. Among other projects, these donations are used to fund publications such as this newspaper. Membership in Eastern National entitles you to a discount on merchandise and helps support the programs of the National Park Service. For more information about Eastern National or to become a member, visit www.EasternNational.org.

Any item you see in our bookstore can be ordered by mail. An order form may be downloaded from the Big South Fork website at www.nps.gov/biso. Mail orders must include a personal check made payable to "Eastern National". All items are subject to applicable tax, shipping and handling charges. Call (423) 286-7275 or write to Eastern National Bookstore, 4564 Leatherwood Road, Oneida, Tennessee 37841 for more bookstore information.

Printing of this publication has been made possible by Eastern National.

Prevent Lyme Disease.

By Steve Handy, Chief of Facility Management

Ticks are the primary carrier for Lyme disease. This disease afflicts 10,000 people yearly with 90% of the cases reported from the mid-Atlantic states, California, Oregon, Minnesota, and Wisconsin. While Big South Fork is not in a high hazard zone, we need to be aware that ticks are prevalent and use preventative measures to lower risks of infection.

Ticks are active as soon as temperatures rise above 36 degrees. They act on instinct to get a warm blood meal (us). They are attracted to the CO2 given off by mammals. Ticks position themselves in spots where they can attach to the largest host possible, so tall grass and brush is a favorite location for ticks wanting a feast. The host must brush against a tick for it to hitch a ride, so avoid the greenery when possible. Ticks generally crawl from the bottom up looking for a good spot to feed, so wearing socks pulled up over the pants may give you more chance to find them. Keep ticks off your skin with long pants and shirts. Use light colors so you can see the ticks crawling. Use repellents properly. The best defense is a frequent check of your skin for ticks. Don't forget to check your pets. Dogs and cats can be affected by Lyme's disease too.

Prevent attachment, Do a Tick Check! The best defense is frequent, daily, tick checks. Note it takes time for a tick to attach, engorge and, spread infection. During a tick check, be aware some ticks can be as small as a poppy seed and easy to miss during a less than thorough check. A good tick check requires a complete check of your skin looking for tiny spots that were not there the day before. As ticks prefer warm spots, look along belt/underwear lines, behind the knees, neck, scalp, armpits, and navel. Ticks tend to crawl around for hours looking for the ideal spot for a meal, so get them before they attach. Ticks that attach need to be removed properly. Remove them with fine point blunt tweezers held close to the mouthparts by pulling gently! Above all, do not squeeze the tick which causes bacteria to be injected into the person. Only ticks that are attached need to be discussed with your doctor as ticks crawling around on you do not transmit disease. Just destroy those ticks and wash your hands to be safe.



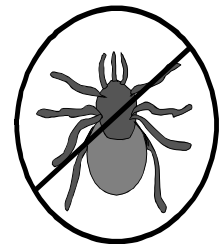
Above - The Stearns Depot Visitor Center and Eastern National bookstore located in Kentucky. Below - Eastern National bookstore at Bandy Creek Visitor Center in Tennessee.



New Bookstore Item

Kids Passport to your National Parks

This book was developed for kids to use with the Passport To Your National Parks. The new book lets kids keep whatever they think is important from their visit to a park. Gather ranger autographs, keep track of Junior Ranger programs or write about a hike or discovery in your field journal.



The Wonders of Astronomy

By Paul Lewis, Astronomy Outreach, University of Tennessee

2009 is the 400th anniversary of Galileo Galilei having used the telescope for astronomical observations. Galileo became the father of modern astronomy because of his diligence in observing, recording and publishing his studies in astronomy. This year at Big South Fork each astronomy program will be about a person that made a significant contribution to modern astronomy in the last 400 years.

When Galileo pointed his spyglass at the sun, the moon and Jupiter, he opened the window on our universe as never before. Since then, hundreds of professional and amateur astronomers around the world have brought our solar system, distant stars and galaxies ever closer. Astronomers today answer questions and provide us with the impetus to reach further and ask even more questions about our place in the heavens.

Each year we bring amateur astronomers to Big South Fork, with their telescopes and observing equipment in tow, to bring you a little piece of the universe. We will continue to do that this year and years to come as we celebrate Galileo's tremendous discoveries. Some of those discoveries include: mountains and craters on the moon, Jupiter's large satellites of Io, Callisto, Ganymede and Europa and dark spots on the sun that we now know are cooler in temperature than the rest of the sun's surface area. We will try to observe all these objects and many more throughout this year. Check the special events calendar on page 2 for dates and times of these programs. Clear Skies!

