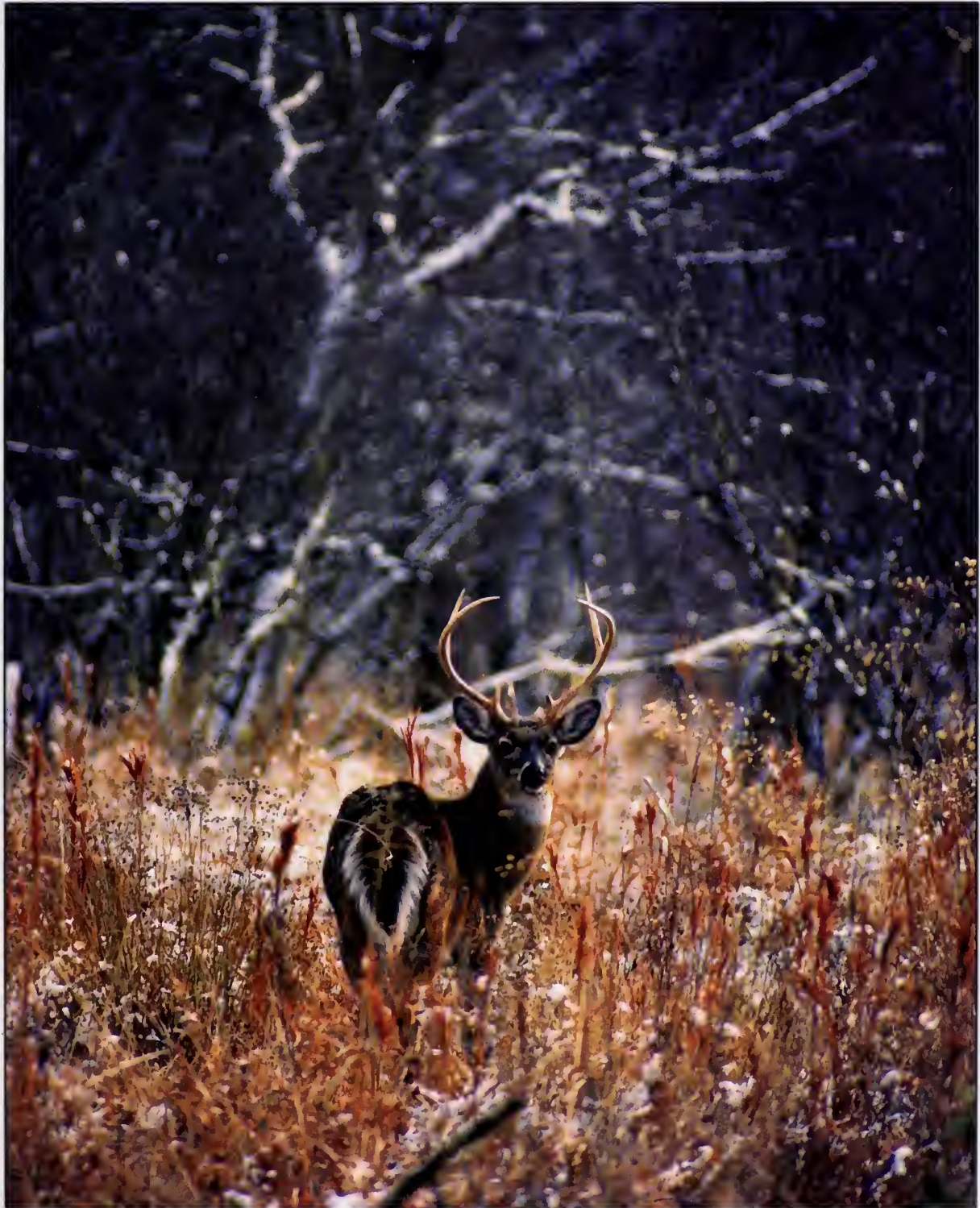


VIRGINIA WILDLIFE

DECEMBER 1990

ONE DOLLAR



Guest Essay

Silence in the Woods

by Tim Clark

We have not heard gunfire in our woods this month. There seem to have been fewer men and boys with rifles patrolling the roads. I have not seen, as I did several times last fall, the head of a buck, ready to be weighed, lolling off the tailgate of a pickup parked at our local variety store.

All this comes as a surprise in this little New Hampshire town, where deer are often seen frozen in our headlights. It has been a poor year for acorns. The deer have left our hardwood ridges for the cornfields and orchards of the valleys. The lack of forage has pushed even wilder beasts out of their normal lurks. A neighbor told me he found the tracks of a bear, not far from his house, in last week's early snow.

But perhaps a lack of acorns is not the only reason for the silence in the woods. There are more people like me living in this town now. I do not hunt; I never have. This is not a moral stance. I grew up in a place where the only deer were made of cast iron and stood frozen in the flower beds. I have never owned a rifle, have never fired one, and probably couldn't hit anything with it if I did. Hunting is hereditary, and I lack the gene.

More and more land has been posted against hunting, enough to worry officials at the state fish and game department. If too much land is locked up, they fear, the state may have to buy easements from landowners or lease land for hunting.

Those officials say that people who post their land do it because they don't like hunting or have had "bad experiences with hunters." That's one of those limp phrases that cover a multitude of sins. A bad experience with hunters, I suppose, could be anything from discarded beer cans to homicide.

I have never had a bad experience with hunters, though, and maybe that is why I don't post my land. I don't think it is neighborly to hinder people, some of whom have lived here a lot longer than I have, in their traditional pursuits. Hunting is an old thing, men and boys walking patiently under the last parchment-colored leaves of the beeches. I like old things, old houses, old customs. That might change if I found a bullet hole in my house—or in my dog.

But until I do, I'd rather not strain the already ragged fabric of our community. My neighbors are serious people. If I put up signs that say "No Trespassing," they may take me at my word. He doesn't want to be bothered, they might think. Let's not bother him. The price of silence in my woods might be silence at church, at the post office, at the general store.

The fact that I grew up in a different place, in a different way, is barrier enough already. We don't have much in common, my neighbor and I, except the land we share. If he finds bear tracks in our snow, I want to hear about it.—reprinted with permission from *Yankee magazine*, November 1988



photo by Leonard Lee Rue III



Snow goose hunting requires patience, skill and hope—see p. 4.

VIRGINIA WILDLIFE



Front Cover

White-tailed deer; photo by Lloyd B. Hill. Back cover: Winter sets into our mountain streams; photo by Bill Lea.

Features

- 4 **Promises of Winter** by Curtis Badger
Hunting snow geese in Virginia is full of promise, though your dreams don't always come true.
- 9 **War of the Wood** by Mike Fies
Animal rights activists take aim on hunters.
- 17 **Virginia Wildlife Gallery**
A profile of artist Robert Flowers
- 20 **What Kind of Buckshot Are You Shooting?** by Steve Ausband
Steve Ausband relates the results of his "garden testing" of the most popular buckshot loads. Find out which buckshot load will give you the best results in the field.
- 25 **A Good Way to Hunt** by Bob Gooch
Although it has come under fire recently, hunting deer with dogs is an old and honored tradition in many Virginia counties.

December Journal

- | | |
|--------------------|---------------|
| 29 News | 32 Recipes |
| 30 Family Outdoors | 33 Habitat |
| 31 Boating Safety | 35 1990 Index |

Promises of Winter





Hunting snow geese in Virginia is full of promise, though your dreams don't always come true.

by Curtis Badger

Hunting snow geese takes on a new dimension, especially when you're lying flat on your back waiting for the geese to come into your decoys; photo by Curtis Badger.

It had been cold for the past week. The temperatures had been in the teens and twenties, and the farm we were hunting was littered with crusty patches of old snow. Had the temperature been about 15 degrees warmer, the ground would have been a muddy mess. Instead, it was rock hard, and cloudy patches of ice glistened in our headlights as we drove to our hunting area in a field that bordered a seaside salt marsh.

By the time the eastern sky began to glow, we had put out six dozen snow goose and Canada goose decoys and had constructed a makeshift field blind by threading boughs of bay myrtle through a 12-foot section of wire fencing, which we pulled around us. We wriggled into white coveralls and settled into our blind, making a few final adjustments to the myrtle boughs. I loaded my double with number three steel, and my hunting partner, Grayson Chesser, loaded with steel BBs. It was the first season in Accomack County in which steel shot were required, and we were interested in seeing how the controversial loads would perform against

large waterfowl such as Canadas and snow geese. We wouldn't have long to wait.

Watching the sun rise from a goose blind is like watching the curtain slowly rise on nature's own theatrical production. Shapes and forms emerge and suddenly become familiar. Sparrows flit among the undergrowth. The stars grow dim. And suddenly the opera begins. It's faint at first, barely audible. "Ha-ronk, ha-ronk." Then slowly it becomes louder, and against the orange glow in the eastern sky you see the ragged V-formation of geese. You try to hunker down and disappear while you blow an unconvincing goose routine on your call. You know you shouldn't, but you can't help glancing up occasionally to monitor the progress of the geese. They're coming, and the adrenaline begins to flow.

The next few moments are what goose hunters live for. Will the birds come in, or will some slight movement spook them? Will some instinctive safety mechanism urge them to fly elsewhere, or will your decoy rig

and your call lure them to within range?

When geese are circling your rig, seconds seem like an eternity. The noise is chilling, not only the haunting "ha-ronk, ha-ronk" that hangs in the air all around you, but you can hear the wingbeats, the muffled strength of flight, and for an instant you seem to be at the center of something that is wild and miraculous. You want to look up and take it in with your eyes, but to do so would be to end it. So you sit with head bowed, glancing beneath the brim of your hat toward the decoys, where any second now these ghost figures will drop from the sky, wings cupped into the wind, feet forward to reduce air speed, and you will rise stiff-legged on the frozen earth and in a violent split-second provide the denouement that will end this particular drama.

It doesn't always end like this. More frequently, the birds will give you a passing look and continue elsewhere. Sometimes they will circle, notice a subtle movement, perhaps the glint of a gun barrel, and they will be on their way.



This is the way it was on that Saturday last winter. For the one flock that came in, we saw 100 flocks pass by. These were greater snow geese, magnificent white birds which had bred far to the north, in the Arctic Circle. In the early part of this century their numbers had dropped precariously low, but now, on a December morning on a seaside farm on the Eastern Shore, we saw more snows than existed on this continent three-quarters of a century ago.

They traded back and forth along the coast in huge flocks, following the margin that separates the mainland from the coastal barrier islands, where they had spent the night. Now and then a flock would circle and drop, disappearing behind a distant haze of pine woods to land in a cut-over soybean field.

Hunting snow geese is a tantalizing combination of hope and despair, of promise and promise unfulfilled. Tom, our four-year-old, has a daily after-dinner ritual of watching old roadrunner cartoons on TV. For two generations now the coyote has futilely pursued the roadrunner, using every trick of his creator's fertile imagination, always with enthusiasm, but always to no avail. I often feel like the coyote when I'm hunting snow

geese. "He never will catch that old bird," Tom says.

Grayson, my hunting partner, worked as a guide back in the late 1970s when the snow goose season had just reopened after a closure of more than 50 years. In those days, the geese fed almost exclusively in the ponds and salt marshes of the barrier islands, where they would rip cordgrass from the marsh and eat both root and stem. "Back then, when the season re-opened in 1975, the geese would come to decoys easily," he says. "I had two dozen shell decoys and some floaters I had painted white, and they'd come straight in with no hesitation. We'd shoot our limits and for the rest of the day the geese would sit on the ponds while we shot ducks. When we would shoot they'd fly off, and in a few minutes be back. Sometimes they didn't even fly at all."

