A Miocene crane fossil, thought to be about ten million years old, was found in Nebraska and is structurally identical to the modern Sandhill Crane, making it the oldest known bird species still surviving! For more about the crane that loves Wheeler NWR, see the bottom of Page 3.

From the President’s Corner... Mary Ratliff

In an effort to fortify the Friends movement, the Fish and Wildlife Service hosted a national Friends Academy in West Virginia this past October and I was privileged to be invited as an attendee. It turned out to be an outstanding conference that left us feeling invigorated and excited about future growth of the refuge system. The main purpose for these meetings was to provide an overview as to how we can contribute nationally to conservation and for the volunteers to share our intellectual, creative and practical resources and experiences.

Among the topics I thought most innovative and impressive were the Citizen Science Programs which briefly outlined the Master Naturalist Program; Project Budburst and birding programs targeted at urban residents unfamiliar with any type of wildlife. These volunteer programs are being mentioned mainly to point out to all of you that there are a tremendous amount of exciting projects being developed, and quickly being implemented with the help of technology, that may appeal to you as volunteers or to someone you may know. Frequently people feel they have little to contribute to a government organization they aren’t familiar with so they never pursue even a fledgling interest. The refuge is very much a business and as such always can use any clerical help, maintenance support and even someone with the expertise to coordinate all the wonderful volunteers. We at Wheeler want to encourage you to get involved by contacting us as there are so many avenues just waiting for you to explore.

Saturday, January 23
2 PM Visitor Center

WWRA Annual Membership Waterfowl Tour, Meeting & Dinner
Become a member and join us for a guided waterfowl tour followed by the annual meeting and barbeque dinner. Tour departs the VC at 2 PM.

Saturday, February 6
9 AM Beaverdam Peninsula

Clean & Learn
Wildlife Identification
Come out and view the Snow Geese, Sandhill Cranes, and perhaps the White Pelicans before they head back north. We’ll be picking up trash as we follow the road along the peninsula.

Photo courtesy of George W. Ponder III
The weather may be chilly, but it’s still a great time to get outside and see birds, mammals and a host of other wildlife species in your own neighborhood. This winter, create lifetime memories and establish new family traditions by getting outdoors with your camera and capturing photos of yourself and your family and friends exploring nature.

Visit a national wildlife refuge, a national fish hatchery – or even a stream or woods in your own neighborhood. Then share your best photos of you and your family enjoying the natural world with the U.S. Fish and Wildlife Service and its Let’s Go Outside photo project, which already includes more than 4,000 images. Your photos will become part of an online image mosaic being compiled from thousands of photos.

Here’s all you have to do:

1. Head for the outdoors – whether your backyard, a local park or to Wheeler NWR. (Lucky for all, there’s a national wildlife refuge within an hour’s driving distance of most major American cities.) And don’t forget your digital camera.

2. Photograph a friend or family member enjoying an outdoor activity, or have someone snap a photo of you.

3. Send in your photo, following the instructions posted on the Let’s Go Outside Web site: http://yououtdoors.org/

4. To learn about outdoor opportunities and activities you can participate in, including the basics of digital nature photography, go to www.fws.gov/letsgooutside/ and www.fws.gov/refuges/SpecialEvents/FWS_SpecialEvents_Search.cfm

All digital photos uploaded to the photo mosaic will help compose an outdoor image. When viewed from a distance, the photo mosaic appears to be a single image. But closer examination reveals that it’s made up of thousands of smaller photos. Visitors to the Let’s Go Outside Web site will be able to watch the image mosaic being built and locate their own images by using a unique code number. The Let’s Go Outside initiative, supported by the U.S. Fish and Wildlife Service and its partners, encourages children, educators and parents to simply get outside and connect with nature and wildlife that live there. commitment to public service. For more information on our work and the people who make it happen, visit www.fws.gov

Saturday, March 13
2 PM, Visitor Center

Raptor Program
Learn about these magnificent birds of prey and see them up close.

Saturday, April 17
9 AM, Dancy Bottoms Trail

Clean & Learn
Wildflower Identification
Celebrate Earth Day with us as we explore this bottomland hardwood trail along Flint creek. We’ll clean up the area them hike the trail to discover the spring wildflowers.

<table>
<thead>
<tr>
<th>Photo courtesy George W. Ponder III</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAWKEYE</td>
</tr>
<tr>
<td>Buteo jamaicensis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photo by N. Walker</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE PINK</td>
</tr>
<tr>
<td>Silene virginica</td>
</tr>
</tbody>
</table>
To “Green” Your Garden, Go Native!

How ‘green’ is your garden? Now may be the time to ensure that it is truly sustainable. You can order seeds of wildflowers native to your region that will give you low-maintenance blooms this spring and all summer long. Not only will they thrive — they’ll support native birds, insects and other pollinators that depend on familiar, home-grown species for a healthy ecosystem.

