

A Conversation with KENN KAUFMAN



You've dedicated most of your life to birds. What inspired you to turn your attention to butterflies?

On a personal level, I've been fascinated with butterflies since I was about thirteen years old - only seven years after I started watching and studying birds! So I've paid attention to them ever since and have tried to identify them and learn about them wherever I've traveled. In 1999, when I was working on the final stages of the *Focus Guide to Birds of North America*, it occurred to me that the format of that book would work just as well for butterflies. By a fortunate coincidence, I have a good friend, Jim Brock, who is a well-known expert in that field. Jim was looking for a way to share his knowledge with the general public, so he agreed to coauthor the *Butterflies of North America* with me.

There's talk within the birding community that butterflies are "the next birds." What does this mean?

When it's worded that way it's sort of a joke, of course, but there's an element of truth to it. The comment refers to the fact that bird watching has exploded in popularity in recent years, with as many as 70 million Americans now professing an interest in birds. It appears that butterfly watching is now starting to take off with the same kind of major growth in interest. Local butterfly clubs are starting up all over the United States and Canada, and butterfly gardens are being established in communities from coast to coast.

Birders often do yearly and one-day species counts. Do butterfly watchers engage in the same sorts of searches? Is it practical to approach these two groups in the same way?

Butterfly watching and birding can be approached in similar ways, especially now that most butterflies can be identified in the field. But people are just starting to keep butterfly lists as a serious pursuit. North America has almost as many different species of butterflies as of birds, so there's great potential for working on a life list or year list. The one-day lists won't be as large - several times I've seen two hundred species of birds in a day in the U.S., but seeing that many butterfly species in a day would be impossible anywhere except in the tropics, partly because many butterflies have short flight seasons. That's an advantage in a way, because it means we can go out every week throughout the warmer seasons and see a different mix of butterflies each time.

Butterflies are symbols of peace and hope and other delicate ideals. Are they really so delicate?

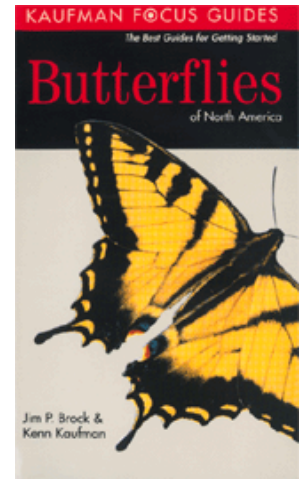
Actually, butterflies are surprisingly tough. We might not think so if we just see them fluttering about at flowers, but we have to remember that the winged adult butterfly is just the final stage of the life cycle, and to get to that point it has already survived through stages as an egg, then a caterpillar, then a chrysalis before emerging as an adult. Some butterflies are permanent residents of the high Arctic, where summers are short and winters get down to fifty below zero; they survive through the winter under snow in the caterpillar stage. Some desert butterflies may survive in the chrysalis stage for several dry years before they finally emerge as adults in a wet spring. So these seemingly delicate little creatures are good at endurance and survival, as long as we don't destroy their habitats.

As an aside, I should say that I don't regard peace as a delicate ideal. Some of the strongest people I've ever known have been advocates for peace. Considering some of the things going on in the world today, if butterflies are symbols of peace, we could stand to pay more attention to them.

There is controversy among ardent naturalists about whether field guides should be illustrated with paintings or photographs. In the Kaufman Focus Guides you manage a marriage of the two. What sparked the idea to do this? Has your technique been well received?

The controversy has been going on for years, because paintings and photos both have their drawbacks. Even the best artists can't always capture the subtle details that give a certain creature its distinctive look. On the other hand, photos can be terribly misleading: overall colors can be changed by the light conditions or even the film type used, shadows or reflections can look like markings, and so on.

I decided years ago that the best way to illustrate a field guide would be to use photographs but to edit them somehow for more accurate representation. At the time I was first thinking about this, there was no good way to do it. The development of computer programs for digital editing of images during the 1990s made it possible, and I started experimenting with this in 1995, just about the time that computers became fast enough to handle large image files. As for how well the technique has been received, I've met a few longtime birders who have been told for years that paintings are superior to photos, and they can't quite get around that to see that these are not just ordinary photos. But I've had a tremendously positive response from people who are new to birding. They love the edited photos. And the early indications are that the butterfly guide will get an equally enthusiastic reception. I think this new Focus Guide really shows the value of this technique, making it possible to compare all those butterflies side by side in a consistent and compact format.



