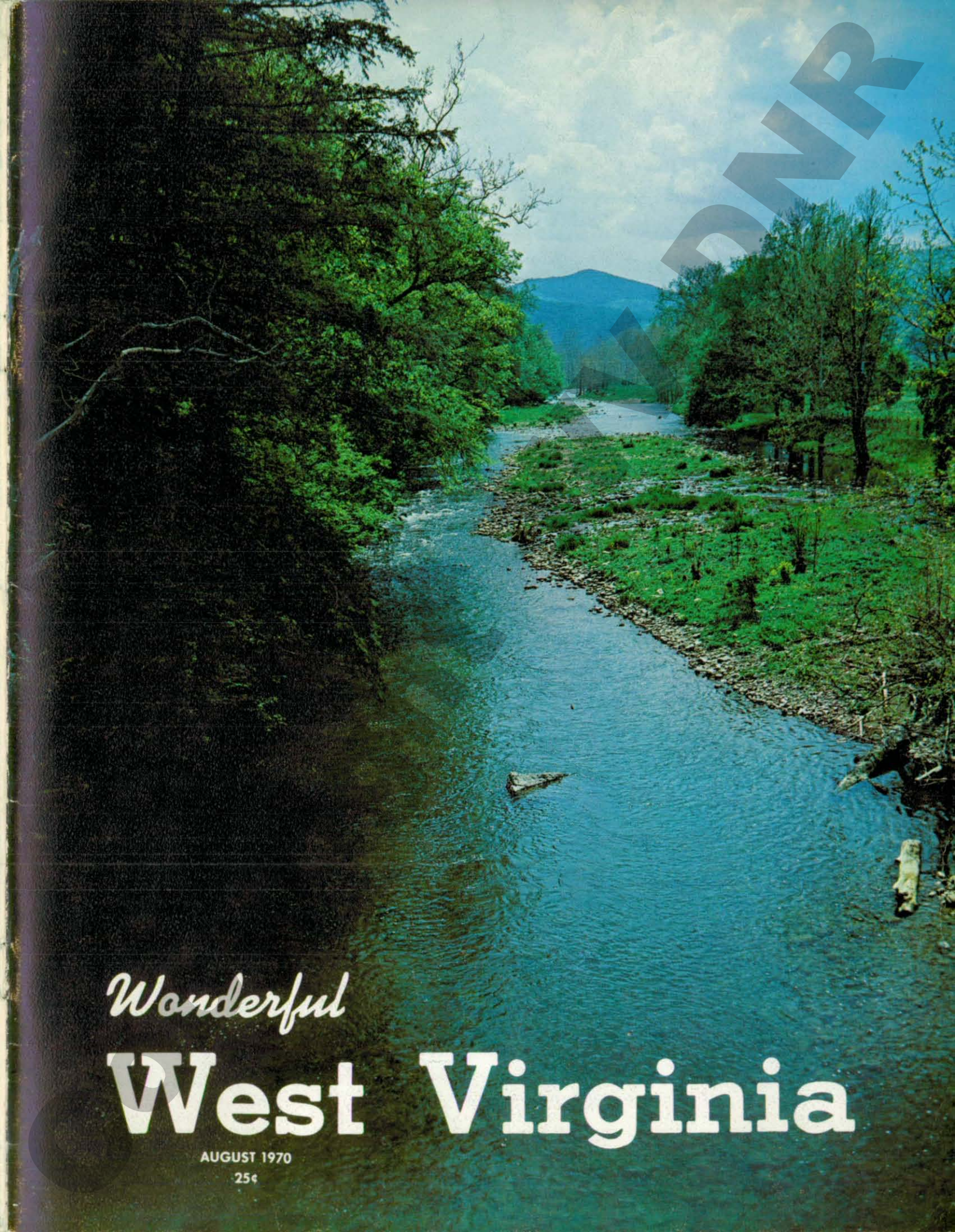

Wonderful West Virginia

AUGUST 1970

25¢

WV DNR

Dedicated to the wise use of West Virginia's renewable natural resources.

VOLUME 34 AUGUST 1970 NUMBER 6

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Blackwater River, Canaan Valley State Park. Arnout Hyde Jr.

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West Virginia

WHERE SUMMER IS NOT THE END

BARBARA BEURY McCALLUM

SOME OF THE BEST TIMES to be had in West Virginia come after September. Autumn in the state is a vivid, beautiful pause between summer and winter, a time natives tend to take for granted, although biologists tell us such flaming profusion occurs in few other places in the world.

The gold, scarlet, deep purple, golden-brown, bronze, crimson and yellow interlaced with the greens of spruce, hemlock and pine create a colorful panorama that only nature's paintbrush could produce.

Fall is the final harvest of crops —a time since pioneer days in West Virginia for celebration. Early autumn is one of the state's chief fair and festival seasons, for during this time everything from buckwheat and walnuts to folk history and the forests is honored.

If photography is one of your hobbies or your vocation, West Virginia in the fall is irresistible. Even the most amateur photographer has been rewarded with magnificent pictures that await the camera's click at every turn.

Shunpiking is also a popular autumn activity as the state's secondary highways and country lanes invite you to explore. This phrase, which originated in England, once meant taking the back roads to avoid paying tolls on the turnpikes. In West Virginia it is just a term describing the fun of leisurely investigating the back roads.

A natural off-shoot of shunpiking is discovering old country homes and barns. It is always interesting to reflect upon what tales these old weathered structures could relate if they were able to talk.

Mix the fiery colors of autumn with mountain mist settling in a cool valley, add a blazing sunset—then offer the glamour and excitement of night thoroughbred racing, and you have a perfect fall evening. The Charles Town Turf Club and Shenandoah Downs, both at Charles Town operate alternately until September 26, while Waterford Park at Chester will have racing until December 31. All three tracks offer excellent cuisine in enclosed dining areas that afford fine views of the track.

Fall in West Virginia is also an open invitation to "come to the fair", and if the flavor of such county fairs has disappeared elsewhere in America, it is still very much in existence here. During September in the Mountain State, these regional fairs, in which the whole family can participate, take place in great number. It is the time for 4-H competitions, displaying the tartest tomatoes or biggest potatoes, as well as carnival attractions, and visitors are always welcome.

IF HUNTING IS YOUR SPORT, then you already know what the state offers—except to add that it is said that West Virginia has more deer, grouse, quail, squirrel and rabbits than hunters. There is something more than the trophy to hunting in West Virginia—the plain joy of tramping the countryside in the companionship of a good dog and good friends.

Last, but certainly not least, the finest weather a camper could wish for lasts long into West Virginia's autumn. The smell of wood smoke and pine trees, and the lure of life next to the earth are basic ingredients for enjoyable camping in any state park, forest, or at one of West Virginia's many privately-owned camping areas.

West Virginia State Parks also provide the perfect setting for a fall vacation. Imagine your own cabin nestled in a wooded setting with a porch overlooking a valley and the mountains beyond, and you have a picture of pure relaxation. For those who like a little more luxury, the state park lodges are the answer. Any way you look at it, a West Virginia State Park is a wonderful place to tip your head back and put your feet up.

Sunny warm days, crisp nights, spectacular foliage. Yes, West Virginia is memorable in every season, and autumn is one of the finest times to make memories.

Old mill stream like this one in Jefferson County offers unique shots to photographers.

Arnout Hyde Jr.

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With Self Help There Is No Limit

JAMES THORN

RC&D projects help people make the most of natural resources, and West Virginia has more projects approved and applied for than any other state except Texas.

RC&D stands for Resource Conservation and Development. Utilizing the projects, local people analyze problems and take actions to develop and manage their natural resources better. The results are tangible, the benefits are real.

Federal financial assistance makes possible some project measures. Others are accomplished by using state and local services in new ways, or by volunteer labor. The U. S. Department of Agriculture offers technical assistance on topics ranging from recreation to economics.

West Virginia and three other states have the most projects approved with three each: Texas, Georgia and Arkansas.

THE USDA has applications for approval of seven more projects in Texas and two more in the Mountain State. Counting approved and application-stage projects together, Texas and West Virginia lead the nation.

In the Little Kanawha Project, RC&D designed and helped finance a flood-prevention dam for Pullman in Ritchie County. A project loan enabled development of 1,200 acres in Calhoun County as a wildlife management and hunting area. In Wood County, the project was the catalyst in a coordinating sense in construction by the Army Corps of Engineers of boat-launching and picnicking facilities on the Ohio River at Williamstown.

The Little Kanawha Project initiated and helped finance the seeding of eroded roadbanks by the Department of Highways; the addition of a forester to the project area by the Department of Natural Resources; improvements to school grounds, including outdoor laboratories, by county boards of education, and the employment of an extension resource specialist to help teach school children and adults the use, management and treatment of natural resources in their own area.

Local merchants financed 10,000 copies of an RC&D-sponsored brochure identifying fishing access areas along the Little Kanawha River.

A Princeton-based project, the Mountain Dominion operational, since 1967 encompasses Mercer and Summers counties in West Virginia and Bland, Giles and Tazewell counties in Virginia. Total cleanup of Mercer County's East River, a project involving 14 committees and hundreds of volunteers, has been recognized nationally in professional periodicals as an outstanding example of local self-help to improve the environment.

An RC&D-designed water diversion channel and newly-sown grass protect the Hinton-Summers County Hospital from water damage and erosion. The Mountain Dominion Project also helped develop a Bluefield, Va., city park and cosponsored a workshop in log grading for residents of all five counties.

PROJECT FUNDS will help pay

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for an additional forester in West Virginia counties and a dam to prevent floods and supply water in Summers County. The new 80-acre lake will enhance development of Nimitz and Jumping Branch and furnish water for Bluestone State Park, too.

Working with the Hinton-Alderson Business Development Association, the Mountain Dominion Project is studying the feasibility of a dike to protect from flooding a Pence Springs manufacturing facility. To eliminate health hazards, RC&D funds have been requested to drain standing water from a swampy area in Stumpy Bottom near Princeton.

The Mountain Dominion RC&D has worked closely with Athens and Concord College officials in trying to solve a critical community water shortage. Site studies have been made to evaluate possible impoundment sites.

In a more exotic experiment with possible economic promise, the project is helping two farmers grow catnip this summer to determine yields and growth characteristics.

West Virginia's third operational project, named the Potomac Headwaters, began as a two-county rural renewal project under the USDA Farmers Home Administration. Mineral and Hardy counties were made an operational RC&D project in 1969. Applying for admission to the project are the other six Eastern Panhandle counties—Berkeley, Grant, Hampshire, Jefferson, Morgan and Pendleton.

The three operational projects encompass 18 counties. Seventeen other West Virginia counties are in the state's two application-stage projects. Those two proposed projects, the Wes-Mon-Ty, named for the West Fork, Monongahela and Tygart Valley, in the north central counties and the Great Kanawha along that river, already have local steering committees at work.