Snow geese are considerably smarter now. They no longer limit their foraging to the salt marsh, but, perhaps taking a cue from Canada geese, they have learned that there is good eating in farm fields, especially where farmers have planted winter crops such as wheat or rye. Unlike Canada geese, which clip the tender green shoots of grass at ground level, the

Snow goose numbers are much greater in the Chesapeake Bay region today than they were 75 years ago. In addition, although historically a bird of salt marshes, the snow goose has learned to take advantage of the abundance of food in winter wheat fields, much to the dismay of some farmers and the delight of hunters. Above: photo by Curtis Badger. Right: photo by Rob Simpson.



snows pluck the plant from the ground and devour it, leaving no roots to regenerate. For this reason, snow geese and farmers are not great friends. Permission to hunt usually comes easily.

While snow geese have increased their range in recent years, they have become more wary, more difficult to bring into decoys. Although we saw thousands of geese that Saturday last season, we had only three small groups and a few singles come to our decoys. From dawn until about 2 p.m. we killed six birds, a successful trip, but frustrating if you measure success by the percentage of birds decoying to you. At 8 a.m., with the sky decorated by endless strings of snow geese, I assumed we'd have our five-bird limits by 9, and then celebrate over hot cakes and sausage at a restaurant nearby. Instead, we earned our six geese by spending seven hours hunkered down in the middle of a field, the temperature in the teens, winds coming off the water at 25 knots.

In most forms of goose hunting, the general procedure is to put out a lifelike rig of decoys, hide yourself well, and wait for passing birds to respond to your offering. But when thousands of snow geese are moving

about, a rig of a few dozen decoys has little effect. If hundreds of geese are pouring into a field a mile north of you, your impeccable rig of six dozen plastic decoys is not going to alter the travel plans of subsequent flights. To hunt snow geese, you find out which fields the birds are using, and that's where you go. "They stay in huge masses and they fly high," Grayson says. "If a field is filled with white geese, a flock flying at 1,000 feet can spot them five or six miles off, and that's where they are going to go."

On Monday following our Saturday hunt, writer George Reiger called and said the snows and a few Canadas were using his farm, so before dawn on Tuesday, George, Grayson and I were setting out decoys by the headlights of our trucks. The temperature was still in the teens, and ever-resourceful Grayson had brought along a rechargeable electric drill, which we used to make holes in the frozen ground to accommodate our stick-up decoys. By dawn, we had put out well over 100 decoys, including full-bodied snows and Canadas, shells, wind sock decoys, silhouettes, a few duck decoys, and even three swans. A few patches of snow remained, so we dressed in white, covered ourselves with white sheets,

and lay on our backs among the decoys.

On that morning we were favored by the Canada geese, which came in early, while the snows were still making their morning forays along the barrier islands. By 8:00 we had limits of two Canadas each and left the birds to feed unmolested. As we watched the decoy layout from George's backyard, small groups of eight to 12 Canadas would come confidently to the decoys, without so much as a circle to look things over. They would come in low, set their wings 50 yards out, and glide in without worry. The snow geese, on the other hand, came in high, and most of them ignored our rig. Some would circle several times, at an altitude of more than 100 yards, and then head elsewhere. But a few began to land, and George told us later that by afternoon the field was filled.

Two days later, taking advantage of a week of frigid weather between Christmas and the New Year, which drove thousands of geese southward, we went again, this time hoping for snow geese. Just after dawn the birds would rise from their roosting areas along the barrier islands and head for the mainland to forage in fields of winter wheat. We lay on our backs



and watched flock after flock go over, and around us, their white bodies glowing like gold in the early light.

We killed seven snows and two Canadas that day, and all seven of the snows were immatures, still bearing the smokey gray feathers of youth. They had come to us one, two, or three at a time, circling endlessly as if looking for a familiar face, and finally they would reluctantly drop to within gun range and we would take them. The older birds kept their distance, some subtle safety mechanism clicking in the back of their brains, warning them away.

We enjoyed a week of remarkable goose hunting, memorable not for the number of birds we killed, but for the incredible experience of lying on our backs at dawn amid soybean stubble and watching the violet sky sparkle gold and white with thousands of geese. Shortly after the new year the weather warmed and the snows retreated northward, leaving us our few stray packs of winter-resident Canadas.

In recent years snow geese have provided coastal hunters with an alternative to Canada geese, for generations a bird of tradition and legend in the Chesapeake area, but which in recent winters has tended to concentrate its numbers in states north of us. While in the past 10

years Canada geese have become reluctant to migrate in great numbers to Back Bay and the coastal Carolinas as they once did, snow geese are still plentiful. The result is a generous limit of five birds per day, and a season which runs from early November through the end of January.

In Maryland's Chesapeake Bay area, in particular, the number of wintering Canada geese had declined (although Virginia's wintering populations have remained stable). As recently as 1986, the mid-winter aerial survey conducted by the Maryland Department of Natural Resources indicated that there were more than a half-million Canada geese in their Chesapeake Bay area. Last year, that number fell below 200,000, the lowest total ever.

Yet, the population of snow geese has risen to nuisance proportions in some areas, as the birds congregate in farm fields and devour winter cover crops. Frank Smith of Bombay Hook National Wildlife Refuge on Delaware Bay has watched the birds evolve from marsh feeders to field feeders. "We've traced their movements here and we've found that they make some significant daily trips to feed," says Smith. "Geese that stay on the refuge at night fly as far as the Chesapeake Bay Bridge to feed during the day."

Smith says that biologists have

banded snow geese and dyed them yellow to track their migration patterns. During the season, geese banded at Bombay Hook have turned up on the coasts of Virginia, North Carolina, and New Jersey, indicating that the birds move around quite a bit.

The influx of snow geese is a ray of hope for waterfowl hunters, who have seen the populations of most duck species fall precipitously for three decades. But to be successful, hunters need to alter their techniques, and their expectations. Your rig of three dozen decoys that seduced so many Canadas is not going to turn that flock of 200 snow geese flying a half-mile high and headed for a wheat field 10 miles from their roost.

Snow goose hunting in the 90s is likely to require more scouting than skill with decoys and call. The key is to find out where the birds are going and to get there first. Otherwise, you might spend the morning watching the sky, admiring those thousands of majestic birds whose black-tipped wings catch the early light, as they fly off to join their kin in some distant field of winter wheat. □

Curtis Badger is director of publications for the Wildlife Art Museum of the Ward Foundation in Maryland and is a frequent contributor to Virginia Wildlife.

Like the snow goose, the Canada goose has also taken to foraging in the abundant winter wheat fields along its fall migration route. But, because larger numbers of Canadas are "shortstopping" their migration journey north of Virginia, the increasing numbers of snow geese spending the winter in the Chesapeake Bay are a welcome sight to waterfowl hunters; photo of Canada goose by Garry Walter.



War of the Woods

Animal rights activists take aim on hunters.

by Mike Fies

Until recently, I never really took the anti-hunting threat seriously. I considered it more of an annoyance than a threat, a bunch of outdoor illiterates with nothing better to do than harass law-abiding sportsmen. I convinced myself that no one was listening to the animal rights crusaders. I didn't want to believe that hunting could ever be banned. By ignoring the problem, I was hoping that it would just go away. Unfortunately, like a festering sore, the problem has done nothing but get worse.

The sobering truth is that the anti-hunters are gaining momentum. The public is listening to the distorted logic propagated by hunting prohibitionists from around the country. Tempted by controversy, the media is showcasing the anti-hunting message on the six o'clock news and on television talk shows. Articles like



photo by New Jersey Fish and Game Department

"Should Hunting Be Banned?" are appearing in respected magazines like *U.S. News & World Report*. In the courtroom, animal rights activists are using the legal system to block legitimate and necessary hunts. And in the field, anti-hunters are harassing sportsmen on public and private lands.

In the midst of this all-out war on hunting, most sportsmen are sitting comfortably on the sidelines. Too many sportsmen consider hunting to be an inalienable

right, not a privilege to be guarded. Hunting is taken for granted as a time-honored tradition that will always endure. To the general public, our passive response to the brutal barrage of anti-hunting artillery has implied a lack of concern. The message is clear: Hunters need to confront the animal rights extremists now, before hunting becomes a pursuit of the past.

Consider what happened in California this past year. Hunting prohibitionists successfully persuaded California voters to ban mountain lion hunting in the state. On the surface, the California Wildlife Protection Act of 1990, also known as Proposition 117, sounded like a reasonable conservation measure. In reality, however, it was a well-packaged anti-hunting hoax. The new law circumvents the authority of professional wildlife managers and replaces

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

Aldo Leopold



Above: It is a fact that Mother Nature is not gentle in dealing death to animals. Overwhelming numbers of white-tailed deer will die prematurely of starvation, predation or disease in Virginia if not hunted to maintain healthy populations; photo by Jean Fogle.

rational scientific management with political tomfoolery. The "antis" won their battle by erroneously claiming that the mountain lion was in danger of extinction. Both the U.S. Fish and Wildlife Service and the California Department of Game and Fish refuted this claim. In reality, mountain lion populations were growing, and land-owner-cougar confrontations were on the increase. Yet the anti-hunters won the battle by swindling the public and the media into believing that a hunting ban was necessary to protect this "endangered" species.

Unfortunately, the madness didn't stop there. Proposition 117 also calls for the acquisition of \$900 million for mountain lion habitat over the next 30 years. A large portion of the funds necessary for this acquisition, approximately \$15 million a year, are to be diverted from existing wildlife management budgets. By robbing already scarce funds from important wildlife conservation programs, many animal species that are truly endangered will be adversely affected. Facing drastic reductions in programs and services, as many as 38 wildlife

biologists are expected to lose their jobs in the upcoming year.

Before the smoke cleared on this mountain lion issue, anti-hunters proceeded to ban black bear hunting. Using another tactic, animal rights extremists challenged bear hunting as a violation of the California Environmental Quality Act (EQA). The California EQA requires detailed environmental assessments be prepared for any actions affecting the environment. The Fund for Animals took the issue to court, contending that the California Department of Fish and Game did not prepare an adequate environmental impact statement prior to the hunt. A sympathetic judge sided with the anti-hunters, and the hunt was cancelled.

Admittedly, California has the reputation as a breeding ground for "unusual" thinking. But if you think the anti-hunters will stop there, you might as well stick your head back into the sand. I recently received a copy of the following letter from the Committee to Abolish Sport Hunting (CASH), an anti-hunting group based in White Plains, New York.

Read it and weep.

Dear Anti-Hunter Crusaders:

I would like to take this time to bask in glory of the recent victories that we have won . . . We have closed down the sport of hunting Bear and Mountain Lion in the State of California, and are ever so close in Colorado, Montana, Wyoming, Idaho and Washington. We have achieved this by using the legal system and forcing environmental studies . . . What we have found is that the States do not have the funding nor manpower or time required to accomplish this . . . We are planning to do the same in the State of Illinois, but for Whitetail Deer hunting . . . That's right, Bambi will be safe from all those cruel hunters . . . We need your help in our fight by sending us your tax deductible donations. Remember, Bambi and Yogi the Bear are depending on you . . .

Virginia also has been targeted for attack recently. On the opening day of the archery season last year, animal rights activists chained themselves to the front gate of a state park used by deer hunters to access Mason Neck National Wildlife Refuge. Six protesters were arrested and charged with



Counterclockwise: The sportsmen and women of Virginia are responsible for the abundant and thriving populations of wild turkeys in the state, through their financial support of research and restocking projects; photo by Lloyd Hill. The hunters of this country are also responsible for the most important gift to wildlife of all—habitat—over 4 million acres of it, plus the conservation stewardship of 50 million acres more; salt marsh photo by Rob Simpson; York River photo by Spike Knuth.



trespassing. The bow hunt continued, but not without the protesters receiving nationwide media attention. This year 32 demonstrators protested the hunt without incident.