Seventeenth Annual Storytelling Festival

Haunting in the Hills



Saturday, September 19, 2009

Big South Fork NRRRA - Bandy Creek Field

10:00 am Folk Art Workshops, Demonstrations and Sales
 1:00 pm Family Oriented Storytelling
 3:00 pm Special Local Tellers
 5:00 pm Dulcimer Concert
 6:30 pm Bluegrass Music
 8:00 pm Ghost Stories *guaranteed to thrill and chill listeners of all ages.*



Featured Tellers

Glenda Bozin Pat Mendoza Lloyd Arneach
 Faye Wooden Charles Maynard

Come join us for a full day of fun and activities. Free and open to the public. For further information contact Big South Fork Visitor Center at (423) 286-7275

Cultural Heritage Days



Enjoy October Saturdays at the Blue Heron Coal Mining Community in celebration of the area's cultural heritage. Each Saturday a different activity or event will be presented. Handspinning, old timey toys, blackpowder rifle firing, woodworking, blacksmithing, dulcimer concerts and coal mining programs are just a few of the events presented by park staff and volunteers. All events are free to the public and everyone is invited to attend. Times and dates of these events will be announced prior to each Saturday in October, or call: (606) 376-5073 or (606) 376-3787.



Spring Chores Turned Into Traditional Arts Ninth Annual Spring Planting Day Celebration

By Sue H. Duncan, Park Ranger, Interpretation

Spring is a time for new beginnings and growth. Mountain families begin their planning for crops, vegetable gardens and livestock production. This production will sustain a family through the rest of the year.

The early families who settled the Big South Fork area depended on their ability to successfully raise animals, crops, and gardens to feed themselves. Most of the farming that occurred here was truly subsistence farming. The family often consumed the entire production of the garden. There was continued use of wild plant and animal foods, but the "kitchen garden" was vital to a sustainable food supply. This tradition continues with many families even today. It is not uncommon for local residents to have large gardens that provide a substantial amount of food.

Along with planning for their gardens and crops, families had a number of annual spring "chores" that were performed --spring cleaning and airing out of the house and bed linens, repairing paling fences, livestock care and animal husbandry, and mending and making clothing for the spring and summer seasons. Various crafts and forgotten arts of today were life surviving skills of yesterday in the area we call Big South Fork, the Cumberland Mountains or Appalachia.

In celebration of these skills and traditions of spring, Big South Fork National River and Recreation Area will be hosting its Ninth Annual Spring Planting Day on Saturday, April 25, 2009. Craftspersons will be demonstrating forgotten arts such as blacksmithing, basket making, hand spinning, weaving, woodcarving, chair caning, soap making, garden herb lore and use, and paling fence making. Items will also be made available for sale by craftspersons. Displays of women's life, antique farm tools, farm animals and old-timey toys will delight young and old alike. Toe-tapping tunes of mountain dulcimer music will be performed by the Knoxville Area Dulcimer Club throughout the day. Plowing and planting with mules and horses will be taking place at the Lora Blevins field. Come join in our celebration of spring and traditional mountain ways.

The event will take place from 9:00 a.m. until 4:00 p.m. at the Lora Blevins homeplace and the Bandy Creek Visitor Center. For more information about this event contact the Bandy Creek Visitor Center at (423) 286-7275.



Top left: Ronnie Pitmann (standing) and Truman "Ebb" Hill seated at the plow with mule team at the Lora field. Top right: Lora Blevins barn. Bottom left clockwise: Rita Perry demonstrating candlewicking, Jeff Taylor with goat cart giving children a ride, Lucy Scanlon talking to a visitor at the Lora place herb garden, and Koy Flowers with his mule team. Photographs courtesy of Meyers Photography 2008.

Trail Blazing and Signing System for Big South Fork NRA

Big South Fork National River and Recreation Area has implemented a system of trailhead and trail markings consisting of graphic symbols and color-coded reinforcement blazes. These markers indicate the types of use authorized for a particular trail.

Symbols of all uses allowed on that particular trail are mounted on wooden posts located at the beginning of trails and at all trail junctions. The primary trail use symbol is displayed on the top of the sign with other trail uses displayed underneath. Color-coded blazes are placed along the trail which are consistent with the color of the primary trail usage.

In an instance where a trail contains portions common to different uses, it will receive blazes for all uses that apply. The system is intended to make it easier for all park users to be sure they are on a trail authorized for that use. Signs indicating trail names and mileages will continue to be placed at key junctions.

The trailhead signing and trail blazing is being funded by monies generated through the Federal Lands Recreation Enhancement Act of 2004.

Please remember: the absence of a symbol means that particular use is not permitted on that trail.



The John Muir Trail is designated as a hiking trail with trail sections both in Big South Fork NRA and Pickett State Park.



Horse trails are designated for horseback riding. Hiking and mountain bike riding are allowed on most horseback trails; however, some trails are blazed to be free of all other uses but foot travel.



Mountain bike trails are designated as open for use by mountain bikes and may also be used by hikers.



Wagon routes are designated for use by horseback riders, mountain bike riders and hikers, and are also maintained with sufficient width and clearance to allow their use by horse or mule drawn vehicles.



The Sheltoewe Trace National Recreation Trail is a designated hiking trail with sections in Big South Fork NRA, Pickett State Forest and Daniel Boone National Forest.