Efforts in the Wes-Mon-Ty and the Great Kanawha are being directed so as to implement the concept of RC&D. This concept acknowledges that opportunities for better use, management and development of natural resources are unlimited.

Contributions to common economic and general welfare can be very significantly carried out by interested people actively participating in the evaluation of natural resources, identification of ways to use them better and action to attain better use.

THE CONCEPT has proved itself throughout the nation, and today 68 approved RC&Ds exist in 45 states. Applications for approval by USDA and congressional committees number 51.

Steering committees in the application-stage projects are gathering information about their natural resources and considering in detail existing programs and problems.

It is the objective in both of the application-stage RC&Ds to select certain resource categories, obtain interest by county people, and to evolve gradually into functioning organizations where the principles of people participation become a reality.

The Great Kanawha committee is discussing whether it might lead meaningful attention to pollution problems existing in the Kanawha River Valley, including air, water and solid wastes.

The Wes-Mon-Ty committee has informed a recreation-development company about possible lake sites in that project area.

In the Great Kanawha project are Boone, Jackson, Kanawha, Mason and Putnam counties. In the Wes-Mon-Ty are Barbour, Doddridge, Gilmer, Harrison, Lewis, Marion, Monongalia, Preston, Randolph, Taylor, Tucker and Upshur counties.

Based in Parkersburg, the Little Kanawha Project has been operational since 1966. It serves Calhoun, Ritchie, Roane, Wirt and Wood counties.

The Soil Conservation Service assigns a coordinator to each operational project, and he works with the local steering committee.

Two West Virginia projects have selected slogans to guide their deliberations. The Great Kanawha committee chose four words: "Identification - Communication - Coordination - Action." The Mountain Dominion RC&D goes by this statement:

"There is no limit to what can be accomplished if it doesn't matter who gets the credit."

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What You Should know About Poison Ivy

Don't scoff at poison ivy; if you do, you may have to scratch your vacation. Doctors say eight out of 10 persons are susceptible. So you would do well to contemplate what you can do to protect yourself from the itch, and what you can do to soothe your misery if you become a victim.

The first rule of protection is to know your enemy by sight. True, poison ivy has enough disguises to keep even an expert botanist busy, but it still has three leaves to a group, although the leaves vary in shape and size. The miserable ivy has a way of growing as a ground creeper, a vine and even as a bush, so it's best to avoid any three-leaf plant if you can.

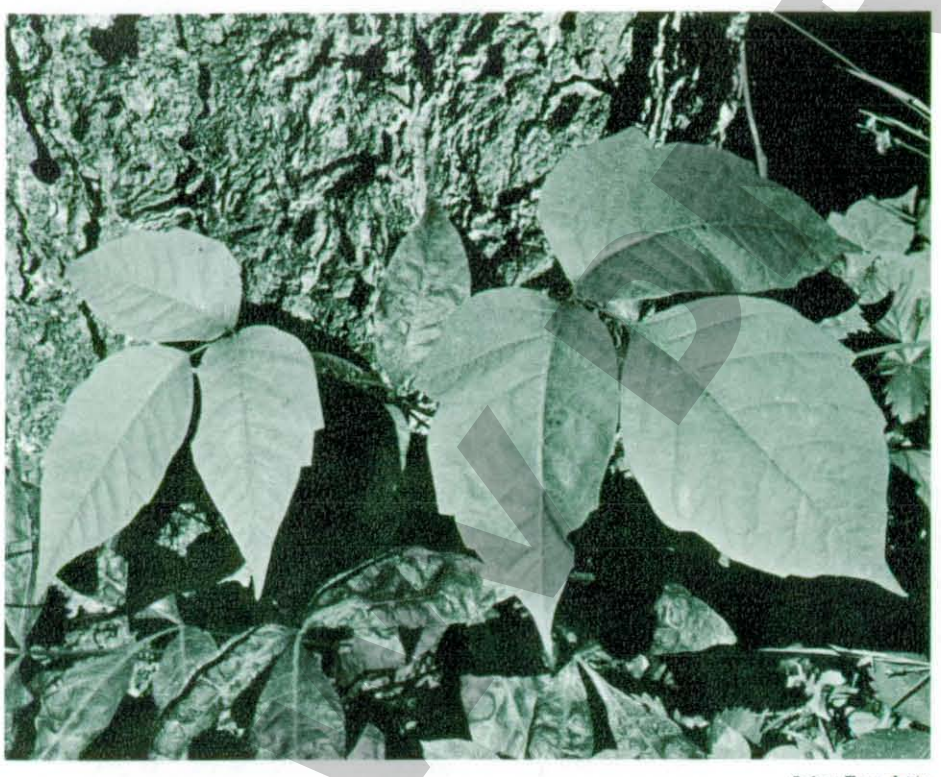
While poison ivy's appearance may not be exact, its capabilities are. Even though you've never had poison ivy, and think you are immune, it is not very likely that you are. Authorities say those few persons having natural immunity can lose it. Repeated exposures don't build resistance; on the contrary, they may make you more vulnerable.

You've probably heard some people say they're so susceptible to poison ivy that they can get it just by looking at the plant. The truth is, you cannot get poison ivy that way, but you can be affected even though there's no direct contact with the plant. It's the oily substance—urushiol—on the leaves that's the real villain. For example, the oil can soak into gardening gloves or outdoor clothes and infect you months later if contact is made. A rake, or shoe or even a dog that has run through poison ivy can be a carrier of the oil that causes trouble.

If you suspect a case of poison ivy is in store for you, first thing is to wash the exposed area with soap and warm water. This may help rid the skin of the oil before it gets to work. If this fails, and you develop the exasperating and painful itch, better see your pharmacist. Really bad cases may require a visit to your doctor.

The obvious way to deal with poison ivy is to avoid it. That means more than simply steering clear of three-leaf vines and plants.

Don't, for example, burn poison ivy with other garden debris. The poisonous oil vaporizes when burned and retains its potency in the smoke wafting through the neighborhood. When gathering firewood, be on the lookout for dead tendrils of ivy clinging to the logs.



This is it: poison ivy. Osbra Eye photo.

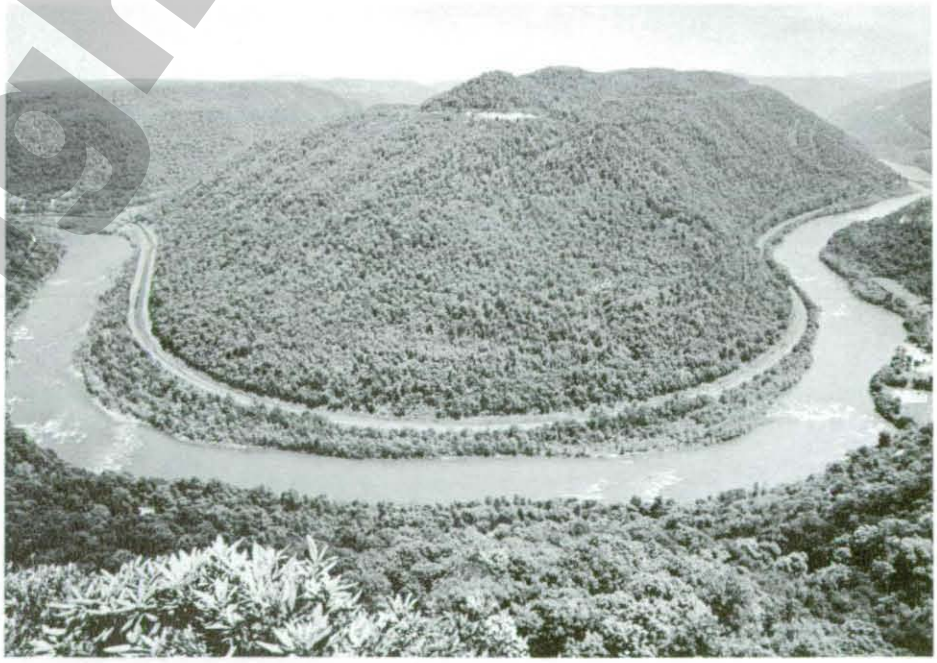
If you recognize poison ivy on your property, get rid of it—but don't try weeding it out by hand; you're likely to leave the roots behind. Instead, buy a good commercial plant killer which will destroy the roots as well as the foliage.

It's also wise to wash or dry-clean clothing that's contacted the poisonous plant. If clothing is to be dry-cleaned, it would be a friendly gesture to warn the dry-cleaner!

Remember, whether one calls it poison ivy, poison oak, poison sumac, or mercury—all names for plants bearing the oil—one thing is certain: it's poison!

Editors crazy with the heat? Nope, but a cooling thought for August swelterers. Mountaineerland in March.

Arnout Hyde Jr.



Horseshoe Bend in New River near Grandview State Park.

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Garden Visitors

ROBERT LEO SMITH

RABBITS and tree squirrels are the large mammals of the garden. More common and often less conspicuous are the small mammals of the garden: chipmunks, mice and moles.

Like tree squirrels, the chipmunk occupies only those gardens that are adjacent to or within the wooded setting, for they require an abundance of seeds, acorns and small fungi. Although they do burrow into the ground, chipmunks also require surface shelter that offers them security from predators; logs, rock piles, stone walls, ground vines and the like.

Chipmunk.

Leonard Lee Rue.

CHIPMUNKS are conspicuous in the garden during two seasons of the year—spring and fall. In fall the bright brown, light and dark striped little squirrel lives up to its scientific name, *Tamias striatus,* which means a striped steward who lays up provisions. In fall the chipmunk industriously carts cheekful upon cheekful of acorns and seeds of all sorts into its underground storerooms where it will be available for winter use.

When the weather turns cold chipmunks go into a winter sleep. The chipmunks' winter sleep is not an unbroken period of hibernation like that of woodchucks. Chipmunks awaken frequently, move about in their burrow systems, visit their storehouses and feed. If the weather is even slightly mild, chipmunks will emerge from their burrows, run across the snow, visit bird feeders, and before leaving stuff their cheek pouches full of sunflower seeds and scurry back to the warmth of their chambers.

At the first hint of spring, chipmunks emerge more frequently. Their sputtering whistles, chirps, trills and chucks sound through the woods and gardens. This is the mating season, and by late April or early May a new litter of young will be born in a burrow somewhere in the garden. Thirty-five days will pass after birth before their eyes will open, and another full month will pass before they leave the nest and forage on their own.

Few mammals in the garden are more delightful. Fussy, frisky, nosey, nervous, bright-eyed and distinctly colorful, the chipmunk is one mammal that can compete with birds for interest. Only occasionally do chipmunks get into trouble. Young of the year may decide a drain is a best place to set up housekeeping—the burrow is already made, and they may feast on some tulip and other bulbs, but not often.

