



## THE OTHER SIDE OF AUDUBON

-- Kenn Kaufman

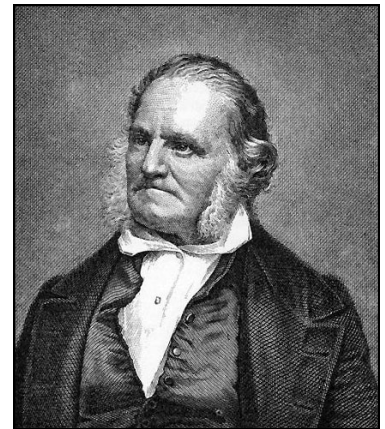
When John James Audubon looked at a bird, what did he see? As the pioneer naturalist walked the wilderness of eastern North America two centuries ago, what was going through his mind when his gaze rested on a new bird?

Of course we can't really answer those questions. But this September, at the Roan Mountain Fall Naturalists' Rally, I'm going to be presenting a talk that I call "Audubon's Warblers: Personal Connections to Elusive Birds." This presentation will take a close look at the North American warblers (family Parulidae), one of our most diverse and colorful groups of songbirds. For a distinctive twist, I'll be attempting to look at the warblers through the eyes of Audubon, and to compare his view to the way we would see those birds today.

It's a tricky thing to try to get into the mind of a person who lived in a different era. Their basic beliefs, their assumptions, the context of their lives may differ from ours in ways that we can't imagine. But in the case of John James Audubon, we have more clues than we would with most individuals. Audubon not only painted pictures of birds, he also wrote about them extensively. Most of the bird species that he encountered are still with us (aside from a few tragic extinctions), so we can compare what we know of those birds today to the way that Audubon portrayed or described them, and get some insight into how he felt about these creatures that were the focus of his life.

Certainly Audubon had his own personal favorites among the birds. Tops on his list was the Wood Thrush. His painting of this bird was not very dramatic, by Audubon standards. But his written account of it in his "Ornithological Biography" was something else.

His text on the Wood Thrush begins this way: "Kind reader, you now see before you my greatest favourite of the feathered tribes of our woods." About its song, he wrote: "... it is impossible for any person to hear it without being struck by the effect which it produces on the mind. I do not know to what instrumental sounds I can compare these notes, for I really know none so melodious and harmonical." But his reaction to the song went beyond mere music appreciation; it gave him hope to hear the Wood Thrush singing at dawn after a stormy night. And what a stormy night! He wrote of how his campfire "had gradually died away under the destructive weight of the dense torrents of rain that seemed to involve the heavens and the earth in one mass of fearful murkiness, save when the red streaks of the flashing thunderbolt burst on the dazzled eye ... instantly followed by an uproar of crackling, crashing, and deafening sounds ... as if to silence the very breathings



John James Audubon. From: [Sarah K. Bolton](#): *Famous Men of Science* (New York, 1889)



Wood Thrush

of the unformed thought! How often, after such a night ... wearied, hungry, drenched, and so lonely and desolate ... doubting perhaps if ever again I should return to my home, and embrace my family! - - how often, as the first glimpses of morning gleamed doubtfully ... has there come upon my ear ... the delightful music of this harbinger of day!" His prose was melodramatic, maybe even over the top, but anyone who has gone through a really bad storm while tent-camping will be able to relate. And his sense of joy at hearing the Wood Thrush sing in the calm of dawn certainly sounds genuine.

Although Audubon apparently loved all birds, he had mixed feelings about some. Writing about the Sharp-shinned Hawk, which often preys on smaller birds, he called it vigilant, active, and industrious, but he also wrote: "On several occasions, I have felt much pleasure in rescuing different species of birds from the grasp of the little tyrant ... being close by, I have forced it to desist from committing further mischief, as it fears man quite as much as its poor quarry dreads itself."

Likewise, in writing about the Brown-headed Cowbird and its habit of parasitizing the nests of smaller birds, Audubon seemed bothered by the fact that the foster parent birds (such as Common Yellowthroats) might not raise any of their own young. He wrote, "If we are fond of admiring the wisdom of Nature, we ought to mingle reason with our admiration; and here we might be tempted to suspect her not so wise as we had imagined, for why should the poor Yellow-throat have been put to the trouble of laying all those eggs, if they are, after all, to produce nothing?"



