

Lights, Camera, Action!

By Patrick McMurtry

The author, Patrick McMurtry, and photojournalist Brad Rice, both of WCHS/WVAH-TV, on location covering the DNR's bat research.

If you're reading *West Virginia Wildlife*, chances are you're interested in finding out more about the diverse and incredible animals living and thriving in the Mountain State. You probably have also had a chance to check out the Division of Natural Resources' West Virginia Wildlife segments on WCHS/WVAH-TV. That's my gig. In addition to anchoring *Good Morning West Virginia*, I spend a good chunk of my time traveling with DNR Wildlife Resources Section biologists putting together segments on everything from hell-benders to Virginia big-eared bats. You see the finished, edited pieces that are put together by our award-winning photojournalist Brad Rice. What you don't see is the cool, behind-the-scenes stuff that really makes my job fun.

One of the many awesome adventures took us to Lewisburg in

search of barn owls. Initial research showed these beautiful birds were not very plentiful in our state. In fact, the birds are showing up more and more as farmers are doing their part to let biologists know they have barn owls roosting in their silos. Rob Tallman has been tracking one particular pair for several years. We went to an abandoned silo where

One awesome adventure took us in search of barn owls...We found fledglings almost old enough to leave the nest.

they had placed some nesting boxes, and, sure enough, we found several fledglings almost old

enough to leave the nest. These are some amazing animals! You probably know about their striking appearance, but unless you've tried to put one in a burlap sack, pull it out and measure its beak, you have no idea how loud these little guys can scream. Let's put it another way-remember the sound your fingernails make when you scrape them down



Juvenile barn owls in a nest box.

Craig Stihler

Jeff Hajenga

a chalkboard? Try multiplying that ten times and you'll get a better picture of what a two-month-old barn owl sounds like when it's mad.

The owls are usually pretty quiet. In fact, they're really the silent assassins of the skies. The leading edge of their feathers baffles the wind and lets the owl silently patrol the skies. Although they possess pretty good eyesight, barn owls rely mainly on their keen sense of hearing to hunt. The shape of their face helps funnel sound to their ears. They actually hear in three dimensions giving them an audio picture of sorts, telling them the exact location of their prey a hundred feet below. The parents spend a lot of time finding food for their young. The owlets will eat up to six voles or mice every night. Add in the amount of food it takes to keep the adults alive and you'll get a whopping 50 to 60 small mammals every night taken from the fields within a few miles of the nest. No wonder farmers are glad to have barn owls take up residence in their barns and silos.

We did a large part of our television story on the plastic-covered ground directly beneath the nesting box. Rob put the tarp down so he could recover the pellets coughed up by the owls. These compressed, oval-shaped pellets contain the undigested bones and fur left over from their meal. We pulled apart these pellets to check out the various skulls, leg bones and fur so we could see exactly what these owls had been scarfing down. These owlets had been eating meadow voles and shrews, but the adults will also bring back mice, rats and bats

This particular pair has been finding a lot of food recently; enough to feed two families, in fact. Rob told me he found another brooding site where this pair had another nest, and, another set of

The shape of their face helps funnel sound to their ears. They actually hear in three dimensions!

fledglings to feed. While raising two groups of young is not unheard of, Rob says it's the first time he's seen it in his years of working with barn owls. He says farmers should let the DNR know if there are barn owls on their property so the biologists can either put up nesting boxes for them, or study them where they are already nesting.

We also got a chance to spend a lot of time working with bats last summer. First we went to Pendleton County to work with wildlife biologist Craig Stihler on a survey of the Virginia big-eared bat. This was another cool assignment because we got to go up to the cave where hundreds of these endangered bats hang out during the summer. The females will stay in the cave in the summer where they give birth and nurse their baby bats. The Virginia big-eared bats are the only bats in West Virginia that do this. Because the DNR gets federal money to pay for part of their work

Going to a cave where hundreds of endangered bats hang out was another cool assignment...

tracking this species, a U.S. Fish and Wildlife Service biologist assisted us.