Perhaps the most common mammals of the garden are mice: white-footed mice, meadow mice and even house mice. If the shrubbery is thick enough or if the garden is wooded or adjacent to a wooded or brushy area, white-footed mice are sure to inhabit the garden, the tool house, garage or even the attic.

Clean, bright-eyed, with white underparts and rich brown upperparts, the white-footed mouse is active only by night. During the day the white-foot retires to a well-built nest of vegetable fibers tucked away in a rotten stump or

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log, in a rock pile, pile of firewood, in a tree cavity, bird box or even a dark corner of a garage or shed. Except for creating piles of seeds in odd corners, or making a nest in some unused cranny, or chewing a hole into sacks of corn or sunflower seed, the white-footed mouse is hardly a major garden pest. Around summer homes and cabins that are closed much of the year, the white-footed mouse may be a major nuisance, especially when it takes up residence in chair cushions and mattresses.

Opossum, occasional garden visitor.

THE MEADOW MOUSE or mole is a short-tailed, rather coarse furred, blunt-nosed, dark-grayish little mouse with small beady eyes.

Rabbit, frequent visitor.

Although its favorite habitat is moist grassland, it lives in any number of places where there is some herbaceous cover on which it can feed.

The meadow mouse, active day and night, leaves many traces of its presence. The most conspicuous sign is its runways along the surface of the ground through the vegetation. They are especially noticeable in tall heavy grass. One-laned, the runway appears as a small well-trodden rut in the ground. They twist and turn, and have an intricate network of side trails that lead to all parts of the fields. The paths may tunnel beneath the sod, wind about grass clumps, disappear beneath boards. Somewhere near the pathways, the meadow mouse has its hollow nest of dried grasses about the size of a softball.

The meadow mouse is a grazing animal, as much as a cow or a horse. Basically, it is a year-round grass eater and where it occurs abundantly in grasslands and croplands it conflicts with the interests of man. It imposes an unnoticed levy on grass of hayfields and pastures. It removes the bark from young fruit trees and shrubs. It feeds on ripening tomatoes, exposed portions of beets, turnips and carrots. It even munches on strawberries, especially in those beds well mulched with straw.

At the same time the meadow mouse is the object of all sorts of predators—hawks, weasels, foxes and house cats. In fact an active house cat can reduce the numbers of meadow mice in the vegetable and garden environs.

Meadow mice are rarely associated with lawns. Any tunneling done in that kind of grassland is the work of moles. Their telltale sign is surface tunnel ridging the lawn.

THE COMMON MOLE inhabiting the gardens of our area is the Brewer's or hairy-tailed mole. Like all moles it is highly adapted for life beneath the soil. Its forelegs designed for digging are greatly enlarged; its extremely tiny eyes are hidden in the fur as are its ears. Its snout is pointed, its body short-legged and robust.

Moles live in deep tunnels in the earth. From these the mole extends its tunnels to just below the surface. These surface tunnels, which require a minimum of digging are hunting trails. The mole is seeking or working its way to food, which consists of earthworms, snails, spiders, centipedes and beetle larvae. Earthworms and beetle larvae are the two main attractions in the lawn. If a lawn is badly riddled with mole tunnels, the main reason is probably because of a heavy infestation of beetle grubs.

ANOTHER GARDEN VISITOR may be the star-nosed mole, unique in the animal world. Its decidedly ped-like nose ends in a circle of short, pink tentacles—giving it a sunburst effect. These tentacles, 11 on each side, are richly supplied with tactile nerve endings and are highly useful in seeking food.

The star-nosed mole is not as subterranean as the hairy-tailed mole and occasionally moves on the surface of the ground. An inhabitant of swampy ground, the star-nosed mole is rarely found in lawns, unless they are poorly drained or are close to wet soil.

A number of years ago in Pennsylvania I found that the star-nosed mole was the one common to our lawn. Not only did it raise the familiar surface tunnels, it also scurried across the lawn and swam in the garden pool.

Except for their habit of tunneling under the grass, eastern moles are not a major garden pest. Often they are blamed for destroying bulbs of tulips and daffodils. The moles are blameless. The bulbs were probably eaten by mice who make good use of these pathways through the soil.

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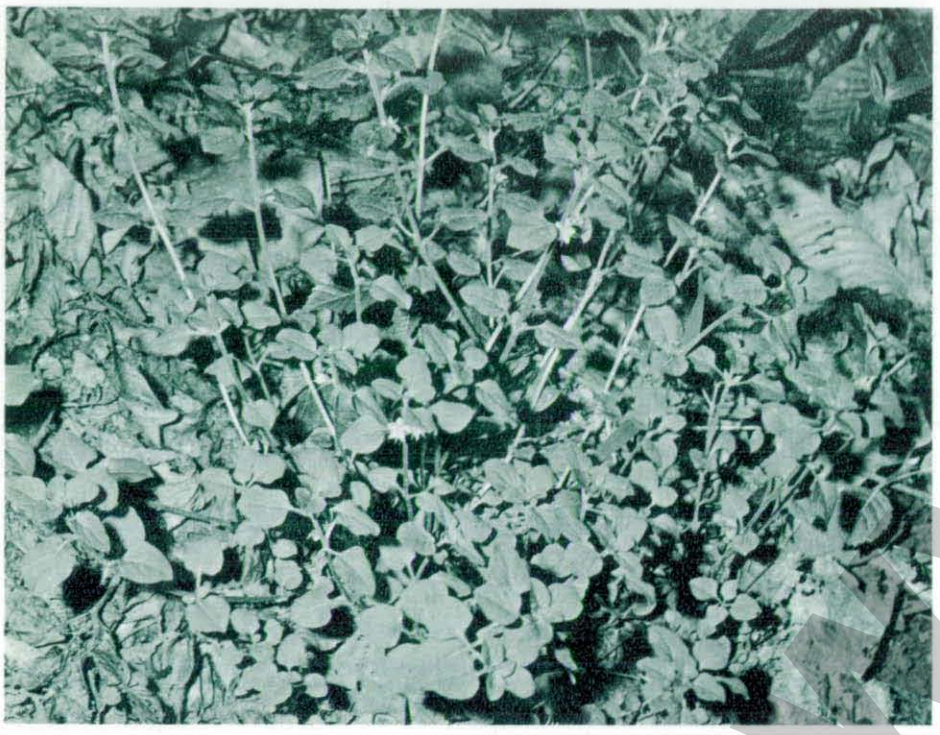

New plant, left, is called Japanese loosestrife for short.

Newest Plant in West Virginia

EARL L. CORE

About twenty-five per cent of the wild plants of West Virginia are weeds that have been introduced from other parts of the world and have become established. Many of these compete successfully with our native plants and become more abundant than some native plants.

Among these familiar introductions are such well-known plants as ox-eye daisy, wild carrot and wild parsnip. These plants are sometimes called peregrinators, travelers, in contrast to the indigenous or native plants, and have characteristics that enable them to spread rapidly and adjust themselves to diversified habitats. For this reason many of them are classified as "weeds." The term weed does not have the same meaning to all people, but it may be defined as a plant growing where it is not desired.

Most of these peregrinators, as might be expected, came from Europe, brought over, intentionally or unintentionally, by people emigrating from Europe, starting in the earliest colonial times. As commerce developed, some weeds from tropical America reached the United States, including the famous Jimson weed, first noted about the Jamestown colony. Still others came from southern and eastern Asia; among these are such plants as Indian strawberry and Japanese knotweed.

With the greatly increased traffic between eastern Asia and North America since World War II, it might be expected that new weeds would be coming this way, and this is exactly what is happening.

During the summer of 1967, observers of the Charleston area, notably Margaret E. Denison, L. C. McDowell, and Osbra Eye, forest superintendent, began noticing a small prostrate herb with little yellow flowers in Kanawha State Forest, Kanawha County. The observers made collections and sent them to West Virginia University Herbarium for identification. The plants looked familiar, suggesting a small pubescent form of the well-known moneywort **Lysimachia nummularia** but we had nothing that quite matched it. We then sent it to the Smithsonian Institution. It was identified as **Lysimachia japonica**; for a common name it might be called Japanese loosestrife. No other collections from North America were found in the Smithsonian files, and so we assumed that the Kanawha County collection was the first for this continent.

Later, however, we discovered that John W. Thieret had collected it in Louisiana on July 3, 1963 and had reported it as the first record of the species for the New World (Sida 1: 249, 250. 1964).

Japanese loosestrife appears to range naturally from Japan through the Ryukyu Islands, Formosa, eastern China, Yunnan, and Siam to Kashmir. It also occurs in New South Wales, Australia, although it may have been introduced there. The Japanese name is ko-nasubi.

A second colony for West Virginia was discovered in Panther State Forest, McDowell County, in 1969 by E. Meade McNeill and some of his students, including Dorothy Music. In both places it is common and in little danger of becoming extinct, though it is still one of the rarest plants in North America if not the whole Western Hemisphere.

How did Japanese loosestrife get into West Virginia? For many years there would have been little likelihood of its introduction. Thousands of young West Virginians, in the last decade or two, have made tours to eastern Asia, and it would be very easy for seeds to be accidentally brought back: in trouser cuffs, in shoes, in a multitude of other ways. We may expect more and more Asiatic peregrinators in the years to come.

SHOT-WATCHING

Ever watch a bullet in flight?

You may see a .22 long rifle bullet as it passes from shade into bright sunlight, especially if the sun is directly behind you. The bullet is a bright point of light as the sun catches its shiny base.

A .22 bullet is easiest to see on a 100-yard range with a strong spotting scope, and looks like a white spark flickering in the scope's field. We've also seen bullets from such old-timers as the .32-40 and .45-70. Our glims have never been good enough to see jacketed bullets on their way to the target, although we seem to recall claims that .30-06 military bullets have been seen in flight.

Shotgun pellets can sometimes be seen as a sort of silvery cloud when fired through light rain or drizzle. Shot clouds are most easily seen at night, under strong lights, when there is some rain or very high humidity.

Gnarled tree frames crest of Eagle Rock in Pendleton County.

Arnout Hyde Jr.