Multiple-use trails are designated as open to all trail uses including motorized vehicles. In addition, licensed hunters may use ATVs on these trails while actively engaged in the legal hunting of either deer or wild boar.



Hiking trails are designated for foot traffic only.



Igniting fire for prescribed burn at the Newtie King place in Kentucky. NPS photo.

Prescribed Fire in the Parks

By Howard Ray Duncan, Supervisory Park Ranger, Interpretation

Everyone has heard Smokey the Bear warn us about the danger of forest fires. Smokey was right about uncontrolled fires in our woodlands. Wildfire can be terribly destructive to our timberlands. Wildfires typically occur when conditions are the most extreme and can cause unwanted destruction to wild lands. However, if used correctly, under strictly defined conditions, fire can be a valuable tool to manage our forests and open spaces. Prescribed fire, also called controlled burning, is a safe way to apply a natural process, ensure ecosystem health and reduce wildfire risk. The fire is set by trained teams to meet predetermined objectives and follows a "prescription" to meet those objectives safely. Prescribed fire can have a variety of objectives including non-native plant removal, habitat restoration for plants or wildlife, fuels reduction, timber stand improvement, or restoration of historic landscapes, such as field management. Prescribed fire can reduce the possibility of and the intensity of future wildfires. At Big South Fork, the National Park Service uses prescribed fire to restore habitat for native plants and to reduce hazardous fuel buildups.

Prescribed fire is set only under scientifically determined conditions to meet the objectives. If any of the conditions such as wind speed and direction, temperature, fuel moisture and humidity do not fit the prescription, the burn is cancelled until the ideal conditions occur. Prescribed fires are conducted by experienced fire fighters and monitored by resource management personnel. Before the fire is actually ignited, extensive work must be done to ensure the fire safety of life and property. The fire team removes dead trees that could endanger fire fighters or fall across control lines. Fire fighters establish these control lines to contain the fire within the specified area, using existing roads, trails or natural barriers such as streams. In some cases fire lines must be constructed with leaf blowers, rakes and shovels. A briefing with fire crews is held before any fire touches the ground. This briefing helps ensure that all fire fighters know the objectives and are aware of safety concerns. Only after all concerns are addressed is the fire actually ignited.

Big South Fork has an active prescribed fire program. In early March or April 2009 prescribed fires are scheduled for Gobblers Knob in Tennessee. As you travel around the park you may see areas that have previously been treated with prescribed fire. Used wisely and based on good science, fire can be an effective management tool.



Prescribed fire at the Newtie King place in Kentucky. NPS photo.

Recreation Opportunities at the Concessions of Big South Fork NRRRA

By Frank Graham, Chief of Visitor Services

You've come to Big South Fork NRRRA and now you want to know what you can do. You might want to go horseback riding or to stay in a backcountry lodge for a few nights. There are several places within the park known as concessions where you can do these things.

What is a concession? A concession is a business that operates within and is supported by the park, but is not operated by National Park Service personnel. When you visit Bandy Creek Campground you will likely see the NPS green and grey uniformed employees cleaning the bathrooms, mowing the grass, taking money at the kiosk, working at the pool and countless other duties of an NPS employee. When you stay at a concession operated facility you will see the concessionaire doing all of those things and more. They may even have a "uniform" but it won't be the familiar Park Service uniform.

What concessions do we have here at Big South Fork NRRRA? There are four concession operated businesses within the park. They are Bandy Creek Stables, Charit Creek Lodge, Station Camp and Bear Creek Horse Camps.

The Bandy Creek Stables are operated by local residents. The largest part of their business is the stall rental. If you bring a horse with you to Big South Fork this would be the "Hilton" for horses. Also, if you forgot some piece of tack, you can always find it at the stable's tack shop.

If enjoying quiet and solitude in the backcountry at Big South Fork is your desire, but you don't want to sleep on the ground or cook over an open fire, then Charit Creek Lodge is the place to go. This backcountry lodge and cabins are historic structures. They are located one mile down the trail from the end of Fork Ridge multi-use trail. A short hike or horseback ride leads you to the rustic, historic setting of Charit Creek. There are two cabins and two large rooms in the lodge which can accommodate 12 persons in each. A community dining area is available for meals and group gatherings. The hosts of Charit Creek will amaze you with a tasty breakfasts and supper, especially considering there is no electricity at the lodge. Peace and quiet can truly be enjoyable with no phone, faxes, or e-mail available. Even cell phones don't work at this rustic lodge. So hike on down and enjoy yourself at Charit Creek Lodge.

If your desire is to enjoy the beauty of Big South Fork from the back of a horse, then the Station Camp and Bear Creek Horse Camps can be a place to stay. The horse camps offer a campsite with electric and water at each site. Your horse then stays at a tie out pad in your campsite so that you have direct contact with them. The trails can be accessed directly from your campsite without having to drive to any location. When you return from your ride, you simply unsaddle your horse and you're back in camp. This is a great way to experience the natural and scenic wonders of Big South Fork.