However, the proposed shotgun hunt for deer on Mason Neck did not survive the animal rights assault. Using the now familiar "endangered species" ploy, prohibitionists sued the U.S. Fish & Wildlife Service on the grounds that the hunt was a public safety hazard. The "antis" whipped up such a frenzy that nearby residents feared for their school children's lives. The principal of an elementary school four miles from the hunted area vowed to keep the students indoors, safe from the hunters.

The hysteria masked a safe and effective plan to control the ballooning deer herd on Mason Neck Refuge. Biologists on the refuge, located just 14 miles from Washington D.C., estimated deer populations to be over 100 per square mile, far beyond the numbers that the available habitat would support. Without some attempt at herd reduction, a significant die-off would be inevitable. Almost a year in the planning, the proposed hunt was not only safe from a public safety standpoint, but was also painstakingly designed to

completely eliminate any potential disturbance to the eagles roosting nearby. Non-hunting zones were established around nest sites and no hunting was to be permitted within 1/4 mile of any roosting areas. A buffer zone of at least 270 yards was also established around all residential areas. Hunting would also not be permitted within 100 yards of any road. In all cases, these proposed safety standards equalled or exceeded state and county guidelines.

When the case finally reached the courtroom, the presiding judge ruled to postpone his decision until he could visit the refuge personally. Just weeks before the proposed hunt, the judge broke his leg and was unable to tour the area. The case was continued until the following year, and the hunt was cancelled. The anti-hunters were once again successful in manipulating the legal system to benefit their campaign.

Not all animal rights extremists are content with working within the bounds of due legal process. Several "radical" groups have resorted to violence and terrorism to get their message across. Perhaps the most militant of these organizations is the Animal Liberation Front (ALF). These extremists have raided research

Hunters have not neglected endangered and threatened nongame wildlife either. One out of every 10 projects undertaken during the mid-1980s was devoted to nongame wildlife, all funded out of the sportsman's pocket. In addition, in 1982, the Virginia Department of Game and Inland Fisheries (operating solely by sportsmen's dollars) initiated a Nongame and Endangered Species tax checkoff program, which is supported by both hunters and nonhunters. Right: Bald eagles, one of the many endangered species whose recovery in Virginia has been supported and funded by the Department of Game and Inland Fisheries; photo by Gregory Scott.

The anti-hunting sentiment erupted in Northern Virginia at Mason Neck National Wildlife Refuge last year and this year as protesters attempted to stop a bowhunt on the area and threatened a safe, effective, and humane plan to control deer herds on the refuge. The protesters do not seem to recognize the fact that since the early 1900s, hunters and trappers have restored, not destroyed wildlife in this country. The sportsman's stellar record in wildlife recovery, restoration, and conservation, both of game and nongame species, makes any question of their motives not only ludicrous, but incomprehensible; photo by Jack Remeau.





labs, destroyed property, and threatened lives. They view pet ownership as "slavery." Among their bedfellows are such organizations as the People for the Ethical Treatment of Animals (PETA) and the Humane Society of the United States (HSUS). The fanaticism of PETA is typified by Director Ingrid Newkirk's quote that "A rat is a pig is a dog is a boy." The HSUS, which claims to be more "mainstream," simply wants to "educate" the public about animal welfare. At a recent conference entitled "Humane Solutions to Problems With Urban Wildlife," sponsored by HSUS, I learned that live-trapping

and relocating nuisance rats was unacceptable because it caused too much "stress" on the rats.

A new anti-hunting organization called "Noah's Friends" has recently taken to the television airwaves in Richmond, Virginia. Claiming to be the "voice of the animals," they have their own call-in talk show in which viewers have the privilege of chatting personally with invited conservation "experts" from other animal rights groups. During a recent program entitled "The Myths of Hunting," hunters were referred to as "murderers" and harassment of law-abiding sportsmen was likened to the civil

disobedience espoused by Dr. Martin Luther King. Specifically, donations were solicited to pay the rent on a Richmond billboard that depicts a "trapper" crushing the rib cage of a coyote, with a caption reading: "Your Fur Coat is Almost Ready."

Although often sensationalistic in their attacks on hunters, animal rights groups will not hesitate to use more subtle tactics. For example, when 11-year-old Daniel Haupt (son of Virginia Game Warden Lieutenant Lee Haupt) purchased a "Mountain Boy" sweatshirt at the J.C. Penney store in Staunton, he had no idea that an anti-hunting message was printed on one

The restoration of black bear in Virginia is one of many success stories attributed directly to the support of the sportsman. Funded solely by hunting license receipts and the returns from a federal excise tax on sporting guns and ammunition, research projects carried out on the black bear have resulted in vital information on the animal, thus allowing the Virginia Department of Game and Inland Fisheries to restore and maintain healthy populations of the animal in the state and initiate a successful restocking program of the black bear into its historical range in southwest Virginia; photo by Bill Lea.

of the tags. Not until he was home and attempting to remove the tags did he notice the portrait of a bird hunter aiming a shotgun, over which a large red "X" had been stamped. The words "Absolutely No Hunting of Wild and Free Animals While Wearing This Garment" were printed beneath the picture. Specifically targeting young boys' clothing, anti-hunters were attempting to portray sportsmen as enemies of wildlife.

The good news about this particular story is its happy ending. Outraged by this attack on hunters, sportsmen's groups nationwide criticized J.C. Penney for their apparent anti-hunting stand. Apologizing for their mistake, J.C. Penney promptly removed the "Environmental Protection Department" line of clothing manufactured by Cotler Co., makers of "Bugle Boys" clothing from the shelves of their 1,330 stores across the country. J.C. Penney contends that they purchased the clothing from a supplier and were unaware of the anti-hunting tag.

With hunter harassment now in vogue, some anti-hunting attacks are becoming increasingly violent. In Connecticut, a deer hunter suffered a neck fracture when he fell from a tree stand that had been sabotaged by animal rights extremists. Its supporting struts had been sawed most of the way through, so that the entire structure would collapse under the weight of the next unsuspecting hunter. In New Jersey, a bird-hunting club was besieged by eco-terrorists attempting to protect game birds that had been



recently stocked on the area. Six-inch sharpened spikes were buried in dirt access roads and roofing nails had been scattered along jeep trails. Bowls of dog food containing rat poison and ground glass were placed in the thickets next to the roads. A sign that read "If the hunting doesn't stop, the poison will stop your dogs" was found nearby. Large leg-hold traps had also been set for the bird dogs.

These types of brutal assaults on law-abiding sportsmen (and ironically enough, their animals) have led 38 states to pass hunter harassment laws. A national bill to protect the rights of hunters on federal land has also been introduced. In general, hunter harassment laws make it illegal to impede or intentionally interfere with lawful hunting. Violations are usually a misdemeanor, with maximum fines ranging from \$500 to \$1,000 or a short jail term. To test a new Maryland law, animal rights activists on the McKee-Beshers Wildlife Management Area followed hunters into the woods and "rustled leaves" to scare away deer. Six were arrested and one activist spent 15 days in jail.

No hunter harassment arrests have yet been made in Virginia. In attempts to overturn these new laws, anti-hunters claim that hunter harassment statutes are unconstitutional and infringe upon their right to free speech. So far, with the exception of a Connecticut ruling, the courts have upheld the constitutionality of these laws. Verbal hunter harassment has been classed as an exception to free speech, much like libel, slander, and yelling "Fire!" in a crowded movie theater.

As a concerned sportsman, you are probably wondering what you can do to turn the anti-hunting tide. Here are some suggestions:

1. Know the facts. Contrary to what the animal rights activists will tell you, hunters founded the conservation movement at the turn of the century and are solely responsible for the restoration of many wildlife species. In Virginia, the scientific rebuilding of deer, bear, and turkey populations from the brink of extinction to their presently thriving numbers was accomplished exclusively with funds generated from sports-



Gallup poll, however, reveals that quite the opposite is true. Of 1,000 randomly selected telephone respondents greater than 18 years of age, only 21 percent supported the animal rightist's goal to ban all forms of hunting while 77 percent opposed anti-hunting efforts. Even more significant, only 9 percent of those surveyed approved of anti-hunting tactics that harass hunters in the field and disrupt hunts, while 90 percent opposed such activities. In direct contradiction to the lies promulgated by animal rights activists, a vast majority of the public does not share their twisted views or support their sleazy tactics.

2. **Talk rationally and expose contradictions in the anti-hunting agenda.** Although it's admittedly difficult, hunters must act with a great deal of restraint when countering the animal rights crusaders. Angry and violent retaliations will only further the efforts of prohibitionists to portray hunters as "barbarians." Don't waste your time trading punches with staunch animal rights activists; they will not listen to logic or reason.

It is important, however, that "the rest of the story" be told to the millions of Americans who neither hunt nor are opposed to hunting. Expose animal rights activists for the publicity-seeking zealots that they are. Point out the fact that most animal rights organizations are also opposed to all medical research involving animals, including research that is critical to human health care. Explain how most hunting prohibitionists are also against the use of animals for any purpose, including for meat or clothing. Livestock operations have been equated to "Nazi concentration camps." Some are even opposed to taking milk from cows or honey from bees. It should immediately become apparent to most Americans that the animal rights activists are advocating an alien life-style.

The non-hunting public should also be made aware of the shameful expenditure of funds by animal rights groups purporting to "protect" wildlife. With an estimated annual budget of \$90 million, no monies have been used to purchase lands for wildlife or

to fund necessary wildlife research. Virtually every dollar that is raised is used to send out desperate pleas for more money, or to pay the salaries of their administrative and legal staffs. In contrast, over \$500 million is generated annually by sportsmen who support genuine wildlife conservation programs. These funds have been used to purchase over 7 million acres of critical wildlife habitat and to manage more than 50 million acres for wildlife. Plus, in the mid-1980s, one out of every 10 projects undertaken with sportsmen's money was designed specifically to benefit nongame species.

The general public must also be educated to the stark realities of life in the wild. Anti-hunters would like everyone to believe that wild animals live free from danger in enchanted forests when, in fact, survival is a constant struggle. Cartoon characters such as "Bambi" are used by anti-hunters to fuel false and idyllic perceptions of Mother Nature. Conservationists must counter emotional distortions with honest biological facts. Society must be made to understand that the abolition of hunting will not protect wild animals from death. In the absence of hunting, animals will die from predation, disease, or starvation. Regulated hunting is nothing more than the biologically managed harvest of animals that would otherwise be harvested by Nature. The real threat to wildlife is not hunting, but the degradation and continued loss of critical habitat caused by our burgeoning human population.

3. **Promote hunter ethics.** All sportsmen must strive vigorously to improve the hunter's image. Animal rights crusaders are winning public support by unscrupulously portraying all hunters as "bloodthirsty nuts" and "shoot-anything Rambos." Law-abiding sportsmen must lead their own crusade to eliminate unethical "hunting" and promote themselves as the "good neighbors" that they really are. Illegal hunting cannot be tolerated in any way, shape or form. It is *not* alright, just this once, to hunt on someone else's land without permission. We cannot afford to turn

men. Anti-hunters contend that only game species have benefitted from these monies, when in fact the recovery of many nongame animals has also been the result of sportsmen's conservation efforts. Virtually all of our national wildlife refuges, upon many of which hunting is not permitted, were purchased using funds raised from hunters. Interestingly, hunters and fishermen also comprised the majority of support for Virginia's nongame tax checkoff program. Sportsmen are the unsung heroes of the wildlife conservation movement, and they should never hesitate to take credit for the healthy wildlife populations enjoyed by all citizens.

