

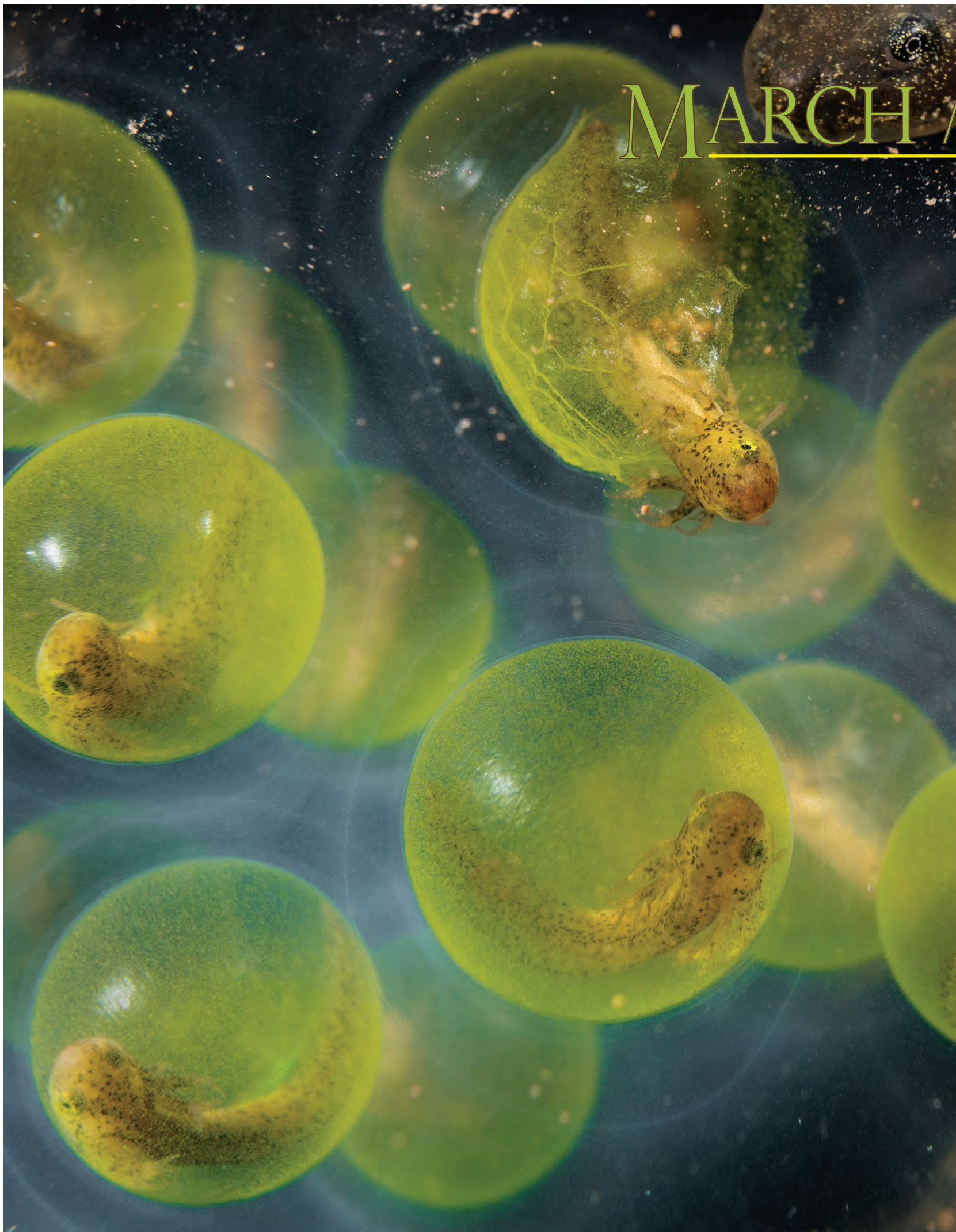
# VIRGINIA WILDLIFE

MARCH/APRIL 2019

FOUR DOLLARS

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WILD

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**Back Cover:** Bob Duncan with his beloved dog, Jake. Lee Walker / DGIF

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# Call of the WILD



BOB DUNCAN  
Executive Director

Each of us have had our share of unique experiences dealing with wildlife, but I thought I might share a few things that happened to me over my 45-year career. Some are funny and some I think you will find interesting. Regardless, I would not change a thing and am forever grateful for each and every experience. We are lucky at DGIF that we are able to participate in some really “wild things.”

Once, I was asked to pick up a road killed bear only to find out that the bear was a long way from being deceased. I only found that out once I was up close and personal with him.

I realized there were reindeer in Richmond by having to chase an escaped one just a few days before Christmas. My biggest worry was if “Rudolph” would survive the holidays! He was really far from home but he did!

I’ve experienced shooting a rocket net over deer, turkeys, ducks, and geese, have been knocked out of an airboat (at night, mind you) while attempting to capture wood ducks, and have even electro-shocked the “terrifying” snakehead fish.

Being able to release an animal (deer, elk, wild turkey, bear, etc) into the wild to help establish a new population or being able to release a previously injured animal back into the wild, are two experiences I found extremely gratifying. Helping animals and animal populations is DGIF’s passion and I was pleased to be part of that.

Back in the mid-1970s, a logger brought me two orphan black bear cubs and suggested I take them to a zoo. I decided to try and foster the cubs with a hibernating sow already with cubs of her own in a tree den. Much to my relief, the sow adopted the cubs and this later became a routine technique. It was the first attempt for this in the Southeast and later became a standard operating procedure. Thank goodness for radio tracking collars and the ability to find a “foster family.”

One time, I had to dive over a fence to tackle a European wild boar and then realized I had to figure out what to do once I had successfully wrestled the critter to the ground.

As a district biologist in Southwest Virginia, I agreed to help a local hunt club ear tag some raccoons that were to be released into the wild. I was inside their hunt club building, which was full of people, and a large male raccoon got loose. As he tried to escape, I made the mistake of catching it bare handed. I swung him in a circle while asking if anyone could

(cont. pg. 6)

## MISSION STATEMENT

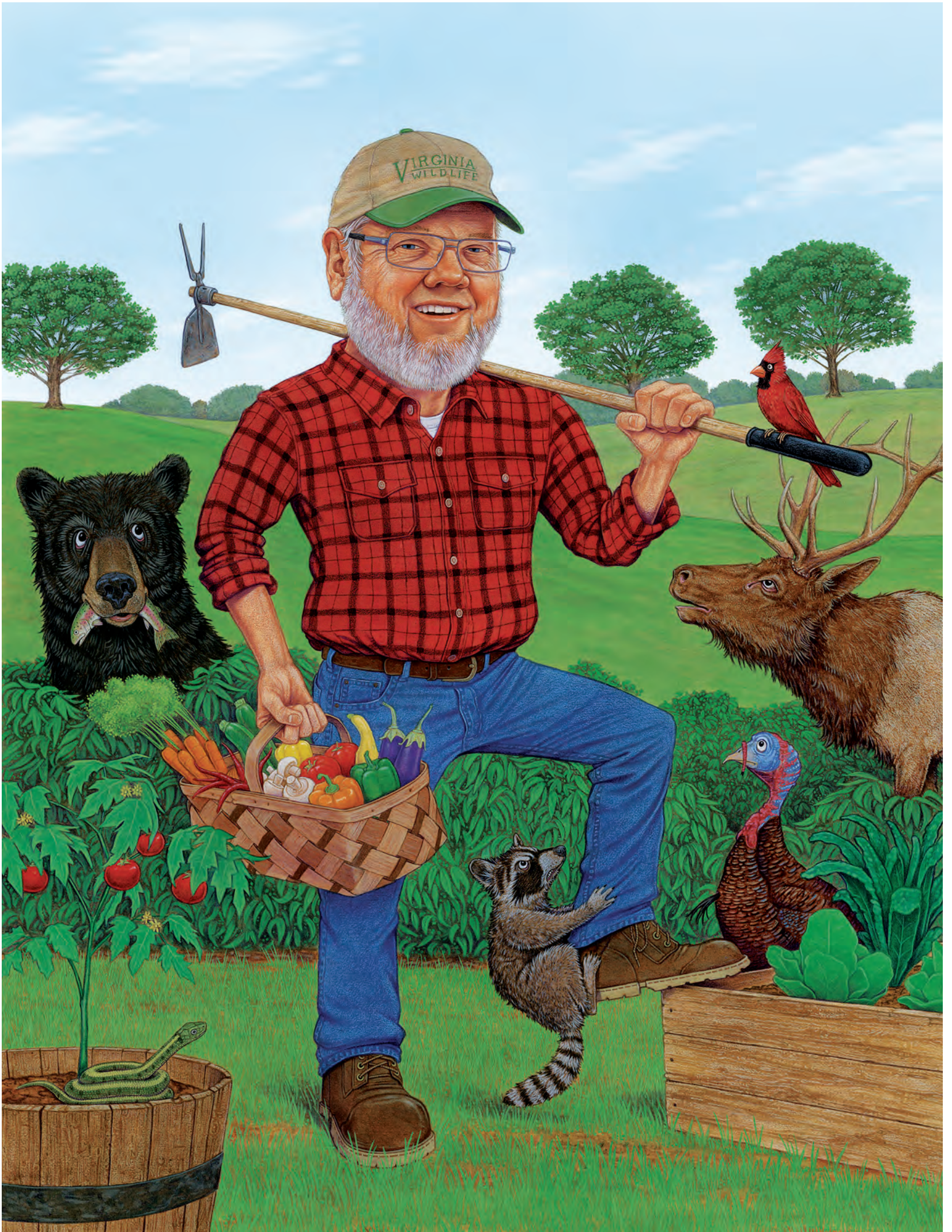
Conserve and manage wildlife populations and habitat for the benefit of present and future generations. Connect people to Virginia's outdoors through boating, education, fishing, hunting, trapping, wildlife viewing and other wildlife-related activities. Protect people and property by promoting safe outdoor experiences and managing human-wildlife conflicts.



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VOLUME 80

NUMBER 2



oblige me by opening a cage door where the animal could safely wait its turn to be ear-tagged and released. I was lucky to return the raccoon to his crate and after tagging, he was released no worse for the wear.

Have you ever been bluff charged by a black bear? Lassoed a white-tailed buck or rode a horse in the high country as part of your job? Held a Northern saw-whet owl in the palm of your hand? Banded or recaptured waterfowl that had been previously banded? This was all part of my various job duties.

I recaptured a goose with a Jack Minor band, bible verse and all; and I have caught wild, free flighted geese (not in molt) by hand because they were injured.

One time, I found myself crawling between two rattlesnakes while trying to sneak up and view migrating waterfowl. Another time, I was keeping a large and aggressive bull snake which got loose in my house. I found him months later; long after it was forgotten, as I went to get in the shower. Later on, I had occasion to keep an abandoned young river otter in my bathtub for a few days until we found it a more suitable home. In this job, you never know what will be taking up residence in your own house!

Speaking of snakes! One time while on the Eastern Shore, I climbed an extension ladder to check a Delmarva fox squirrel nest box, only to have two five-foot long black rat snakes fall out on my face. Shock was an understatement.

But the Eastern Shore is also a great place to take in the sounds of nature, like the bugle of Sandhill cranes or the calls of tundra swans as they migrate under the light a full moon.

Another memorable time was when I climbed a tall sycamore tree, which leaned out over a fast flowing river, to clean a wood duck box. I put my hand in the box only to draw it back with a screech owl's talons clamped tightly on my finger. I knew I could not turn loose of my hold on the tree without falling!

The follow-up question is: Have you ever tried to shake a screech owl off your finger using just one hand, similar to resetting an old hand-held thermometer?

Sometimes, you have to do what you have to do in order to help save an animal. I have transported a live deer in my car

and, on a different day, a live bear in the bed of my pickup—both without the benefit of a transport cage.

As a follow up to that story, I once had a culvert trap holding a rather large bear attached to my vehicle. While riding down a curvy, country road the trailer came unhitched and passed me on the outside of a curve, finally coming to rest in an open meadow (without harm to my passenger)!

While on an invasive wild hog roundup, my good colleagues tricked me into shooting what I thought was a rather large wild boar. I quickly gathered from their laughter that I was tricked into shooting a target. They thought they were very funny!

While you have had your own share of experiences, I do not suppose you have done all of the exact same things I have. These experiences were uniquely my own, shared only with a few colleagues and friends who enjoy a good laugh on me.

Everyone has their own unique cherished experiences and memories. Certainly, the last forty-five years as a wildlife professional have provided an abundance of people, places, and things, not to be forgotten!

Why the trip down memory lane? After forty-one years with DGIF, a great agency with superb wildlife professionals, I will be retiring.

This has not been an easy decision as my career has spanned a total of 45 years with three different state wildlife agencies. Along the way this included the great honor of celebrating the department's 100th anniversary as its director and reintroducing elk into the state.

My only hope is that in some small way, I helped DGIF to transition through some challenging times, address some critical issues, both in terms of wildlife resources and of the human resources needed to lead, manage, and sustain the department into the next 100 years.

\* \* \*

We are truly blessed to have the great employees we have at DGIF who have dedicated themselves to answering the conservation call! My personal thanks to all of them and to all you, our faithful readers of *Virginia Wildlife*!