Eastern Phoebe nest with one Brown-headed Cowbird egg, <http://portfolio.galawebdesign.com/photos.html>

Like birders today, John James Audubon had some "jinx birds" that eluded him. Unlike birders today, he didn't necessarily



Lincoln's Sparrow

Source: Chester A. Reed, *The Bird Book*, 1915. Received from <http://www.gutenberg.org/etext/30000>

know what he was missing, because some of the birds that he did not see were still unknown to science. Of course, he was keenly interested in finding these unknown birds, and he did discover several. One of his finds was the bird known today as Lincoln's Sparrow, which he named for Thomas Lincoln, a young man who was along on Audubon's expedition to Labrador in the summer of 1833. Audubon himself was the first to hear the song of this bird and recognize it as something different, but in that era it was necessary to shoot a specimen to be able to document it for science, and this proved difficult. Audubon wrote that "we found more wildness in this species than in any other inhabiting the same country, and it was with difficulty that we at last procured it." The "wildness" and elusive behavior of Lincoln's Sparrow is further demonstrated by the fact that it occurs as a migrant or winter resident throughout the eastern United States, and Audubon had been pursuing birds within this species' range for more than twenty years without noticing it until he heard it sing in Labrador. In his defense, though, no other pioneer naturalist had noticed it, either.

A peculiar insight into Audubon's mind might be gained from his writings about a bird that doesn't exist. Audubon described a new species of eagle and named it "the Bird of Washington" or





Plate 11 of *Birds of America* by [John James Audubon](#) depicting Bird of Washington

“Washington Sea-Eagle.” No doubt he was sincere in his desire to honor America’s first president, but unfortunately, his “Bird of Washington” was just the all-brown young Bald Eagle.

Since Audubon was thoroughly familiar with the Bald Eagle, including its immature stages, how did he make this mistake? The power of suggestion seems to have played a part. Early in his career, while he was still trying to be a merchant, he was on a trading voyage by riverboat on the upper Mississippi in winter. One of his companions, a Canadian fur-trader, pointed out a young eagle (there are many on the Mississippi River in winter, even today) and announced that this was the “great eagle” that he had seen in the far north. Audubon later wrote: “I was instantly on my feet, and having observed it attentively, concluded, as I lost it in the distance, that it was a species quite new to me.” Having decided that the bird existed, he was on the lookout for it from then on. He reported that he saw a nest on some cliffs in Kentucky, but that bad weather kept him from observing it at length. He observed eagles that he identified as his “Bird of Washington” several more times, and he painted a portrait of one.

Yet when it comes to Audubon’s formal scientific description of the species, we can sense uneasiness on his part, as if he subconsciously wondered whether his bird was really distinct. He claimed that he recognized it each time he saw it but didn’t explain how, other than saying that it was large and noble, and giving some vague generalizations about its flight style. In the detailed description, he wrote: “Passing over the affinity of this bird to the young of the White-headed Eagle [Bald Eagle] ... I shall institute a comparison between it and the true Sea Eagle or Cinereous Eagle [the White-tailed Eagle, of Europe and Asia]. Why did he pass over its affinity to the young Bald Eagle? Perhaps to avoid admitting that he didn’t have any solid distinctions to describe. His account of the species concludes: “All circumstances duly considered, the Bird of Washington stands forth as the champion of America, and henceforth not to be confounded with any of its rivals or relatives.” Well, it’s the thought that counts.

But to go back to where we started, what about Audubon and his reactions to those wonderful little warblers? I actually have a lot to say about that, but I’m saving it for my program at Roan Mountain on the evening of September 10th. I’ll hope to see you there!

Kenn Kaufman is recognized as one of the world’s most renowned bird experts. He is a field editor for Audubon magazine, and writes regular columns for both *Bird Watcher’s Digest* and *Birder’s World* magazines. Most of his energy currently goes into book projects, including his own field guide series, Kaufman Field Guides, published by Houghton Mifflin Company of Boston. Kenn’s other books include *Lives of North American Birds* and *Kingbird Highway*. A new memoir, *Flights Against the Sunset*, was published in spring 2008. His presentation will be at the Roan Mountain State Park Conference Center on Friday, September 10th at 7:30 p.m.