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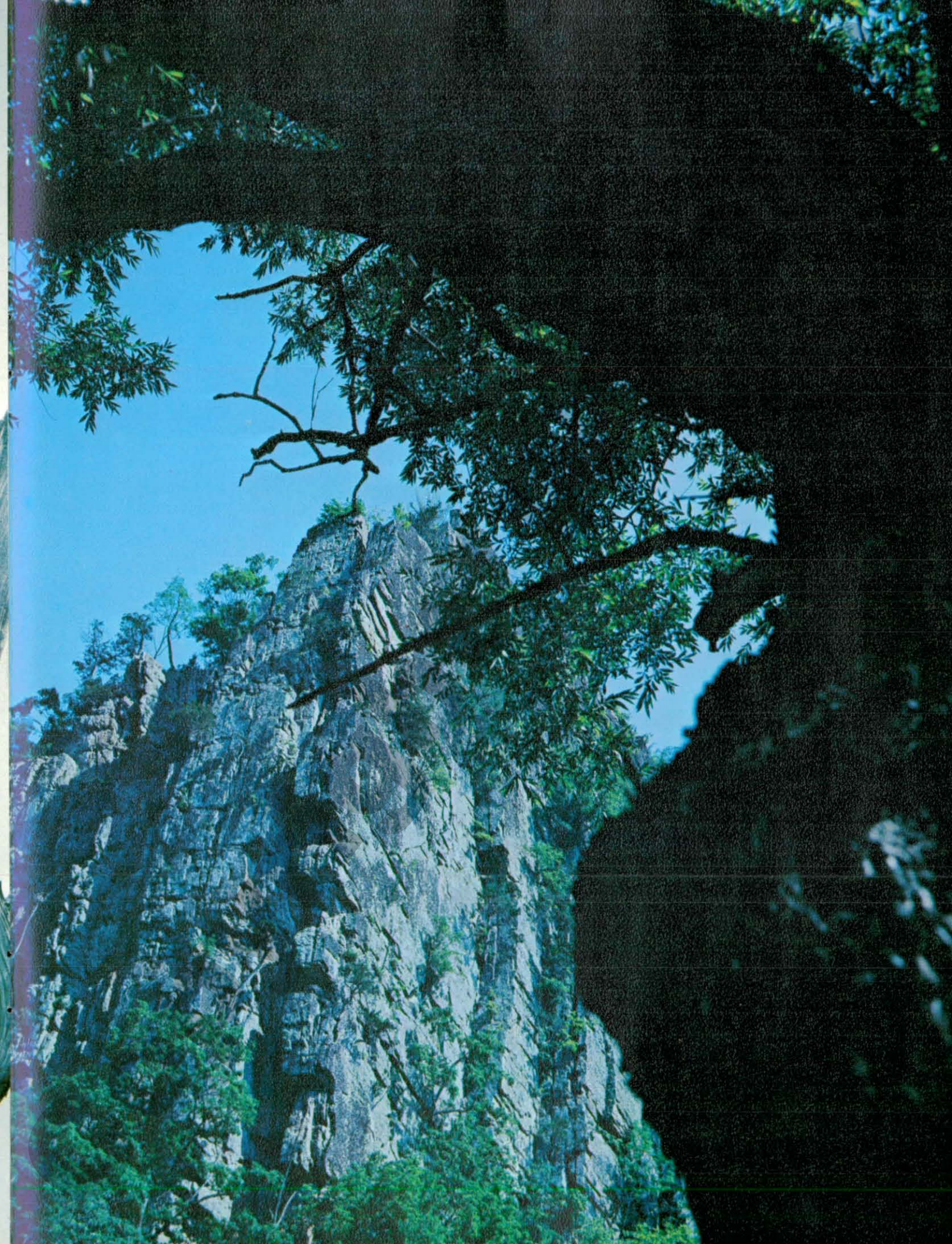

A Public Target: The Silent Minority

JOHN MADSON

IN THE NEW SURGE of environmental concern, a frequent target of aroused citizens is the hunter.

The citizen knows that wildlife is a desirable part of the environment. So it figures that if the hunter kills wildlife, he is somehow damaging the environment.

Such logic recently drew fire from Dr. Leslie Glasgow, Assistant Secretary of Interior for Fish and Wildlife, Parks and Marine Resources;

"the anti-gun fabricators and extreme preservationists have managed to sell a great many people the entirely false notion that harvest of wildlife is a crime against conservation and the environment. The truth is, that hunters and hunting have literally saved many wildlife species from extinction.

"The hunter-haters chatter on about the threat hunting poses to wildlife populations. Their solution is as grandly simple as it is naive: prohibit all hunting. Stop it completely and wildlife will be saved forevermore.

"What silly rot! And what dangerous rot!

"The wildlife scientist knows that the hunter and his harvest is not the real danger. The real danger is habitat destruction. Any time over-hunting becomes a danger, it is the hunter who demands a restriction in season or bag limit.

"Hunters and fishermen have been the leaders in every conservation crusade in this country. This is the American the anti-harvest crowd is portraying as the spoiler.

"The animal sentimentalists should be motivated to exert their effort toward saving habitat and improvement of the environment . . . Movements based on emotion and minus factual information are dangerous."

Extreme preservationists overlook the fact that some game species have been "wiped out" every fall for decades, but for some reason they always seem to come back. That reason is modern game management—probably the best example of how to live in harmony with environment and still enjoy its fruits. It's also a classic example of studying problems, finding solutions and then financing action.

Environmental maintenance isn't the only thing that hunters and fishermen are useful for.

A GREAT VALUE of such men is their unwillingness to compromise environment. They know that it is impossible to have quality total environment with no fish or wildlife, for such critters are true biological indicators of environmental quality. They know, more than most men, that a world that isn't good for wildlife isn't good for people. A non-hunter, non-fisherman, non-outdoorsman might settle for an environment without fish or wildlife, for he has no standards to guide him, and he might be content with an unpolluted sky, a sterile, manicured park, and crystal-clear water that is too infertile to support aquatic life.

We are hearing a call for quality environment from many Americans who don't *really* know what quality environment is.

It is ironic that the men who know the most about quality natural environment, and its elements, should be the targets of those who know the least.

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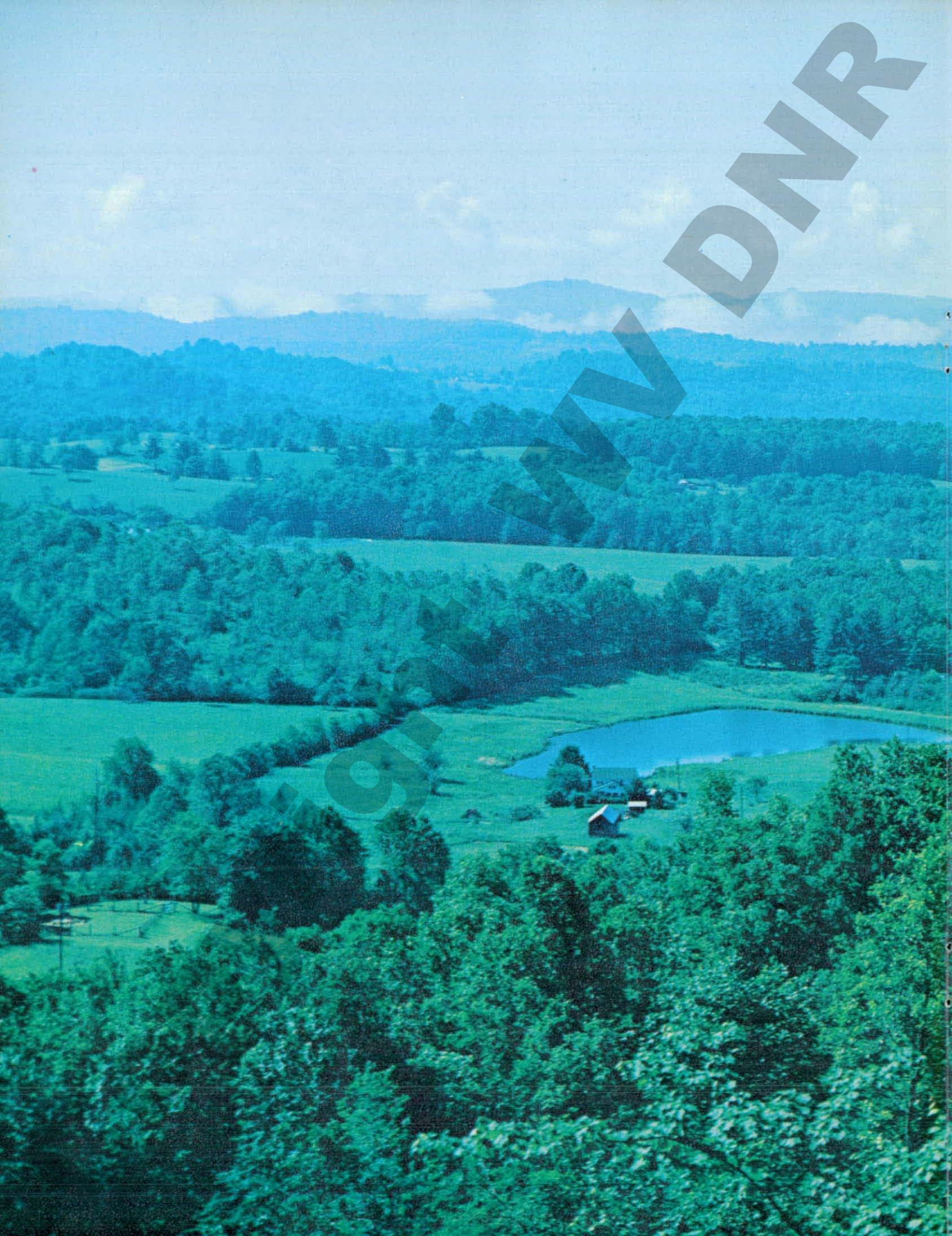
State's largest sycamore, 90-inches in diameter, located on Back Fork of Elk River, 3 miles from Webster Springs.

NEXT TWO-PAGE SPREAD: Rolling and lush countryside in Summers County.

Arnout Hyde Jr.



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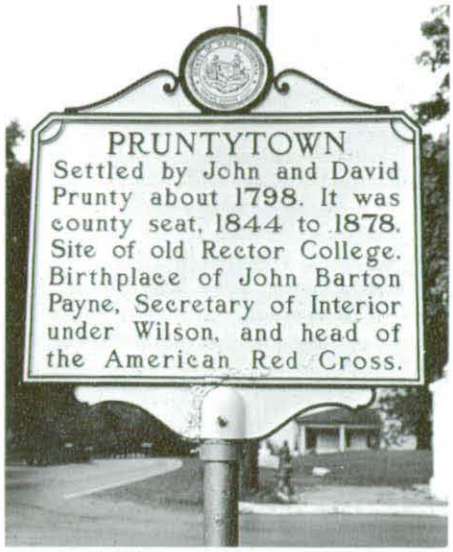

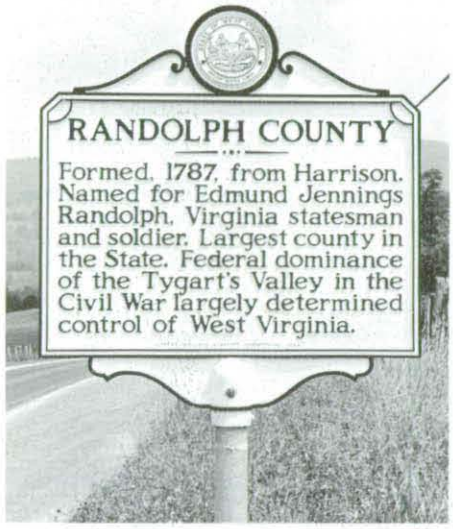

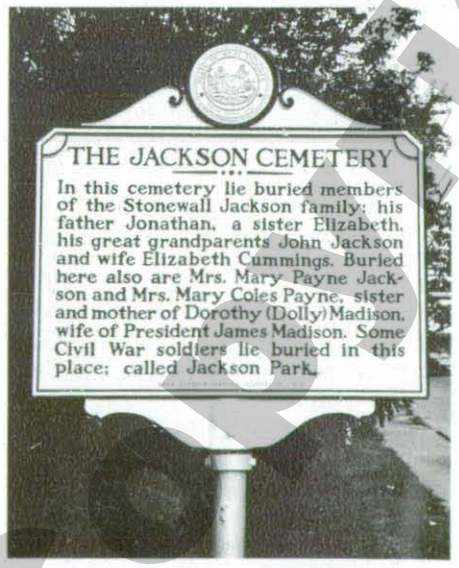

Markers Of

WEST VIRGINIA'S historic, prehistoric, scenic and geologic highway markers number 774, and each one provides the onlooker a fascinating and factual insight to the Mountain State.