We drove about an hour from Elkins to get to the Pendleton County cave site, then



An adult barn owl with a band.

Jeff Halenga

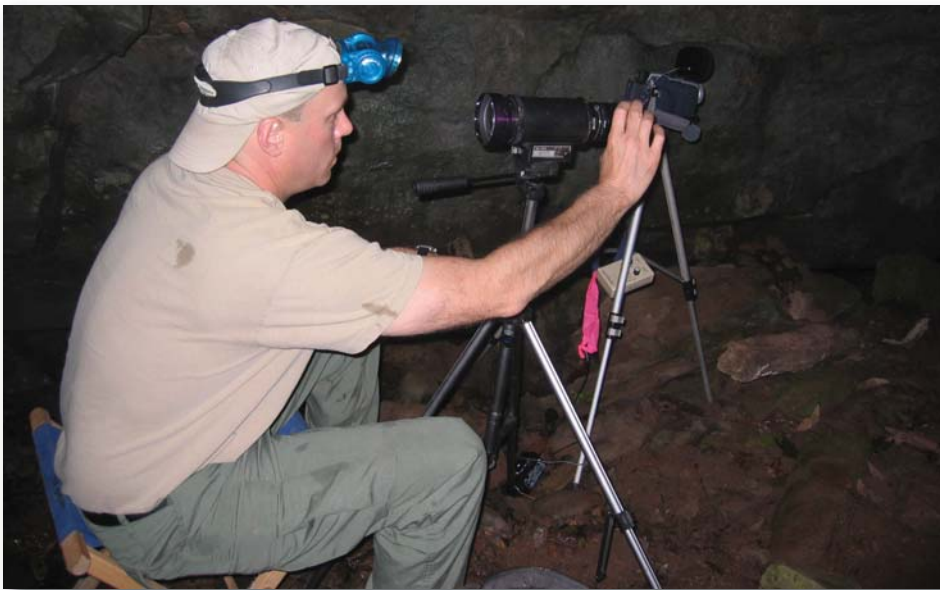
lugged our infra-red lights and bat finders up the hill, and got it all set up before the bats started flying out. Technology is a wonderful thing. Ten years ago, Craig would have been trying to count these whirling bats as they flew out of the cave, back in, and out again. Try doing that in the dark when these little guys are buzzing around at break-neck speed! Now we set up crossing beams of infrared lights at the entrance to the cave, and used infrared

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Colony of Virginia big-eared bats.

Craig Stihler



DNR biologist Jack Wallace with the night scope.

video cameras to record the bats as they flew out. Although we couldn't capture the images on our \$50,000 camera, the \$700 dollar camcorder bought by the DNR years ago did the job just fine.

There were two entrances to the cave that needed tracking: the main entrance where most of the bats would fly out of, and a smaller opening at the top of the hill where we expected significantly less action. We took the main opening and sent our federal biologist up top through the decidedly less-traveled trail. Our plan was to hook up in a couple of hours after all the bats had flown the coop and compare notes before the official counting would get under way and go deep into the early morning hours.

Another thing about this survey that was pretty cool-making sure that only Virginia big-eareds get counted. It's almost impossible to see the bats as they fly into the pitch-black sky, let alone distinguish the exact species. Craig had a piece of audio equipment he could set up that would pick up the sound waves sent out by bats other than Virginia big-eareds. We would spend most of the evening listening to Craig say "five big-eareds out, one non-big-eared in." Without that equipment, sorting out the flying bat species would

have been almost impossible.

Once we got all the equipment set up, we crawled through the small opening leading to the cave. We got to the protective gate guarding the opening and started shooting a little video and asking Craig some questions. There were only a couple of inches of clearance, which wasn't too bad, but when Brad flipped the camera light on I turned around only to find a little eastern pipistrelle bat literally two inches from my nose. As we looked around, we found half a dozen of the little guys still hibernating on the walls of the cave.