Following his appearance as a featured speaker at the Fall Rally of 2003, Kenn joined Friends of Roan Mountain as a Lifetime Member. Kenn will be available to sign copies of his books which will be for sale at the rally. A portion of the proceeds from the sale of his books will be donated to our organization.





# The Birds and Bees of Wildflowers

--- Kris H. Light



Wildflowers cannot jump up and down or yell to get the attention of bees, butterflies, hummingbirds or other vital pollinators, but they don't just wait passively hoping for a chance encounter. Even though plants can't "speak" verbally, they are quite adept at communicating with their pollinators. Some of their attention-grabbing techniques include:

**Color** - Humans plant flowers to enjoy the lovely colors that enhance their gardens. The petals of flowers are like a type of café sign advertising the availability of nectar and pollen to the pollinators. Flowers use a spectrum of colors to attract specific insects, hummingbirds and bats. Honeybees are red / orange colorblind; they are attracted to white, yellow and blue flowers. Butterflies like yellow and orange flowers. Red and orange flowers are the favorite of hummingbirds. White flowers attract nighttime animals such as moths and nectar-feeding bats. Maroon-colored flowers have a special scent, which will be discussed later, used to attract flies and beetles. Some flowers even reflect "colors" that humans cannot see; butterflies and bees can detect the ultraviolet end of the color spectrum that is invisible to us. To them, a field of UV-reflecting flowers glow like tiny neon signs.

**Color changing** – Some flowers let their pollinators know that they have already been visited and can be passed by. A Japanese honeysuckle flower blooms out white; the next day, after it has been pollinated, it will turn yellow and its stamens (male, pollen-bearing structures) shrivel. Lantana flowers go through a series of colors as they age, from yellow to orange to pink. Individual White Clover flowers are open and raised until they are visited by a bee or butterfly, once they have been pollinated, they close, turn pink and brown and hang down like a full skirt around the cluster. Virginia Bluebells have pink buds, which are closed and cannot be pollinated, the flowers turn a lovely blue when they mature and open, inviting bees and butterflies to come by for a sip of nectar.



**Nectar guides** – If petals are the flower's "café signs", the nectar guides are the "road maps" to where the food is located. These guides are usually spots or stripes, but they can also be a different color on single petal, such as in an azalea.

**Scent** – Some flowers, like gardenia, honeysuckle, hyacinth, and magnolia have a sweet, pleasant aroma that is as enticing to insects as it is to many humans. Other flowers, such as most brown and maroon-colored ones, have an unpleasant, sometimes even sickening odor, in hopes of attracting carrion or dung-loving beetles and flies. The green Carrionflower is often smelled before it is seen, like its name implies, it reeks of the odor of a dead animal and flies find it irresistible. The attractive brown Chocolate Lily found in Alaska is sometimes called the "Outhouse Lily," one sniff quickly verifies that it smells like dung! The huge maroon-colored *Amorphophallus* flower smells so much like carrion that flies will often lay their eggs in the base, resulting in some very hungry maggots. Some orchids have even gone so far as to mimic the pheromone odor and shape of a female wasp in an attempt to trick a male wasp into "mating" with them, picking up pollen in the act! The males aren't too intelligent, they will try again with the next orchid they come across, resulting in pollination of the orchid!



**Flower shape** – Even the shape of a flower can determine what type of pollinator it will have. Flat, open *bowl-shaped* flowers are visited by a wide variety of insects, but they are the only kind that "intelligence-challenged" beetles will visit. It doesn't take a lot of smarts to land on a flower and walk around on it! Composite flowers, such as sunflowers and daisies, offer several to hundreds of small florets (called disc flowers) in one flower head, each one providing the pollinator with a tiny amount of nectar. Flowers in the Carrot family, such as Queen Anne's Lace, are often covered with beetles as they visit each tiny individual flower on each umbel (flower head).

