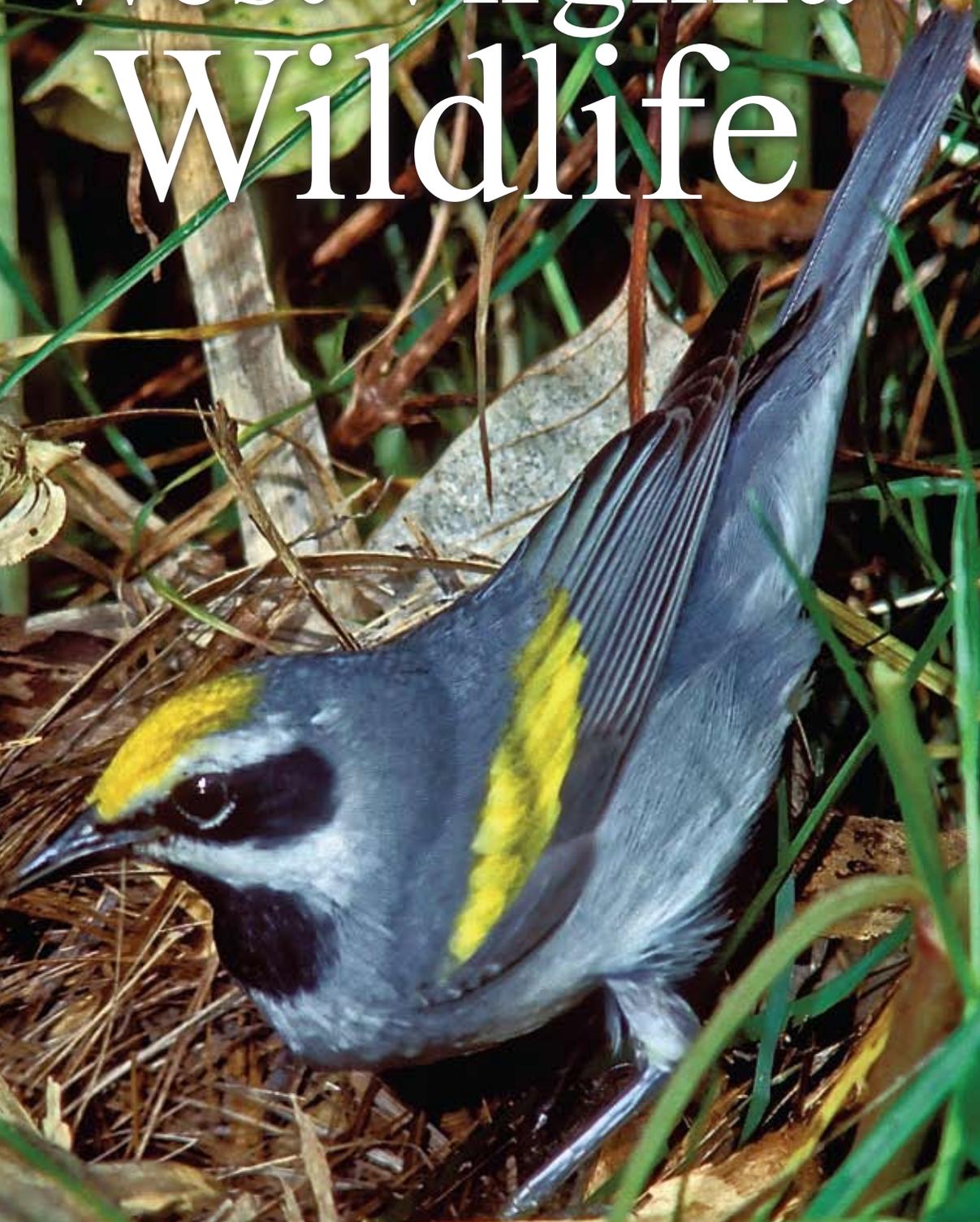


West Virginia Wildlife



Summer/Fall 2009

A Publication of the West Virginia Division of Natural Resources

West Virginia is blessed with vast expanses of forestlands which support an abundance of wildlife. From the western foothills, dominated by the mixed hardwood forests, to the high elevation red spruce forests, numerous species of game and non-game wildlife are dependent upon this forested habitat for their existence.

