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What's New

Dardanelle Rock Clean-up

[Nate Preisendorfer](#), ANHC Land Management Specialist

Editor's note: In Nate's role as a land management specialist for ANHC, he strives to balance the agency's ecological goals with low impact public use activities. His enthusiasm for finding creative ways to bring people and nature together is contagious, as is evidenced in this article.

On March 6, 2010, I turned the corner to Dardanelle Rock Natural Area to a sight that put a large smile across my face. Twenty or so cars sat along the road across from the natural area's sign. These vehicles belonged to members of the [Arkansas Climbers Coalition](#) (ARCC), a 501c3 organization based out of Little Rock.



ARCC members pose in front of natural area sign after clean-up. Photo by Cole Fennell.

ARCC scheduled this clean-up event at [Dardanelle Rock Natural Area](#) as part of their ongoing efforts to assist in natural resource management of both public and private lands. This group of climbers focuses largely on public climbing areas. ARCC has also expressed interest in pursuing non-climbing area stewardship activities and “want to grow [their] relationship with land management agencies, other organizations, and all recreational users.”

ARCC’s vice president Stark Ligon and I will continue planning how and where ARCC can assist ANHC in meeting conservation plan goals. For more photos of the clean-up, see this month’s From the Field photo gallery below.

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Earth Day Turns 40

[Jonelle Doughty](#), ANHC Public Information Specialist

The idea of “a national day for the environment” came about in 1969 when Wisconsin Senator [Gaylord Nelson](#), known as the “Conservation Governor” in his home state, found other politicians weren’t at all concerned with the environment. Earth Day was born of his struggle to get environmental issues on the political agenda.



The basic premise of Nelson’s Earth Day was for people to act locally. His idea was a success. On April 22, 1970, an estimated 20 million people gathered across the U.S. to celebrate the first Earth Day. Nelson said of the day: “Earth Day worked because of the spontaneous response at the grassroots level. We had neither the time nor the resources to organize the 20 million demonstrators who participated from thousands of schools and local communities. That was the remarkable thing about Earth Day. It organized itself.”

Forty years later, Earth Day is still going strong with events hosted by churches, schools, cities, and individuals. How will you celebrate this year? Come visit our booth at the [Little Rock Zoo’s Earth Day Celebration](#) on April 16th and 17th. Learn how the Arkansas Natural Heritage Commission carries on the legacy of Senator Nelson in our work to protect Arkansas’s natural heritage.

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State Science Fair

[Jane Jones-Schulz](#), ANHC Information & Education Coordinator



Amber Ray (left) and John Paul Peterson discuss their award-winning projects at the Arkansas State Science Fair.

For the third straight year, ANHC sponsored four natural heritage awards at the [Arkansas State Science Fair](#). More than 250 students, who were winners in regional fairs around the state, exhibited their projects for judging April 2 and 3 at the University of Central Arkansas in Conway. ANHC presented four awards for those projects that best reflect the investigation of elements of Arkansas's natural heritage. Winners of the 2010 Arkansas Natural Heritage Award are:

- Amber Ray, Little Rock Central High School, for her project looking for connections between the water quality of Fourche Creek and its tributaries
- John Paul Peterson, Little Rock Central High School, for his project investigating the effects of land uses on stream substrate embeddedness
- Chris Kelly, Little Rock Central High School, for his project examining bird feeding behaviors
- Bayley Shields, Alpena High School, continuing the 5th year of a project looking at specific corn crop farming methods that use native lady bugs for pest control.

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Environmental Education

[Jane Jones-Schulz](#), ANHC Education & Information Coordinator

Do you know a child with “nature deficit disorder”? A recent study found that children today spend an average of 6 hours each day in front of the computer and TV, but less than 4 minutes a day in unstructured outdoor play. These researchers refer to the effects of so much screen time as “nature deficit disorder.”



This week, April 11-17, is [National Environmental Education Week](#). Held each year the week before Earth Day, EE Week is the nation's largest environmental education event. Educators

everywhere are celebrating the fact that, according to research, students who learn and play outdoors have longer attention spans, more creativity, higher levels of self-confidence and higher standardized test scores.



Kingsland students (left) with cameras. Russellville students at Lorraine Creek (right). Click either for trip gallery.