# The Wily Coyote

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Why Eastern Coyotes Play a Necessary Role in Virginia

By William H. Funk

MARCH/APRIL 2019 ♦ 7



Coyotes will utilize a wide variety of locations for den sites. Here, a drainage ditch is home to these growing pups.

Previous page: photo illustration composite, Lynda Richardson / DGIF, Shutterstock



In Virginia, coyotes have expanded their range from the mountains to the Eastern Shore easily adapting to each habitat and food source.

**C**oyote. The very word conjures images of mangy slinking critters that skulk behind the scenes, slaughtering poor little lambs, calves, and chickens, yodeling through the night in their nightmarish style, and generally making life more difficult for farmers. As in the case of Wile E. Coyote, they also fail spectacularly when in pursuit of road-runners “Beep, Beep”, but that’s another story.

Coyotes are an invasive species, according to many landowners, pathetic cousins to wolves which have somehow managed—despite centuries of annihilative “management” by federal and state agencies—to cross the Mississippi, then Appalachia, and which are now incontrovertibly and persistently present in Virginia’s entire landscape, from the Alleghenies to the Eastern Shore. They are even making themselves at home, somewhat incredibly, in our blaring glaring metropolitan areas.

What makes God’s dog, as this singing canine is sometimes referred to out west, such a spectacularly successful species? With the gray wolf teetering on the brink of destruction across most all of its historic range, why is this lowly cousin able to defy the explicitly extinctive wishes of ranchers, farmers, and residential developers? What makes this particular animal so successful in fending off our desire for its destruction?

The answer is easy: we are the ones who made it happen.

According to a 2011 study published in *Oxford University’s Journal of Mammalogy*, “Coyotes (*Canis latrans*) have benefitted from anthropogenic [manmade] changes to North American ecosystems and have experienced a dramatic range expansion since the early 19<sup>th</sup> century.” By wiping out apex predators such as Eastern wolves and cougars, we have opened the door to these intensely adaptable midsize predators, canids that are not tied to the pack social formation and are thus more variable in their means of gathering nourishment. Packs of wolves can bring down a 1,800-pound bull moose, but that requires an unfettered wilderness that could breed such creatures, a landscape in precipitous decline today.

Coyotes on the other hand, are willing and able to tackle everything from squirrels to rabbits, house cats to possums. In other words, coyotes, through the ongoing miracle of evolution, have positioned themselves to align precisely with the world we’ve created, a suburbanized backyard evacuated of major predators (and also prey such as bison and elk, formerly part of Virginia’s native biome), and thus most welcoming of a talented hunter whose tastes range widely.

This is an all-American animal, one that has coevolved with not only grizzlies and wolves, but also chipmunks and raccoons. The coyote is in many ways the bold and hairy face of



© Ron Salmon

God's dog is known for its singing, a way of communicating with other coyotes.



© Tes Jolly

Coyotes are normally tan in color but don't be surprised if you see one that is very dark, pure black, grey, or even sporting white paws and other spots.

our country: determined, pliable, open to new ideas and paths to success, gifted with a ferocious optimism that allows it to leave behind stagnant ecological patterns that no longer suit a changing habitat. If, as William James suggested, pragmatism is an essential American trait, then coyotes embody that determined flexibility more than any other native species.

This is the supposition of *Coyote America*, a 2016 book by University of Montana history professor Dan Flores, which postulates that, "In the face of centuries of annihilation campaigns employing gases, helicopters, and engineered epidemics, coyotes didn't just survive, they thrived, expanding across the continent from Alaska to New York. In the war between humans and coyotes, coyotes have won hands-down."

Perhaps. There are still many Virginians, and Easterners generally, who will do what they will to stamp the coyote as a Western exotic, a skulking predatory invasive which has furtively crossed into the East in order to plunder our native game species.

Well, is that so far from the cruel biological truth? It's objectively obvious that any predator will push its means of sustenance and expansion as far as it possibly can, *Homo sapiens* being the most holistically destructive example. With native apex predators such as wolves and cougars annihilated during European colonization, and terrestrial prey species such as deer,

rabbits, possums and raccoons proliferating in the understory of the agricultural landscapes that replaced the fallen hardwood forests that once stretched from the Piedmont to the Mississippi, what would prevent a Western midsize predator, one eminently adaptable to new terrain, and to circumventing human habitats, from preying on species that by then had few other hunters but man?

Maybe this is part of the resentment professed by some hunters toward coyotes: that they are better than we are. That the coyote's caution, adaptation, integration, and laughing, mocking starlit yelps remind us that these are truly native American predators, whose colonization of the East was enabled only by our own idiotic displacement of the larger, more powerful predators that had kept them in check. Without wolves, without mountain lions, it was inevitable that something else would creep in to take advantage of the situation. Nature abhors a vacuum, and with all of our traps, poisons, bounties, and government-sponsored eradication campaigns, the coyote has simply taken advantage of our futility to establish a ragged kind of semblance to the ecosystem we so depleted, one of hunters and hunted, of predators and prey, part of but apart from the reality we've forced upon the landscape.

Michael Fies is a wildlife biologist with DGIF and oversees



© Steven David Johnson

Like many animals, coyotes of all ages love to play. This young coyote raced around with a teddy bear it discovered.

all furbearers. He says that our Eastern coyotes are a circumstantial blending of smaller Western coyotes, gray and/or red wolves, and in some places feral dogs. While coyotes migrated eastward to fill the vacuum left by the extirpation of wolves and cougars, they did so in two distinct waves, according to Fies.

One group went through Canada and mixed with the fading gray wolf population there, acquiring a size and killing potential their Western ancestors never knew. Another population crossed the Mississippi, genetically blending in with the resident red wolves (*Canis rufus*), which like the northeastern gray wolves, were already being forced out by agriculture and urbanization.

Today, the red wolf—the most highly endangered canine species in the Western Hemisphere—is being marched to a delisting from the Endangered Species Act by politicians whose allegiances are more forthrightly tied to industrial agriculture and token platitudes for rural constituents than to any interest in scientific analysis. (In November, a federal judge criticized the U.S. Fish & Wildlife Service's negligence regarding the ill-fated red wolf reintroduction effort in North Carolina, in return, affording the surviving wild population a lifeline.)

A central argument for delisting the red wolf is its muddy genetic heritage: if the scattered survivors from Texas and Louisiana swamplands that were captured and brought to eastern

North Carolina's Alligator River National Wildlife Refuge in the early 90s (when the present writer served there as a firefighter), and if these animals are really no more than a genetic scattershot of wolf, dog, and coyote, what's the point of extending their seemingly destined slide into extinction by whining about interbreeding, about what makes a wolf a wolf, or a coyote a coyote?

"Coyotes are the most adaptable mammal in the entire world," says Fies. They reduce higher deer populations in suburban areas; they help keep down populations of several predatory species—foxes, skunks, raccoons and possums. Even feral and outdoor house cats—that prey upon our perennially ailing ground-nesting birds, especially quail, can be on the menu for a hungry coyote."

Coyotes don't traditionally hunt in packs like wolves, because their prey base isn't centered on megafauna herbivores, but on rodents, rabbits, and other smallish animals. That said, the larger, perhaps genetically wolfish/doggish Eastern coyotes have demonstrated a predilection for certain livestock, especially young sheep. However, several dog breeds, such as Great Pyrenees, and donkeys and llamas are very successful at repelling coyotes from pastures. Coyotes are hardly stupid, and a 150-pound dog or the angry hooves of a grazing guardian makes them think—is this lambkin really worth it?



© Steven David Johnson

The coyote is a miracle of evolution adapting to any situation we throw at them. Here, a coyote uses twilight to safely hunt in a forest.

The political and scientific debates over the admixture of coyote, wolf, and dog are not the real story for us here in Virginia. What matters most is how the Eastern coyote, a creature apparently composed of several different bloodlines and yet is being recognized, rightfully, as a native species, is currently affecting our natural environment. So let us take a look.

In a scientific study by the *Journal of Mammalogy* published in 2011, researchers found that, “The region east of the Mississippi River has been colonized via two routes that have converged in the mid-Atlantic region during the past few decades,” these being the genetic source of the gray wolf population from the Great Lakes area admixed with those coming up from the south, which, according to the study, “seem to converge along the Appalachian Mountains and in the mid-Atlantic region (Delaware, the District of Columbia, Maryland, and Virginia). This region was the last to be colonized by coyotes, as late as 1993...”

Therefore, Virginia and the mid-Atlantic region generally have been among the last eastern regions to experience coyote colonization. What has that meant to our native ecosystems?

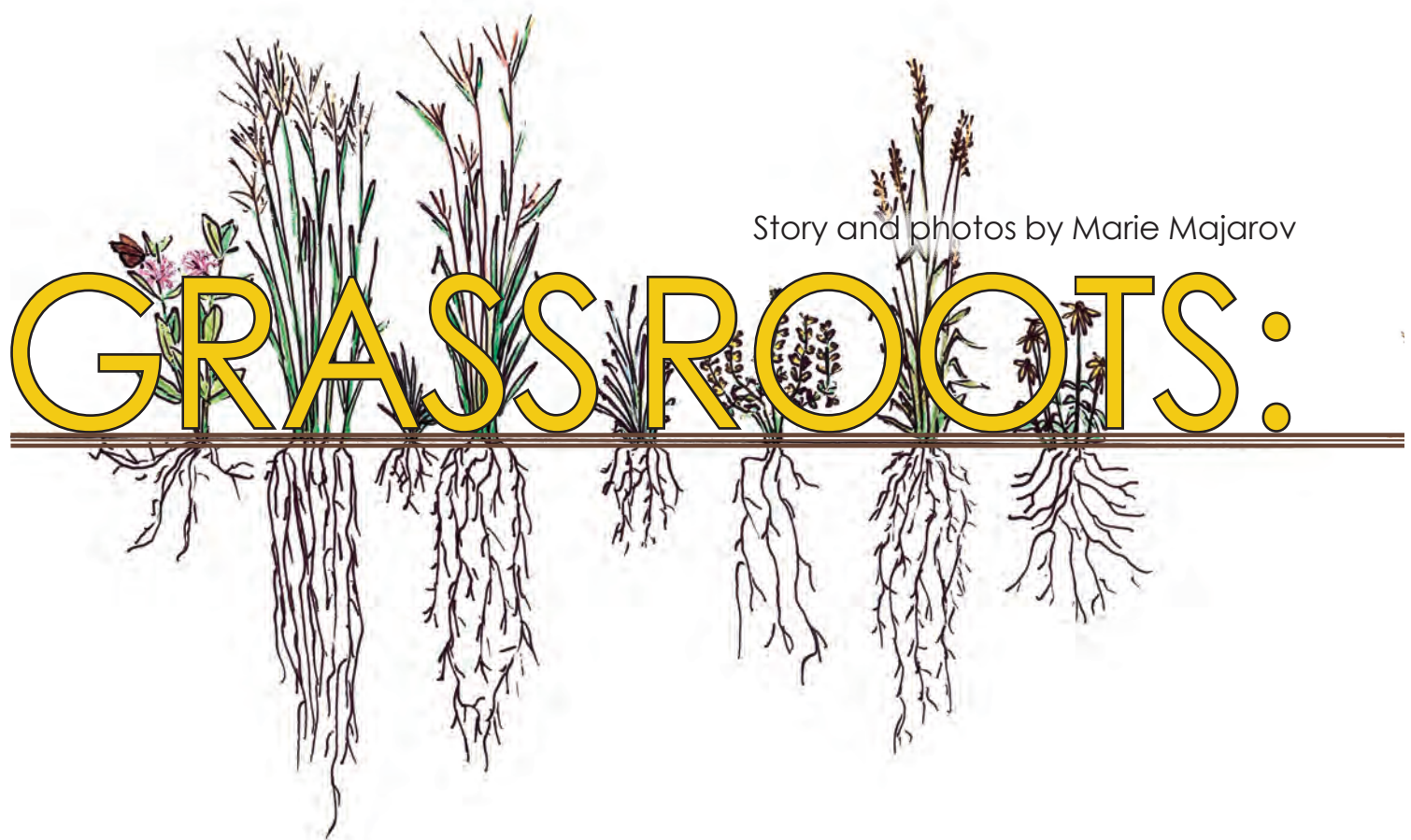
According to DGIF, “Coyotes are present in every county of the Commonwealth and in many cities.” They are everywhere, despite nonsensical attempts to halt their eastern spread through bounties; fact is, we have opened the gate for this animal to

colonize our region, and now we must reap the harvest of which we have sown. Nature tends to look askance at unused opportunities, preferring that the predator/prey balance be achieved in whatever form or shape conditions and available species allow.

Since we humans, in our own clumsily entitled Anthropocene, have wiped out endemic predators that were essential for a naturally functioning landscape, we have to deal with the fact that foreigners will fill the gaps we’ve slashed in our Eastern biomes: there’s nothing unnatural about coyotes moving in to fill the role vacated by extinguished wolves and mountain lions. Our biome needs them to fully function, like it or not.