Animal rights groups do *not* represent the views of the non-hunting public. Although it's true that only 9 percent of the U.S. population greater than 16 years of age hunts (11 percent in Virginia), it is a well-worn falsehood that the remaining 91 percent of the population opposes hunting. For years, animal rights groups have proclaimed themselves to be the self-appointed mouthpieces of the non-hunting "majority." A recent



photo by Maslowski.

The sportsman has never neglected nonhunted wildlife. As early as 1937, sportsmen's dollars generated by the Pittman-Robertson Act for Wildlife Restoration were designed to be used on both game and nongame research and restoration projects, like the flying squirrel pictured above.

our backs on bag limits and shoot just one extra squirrel or dove. The excuse that "everybody does it" is not a legitimate defense for irresponsible hunting. We need to develop a "squeaky clean" reputation among landowners and non-hunters by publicly condemning illegal activities and promptly reporting violators.

The hunter's image can also be improved through involvement in local community affairs. For example, a New Jersey bowhunting club recently volunteered to donate venison to help feed the homeless. Anti-hunters, lobbying feverishly, thwarted their efforts by claiming that the federally uninspected meat was unsuitable for human consumption. Undaunted, the bow club raised money to donate a large supply of commercial beef and ham instead. The bowhunters then publicly challenged the animal rights groups to join them in their campaign for the homeless. This type of community service goes a long way towards promoting a positive public image of sportsmen.

4. **Support pro-hunting organizations and get personally involved in the fight against anti-hunters.** Although financial support is very important, your involvement should not end there. Become politically active by sharing your concerns with your local congressmen and state legislators. Write letters to the editor of

your local newspaper and utilize the radio and television media where possible. Stand united on related issues by remembering that most anti-hunters are also against trapping, sport fishing, and animal husbandry. Boycott the products of companies sponsoring the animal rights crusade.

Since most hunters cannot afford to belong to every seemingly worthwhile conservation group in the country, sportsmen should pick and choose their membership affiliations carefully. Before joining any organization, find out how they view sport hunting. Most large conservation groups have written position statements that are available to the public. Although a number of groups profess to be in favor of sport hunting, many have been noticeably silent when their voice was needed. Limit your support to those organizations which are *actively* engaged in the fight against the animal rights movement. In the October issue of *Outdoor Life*, outdoor writer John Leahy listed five groups that he considered "fence straddlers" as well as 35 organizations blatantly involved in anti-hunting activity.

Finally, in any battle it pays to familiarize yourself with the adversary. Keep abreast of anti-hunting activities and look for constructive ways to undermine their efforts. Some conservation groups have suc-

cessfully staged counterprotests, taking the wind out of the anti-hunters' sails by intelligently presenting the hunter's side of the story. By taking the animal rights activists "head on," sportsmen are thwarting efforts by the antis to monopolize the media. More hunting organizations need to utilize these types of offensive strategies. The defensive posture maintained by most pro-hunting groups is no longer sufficient to effectively combat the aggressive assaults being mounted on America's sportsmen.

Although it will undoubtedly be a long and difficult struggle, there is no reason to believe that the anti-hunting trend cannot be reversed. With a force 16 million strong, hunters should easily be able to overwhelm those seeking to take away the hunter's privileges. But to accomplish this goal, all sportsmen must rise from their beds of complacency and meet the anti-hunting challenge, remembering that hunting is not an unalienable right guaranteed by the U.S. Constitution, but a privilege and tradition we must fight to protect. In addition, our entire system of scientific wildlife management, almost a century in the making, is at stake. It is a war that both man and wildlife cannot afford to lose. □

Mike Fies is a small game research biologist with the Department's Wildlife Division.

VW GALLERY

Robert Flowers doesn't find the inspiration he needs to begin his next watercolor project in his studio. He goes to the woods to dream. Nearly every piece of wildlife art he creates originates in the woods, and largely in the Virginia woods of his native Patrick County. Flowers will not paint a species he has not seen in the wild. And as an avid bowhunter, Flowers spends plenty of time in the woods; about

16-18 weeks per year in Virginia, North Carolina, and Canada. It is there that he finds the subjects for his next watercolor work.

"A lot of times I'll pass up a deer with my bow because I'd rather take a picture of it for later reference," says Flowers. Even at that, the accomplished bowhunter brings home between five and nine deer every season, along with photographs he will use as catalysts for new works. In fact, "On the Prowl" originated from the unexpected sight of a red fox that Flowers captured on film while accompanying a friend checking his traplines one winter.

Flowers started his painting career some 13 years ago, and has devoted himself to his art full time for about 12 years. Since then, his award-winning watercolors have been exhibited in many one-man shows, numerous private and corporate collections across the United States and Europe, and he now commands as much as

\$7,000 for an original work. He was honored with a fourth place in 1981 at the prestigious Inveresk International Artists in Water-Colour Competition in London, and has produced 17 limited edition prints.

But, it wasn't until 1986 that Flowers took up wildlife art seriously, and it has paid off. In 1990, he was awarded the Artist's Print of the Year by the North Carolina Wildlife Federation. He has completed numerous works for Ducks Unlimited, Quail Unlimited, National Wild Turkey Federation and Whitetails Unlimited and has six wildlife-related limited edition prints currently for sale.

Flowers produces about 15 serious pieces per year. After hunting season, he settles down into his studio with his photographs and memories to produce the year's work. For each large painting, he will complete some 10-15 preliminary studies to work out composition and color schemes. When he finally finishes a 24" X 36" work, he will have 250-300 hours in the painting.

Flowers works exclusively in watercolor and a little bit of wash to touch up with. "Whatever you have to do to get the message across," he says, "I do." Currently working on several black bear paintings, Flowers has a wealth of memories gained from bowhunting black bears in Canada to draw from, including a memorable occasion when a 250 lb. bear followed him up into a tree, and it took a bop on its head with Flowers' bow before the animal decided to retreat.

You can send for a brochure and information on Robert Flowers' work by writing to: Robert Flowers, Collection, 7401 Whitaker Court, Summerfield, NC 27358. □



"A Gentle Passing," by Robert Flowers

Virginia Wildlife is seeking wildlife artists to feature in our VW Gallery. We are looking for high-quality wildlife and scenic art featuring species indigenous to Virginia to profile in the magazine. Submit horizontal format transparencies (preferably larger than 35mm) for review to Emily Pels, Art Director, Virginia Wildlife, P.O. Box 11104, Richmond, VA 23230-1104. Telephone: 804/367-1000.

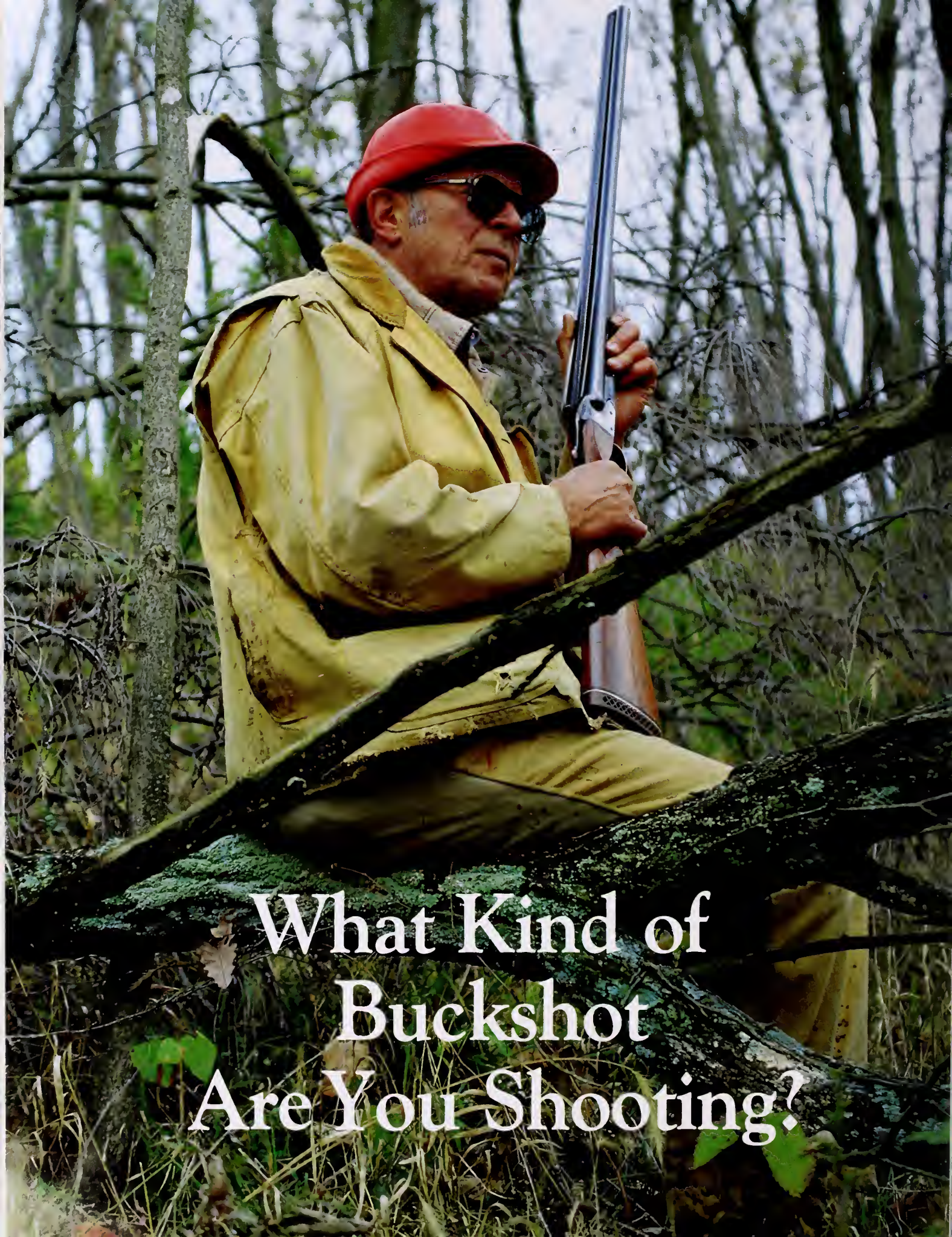


Robert C. FLOWERS, JR.

On the
by Robert



*Prowl
Flowers*



What Kind of
Buckshot
Are You Shooting?

by Steve Ausband



photo by Archie Johnson

Steve Ausband relates the results of his "garden testing" of the most popular buckshot loads. Find out which buckshot load will give you the best results in the field.

When I was a kid, most people I knew who hunted deer used shotguns and buckshot. They hunted in thick cover, usually in remote swamps, and the tool of preference was a tightly-choked 12-gauge and a load of 00 buck. That's not true anymore, especially in the central and western portions of the state. An enormous increase in the number of our deer, as well as in the areas where they can be successfully hunted, has contributed to the overwhelming preference of most Virginia hunters for the rifle. Still, deer hunters in many Virginia localities, particularly those with very dense human populations, are required by law to use shotguns and buckshot in their attempts to bring home the venison.

For that matter, I know a few hunters, even where rifles are legal, who use buckshot because they habitually hunt in extremely thick cover, where any shot that comes is likely to be close and fast. Like all other hunters, they talk about what works best—which loads and which guns are most effective. Tall tales are legion, as are stories of lucky accidents, but most responsible hunters know that the effective use of buckshot requires accurate shot placement at close range. The problems arise when the yardages get longer.

