



NaturePhile

Written/Published by: Your Trust-ed Staff

Volume #13/Issue #32 2015

The mission of the Balsam Mountain Trust is the stewardship of the natural and cultural resources on Balsam Mountain Preserve and the Blue Ridge Mountain region achieved through effective land management practices, scientific research and environmental education.



Anybody recognize any of your fellow BMP'ers? Many folks are recognizing the benefits of taking vitamin N by participating in Trust programs. Have you had your vitamin N today?

Photo by: Michael Skinner

Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty.

Albert E Instein

In this issue: From the Trailhead—news from your executive director: Trust Nature Center Foreclosure, w/a note from Trust Board Chair Rob Howard; Education Mewsings; Americorps News



From the Trailhead

By Michael Skinner, executive director

Inspiration may come in many forms, the least of which is often borrowed. It doesn't really matter from where it comes as long as it's powerful enough, meaningful enough and pleasant enough to help with making one's life better. First, it should bring no harm—to anyone or anything, save maybe a little perspiration; second, it might even fit into one's equation of 'paying it forward'.

I use inspiration as a subject matter theme to suggest that it looks like the Trust is probably going to have to move from its long-time home to temporary headquarters, aka, the old development office (ODO), which sits just west of the Pavilion complex. This is great news in that we have a home into which we can move and Trust programs, activities, etc., read: its mission, should continue with little interruption.

We'll announce, officially, when and/or if the day does arrive. If/when it does, we may be calling some you to lend your expertise, e.g., time, muscles, etc., to help us move. We'll buy the pizza and beverages. With that, please now read the following update on the Nature Center foreclosure from our board chair, Rob Howard: Vestlyn has gone ahead with the process of evicting the Trust from the Nature Center (NC). We've now begun moving Trust operations to the old development office (ODO). While this is certainly an inconvenience, it just means we hit a bump in our road but plan on carrying on with the process and resuming normal Trust & NC operations. We will continue to provide updates to you regarding this situation as things progress. Throughout this process, we may ask for your assistance so if anyone has the time and are willing to help, please contact us.

A Plethora of Good Reading Coming Your Way in this Issue of NaturePhile

As you read and enjoy this issue please note that there is plenty of really good information to be gleaned relating to the many opportunities for interaction with nature. Touched on are the things we can do to improve our own lot on this planet by working out solutions to challenges with which we're faced when it comes to predators, bugs and just the simple inspiration nature can provide. ENJOY!

Go Ahead, Go Out and Play in the Dirt

Short of remembering a marketing campaign by Pike's Nurseries in Atlanta a while back, I have been 'playing' in the dirt since I was knee-high to a Holstein. Having grown up in a new subdivision of a small town in southern Illinois, I could, literally, walk across the street from my home and go hunting and fishing and exploring in farm country. It was there, and I only learned to appreciate how wonderful that opportunity was, until later in life. Working, hunting, fishing and playing in farm country, I believe (and it has since been quantified) those experiences are why I don't have problems with allergies. Now eating dirt is probably not the most palatable way to get micronutrients, valuable one-celled bacteria and other assorted goodies, but the things we find nature can be good for us in so many ways. (I do not, however, recommend, eating things



Michael taking his daily dose of dirt (DDD). It is recommended you take one heaping teaspoon of dirt daily along w/Vitamin N (Nature). You'll be better for it.

which you have not tried w/out first serving them to someone else, in cloak-and-dagger, surreptitious manner of course.)

Where this is going is that there is, according to a colleague with whom I worked once-upon-a-time and subsequent nature nerds have said the same thing and that is: There is cure to be found for everything that ails us, in nature.



Education Mewsings:

By Rose Wall, senior naturalist/education coordinator

To Kill or Not to Kill? That is the Question

The recent public outcry over the killing of Cecil the Lion (<http://blog.conservation.org/2015/08/the-death-of-cecil-a-turning-point-for-wildlife/>) has gotten me thinking: what is the difference between killing a lion and killing a threatened top predator in our own backyards —say, for example, a timber rattlesnake or a wolf? These animals play an important role in their ecosystems and, their populations are in decline. While it would be interesting to delve into the human psyche to determine why we hold

certain animals in higher regard than others, that is not the intent here. It is also not to argue whether killing predators for the benefit of humans is morally right or wrong. Rather, it is to take a look at why we kill predators and whether or not we are achieving any stated goals by doing so.

A Brief History of Predator Control in the U.S.

For thousands of years, humans have been killing predators. Although not considered ‘predator control’ as it relates to wildlife management today, people have often persecuted predators to the point of extirpation or functional extinction. Think of the mountain lion and grey wolf that have been erased from our mountains. Why do we do it? The two most common reasons are: fear for our safety and livestock and for trophies to be hung on a wall.