It comes down to coyotes to recreate a native predator/prey ecosystem. Humans have driven Virginia’s ancient ecosystems out of whack, and they’re not a lot of people advocating for the reintroduction of wolves or cougars. It comes down to coyotes, natural immigrants into our depleted landscape, looking for work that nothing else is interested in. If not them, then who? If not now, then when? 1

*William H. Funk is a freelance writer living in Staunton. He may be reached at [williamhfunc@icloud.com](mailto:williamhfunc@icloud.com).*



Story and photos by Marie Majarov

**B**iodiversity is the foundation of healthy working landscapes.” This simple but profound principle underlies Virginia Working Landscapes’ (VWL) mission, research, education, and engagement with landowners, scientists, hunters, policy-makers, and partners in conservation such as the Department of Game and Inland Fisheries (DGIF). Regular *Virginia Wildlife* readers will remember VWL from features describing their ongoing collaboration with DGIF in recovery efforts for loggerhead shrikes and development of bobwhite habitat. This feature is their “grassroots” story.

“Working landscapes” refer to lands actively used for agriculture, as well as those set aside for the conservation and preservation of wildlife, but the work of this private organization dedicated to the “promotion of native biodiversity and

sustainable land use” will inform, inspire, and benefit landowners and conservationists of every stripe.

### **Grassroot Beginnings...**

In 2009 a small group of conservation-minded landowners in northwestern Virginia began talking, commiserating really, about seeing and hearing fewer and fewer meadowlarks, grasshopper sparrows and other songbirds in their fields. Astute observations indeed as the North American Breeding Bird Surveys confirm significant ongoing declines in grassland-associated species. These landowners, along with local representatives from the Virginia Native Plant Society, the Piedmont Environmental Council (PEC), American Bird Conservancy, UVA’s Blandy Experimental Farm, Clifton Institute and Smithsonian Conservation Biology Institute (SCBI) took notice. All

speculating that a multitude of factors were involved, they decided to take action beginning with a series of well attended, lively living room discussions. Groundwork was laid for a unique “landowner to landowner initiative,” the first of its kind in Virginia. The new organization’s goal: “to study and promote the sustainable use of Virginia’s landscapes for native biodiversity through ecosystem research, habitat monitoring, and community engagement.”

SCBI, a concerned local landowner themselves and an umbrella for the Smithsonian’s global conservation efforts, stepped up to host the sprouting organization on their 3200-acre Front Royal campus, a picturesque repurposed calvary remount station (so many fascinating details in this story). Located in the Blue Ridge foothills near Shenandoah National Park (SNP) SCBI was an ideal setting for

# A Story of Virginia's Working Landscapes

collaboration with SCBI scientists and provided space for demonstration plots to field-test land management and monitoring techniques, collect research data, educate landowners, and train citizen science volunteers.

Today VWL boasts the involvement of over 150 landowners centered in the 16 counties surrounding SNP; a cadre of 100+ dedicated volunteers, many being Virginia Master Naturalists (VMN); 3 full time staff members; a “robust intern/graduate fellow program with the Smithsonian-Mason School of Conservation;” and an ever growing network of active partners: those groups represented in the initial meetings, along with DGIF, Blue Ridge Partnership for Regional Invasive Species Management, Virginia Quail Recovery Initiative, Natural Resources Conservation Service, Blue Ridge Conservation Alliance, National Bobwhite Conservation Initiative (NBCI), and SNP, forming a strong network for communication, cooperation, and education. And those demonstration plots, a beautiful reality that has come to fruition on SCBI’s “Racetrack Hill” showcasing the outcomes of organic vs. non-organic establishment of native warm season grasses (NWSG) with mowing, burning, hand weeding, and herbicide management techniques.



Grasshopper sparrows, whose buzzing calls sound like a grasshopper, thrive in NWSG grasslands.

## Why Native Warm Seasons Grasses?

Long ago, our Commonwealth had extensive rich native grasslands sustaining a bounty of indigenous birds, pollinators, herbaceous forbs, perennial wildflowers, and wildlife interspersed within a much forested landscape. Over

the past 200 years, these grasslands have been deeply impacted by an ever-increasing use of Eurasian cool season grasses, intensive land management for agriculture, rampant invasive species and modern development. The life sustaining biodiversity that once thrived has been dangerously compromised, making Eastern grassland communities, which unlike Midwestern grasslands have received little study or attention, a prime focus in the VWL program. This includes the study of both cool season grass (CSG) and NWSG communities.

The beautiful hand-painted drawings of VWL Outreach and Communications Coordinator, Charlotte Lorick, illustrate clearly NWSG value with their long roots firmly anchoring the plants. Capable of holding substantial water these roots can tolerate both drought and flood conditions; their clumping habit creates space between plants where native wildflowers and herbs can easily thrive and nourish an extensive assortment of native pollinators. VWL Director Amy Johnson, further points out that the tall graceful clumps allow for birds to perch; in the spaces below diverse wildlife species can travel safely, build nest sites, enjoy protective cover and vital winter shelter; while seed heads provide crucial sources of



SCBI entomologist Dr. Jim McNeil takes a first look at the VMN collected arthropod samples before they are taken back to the lab for sorting, pinning, and classifying.

nourishment. CSG, with a more uniform mat and shorter roots can and do support many grassland species but their real value is in rearing livestock, making hay etc. Johnson points out that “moving forward, it’s not about converting everything “back” to native grasses, but to work with landowners on modifying current and future management practices to create a model where humans and wildlife can coexist.”

### Surveys

Rigorous, ongoing, science driven surveys are the backbone of VWL efforts. Conducted on participating landowner properties, they monitor bird, pollinator/insect, and plant populations. Involving long hours of meticulous work, these surveys are amassing a wealth of longitudinal data: on the status of our wildlife populations and the effects of habitat restoration; invasives present; what land management practices are working, which do not, and their impact on critical ecosystem functions: air and water quality, soil fertility, pollination, and flood control all essential for environmental health.

Most important is the detailed feedback provided to landowners after each season’s surveys. Bobby Whitescarver

and Jeanne Hoffman landowners with “a cow/calf operation” in Swoope have been long involved in conservation and active participants in VWL surveys. “It is truly powerful to learn and connect the dots between a working landscape, wildlife habitat, and the diversity of wildlife, particularly birds and insects, that habitat brings to our farm.” Bobby stated.

Survey data also serve to generate and test hypotheses leading to invaluable insights that not only benefit landowners in their everyday land practices, but also guide conservation efforts. Johnson gives us a small taste of the exciting research projects inspired by survey data: the effects of quail habitat restoration

projects on grassland and shrubland bird populations; a pilot project to determine the feasibility of a long-term orchid monitoring effort where these rare and endangered species exist; a project assessing the possibility of using drone technology as a safer and less intrusive manner to estimate grassland bird nesting density; and a wide range loggerhead shrike monitoring protocol developed by an intern that could well be used by citizen scientists all across the U.S.

Citizen science volunteers, carefully trained by VWL, contribute mightily to the VWL research efforts; they are actually the force that makes the surveys possible. Shenandoah, Old Rag, and Headwaters VMN Chapters, make a significant contribution. Not only do VMNs bring their Master Naturalist training, many have extensive specialized expertise. One volunteer, who also happens to be an entomologist, found the first rare rusty patched bumble bee, *Bombus affinis*, seen in the Shenandoah Valley (2014) in many years, and is one of the primary investigators for a VWL project investigating arthropod diversity and nutritional quality in CSG vs. NWSG communities. (Arthropods are insects that pollinate, decompose leaf litter/wood debris, and underpin complex food webs, important bird food!)

### Engagement and Education

Engaging with and facilitating communication between landowners, partners, scientists, hunters, and policy makers



Illustrations by Charlotte Loric / VWL

*“To love a place is not enough.  
We must find ways to heal it.”*

Robin Wall Kimmerer,  
*Braiding Sweetgrass*

is absolutely vital to VWL. Ongoing strongly science based surveys and projects will continue to spawn indispensable conservation research for years to come, but VWL staff also wants to ensure that those findings, as well as other conservation science efforts today, are accessible and readable to landowners and the general public to keep them informed. This is where change takes root. To that end, VWL emphasizes training their interns and graduate students, in communication skills and publishes *This Month in Conservation Science* newsletter (an excellent read, free, and available to all).

Working closely with their partners, VWL leads lectures, workshops, and courses open to the public that focus on a wide range of conservation topics. In the spirit of giving back for all that citizen scientists contribute, VWL also takes an active role in the training of VMN. Readers wanting to find VWL educational opportunities, sign up for the conservation newsletter, learn about volunteering as citizen scientists or enrolling their properties in the survey program can do so on VWL's website.

### A Cool Season Grass Community



VWL Pollinator Coordinator T'ai Roulston, of UVA's Blandy Experimental Farm, left, stands with VWN Alex Newhart who discovered a rare rusty patched bumblee.

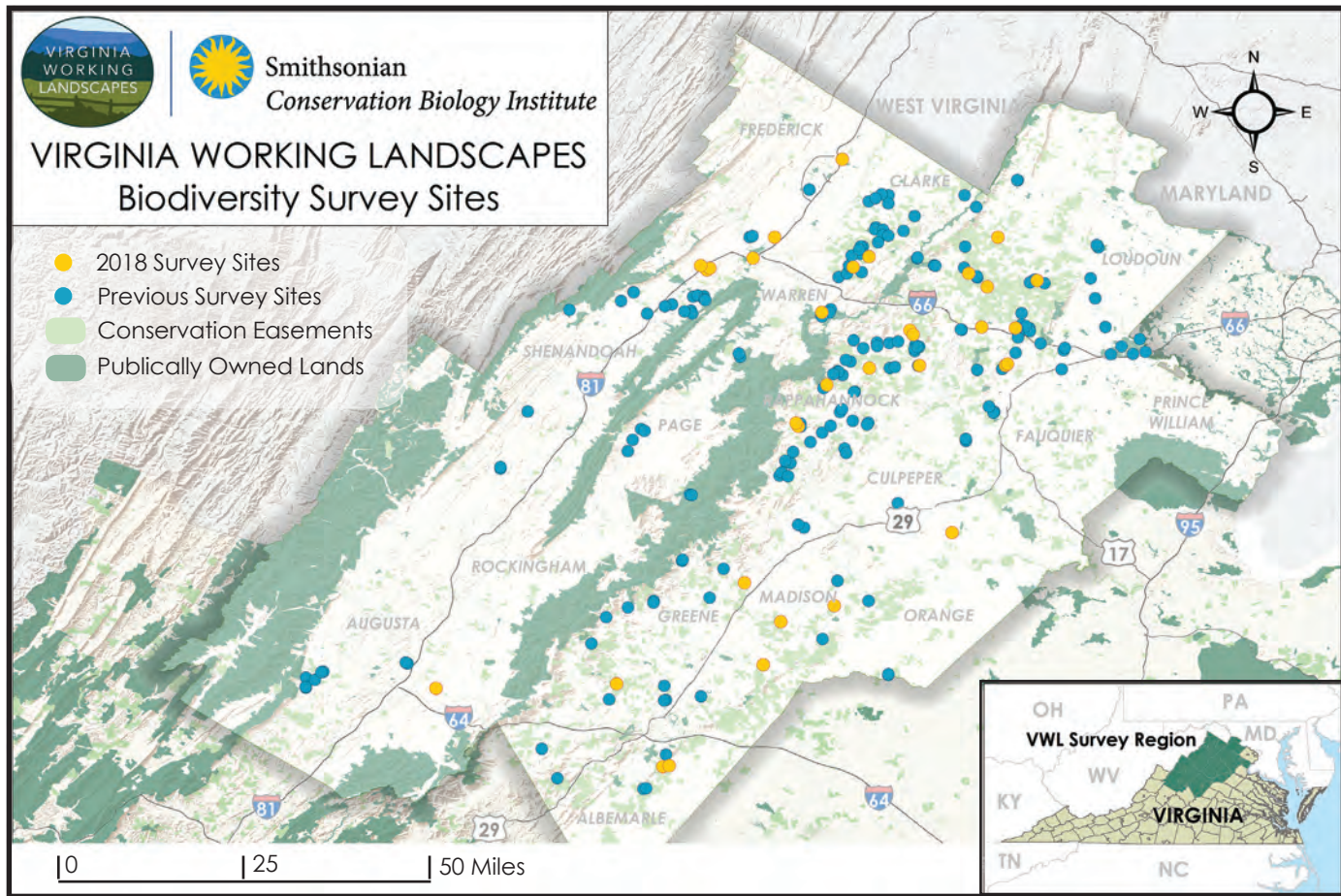


Beautiful NWSG intermixed with native wildflowers in one of VWL's Racetrack Hill demonstration plots on the SCBI campus.



VWL Charlotte Lorick plays a covey call tape during a predawn quail count, part of a NBCI study.





The work of VWL has been valued and recognized in the conservation community on a national level. This year they received the NBCI Firebird Conservation Award “For valuable support of habitat-based landscape-scale restoration of wild bobwhites.” Well deserved, this habitat benefits more than bobwhites...pollinators thrive as well.

The distinctiveness of VWL is that it is first and foremost a “landowner to landowner initiative.” Approximately 90 percent of land in Virginia is privately owned says Johnson, making private landowners “both the keepers of their own economic well-being and the stewards of the natural resources of Virginia.” That so many landowners stepped up to mobilize and grow this endeavor, that so many partnering organizations are actively involved along with citizen scientists, that a strong communications network for conservation sharing has developed are all remarkably hopeful for our future landscapes. VWL represents a sterling example of people working together to heal our land. 1

Marie Majarov ([www.majarov.com](http://www.majarov.com)), is a Virginia Master Naturalist, Habitat Partners® trained pollinator habitat educator and member of the Virginia Outdoor Writers Association.