You are regarded as an expert on the natural world - from birds and butterflies to plants, insects, and mammals. Why have you aimed your Focus Guides to beginners and not to more experienced naturalists like yourself?

There's been a trend recently in field guides to skip the basics and put in details to impress the experts - maybe because it's the experts who write the reviews. But the people who really need field guides are the ones who are just getting started in a subject. I want to make it as easy as possible for anyone to get started in learning about and observing nature for himself or herself. I'm convinced that as more people become interested in birds, butterflies, and other aspects of nature, there will be more general support for conservation.

Speaking of conservation, have human activities had much effect on butterfly populations?

Yes, humans have had an impact on butterflies, and most of the effects haven't been good. For example, the Regal Fritillary has disappeared from much of its former range. The Miami Blue and several other Florida butterflies have become very scarce, and the Xerces Blue in California is now extinct. In many cases, simple loss of habitat has hurt these populations: each kind of butterfly has its own requirements for the habitat it can survive in, and if its habitat is destroyed, it can't just move elsewhere. In other cases, heavy spraying of pesticides may have wiped out local populations; butterflies are insects, so of course insecticides kill them! The good news is that we can also take steps to help butterfly populations. The widespread spraying of pesticides can be replaced with a more targeted approach called integrated pest management. Habitats can be protected and even restored. And as we learn more about our butterflies, we'll know which little pieces of habitat are most critical for their survival.

I'm optimistic that the growing numbers of butterfly watchers will become a force for habitat protection, and that these watchers will work with scientists and conservationists to make sure we don't lose more species. I want future generations to be able to enjoy the same kind of wonderful diversity of butterflies that we have today.

Ken Kaufman, world renowned naturalist and author, will be the speaker for the Saturday evening program of the Fall Rally. Kaufman is the author of Kingbird Highway, Lives of North American Birds, and the Peterson Field Guide of Advance Birding, the first "expert" guide to North American birds. In 2000, Houghton Mifflin launched the Kaufman Focus Guide series with the best-selling Birdes of North America. Butterflies of North America is the second in the series.

Digital Photography

A power tool for the art and conservation of nature

– David Ramsey

It was during the mid-1980s that personal experiences led to a dramatic strengthening of my passion for the natural world and my conservation values. Notable among these experiences was my discovery of three classic books of nature photography, including *"In Wildness is the Preservation of the World,"* featuring the photography of Eliot Porter; *Mountain Light* by Galen Rowell; and *Appalachian Wilderness*, also exhibiting Porter's beautiful images. Accompanying the photography in these were the rich and prescient words of Henry David Thoreau, Rowell, and Ed Abbey respectively, but it was through the powerful images of Porter and Rowell that I was profoundly affected. Indeed, the power of photography has influenced the actions of people from the average person like me to the decision-makers of the world for well over a century now.

The photographers mentioned previously all used film-based cameras in their work. And through the years, film has been the tried and trusted medium that has conveyed the beauty and rarity of places and species to both the masses and those same decision-makers who determine their fate. Although the intrinsic need for photography remains critical to the effort to preserve and protect these places and their life forms, important changes are taking place in the relationship between photography and conservation.

Only a year or so ago, I was an outspoken opponent of the use of digital photography in nature work. My argument was rooted in the notion that only film photography could be truly trusted for faithful rendering of natural scenes, and that digitally produced images were too easily enhanced and manipulated once transferred to a computer and into one of the amazing new photo software programs. This, I preached, would ruin the credibility of nature photography, degrading if not destroying its reliability as a true representation of special places worth saving.

Then, a few months ago I was asked to begin teaching nature photography workshops at a local gallery. I promptly accepted, having always wanted to do this anyway. After researching other workshops and doing a bit of homework, I discovered that if I were to offer a traditional film-oriented photography workshop I would likely be sorely disappointed with the attendance. However, I was told repeatedly by people I mentioned the program to, "If you ever decide to do a *digital* nature photography course, give me a call." After speaking with area camera store operators, I also learned that over 75% of their annual camera sales is now of digital models. This was going to require some real soul-searching on my part.