These are the concessions of Big South Fork NRRRA. They offer a wide range of activities and souvenirs along with a few essentials. If you have any questions about the services offered by the concessioners of the park, please contact the park for further information. Concessionaire phone numbers are located on page 3.



One of the guest cabins at Charit Creek Lodge.

Volunteers in Parks



By Sue H. Duncan, Park Ranger, Interpretation and Volunteer Coordinator

Throughout the National Park Service there are a number of people who are devoted to making your park visit enjoyable and safe. Permanent and temporary employees work in various capacities such as: Administration, Resource Management, Visitor Protection, Maintenance, and Visitor Services and Education. You may see any of these employees on your visit to the park in the visitor centers, campgrounds, and backcountry or along the trails. But what about the other people who volunteer their time and skills to make the park a better place for you too?

Volunteers-In-Parks are people of all ages who spend anywhere from a few hours per week to several months working for the park. There are people who serve as campground hosts, evening program presenters, special events demonstrators, visitor center information providers, maintenance and trail workers, resource management assistants, search and rescue team members and much more. Volunteers are relied on heavily to fill in gaps where regular employees cannot. They often have time to do tasks that are left unattended or that have not been completed by our regular staff. Volunteers may have talents and skills that are utilized during special events. They provide interpretive programs and demonstrations that are interesting to visitors. A large number of volunteers work with trail maintenance crews clearing trees and brush from paths and improving conditions for visitor use. There are two special days set aside for volunteer trail maintenance in all national parks and public lands. On the first Saturday in June each year is National Trails Day and on the last Saturday in September is National Public Lands Day (June 6 and September 26, 2009 respectively). During these two Saturdays a concentrated effort is put together by volunteers and staff to work on trail projects within Big South Fork.

If you have a special interest or skill that you want to share or would like to participate in the Volunteer-In-Parks program, please write or e-mail: Sue H. Duncan, Volunteer Coordinator, Big South Fork National River and Recreation Area, 4564 Leatherwood Road, Oneida, Tennessee 37841, e-mail: Sue_Duncan@nps.gov or call for more information (423) 286-7275. We will be happy to send you an application and give you the opportunity to join our team of Volunteers-In-Parks. Check out our special events made possible because of our volunteers on page 6.



Where Do Your Fees Go?

By Jeannine McElveen, Administrative Officer

You may have paid a fee during your visit to Big South Fork National River and Recreation Area. Big South Fork is authorized to collect fees for some activities by the Federal Lands Recreation Enhancement Act (FLREA). There are fees charged for camping in the campground; backcountry camping; getting a hog hunting permit; and using the pool, showers, or dump station. So where does this money go? Most of it is used for maintenance projects to help improve our visitors' experience. Your fees have allowed us to replace bulletin boards, picnic tables, and fire grates in the Kentucky area of the park; fix several worn sections of trail; replace 30 trash cans with ones that are animal proof; and repair a historic shed that was falling down in the Tennessee part of the park. Projects we are working on this year include making repairs to the swimming pool, installing informational signs and trail blazes, and updating bathrooms in the campground so they meet the American Disabilities Act (ADA) guidelines. Future projects planned are upgrading 150 electrical pedestals in the Bandy Creek Campground, replacing around 100 old faucets in the Bandy Creek and Blue Heron Campgrounds, and replacing bathroom fixtures throughout the park. Your fees help us get projects done that we wouldn't otherwise be able to do. Thank you!



BLACK BEARS LET'S KEEP THEM WILD

By Alonda McCarty, Resource Management

As black bears have become more common in Big South Fork NRR, sightings are occurring on a regular basis throughout the park. Last year the park experienced an increase in bear activity in more developed areas. By using common sense and following the recommendations in this article, visitors can enjoy the park and protect the bears. The goal of the National Park Service is to provide an environment where bears can live with minimal interference from humans. Bears can become human food-conditioned if they find human-related food often enough. They lose their wildness and become threats to people, property, and themselves. The park visitor shares the same natural wildlife habitat as bears and other wildlife. Although park visitors are generally short-term and temporary, they often cause long-term effects. Bears are permanent residents and strive to survive in a habitat influenced and manipulated by humans. It is imperative to have a proactive

PRESERVING THE CULTURAL HERITAGE OF BIG SOUTH FORK

By Tom Des Jean, Cultural Resource Specialist/Archeologist

The Big South Fork is recognized as a special place in our country. Its hills and hollows, rivers and ridges have been home to the passage of many cultures over thousands of years. Prehistoric Native American Indian groups lived here as long as 13,000 years ago. Evidence of these stone age cultures can be seen in the flint flakes scattered along the ridges, the riverbanks, and in the rockshelters of the National Area. As these native people's way of life passed away, they were replaced in the late 1700s by fur hunters, and then by subsistence farmers, and finally by extractive industries. These companies came to this area to harvest the timber, the coal, and today the oil and gas. Here at Big South Fork we are striving to preserve this record of the passage of human culture in the rockshelters and in cultural landscapes. We are also preserving remnants of the coal mining era so that we all may learn and understand where we were technologically and how far we have advanced. Help your Park Service do this by leaving the evidence of these cultures undisturbed. Please do not camp in any rockshelter or old homeplace within the park. View these cultural areas, experience them, sense them, and leave them unaltered for future generations to experience.