Several sites within the [System of Natural Areas](#) serve as living laboratories for students and teachers, with projects such as water quality testing, soil sampling, and species inventory. Already this spring, students have visited Lorraine Creek and Kingsland Prairie Natural Areas with ANHC staff. Amber Mascuilli from Russellville High School brought her junior and senior botany students to [Lorraine Creek Natural Area](#) on March 18th. And on March 30th, fifth and sixth grade students from Kingsland Elementary walked [Kingsland Prairie Natural Area](#) with ANHC Education Coordinator Jane Jones-Schulz and Joe Fox from the Arkansas Field Office of The Nature Conservancy. The Kingsland students had cameras and even managed to photograph the federally-threatened plant geocarpon (*Geocarpon minimum*).

Check out photo galleries of the field trips on [our Facebook page](#). Visit the [Outreach](#) page on our website for nature-oriented lesson plans and cross-curriculum ideas for getting your classroom outside!

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You're Invited!

The Arkansas Natural Heritage Commission and The Nature Conservancy in Arkansas invite you to join us on Monday, May 3, at 4:00 p.m. as we pay tribute to the life of Jodie Mahony and celebrate his legacy of conservation at the dedication of Warren Prairie Natural Area. There will be a short dedication ceremony held at the site followed by a guided hike or driving tour of the area. Rain or shine.



Please RSVP to Jonelle Doughty at (501) 324-9634 or jonelle@arkansasheritage.org for directions.

[Click for larger.](#)

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From the Field Gallery

[Jonelle Doughty](#), ANHC Public Information Specialist



Federally threatened plant geocarpon (*Geocarpon minimum*) at Warren Prairie Natural Area.

Spring is a busy time for natural areas and ANHC staff. Greening up means rare plant surveys, and good weather means prescribed burns. Visit our [From the Field gallery](#) highlighting a few of last month's projects. Learn why we burn, see the rare geocarpon, and meet a great group of volunteers.

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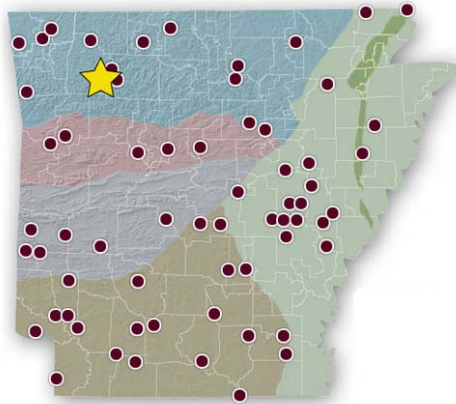


Natural Features

Kings River Falls Natural Area

[Bryan Rugar](#), ANHC Chief of Acquisitions and Stewardship

[Kings River Falls Natural Area](#) is located in Madison County, six miles southeast from the town of Witter. As the name implies, the natural area protects about 3.5 river miles of the Kings River and 945 acres of its surrounding watershed. The Kings River is designated by the Arkansas Department of Environmental Quality as an Extraordinary Resource Waterway. The native vegetation on land surrounding the river provides protection of the water resource by reducing rain runoff and filtering out sedimentation.



New natural area sign at trailhead (left). Star on map (right) marks the natural area. Click map to find one near you.

A trail beginning at the parking area follows a private fence, crosses a metal foot bridge, then turns to run along Kings River. This trail is marked with blue diamonds and is approximately 1 mile from the parking lot to Kings River Falls, a historical swimming hole for the surrounding community. The Trail ends at the falls and you must return the way you came, again following the blue diamond markers.



Kings River Falls (left), and footbridge on Kings River Falls trail (right). Click photos for an online gallery.

In March and April, the commission acquired new properties upstream from the current natural area. The additions protect 263 acres of land and more than $\frac{3}{4}$ miles of the Kings River, as well as a portion of Mink Creek and several other unnamed tributaries. Incorporating these lands into the natural area ensures that the current vegetative cover will remain intact and degraded areas will be restored to their historical structure and composition.

Another trail (unmarked) begins on the south side of the old Dripping Springs schoolhouse. It follows and crosses the river, so wear your boots or waterproof footwear if you plan to visit. The trail leads past “steamboat rock”, a large rock that separated from the bluff 200 feet above and

now sits in the middle of the river. The trail winds along the river and is surrounded by bluffs on either side. A variety of trees and shrubs are now in full bloom, making spring an ideal time to get outside and enjoy Arkansas's [System of Natural Areas](#)! Get directions to Kings River Falls Natural Area [here](#), and plan your visit today.