So advise many conservationists, including biologists in the National Wildlife Refuge System, the premier system of public lands and waters set aside to conserve America’s wildlife and plants. National Wildlife Refuges strive to use native plantings or seeds on refuge land or plants unable to escape cultivation.

“Native species evolved in the local environment and have developed complex interrelationships with other area plant species as well as fine tuning to local climate and soil conditions,” says Kathleen Blair, a plain-talking Ph.D. ecologist at Bill Williams River National Wildlife Refuge in Arizona. Exotic plant species — non-natives, including many commercially available garden flowers — haven’t. That means, she says, “If you plant non-native or exotic species, a whole lot of other local species cannot use them.”

It’s possible that going native might help save a local ecosystem, or at least parts of one. That’s what motivates Pauline Drobney, a land management research demonstration biologist at Neal Smith National Wildlife Refuge in Iowa, where the staff is working to restore the globally threatened tallgrass prairie savannah. Each year, says Drobney, staff and volunteers plant up to 250 species of native plants on the refuge.

Does planting native mean sacrificing flash and drama? “No way,” says Drobney, who won over a skeptical neighbor by showing him the butterfly milkweed and blazing star in her yard. “It was just knock-your-socks-off color,” she says.

Getting it right matters. Some non-natives or exotics have become ecological nightmares, escaping backyards to rampage across entire regions, choking out native species as they spread. Purple loosestrife (Lythrum salicaria, native to Europe) is a prime example. “It’s a nightmare of a plant. It’ now clogging up the wetlands of the East Coast,” says Blair. Beyond that, planting an appropriate species will improve your odds of success. Some wildflowers are highly site-specific in terms of rainfall, elevation and soil type.

Native plants can generally be started either in seed trays at home in the winter or sown directly in the garden in spring. If you are directly sowing your seeds or putting ready-grown seedlings into a new bed, be sure the soil is bare (nothing growing in it) and free of weeds — native plant seeds cannot compete easily against weeds. While the seeds of some native plants may cost more and may be harder to find, they require less watering, fertilizer and pesticides, and are not as prone to damage from diseases and insects.

For reliable information on plants native to your region, consult your local native plant society. Almost every state has one. Another source is the Native Plant Information Network www.wildflower.org/ which houses a native plant database and searchable image directory maintained by the Lady Bird Johnson Wildflower Center.

The 2010 AWF William R. Ireland Youth Wildlife Art Contest & Federal Junior Duck Stamp Competition

DEADLINE FOR ENTRIES IS MARCH 15, 2010

- Both contests are open to all public, private and home school students in grades K-12.
- Winning artists are awarded plaques, art supplies, and $50 gift certificates for their schools’ art programs.
- An awards luncheon will be held for the top winners on Saturday, April 17, 2010.

For more information:

William R. Ireland Youth Wildlife Art Contest
contact AWF at 800-822-9453
or visit the Youth Art Contest section of our website at www.alabamawildlife.org

Federal Junior Duck Stamp Competition
contact the Wheeler National Wildlife Refuge at 256-350-6639
or visit their website at www.fws.gov/juniorduck/
Each year, more than 50,000 observers participate in Christmas Bird Counts (CBC) throughout the Western Hemisphere. The primary objective of these all-day censuses is to monitor the status and distribution of early winter bird populations across the Western Hemisphere.

Census results are compiled into the longest running database in ornithology, representing over a century of unbroken data on trends of early-winter bird populations. The first CBCs were conducted in 1900 when 25 counts were conducted by 27 participants who recorded a total of 90 species and 18,500 individual birds. Last year 59,813 observers recorded 2126 species and 65,596,663 birds on 2124 counts.

The 51st Wheeler NWR CBC had a distinctly international flavor. In addition to observers from across Alabama, Bert Harris joined us from Adelaide, Australia where he is pursing his PhD in conservation ecology.

This year’s count was conducted December 19 with 30 counters recording 119 species; down from the all time high of 124 species in 2004 and a about average for the previous ten years. Unusual species seen included White-winged Scoter (1), American White Pelican (6), Merlin (1), Peregrine Falcon (3), Whooping Crane (2), Western Sandpiper (49), Blue-headed Vireo (1), Brown-headed Nuthatch (6), and Marsh Wren (1).

The two Whooping Cranes are spending their fourth consecutive winter with us.
Invasive species are here and your Wheeler Refuge Wildlife Association is responding to the challenge! On behalf of the association, board members April Waltz and Don Collier applied for a public education grant from ALIPC (the Alabama Invasive Plant Council) last spring. They received $1000 to promote education on invasive plant species at the Wheeler Refuge Visitor Center. The specific goal of this grant is to educate about the invasive plant species found on the Refuge with emphasis on those found around the Visitor Center. The grant will provide funds to publish a brochure with information on ten to twelve invasive species with pictures, history, ecology and management techniques used for control. The previous newsletter focused on three invasive species: kudzu, Cherokee rose, and Chinese privet. This newsletter will introduce three additional invasive species: bamboo, English ivy and nandina.