The markers were erected by the West Virginia Historic Commission in cooperation with the Department of Highways. Many were erected during the state's centennial year; others, originally placed during the 1930's, were replaced during our celebration of 100 years of statehood.

U. S. Route 50, a highway rich in history of the growth of West Virginia, bears many of the markers. The route traverses nine counties—Wood, Ritchie, Doddridge, Harrison, Taylor, Preston, Grant, Mineral and Hampshire—from the Ohio River at Parkersburg to the mountains at the Virginia line.

As early as 1784, George Washington suggested this trail be used for a wagon road as he wanted an all-Virginia route to the Ohio River ending at the mouth of the Little Kanawha River.

Two years later the Virginia Assembly ordered construction of a wagon road from Winchester to Morgantown through Romney. By 1790 the course was marked as far as Parkersburg, but actual roadbuilding did not begin until some 40 years later. In 1838 the road was opened to Parkersburg as the Northwestern Turnpike.

Much of the new road cut through virgin wilderness and, as a result, towns and settlements developed along its path. As stagecoaches rolled back and forth along the highway, hotels were established to accommodate the many travelers.

By 1840 a daily run of stages and a regular mail service joined the Ohio River with the East.

Today, many highway markers stand along U. S. Route 50 as monuments to important people, places and events which dot West Virginia's historical road to the present.

By traveling along Route 50 motorists can discover from the markers all sorts of interesting facts about the state—some well-known, others more obscure:

Near the Ritchie County Line in Wood County is the birthplace of West Virginia's oil industry. In 1810, oil was found in gravel beds on Hughes River. Volcano was one of the first boom oil towns. The town of Petroleum in Ritchie County remains as evidence of that early industry.

At the junction with W. Va. Route 47 near Parkersburg is the site of the Old Tollgate House, where the Northwestern and Staunton-Parkersburg turnpikes met. Surveyed by Col. Claudius Crozet, onetime officer with Napoleon's army, both roads were completed to the Ohio River by 1850.

Pennsboro in Ritchie County was settled by John Bunnell, a veteran of the Revolution, near the salt lick which attracted great game herds. The "Stone House", built about 1807 by John Webster, was one of the famous inns on the Northwestern Turnpike. The marker is near the intersection with W. Va. Route 74.

The town of Tollgate in Ritchie County is named for the toll gate which stood there.

At West Union in Doddridge County lived J. H. Diss Debar, on whose suggestion and design the Great Seal of West Virginia is based.

Formed in 1784, Harrison County included all or parts of 17 other counties.

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History

TINA SONIS

In the Jackson Cemetery on East Pike Street in Clarksburg are buried members of the Stonewall Jackson family, in addition to the sister and mother of Dorothy (Dolly) Madison.

CHARTERED IN 1794 and settled by a colony of families from New Jersey, Salem is the site of the blockhouse where troops were stationed during the Indian wars to guard the trail from the Ohio to the West Fork settlements.

Taylor County was the home of Pvt. Thornbury Bailey Brown, first Union soldier killed in the Civil War, who is buried in the only National Cemetery in West Virginia. The cemetery was established in 1867 for permanent burial of Civil War dead, and is on Walnut Street in Grafton.

Pruntytown is the birthplace of John Barton Payne, secretary of the interior under Wilson and head of the American Red Cross. Six miles north, on the boundaries of Taylor and Marion counties, is Valley Falls State Park on the Tygart River, one of the State's celebrated scenic spots.

The first official Mother's Day service was held in St. Andrews Methodist Church on Main Street in Grafton, through the efforts of Anna Jarvis, on May 10, 1908. President Wilson in 1914 set aside the second Sunday in May as Mother's Day, a national holiday.

On U. S. 50 at Aurora, Preston County, is a marker telling about the Rev. John Stough and his family who settled at nearby Mount Carmel about 1787. Shortly thereafter, Stough started the area's first gristmill.

Near Aurora is a marker about Gantz Sand, a clean pebbly limestone which produces oil and natural gas at depths greater than 1700 feet in north-central West Virginia. Also native to this area is Salt Sand, found in the crest of Laurel Mountain.

In Grant County, near Gormania, is the site of Fort Ogden, one of a chain of forts established by George Washington about 1755. A frontier defense, the fort was a point of refuge for many pioneer families.

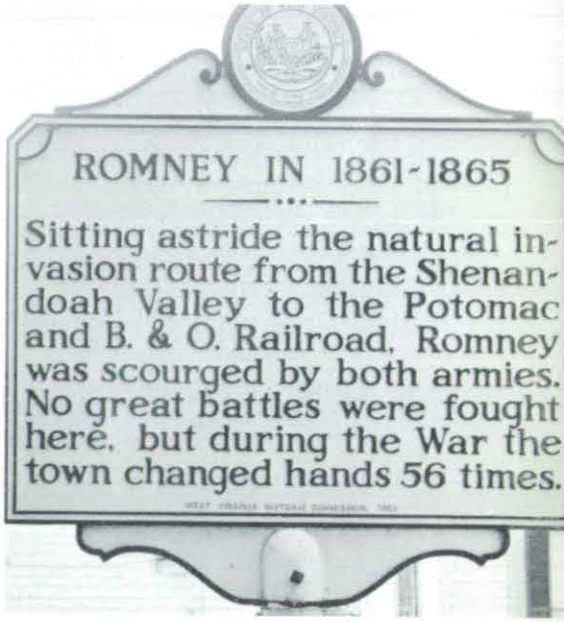
Mineral County was named for its great mineral deposits such as Oriskany Sand, an important gas sand which has produced in excess of a trillion cubic feet of gas in West Virginia.

ESTABLISHED IN 1754, Hampshire is the oldest county. Famous Ice Mountain, about five miles north from the junction with W. Va. 45 along North River, is a huge natural refrigerator where ice may be found on even the most sweltering summer day.

The Indian Mound Cemetery on U. S. 50 in Romney is seven feet high and about 15 feet in diameter and is one of the largest remaining mounds in the Eastern Panhandle. This mound has never been excavated, but similar mounds of the area dug by Smithsonian Institution suggest this particular one might date between A.D. 500 and 100 B.C.

On the courthouse lawn at Romney is a marker with several bits of information, including the fact that the town changed military control 56 times between 1861 and 1865.

Mechanicsburg Gap, one mile west of Romney, is a scenic canyon cut through Mill Creek Mountain by Mill Creek. Here an old Indian trail led from the Valley of Virginia to the Alleghenies, then to the Northwestern Turnpike, now called the George Washington Highway.



In the same vicinity is a marker commemorating Col. Crozet for his turnpike.

These are but a few of the 774 markers around the state. They are located in areas where the traveler can see them, not always exactly at the site to which they refer. Through these markers, the traveler can learn of the growth and grandeur of Wonderful West Virginia.

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ARTIST GENE GRAY WILL VISIT STATE PARKS

Artist Gene Gray's schedule of personal appearances is:

Sunday, August 16 - North Bend Lodge
Monday, August 17 - Blackwater Lodge
Tuesday, August 18 - Cacapon Lodge
Wednesday, August 19 - Hawks Nest Lodge
Thursday, August 20 - Charleston for appearances on t-v and radio

He will be in the gift shop at the lodges during the day, and at 7:50 p.m. will present a slide show and lecture at each lodge.

Famous artist Gene Gray shown in field getting authenticity for his paintings.

Dear Mr. Johnson & Staff:

Just a few words of praise for the excellent production of Wonderful West Virginia.

While residing far from my native homeland, Preston County, I take great pleasure in reading the interesting and informative articles presented, and revisiting the many scenic splendors to which I had become accustomed.

Keep up the good work.

Jerry S. Lee
United States Embassy
Athens, Greece

POLLUTION UNCOMPLICATOR

The man who says current levels of air and water pollution are necessary byproducts of our standard of living is a liar. —National Wildlife Federation CONSERVATION NEWS

DEVIL FOOD

Hell, Michigan has come up with another "anti-litter first." Keep America Beautiful, Inc., the national litter-prevention organization, has received word from Hell that a large litter barrel with the inscription, "Please Feed the Devil," has been placed at the side of the main road leading into the town.

Reports Mel Reinhard, president of the Hell Chamber of Commerce: "He just loves it."

Great Horned Owl.

Painting by Gene Gray.

MORE FISHERMEN

According to a recent news release from the U.S. Bureau of Sport Fisheries and Wildlife, the total number of fishing license holders in Fiscal Year 1969 increased by about 4.4 per cent over 1968, to a new high of 24,076,148. Altogether, the latter purchased 29,855,480 fishing licenses, tags and permits of all kinds providing a total of $87,500,774 for use by the states in fishery management programs. This represented nearly a 9.4 per cent increase in the principal source of funds available to the states for all aspects of their fish conservation programs.

ANCIENT ANIMAL FOUND

The first known fossil evidence found in the entire eastern United States of an ancient animal was discovered in West Virginia recently. Two young men, Jeffrey Summerville, 10, and Jimmy Stewart, 12, of Reedy found a skull mold identified by Carnegie Museum, Pittsburgh as **Diadectes,** a primitive animal between 250 and 300-million years old.

Very close to the dividing line between amphibians and reptiles, the animal was probably heavy, clumsy, about six feet in length and fed on vegetation and hard-shelled invertebrates.