#### RESOURCES:

- ♦ Virginia Working Landscapes:  
[www.vaworkinglandscapes.org](http://www.vaworkinglandscapes.org)
- ♦ Smithsonian Conservation Biology Institute:  
[www.si.edu/unit/conservation-biology-institute](http://www.si.edu/unit/conservation-biology-institute)
- ♦ Virginia Master Naturalists:  
[www.virginiamasternaturalist.org](http://www.virginiamasternaturalist.org)
- ♦ Whitescarver Blog & website:  
[www.gettingmoreontheground.com](http://www.gettingmoreontheground.com)



SPECIAL REGULATION

# TROUT

Something for Everyone!

By David Hart



**S**ome trout streams are just, well, special. They might have lots of wild trout, they may have some big fish or they might be unique in some other way. Whatever they are, the 40 rivers and streams designated as “special regulation” all have one thing in common: They are high-quality fisheries that provide days of fun and relaxation to thousands of anglers every year.

They include everything from hop-across native brook trout streams and grass-lined spring creeks to big, bold tailwater rivers and mountain streams loaded with wild rainbow and brown trout. Some are catch-and-release. A few have tackle restrictions. Others have slot limits or minimum size requirements to protect certain sizes of trout.

“Biologically speaking, minimum size limits, slot limits or a combination of other regulations are designed to protect the size structure of the trout,” says district fisheries biologist Steve Reeser. “In the past, they were generally meant to increase overall populations, but the catch-and-release ethic is pretty much the norm among many trout anglers now. That does the same thing.”

So why do we still place special regulations on some streams if fewer anglers are keeping wild trout? Simple. Trout anglers love them.

“A growing number of trout anglers are seeking a different experience than they can get on designated stocked trout waters. They are less interested in harvesting fish and are more interested in a greater challenge, as well as catch-and-release opportunities,” says Reeser. “Special regulation streams give those anglers an opportunity to fish for wild trout with a high probability of success.”

That’s why the number of special regulation streams has increased over the past decade or so. For a complete list, visit the Department’s website, navigate to the trout-fishing page and click

on the “special regulation trout waters” link. In the meantime, here is a look at some of our top special regulation trout waters.

### **Jackson River Tailwater, Alleghany County**

It’s true that access is sketchy on a large part of this 20-mile long tailwater trout fishery below Lake Moomaw. Thanks to a 1996 Virginia Supreme Court ruling, some landowners have exclusive rights to the stream bottom and the trout that hover over that bottom. As such, those sections of the Jackson River are off-limits.

Don’t let that scare you away from this first-class fishery. Although many sections are posted, there is enough accessible water to keep an angler busy for a long day. One of the best lies just below Gathright Dam. A half-mile section of flat pools, powerful rapids and fast riffles is administered by the U.S. Army Corps of Engineers (USACOE) and is chock full of rainbow and brown trout.

“There are five public access sites located between Natural Well and Covington where anglers can access the river to float-fish. A map showing the locations of the public access areas can be found on the DGIF website,” adds Reeser.

Anglers are allowed to use any method, including live bait, and they can keep up to four trout. All rainbows between 12 and 16 inches must be released and only one brown trout over 20 inches may be kept.

“There is some harvest, but it does not seem to be having any impact on the quality of this fishery,” says Reeser.

High water releases can make wading dangerous, so make sure you check the release schedule before traveling to the Jackson. A Google search of “Gathright Dam release schedule” will bring you to an USACOE website showing planned releases for two days.

Flows below 600 cubic feet per second are safe for wading, but always wade with caution.

### **Ramsey’s Draft, Augusta County**

Virginia has about 2,000 miles of wild brook trout streams and many of them are loaded with fish. Ramsey’s Draft, located in the Ramsey’s Draft Wilderness Area in the George Washington and Jefferson National Forest, is one of those high-quality wild brook trout fisheries. It is also one of Reeser’s personal favorites.

“It has an excellent population of native brook trout, although populations can vary from year to year based on spawning success,” he says. “It does get some pressure, but there is plenty of room to get away from other anglers.”

Ramsey’s Draft is located about 20 miles west of Staunton and consists of about four miles of runs, riffles, pools, and falls. A trail parallels the entire length of the stream, offering easy access to the best water. Anglers are restricted to single-hook, artificial lures only and no fish less than 9 inches may be kept.

### **Buffalo Creek, Rockbridge County**

Four miles of spring-fed, freestone stream offers a variety of high-quality trout habitat. Deep, slow pools protected by a tangle of overhanging limbs are home to the biggest trout, but lots of quality fish can be found in the bold riffles and swift pools throughout.

The stream flows through flat farmland and forest and access is abundant along most of the public water. One section requires a moderate hike to reach.

“All of the special regulation waters of Buffalo Creek are on private land, but those landowners allow us to manage the fishery while allowing public access. It is a great example of a cooperative effort between private landowners and our Department,” says Reeser.

The stream is stocked with advanced fingerlings, about 5 or 6 inches, but they grow fast, adds Reeser. There are lots of trout in the 10- to 14-inch range, with some over 18 inches scattered throughout.

Buffalo Creek regulations include a 16-inch minimum size and two-fish per day limit. Anglers are restricted to single-hook, artificial lures and a free landowner permit is required to fish here. It can be downloaded by signing in to your gooutdoorsvirginia account.

### **South Fork, Holston River, Smyth County**

Two special-regulation sections offer a combined five miles of high-quality trout fishing opportunities in southwest Virginia. One lies within the Buller Fish Cultural Station and stretches for about a mile. It is loaded with wild rainbow and brown trout and is supplemented with occasional stockings of large adult fish up to 20 inches. This section is catch-and-release, single-hook, artificial lure only and is a popular destination among fly anglers.

The upper section, also popular with fly anglers, includes four miles of the South Holston and runs almost entirely through National Forest land. Public access is limited to a few trailheads, making this a great destination for anglers who want to avoid crowds. It has good populations of rainbows and browns. Most are in the 8- to 12-inch range, with a few over 16 inches. Only two fish over 16 inches may be kept and anglers are restricted to single-hook, artificial lures.

### **Whitetop Laurel, Washington County**

Spend a day on Whitetop Laurel and you will see why Trout Unlimited ranked it one of America's Top 100 trout waters. Cold, clear water flows around moss-covered boulders and under rhododendrons hanging over

the water. When the flowers are in bloom, Whitetop is nothing short of stunning. In addition, it is loaded with quality rainbows and browns with a few brookies scattered about, as well.

One section in Taylor's Valley is stocked as put-and-take water, but a large portion of Whitetop within the National Forest is under a 12-inch minimum size limit. Anglers are restricted to single-hook, artificial lures only in the special regulation section, as well.

Access is limited to a handful of parking areas along the Virginia Creeper Trail, but the trail parallels the entire length of the stream. The well-maintained path is popular with hikers, wildlife watchers, and bicyclists because of the steady downhill grade. However, few of those bikers come to fish. Too bad. A bike is a great way to reach more remote sections of Whitetop. Just bike until you see good water, fish for a bit and pedal down to the next fishy spot. 1

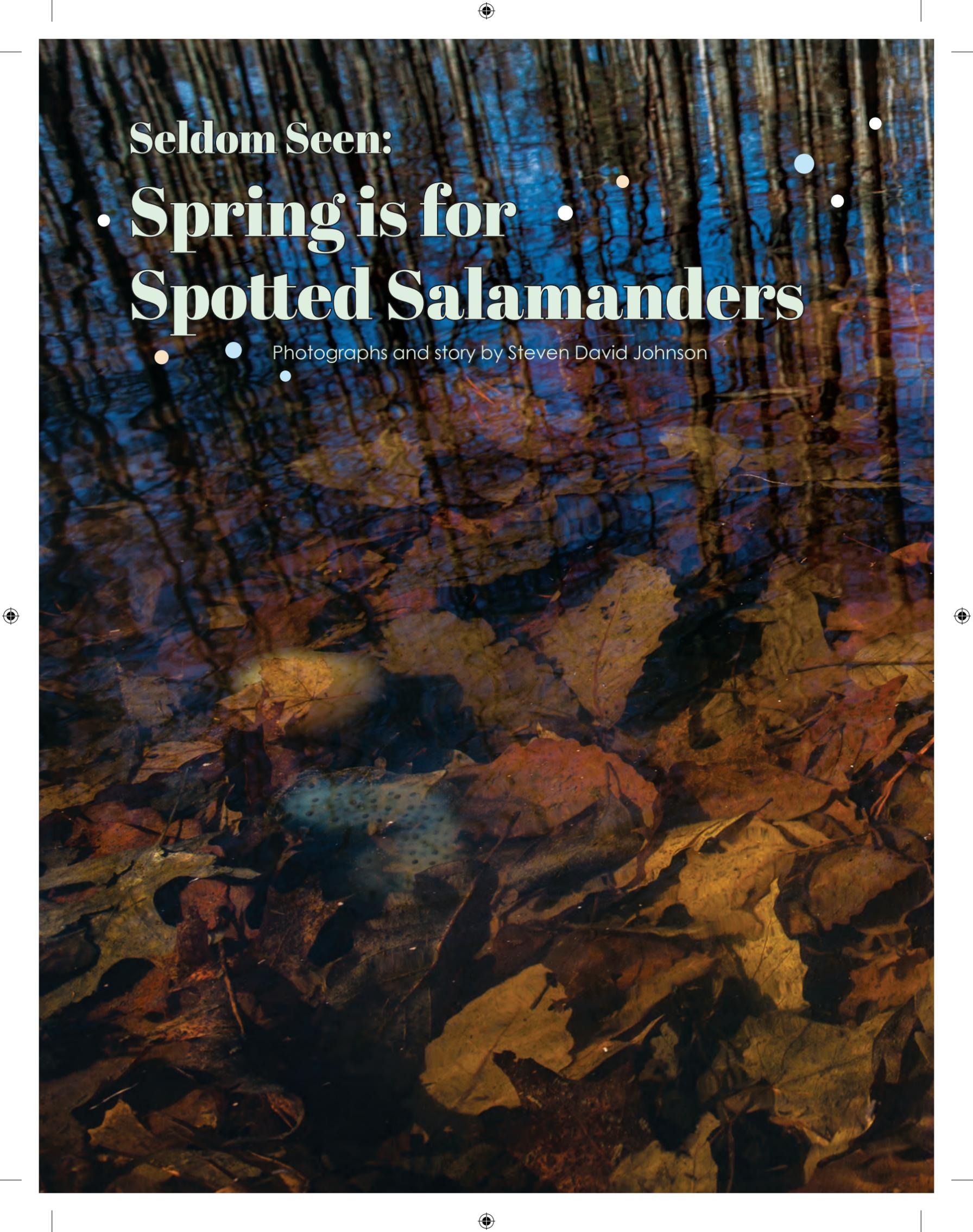
*David Hart is a full-time freelance writer and photographer from Rice. He is a regular contributor to numerous national hunting and fishing magazines. Contact him at [hartfish1@gmail.com](mailto:hartfish1@gmail.com).*



### **RESOURCES**

- ♦ Virginia Department of Game and Inland Fisheries: [www.dgif.virginia.gov/fishing/trout](http://www.dgif.virginia.gov/fishing/trout)
- ♦ Virginia Council of Trout Unlimited: [www.virginiatu.org](http://www.virginiatu.org)
- ♦ Gathright Dam Release Schedule: [www.nab-wc.usace.army.mil/nao/projected\\_Q.html](http://www.nab-wc.usace.army.mil/nao/projected_Q.html)





Seldom Seen:  
• Spring is for •  
Spotted Salamanders

• •  
• Photographs and story by Steven David Johnson





Meet the spotted salamander! After emerging from hibernation the adults make their way to known temporary ponds or vernal pools to begin their annual breeding rituals. Then, they return to a secret life under the leaf litter until the next breeding season.

A remarkable and intricate world of biodiversity exists just below the surface of the temporary ponds that form in our forests. These vernal pools often fill as the winter snows melt and the spring rains arrive, providing fish-free breeding grounds for amphibians.

Spotted salamanders are among the most recognizable vernal pool denizens with their bright yellow polka-dots set against a field of dark, purplish-brown. On rainy nights in February through April, conditions may be right for migration events as large numbers of these salamanders leave their subterranean homes and lay jelly-like egg masses below the surface of the pools.