Resource Protection Hotline Available

In order to increase the number of backcountry "eyes and ears" helping protect the park's valuable and often irreplaceable resources, a Resource Protection Hotline has been established.

Any park visitor or neighbor who witnesses what they believe to be an illegal activity such as digging arrowheads, poaching wildlife or harvesting plants is encouraged to call the **Resource Protection Hotline at (423) 569-2404 ext 505**. All information will be treated confidentially. No name or phone number will be required; however, persons wishing to leave contact information may do so.

approach to black bear management to prevent negative interaction between humans and bears. At Big South Fork we are taking actions such as securing garbage, educating visitors on what to do when they see a bear, and issuing information concerning food storage. While visiting, be sure to stop by the visitor center and pick up a brochure on bear safety. If you're camping, read the food storage guidelines for information on how to properly secure food, cooking utensils and ice chests. Please use the bear-proof trash cans provided.

Garbage transforms wild and healthy bears into habitual beggars. Studies have shown that panhandler bears never live as long as wild bears. Many are hit by cars or become easy targets for poachers. Beggar bears may die from ingesting food packaging. Many bears have died a slow and agonizing death from eating plastics and other materials.

Bears that get habituated to human food are generally the ones that cause trouble. This occurs when humans leave food, food scraps, or garbage available to them. Instead of foraging naturally for food, they learn to associate human scent with a food opportunity. It is important that food is kept properly stored in backcountry sites as well as developed campgrounds. To a bear, "food" includes any item with a scent, regardless of packaging. This may include items that you do not consider food, such as canned goods, bottles, drinks, soaps, cosmetics, toiletries, trash, ice chests (even when empty), grills and unwashed items used for preparing or eating meals. All these items must be stored properly. Campers with horses should be aware that many horse products and feed should also be put away when leaving your campsite. Following these procedures limits the food opportunities available to bears and encourages them to forage for natural, wild foods.

If camping near your vehicle or in a developed area such as a campground, place ice chests, grills, cooking utensils, horse feed, any food not in use, and anything with food odors inside the locked compartment of a vehicle or trailer or a bear-proof food storage locker where they are available. Wipe off picnic tables and grills, and properly discard aluminum foil used for cooking. Avoid burning garbage in fire rings because it will leave behind grease and food scraps. Always discard all garbage in designated bear-proof trash cans. Keep a clean campsite. If a bear approaches your campsite, it is appropriate to scare it away by yelling and making loud noises. Report any bear incidents that have resulted in personal contact, injury or property damage to Park Headquarters or the closest park visitor center.

We want to prevent nuisance behavior by bears. By following these precautions we can hopefully prevent any bear from being poached or hit by a car. It will also prevent negative bear-human interactions. With your help we can keep Big South Fork's black bears wild.

Help protect archeological sites and habitats
for threatened and endangered species.

Don't camp or build
fires in rockshelters or
along the cliffs.





Horses crossing North White Oak Creek at Zenith on the newly installed concrete planks.

Horse Crossings and Stream Ford Protection Program

By Steve Bakaletz, Natural Resources Wildlife Biologist, and Wallace Linder, Trails Supervisor, Big South Fork NRA, and Jeff Wagner, TN State Water Resources Division

Big South Fork National River and Recreation Area (National River) is one of the most frequented horse riding parks in the National Park Service (NPS) system. In 2006 the park had 622,000 visitors using 125,000 park acres. The park has over 450 miles of trails for use and about 250 stream crossings. Intersections where trails and creeks cross require development of special techniques to allow all users (horseback riders, hikers and mountain bikers) to enjoy the trails, while protecting aquatic species and habitat from harm. Reducing the risk of injury and improving the riding surface or tread benefits the user as well as the environment.

Horse crossings impact the stream in three primary ways: 1) direct crushing of organisms (mussels), 2) disturbance and suspension of sediments, and 3) the accumulation of horse manure near the water's edge. Sometimes impacts are caused by other trail users. The park's legislation states that the river and gorge areas have limited access by motor vehicles. Park staff occasionally use vehicles when necessary to remove downed trees or evacuate injured trail users.