The DNR Wildlife Resources Section has a responsibility to the citizens of West Virginia to manage our state's wildlife resources for the benefit and enjoyment of the public. To achieve this goal the WRS staff works closely with private landowners and other entities, providing technical advice and habitat enhancement recommendations. In addition, the WRS expends significant personnel and financial resources managing the state's Wildlife Management Area system.

The WRS currently oversees wildlife management activities on 77 WMAs throughout the state, and has full forestry and wildlife management authority over approximately 280,000 acres of state-owned WMAs. In addition, the WRS coordinates closely with the U.S. Forest Service, state Division of Forestry and other private entities pertaining to forest and wildlife management efforts on more than 1.1 million additional acres of public lands including state and national forests.

Wildlife habitat manipulation and enhancement through the implementation of sound forest management practices on these public lands continues to be a high priority for our agency. Wildlife Resources Section personnel direct their forest management toward achieving several management objectives, and include but are not limited to: creating and maintaining a diversity of forested habitats and age classes which support a broad array of wildlife; the implementation of sound silvicultural methods to insure the regeneration of our valuable wildlife-dependent most producing tree species such as oaks, black cherry and hickory, in addition to other important forest communities; sustaining and/or increasing soft and hard mast production and brood habitat through thinnings and prescribed burning treatments; and practicing sound forest stewardship to insure the protection and conservation of our state's unique forested habitats.

To meet these objectives, the WRS is currently conducting timber sales and related management activities on numerous WMAs throughout the state. WRS personnel are also currently in the process of finalizing the WMA forest management objectives for 2010.

With almost 79 percent of the state covered in forests, it is imperative that a sound forest management program be an integral component of our agency's wildlife management program efforts if we are to sustain the diversity and abundance of our state's wildlife resources. These management efforts will help to insure that future generations of hunters, birdwatchers and other outdoor enthusiasts will continue to enjoy an abundance of wildlife resources for many years to come here in the "Mountain State."

Frank Jezioro
Frank Jezioro, Director, Division of Natural Resources



Snail feeding on vegetation.

Craig Stihler

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Female golden-winged warbler on nest.

Photo by Liz Stout

A Golden Opportunity for Conservation

by Kyle R. Aldinger and Petra Bohall Wood



Kyle Aldinger

Golden-winged warblers require open habitat such as this grazing allotment on the Monongahela National Forest.

It is late April in central West Virginia. The temperature is barely above freezing as the sun breaks over the horizon, casting rays of light through newly grown leaves of hawthorn and goldenrod. Cattle are lowing in the distance, sounding the arrival of a small shrubland inhabitant who has just flown more than 2,000 miles from the mountains of northern South America. His golden crown and wing bars meld with the sun's light, leaving only a gray and black silhouette. A few days later his mate, a faded representation of the male's splendor, will arrive on the same isolated patch of shrubs, forbs, grasses and scattered trees which is maintained by the appetite of cattle. By mid-May the pair will be tending to their camouflaged ground nest, as countless generations have done before.

This inhabitant is the golden-winged warbler, whose scientific name – *Vermivora chrysoptera* – roughly translates to “worm-eating, golden-wing.” It is one of the most critically imperiled songbird species in the northeastern United States, experiencing significant population declines throughout most of its range. The exception to the decline is a northward range expansion. Its population in West Virginia has experienced a particularly

large decline. As a result, numerous wildlife agencies have given golden-wings special conservation status, and several states (along with Canada) list it as threatened or endangered.