Arguments about the capabilities of buckshot are, if anything, even more indecisive than those about duck or goose loads. The very nature of buckshot makes any kind of real quantifying almost impossible. You start with a handful of fairly small projectiles (the largest buckshot, 000, weighs less than half as much as a .30-30 bullet, and travels only a little over half as fast), and you sling them down range hoping that if enough of them hit the target, at least one of them will hit something very important and result in a quick, clean kill. At close range, if the shooter does his

part, they almost always do. At longer ranges, sometimes they do, sometimes they don't and no prophet with a crystal ball can say when that will occur.

So how would you set about trying to quantify something as unquantifiable as the effectiveness of buckshot loads? In talking with local buckshot slingers, I came up with conflicting opinions about the best shot sizes. The old standby, 00, still holds onto its popularity, and it tends to dominate the shelf displays at local country stores. Lots of guys like #1, insisting that it patterns better in their guns and that it offers a compromise between the hard-hitting effectiveness of 00 and the pattern coverage of small shot. I couldn't find any supporters for #4 buckshot; some hunters had used it, but they all said it was too small to give reliable results unless the range was very close.

Most listed the advantages of buckshot as being those of a shotgun—it was easier to use in quick, close situations. The disadvantages were the range limitation and the fact that an animal hit by buckshot and not killed immediately was likely to leave very little blood trail to follow. I got some accounts of ultra-long shots—80 yards and beyond—but I also got some opinions that nobody had any business shooting at a deer at more than 50 yards with any shotgun, except perhaps a good slug gun. Buckshot has a wretched reputation as a crippler unless it is used judiciously.

I decided to devise a test for various buckshot loads, knowing all along that whatever results I came up with would be interesting but not definitive, since there is no way to rule out luck. I wanted to test the penetration of the pellets in a standard medium, comparing it with the penetration of other, more cooperative and verifiable projectiles. Then I wanted to find out how many of the projectiles I could put, using various loads and several different guns, in a target about the size of the vital area of a white-tailed deer.

The penetration tests were the first step. Experimenters have used all

sorts of things as a test medium—boards, gelatin, artist's clay, sand—and then extrapolated, making claims about the effectiveness of various loads in real tissue. None of these is very much like the real thing, and of course none offers the varying angles, the chance of deflection by bone structure, or the other problems attendant on actual field conditions. Nevertheless, some things can be learned, at least in terms of comparative performance in a given medium.

I thought boards were a little unrealistic, ballistic gelatin unobtainable, and artist's clay a bit expensive for the amount of testing I had in mind. I started with a combination of corrugated cardboard and sandy soil from the garden. I taped together cut-up boxes to make a reasonably tight, eight-inch thickness of cardboard. Behind the cardboard I placed a box containing soil, with a cardboard baffle every three inches. I figured I could divide projectile performance into rough categories; those that failed to penetrate all the cardboard; those that made it through the cardboard and into the first three inches of dirt; those that made it into the second three inches, and so forth. Not exact, by any means, but a pretty reliable comparison. All the penetration tests would be done at 40 yards.

The first thing I needed was some means of standardizing minimum performance. One way to do that is by stating projectile weight and energy, and those can be gotten out of any ammunition manufacturer's catalogue. But I thought rough penetration test with cardboard and garden dirt might be both more fun and more informative. I shot up some of my test medium, using for standards of comparison three shots each with a .30-30, a .45 automatic, a .357 magnum, a .38 special, and a .22 long rifle. The .30-30, with 150-grain factory loads, has been a reliable performer on deer-sized game since 1895. There are lots of newer, hotter, flatter-shooting cartridges, but they have never managed to make the old-timer obsolete. The .22 was chosen to represent the bottom end of the



Left to right, the different buckshot loads tested by the author: 000, 1, 00, 4; photo by Lee Walker.

scale. Though deer have certainly been killed with it, no one would regard it as in any way adequate for the job. The various pistol loads represent progressive steps in power between the .22 and the deer rifle. I wanted to see how the various buckshot pellets would compare.

The .22, loaded with CCI Mini-Mag hollowpoints, would not make it through all the cardboard, usually winding up about six inches inside the target. The .38 special made it through the cardboard and barely into the box of sand. The .45 and the .357 both penetrated the 8" of card-

board, the box, the first layer of sand, and the first cardboard baffle. (I used a handloaded 200-gr. SWC and the new Remington 185-gr. +P hollow-point in the .45; the .357 was a pet 140-grain HP handload; the .38 was a 158-grain handload that about duplicates factory ammunition.) I figured the .30-30 would zip on through all the sandy soil I had brought out of the garden, since it has about three times the striking energy of either the .357 or the hottest .45, but I was wrong. Most of the time it penetrated only a little farther into the sand than the other two, finally tearing itself to pieces just as it reached the second baffle. Most of the excess energy was apparently used in blowing itself up.

I had a rough set of standards, and they agreed generally with the minimum legal requirements in Virginia. The hunting regulations require handguns for deer hunting to fire a projectile capable of producing at least 350 foot pounds of energy. The two .45 loads both exceed the stated require-

ment, as does the .357; they also performed impressively in the test medium. The .38 does not meet the requirement, missing the minimum by about 100 foot-pounds, and the .22 misses it by over 200 foot-pounds. It was interesting to see how the theoretical energy translated into penetrating power.

The next step was to compare the performance of the buckshot to that of the other projectiles in the same medium. I tested four sizes, all in 12 gauge; the huge 000; the old favorite, 00; #1; and #4 buckshot. Each individual projectile weighs respectively, 70 grains, 59 grains, 40 grains, and 21 grains. I used magnum loads, both 2 3/4" and 3" shells, in all the testing. The results were, again, interesting—and they were absolutely predictable. The most impressive performer in the penetration test was 000 buck, followed very closely by 00, then not so closely by #1, then (not very closely at all) by #4. The #1, at 40 yards, almost exactly duplicated the

penetration of the .22—which is not surprising, since they weigh the same and are going about the same speed. The #4 buck would not get more than 4 or 5 inches into the cardboard. Each pellet has, at 40 yards, approximately the power of a .22 short. I would not count on shooting it at anything that required deep penetration, at least not a 40 yards. The 00 and 000 buckshot, on the other hand, ripped on through all eight inches of cardboard, punched into the sand box, (in the case of the 000) the first baffle. I was impressed.

My computer says that both the biggest buckshot loads start out with about the same energy as the .38 special, and they did about as well as the handgun load in the penetration tests. The #1 buckshot could be a twin with the .22 load in paper energy and in penetration. The #4 buck starts out with just over 1/2 the energy of a .22 long rifle; at 40 yards it doesn't have enough muscle left to get more than halfway to its sandy target. Until very recently, the only 10-gauge buckshot load available was in #4 buck, which severely limited the usefulness of the big gun. Now, at least two companies make a 3 1/2" ten-gauge magnum loaded with 18 pellets of 00 buck, which I imagine would be a pretty formidable tool at any decent shotgun range.

Anyway, for quick perusal, Chart 1 records the penetration results at 40 yards. Energy for the buckshot was computed using a standard velocity of 1250 fps.

That was interesting, but the results were still a little sketchy. I decided as a cross-check to use another medium—stacks of tightly bound magazines inside a box—and to test a couple of buckshot loads against the rifle and pistol loads. I had a quantity of #4 and 00 buck left over, so I decided on them. The results corresponded very well with the garden-soil and cardboard tests. Once more the 00 buck just about duplicated the penetration of the .38 special at 40 yards (1" each of tight magazine pages); the .357 and .45 loads did a bit better than that (from 1 1/4" to 1 1/2"); and the .30-30 plowed through just over 2

Chart 1 - Load Penetration Results

Load	Muzzle Energy/ Projectile	Cardboard	Soil
Cal. .30-30 (150 gr.)	1902 ft. lbs.	+8"	5-6"
Cal. .357 (140 gr.)	609 ft. lbs.	+8"	3-4"
Cal. .45 (200 gr.)	400 ft. lbs.	+8"	2-4"
Cal. .45 (185 gr. +P)	535 ft. lbs.	+8"	3-4"
Cal. .38 spl. (158 gr.)	225 ft. lbs.	+8"	0-2"
Cal. .22 LR (36 gr.)	131 ft. lbs.	6-8"	--
Size 000 bk (70 gr/ea)	243 ft. lbs.	+8"	3"
Size 00 bk (59 gr/ea)	204 ft. lbs.	+8"	2-3"
Size #1 bk (40 gr/ea)	138 ft. lbs.	7-8"	--
Size #4 bk (21 gr/ea)	73 ft. lbs.	4-5"	--

Chart 2 - Pattern Results

Average Pellets in 9" Circle

	40 yards	50 yards
Load 1 (3" mag. 000 buck)	2.5	1.8
Load 2 (2 3/4" mag 00 buck)	3.2	2
Load 3 (2 3/4" mag #1 buck)	3.6	2
Load 4 (3" mag #1 buck)	4.2	2.2
Load 5 (3" mag #4 buck)	7.8	3.8

1/2 inches of magazines. The .22 made it through 5/8" of the pages, and the poor little #4 buck barely made it to 3/8 of an inch. To put it another way, if we gave the .30-30 a score of "100," the best .45 and .357 loads would rate about a "60," the .38 and the 00 buckshot would each get a "40," the .22 (and, I assume, the nearly identical #1 buck) a "25," and the #4 buckshot only a "15." Again the comparison between the published energy figures for each projectile and the actual performance was interesting, as well as fairly predictable.

The next step was pattern testing, but I had a very special kind of pattern in mind. I did not care how many pellets went inside a 30" circle; I wanted to know how many could be placed inside the vital area of a deer. How big is that? Well, it depends on which way the deer is facing, the angle at which he stands or moves, and so forth. Still, there is a means of comparison. On some managed archery hunts, prospective hunters are required to demonstrate their ability to put their arrows into a 9-inch circular target—a paper plate—at 20 yards. If a deer is posing for a calendar portrait, standing broadside to the hunter, the vital area might appear a little larger than the 64 square inches covered by a paper plate; if the deer is angling away, the area might be considerably smaller. I figured a 9-inch plate was a good measure. It was time to begin testing.

I began the shooting at 40 yards, then moved back to 50, using full-choke guns for all the loads. I was after maximum effective range, and if I had found problems at 40 yards I would have moved closer—say to 35. What I found was that all three of the larger buckshot would do a pretty reliable job out to about 40 yds; after that, performances often got erratic. I tried five different loads; a 3" magnum 000 buck (10 pellets to the load); a 2 3/4" magnum 00 buck (12 pellets); a 2 3/4" magnum load of #1's (16 pellets); some 3" magnum #1's (24 pellets); and a 3" magnum #4 load (with a whopping 41 pellets). Five rounds of each load were fired at

40 and then at 50 yards.

The big stuff was spread pretty thin at 40 yards, but it usually would place three pellets in the paper plate. They are big pellets; at 40 yards you can count the 000 and 00 holes from the firing line. The #1 buck usually put 3 or 4 pellets on target, and the #4 buck put from seven to nine. There's a lot of holes, in the case of the #4's; the only problem is the anemic nature of the hole punchers.

At 50 yards the 000 buckshot did surprisingly well; five shots averaged between one and two hits per shot. The short magnum load of 00 averaged two hits per shot. The two loadings of #1 buck average two and just over two hits, respectively, and the number 4 buck averaged almost four hits. The average of the results appears in Chart 2.

There are the figures; now it's time to make an educated guess. Loads 1 and 2 (see chart 2) are, to my way of thinking, by far the most impressive. Anything the size of a paper plate at 40 or even 50 yards stands an excellent chance of catching two or more of the big pellets, each with about as much retained energy as a .38 bullet. Beyond 50 yards I simply would not shoot.