There are three trail crossings that traverse the main river. These are located at the mouth of Station Camp Creek, Big Island, and the Blue Heron boat ramp. The first two crossings

listed have large boulders that mark the corridor for the trail. The Blue Heron crossing will be done in the near future. The rocks weighed between 900 pounds and 3,000 pounds with average dimensions of three feet wide by six feet long. Twenty-two of them were used to mark the trail at Station Camp river crossing. About the same number were used at Big Island. Rocks were placed on each side of a ten foot corridor so that a rider could see the edges of the trail. Approaches to the stream crossings were engineered to be durable in flood events, provide good traction, and be low maintenance to reduce cost. Treadways were excavated for the width of the trail; a sub-base of large rock was placed in the bottom and covered with a filter fabric blanket. After the three layers of rock and fabric, a layer of inter-locking, Tri-lock concrete block is installed to harden the surface. Spaces and voids are filled with a material derived from burnt shale called "red-dog" which is local, inert and chemically inactive.

To preserve these aquatic species and maintain the trail system, an innovative stream crossing system was devised by park staff. Stream crossings made of hardened concrete planks running parallel to the stream bank are placed across the width of the stream. Each plank measures eight feet long by 16 inches wide and are held in place with a buried steel cable engineered to withstand high flow events, and remain out of sight. This system of stream crossings prevents the crushing of aquatic organisms, reduces the suspension of sediments, and reduces the impact to stream inhabitants, while offering park visitors a safe, reliable method to cross the stream.

Big South Fork watershed is a national focus for major conservation efforts due to its outstanding aquatic features. The NPS is committed to protection and enhancement of these aquatic resources. Of particular significance are the 31 endemic and re-introduced mussel species the river harbors. The National River is listed as critical habitat for native and endangered species. Ten mussels are federally listed species. There are 128 fish species in the Big South Fork watershed, three of which are federally listed. Critical habitat for mussels was listed in October 2004 by the U. S. Fish and Wildlife Service for major streams and the main Big South Fork River.

When the river is flooded and the rocks are not visible, it is not safe to cross. Signs have been installed instructing river users to stay inside the rock-lined corridor at low water. So far, the system seems to be working well. Visitors are able to cross streams in clearly marked corridors and are able to see when the water is too high to cross safely.

The park has installed nine crossings so far with an additional 250 that need to be installed. Park monitoring efforts have documented a drastic reduction in the number of specimens crushed by user groups and decreased sediment load.

Protection of the designated National River is the centerpiece of the park's legislation. Degraded upstream water quality is affecting park resources including critical habitat for 13 federally listed aquatic species. The NPS constructed hardened creek crossings to improve safety and reduce impacts to aquatic resources. When trail users stay on the designated river crossing, they can experience the outdoors and help minimize impacts or harm to the environment.

RECOVERY OF ENDANGERED MUSSELS

By Steve Bakaletz, Natural Resources Wildlife Biologist

The recovery of four federally protected mussel species in the free-flowing reaches of the Big South Fork of the Cumberland River in north-central Tennessee and southeastern Kentucky began in the spring of 2008 through a propagation program. An environmental assessment for recovery of these mussel species was completed in fall 2003, endorsing augmentation, propagation and reintroduction of federally listed species as the preferred conservation action. As changes have occurred to the river from impoundments hampering the flow rate, pollution from coal mining, and other anthropogenic (human caused) impacts to streams and rivers in other locations throughout the basin, a section of Big South Fork remains as the last stronghold for these species within the Cumberland River system. The main river and its tributaries are of national significance to the conservation of mussel and fish resources in the United States. A cadre of partners representing federal agencies and state natural resource departments has teamed up to augment endangered mussel populations and to restore species now extirpated from the park. The river is currently home to 26 mussel species. Historic collection records document about 55 additional mussel species that once resided in the river. Four federally protected species that have not been seen in the river since the 1970s were transplanted to the river and totaled 300 specimens. Some were tagged with a new electronic device that allows monitoring to be done while keeping disturbance to a minimum. Passive Induced Transmitters (PIT tags) were attached to about 100 specimens and success has been encouraging. Our plan for the next three years is to continue to propagate and transplant species in selected areas. This long-term conservation project is consistent with the 1973 Endangered Species Act, compatible with the goals of the National Park Service Organic Act, and recommended in the national recovery plans for each of these species. The management of Big South Fork and the federal trust resources are the focal point of the legislation for the park's establishment. Water quality and habitat have improved enough to allow for natural reproduction to occur.



The mussels pictured are *Epioblasma florentina walkeri* and *Pegias fibula*. They are known to occur only in the shoal area of the Big South Fork River from Station Camp to Bear Creek. There are no other known populations of these endangered animals in either Cumberland River or Tennessee River systems.



Photo courtesy of Jessie Cohen, National Smithsonian National Zoological Park
Zoological Park Photographer

You Oughter Watch for Otters

By Sherry Fritschi, Park Ranger, Interpretation

When hiking or horseback riding at Big South Fork, it's not unusual to pass by a slow-moving box turtle or to startle a browsing deer, but a chance encounter with a less common animal can be the highlight of your visit.