Habitat losses on the breeding and wintering grounds, competition and hybridization with blue-winged warblers, and brown-headed cowbirds laying eggs in their nest (nest parasitism) are all suspected causes for these declines. Blue-winged warblers are a closely related species that have similar habitat requirements and sometimes interbreed with golden-wings, producing hybrid birds and potentially reducing reproductive output. Golden-winged warblers are habitat specialists in the sense that they require open, early successional habitats. They can also be considered



Andy Newman

Male golden-winged warbler.

generalists, however, because they use a variety of different habitat types across their range such as grazing allotments, old fields, shrub wetlands, regenerating clearcuts and reclaimed mines. The common feature of all these habitats is a mix of shrubs, forbs, grasses, a few trees and a forested edge.

Golden-winged warblers have been the recent focus of much research and monitoring due to their declining populations. The



Kyle Aldinger

Golden-wings often nest at the edge between dense shrubland and open areas.

main objective is twofold: to develop and implement a conservation plan involving monitoring, research and land management; and to determine the population status and habitat needs for golden-winged warblers, blue-winged warblers and their hybrids. An international initiative involving scientists from various institutions, many of which are part of the Golden-winged Warbler Working Group, are charged with achieving the first objective. The second objective is being accomplished through the Golden-winged Warbler Atlas Project (GOWAP), instituted in 2001 by the Cornell Laboratory of Ornithology. In October 2008, researchers traveled to Bogotá, Columbia, for the Cerulean and Golden-winged Warbler Summit to define a conservation strategy for these two species, which are undergoing similar declines. More information on these ventures can be found at the following Web sites.

- web.utk.edu/~buehler/GWWA/
- www.birds.cornell.edu/gowap/
- www.ecotours.com.co/summit_eng.html

The largest concentrations of golden-wings live in the Great Lakes region, with over 85 percent of the entire breeding population occurring in Minnesota, Wisconsin, Ontario and Michigan. West Virginia has the fifth largest concentration, with three to four percent of the global population. Statewide declines since the mid-1990s, however, are about 30 percent per year. Some populations in the Mountain State

represent an important conservation resource for several reasons. First, high-elevation patches of early successional habitat may contain some of the few remaining genetically pure populations of golden-wings. Biologists have noticed that golden-winged and blue-winged warblers segregate around 2,000 feet of elevation. Blue-wings have an affinity for lower elevations. Second, reclaimed mines and lightly grazed pastures used by golden-wings in West Virginia tend to persist as early successional habitat for longer periods of time than clearcuts, for example. A reliable, long-term refuge will be beneficial in restoring this rare songbird.

The leading threats (at least those that have received the most attention) to golden-winged warblers are interactions with blue-winged warblers and habitat loss on the breeding grounds. Golden-winged and blue-winged warblers are closely related, but for the most part their ranges did not overlap in the past. With widespread conversion of forest to open land and abandonment of farmlands came a range shift for both species, bringing them into close contact. Two forms of hybrids were first reported during the late 19th century, when they initially were mistaken as new species. Brewster's warblers, the more common of the two hybrids, appear mostly grayish with white or yellow wing bars, a yellow crown, and a black eye stripe like that of the blue-winged warbler. Lawrence's warblers are overall yellow, with the black facial pattern of a golden-winged warbler. Much variation exists among hybrids, and even seemingly pure golden-wings might display plumage characteristics of the blue-winged warbler and vice versa.

Research has shown that blue-wings tend to replace golden-wings within about 50 years of initial contact, although this is not always the case. This is bad news for golden-wings, since there is now much range overlap between the two species and the amount of suitable habitat is small. In stark contrast to the surplus of early successional habitat present a century ago, shrublands have largely grown into forests. In addition, disturbances responsible for creating open habitat, such as fire, have long since been extinguished from the landscape.

The Golden-winged Warbler Conservation Initiative, underway to help remediate these threats, is a cooperative effort by researchers and managers from nearly all states and provinces within the golden-winged warbler's range, including West Virginia. Research is focused on areas where golden-wings are currently most abundant. Biologists want to fill gaps in knowledge about this species and are employing a suite of survey techniques from nest monitoring to complex genetic analyses in search of answers. These answers will benefit not only golden-wings, but a host of other avian species associated with scrubland habitats, many of which are also of high conservation concern.