But it’s not just individuals doing the killing, it’s also our state and federal governments. The USDA’s Wildlife Services kills between one and four MILLION animals each year – many of which are predators including: coyotes, bobcats, mountain lions, river otters and bears. This agency is bankrolled primarily by our tax dollars and spends approximately \$100 million dollars annually. Although they play some important roles such as removing invasive species (e.g. wild hogs) and reducing the number of rabies carriers in high-density areas, their predator control program has often fallen under severe scrutiny.



“Lion Hunt”, Peter Paul Rubens, 1621.

Is predator control working? (The coyote and the sheep rancher.)

Protecting livestock is seen as one of the primary functions of Wildlife Services, leading me to choose this as an example of how it operates. Sheep ranchers, by and large, claim that the culprit behind the decline in the sheep industry is the coyote. Based on the requests of these ranchers, Wildlife Services has been shooting, trapping, poisoning and gassing the dens of tens of thousands of coyotes each year. Researcher Kim Berger was surprised to find, that in almost a century of killing coyotes, no one had really looked into the assumptions made by the ranchers. When considering the lack of objective information, she found other factor to explain the missing sheep, e.g., the price of hay, farm-hand wages, lamb prices – even rancher' ages, had more to do with declining numbers than predators. Finally, a cost-benefit analysis revealed that predator control simply was not worth it.

In addition, the coyote's ecology has to be taken into consideration. Many studies have shown that alpha coyotes are almost always the ones to take out sheep. Because of their smarts, they are also often the hardest to catch. So, an approach of killing coyotes at random is almost as ineffective as killing no coyotes at all. Rather than using a sledgehammer approach of widespread random killing, why not use surgical tweezers and target only the alpha? As it turns out, that presents another problem. If an alpha coyote or alpha pair is taken out, we often see an increase in the number of coyote, with more young coyotes moving in to try and take over a territory. Although they are the number one predator targeted by Wildlife Services, the wily coyote is increasing its numbers and expanding its range across the U.S. each year. Clearly, predator control is not working as intended.

Even if predator control worked, would we really want it to?

Wildlife experts also suggest keeping top predators around for ecosystem health. Time and again studies have shown that having top predators increases biodiversity. As a primary example, they keep herbivores, such as deer and rabbits in check, thus increasing the biodiversity and biomass of plants and, in turn, everything that utilizes those plants for habitat and food (think back to the food webs you learned about in school). In one study, jackrabbit populations more than tripled after just one year of coyote removal from an area.

So, what does it all mean? In the mid-1960's, a team of biologists did an extensive review of this government program and came to the following conclusions: predator control efforts are not based on scientific evidence; are favoring the livestock industry and are generally wasting taxpayer money. Since then countless other studies on predator management have come to the same conclusions. Even with our current understanding of predator ecology, it seems that myth, fear and gross assumptions trump scientific evidence when it comes to predator control efforts.

Perhaps delving into the human psyche IS necessary to understand why we continue on a path that is not working.

What can YOU take from this?

Top predators are necessary for proper ecosystem health – here that means allowing animals such as coyotes, bears and timber rattlesnakes to thrive.

Top predators (usually) do not want to eat or harm you! Following simple precautions, especially when it comes to small pets and children, will allow you to embrace these animals rather than fear them.

Coyotes are here to stay (filling the niche of former resident cougars and wolves which humans removed). Killing coyotes on a massive scale, such as carried out by the U.S. government, or in our own backyards, is likely to be no more than a temporary “fix” and can often cause an increase in numbers.

Sources:

1. Stolzenburg ,“Us or Them”, *Conservation Magazine*, 2006
2. Darryl Fears, “USDA’s Wildlife Services killed 4 million animals in 2013; seen as an overstep by some”, *Washington Post*, June 2014
3. Berger, 2006. Carnivore-livestock conflicts: Effects of subsidized predator control and economic correlates on the sheep industry. *Conservation Biology* 20(3).

An Intern(al) Look

By Carlton Bennett (former Trust intern)

My name is Carlton Bennett and I am a Parks and Recreation Management major at Western Carolina University. Just a little over three months ago I was granted the opportunity to begin my internship here at the Balsam Mountain Trust. I had some experience working with many animals in the past, but

I wasn’t sure I was ready for such a level of responsibility that was placed upon my shoulders when it came to the care of the amazing animal ambassadors housed on location. From the tiny alligator to the large bald eagle, I worked every day to ensure that the animals were well cared for, including maintaining environments and feeding them proper meals to keep them strong and healthy for our various educational outings.

Beyond those tasks I was also given a chance to create an educational tool that the Trust might use at

a future date. So, I came up with the idea of making an educational video series that could be posted onto the Trust’s website to help spread proper information about some of our native animals. My hope is that this will continue to be a big process for the Trust, working to expand their educational means as far as they can so that more people can become involved with conservation and the improvement of all nature around them.