Loads 3 and 4 put a few more pellets in the target than the big stuff, at least at the closer range, but at the price of greatly reduced energy per pellet. Number 1 buck has a lot of local supporters who are convinced of its effectiveness, and they've used it a lot more than I have. Still, I have to wonder about its ability to penetrate and find something important everytime at ranges much beyond 40 yards. Remember, each pellet has now slowed down so that it has less oomph than a .22 bullet, and the .22 is no deer gun.

Load 5 was interesting. I am sure there is a need for a cloud of #4 buckshot at 40 yards, but I can't figure out what it is. It's too coarse for goose shooting, and it's way to small to give reliable penetration on deer. Maybe sheep farmers having trouble with coyotes would find a use for it.

I learned a couple of other things with all this shooting. One was that

no buckshot is likely to be very good at punching through lots of bone and muscle to reach vitals. Therefore, good shot placement, including the angle at which the shot is taken, is just as important with buckshot as it is with a rifle. It's a serious responsibility. Shooters of the "spray and pray" school are not only lousy sportsmen; they also stand very little chance of eating venison. The other thing I found out was that the hardened, copper or nickle-plated buckshot put out these days penetrates much better than the old lead shot, and it seems to hold a pattern better too. All the 000 buck I tested was the "nickle-lokt" variety put out by Remington. It is extremely hard, plated, and packed in granulated polyethylene. The Winchester and Federal Premium copper-plated 00 seemed just as hard, and they also patterned and penetrated well.

Both guns I used in the testing did well with the largest sizes of buckshot; yours might do better with size 0 (which I didn't test) or size #1. To find out, shoot at least five rounds at the range at which you expect to hunt, then take the average. Don't forget to count those times when, inexplicably, only one pellet (or none at all) hits the paper-plate target; you can't rely on your best pattern being your typical pattern.

I usually hunt deer with a rifle, a bow, or a muzzle-loader. If I had to hunt them with buckshot only, I'd probably pick either 3" magnum 000 buckshot or 2 3/4" 00 buckshot, and plan to do all my shooting inside 40 yards; certainly at no more than 50. I don't like the idea of wounding deer, and I'd be confident of a clean kill only at close range. Forty yards is not an unrealistic range for a Virginia deer hunter, unless he likes to hang out at the edge of a soybean field. In the swamps and thick woods along river bottoms a smooth-swinging shotgun might be just fine. A lot of guys who manage to bring home the roast and tenderloin every year still seem to think so. □

Steve Ausband is the chairman of the English Department of Averett College in Danville, and is a frequent contributor to Virginia Wildlife.



A Good Way
to Hunt



overleaf photo by Bill Lea

Right: Ninety-five-year-old Edward S. Manry stands outside the hunt club he founded in Southampton County 44 years ago, a club that prides itself on the ethical hunting of deer with dogs.



photo by Bob Gooch

by Bob Gooch

“She’s doing her act,” observed Bobby Pope. Fascinated, I watched.

The doe and her two fawns moved ghostlike through the snow-covered Southampton County woods. Unhurried. They disappeared into a wooded draw. In the distance we could hear the faint sounds of hound music. Were the hounds on the trail of those three deer? I turned to Pope, question mark on my face.

“Probably,” he nodded.

Still, the deer showed little concern for the distant bawling, howling, and squealing of the pack of eager dogs. They had moved almost casually through the quiet forests, seemingly undisturbed—a mother and two fawns.

Then, almost as quickly as they had vanished into the draw they reappeared, retracing their tracks. And toward the sound of the hounds! Bobby Pope’s face didn’t register surprise. “She had the fawns wade in the water down in the draw to kill their scent. Now they’ll backtrack a short distance and then head off in a different direction.”

The words had hardly left his lips before the doe made a sharp turn to her left and trotted off at right angles to the trail. The well-trained fawns followed obediently.

The hounds eventually came into view. Milling about, they seemingly lost the trail in the draw, apparently unable to unravel the puzzle the doe had left for them.

Interesting.

Bobby Pope is one of the younger members of the Edward S. Manry Hunt Club, and following lunch back at the clubhouse huntmaster Ben Babb had assigned him as a driver. He would put down the hounds for the afternoon hunt, hopefully put them on deer. I’d asked permission to join him. I wanted to see that phase of a club hunt before joining the standers, those waiting on well-selected stands for the hounds to drive a deer by them. We’d left a little early to get fresh hounds from the club kennels. By the time we released them the rest of the hunters would be on stands—also assigned by the huntmaster.

The Edward S. Manry Hunt Club runs a tight ship, and when so many hunters and hounds are involved that’s the only way to do it, the right way. In an age when so many landowners and deer hunters are at each others throats because of the employment of dogs, this 44-year-old Southside Virginia hunt club enjoys an excellent reputation in one of Virginia’s best deer hunting counties.

The drivers, as the hunters who handle the hounds are called, are not necessarily deprived of the chance for a kill. Bobby Pope and I both carried shotguns loaded with buckshot (the only firearm and ammunition allowed on the club’s hunts). The doe and her fawns had barely disappeared for the second time when a nice buck came bounding though the woods, but just beyond the effective range of our scatterguns. The shotgunner does not enjoy the range the rifleman does.

The hunt was less than 30 minutes old and we’d already seen four deer—all legal. It was late December and we were in the final 24 days of the eastern season. Antlerless deer

Although it has come under fire recently, hunting deer with dogs is an old and honored tradition in many Virginia counties.



Hunting deer with good deer hounds may be a controversial issue in Virginia, but it is a long and well-loved tradition in Southside counties; photo by Roy E. Lowe.

were legal in Southampton County, but both of us were holding out for a good buck.

Established in 1946, the Edward S. Manry Hunt Club is one of the oldest in Virginia. It is named for its founder. At age 95, Manry is healthy and active, and still serves as president. He also served as huntmaster for many years, but relinquished that role to Ben Babb a few years ago.

"Mr. Manry did a remarkable job of putting all the land together we hold hunting rights to," said Babb. The club leases the hunting rights to approximately 40,000 acres of Southampton County land. Most of the land is owned by timber corporations. "We've been hunting much of it for years," added Babb. "Since the first season right after World War II."

Babb himself is now approaching retirement age. "We have our eyes open for a younger man," he said. The choice will be made carefully—and after a good deal of thought.

Neither Bobby Pope nor I got another opportunity that afternoon, but the hunting day did produce seven nice whitetails. Among them

was a 6-pointer that Gillet T. Bryant brought in for dressing and quartering.

The club retains the services of George Crutchfield to dress the deer and quarter them. There's always venison to take home. When I arrived at the clubhouse about the middle of the morning, Crutchfield was the first person I met. He was waiting before the open fireplace. "They'll be in soon with some deer," he assured me.

The 60-member club takes 200 or more deer per season, many of which are killed by guests of the club. "The boys got about 260 deer," Edward S. Manry wrote me in January of 1990 after the season had closed. He no longer hunts, but enjoys the club fellowship.

"Mr. Manry was a very unselfish hunter," said Babb. "When he was huntmaster he always gave someone else the best stands. He never took one of them himself."

The club hunts every day of the long eastern season. All of the members do not participate every day, but one who does is 90-year-old L.L. "Cue" Poole, Ben Babb's father-

in-law. He rarely misses a day. There are usually enough members present to put on two drives, one in the morning, and another in the afternoon. Five charter members of the club are still active.

Adorning the paneled walls of the brand new clubhouse (built in 1989 with club members doing most of the work) are many handsome racks. "We usually pass up 4 and 5-point bucks," said Babb. "We get some good bucks. Odell Joyner recently killed a 14-pointer. It had a 24-inch antler spread."

Bobby Pope was wearing brush trousers, regular bird hunting pants, that December afternoon and I asked him why. Such clothing is noisy and usually avoided by those who still hunt for deer. But this is a different kind of hunting, no still hunting. Hunters on stand move very little and the trousers do not create a problem. "We wear them when making a drive," was the response. "Wait until you see what kind of cover we have to wade through to get the hounds to the right place."

I normally hunt deer with a rifle and was uncertain as to what kind of

shotgun I should bring. "We prefer either a full or modified choke," Ben Babb had told me over the telephone. "And a short barrel. Easier to handle."

Many deeply entrenched deer hunting rules go out of the window when you switch from still hunting to hunting with hounds.

The club maintains a kennel of hounds, but many of the members have their own dogs. "They're expensive," said Bobby Pope. "Cost \$150 to \$200 each, and I've already lost two this year. Cars killed them. It's hard to keep them off highways."

Many of the hounds are purchased from Kentucky through an Ivor dog dealer. Foxhound stock. Edward Manry himself was a fox hunter before he got into deer hunting. "It got so we couldn't have a good fox chase without jumping deer and losing our hounds," he said. "Deer were increasing every year, so we turned to deer hunting."

In spite of its controversy, not only in Virginia but all through the South, hunting deer with hounds is one of America's oldest forms of hunting. Early settlers brought this popular hunting tradition with them when they came to a frontier America.

That heritage encompasses all types of hunting with hounds, not just for deer. Today, however, only deer hunting is under fire. Fox, rabbit, or night hunting for raccoons are rarely targeted. A recent story in a Mississippi newspaper reads: "At a time when single-issue politics have made lawmakers leery of sensitive issues, Mississippi legislators find themselves staring down the barrel of perhaps the most explosive issue of them all. It's not abortion, It's not taxes. It's deer dogs."

The article goes on to outline complaints against deer hunters and their hounds—the same we frequently hear at Department of Game and Inland Fisheries meetings in Richmond. They're not new, but those guilty are threatening one of America's hunting traditions—hunting deer with hounds.

But there are no such problems in Southampton County where the



In many lowland counties, hunting deer with dogs is nearly essential since tracking or hunting deer on foot through swamps and impenetrable cover is difficult and often impossible; photo by Roy E. Lowe.

Edward Manry Hunt Club hunts. Club leaders quickly recognize potential problems and head them off. They control the hunt and the hunters and hunt only land they have acquired the rights to.

"We respect each other," said

Huntmaster Ben Babb, "and we protect the deer and the land."

That's doing it the right way. □

Bob Gooch is an outdoor newspaper columnist and author of several books on hunting and fishing. He lives in Troy, near Charlottesville.

VW Christmas Subscriptions

We want you to give *Virginia Wildlife* to all your friends for Christmas! So, take advantage of our \$6 per year per subscription offer through the end of this month (with any order of 10 or more subscriptions). Use the gray card in this magazine, or simply send your check made payable to *Treasurer of Virginia* and your gift list to: *Virginia Wildlife Subscriptions*, P.O. Box 11104, Richmond, VA 23230-1104. *Note:* Because of our printing schedule, your gift announcements may not reach your friends before Christmas. Just in case, make sure you tell them that you've given them the best magazine around! □

Society of Animal Artists Exhibition

The Science Museum in Richmond is hosting a selection of 45 paintings and 15 sculptures from the 30th annual exhibition of the Society of Animal Artists through January 13 titled "Art and the Animal."

Founded in 1960, the Society of Animal Artists is the oldest and most prestigious association of animal and wildlife artists in the world. The subjects depicted in this exhibition include mammals, birds, reptiles, amphibians and fish from all over the world. Plus, three Virginian artists are represented in the show: Edward J. Bierly of Lorton, Jay H. Matternes of Fairfax, and Walter Matia of McLean. For more information about the exhibition, call 804/367-1013. □

A Sporting Christmas Gift



photo by Tim Wright

Why not give a Sporting Clays Gift Certificate for Christmas? Give the shotgun enthusiast in your family a certificate for one round of sporting clays at the Department of Game and Inland Fisheries' sporting clays range at Amelia Wildlife Management Area. The 11 clay target shooting stations at the range test the skills of the hunter in various hunting simulated situations, from ducks to quail to doves and rabbits. It's the shooting sport of the 90s and it's great fun!