American woodcock, ruffed grouse, mourning warbler, Kentucky warbler and yellow-breasted chat are among some of the other species likely to benefit from conservation action. Even cerulean warblers and other birds that prefer mature forest will use golden-winged warbler habitat during the post-fledging period after young leave the nest and before they head south on migration. Numerous specific research questions exist, and some regions and states need individual solutions. In the southern Appalachians for example, much of the focus falls upon management of high-elevation balds, fire-dependent oak woodland-savannahs, and reclaimed mines. At lower elevations in West Virginia, blue-winged warblers tend to replace their

golden-winged counterparts more rapidly than in other areas, a phenomenon that demands an answer.

In 2008, the United States Geological Survey's (USGS) West Virginia Cooperative Fish and Wildlife Research Unit at West Virginia University, in collaboration with biologists from the U.S. Forest Service Monongahela National Forest and the West Virginia DNR Wildlife Resources Section Diversity Program, commenced a multi-year study of golden-winged warblers within the state. Data collection began in spring 2008 at five grazing allotments on the Monongahela National Forest near Stuart Recreation Area east of Elkins. The study was expanded in 2009 to include another large allotment north of Marlinton. This study is part of the range-wide conservation initiative where researchers in several states are measuring nest success and territory density of golden-wings, abundance of associated bird species, and vegetation characteristics of their preferred habitat. Male, female and nestling golden-winged warblers are color banded, not only to keep track of individual birds during the field season, but also to help researchers determine survival and return rates in following years.

One of the primary goals of the conservation initiative is to find out what types of habitat

Habitat alteration has increased hybridization between golden-winged and blue-winged warblers.

- Lower left: Brewster's warbler (hybrid)*
Center: Golden-winged warbler
Right: Lawrence's warbler (hybrid)



Matt Shumar



Molly McDermott

Kyle Aldinger

management benefit populations of golden-wings. While other states examine the effectiveness of such management actions as prescribed fire (Tennessee) and clearcuts (Wisconsin), researchers in West Virginia are measuring the response of golden-wings to brush-hogging and selective tree harvest implemented during the fall. Since an increase in territorial males by itself may not indicate better quality habitat, nest success will continue to be measured over the next few years.

Though not directly related to the conservation initiative objectives, researchers from the Coop Unit are interested in the response of golden-wings to different playback surveys as well as nest site characteristics. Playback surveys use golden-winged warbler song recordings to entice the birds into making an appearance, either visually or vocally. Biologists have cautioned against using point counts alone to monitor golden-wing populations since males are easily overlooked without the aid of song recordings. Two playback surveys are being tested: the 17-minute GOWAP survey, including type I, type II and mobbing sequences; and a custom 10-minute survey, with type II playback only. Type I songs are associated with mate attraction, whereas type II songs usually accompany interactions with other males, and the mobbing sequence features vocalizations of eastern screech-owls, black-capped chickadees and golden-winged warblers. Preliminary results show that similar numbers of golden-wings were detected with both surveys and that numbers of detections decreased as the day and season progressed. Males often approached the observer or vocalized in response to song playback, indicating that surveys with playback may reveal a considerable portion of otherwise inconspicuous males.

Information on nest site characteristics, on the other hand, will allow managers to design future management options for West Virginia. How close do golden-winged warblers nest to shrubs? What type of vegetation is used to support and



Golden-winged warbler fledgling with leg band.

Kyle Aldinger

conceal the nest? Are nests typically oriented in a certain direction? Is there an optimal mix of habitat characteristics for increasing nesting success? Although based on a small sample of nests, golden-wings on grazing allotments in the West Virginia study had an affinity for goldenrod and often placed nests less than six feet from a shrub, or at the edge between dense shrubland and more open areas. Other studies have documented similar findings where golden-wings nest.