Sometimes I'm a little hard-headed and sometimes just a little slow, I guess, but the realization finally struck me that instead of standing back and discrediting digital photography for nature work, the most constructive thing I could do would be to embrace the new technology and work to teach others of its inherent positive and negative potential. I considered the fact that even with film-based photography, the potential for manipulation is high. In fact, it is not unheard of for some so-called nature photographers to construct scenes for close-up or wildlife shots by carefully positioning the leaves, rocks, flowers, insects, or even animals, exactly where they want for the composition they're after. Or at the other end of the process, to scan their transparency or negative into the computer (converting it to digital) and then transforming the image into something quite different than the true natural scene that was actually photographed. As you can see, the potential for altering a nature image, whether in film or digital media, is quite high.



Digital photography does, however, hold certain advantages over that of film. The speed and efficiency of digital is substantial; no more waiting to get your images back from the lab to see how they turned out. The ability to edit shots in the field is a huge advancement in this respect as well. For example, if that wildflower image you just made is a little out of focus or poorly exposed when reviewed on the camera's built-in LCD screen, all it takes is the touch of a button or two to delete it and try again for just the right shot.

This new technology holds exciting possibilities for expanding participation in nature photography, as well as in conservation. Now you can take a morning hike to, say, Grassy Ridge in the Roan Highlands, photograph your trip, and exhibit your high quality prints or present a slide show on your computer or TV to friends that evening at dinner - not to mention share them electronically with the *entire* world via the internet before bedtime! Digital photography is simply a new and powerful tool for capturing images of the natural world. How we choose to use this tool is the real crux of the issue - a familiar choice, indeed.

David Ramsey will be our speaker on Friday evening at the Fall Naturalist' Rally. David, an Appalachian photographer and writer and a native of Unicoi County, TN, publishes an annual calendar of the Southern Appalachian Highlands Conservancy. He is the 2003 recipient of SAHC's Stanley A. Murray Award for Volunteer Service. His forthcoming book, Amazing Places of the Tennessee Mountains, is due in spring 2004.

ROAN RESEARCH FUND SILENT AUCTION FALL 2003

Here is a fun way to contribute to the Friends of Roan Mountain Research Grant Fund. When you come to the Fall Naturalist Rally, bring an item to donate to the Silent Auction. Ideal items will be things of interest to naturalists that are not too large or elaborate. We all have perfectly good stuff gathering dust, things that are interesting, neat, nifty, groovy, tubular, rad (choose your generation's favorite adjective). This is a synergistic way to recycle the newness and joy you once had in owning such wonderful stuff!

Examples include Nature oriented books, recordings, photographs, artwork, crafts, tools, toys, devices, etc. Gifts from Nature are also nice, e.g. rocks, fossils, seedpods, cones, bones, driftwood, etc. that you once collected and admired but are now willing to share with others. Other popular items are garden related, such as seeds, seedlings, cuttings, or other small starts of interesting garden plants, especially native or wildlife-useful species. Also, our group includes a number of educators, so nature education materials, charts, models, toys, etc. should draw some interest.

The possibilities are endless, but perhaps there are some things we should avoid donating, like live



animals, sharp weapons, dangerously poisonous organisms, endangered species parts, wild bird feathers, and things that you couldn't unload at your last three yard sales. Common sense should serve to guide you here, but if in doubt, call me and I'll consult someone that has some.

One more thing, besides bringing an item to donate, come prepared to bid on one! You might find just the doodad you've been looking for, or a thingamajig you can't live without. And whether you get the bargain of the century, or become mired in a bidding war with your so called friend who just has to have the same thing you want, at least the price is right because of the Cause! So join us at the Auction to unclutter your life and support the search for knowledge on the Roan.