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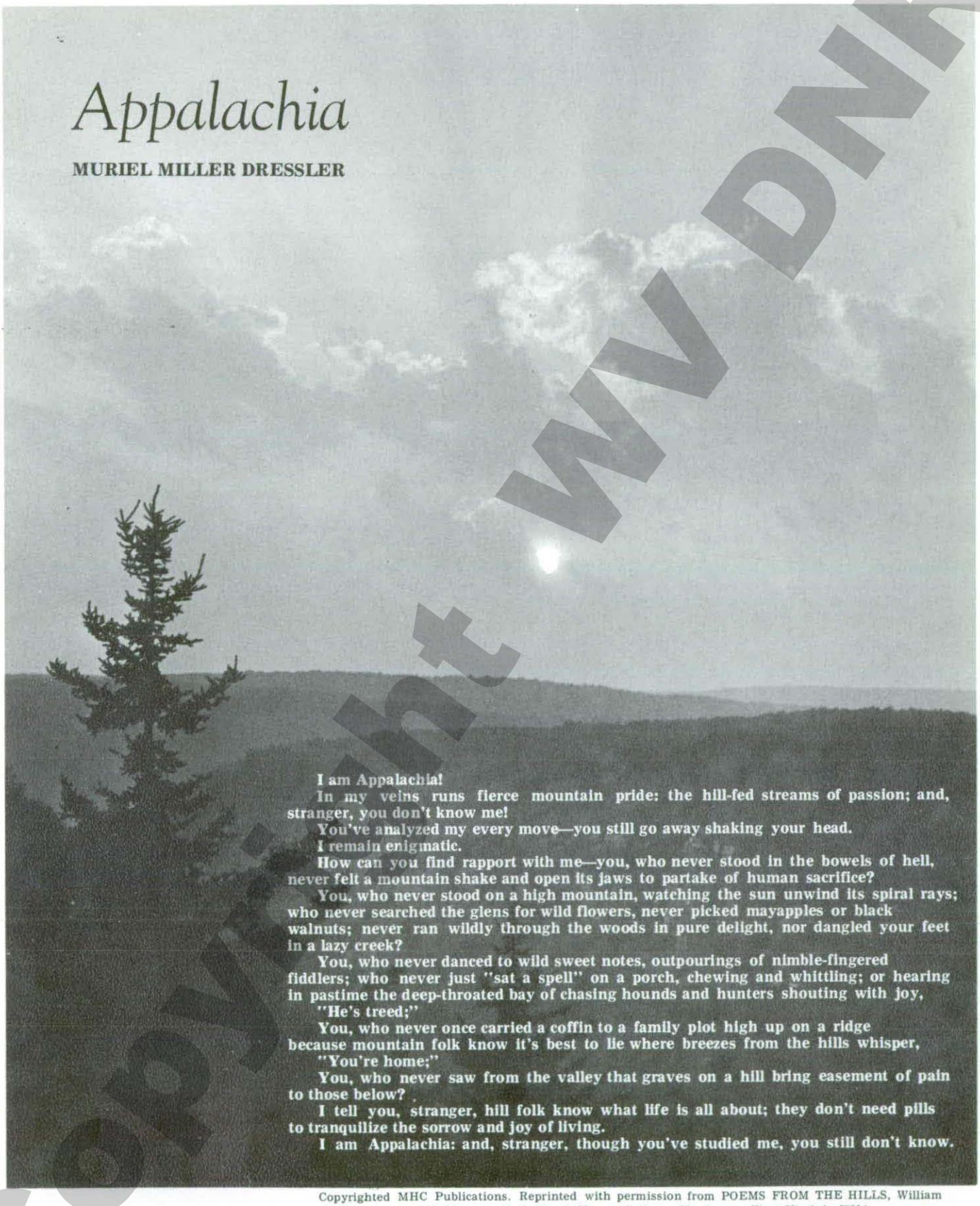
Appalachia

MURIEL MILLER DRESSLER



I am Appalachia!

In my veins runs fierce mountain pride: the hill-fed streams of passion; and, stranger, you don't know me!

You've analyzed my every move—you still go away shaking your head.

I remain enigmatic.

How can you find rapport with me—you, who never stood in the bowels of hell, never felt a mountain shake and open its jaws to partake of human sacrifice?

You, who never stood on a high mountain, watching the sun unwind its spiral rays; who never searched the glens for wild flowers, never picked mayapples or black walnuts; never ran wildly through the woods in pure delight, nor dangled your feet in a lazy creek?

You, who never danced to wild sweet notes, outpourings of nimble-fingered fiddlers; who never just "sat a spell" on a porch, chewing and whittling; or hearing in pastime the deep-throated bay of chasing hounds and hunters shouting with joy,

"He's treed;"

You, who never once carried a coffin to a family plot high up on a ridge because mountain folk know it's best to lie where breezes from the hills whisper,

"You're home;"

You, who never saw from the valley that graves on a hill bring easement of pain to those below?

I tell you, stranger, hill folk know what life is all about; they don't need pills to tranquilize the sorrow and joy of living.

I am Appalachia: and, stranger, though you've studied me, you still don't know.

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Olympic-size swimming pool at Pipestem State Park is another enticing feature of this popular recreation center.

For Your Pleasure

PICNICKING, HIKING, GAMES. Tables—shelters at State Parks, Forests and Roadside Parks. Playground equipment, game courts. Golf—Canaan Valley, Pipestem, Twin Falls State Parks.

SWIMMING. Sun'n'Fun at pools, beaches, lakes: Audra, Babcock, Blackwater Falls, Bluestone, Cacapon, Cedar Creek, Hawks Nest, Holly River, Lost River, Mont Chateau, North Bend, Pipestem, Tomlinson Run, Twin Falls, Tygart Lake, Watoga and Watters Smith State Parks; Cabwaylingo, Greenbrier, Kanawha and Panther State Forests.

BOATING. Bluestone, Hawks Nest, Summersville, Sutton and Tygart Lakes. Rental boats, ski equipment. Scuba diving at Tygart.

FISHING. Year-round in or near all State Parks and State Forests.

CABINS. Completely furnished—just bring food and leisure clothes, for one or two weeks at ten parks and four forests. Informatin, reservations: Cabins, Parks & Recreation Div., Dept. of Natural Resources, State Capitol, Charleston, W. Va. 25305, phone 348-2766.

LODGES. Luxurious accommodations, restaurants, conventions, social functions at Blackwater Falls, Davis; Cacapon, Berkeley Springs; Hawks Nest, Ansted; Mont Chateau, Morgantown; North Bend, Cairo; Pipestem, Pipestem; Twin Falls, Pineville; and Tygart Lake, Grafton. Reservations, rates and information from Lodge offices.

CAMPING. Tent or trailer at Audra, Babcock, Blackwater Falls, Bluestone, Canaan Valley, Cedar Creek, Holly River, North Bend, Pipestem, Tygart Lake and Watoga State Parks; Cabwaylingo, Camp Creek, Coopers Rock, Greenbrier, Kanawha and Seneca plus tenting only at Kumbrabow and Panther State Forests. No reservations.

CASS SCENIC RAILROAD. Two-hour thrill ride up steep Cheat Mountain with antique Shay steam locomotives. Daily except Tuesdays at 11;00 a.m., 1:00 and 3;00 p.m. Four-hour ride to Bald Knob, second highest point in W. Va. daily at 12:00 Noon except Mondays.

AERIAL TRAM RIDE. Hawks Nest Lodge. Daily May thru Labor Day. Weekends only Sept 1 'til Oct. 31.

DRAMA. "Hatfields and McCoys" Grandview State Park nightly except Mondays June 20-Aug. 30.

HISTORIC SITES, MUSEUMS. Watters Smith State Park, museum, 1790 farm. Hawks Nest museum. Carnifex Ferry Battlefield, a Civil War fray resulting in creation of W. Va. as a separate state, museum. Droop Mountain Battlefield, state's most extensive Civil War engagement. Pt. Pleasant Battlefield, museum — pre-Revolutionary bloody encounter between Chief Cornstalk and pioneers.

INFORMATION, LITERATURE. Write Department of Natural Resources, or Department of Commerce, State Capitol, Charleston, W. Va. 25305.

A year-round state park, Pipestem's ice-skating rink will delight winter recreationists.

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Dick Mathews photo.

Like tombs for dead dreams, these silent sentinels are only remnants of an idea to establish the wine industry in West Virginia in pre-Civil War days.

Dutch Hollow Wine Cellars

FATHER CLIFFORD M. LEWIS, S.J.

W. Va. Antiquities Commission

The Dutch Hollow Wine Cellars, fronted by triplet brick arches which excite the curiosity of passersby, are the last known remnants of a once promising industry in West Virginia. In 1876 the resources of the state included wine manufacture because the summer suns were long and warm enough and the state well located within the zone in which grapes mature.

The largest crop came from Ohio County, which had approximately 700 acres of grapes from a state-wide total of around 900 acres. In 1874 the Ohio County crop was valued at $100,000, with shipments to Pittsburgh, New York, Boston and Omaha. By 1904, the industry was almost non-existent as only one "vinous liquor establishment" was listed in the entire state.

In Kanawha County near Dunbar, Tom Friend, listed as a salt manufacturer, reportedly built the Dutch Hollow Wine Cellars around 1860, with the help of slaves who pried stones from the side of a hill adjoining Big Tyler Mountain. The big, blue trapes were picked, pressed, set in the sun to ferment and aged in the cool cellars. After proper aging, the wine was hauled by oxcart to Charleston and then to Cincinnati by steamboat. The variety of grapes grown at Dutch Hollow is not known, but elsewhere in the county, Catawba vineyards proved unreliable and were replaced with Concords and seedlings.

With the end of the Civil War, labor was costly and the wine business was no longer profitable. It was then the winery was abandoned according to descendants of a Richardson family who came to Dutch Hollow in 1861 to help operate the winery.

Raccoons dunk their food in water, not because of an inclination toward cleanliness, but because of poorly developed saliva glands.

"Pot of gold" for this rainbow last month was in Kanawha State Forest.

Arnout Hyde Jr.