**English Ivy**

*Hedera helix*

*Photo by Chuck Bargeron*

*University of Georgia, Bugwood.org*

**Native Status:**

English ivy is native to Europe and was introduced by early settlers for ornamental purposes; it is still planted today.

**Description:**

This is an evergreen vine that can grow to 100 feet. Leaves are dark-green and waxy.

**Ecology:**

Grows both along the ground and displaces native understory species; in the tree canopy, it may cover branches and slowly kill trees. It spreads by runners. Infrequently, seeds dispersed by birds.

**Management:**

Manual: Pull up vines on the ground by hand then bag and dispose of plants; cut vines climbing on trees. Chemical: Herbicides such as Triclopyr.

**Nandina**

*Nandina domestica*

*Photo by James H. Miller*

*USDA Forest Service, Bugwood.org*

**Native Status:**

Nandina or sacred bamboo is native to eastern Asia and India and was first introduced to North America in the early 1800s. It has been planted widely as an ornamental and often escapes from old plantings.

**Description:**

The species is a beautiful, easy to grow shrub with large, compound leaves with numerous small leaflets. Flowering occurs in the spring, when small, white flowers develop in large panicles at the ends of the stems. Flowers have 3-6 reflexed petals. Fruits are green berries that mature to a bright red in fall and winter.

**Ecology:**

Sacred bamboo is shade tolerant, which allows it to invade forest edges and interiors.

**Management:**

Nandina is difficult to remove manually because even the smallest piece of root can sprout. For tall plants, cut stems then apply herbicide after regrowth. Collect and destroy fruit. Chemical control is effective with repeat applications of Glyphosate or Triclopyr.

**Bamboo**

*Phyllostachys & Bambusa spp.*

*Photo by Chuck Bargeron*

*University of Georgia, Bugwood.org*

**Native Status:**

Native to Asia

**Description:**

Tall, jointed canes, up to 40 feet in height; branches are narrow with grass-like leaves (narrow and pointed). Roots are matted rhizomes.

**Ecology:**

Groves can form beautiful accent areas and prevent growth of all other plants. Sometimes planted around old homesteads.

**Management:**

Spreading is controlled by cutting young shoots in springtime. Bamboo is highly aggressive and complete removal is labor intensive. Groves near the visitor center are useful as a screen to prevent disturbing wildlife.
Red Knots, Horseshoe Crabs & Climate Change
by Stacy Shelton, USFWS SE Region Public Affairs Specialist

Not far from the casinos of Atlantic City, a different kind of wager takes place each May along the shores of Delaware Bay. That’s when the red knot, a bird the size of a coffee cup, stakes its future on the ready abundance of eggs laid by tens of thousands of horseshoe crabs. Without enough eggs to fuel them, the long-distance fliers will have a tough time completing the last leg of their 10,000-mile trek from the southern tip of South America to their breeding grounds in the Arctic.

In recent years, the red knots’ bet on the crab eggs has been more of a crapshoot than a sure thing. Scientists blame over-harvesting in the 1990s for the dearth of eggs that’s only recently started to reverse. Yet they also acknowledge a wild card could be in play: climate change.

Reds knots spend most of their time at the extreme latitudes of the Western Hemisphere, two areas that are expected to show effects from climate change most rapidly. Gregory Breese, the U.S. Fish and Wildlife Service’s project leader for the Delaware Bay Estuary Project, said that models indicate a relationship between snow cover in the Arctic and bird survival. In addition, red knot biologists have observed that the birds are arriving one week later to winter in Tierra del Fuego, an archipelago off South America, than they were a decade ago.

In Delaware Bay, warming waters and increased variation in weather, including more frequent and intense storm events, could throw off the delicate balance between the horseshoe crabs and red knots. “The peak of horseshoe crabs spawning in Delaware Bay has not always aligned itself with the migration of the red knots. That could be related to climate change,” Breese said.

Since the 1980s, the rufa subspecies of red knot that depends on Delaware Bay has declined dramatically from a population of more than 90,000 to 150,000 birds to between 15,000 and 20,000, according to Kevin Kalasz, the Shorebird Project Coordinator for the Delaware Division of Fish and Wildlife.

The population numbers have been steady since 2003, Kalasz said. The bird, which has a salmon-colored face and breast, is a candidate for federal protection under the Endangered Species Act.