These pipistrelles are common in North America and not part of our Virginia big-eared survey. The bats we were looking for were several hundred feet into the cave, high up on the walls and ceiling where the temperature is a little warmer. Even in the summer, it's a little chilly for the bats inside the cave. In fact, the less energy these bats use staying warm, the better their chance of surviving. These bats nurse their young in these caves. They fly out and chow down on moths non-stop.

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On an average night, they'll eat up to their body weight in moths every night! Despite their voracious appetites, a night's feeding barely gives them enough energy to make it through the night while nursing their young. If anything disturbs them or causes them stress, there's a good chance the adult bat won't survive. That's why the protective gates are put up. The biggest threat to Virginia big-eared bats is people entering the cave and disturbing the bats causing them to drop their young in the summer. In the winter, this stirs up the sleeping bats causing them to use energy when they would usually be conserving it.

Craig told us the survey on this cave last year showed more than 200 Virginia big-eareds inside. That's before they give birth, meaning there could be twice that number inside by July. Tonight he told us he was hoping for a similar number in the night's count. We saw the first Virginia big ear about 8:30 p.m.



We crawled through the small opening leading to the cave.



Craig Stihler

DNR personnel stretch out mist nets similar to the ones used at Chief Cornstalk.

Once we finished a few hours later, there had been more than 300 bats! I mentioned earlier that it was tough to see the bats at night, but we sure could hear them as they whirred past us, darting in the darkness! It turns out the Wildlife Resources Section knows of 10 summer colonies in 10 different caves in West Virginia.

That wasn't the only bat experience I've had hosting the West Virginia Wildlife segments. The DNR was conducting a timber sale in the Chief Cornstalk Wildlife Management Area in Mason County. Before they could let someone come in and clear out some of the timber, they needed to find out if any endangered bats were feeding in the area.

This time we were looking for red, Indiana, and evening bats. Indiana bats were the main focus because they are federally endangered. Wildlife Resources Section biologist Jack Wallace put this survey together, and with a team of about seven biologists, we would be checking three different sites. Federal requirements meant we would have to put up mist nets for five solid hours right after dusk. Jack, Brad Rice, WRS biologist Scott Warner and I walked through chest-high weeds

and grass for several hundred yards until we found our site -- a small pond, home to a couple dozen bullfrogs and seemingly millions of mosquitoes.

Jack strung up the mist net, a thinly woven net stretched out across the pond like a volleyball net. The net was about four feet wide and had a fold on the bottom that would catch any bats that hit the net and fell down. Most of the bats would actually hit the net and become entangled, leaving Jack and the gang to get them out before the bats could chew their way out.

It turns out that many bats turn off their radar when they fly through a familiar area. Like someone who wakes up in the middle of the night and walks in the dark to get a drink of water, these bats cruise on memory. If we're lucky, some will wind up in the net.

Unlike the bat cave, we were expecting to only catch somewhere between 10 to 15 red bats that night. Things looked pretty promising at first. Bats were flying all

The mist net stretched out across the pond like a volleyball net.

over, picking off flying insects and skimming the water for their first drinks of the night. I can't tell you how much fun it was watching these guys hit the water, fly up and get a bug, and then hit the water again. Good stuff! After 30 minutes of shooting video and interviewing Jack about the bats, we hunkered down to wait for the bats to hit the net. We waited, waited and then waited some more.

Finally, nearly four hours into the survey, Jack shines a light on the net and there it is, a red bat. He crawled down the bank, waded through the muck to the net where he found the bat and took him from the net. I'm not going to lie to you, this bat, though pretty cool, was ugly. This little guy was mad and his little mouth was wide open and snapping. Those little teeth looked pretty sharp! Jack said that despite its appearance and perceived willingness to try a little reporter for dinner, all bats in West Virginia feed exclusively on bugs. Finally, just before midnight and only five hours before I was to be on the air for *Good Morning West Virginia*, we

This little guy was mad and his little mouth was wide open and snapping.



Jeff Hajenga

A red bat

left Putnam County and headed for home, mission accomplished!

Be sure and check out our *West Virginia Wildlife* stories on Eye-witness News or visit our website at www.wchstv.com if you want to watch the stories on the web.