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Nature's Underwater Architects

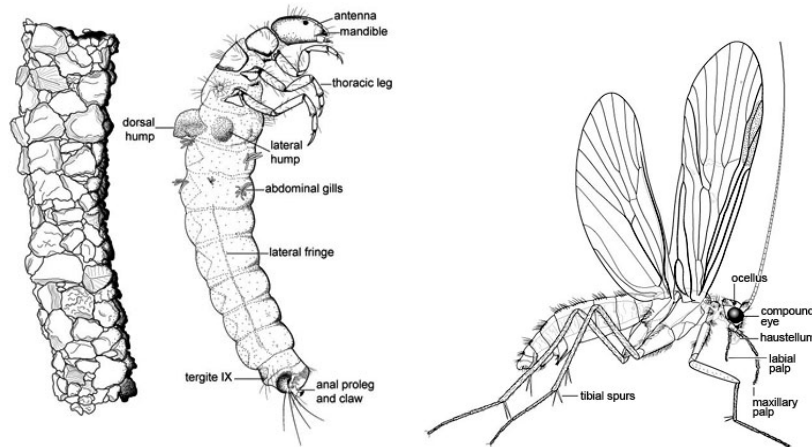
[Jason Throneberry](#), ANHC Aquatic Specialist

As a young biologist, I spent many a long day tromping around in one stream or another in the southeastern United States. One of my favorite things to do was find a nice wet seat on the streambed, start picking up rocks, sticks, leaves, and even mud, and inspect each for larval caddisflies and caddisfly cases.

What are caddisflies?

Caddisflies make up the Order Trichoptera. The name Trichoptera comes from the Greek words “trichos” meaning hair and “ptera” meaning wings. This refers to long silky hairs that cover most of the body and wings. Caddisflies provide a forage base for small fishes and other macroinvertebrates. Also, caddisflies can be used as indicators of overall water quality within an aquatic ecosystem. Generally, caddisflies will only thrive in bodies of water exhibiting relatively good water quality, but there are a few species that are fairly tolerant to environmental stressors.

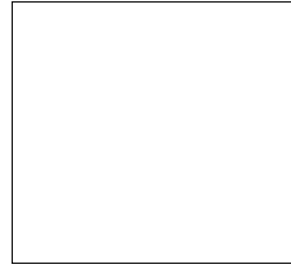
Caddisflies go through egg, larva, pupa and adult stages. Adult mating usually occurs on the ground or among shoreline vegetation. After fertilization the female skims over the water surface depositing eggs. The eggs sink to the bottom, hatch into larva, and the young larva then form their cocoon-like casings.



Caddisfly case, larvae, and adult (left to right).

Caddisfly larvae feed primarily on algae and plant materials, especially decaying plant tissue and associated microorganisms. However, some caddisfly larvae are predacious, feeding on any organism that gets close enough and is small enough to ingest. In some cases they actually hunt for prey. Caddisfly larvae are also very aggressive towards predators and competitors, often fighting to the death.

Most larval caddisflies construct some sort of case, net, or retreat, some of which are very elaborate. These structures are generally designed so that water can flow into the cavity where the larval caddisfly resides, thus providing fresh, oxygenated water to the gills. Undulating movements by the larvae inside the case create a current that allows fresh water into the case and deoxygenated water to be expelled.



Clockwise from top left: Three different types of caddisfly cases, and silk nets (bottom left).

What is the difference between a case, a net, and a retreat?

Cases are portable structures constructed to cover at least the posterior half of the body and protecting the soft-bodied caddisfly larvae from predators. Retreats are permanent structures where the larval caddisfly spends a good portion of its time. Both cases and retreats can be constructed from sand, gravel, sticks, bark, leaves, or aquatic plant material. Nets are silk catchments used for trapping food. The silk is excreted by the caddisfly, and nets can be permanent or portable and may be attached to a nearby retreat or a silken purse in which the caddisfly resides.



This caddisfly larvae was only provided with precious metals/stones to make its case.

Some caddisfly cases are very beautiful and are harvested to make jewelry. I knew a gentleman who cultured case-making caddisfly larvae and only provided them with certain materials, such as colored glass or finely crushed precious and semi-precious stones, for case construction. Sure enough, the caddisfly larvae followed their instincts and made extravagant cases out of what they had yielding beautiful and one of a kind jewelry.



Caddisflies emerging from water (left). Adult caddisfly (right).