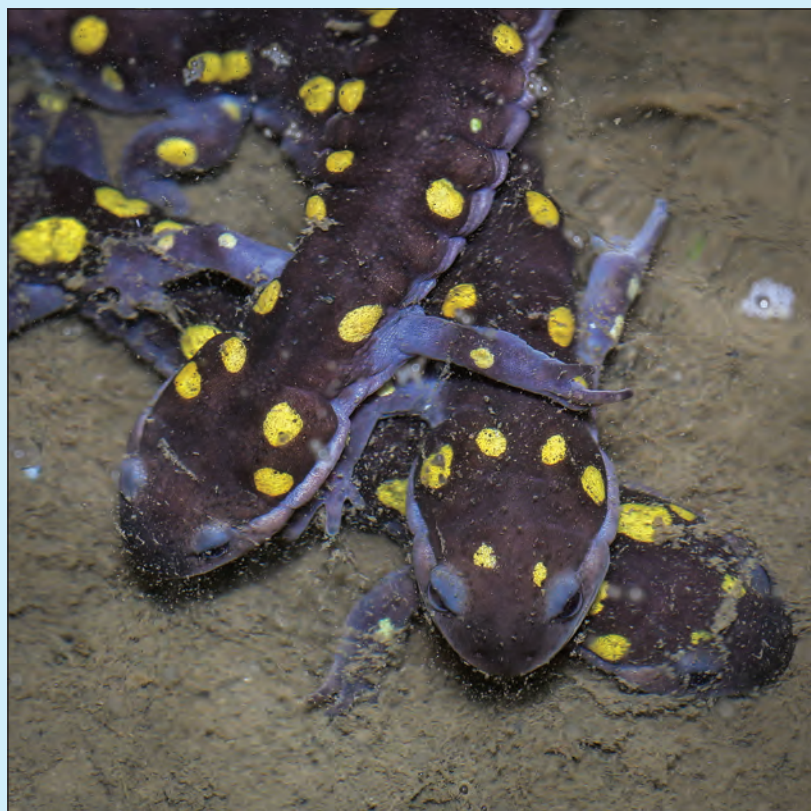
As the salamander eggs mature, photosynthetic algae enter the egg masses. In recent years, research has shown that such algae even inhabits the cells of the living salamander embryos! As the spring progresses, wood frog tadpoles and macroinvertebrates surround the salamander eggs like space invaders nibbling at the edges as the embryos stare back silently from their ghostly pods.

Eventually, the salamander hatchlings will face their own struggle to avoid predation and drying pools, but the survivors will repeat the dramatic amphibian migration cycle. 1

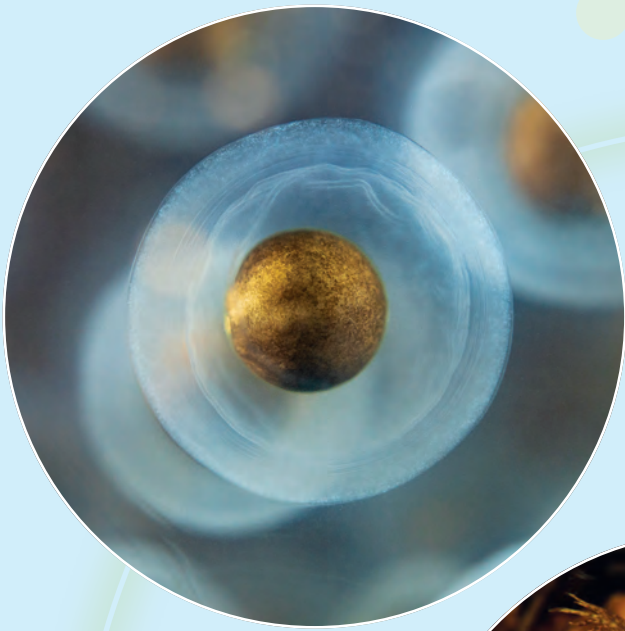
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*Steven David Johnson is a conservation photographer and Professor of Visual and Communication Arts at EMU in the Shenandoah Valley. You can see more of his work at his [www.stevendavidjohnson.com](http://www.stevendavidjohnson.com) and <https://www.flickr.com/photos/stevendavidjohnson/albums>*

Previous page: A typical leaf-filled vernal pool reveals the courtship activities of spotted salamanders in the form of gelatinous egg masses.



Top left: Adults meet underwater for a frenzy of breeding activity. Top right: Males place white spermatophores for females to pick up to fertilize their eggs. Above: This photograph reveals a female laying her eggs in a vernal pool. Above photos: ©Dave Huth.



Top left, clockwise: Starting out as a single fertilized egg, or blastophore, the embryo continues growing with a head now apparent, gill buds begin to form, eventually leading to a larva emerging from its egg. Center: Aquatic larva must grow out of its gills to finally become terrestrial.

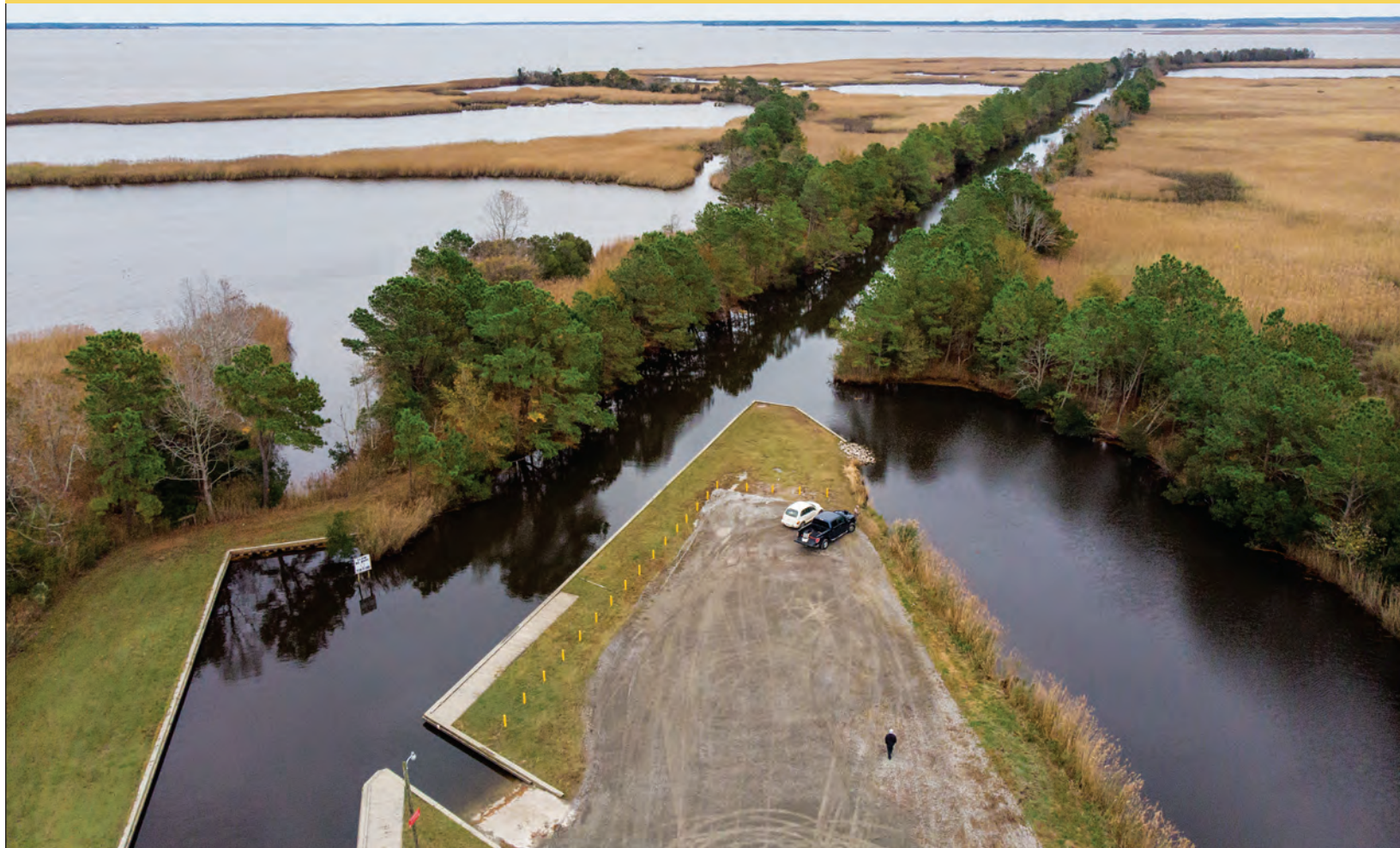


Top: Wood frog tadpoles nibble on developing eggs while helpless embryos watch from inside. Middle: First year young adult, or metamorph. Bottom: Adults stay close to the surface until summer heat drives them deeper into the soil where they live until the next breeding season.



# Working Together

By David Norris and photos by Meghan Marchetti



Ducks Unlimited and the Virginia Department of Game and Inland Fisheries have a long history of working together for the benefit of waterfowl and wetland-dependent wildlife species. Two recent projects highlight this partnership. At Princess Anne Wildlife Management Area in the City of Virginia Beach, Ducks Unlimited utilized funds from the Virginia Migratory Waterfowl Stamp, Dominion Power and others to install a much needed water distribution system. This system allows water to be delivered to managed impoundments as needed to provide optimum habitat for migrating and wintering waterfowl and other water birds. The project involved installing two pumping stations drawing water from Back Bay and installing outflow systems into each existing impoundment, allowing for precise water level manipulations.



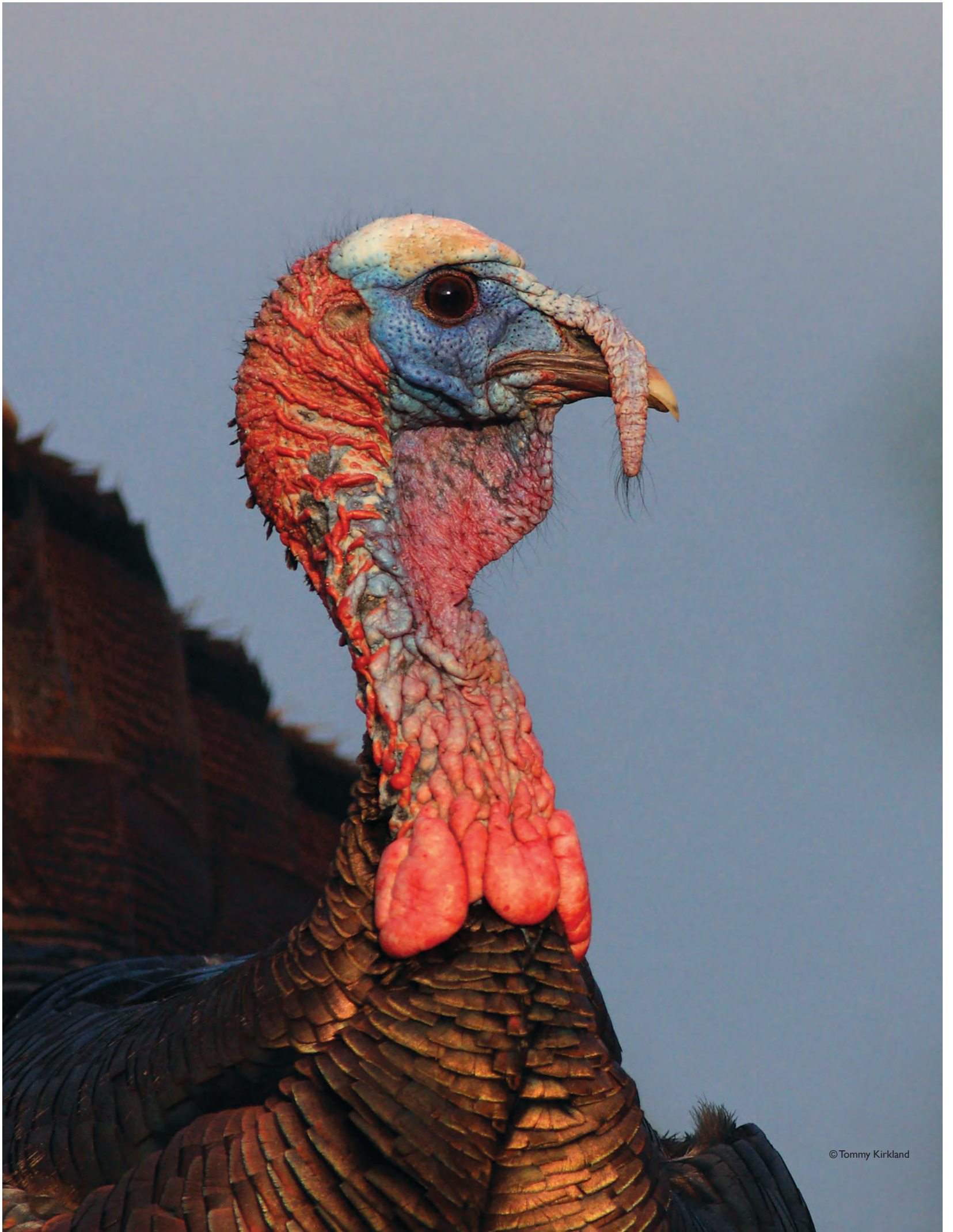


Clockwise, top left: A drone provides a great view of Princess Anne WMA with Hog Island WMA in the distance, impoundments are controlled by one of two pumping stations installed to manage water flow, a fisherman enjoys access to great fishing, and a DGIF sign welcomes you to the Princess Anne WMA boat ramp.



At Hog Island Wildlife Management Area on the James River in Surry County, Ducks Unlimited also helped to replace aging wood and PVC water level control infrastructure with new marine grade aluminum structures. New structures were also placed and drainage ditches cleaned to improve the amount of flow through the impoundment system. Finally, fish exclusion devices were placed on the structures to exclude carp from the impoundments. Carp have a detrimental effect on water turbidity and actually feed upon submerged aquatic vegetation which is a valuable food source for wetland-dependent wildlife. In the coming year, the partnership will install additional living shoreline at Hog Island to protect our investment into the future.





# HUNTING SPRING GOBBLERS

By Bruce Ingram

# 101

**O**n May 10, 1988, at 7:25 a.m., I experienced my biggest thrill ever while hunting. Afield in the George Washington and Jefferson National Forest, I called in and killed my first turkey: a two-year-old tom that weighed 19 pounds, 11 ounces my hunting records show. That glorious spring morning ended my two-year quest to tag that initial turkey—an odyssey involving dozens of trips both spring and fall.