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2003 ROAN MOUNTAIN BUTTERFLY COUNT

The annual Roan Mountain Butterfly Count was held on its usual date, the third Saturday in July (Saturday, July 19, 2003). The weather was relatively cooperative. The temperatures experienced were in the 70's to low 80's F, and there was no rain, although it was cloudy with sunshine off and on all day and occasionally moderate breezes. Four participants spent ten party hours covering about 3.5 miles on foot and about 5 miles by car. Gil Derouen, Don Holt, and Randy Rogers counted in Hampton Creek Cove and the rhododendron gardens. Gil and Don counted at the Dave Miller Homestead. Don drove through and counted the Tiger Creek area. Allan Trently walked the Grassy Ridge area. A total of 18 species and 260 individual adult butterflies were counted, and two species of larval butterflies.



The numbers were quite low compared to our usual results. The Common Milkweed was in full bloom everywhere, but had few takers, compared to the swarms of Pipevine Swallowtails seen nectaring on it last year. Two of the better butterfly attractants for the day were Wild Basil and horse manure. (Two of the better butterfly attractants of the day were blackberries and strawberries!) The roadside edges at the rhododendron gardens had been recently mowed very short, all except for the inside edge of the loop where there are endangered wildflower plantings. Also, there was less red clover in bloom inside the loop compared to last year to attract and hold the reduced numbers of Aphrodite Fritillaries present.

Personal observations elsewhere in our area lead to speculation that butterfly numbers are relatively low all around for this time of year, possibly from a delay in activity and development caused by the frequent rains of late spring and early summer. If the weather doesn't throw us any curves, a boom in butterfly populations might be reasonably hoped for later this season with the increased hostplant growth from the ample rains. I encourage everyone to join us at the Fall Naturalist Rally. It could be great fun if both the butterflies and the butterflyers come out in force to greet our guest butterfly trip leader Kenn Kaufmann this September!

Pipevine Swallowtail - 14
Black Swallowtail - 2
Eastern Tiger Swallowtail - 16
dark Swallowtail spp. - 4
Cabbage White - 13
Clouded Sulfur - 6
Orange Sulfur - 17

Sulfur spp. - 4
Gray Hairstreak - 1
Eastern Tailed-Blue - 28
Summer Azure - 1
Aphrodite Fritillary - 58
Fritillary spp. - 3
Pearl Crescent - 14

Question Mark - 1
Red Admiral - 2
Common Wood Nymph - 4
Monarch - 4
Silver-spotted Skipper - 63
Northern Broken Dash - 2
Little Glasswing - 3

Caterpillars observed:

Summer Azure - 1
Appalachian Azure - 3
(both on Black Cohosh [*Cimicifuga racemosa*] at Twin Springs)

(Submitted by Don Holt)



FUN FACT: A caterpillar grows to about 27,000 times the size it was when it first emerged from its egg. If a human baby weighed 9 pounds at birth and grew at the same rate as a caterpillar, it would weigh 243,000 pounds when fully grown.

"How does one become a butterfly?" she asked pensively. "You must want to fly so much that you are willing to give up being a caterpillar."

~~Trina Paulus

AMONG FRIENDS . . .

With this year's line-up of speakers and hikes, the Fall Naturalists' Rally promises to be one of the best ever. Check out our Friends of Roan Mountain website for details at www.etsu.edu/biology/roan-mtn (Many thanks to Jerry Nagel for his work on the website.) or call Gary Barrigar at 423 543-7576.

You are being asked to **register for your meals at the rally by Wednesday, September 3.** This is necessary so that we can give the caterer an accurate count. Due to the impossibility of predicting the number of walk-ins for the dinners we have either lost money because we had too much food or we have turned people away because there was not enough food. So, please, help us out. Call or mail *Anne Whittemore* [208 Mark Drive, Gray, TN 37615, 423-477-2235] with your reservations for dinners. Lunch is also available on Saturday. See your rally brochure for choices and prices. You can also send your renewal fee if your membership is expiring. Anne will have your new card waiting for you.



Current Friends of Roan Mountain memberships 167 - (couples and families count as one membership)

Proceeds from Spring Rally (for the Roan Research Fund)

Auction = \$233.75

Raffle = \$104.05

Due to a scheduling conflict we will not have use of the convention center at the park during the daytime hours on Saturday. We will hold the evening dinner and program as usual, however if minor schedule adjustments are necessary, we'll alert you on Friday.