If climate change played any role in the species decline to date, Kalasz said, it would have been overshadowed by the impact from over-harvesting of horseshoe crabs in the Delaware Bay. Now that severe restrictions on crab harvesting are in place, climate change is likely to move to the forefront as a factor in the red knots’ survival.

Once scientists determine how climate change has affected – or will affect – the red knot, it will be possible to develop counteracting management actions, Kalasz said. He called such research “one of our top priorities.”

One outcome could be to replenish critical beach areas to protect the crabs’ spawning grounds from sea level rise.
**USFWS Landscape Conservation Cooperatives**

**Landscape conservation cooperatives (LCCs)** are conservation/science partnerships between the USFWS, US Geological Survey (USGS), and other federal agencies, states, tribes, NGOs, universities and stakeholders within a geographically defined area. They inform resource management decisions to address landscape-scale stressors including habitat fragmentation, genetic isolation, spread of invasive species, and water scarcity—all of which are accelerated by climate change.

With an initial federal investment of $25 million in FY2010, the Service and USGS will begin forming eight LCCs across the country in the following geographic areas: Pacific Islands, Great Plains, Plains and Prairie Potholes, South Atlantic, North Atlantic, Great Northern, California and Arctic. LCCs provide scientific and technical support for conservation at “landscape” scales—the entire range of an identified priority species or groups of species. They support biological planning, conservation design, prioritizing and coordinating research, and designing species inventory and monitoring programs.

LCCs also have a role in helping partners identify common goals and priorities to target the right science in the right places for efficient and effective conservation. By functioning as a network of interdependent units rather than independent entities, LCC partnerships can accomplish a conservation mission no single agency or organization can accomplish alone.

Collectively, LCCs will comprise a seamless national network supporting landscapes capable of sustaining abundant, diverse and healthy populations of fish, wildlife and plants. They will provide a strong link between science and conservation delivery without duplication existing partnerships or creating burdensome and unnecessary bureaucracy. Rather than create a new conservation infrastructure from the ground up, LCCs build upon explicit biological management priorities and objectives, and science available from existing partnerships, such as fish habitat partnerships, migratory bird join ventures and flyway councils, as well as species- and geographic-based partnerships.

**LCCs support adaptive resource management by evaluating implementation of conservation strategies, maintaining and sharing information and data, and improving products as new information becomes available.** Shared data platforms serve multiple purposes, including the collaborative development of population/habitat models under alternative climate scenarios to inform spatially explicit decision support for all partners. Decision-support systems and products developed by LCCs not only help determine the most effective conservation actions to support shared priorities, but also provide tools to compare and contrast implications of management alternatives.

**SANDHILL CRANE NUMBERS CONTINUE TO RISE**

From a total of 67 cranes in 1999 to over 6,000 in 2009, the Sandhill cranes love Wheeler NWR! The population that winters at Wheeler is the Greater Sandhill from the Great Lakes region.

The cranes have been putting on a great show at and around the Visitor Center. Several thousand can be seen daily feeding in the adjacent fields. The numbers have probably peaked and will remain steady through mid-February. The Observation Building offers a warm, dry comfortable place to view the cranes, as well as, ducks, geese, hawks, deer, and perhaps a Bald eagle.

This gray-bodied crane stands four and a half feet tall with a bald, red forehead patch. Their wingspan is five to six feet and they fly with their long neck stretched straight out, unlike the Great Blue Heron, which are year around residents in this area. They roost in shallow water at night and fly at dawn to feeding areas up to ten miles away. They feed mainly on vegetation, but also enjoy a variety of insects and an occasional snake or mouse. The Sandhill call is very distinctive, sounding somewhat prehistoric. After all, they are among the oldest living bird species (2.5 million years).
National Wildlife Refuge Associations are independent non-profit organizations whose mission is to conserve America's wildlife heritage for future generations through strategic programs that protect, enhance, and expand the National Wildlife Refuge System and the landscapes beyond its boundaries that secure its ecological integrity. Won't you please join us?

Wheeler Wildlife Watch
Wheeler Wildlife Refuge Association
P.O. Box 239
Decatur, Alabama 35603

Address Correction Requested

Please consider joining for the first time or renewing your membership for 2010 by sending in your tax deductible renewal donation. Give a loved one or friend the gift of membership! We really need your support.

**Friend of Wheeler National Wildlife Refuge**

Name: ______________________________________________________

Address: ____________________________________________________

City, State & ZIP: ____________________________________________

**Individual:** $20 _____  **Family:** $25 _____  **Lifetime:** $250 _____  **Benefactor:** $500 _____  **Patron:** $1,000 _____

Please mail your tax deductible membership renewal to:
WWRA
P.O. Box 239
Decatur, AL 35603

Please visit our websites:

Wheeler National Wildlife Refuge
http://www.fws.gov/wheeler/

Wheeler Wildlife Refuge Association
http://www.friendsofwheelerrefuge.org/