NEWSLETTER

Volume 2, Issue 1 February 23, 2018

Onward and Upward

The Focus on Wildlife project is now well into its second year on Zooniverse. Many thousands of photos have been identified to date by you, our volunteers. And new and exciting image sets continue to be uploaded to Zooniverse as old ones are completed and retired. Enhancements to the photo screening and upload process continue to be made, and the quality and content of images on the website has never been better. Thanks to all of you who have either been with us from the start, or who have joined in somewhere along the journey. The project would not be where it is today without your dedication and service!

Turn Back the Clock

Did you know that wildlife camera trapping has been in existence for over 100 years? A man by the name of George Shiras began pioneering the field of wildlife photography before the turn of the 20th century. He is believed to be the first person to use camera traps and flash photography to capture wildlife subjects. Shiras was a lawyer and a politician by profession, but he was also an avid sportsman who gave up hunting to pursue his passion of wildlife photography. He practiced his craft in the area of Lake Superior and in various Michigan forests. He was also instrumental in the formation of several national parks and wildlife refuges.

Before the era of self-activated cameras, Shiras developed complex techniques for capturing wildlife images using systems of trip wires and suspended ropes. He often photographed subjects on land while sitting offshore in a boat, using fire to capture the attention of the subject animal.

Below are a couple of Shiras' camera trap images, originally published in National Geographic in 1906. Because early camera flashes used magnesium powder and created a loud noise upon firing, subjects were often alarmed when a flash was activated. Note the reaction of the white-tailed deer in the first photo below. The second photo features an unwary raccoon more interested in its next meal than in being photographed.

George Shiras was indeed a pioneer in the field of wildlife photography. His 1935 landmark book "Hunting Wildlife with Camera and Flashlight", which features dozens of examples of his work, can still be found on online bookseller sites and in some public libraries. Our project, as well as many others on Zooniverse and beyond, owe a debt of gratitude to him for his work in this field.

Sources: http://proof.nationalgeographic.com/2015/11/20/meet-grandfather-flash-the-pioneer-of-wildlife-photography/
http://deerlab.com/blog/first-trail-camera-photos

Species Spotlight

In this column, we feature an animal species seen in our wildlife photos, providing facts and information about the species, as well as helpful tips for identifying it in our Zooniverse photos. This month's Species Spotlight highlights the flying squirrel.

One of the more curious and often misunderstood mammal species within our Cleveland Metroparks is the southern flying squirrel (*Glaucomys volans*). This species is one of three flying squirrels found in North America, and over 40 worldwide. Because they are nocturnal and are rarely seen, many people believe that they are relatively uncommon. But in reality, in many woodlands and forests across Ohio they are the most abundant of all of the resident squirrel species.

Flying squirrels do not actually have the ability to fly in the same sense as birds or bats, but instead glide from tree to tree. Flying squirrels have a furry, elastic membrane that stretches from their front to back forelegs called a patagium, which enables their flight, or allows them to escape predators by "parachuting" to the ground. Their unique anatomy enables them to change directions in mid-flight, or even achieve some slight lift in their flight. Flying squirrel flights of up to 90 meters have been recorded, or roughly the length of a football field.

Flying squirrels are omnivorous, subsisting on a varied diet ranging from fruits, seeds and fungi to insects, slugs and bird eggs. Their ability to glide allows them to more easily access certain food sources while utilizing energy more efficiently than other squirrel species. Flying squirrels in turn are preyed upon by raccoons, owls, tree snakes, coyotes and even feral cats.

Flying squirrels normally breed twice per year, in early spring and again in mid-summer. The gestation period is about 40 days, with litters consisting of between 2 to 7 young. Due to predation and disease, there is a high mortality rate among young flying squirrels, but those that survive are typically ready to leave the nest at about 10 weeks of age. Their life expectancy in the wild is about 6 years.

Flying squirrels do not hibernate in winter, although they are normally less active. They conserve energy by reducing their metabolic rate and body temperature, and huddling together in their nests in groups which may extend beyond immediate family members. They may occasionally even share nests with other species such as bats or screech owls.

Because of their nocturnal habits, flying squirrels are normally seen only in our night-time photos on Zooniverse. Typically, they may be seen crawling along a tree trunk or even scurrying across the forest floor, but they may also be observed in flight. When viewing a sequence of three photos, flying squirrels in flight will normally be seen descending rather than ascending, especially since our cameras are positioned fairly close to the ground. They will appear to be smaller than a fox squirrel or grey squirrel, larger than a mouse, or roughly the same size as a rat (but having a wider, furrier tail).

Flying squirrels on a tree trunk (dorsal and lateral views)

Other Wildlife Camera Projects

In addition to the Cleveland Metroparks "Focus on Wildlife" project, there are many other wildlife camera projects going on across the U.S. and abroad. In this newsletter, we would like to feature interesting findings from other projects, in addition to our own.

Hairy-Nosed Otter Returns

Source: https://news.nationalgeographic.com/news/2010/07/photogalleries/100726-hairy-nosed-otter-borneo-camera-trap-deramakot-science-pictures/

One of the most significant benefits to using cameras for "trapping" wildlife is their ability to capture animal images 24 hours a day, whether the subject is diurnal, nocturnal or crepuscular. Animals that might routinely escape detection by live humans can easily be seen by an inconspicuous, well-placed camera.