*Tube-shaped* flowers are visited by insects with a long proboscis (mouthpart) or tongue, such as butterflies, moths, bumblebees and hummingbirds. The nectar is found deep in the flower, causing the pollinator to brush the stamens and pick up pollen on one flower then passing it on to the pistil of the next. The orange-flowered Trumpet Creeper is a good example of a hummingbird flower.



*Gullet-shaped* flowers require a large, intelligent insect like a bumblebee that can figure out how to crawl down into the flower to obtain the nectar. One of the best-known flowers of this shape is the Snapdragon, a favorite of children who like to make them “talk” by squeezing on the lower petals!

*Pea* flowers also require a large, intelligent insect to be able to open the keel and wing petals to reach the nectar. The four lower petals enclose the stamens and pistil of these flowers, the top petal, called the standard, often has lines or spots for nectar guides, a kudzu flower is a good example.



*Trap flowers* - Some of the more advanced orchids, such as the Lady's Slippers, will send their pollinators through a “maze” and temporarily trap them in order to force them to pick up the pollen-bearing structures called *pollenia*. When the insect “escapes” it will fly to the next flower and deposit the pollenia, thus fertilizing the orchid and ensuring a new generation of beauties.

So, the next time you pass a wildflower on the trail, in a field or in your garden, try to figure out its pollination strategies and watch what comes for a visit.

Kris Light has had a lifelong fascination with plants and wildflowers. She has worked as an environmental educator and science specialist in Oak Ridge, Tennessee. In 2003, Kris started a website on wildflowers, nature and hiking, [EastTennesseeWildflowers.com](http://EastTennesseeWildflowers.com). Her photos have been published in magazines (*Cooking Light*, *Tennessee Conservationist*), a German book on homeopathic medicine and several U.S. and Canadian textbooks. Kris will present her program on Saturday evening, September 11, at 7:30 p.m.

## Annual meeting

## Friends of Roan Mountain

You are encouraged to attend the annual meeting of the Friends of Roan Mountain, held during the Fall Naturalists' Rally on Saturday, September 11th at 5:45 p.m. At the meeting you will receive information regarding the activities, projects and finances of the organization. The election of board members will also take place.

Board members serve a two-year term, with half of the members' terms expiring every other year. There are no term limits. The thirteen current board members are *Aubrie Abernethy, Pam Baldwin, Gary Barrigar, Nancy Barrigar, Jennifer Bauer, Jerry Greer, David Hall, Don Holt, Guy Mauldin, Larry McDaniel, Ken Turner, Anne Whittemore and Bob Whittemore*. The following slate of names has been nominated by the board for this year's election: *Aubrie Abernethy, Nancy Barrigar, Jennifer Bauer, David Hall, Guy Mauldin, Bob Whittemore*. Nominations from the floor may be made at the meeting.

Board meetings are scheduled as needed, generally a few weeks prior to the rallies. Any member of FORM is welcome to attend a board meeting or submit an item for the board's consideration by contacting the board's president, Bob Whittemore (423-477-2235).

This past spring, with the intention of clarifying the policies and operation of the organization, the board voted to update the by-laws of Friends of Roan Mountain. Those by-laws are available to any member upon request. A printed copy will also be available for examination at the annual meeting.

The annual meeting also provides an opportunity for the membership to give their input concerning the policies and activities of FORM. Any member wishing to submit an item for the agenda of the annual meeting may do so by contacting the board's president, Bob Whittemore.

## In Memoriam

Friends of Roan Mountain notes with sadness the passing of member, **Abe Hart, Jr.** – June 8, 1922 to November 12, 2009. Carter County native; WWII US Army Veteran; 1948 graduate of University of Tennessee – College of Agriculture in Agronomy; Retired from Soil Conservation Service – USDA in Nashville, TN; after retirement returned to the mountains he loved.

## What's New in the Park?

— Pat Gagan, Roan Mountain State Park Manager



**Japanese Knotweed Eradication**-Dense monocultures of Japanese knotweed threaten to displace native species and alter the function of riparian areas (read trout habitat) in the Park. The insidious invasive has been detected in multiple locations throughout the Park. Starting next to the Doe River, across from Shed #1, we are aggressively seeking its eradication by manually digging rhizomes. Concurrently, we are seeking funding for a safe herbicide (foliar imazapyr) to destroy this plant before it totally destroys the riparian zone in the Park.