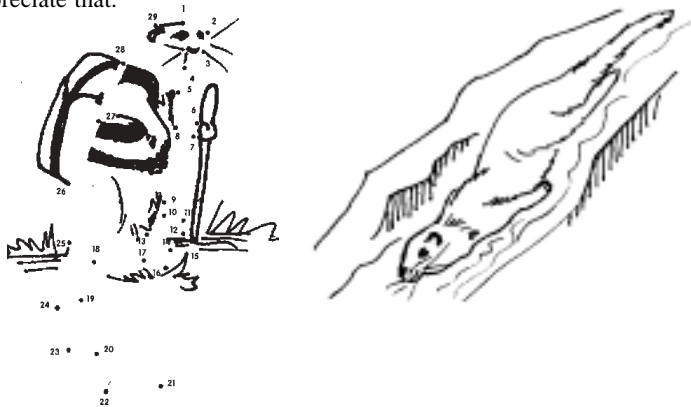
Last fall I was hiking a segment of the Sheltowee Trace that followed Rock Creek when I experienced one of those "wow" moments. Swimming across the water towards me was a furry brown headed animal. At first glance I thought it was a beaver until I saw a fuzzy tail. Apparently it was just as surprised to see me. Within seconds, it effortlessly glided back across the creek and disappeared between boulders that hugged the shoreline. Sometimes nature provides brief glimpses that befuddle the mind! No, I thought, a muskrat is smaller and has a ratty tail. Through the process of elimination, I concluded it was a river otter.

Kids who have recently participated in the Junior Ranger Program for Big South Fork will know what river otters look like. Our new mascot for the activity book is Oscar the Otter. After being away for many years, he and his friends have moved back. By the end of the frontier era, this animal had disappeared from the area due to unregulated fur-trapping. In 1988, the Tennessee Wildlife Resource Agency released approximately 15 river otters in the Big South Fork at Leatherwood Ford. Enough of them survived to reproduce and establish a population. They are constantly on the move, so there is no telling where you might see one.

Watch for river otters in and alongside clean water in remote quiet places. Fishermen beware! If you leave a line of fish dangling in the water, an uninvited guest might eat your supper. Otters are intelligent, curious opportunists. At some lakes, they've been known to climb aboard docked boats and take fish from live-wells. Most of the time, otters catch their own food consisting of slow moving fish, crawdads, mussels, insects, birds and small mammals. They keep muskrat populations under control by eating them.

River otters belong to the weasel family. Their long sleek bodies are covered with oily fur. Webbed rear feet and strong tails propel them forwards or backwards through the water. They also float on their backs and tread water. Like beavers, otters close nostrils and ears while swimming underwater.

Intolerant of pollutants, a population of river otters in Big South Fork NRRRA indicates the presence of undisturbed shoreline and clean water. While observing wildlife in a natural habitat, it's a humbling thought to acknowledge that we humans are the visitors. Let's tread lightly and not leave behind any permanent reminders of our brief visits. Oscar the Otter will appreciate that.



Connect the dots to see what Oscar is doing.

NEW, AWESOME JUNIOR RANGER PROGRAM

By Brenda Deaver

Thanks to a grant that the Big South Fork received in 2008, we have a new Junior Ranger book and a cool cloth patch for your jacket or book bag.

Kids from age 4 to 12 are invited to use this new book and explore Big South Fork with Oscar, the river otter, and your parents. Many activities will help you learn about animals, plants, rocks, rivers and a coal mining town.



You can choose to hike a trail, ride a horse or bike. After successfully completing the Junior Ranger Program, you will receive a badge and a certificate to hang on your wall. Making safe choices is important, so pay special attention wherever you go and come back to see us again real soon.

Animal Tracks

By Dustin Beaty, Seasonal Interpreter

As we sit here today we wonder how our ancestors found a place like Big South Fork. Back in the early pioneer days they would follow the trails of the animals. Today we know this as tracking. People followed animal trails for many reasons, especially to hunt and explore new lands.

Tracking was a skill necessary to find food. People either hunted or they had to grow vegetables needed to survive. While pioneers and American Indians were tracking animals, their trails led them to strange, new places. Two hundred or more years ago places like Big South Fork and the surrounding area were explored by people like Daniel Boone, Dr. Thomas Walker and Davy Crockett. Now, the skills of tracking and survival are often forgotten by new generations and are lost. You can keep these traditional skills alive by learning how to read animal tracks.

Draw a line to the correct animal.



Raccoon



Great Blue Heron

Porcupine



Skunk

Gray Fox



Red Tailed Hawk

Great Horned Owl



Bobcat



1. Blue Heron, 2. Gray Fox, 3. Skunk, 4. Great Horned Owl, 5. Raccoon
6. Red Tailed Hawk, 7. Porcupine, 8. Bobcat



BIG SOUTH FORK RECEIVES FUNDING TO HIRE ADDITIONAL EMPLOYEES THIS SUMMER

On August 25, 2006 – the 90th anniversary of the National Park Service – Secretary of the Interior Dirk Kempthorne launched the National Park Centennial Initiative to prepare national parks for another century of conservation, preservation and enjoyment.