Such was the case with the hairy-nosed otter, one of the world's most critically endangered otter species. This species had not been seen on the island of Borneo for over 10 years, and was believed to be locally extinct. A research team consisting of scientists from Germany and Malaysia used camera traps to obtain the image above from the Deramakot Forest Reserve. Like our recent rediscovery of grey foxes within the Cleveland Metroparks, you never know what unexpected animal might pop up in a wildlife camera photo!

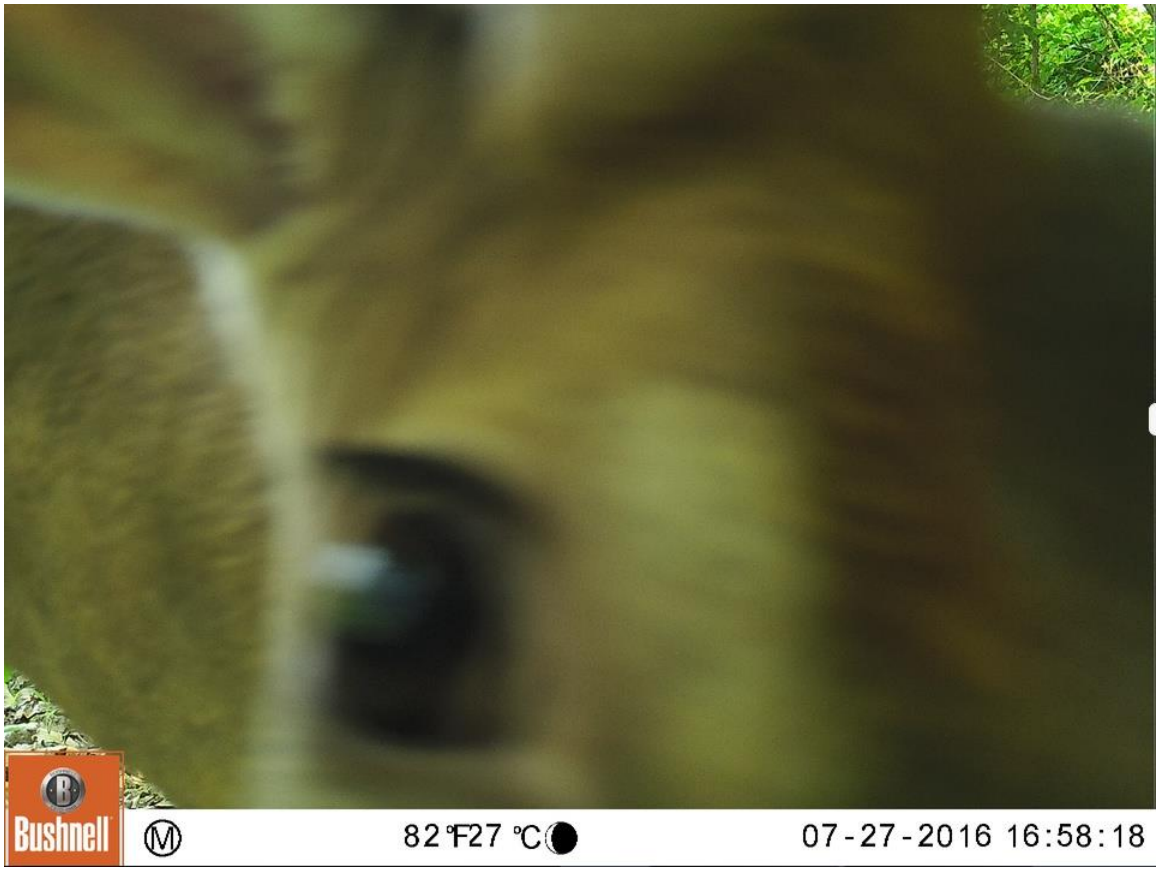
Cool Photos

To close out the newsletter, we would like to feature cool photos from our own Cleveland Metroparks wildlife camera study. If you would like to "nominate" a photo that you have come across, please call out the photo on Zooniverse using the "#cool" hashtag, or save it to a collection.

This issue's "Cool Photos" column features extreme close-ups! Our animal subjects will occasionally have close encounters with our Bushnell wildlife cameras. These will result in photos that are sometimes enlightening, sometimes comical, but always interesting. Below are a group of close-up shots that warrant inclusion in our Cool Photos section.

White-tailed deer are frequent photo subjects in our Metroparks study, and often find the cameras worthy of a close inspection...

However, sometimes an even closer examination of the camera is needed...


Bushnell
82°F27°C
07-27-2016 16:58:18

If that doesn't satisfy their curiosity, then maybe a different angle will help....

Of course, it's not only deer that find the cameras interesting. Sometimes birds need to take a look as well...

Even man's best friend needs a close-up photo op occasionally...

And then, there are those ambiguous close-ups on Zooniverse that are so hard to identify. Animal whiskers? A random spider crossing the camera lens? Hard to tell sometimes, but other times plain as day...

Newsletter compiled by John Felix (volunteer)