When caddisfly larvae mature, they leave their cases, nets, or retreats and migrate to the water's surface. Once they reach the surface, caddisflies emerge in sometimes uncountable masses. This would be about the time I would reach for my fishing pole and get ready for some action. So, the next time you find yourself near a stream with some time to waste, pick up some



Critter Facts: Spring Peeper

[Doug Fletcher](#), ANHC Cheif of Stewardship



Click the photos for a spring peeper gallery on the [Herps of Arkansas](#) website. Photos by Kory Roberts.

Scientific Name: *Pseudacris crucifer*

Common Name: Northern spring peeper

Description: Spring peepers are tan or brown in color with a dark cross that roughly forms an X on their back (thus the Latin name crucifer, meaning cross-bearer), though sometimes the marking may be indistinct. They have a body length between less than 1 inch (25 mm) to 1.5 inches (38 mm) and a weight between 0.11 ounces (3.1 g) to 0.18 ounces (5.1 g). The species have large toe pads for climbing, although they are more at home in the loose debris of the forest floor. The color variations of the *P. crucifer* are mostly tan, brown, olive green, and gray. Females are lighter-colored, while males are slightly smaller and usually have dark throats. This frog has a vocal sac located by its throat, which expands and deflates like a balloon, to create a short and distinct peeping sound. Only males have the ability to make [this loud high-pitched noise](#), and they use it to attract mates.

Habitat/Geography: Spring peepers typically live in forests and woodlands near ephemeral or semi-permanent wetlands. In the northern reaches of their range, spring peepers may frequently endure occasional periods of subfreezing temperatures during the breeding season. The species can tolerate freezing of some of its body fluids, and hibernates under logs or behind loose bark on trees. Spring peepers frequently occur in breeding aggregations of several hundred individuals and commonly breed in many small wetlands, including swamps, temporary pools and disturbed habitats such as farm ponds.

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Nature Trivia

[Jane Jones-Schulz](#), ANHC Information & Education Coordinator

Spring is finally here! With rising temperatures and plentiful April showers, many amphibians have emerged from hibernation and are busy working on their next generation. What does amphibian mean exactly? It means the animal has two lives: the aquatic larval stage, known as tadpole, and the semi-aquatic or terrestrial adult stage. There are about 2,770 species of frogs and toads, including the spring peepers. Toads and frogs have many similarities, including the way they look. But there are some basic differences between them. For one thing, toads have dry, warty skin, while frogs have smooth, wet skin. Frogs have tiny teeth on both upper and lower jaws, while toads lack any teeth. Frogs have longer hind legs than toads, so frogs jump, while toads hop.

And when it comes to laying their eggs, there are differences too. One of the pictures below is frog eggs and the other is toad eggs – can you guess which is which? Visit [our Facebook page](#) and become a fan, then see what other fans have to say.



Click either photo, become a fan, and give us your best guess!

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Calendar of Events

Earth Day @ Little Rock Zoo

April 16-17, 2010 - 9:00am to 4:00pm

Come visit our booth Friday and Saturday at the [Little Rock Zoo's 2010 Earth Day Celebration](#). Learn more about what we do and meet some of our staff.

2010 Spring Convention of the Arkansas Audubon Society

April 30-May 2, 2010

[Register](#) to attend Arkansas Audubon Society's next meeting. For more information on the event, visit their [website](#). Text goes here

Warren Prairie Natural Area Dedication

May 3, 2010 - 4:00pm

You are invited to join ANHC staff and commissioners and The Nature Conservancy in Arkansas for a dedication of Warren Prairie Natural Area and a tribute to conservationist Jody Mahoney. See invitation [here](#).

Arkansas Natural Heritage Commission Meeting

May 4, 2010 - 9:00am

The Arkansas Natural Heritage Commission will hold its second meeting of the year at the Hampton Inn in Monticello, AR.

Arkansas Trails Day

June 12, 2010 - 9:00am to 4:00pm

Come visit our booth in the West Summit Parking Lot at Pinnacle Mountain State Park. This fun event celebrates Arkansas Trails and promotes public awareness of our trail system and its many benefits.

Arkansas Audubon Society Halberg Ecology Camp

June 13-18, 20-25, 2010 - Camp Clearfork

Do you know an 11- or 12-year-old interested in learning more about nature? Sign them up for AAS Halberg Ecology Camp. Two one-week sleepover camps offer young people an opportunity for hands-on study of the natural environment in Arkansas's beautiful Ouachita Mountains. They will learn about mammals, snakes, birds, insects, geology, botany, aquatic biology, and much more. [Visit their website](#) for more info or contact efulton114@sbcglobal.net.

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