Send your check for \$15 for an adult gift certificate, or \$7.50 for a youth certificate made out to the *Treasurer of Virginia* and send it to: Virginia Department of Game and Inland Fisheries, Attn: Sporting Clays, P.O. Box 11104, Richmond, VA 23230-1104. *Note:* Reservations are required and will be made on a first-come, first-served basis. To make a reservation, call the Game Department at 1-800-257-7717 or 804/367-1000. □

What is a Predator?

by Carl "Spike" Knuth

From the beginning, mankind has been somewhat at odds with certain species of wildlife, especially those regarded as predators. The Book of Genesis tells us of a man named Nimrod who was looked on as a type of saviour because he "saved" and protected people from what apparently were high populations of large, predatory animals.

Since then, man has had a running battle with wolves, lions, cougars, tigers, hawks, owls, eagles and other predatory species for years because they threatened his livestock and other more favored animals, and often his life! In the early 1900s in this country, bounties were paid to more modern "nimrods" to keep predator populations in check.

According to *National Wildlife*, "ever since the Massachusetts Bay Colony began paying a bounty on wolves in 1630, we've poisoned predators, shot them and trapped them at every opportunity."

Just what is a predator? Are predators good or bad? Are predators necessary?

In answer to the first question, simply put, a predator is a living creature that preys on other living creatures. Predators form an important part of the natural food chain in the ecological system we are familiar with. Man can be considered a chief predator, followed by mammals and birds, reptiles, insects and spiders, right down to various microscopic bacteria and viruses.

To most people, the term predator brings to mind growling, snarling beasts with glowing, angry eyes, drooling blood from long, sharp teeth, hooked beaks and sparkling curved talons. To these people, the



Gray fox (*Urocyon cinereoargenteus*); photo by Steve Maslowski.

term implies a bloodthirsty killer, but actually it encompasses a large number of species.

One wouldn't think of a pretty little warbler or feisty little chickadee as a bloodthirsty predator, would they? Yet, they "prey" on insects, grubs and caterpillars. We might think, "so what, it's only an old caterpillar," and not be too concerned about it. But if a caterpillar was capable of being concerned, how would it feel about warblers? Flipper and his porpoise buddies are mortal enemies to a school of mullet. Is that okay just because some biologist has spent exhaustive hours teaching porpoises to grunt and perform in response to certain repetitive commands, and mullets can't? Some of us carry signs hollering "save the whales" but what about the tons of poor little krill (plankton) that get

eaten by whales each year? Our smiley porpoises and our beloved whales are predators—killers! Even our plump robin redbreast preys on the poor little worms!

Predators actually perform a necessary service of keeping some creatures in check. Purple martins eat thousands of insects a day. Starlings, a bird disliked by many, converge on your front lawn to feed on the grubs of Japanese beetles and June bugs. Hawks, owls and foxes, feed on rodents such as mice and voles.

If there were no predators eating rodents we'd be up to our ears in the furry little critters in no time! The same is true of any other of the smaller animals. All the eggs that hatch and all the young that are born can't live because there would be no room nor food for them!

Predation is present in the aquatic world as well. In the water, plankton and aquatic insects are eaten by small fish, the small fish by larger fish. Larger fish are, in turn, eaten by fish-eating birds and mammals such as otters, herons and loons. Man is a meat-eater as well as a plant eater, and is as much a part of the food chain as a hawk or a bear. Each link in the chain serves as food for the creature that forms the next higher link.

In this present world all life needs energy to sustain itself and energy is transferred from one link in the food chain to the next higher link. To biologists, this is known as energy flow. To sum it up, everything in the outdoors is predatory in one way or another, or to put it another way, some creatures are sacrificed so that others may live. Unless and until some greater power changes it, that's the way it is! □

Safety

Patrols Benefit Boaters

by William Antozzi, Boating Safety Officer



Patrol boat, U.S. Coast Guard Auxiliary; photo by William Antozzi.

Boaters on three large lakes in Virginia have benefitted from safety patrols. For the past three years, the U.S. Coast Guard Auxiliary members with boats near Lakes Anna, Chesdin, and Smith Mountain have made patrols to assist boaters. The gasoline and oil costs have been defrayed by the Law Enforcement Division of the Virginia Department of Game and Inland Fisheries.

The lake patrols have been a real bargain. The average cost per hour have been only \$4.33, which includes gasoline, oil, the patrol boat, captain and crew. However, each patrol boat is owned and operated by its captain. He and a crew of one or two are the products of intensive training to

insure their professionalism. The vessels are expensive and cost many thousands of dollars. The owner must also pay slip rent, insurance, maintenance and repairs. The time of the captain and crew is also worth a lot. Some take time from work to patrol. Also, training to achieve proficiency does not come cheap.

The results have been outstanding. Over the three-year period there were 323 patrols consisting of 2,504 hours. The patrol-vessel crews assisted or rescued 288 boats and helped approximately 865 persons. The type of help given varied. Boats were towed back to port, engines were restarted, repairs were made so that boats could get underway again,

water was pumped out to prevent sinking, and many persons were given first aid. In addition, countless boaters were given directions, advice and counsel, or warned about dangerous practices.

The patrol coordinator for Lake Anna is Leo H. Laffety of Waynesboro, the U.S.C.G. Auxiliary Flotilla 82 Operations Officer. The Lake Chesdin coordinator is Colonel William Olmsted Antozzi of Petersburg, Flotilla 32 Operations Officer, and for Smith Mountain Lake it is John B. Earle of Danville, Division VIII Operations Officer. The Coast Guard Auxiliary vessel patrols are usually on weekends, but the Virginia Game Department wardens are on patrol every day during the boating season. The number of boaters helped by them is undoubtedly much greater than those assisted by the Coast Guard Auxiliary members, but that is part of their job. The Coast Guard Auxiliary members are volunteers. Lake Chesdin also benefits from patrols by a Chesterfield County police patrol.

All patrol vessels, Coast Guard Auxiliary and Game Department, carry VHF-FM radios, which enable them to communicate and cooperate. Recreational boaters can also benefit by having a VHF-FM radio on board. It is a great safety device because when help is needed it is waiting on channel 16 to respond to any calls.

The lake patrols continue to aid boaters in many ways. Their contribution to boating safety is immeasurable. □

Recipes

Venison For Christmas

by Joan Cone

Menu:

Venison Tenderloin
Madeira Game Sauce
Stuffed Baked Potatoes
Green Beans in Napoli Sauce
Jane's Mandarin Salad
Grand Marnier Cake

Venison Tenderloin

1 whole deer tenderloin, 1½ to 3 pounds

Peanut or vegetable oil

Salt and freshly ground black pepper

1 cup Madeira Game Sauce

Heat oven to 450 degrees. Place tenderloin in roasting pan; tuck small end under. Brush tenderloin with oil. Roast at 450 degrees for 10 minutes. Reduce heat to 350 degrees and roast to rare (130 to 135 degrees on meat thermometer) or medium rare (135 to 140 degrees). Remove roast when temperature is 5 degrees less than desired. Allow meat to rest for 10 minutes before carving. Sprinkle with salt and pepper. Allow 2 to 3 servings per pound. Serve with Madeira Game Sauce.

Madeira Game Sauce

3 tablespoons butter or margarine

3 tablespoons flour

1 cup beef broth

2 tablespoons currant jelly

2 tablespoons Madeira wine

In small saucepan, melt butter over medium-low heat. Stir in flour. Blend in broth. Cook over medium heat until thickened and bubbly, 5 to 7 minutes. Add jelly; stir until melted. Add madeira; heat just to boiling. Serve sauce warm. Makes about 1 cup.

Stuffed Baked Potatoes

6 large baking potatoes

1/2 to 3/4 cup sour cream

1/4 cup crumbled blue cheese

Salt and freshly ground black pepper to taste

Paprika

Preheat oven to 425 degrees. Thoroughly wash and dry potatoes. Bake until soft, 40 to 60 minutes. Cut a slice from the top of each potato and scoop out the potato being careful not to break the skin. Mash the potatoes well and beat in the sour cream, blue cheese, salt and pepper. Add more sour cream, if necessary, to make potatoes light and fluffy. Spoon potato mixture into the shells, mounding it slightly. Place potatoes on a baking sheet. Dust the tops with paprika and return to the oven until light brown. Makes 6 servings.

Green Beans in Napoli Sauce

3 slices bacon

1 cup solid pack tomatoes

1 onion, diced

1/2 teaspoon salt

1/4 teaspoon allspice

1/4 teaspoon mace

Dash cayenne pepper

1 bag (16 ounces) frozen green beans

Grated cheddar cheese

Fry bacon until crisp; break into bits and remove. Leave small amount of bacon fat in pan for flavor. Add next 6 ingredients to frying pan. Bring to a boil and simmer sauce about 20 minutes. Allow beans to defrost. Just before dinner, place beans in a medium saucepan, cover with sauce and heat just until beans are tender. Sprinkle with desired amount of grated cheese and serve. Makes 4 to 5 servings.

Jane's Mandarin Salad

1/2 cup sliced almonds

3 tablespoons sugar

1/2 head romaine lettuce

1/2 head iceberg lettuce

1 cup chopped celery

1 can (11 ounces) mandarin oranges, drained

Dressing:

1/2 teaspoon salt

Dash pepper

1/4 cup vegetable oil

1 tablespoon chopped parsley

2 tablespoons vinegar

Dash tabasco sauce

In a small pan over medium heat, cook almonds and sugar, stirring constantly until almonds are coated and sugar dissolved. Watch carefully as they will burn easily. Cool and store in air-tight container. Mix all dressing ingredients and chill. Mix lettuces and celery. Just before serving, add almonds and oranges. Toss with dressing. Serves 6 to 8.

Grand Marnier Cake

1 cup butter

1 cup sugar

3 eggs, separated

1 teaspoon baking soda

1 teaspoon baking powder

1 cup sour cream

Grated rind of 1 orange

1/2 cup chopped walnuts

1/2 cup sugar

1/4 cup orange juice

1/4 cup Grand Marnier

Preheat oven to 350 degrees. Cream together butter and sugar until light and fluffy; beat in egg yolks. Sift dry ingredients together and add to butter mixture alternately with sour cream; beat smoothly. Stir in orange rind and nuts. Beat egg whites until stiff but not dry; fold into batter. Grease a 9-inch tube pan. Pour in batter. Bake 50 minutes or until toothpick comes out clean. Stir together 1/2 cup sugar, orange juice and Grand Marnier. Spoon this mixture over hot cake. Let cool before removing from pan. Makes 12 to 16 slices.

Habitat

Wintergreen

by Nancy Hugo

This is the story of the plants that make the woods richer for two-legged animals in the winter. The plants all go by the name wintergreen or exude the fragrance of wintergreen, so get out your field guides and prepare to try to make sense of the confusion that results when several plants share the same common name.

Proceeding on the assumption that a multi-million dollar resort can't be wrong, let's first identify the wintergreen for which Wintergreen, Virginia's ski resort, is named. According to Lorrie Knies, Curator of Wintergreen's Outdoor Center, the resort is named for a low-growing creeper with red berries that's known both as Wintergreen and Teaberry. It's a beautiful little (3-8") plant with glossy dark green oval leaves that forms attractive colonies in the woods. In the spring it has bell-shaped white flowers that look like blueberry blossoms which hang beneath the leaves. In the fall its edible red berries also hang beneath the leaves. This plant, *Gaultheria procumbens*, is the source of a wintergreen extract used to flavor candies, medicines, chewing gum, and its leaves are used to flavor herbal tea.