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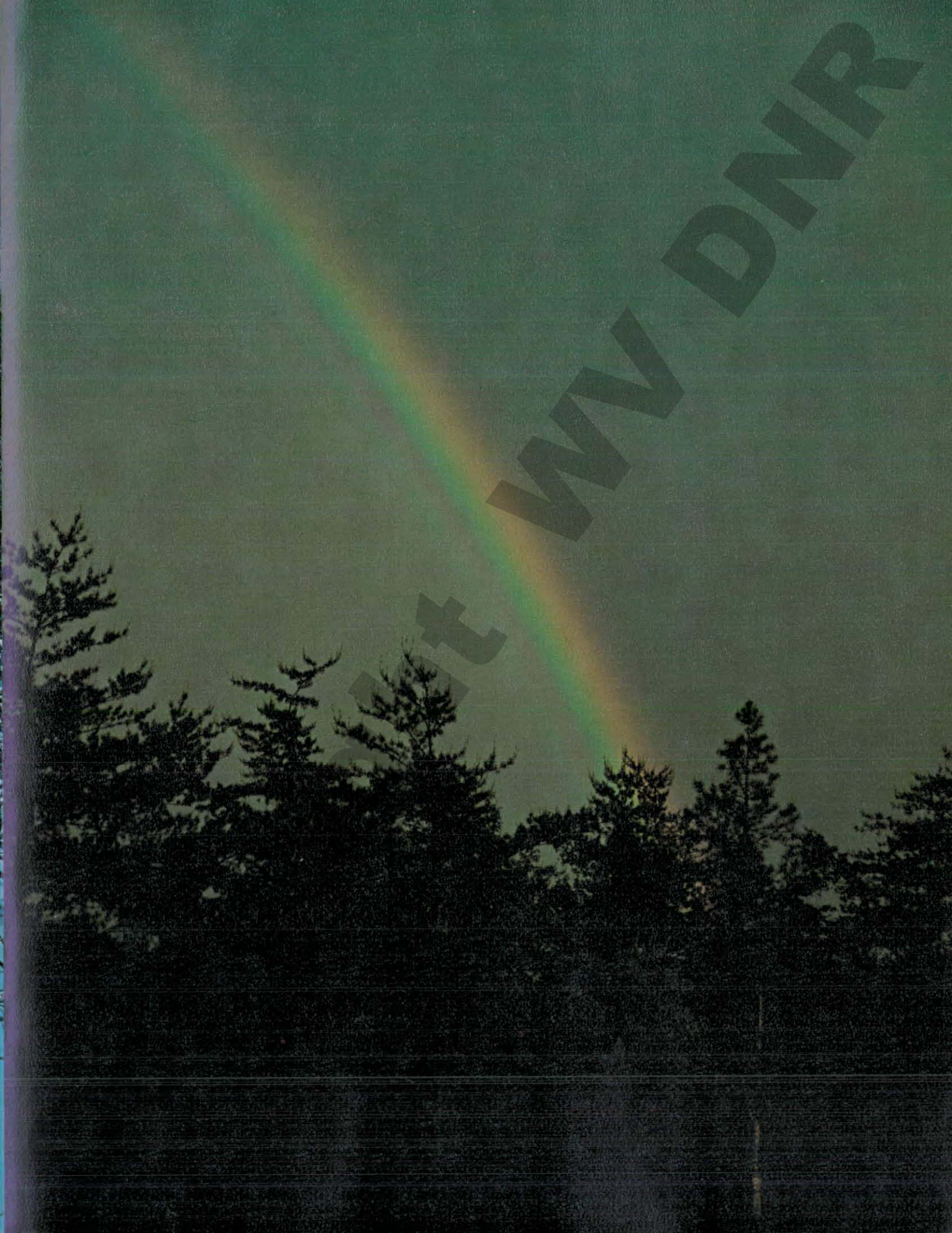

WV DNR

MAN AND HIS HOME

Part I — The Earth

DR. A. J. HAAGEN-SMIT
California Institute of Technology

(Editor's Note: We are publishing this significant article in four parts because it is so timely with growing national concern about our environment)

EARTH FINALLY MADE IT. It, too, had its day. It took some doing, but finally the younger generation got up in arms and organized sit-ins and teach-ins—all for good old Mother Earth.

It was about time. The airplane commuter knows when he is nearing our big cities—haze and brown clouds are the rule. The views from the tops of the Empire State Building in New York, the Prudential Building in Chicago, the Humble Building in Houston or the City Hall in Los Angeles have one thing in common. Visibility is considered good when one can see the outlines of hazy streets below and a horizon covered by a brownish haze.

The waters from sewers of the big cities and their industries stretch their greenish and brownish discharge far into the lakes, and we read about the replacement of healthy fish populations by mudsuckers and unsightly algae, choking all other plant life to death. Excessive human deaths during periods of heavy air pollution have been recorded in London, New York and other cities.

Today, a majority of Americans, urban and rural alike, in all sections of the country live near polluted waters and are breathing polluted air. In some cases, smog is doing more damage to crops than even insects. We have upset the balance of nature because we have assumed that our resources—air, water, and soil—are infinite.

This century has taught us that our space ship is not at all so big and that we have finally succeeded in changing, on a global scale, the composition of our atmosphere and the water of the oceans. The rapid burning of fossil fuel in the last fifty years has raised the concentration of carbon dioxide in the air substantially, and this, together with minute particles discharged by industrial operations, will affect the heat balance of the earth.

All these terrifying incidents have brought home to us the realization that we are part of nature, that there is a close bond between us and our environment. In the past, it was taken for granted that we were the masters of all living and inanimate things on earth and that we could take care of the needs of man forever. The general thought, if any, was: the soil, the water, and the air are ours, and no one is going to tell us what we are going to do with them. This thought still prevails in the world, but there are encouraging signs that we have reached a more mature consideration of the environmental problems that this nation and the world face.

Whenever we pick up a newspaper, we seldom fail to see an article on the new science: Ecology.

ACTUALLY, this is not a new field of science at all. It is the study of our **home,** or, rather, environment. The name comes from **Oikos,** meaning house, and **Logos,** which is discourse. Ecology, then, is the study of our house, or, in a broader sense, our environment. This may be the total biosphere of the earth, continent, or smaller national units, such as forests, islands, or even the small world of a square foot of soil. This discipline was practiced by a rather small group of scientists, often pictured as collectors of butterflies

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and shells. Actually, these scientists have a true and profound curiosity—simply for the sake of knowing—about everything that goes on in nature.

They are the ones who know about the delicate balance between the living world and the environment. If we had listened to their teachings, we might have prevented many of our predicaments. We could have learned that we, too, are a part of the total systems of living and nonliving things, and that a thorough knowledge of the functioning of our house, or environment, is fundamental to our survival.

Many civilizations of the past have succumbed because of a lack of understanding of the laws of nature. These laws cannot be flouted for long without severe punishment. Exhaustion of the soil plus slash and burn techniques led to the downfall of early empires of the Mayas in Mexico and the Persians in western Asia.

After finding out what substances were in the air, I could not help but get interested in their origin—where they came from and how to prevent their emission. The combination of chemical and community problems is fascinating, and I was drawn deeper and deeper into environmental pollution studies.

I'll just mention a few thoughts that I have had on the subject of air and our environment in general.

Our ancestors lived in the happy certainty that the earth was infinite and that there was enough soil, water and air to go around. The system was well balanced, in a steady state of equilibrium that was not going to change much during their presence on earth. It was realized, of course, that there are some changes, some violent upheavals—storms, floods, earthquakes, births and deaths—but they form a recurring pattern and we get used to such a situation. The whole system seemed to have a kind of comfortable stability.

Looking at an astronaut's view of the earth, we begin to realize that the earth is actually not so large at all, and that stability applies only to our time period, which is infinitely small compared to the time scale of geological and evolutionary happenings.

A continuous flow of events led from the origin of life some two to three billion years ago to the elaborate structures that we represent. For evolutionary processes, changes in the environment were essential; however, for the continuation of the species, the constancy of the environment was of great importance. Even small changes in the environment will eventually lead to the disappearance of the species, or its replacement by others more suitable to new conditions.

When organisms first climbed on land some half a billion years ago, they soon found out that the scorching sun in the daytime and the cold of the night were quite different from the protective life that they had left. The all-pervasive supply of food in the ocean was replaced by localized supplies for which they had to hunt. When the organisms had acquired the ability to use the sun's energy, when photosynthesis had evolved, it gave them a new freedom to move without being dependent on the nutrients dissolved in the oceans.

It was a rough world for the adventurous mutants, but those that had established themselves survived in the uninhabited areas. Evolution and adaptation to the changed world went on, and today there are one to two million successful species known—350,000 in the plant world, and at least more than one million in the animal world.

MOST REMARKABLE are the methods used to overcome the limitations set by the environment. Some of the descendants of a green alga, for example, formed an alliance with another organism, a fungus, and together they survived the new situation. The alga lives inside the fungus, protected from the fluctuating humidity, while the fungus profits from the photosynthetic ability of the alga, which supplies it with nutrients. This combination, the lichen, was so successful that it is found in the most inaccessible and unpromising spots—on the bare rock in the deserts, as well as in the coldest regions of earth.

The less adventurous forms of life gave up their relatively safe surroundings only hesitatingly, and even today some of the present land animals, such as frogs, return to the water to insure their offspring of a better chance of life.

Others found their safety in the dark areas under the surface of the earth, where the absence of large variations of light and humidity guaranteed their continued existence. Because of the stability of the surroundings, early forms of evolution found a more permanent environment in the dark and damp soil, and it now houses probably the largest supply of species, in numbers and in kind, anywhere in the world.

Actually, this soil cover shelters more life than can be found in any other stratum of any other environment on earth. The inhabitants exist in numbers that stagger the imagination.

Some years ago, some scientists blocked off a small section of forest soil in New York State and removed the top layer of earth to a depth of one inch. They made a careful count of the insects and other invertebrates found in one square foot of this top layer. In all, there was an average of some 1,400 living creatures, including 865 mites, 265 springtails, 22 millipedes, 19 adult beetles and various numbers of 12 other forms.

Had an estimate also been made of the microscopic populations, it might have ranged up to two billion bacteria and many millions of fungi, protozoa, and algae in a mere teaspoonful of soil.

This underworld plays an important role in the development of higher plants. It prepares the soil, the humus, in which the plants sink their roots, where they find predigested foods made by bacteria, molds, insects, nematodes and numerous other small animals. Were it not for the work of the soil creatures, the forest would soon be choked in its own waste, and vegetation would not be possible.

The bed of mulch is rich in nutrients; a seed carried by the wind will find a place to send its roots down, and a new life emerges—maybe a violet, maybe a pine tree.

We can say that wherever there was room in some empty niche, some organism found a place to live.

THE STUDY of the adaptation of species of plants and animals to take advantage of special circumstances is most fascinating. In the family of the African violet, for example, we find a plant that dips its roots in a rain-filled vase formed from one of its leaves. Other species of the same family spread such an unpleasant odor of decomposing meat that only a certain type of fly will visit it in preference to other flowers, which to us have a more pleasant smell.

The work of the scientist whom we honor today abounds with examples of the extraordinary inventiveness of the living world to take advantage of opportunities in the environment.

In the animal world it is no different. Think of the remarkable homes the termites build—which may be 20 or more feet high—to overcome the limitations set by nature. The termites create their own optimum environment and are first-rate air conditioning engineers. Their homes are temperature-controlled and ventilated to keep the carbon dioxide concentration down. They also are expert gardeners, and inside the mound they cultivate fungus gardens to supply the queen with nutrients.

It took the earth a few hundred million years to establish its lush vegetation and establish the concentration of the major constituents of our present-day atmosphere. In the photosynthetic processes of plants, carbon dioxide was converted to complex organic materials, and large quantities of oxygen were released into the atmosphere.