For those readers thinking about beginning this most wonderful of pastimes, here's how to start.

## 1. Guns and Shells

Kevin McLaughlin, who operates TAC OPS in Roanoke, opts for the traditional choice in a turkey gun.

"For adults, a 12 gauge with a full choke or turkey choke would be my recommendation," he says. "I would also want the shotgun to accept 3-inch shells. Loads designated for turkeys in Sizes 4, 5, and 6 would be standard, too. From a distance between 35 and 40 yards, pattern your shotgun with these three loads and see which one the gun 'likes' best."

Online, you can find all sorts of opinions about how many pellets should fall within a 10-inch circle in order for that load to kill a turkey. Basically, though, if

your target, which consists of a turkey's head and neck area, looks like those vitals have been "peppered," the load is sufficient.

Lexington's Billy Hall, a regional director for the National Wild Turkey Federation (NWTF), suggests that youth or adults with small frames begin their shooting sports careers by practicing with shotguns that "kick" less such as a .410 or a 20 gauge. Another good choice is a .22 rifle. After learning to target shoot and being comfortable doing so, these adults and youth could move on to a 20 gauge or possibly even a 12 when it comes time to pursue turkeys.

## 2. Finding a Mentor

Hall says the Virginia Chapter of the NWTF stands ready to help novice adults and youth.

"We promote programs to bring in new hunters," he says. "And we have volunteers who are very eager to serve as mentors for folks of all ages. We are always looking for more mentors, too—the type of person who gains real satisfaction helping other people to learn more about turkey hunting and the outdoors."

Hall adds that the NWTF offers a number of programs to assist potential new hunters such as JAKES (ages 12 and younger), Xtreme JAKES (13 to 17),

Women in the Outdoors (for ladies of course), and Wheelin' Sportsmen (for people with disabilities). The state chapter also offers "Mock Turkey Hunts" for adults and youth where a turkey hunt is simulated. For more info: [www.vanwtf.com](http://www.vanwtf.com).

## 3. Camo and Other Gear

Look through any outdoors magazine, and you'll encounter ads for the latest "must have" camouflage. Hall says that modern day camo works great, but spending a lot of money on clothes isn't necessary for success.

"A novice can find very usable, inexpensive camo at Goodwill's and second hand clothing stores," he says. "There's especially no reason to buy new camo for kids who'll likely outgrow it in one hunting season, anyway."

So just purchase some used camouflage with plenty of green in it to match the season, plus a face mask, gloves, and hat (in camo of course), and you're ready to enter the woods. Some green rubber boots would be nice, too, especially if creeks or standing water are in the areas you plan to hunt.

## 4. Calls and Calling

One of the many joys of turkey hunting is learning how to mimic the numerous sounds that turkeys utter: yelps, clucks,



Camouflage is necessary for turkey hunting due to the bird's keen eye sight.

purrs, cackles, tree yelping, kee-kees, and the cutting sound. Mitch Bryson, an avid turkey hunter from Botetourt County, proffers these recommendations.

"For people just starting out, I recommend push-pins and box calls," he says. "A push-pin is the easiest to use. All you do is push a pin back and forth to make hen yelps. With a little practice, you can learn how to make the purr with this same call. Box calls are very easy to learn how to use, too. They're ideal for making yelps and clucks."

To purr with a push-pin, depress the pin with a dragging motion. To yelp with a box, just stroke the paddle across the lip of the box. To cluck with this call, make short upward strokes with the paddle across the lip.

"If you learn how to make just the yelp and cluck, you can call in and kill a gobbler," Bryson says. "Learn how to make some more turkey sounds such as the cackle, cutting, and kee-kees, and you'll increase your chances even more. The same is true if you learn how to use other calls such as the pot and peg and diaphragm."

The diaphragm, also known as a mouth call, is perhaps the most versatile of all turkey calls, as it not only leaves our hands free (thus cutting down on movement—and any kind of wayward movement has the potential to alarm a turkey) but it also can mimic any sound that either sex of turkeys makes.

A major caveat exists with diaphragms, however—they are hard to learn how to use. Bryson says that when he was 11, he practiced constantly for a year with a mouth call before finally learning how to use one. I was employing a diaphragm when I killed the aforementioned gobbler.



© Bruce Ingram

Something to strive for is learning how to use the slate and peg call.

I had been practicing with the call for six months and that was the first morning I ever uttered a realistic yelp. I was still marveling at that miracle when the gobbler suddenly—and surprisingly—came into view... as these birds are wont to do. Finally, Bryson suggests that perspective turkey hunters watch YouTube videos to learn how turkeys sound and how to use various calls.

## 5. Woodsmanship

Practicing woodsmanship (that is reading sign, identifying food sources, understanding travel patterns, for example) is most often associated with bowhunters for deer and fall turkey hunters. Nevertheless, being a savvy woodsman also has its place in the spring turkey woods.

"Droppings and scratchings are probably the most important sign to identify," Bryson says. "Fresh gobbler droppings look like a brown letter J with white tips. Hen droppings look like soft serve ice cream piled up or popcorn. The older the droppings become, the more white they have in them and the more dried out they become."

Fresh scratching is about the size of a small wash basin and the soil appears damp and without leaves. Older scratching has leaves filling in the opening.

Some of the best sign to find are dusting bowls along an old logging road Bryson says. Dusting bowls are about the size of a large wash basin and regularly used ones feature soft earth, feathers, tracks, and droppings. Droppings of different ages indicate birds are using the area regularly.



© Tes Jolly

Fresh gobbler droppings are easy to identify looking like the letter "J."

## 6. Private and Public Land Hunting

Gaining permission to private land requires politeness and a direct approach. I don't mind knocking on doors and being rejected when I ask if I can hunt somewhere—being turned down by a landowner is not nearly as bad as when all those high school girls rejected my date requests decades ago. But I digress.

Here's my approach. I come to the front door, show my driver's license, tell the person I'm a high school English teacher from Botetourt County and would like to turkey hunt two or three times this coming spring gobbler season. I quickly add that it would be only during week days before school, and I will always come alone.

If the landowner grants my request, I arrange for a scouting trip. If the person says no, I say thank you for your time, no problem, and leave with a smile. Also, whenever I kill a turkey or deer on someone's land, my wife Elaine always makes the landowner homemade bread or cookies as a gift.

Rebecca Robbins, public affairs specialist for the George Washington and Jefferson National Forest, recommends these steps for going afield in the GWJNF.

"Once you have your license and national forest stamp administered by the DGIF, contact the ranger district where you plan to hunt to learn about areas where recent and ongoing habitat improvement projects are located," she says. "Across the GWJNF, habitat projects like grassland management, controlled burns, and forest thinning create a mosaic of habitats that turkeys need to survive and thrive. These areas may increase your likelihood of finding a turkey. The district office can also let you know of any temporary road closures or areas that prohibit hunting."

Individuals interested in pursuing turkeys on state wildlife management areas can contact their local DGIF office and follow the game plan above to help determine where to hunt.

## 7. Last Advice

Regarding other gear for the novice, I would recommend a seat cushion, a range finder (many hunters limit their shots to distances of 40 yard or less), a flashlight for helping you find your way through the forest in the dark, and a blaze orange hat (a safety precaution when you're toting a gobbler).

Finally, don't be disappointed if you experience a spring or two when you don't tag a tom. After killing my first gobbler, I thought I knew everything and didn't take a bird the next spring. Now, I know that I can never learn everything about wild turkeys, and that, too, is part of the charm of pursuing them. 1

*Bruce Ingram's latest book is [Living the Locavore Lifestyle](#); for more information on this work and his river fishing and floating guides, <https://sites.google.com/site/bruceingramoutdoors>.*



### TURKEY HUNTING SAFETY TIPS

- ♦ Be sure of your target and beyond.
- ♦ Do not wear red, white, or blue.
- ♦ Wear blaze orange when moving.
- ♦ Avoid using a gobbler call. If you see another hunter in the woods, be still and call out loudly.
- ♦ Set up decoys where you will be safe if another hunter shoots at them.
- ♦ Unload your gun as soon as you retrieve your bird. Carry dead turkeys in blaze orange material.
- ♦ Never stalk a turkey. It is much safer to sit still and call.
- ♦ Never wear or hold anything that looks like a turkey. This includes "fans" that look like the tail feathers of a strutting gobbler. See video at [www.youtube.com/watch?v=Q96\\_pFJntrA](http://www.youtube.com/watch?v=Q96_pFJntrA)



5th ANNUAL OLD DOMINION

**ONESHOT**

TURKEY HUNT

APRIL 27, 2019

VAONESHOT.COM



© Kyle LaFerriere



Lee Walker / DGIF



**M**ark your calendars for April 27th for the 5th Old Dominion One Shot Turkey Hunt! We know it is a hunt but it is also a fundraiser to support the hunting heritage in Virginia through land purchases, youth engagement through the Virginia Wildlife Grant Program, and much more!

The upcoming One Shot Turkey Hunt will see a couple of changes from 2018. The youth and Wounded Warrior component of this event will continue with the addition of First Responder opportunities. We will continue to engage hunters throughout Virginia who want to hunt some of the most exclusive properties with experienced guides. And like last year, we will have the return of the popular Youth Essay Contest to fill five scholarships. There are many opportunities to support, hunt, and enjoy Virginia's hunting heritage.

The popular guide and hunter planning dinner will continue, as will the post-hunt festivities at the Bass Pro Shops in Ashland, says Jenny West, Wildlife Foundation of Virginia Executive Director. The scoring system will still involve an aggregate calculation related to measurement of the bird's beard, spurs, and weight.

This year will have the Bass Pro Shops store in Ashland as the only official scoring site. Birds are typically scored as soon as the hunter can get the gobbler to the store. There isn't a single "weigh-in" style event like you might see at a major bass fishing tournament.

West says the sheer size of Virginia makes holding a true statewide, one-day turkey hunt a challenge. "Someone in the southwest part of the state taking a potentially winning bird has a long way to travel. Virginia is big!"

# EXPLORE

## G. RICHARD THOMPSON WILDLIFE MANAGEMENT AREA:

Nearly 4,000 acres in Fauquier County  
to hunt, trap, fish, hike, and watch wildlife.



CONSERVE. CONNECT. PROTECT.

# ENJOY

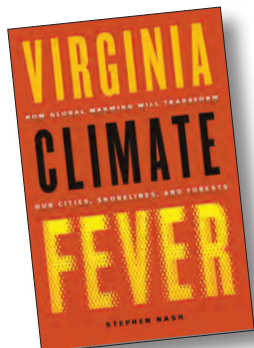
- ◆ Predominately hardwood forest
- ◆ Neotropical migrants
- ◆ Spectacular displays of wildflowers

Meghan Marchetti / DGIF

The Virginia Department of Game and Inland Fisheries maintains 44 management areas totaling more than 225,000 acres for a variety of outdoor recreational opportunities. For more information on how you can visit our wildlife management areas, go to: [www.dgif.virginia.gov/wma](http://www.dgif.virginia.gov/wma).



# OUT & ABOUT



## Outdoor Classics by Beth Hester

***Virginia Climate Fever: How Global Warming Will Transform Our Cities, Shorelines, and Forests***

by Stephen Nash

2017 (Paperback Edition) University of Virginia Press

Maps, Infographics and Illustrations

[www.upress.virginia.edu](http://www.upress.virginia.edu)

*"Over 900 of Virginia's species are believed to be imperiled by the ongoing loss, or degradation of their habitats. During the coming decades, climate change will exacerbate and intensify these impacts and the consequences to wildlife could be profound."*

—Virginia Department of Game and Inland Fisheries,  
*Virginia's Comprehensive Wildlife Conservation Strategy*

Japanese editor and entrepreneur Shigesato Itoi nailed it when he said: "Talk about facts, not about truth. Truth is what liars often talk about." When partisanship replaces common sense, truth becomes whatever one *believes*, even when those beliefs are completely unmoored from data, science, and hard fact. The discussion around climate change/global warming/sea level rise is no exception. Talking about climate change is made even more problematic because environmental activism has too often been

associated with some perceived liberal agenda. This can make dialog about climate change difficult, even among people who like each other.

But brook trout don't have a political agenda. Trees and shorelines don't caucus, and Mother Nature isn't a member of any political party. So if we want to adapt to a changing climate, mitigate negative human impacts, and pass on our outdoor heritage to the next generation, we will have to learn how to talk to each other. For those of us who call the Old Dominion home, *Virginia Climate Fever* can help us bridge the partisan divide, and better understand how global climate trends will impact our state.

Nash's book is meticulously constructed. He gathers together decades of data and scientific insight from individual scholars, respected research organizations, state and federal agencies, and academic research, weaving it all into an engaging and comprehensive story. He also has a killer sense of humor and a collegiality that makes all of the hard science about climate models and projections accessible to the layperson. Experts from our own Department of Game and Inland Fisheries shared their research for this volume.

So how might climate change impact Virginia? Read the book to find out, but here is a sample:

- As greenhouse gasses increase, a global mean temperature of +3.6 degrees F would have folks in and around Richmond seeing almost 12 weeks a year with temperatures over 90 degrees.
- The increasing acidification caused by surplus CO<sub>2</sub> will make life hard for oysters as it disrupts the formation of their shells. In the Chesapeake, this could eventually dissolve plankton, and the shells of crabs and other shellfish.