Kempthorne explained the 100th anniversary should be a time to celebrate accomplishments achieved through goals with boldness and vision. The National Park Service will:

- lead America in preserving and restoring treasured resources;
- demonstrate environmental leadership;
- offer superior recreational experiences;
- foster exceptional learning opportunities that connect people to parks; and
- be managed with excellence.

Big South Fork National River and Recreation Area (NRRA) is pleased to announce that the Centennial Initiative will have a positive impact on the Big South Fork area leading to an increase in the park's budget of almost \$250,000. That entire sum will be directed toward the hiring of additional seasonal staff who will be out in Big South Fork to provide increased service and information to park visitors as well as to increase protection of this area's natural and cultural resources.

Through the Centennial Initiative funding, Big South Fork NRRA filled over 20 seasonal positions in 2008 and plans to do that again this summer. Seasonal positions include people working on park trails and other maintenance related activities, people working at the park's visitor centers and interpretive sites such as Blue Heron and Bandy Creek, and people serving as generalist rangers doing everything from trail patrols to staffing the park's campgrounds. In addition to those positions filled through the Centennial Initiative, the park will also be hiring four life guards to work between Memorial Day and Labor Day at the Bandy Creek pool.

The park will be striving to hire people who reflect the diversity of the American culture, people who are from all parts of the nation, people who love the outdoors and people who want to be a part of the National Park Service family.



Centennial Interpretive Seasonal Employees who worked Bandy Creek Visitor Center in 2008: Dustin Beaty of Jamestown, Tennessee, Chance Finnigan of Cookeville, Tennessee and Shauna Delk of Oneida, Tennessee.



The Hemlock Woolly Adelgid: The Newest Invader

By Howard R. Duncan, Supervisory Park Ranger, Interpretation and Marie Kerr, Botanist, Resource Management

The forests of the Cumberland Plateau and Big South Fork face a new threat from a tiny insect that attacks our native hemlocks. The hemlock woolly adelgid (HWA) is a nonnative insect that has already devastated thousands of acres of hemlock in Shenandoah and Great Smoky Mountains National Parks. In our region, the invader has also been discovered at Cumberland Gap National Park, Frozen Head State Park and Natural Area, Daniel Boone National Forest, Royal Blue WMA, and most recently at Cove Lake State Park. There is no way to control the spread of the insect. So far, it has not been positively identified in Big South Fork; however, all agree that it is just a matter of time before the HWA arrives here. Recent studies show that HWA infestations are moving as quickly as 5-10 miles per year, which is very alarming when you consider that there are known infestations as close as 20-30 miles from Big South Fork.

This tiny insect, native to Asia, was accidentally imported into the United States. It was first discovered in this country in 1924 and first seen in the eastern part of the country in 1951. The aphid-like insect is almost invisible to the eye (less than 1/16 inch/1.5 mm) but, as it matures, it covers itself and its eggs with a conspicuous woolly covering that is easily seen on the underside of the outermost branch tips. The best time to detect HWA is from late fall to early summer. The adelgid attaches itself to the base of the trees needles and feeds on the sap causing the needle to fall off, thus starving the tree of nutrients. Most trees die within three to four years, although some may survive longer. There are limited options available to save the trees. Chemical control methods include spraying the individual trees with horticultural oils and insecticidal soaps, applying systemic treatments to the soil around the base of the tree and direct injection of the tree trunk. The best long term solution seems to be predatory beetles that feed exclusively on the adelgid. Experiments being carried out in Great Smoky Mountains National Park are too recent to determine how successful the beetles will be in controlling the infestation.

Biologists are still determining how the loss of hemlocks will affect ecosystem health and species diversity. In addition to loss of community structure and habitat on land, aquatic habitats could be affected by loss of cover and possible increases in stream temperature in areas where hemlocks now provide dense shade. Emotionally and aesthetically, the loss of hemlocks in the Big South Fork will be devastating. Eastern hemlock forest types cover approximately 13% of the National Area. They are most prevalent in the narrow gorges and valleys of the National Area. The beautiful evergreens define these areas and are some of the oldest and largest trees found in Big South Fork.

The strategy for hemlock conservation at Big South Fork will be similar to that of the Great Smokies. Once the adelgid is confirmed to be in the area, locations will be selected for treatment based upon a variety of considerations. The treatment method chosen will depend on the location and the size of the trees. There is no advantage in treating the trees before infestation occurs. In the past couple of years, informal monitoring efforts have been in place to detect HWA in the National Area. Big South Fork resource managers are currently devising a more intensive, long-term monitoring scheme. There is a lot of ground to cover and we can use your help. Individuals are encouraged to immediately report sightings of HWA, within or near the National Area, to the park botanist, at: 423-569-2404, ext. 251. If you would like to learn more about the hemlock woolly adelgid, how to better identify and detect this pest, or even how to identify hemlock trees, feel free to call the park botanist. For further information visit www.saveourhemlocks.org or the USDA Forest Service site at www.na.fs.fed.us/fhp/hwa.