In the course of millions of years, huge quantities of chemical energy were stored in these organic materials. They represent nature's stores of fossil fuels, coal, shale, oil and gas. It was during that time that the composition of the atmosphere reached 21 percent—or 210,000 parts per million—of oxygen, and .03 percent—or 300 parts per million—of carbon dioxide. The living world had time to adjust itself to the gradual change from a reducing to an oxidizing atmosphere.

In the course of time, species came and went; some lasted only a few million years; others, such as dinosaurs, survived some 150 million years. Their contemporaries, the gingko trees and the cycads in our gardens, are still growing. They were witnesses of the struggle for existence and for power of a succession of masters of the world.

(To Be Continued)

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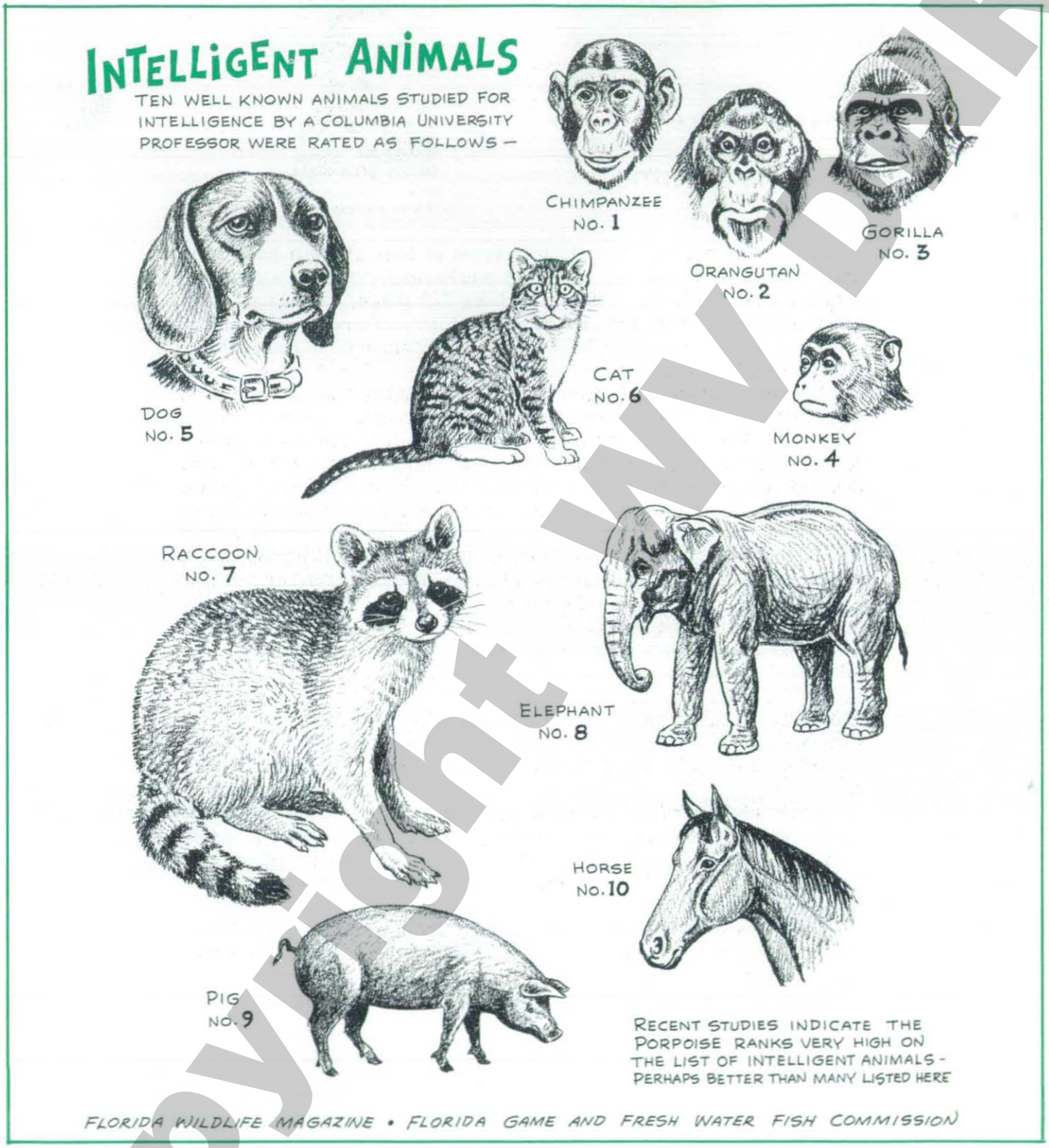

Rail fence, old and fallen apple tree, and small "crick" in Calhoun County brings back nostalgic memories to older Mountaineers.

Arnout Hyde Jr.

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LITTERING STILL

A Dirty Shame

Ira S. Latimer Jr.

As of this writing, literally thousands of tons of trash have been hauled away from our countryside, creeks and rivers as a result of "Operation Clean State," "Rolling Rivers Campaign," and a variety of other efforts by organized groups and industry. These fine efforts by dedicated West Virginians have made Mountaineerland considerably more beautiful, pleasing and a growing source of pride to all of us.

In most instances, the job was a backbreaking task: heat, poison ivy, nettle and few accolades for the volunteers. As one example, citizens in Raleigh County picked up and hauled away an estimated 500 tons of trash to a landfill. County Sanitarian William Patton, who directed the campaign, said he regretted the lack of adult participation in the cleanup campaign. "People," he pointed out, "talk about how bad young people are; but in the cleanup job it was the young people who were working hard, and the adults were delinquent." Patton hopes to see more adults involved in the campaign later this summer.

A few weeks ago I had the dubious privilege of fly fishing on the South Branch of the Potomac River in the Smoke Hole, one of the most beautiful and scenic areas in West Virginia. I say it was a "dubious" privilege because the stream and banks were appallingly littered by beer cans and other litter. The area looked like a tenement alley. The U. S. Forest Service goes to considerable expense and pains to make this scenic area a source of pleasure to the public. It seemed almost a sacrilege to trout fishing to float a fly over submerged beer cans.

I am advised that fresh littering is seen along the course of Elk River which was thoroughly cleaned up last year by volunteers. Aside from the tremendous cost of picking up litter, it is most discouraging to the workers removing the trash and the citizens with good outdoor manners.

Our conservation officers are issuing more citations for littering than any other offenses; however, you cannot force or legislate outdoor decency.

Everyone can help by not being an offender—and be big by picking up other people's litter.

Outdoor West Virginia belongs to you, too.

IRA S. LATIMER JR.

Only an unlittered stream can add the ultimate joy to the noble sport of angling.

Arnout Hyde Jr.

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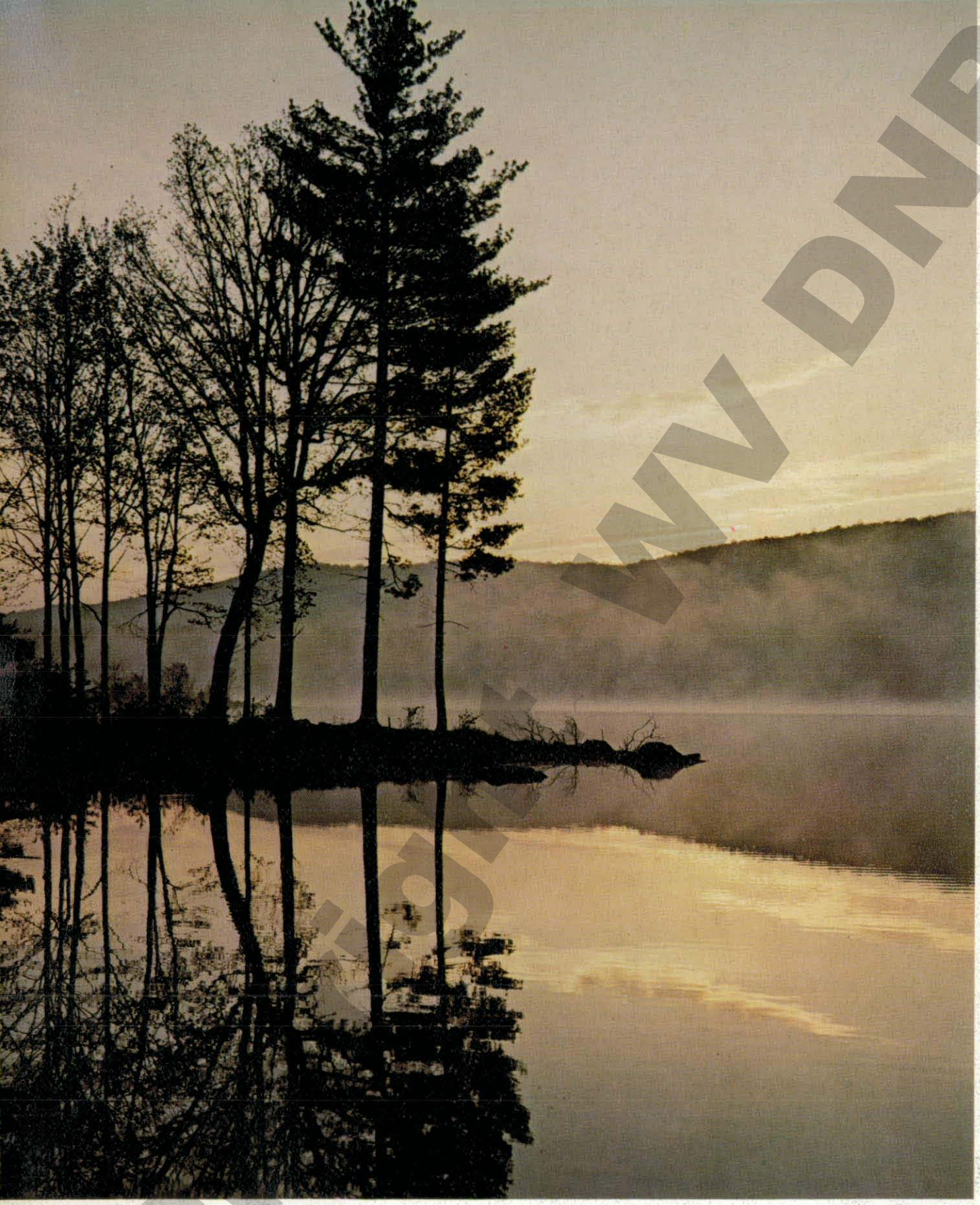

Sundown at Sherwood Lake, Greenbrier County

Arnout Hyde Jr.

From: The Department of Natural Resources, Charleston, West Virginia 25305
Return Requested

8-71
STANLEY D BUMGARDNER
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CHARLESTON W VA 25301

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