- Mount Rogers, Virginia's last remaining spruce-fir habitat and precious ecosystem will get hotter and dryer. Having no escape route to the North, hemmed in flora and fauna will have nowhere to go.
- Brook trout will lose much of their current range, and populations unable to move to more suitable habitats could be destroyed completely.

Nash is uncompromising when it comes to global warming certainties, but he's also candid about aspects of climate change that remain, for now, unknowable. Nash's aim, is to provide a platform where we can listen in to scientists as they discuss their research, so we can judge their reasoning, credentials, and evidence, and 'compare them against the pundits we usually pay attention to.' This book will help readers of all stripes become more discerning consumers of climate change information.



**VIRGINIA  
HERPETOLOGICAL  
SOCIETY**

**May 17-19, 2019**

Join us for a meeting  
and survey at  
**Sky Meadows State Park**

For more information and to  
register: [www.virginiaherpetologicalsociety.com/news](http://www.virginiaherpetologicalsociety.com/news)

# TROUT HERITAGE DAY



APRIL 6, 2019

[www.dgif.virginia.gov/fishing/trout/trout-heritage-day](http://www.dgif.virginia.gov/fishing/trout/trout-heritage-day)  
[www.gravesmountain.com/events-calendar/heritage-day](http://www.gravesmountain.com/events-calendar/heritage-day)

Lee Walker / DGIF



NATIONAL ARCHERY  
IN THE  
SCHOOLS PROGRAM

11<sup>TH</sup> ANNUAL

Virginia NASP State Tournament

**March 9, 2019**

Meadow Event Park  
Doswell, Va.



**2019**

Great Dismal  
Swamp Migration  
Celebration  
**April 25-27**  
Suffolk, Virginia

For full details and registration information:  
[www.fws.gov/refuge/great\\_dismal\\_swamp](http://www.fws.gov/refuge/great_dismal_swamp)

© Jim Clarke



## Project Plant It! Sprouts New Features for 2019

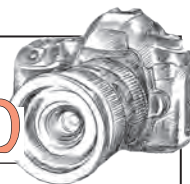
Dominion Energy's Project Plant It! blooms again in 2019 with a newly-refreshed website and three new educational games designed for elementary, middle, and high school grade levels. The Arbor Day program, now in its 13<sup>th</sup> year, teaches students about the role of trees in the ecosystem and gives them a redbud tree seedling to plant at home. Visit [projectplantit.com](http://projectplantit.com) for 12 lesson plans and other educator resources to promote interactive learning about trees.



# OUT & ABOUT



## PICS FROM THE FIELD



Congratulations to **Anita Stowe** of Sterling for her delightful image of a rare albino northern cardinal taken in late April in her backyard. The image was captured with a Nikon Coolpix P80 DSLR camera ISO 64, 1/190, f/4.5. Thank you for sharing your amazing find Anita!

You are invited to submit up to five of your best photographs for possible publication in *Pics from the Field*. Please include contact information and send only high-resolution (300ppi, 8X10 min size ) jpeg, tiff, or raw files on a CD, DVD, or flash drive and mail to: Pics from the Field, Virginia Wildlife magazine, P.O. Box 90778, Henrico, VA 23228-0778. We look forward to seeing and sharing your work!

### When Does My Subscription Expire?

If you are uncertain when your subscription expires, look for the expiration date on your label in the circled location on the sample here.

#VIR0002235105/8#60 **M/A19**  
JOHN SMITH  
P.O. BOX 90778  
HENRICO, VA 23228-0778



## Due a Tax Refund?

Please consider supporting essential research and management of Virginia's native birds, fishes, and nongame animals.

If you are due a tax refund from the Commonwealth of Virginia, simply mark the appropriate place on this year's tax checkoff on the Virginia State Income Tax form.

To make a cash donation directly to the Nongame Program, visit the Department's website or mail a check made payable to Virginia Nongame Program. Send to: VDGIF, Nongame Program, P.O. Box 90778, Henrico, VA 23228-0778.

Photo Credit: Bob Schamerhorn



**ATTENTION VIRGINIA'S  
SPORTSMEN AND WOMEN:**

## We Need Your Bird Observations!

Are you noticing birds that you are able to identify while you are out recreating in the spring and summer months?  
Have you come across nests or young birds with their parents?

Please consider contributing these observations to the **Second Virginia Breeding Bird Atlas**, a project to map the distribution and status of all breeding birds in the Commonwealth.

See [dgif.virginia.gov/help-map-it](http://dgif.virginia.gov/help-map-it) for more information on how you can help with this important project.





# 2018 Kids 'n Fishing Photo Contest

Ages 1-5



FIRST PLACE  
Caleb and Drake, age 5



SECOND PLACE  
Sawyer, age 1, and Rowan, age 4



THIRD PLACE  
Owen, age 5

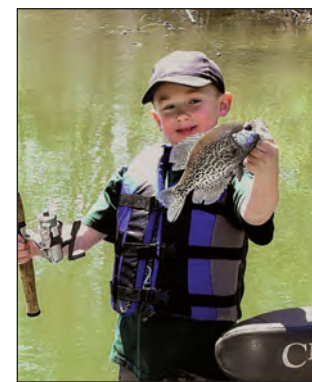
Ages 6-10



FIRST PLACE  
Jemma, age 7



SECOND PLACE  
Jacob, age 6



THIRD PLACE  
Evan, age 7

## Picture the excitement!

It certainly is easy to "picture it," kids 'n fishing that is. Smiles, laughs, and looks of anticipation. So, join the fun! Capture the excitement of your child on camera while fishing and enter their picture in the annual Kids 'n Fishing

## Prizes

Each winner receives a rod and reel fishing combo and a lure and tackle assortment courtesy of Green Top Sporting Goods! Photo Contest sponsored by Virginia Department of Game and Inland Fisheries and Green Top Sporting Goods!

For contest rules and requirements go to: [www.dgif.virginia.gov/kidsnfishing](http://www.dgif.virginia.gov/kidsnfishing).

**Deadline: September 7, 2019**



# CONSERVATION AT WORK

## *Working for the DGIF is more a calling than a job.*

One of the greatest things about working for Virginia's wildlife agency is the passion and commitment shared by those who are drawn to a career at DGIF. Individuals possessing different talents and diverse backgrounds, who perform work that is varied and challenging—all join together to share one mission.

Whether it be working to capture ducks in a swamp at midnight, assisting hunters and fishermen, or greeting visitors to the front desk at HQ, we all love what we do. At DGIF, we consider ourselves to be a family.

We thought you would like to meet some of our DGIF family and share in their passions both at work and outside of the office. Conservation at Work will feature them in *Virginia Wildlife* magazine, *Notes from the Field*, and our blog. For more, go to [www.dgif.virginia.gov/atwork](http://www.dgif.virginia.gov/atwork). We hope you enjoy meeting the faces of DGIF.

### **Katie Martin**

*District Biologist*

At DGIF, I work as a district wildlife biologist covering 10 counties in eastern Virginia. Describing what a district biologist does is tricky...because you just never know what you're about to get into!

My normal duties include working with hunt clubs to manage deer populations or create habitat management plans, completing various species surveys—turkey gobbling, woodcock, breeding waterfowl, and quail call surveys just to name a few. Assisting landowners with nuisance wildlife situations—including bears in bird feeders! We work with our lands and facilities staff on WMA habitat improvements and management plans; and participate in a wide variety of outreach events.

On any given day, a phone call can take you in a hundred different directions. You may be picking up some orphan bear cubs who need to be fostered in a den, remove a deer who's gotten stuck in a fence, assist a landowner with a black bear in their swimming pool (true story), or head out on a prescribed burn! Therefore, while there is no "normal" day, it is always an adventure!

My favorite thing about this job is probably the diversity of things you get to do and all the people you will meet. No two days are usually alike, which can be kind of crazy, but generally just keeps it fun!

Katie and her husband Brandon live in Nottoway County on a Christmas tree farm with their 10-year-old chocolate Lab, Roo.





Lynda Richardson / DGIF



"In the 6th grade we had to do a 4-H school project that involved teaching someone 'how to' do some skill. My project was 'How to Call a Turkey.' My dad taught me how to use all the different types of turkey calls, we made posters, and even went out on a calling trip to get pictures. I called and he took pictures of a big group of jakes that showed up to my calling! After that, I was hooked on spring gobblers and my love for turkey hunting started."



photos by Meghan Marchetti / DGIF



Dear Luke,

Our next door neighbor has been transferred to New York and cannot take his two-year-old pet Lab with him. He asked me if I would take it off their hands. I have always wanted to duck hunt but know very little about training Labs. Any suggestions?

Buzz R., Hockessin, DE

Dear Buzz,

Nothing like a Lab—or most any sporting dog for that matter—to keep you company, but first I suggest you look this gift dog in the mouth. Get a copy of his vet records to make sure you are not taking over a mountain of future vet bills. If everything checks out, see what pedigree comes with the dog. It does not have to be a Rhodes Scholar, but it would be helpful if your new acquisition does have some ancestors that may have retrieved something other than a tennis ball in their past. Now, that does not mean your Lab could not turn into a good hunting companion! I mention that only because the more you know of the retrieving capabilities in its background, the odds are it could be easier to train and therefore, give you a better idea of what lies ahead.

Dear Luke,

One of the things that endeared my husband and me to getting a Lab puppy was that sweet little puppy breath that they all have. A year later all that sweetness has gone and been replaced with something

quite foul. Is that typical in all dogs or just Labs and is there anything I can do about it?

Sandra D., Burnt Chimney, VA

Dear Sandra,

Bad breath in dogs can be caused by what they eat. Some dogs will eat just about anything and some of what they eat can be downright disgusting. Keep them away from garbage and worse. In many cases, bad breath can be resolved by properly maintaining your dog's oral hygiene. It may be a simple matter of brushing its teeth on a regular basis to prevent plaque buildup or periodontal disease. If you let plaque accumulate on your dog's teeth, you may have to schedule an appointment with your vet to have it removed. While your dog may get used to having its teeth brushed, having plaque removed by a vet can be unpleasant and may require anesthesia. Some doggy chews may help prevent plaque buildup, but that's like saying a breath mint in the morning is going to cure your morning breath after a garlic, salami, anchovy, hot pepper, Italian sausage pizza from the night before. And remember, it was you who trained it to pick up dead ducks, dead pheasants, dead grouse, etc.

Dear Luke,

What can I do to help prevent my dog from getting arthritis when it gets older?

Barbara K., Dillwyn, VA

Dear Barbara,

This question I would pose to your vet. However, I have heard that letting your pup or dog become overweight could bring on arthritis. So, provide quality dog food but keep a close eye on your dog's weight. If you hunt your dog in the cold and rain, always make sure you take some towels with you to dry your dog off before returning home, especially if it is not riding inside the car with you where you have the car heater on. Sticking it in a crate in the back of a pickup while driving home in 30 degree weather after you have been on a waterfowl hunt and then leaving it outside in a cold dog house is asking for problems down the road.

Dear Luke,

I have two young children who are studying animals in school and have taken an interest in bird watching. Do you have any suggestions as to what book I can get them to help identify birds that come to our backyard feeder?

Lou M., Tick Bite, NC

Dear Lou,

Ol' Jones and I often sit in our backyard and watch birds feed using the 6<sup>th</sup> edition of *National Geographic Field Guide to Birds of North America*. It is a great way to unwind and spend quiet time with your children. (Note: When watching birds children have to be quiet.) You might enjoy an enlightening book, *The Genius of Birds*, which relates that some birds are a great deal more intelligent than we thought.

*Luke spent many sunrises hunting up good stories with Clarke C. Jones, and thankfully, left us a cache of colorful tales. You can learn more about Clarke and Luke at [www.clarkecjones.com](http://www.clarkecjones.com).*



# A Walk in the Woods

Column and photograph by Mike Roberts

One needs not to be a serious birder to know the mockingbird; nor are you required to take long, strenuous hikes to remote places to observe them. As the official state bird of five states, this rather drab-looking songster's name is scattered throughout American literature and graces a long list of song titles, lullabies, and poems. What's more, *Mimus polyglottis*, the "many-tongued" Northern mockingbird, is right at home in suburban backyards throughout the Commonwealth.

A host of avian species mimic the calls of other birds, but the Northern mockingbird is the North American champion. There are records of males having nearly 200 imitations in their vocal repertoires, including those of the belted kingfisher, Northern bobwhite, whip-poor-will, and a well-versed wood warbler, the yellow-breasted chat. Regarding the mockingbird and chat's behavioral antics, both are noted for flying high above singing perches and slowly flapping their wings in descending flight. Question remains, which bird is the imitator?

Seems one of the Northern mockingbird's favorite times to sing is at night, especially in the pallid light of a full moon. My childhood memories are chocked full of sleepless, summer nights resulting from the resident male's serenades drifting through a screened, upstairs window. The majority of such singing begins in March, peaks during the breeding season, and wanes during late summer. Non-breeding males continue the full symphony unabated. Females croon, too, but their tunes are subdued and diminish with the approach of nesting season.

Also noteworthy, the Migratory Bird Treaty Act, signed in 1916 between

the United States and Great Britain (for Canada), not only protected waterfowl from excessive hunting pressure and breeding egrets from the lucrative feather trade, it also helped save the Northern mockingbird. This international legislation ended the common practice of caging mockingbirds by prominent families of European descent; even Thomas Jefferson kept them at Monticello. Fetching up to \$50 each, they were either trapped as adults



or removed from nests prior to fledging. The practice became so popular during the 19<sup>th</sup> century eastern populations all but disappeared. Thanks to America's innovative wildlife conservation initiatives, the species has since recovered.