So far so good. Problem is, *Gaultheria procumbens* isn't the only plant some of us call wintergreen. There is another plant, one that I've since learned is more accurately called spotted or striped wintergreen, that also deserves the name. Not only is it evergreen, its botanical name, *Chimaphila maculata*, comes from the Greek *cheima* meaning winter and *philein* "to love." It's easy enough to tell from teaberry because its waxy white to pink flowers are held high above the leaves in the spring, and instead of a red berry below the leaves it has a brown capsule which it



Spotted wintergreen (*Chimaphila maculata*); photo by Hal Horwitz.



Wintergreen (*Gaultheria procumbens*); photo by Hal Horwitz.

holds most of the winter above its leaves. The plant is about 3-9" tall and has conspicuous white markings all along the veins of its toothed evergreen leaves.

Some people also refer to spotted wintergreen as Pipsissewa, but the name Pipsissewa is more accurately applied to a close relative, *Chimaphila umbellata*, which has solid evergreen toothed leaves arranged in intermittent whorls up a 6-12" stem. The leaves of pipsissewa are also chewed for their flavor, and they evi-

dently have salicylates in them that help relieve pain.

If you want to get not just your eyes but also your nose involved in the search for wintergreen in the woods, look not just to these plants but to a small tree. The sweet birch is a mountain tree that looks like a wild cherry tree and smells like wintergreen. I'll never forget the day I thought to be wild cherry only to have my nose say "No way!" In truth, it was the fragrance of licorice (or black gum drops) that came to mind when I first smelled the pungent inner bark of the sweet birch, but I was willing to bend my perception to fit what my companions and my field guide said when they told me I was smelling wintergreen. Evidently, oil of wintergreen is obtainable from both the sap and leaves of the sweet birch.

The young bark of the sweet birch is smooth and shiny like that of a wild cherry, and it has the same conspicuous lenticels or breathing holes that the wild cherry does. The sweet birch has tiny cones, however, and its smooth, pointed resting buds resemble those of beech trees. Also called black birch, cherry birch, and mountain mahogany, the fragrant stems of the sweet birch are sometimes called chewing sticks, and they're used as woodsmen's tooth brushes. Deer and rabbits often browse sweet birch twigs, and grouse eat the tree's seeds and buds.

In their field guide to *Fall Wildflowers of Blue Ridge and Great Smoky Mountains*, Oscar Gupton and Fred Swope describe the sweet birch as ornamental in both form and fruit, and they note that it can be propagated by seeds sown in the fall. Imagine growing in the yard underplanted with Teaberry: you'd never have to buy lifesavers again! □

Index to Virginia Wildlife

1990, Volume 51, Numbers 1-12

BIRDS

Confusing White Waders, <i>Knuth</i>	July, p. 30
Fish Ducks, <i>Knuth</i>	Nov., p. 33
Harbingers of Spring, <i>Knuth</i>	Feb., p. 32
Providing Water, <i>Hugo</i>	Mar., p. 32
Save The Snags, <i>Hugo</i>	Feb., p. 31
Spring Courtship Rituals, <i>Knuth</i>	Mar., p. 31
Sweetheart Owl, <i>Rosenburg</i>	Mar., p. 8
The Difference Between a Duck, <i>Knuth</i>	Jan., p. 31
Their Time is Running Out, <i>Shepherd</i>	June, p. 27
Turkey Feathers,	Nov., p. 19
Unique Beaks, <i>Knuth</i>	Aug., p. 32

BOATING SAFETY

Alcohol, Drugs, & Boating, <i>Antozzi</i>	Feb., p. 34
Can You Hear Me?, <i>Antozzi</i>	Apr., p. 33
Caribbean Watersports, <i>Antozzi</i>	June, p. 32
Getting Ahead, <i>Antozzi</i>	Feb., p. 34
Leaks, <i>Antozzi</i>	Jan., p. 32
Marlinspike Seamanship, <i>Antozzi</i>	Nov., p. 35
Navigation Rules, <i>Antozzi</i>	July, p. 32
Patrols Benefit Boaters, <i>Antozzi</i>	Dec., p. 31
Spring Cleaning Your Boat, <i>Antozzi</i>	Mar., p. 33
Thunderstorms, <i>Antozzi</i>	Aug., p. 34

ENVIRONMENT

A Clouded Future: Acid Rain and Wild Trout in Virginia, <i>Camuto</i>	June, p. 8
Edges and Layering, <i>Hugo</i>	Oct., p. 34
For a Healthy Lawn in a Healthy Ecosystem, <i>Hugo</i>	Apr., p. 28
Honey, I Shrunk the Lawn, <i>Hugo</i>	Apr., p. 23
River Friends, <i>Hugo</i>	Aug., p. 4

FISHING

Finding February Fish, <i>Ingram</i>	Feb., p. 4
Fishing Smart, <i>Murray</i>	June, p. 12
Fishways For The Future, <i>Gillam</i>	Feb., p. 17
From Royalty to Roughfish, <i>Knuth</i>	July, p. 23
Getting Started, <i>Ingram</i>	Mar., p. 5
Head to the Mountains—For Trout, <i>Murray</i>	Oct., p. 4
March Trout, <i>Murray</i>	Mar., p. 25
Teach 'Em Right, <i>Ingram</i>	June, p. 4
Tournament Fish: What Happens When The Party's Over?, <i>Ingram</i>	July, p. 4
Who Are Those Guys?, <i>Knuth</i>	Apr., p. 31
1990 Trout Fishing Guide, Part I,	Mar., p. 15
1990 Trout Fishing Guide, Part II	Apr., p. 15

HUNTING

A Good Way to Hunt, <i>Gooch</i>	Dec., p. 25
Born to Hunt, <i>Badger</i>	Sept., p. 19
Dabbling With Decoys, <i>Badger</i>	Oct., p. 27
Good Sense Shooting With A Muzzle-Loader, <i>Randolph</i>	Nov., p. 25
Good Things Come in Small Fields, <i>Ausband</i>	Sept., p. 24
Hunting Is Not Handicapped, <i>Roseberry</i>	Feb., p. 22
It's Your Call, <i>Shaffer</i>	June, p. 24
On the Ground, <i>Roseberry</i>	Sept., p. 29
Promises of Winter, <i>Badger</i>	Dec., p. 4
Sighting-In On Archery Clubs, <i>Christner</i>	Nov., p. 22
Slipping Back Into Time—With Black Powder, <i>Cochran</i>	Nov., p. 9
Trophy Tales, <i>Cochran</i>	Aug., p. 21
War of the Woods, <i>Fies</i>	Dec., p. 9
What Kind of Buckshot Are You Shooting?, <i>Ausband</i>	Dec., p. 20
Woodcock Secrets, <i>Jennings</i>	Sept., p. 4
1990 Virginia Hunter's Guide	Oct., p. 11

INVERTEBRATES

Much Ado About Lyme, <i>Shepherd</i>	July, p. 13
They Aren't On a Campout, <i>Knuth</i>	June, p. 31

Hunter Safety

Staying Alive,	Apr., p. 5
The Right Stuff, <i>Shepherd</i>	Sept., p. 15

LOCALES

Briery Creek Lake, <i>LaRoche</i>	Jan., p. 27
Clinch River Float Trips,	Jan., p. 17
Clinch Mountain Wildlife Management Area,	p. 21
It's Time to Return to the North Fork of the Holston, <i>Ingram</i>	Jan., p. 8
Untamed Waters of an Old Frontier: The Clinch River, <i>Gooch</i>	Jan., p. 13

MAMMALS

An Apple A Day Keeps the Pine Vole—Here to Stay, <i>MacPherson</i>	Jan., p. 24
Bigfoot, <i>Fies</i>	Feb., p. 8
Swampwitches, <i>Schwab</i>	Mar., p. 13
Tail Tales, <i>Pagels</i>	Nov., p. 4
The Striped Skunk, <i>Pagels</i>	Apr., p. 34
The Woodchuck, <i>Pagels</i>	July, p. 35

MISCELLANEOUS

A Helping Hand, <i>Hutchinson</i>	June, p. 17
What is a Predator?, <i>Knuth</i>	Dec., p. 30

OUTDOOR RECREATION

Favorite Wildlife Watching Spots, <i>Knuth</i>	Oct., p. 32
Kid Savers, <i>Knuth & Gilley</i>	Feb., p. 27
Takin' It Easy in the Summertime, <i>Shank</i>	Aug., p. 27

PICTORAL

Blind Date With The Wild Angler, <i>Richardson</i>	Aug., p. 10
--	-------------

PLANTS & TREES

Black Gum, <i>Hugo</i>	Sept., p. 34
Bluebells, <i>Hugo</i>	Apr., p. 32
Chinquapin, <i>Hugo</i>	Nov., p. 34
Gentle Giants, <i>Hugo</i>	Feb., p. 13
Lady's Slippers, <i>Hugo</i>	June, p. 34
Meadow Beauty, <i>Hugo</i>	July, p. 29
Pokeweed, <i>Hugo</i>	Aug., p. 33
Wild Cherry, <i>Hugo</i>	Jan., p. 33
Wintergreen, <i>Hugo</i>	Dec., p. 33

REPTILES & AMPHIBIANS

Eek, It's a Snake, <i>Mitchell</i>	Apr., p. 7
Romancing the Frog, <i>Mitchell</i>	July, p. 7
Snakes That Go Bump in the Night, <i>Ausband</i>	Jan., p. 5

RESOURCE MANAGEMENT

A Model To Cut Trees By, <i>Spiers & Sours</i>	May, p. 31
A Model to Farm By: White Oak Mountain Wildlife Management Area, <i>Bouman & Robertson</i>	May, p. 24
All In The Family, <i>Kenyon & Norman</i>	May, p. 11
Have You Been In Your Woods Lately?, <i>Baker</i>	May, p. 27
Quail Don't Live On Food Alone, <i>Badger</i>	Nov., p. 14
Tending The Farm, <i>Capel</i>	May, p. 19
The Bottom Line, <i>Sims</i>	May, p. 33
The Next Generation?, <i>Shepherd</i>	July, p. 17
The Numbers Game, <i>Fies</i>	May, p. 4

VW Gallery

Lee Baskerville,	Aug., p. 18
Robert Flowers,	Dec., p. 17

WILD FOOD PREPARATION

A Springtime Trout Dinner, <i>Cone</i>	Mar., p. 34
Carp For A Summer Dinner, <i>Cone</i>	July, p. 33
Delicious, Nutritious Rabbit, <i>Cone</i>	Jan., p. 34
Dine High on Groundhog, <i>Cone</i>	Sept., p. 31
Ducks Are a Delicacy, <i>Cone</i>	Nov., p. 35
From the Field To the Table: The essential steps to properly caring for your wild game, <i>Cone</i>	Sept., p. 9
Low Sodium Catfish Dinner, <i>Cone</i>	June, p. 33
Quail—Challenging and Delicious, <i>Cone</i>	Oct., p. 33
Season Opening—Dove in the Oven, <i>Cone</i>	Aug., p. 35
Tasty Fish Guaranteed, <i>Cone</i>	Apr., p. 13
Venison Dishes for Winter, <i>Cone</i>	Feb., p. 35
Venison for Christmas, <i>Cone</i>	Dec., p. 32

WILDLIFE EDUCATION

Keepers of the Flame, <i>Gillam</i>	Aug., p. 26
---	-------------

A winter landscape featuring a stream flowing through a forest. The trees are heavily laden with snow, and the ground is covered in a thick layer of white snow. The stream is dark and reflects the surrounding environment. The sky is a clear, bright blue. The overall scene is serene and picturesque.

*GIVE VIRGINIA WILDLIFE
FOR CHRISTMAS*