Trust WCU Parks and Recreation intern Carlton Bennett, see here with Hope. The Trust realized some great benefit by having Carlton on staff during his internship. The one big thing he wanted to do before he left was to get Hope on the glove with him. We were to accomplish that and Carlton related that the experience was exactly what he’d hoped to do before he left. Cheers to a great experience with Mr. Bennett. We wish him well in his career pursuits.

This internship opportunity was a blessing. It granted me so much knowledge and skills I needed to continue striving for the best in whatever field I wish to pursue. Not only that, but it reignited my passion for the continuing conservation for species across the country that need our help more than ever. While my favorite moment of all was getting the chance to handle an American bald eagle, I will never forget the kindness that the Trust extended to me as well as some of the amazing members of the community that I met on a daily basis. As I pursue my future I will hope for the continuing success of the Trust and wish them nothing but the best!

AmeriCorps News

By Becka Walling, AmeriCorps Service member

As many of you know, we've caught monarch butterfly fever at the Trust. Monarch butterflies have long been a symbol of beauty and perseverance to many across North America. Each autumn, these insects start their long journey south to the mountains of Mexico. They spend the winter resting, covering trees by the millions. When the weather begins to warm each spring, the butterflies mate and the females begin their return trip to the United States. These monarch butterflies are searching for milkweed plants so that they can lay eggs and end their long voyage. This migratory generation lives eight months and travels thousands of miles. Their children, grandchildren and great-grandchildren will continue to travel north, following the progression of summer and seeking out fresh milkweed plants.

As caterpillars, monarchs are picky eaters and will only dine on milkweed plants (*Asclepias* spp.). When they have eaten their fill, the caterpillars find a safe place to hang upside down, shed their caterpillar skin and completely reassign their structural form for an amazing transformation. For another 9-14 days, the monarch stays in its chrysalis. Inside this green and gold case the caterpillar is beginning its metamorphosis into a butterfly.



Photo by: Sandi Matson



Caterpillar
photos by:
Lisa Guerriero



As a college student in Minnesota, I remember coming across a monarch butterfly roost during a late summer run in the prairie. The flame-orange flutter in the tree stopped me in my tracks. I felt as if I had witnessed a miracle. In the last six months, I have spent a lot of time talking to others about monarch butterflies. I have learned that many other adults had similar monarch butterfly encounters during their youth. These conversations end with the same sad conclusion, "I haven't seen many monarch butterflies recently".

These personal anecdotes aren't simply coincidental. In the last two decades, monarch butterfly populations have fallen by over 90%. Scientists think they are facing big obstacles in both their Mexican overwintering sites and their breeding territory in the United States and Canada.

Monarch butterflies are extremely selective about where they

spend their winters. They cluster at only a dozen high-altitude peaks in central Mexico. In 1986 the Mexican government created the Monarch Butterfly Biosphere Reserve to protect these sites. Illegal logging, however, continues to pose a serious threat to these sites.

The bigger, domestic threat to the monarch comes from our farming practices. In North America we have expanded our use of genetically modified crops (designed to be more resistant to herbicides). Indiscriminate spraying of these chemicals has wiped out milkweed plants which are monarch butterfly nurseries. In addition, increased use of pesticides has affected not only the monarch, but also other pollinators essential to many of the food crops we grow, including honeybees. Monarch butterflies are in trouble, and, so are we.

And the Trust has been doing its part to help monarchs. This summer and fall, I provided free monarch butterfly education programs in Jackson, Haywood and Macon counties, reaching 500 children and adults. At the Nature Center, we reared and released over 50 butterflies. In the wild about 1% of all monarch eggs survive to reach adulthood. By simply bringing the eggs inside and protecting them from predators and parasites, we greatly increased their chances for survival. With the help of intrepid Trust volunteers, we built a pollinator garden adjacent to the tennis courts. In the coming months, we will be continuing to add more native plants and an interpretive sign.

What can you do to help monarch butterflies?

Great question! Here are some answers.

Plant a pollinator garden!

Make sure to include milkweed plants and purchase plants that have not been treated with pesticides (Ask!).

Be a “citizen scientist”!

There are some great organizations (Monarch Watch, Journey North, Monarch Larva Monitoring Project) that rely on concerned citizens to collect important scientific data on monarch butterfly populations.

Support pollinator-friendly legislation.

While individual efforts are important, monarch butterfly conservation depends on changes to large-scale farming practices, roadside mowing policies and management of public land.

Want to see the migration in action? We are lucky enough to live right down the road from the Blue Ridge Parkway: one of the best places on the East Coast to see the monarch migration. Head on up to Wagon Road Gap (milepost 412.2) or Cherry Cove Gap (milepost 415.7) between mid-September and mid-October. You have a better chance of catching them if the weather is warm!



Photo by: Lisa Guerriero