**Native Grass and Wildflower Restoration**-We have reduced mowing of fields in the park significantly. August will be our last regular mowing of the fields for hay. After that, we will apply herbicide before we burn, plow and re-seed the fields with native grasses and flowers. In two years, the entrance to the Park will be marked by an explosion of color. One impact that will be noticed at the Fall Rally is the re-location of the baseball backstop to the field below the cabins. This location will be more convenient to the Cabins and the Conference Center and will serve as the line-up area for the Naturalist Rally hikes.

**Nature Niche at the Interpretive Center**-We have completed a Nature Niche at the Visitor/Interpretive Center that allows permanent, safe display of critters. Currently, we are displaying amphibians and reptiles. We have also installed a child friendly table of natural artifacts found in the Park that we encourage visitors to handle. The Niche also features a display of wildlife posters, one showing the life-cycle of the Monarch Butterfly, donated by the Friends of Roan Mountain.

**Monarch Way Station**-An interpretive sign and brochure provided by the Friends of Roan Mountain has been placed at the kiosk overlooking the Miller Farmstead. They relate the story of the monarch migration from South and Central America to North America. Additionally, Beth Ann has transplanted additional milkweed plants to the bank overlooking the Farmstead.

**New Ranger**-Welcome Ranger Angela McConnell to the Park. With a Bachelor's Degree in Fishery and Wildlife Science from Tennessee Tech, she has worked at Fall Creek Falls State Park both as a Seasonal Interpretive Ranger and Park Naturalist. She is leading Edible and Medicinal Plant hikes in the Park and is looking forward to helping Friends of Roan Mountain.

Visit the park's website at <http://www.state.tn.us/environment/parks/RoanMtn/>

*Our minds, as well as our bodies, have a need of the out-of-doors. Our spirits too, need simple things, elemental things, the sun and wind and rain, moonlight and starlight, sunrise and mist and mossy forest trails, the perfume of dawn and the smell of fresh-turned earth and the ancient music of wind among trees.*

-- Edwin Way Teale



**The 2nd annual Xtreme Roan Adventures** (The Naturalist Rally for KIDS) was a huge success. A whole lot of people contributed to make this a very special event that made a whole lot of kids and grown-ups very happy. Perhaps more importantly, it gave them an opportunity to get closer to our natural world. That is something we desperately need in these virtual reality driven times.

So many of you gave so much time and effort but a special thanks needs to go out to Ken Turner. He spent countless hours handling registration, creating a fabulous website and too much else to mention. The reason things ran so smoothly was largely due to his hard work and planning.

Larry McDaniel

Director of Xtreme Roan Adventures



# Between Friends

**Deadline for Meal Reservations** – All dinner and lunch meals must be prepaid. The previous policy of allowing walk-ins and payment at the door has several times resulted in Friends paying for no-shows. If you plan to eat the catered dinner or purchase a bag lunch at the rally, you must send your check in advance. The deadline is ***Tuesday, Sept. 7th***. The reservation form can be found in the brochure or on our website. Mail your check and reservation form to Deanna Mauldin, 1507 Osceola St., Johnson City, TN 37604. We greatly appreciate your cooperation in helping us plan accurately!

**Change in Parking** – Due to a change in the mowing policy of the park, the parking location for all field trips will be in the field below the cabins.

**Raffle Donations** – We are very grateful to receive donations of items for our rally raffles. All proceeds go to our grant fund which allows Friends of Roan Mountain to support worthy projects and research on Roan Mountain. Suggestions for donations include:

nature related books, photos, and artwork  
potted plants

hiking or camping gear  
homemade jams, jellies, etc.

## **Mark Your Calendar !**



### Roan Mountain Naturalists' Rallies

Spring	First Friday - Sunday in May	May 6-8, 2011
Youth	Last Saturday in July	July 30, 2011
Fall	Friday - Sunday in September after Labor Day	Sept. 10-12, 2010
Winter	Saturday in February nearest Valentine's Day	Feb. 12, 2011



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