Easy to identify, the Northern mockingbird is a medium-sized passerine with a long tail, gray upper body and head; whitish-gray lowers; and darker wings with white bars and white wing-patches distinguishable in flight. The glaring eyes are yellow to yellowish-green and the feet and bill are black. Males and females are identical in coloration.

In Virginia, the Northern mockingbird is a permanent resident throughout the year, whereas those in northern regions are sometimes forced to relocate further

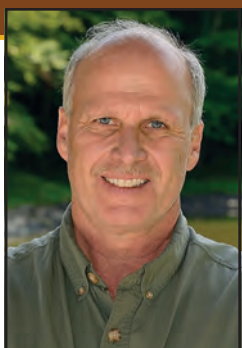
south because of harsh, winter weather conditions. During summer months, they forage on insects, other arthropods, earthworms, and a wide variety of fruit. Come winter, mockingbirds consume berries of red cedar, sumac, poison ivy, greenbrier, pokeberry, Japanese honeysuckle, American holly, dogwood, and pyracantha, which they aggressively guard from flocks of robins, cedar waxwings, and ravaging starlings.

The first attempt at nesting occurs in mid-spring; and then again in mid-summer. Both sexes are involved in nest building, utilizing large twigs for the base and outer parameters; the inner portion is lined with grasses and dried leaves. The female incubates her 3 to 5, light blue, speckled eggs for approximately 2 weeks; both adults participate in feeding the young. Northern mockingbirds are renowned for defending their eggs and young from predators, like domestic cats, rat snakes, crows, raptors, and even humans venturing too close to the nest.

Ironically, this common, backyard bird harbors behavior that has long puzzled ornithologists. Some declare their quick, 2-step, ground motion, with wings raised high, is a behavioral adaptation to startle insects for the purpose of frightening them from grassy cover; others believe it is related to maintaining territorial boundaries. As a naturalist, I'm thrilled there are some things about nature that remain a mystery. That is what keeps me going for those walks in the woods!

---

*A lifelong naturalist and wildlife photographer, Mike Roberts enjoys sharing his knowledge with others.*



## PHOTO TIPS

Column and photograph by Jim Clarke

### Don't Be Afraid to Give Fill Flash a Try!

**A**s a nature photographer, I prefer ambient (natural) light to illuminate my subjects. At times, especially when photographing birds in high contrast situations, the camera struggles to decide whether to expose for the highlights or for the shadows.

You know the situation: Half of the bird is in full sunlight, while the other half remains in deep shadows. The camera—not being too smart on its own—now must decide: Expose for the shadows making the scene overexposed or expose for the highlights, creating an image that is underexposed. What is a nature photographer to do? Fill flash to the rescue!

Fill flash uses a combination of ambient light and artificial light from a flash. The key is using just enough flash so it does not override the ambient light, making the final image appear natural without any hint flash was used. While this may seem complicated in practice, it's easy to learn and use.

Modern dedicated flash units have automatic fill flash capability, which automatically balances the flash output with ambient light. By reviewing the camera's LCD monitor, you can review the results and adjust as necessary. The key is not to override the natural light; you want just enough flash to "fill" in those dark areas.

Even with automatic fill flash, some adjustment to the output may be necessary; but again, it's easy to do. Flash units allow adjustments to lower or increase the amount of flash exposure. From my experience, I set my flash compensation between -1 to -1.7 stops. I find this provides enough flash to illuminate the portion of the animal in deep shade, but not override the ambient light. Each situation will vary, so be sure to experiment.

In addition to reducing shadows in high contrast situations, fill flash also places a *catchlight* in the animals eye. The catchlight is that tiny reflection of the sun in the animals eye, which gives it a bit of life to the subject.

Since most wildlife will not be too close, it is important to have a flash that can project the flash more than 35 feet. To increase the range more, use a flash extender with a Fresnel lens attached to the front of the flash unit. These extenders project the



Using a dedicated flash for wildlife can add a catchlight to the eyes and solve exposure problems in tricky light situations.

flash between 75 to 100 feet. There are several models available and they are inexpensive and easy to set up. While not required, I use an extra power source for the flash so I can do a series of multiple shots before the unit has to recharge.

What about those pop-up flashes on some cameras? They can be helpful when photographing close-ups of things such as mushrooms, but they are not very useful for wildlife since they only project flash a few feet. If you want to reach beyond that a dedicated flash unit attached to the hot shoe of the camera is what you'll need. You may also want to try a flash bracket that positions the flash above the camera body.

Give fill flash a try. Adding this to your photography tool box gives you another approach to help capture more amazing and *illuminating* moments of nature and its wild cast of characters.



*A past president of the North American Nature Photography Association and former contributing editor for Outdoor Photographer Magazine. Jim is the nature photography instructor at the Chincoteague Bay Field Station, Wallops Island, Virginia. Visit Jim's website at [www.jimclark-photo.com](http://www.jimclark-photo.com) or visit him on Facebook.*



Column and photograph by  
Carol A. Heiser

Take a moment to look out your window: do you have “good” habitat for a variety of wildlife species? In most yards, office parks, or neighborhoods, we’d probably see some large trees spreading their branches over buildings, or lining the driveways or the street. Perhaps there are a few groupings of shrubs near walkways or along fence lines, or an occasional flower bed scattered here and there. As for the rest of the areas, they’re likely to be covered in a homogeneous carpet of lawn. Sound familiar?

At first glance, this might appear to be a “good” habitat, because we can see just enough vegetation for a bird to roost, or a squirrel to find a small seed, or a chipmunk to hide momentarily from a house cat. However, if we look more closely, we’d probably be hard-pressed to find thick, soft patches of decomposing leaves on the ground for salamanders to snuggle under for moisture, or large shallow depressions of standing water where frogs and aquatic insects can shelter from predators. Nor are conventional neighborhoods typically home to wide expanses of tall flowering plants or unclipped natural grasses, where bumblebees can find abundant nectar and pollen sources, and other insects can easily feed and lay their eggs.

What’s missing in so many of our constructed landscapes is the complexity that natural systems afford. In a natural



Layered landscapes improve wildlife diversity.

system, we’d find a diverse plant community growing in multiple layers. For example, in a natural forest habitat, we’d expect to see a layer of leafy mulch and groundcover plants spread beneath different sized shrubs and small trees, shielded by an overhead canopy of towering oaks or pines.

Habitats that contain this layered, complex plant structure and species diversity provide the greatest value for wildlife, because wildlife communities are adapted for—and interdependent on—the natural plant communities they

co-evolved with. Especially important are the native plant species that insects, mammals, birds, and other wildlife rely on for survival. For example, 98 percent of songbirds feed their young insects, and over 90 percent of plant-eating insects require three or fewer *native* plant families to meet their needs. The food web that supports all life is intricately linked to the natural plant community.

Native plants are those which occur within specific habitats in a particular geographic range, where they have adapted over evolutionary time to the unique physical and environmental conditions of the area, such as the geology and soil, sunlight and rainfall, and have co-evolved with the other plant and animal species found there.

Unfortunately, most of the ornamental plants we’ve put in our yards and neighborhoods are non-native species that came from other continents. Non-native plants that we’ve brought over from Asia or Europe are not recognized as a food source by North American insects that co-evolved with North American plants, and the non-natives may not provide the same nutritional value for other wildlife species.

We rely on the natural food web to survive, too. In this column we’ll share the beauty and ease of using native plants and provide practical habitat tips for sustaining many wildlife species. Let’s take another look out that window and find creative ways to share our landscape with nature.

*Carol A. Heiser is Education Section Manager and Habitat Education Coordinator at the Virginia Department of Game and Inland Fisheries.*

## RESOURCES

- ◆ *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants* by Doug Tallamy (c. 2009, Timber Press), or visit his website at <http://www.bringingnature-home.net/>
- ◆ The DGIF Habitat Partners© Program ([www.dgif.virginia.gov/wildlife/habitat](http://www.dgif.virginia.gov/wildlife/habitat))
- ◆ Virginia Native Plant Marketing Partnership ([www.PlantVirginiaNatives.org](http://www.PlantVirginiaNatives.org))

If you're looking for a *quick and refreshing* meal, this is the perfect recipe.

# Turkey Salad

Recipe and Photo by Emily George

**T**here's more to spring turkey hunting than the thrill of the hunt. It's about sustainability, an appreciation for the animal, and appropriate usage of your harvested game. At DGIF, we believe that all of these elements are essential to keeping the tradition of hunting alive and thriving. Whether you're gathering with friends after an early-morning hunt, packing for tomorrow's outdoor adventure, or preparing Sunday lunch for the family, this quick, tasty recipe is truly worthy of bringing from the field to the table. **We hope you enjoy it!**

See more of our *fare game* recipes in each issue of *Virginia Wildlife*, or visit [dgif.virginia.gov/faregame](http://dgif.virginia.gov/faregame) for more ways to bring your hunting experience full circle.

## INGREDIENTS

2 turkey breasts  
1-2 quarts of chicken broth  
(optional)  
1-2 cups mayonnaise (varies for  
personal preference)  
¾ cup raisins  
1 Granny Smith apple finely  
chopped  
1 red onion finely chopped  
½ cup pecans finely chopped  
salt and pepper

***Turkey salad is best on a  
croissant. It's also great  
on crackers or sliced  
cucumbers.***

## DIRECTIONS

- 1 Ensure that all pellets from the breast are removed before preparing. Wash and clean meat in lukewarm water thoroughly, removing all hair and dirt debris.
- 2 Boil the turkey breasts in water or chicken broth until the meat is tender and cooked-through. (Turkey meat is very tough, and over-cooking will lead to chewy meat and it will be hard to shred).
- 3 While the breasts are boiling, chop all ingredients and set aside.
- 4 Allow the meat to cool, but don't let it get cold. While the meat is warm, shred the breasts using a fork until the meat is finely shredded into edible-sized bites.
- 5 In a large bowl, add the shredded meat and then add in mayo to taste.
- 6 Add in all chopped ingredients, salt and pepper, and garlic powder (optional).
- 7 Fold in all ingredients with a spatula or wooden spoon until everything is evenly combined. Add more mayo if desired.
- 8 Serve on croissant for a sandwich or share it with crackers or sliced cucumbers. Add salt and pepper as desired.



It's time to go fishing!



Learning to identify important plant species like poison ivy.

# The Virginia Wildlife Grant Program

Getting kids involved in outdoor activities and teaching them about nature are the only ways that many of our favorite hobbies and pastimes will continue to exist. That's why the **Virginia Wildlife Grant Program** provides a funding source to local non-profits, schools, and government agencies with a focus on *connecting youth to the outdoors*. These are just a few examples of the 34 projects that were funded in 2018 reaching nearly 5,500 kids! *Please help us reach even more this year.*



## Supporting the grant is easy!

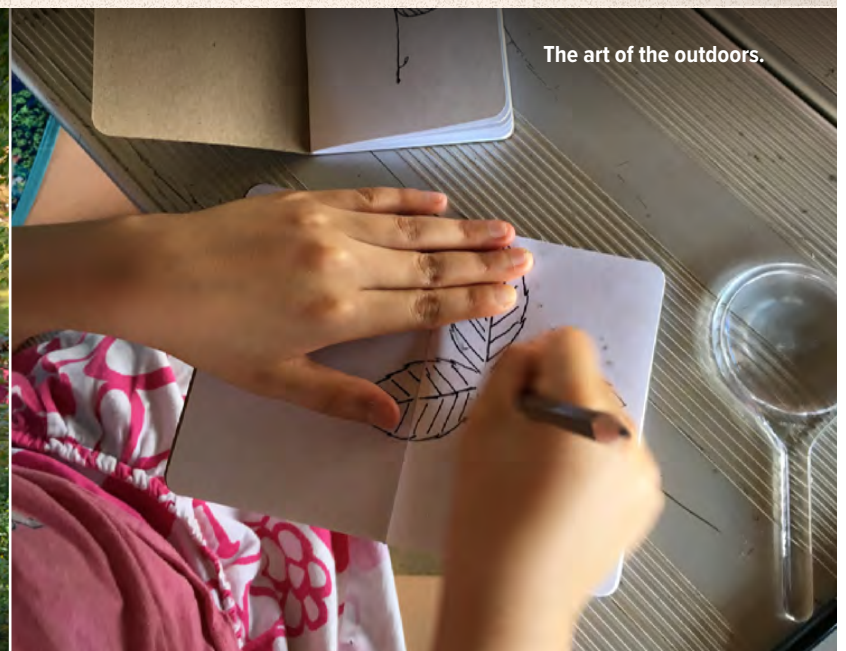
**BUY** – A portion of all sales from **ShopDGIF.com** are used for the grant.

**DONATE** – If you'd like to get directly involved, we work with individuals and local businesses to tailor giving plans. Contact DGIF's Tom Wilcox at [Tom.Wilcox@dgif.virginia.gov](mailto:Tom.Wilcox@dgif.virginia.gov).

**BE SOCIAL** – The biggest way you can help is to spread the word. Please, tell your friends and family about our cause.



Enjoying the great outdoors, together!



The art of the outdoors.



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