West Virginia is rapidly losing one of its most striking songbirds. A task force interested

in conservation of golden-wings has more than 80 American, Canadian and Latin American ornithologists, conservationists, and managers from universities, state and federal agencies, international non-governmental organizations, and industry already involved. Everyone can get involved, whether it be buying shade grown coffee to protect vital winter habitat or signing up to help with the atlas project, we have a golden opportunity to rescue another warbler in trouble.

Kyle Aldinger is a graduate research assistant with the WV Cooperative Fish and Wildlife Research Unit at WVU. Petra Bohall Wood is a wildlife biologist and adjunct professor at WVU with the Coop Unit. The warbler research is partially funded by grants from the DNR Wildlife Diversity Program.



Nest with hatchlings.

Mandy Weston

Field Trip

Tygart Lake State Park



Lodge and marina

Photo by Steve Shaluta

Steve Shaluta

Description: Tygart Dam was built for flood control in 1938, creating a 10-mile-long lake. The 1,740-acre lake and surrounding state park are nestled in the foothills of the Allegheny Mountains. More than seven miles of hiking trails provide good access throughout the area. Accommodations managed by West Virginia State Parks include a 20-room lodge and 11 modern cottages. In addition, campers have access to 40 camping sites suitable for campers or tents. Pontoon and fishing boat rentals are available. Adjacent to the state park, Pleasant Creek Wildlife Management Area provides hunters and hikers another 3,030 acres to explore.

Viewing Information: Tygart Lake is a popular destination for many outdoor enthusiasts, so if you're looking for wildlife, get up early when wildlife is most active and humans aren't. The lake is exceptionally clear and is popular with snorkelers and scuba divers, especially around Henderson Rocks. Patient divers can catch a glimpse of bass, walleye, musky, crappie and perch. Schools of white bass can often be seen chasing minnows at the surface.

The lake's numerous inlet streams such as Doe Run and Flag Run provide a haven for great blue heron, and are also good for seeing several waterfowl species including black ducks, mallards and Canada goose. Look for wood duck in the quieter inlets and backwater areas. The steep, wooded mountainsides along Tygart Lake provide habitat for white-tailed deer, wild turkeys, ruffed grouse and numerous reptiles and amphibians. In spring and summer, breeding neotropical migratory birds are common including American redstart, cerulean warbler, Baltimore oriole and wood thrush. Visitors can periodically see bald eagle and osprey.



Great Blue Heron

Steve Shaluta

Directions:

From I-79, take U.S. Route 50 or U.S. Route 119 to Grafton. From Grafton, take U.S. Route 50 to South Grafton and follow signs to the park.

Closest town:

Grafton
Ownership: West Virginia Division of Natural Resources (304-265-6144); Lake – U.S. Army Corps of Engineers (304-265-1760)



Beury Mountain Wildlife Management Area

By Todd Dowdy

The sounds of distant drumming will soon be heard more frequently on a mountain in Fayette County due to the ongoing management efforts of the Division of Natural Resources Wildlife Resources Section. Ruffed grouse and white-tailed deer are the featured game species on the newly expanded 7,645-acre Beury Mountain Wildlife Management Area. Squirrels, turkeys and bears also live throughout the area, located in southeastern Fayette County, a short drive from Beckley, Oak Hill, Fayetteville and Rainelle. The area boundary stretches from Babcock State Park to the north, to the National Park Service's New River George to the west, Chestnut Knob to the south, and Glade Creek to the east. Access to the area is provided by State Route 41 to County Road 19/31 at Landisburg and County Road 41/12 to County Road 25/2 from Layland. Access is also provided by County Road 25/2 from Thurmond on the New River, although this road is rough and steep and not recommended for two-wheel drive vehicles.

DNR purchased the original tract of 3,061 acres from the Thayer Coal and Coke trust in 1997, creating Beury Mountain Wildlife Management Area. The newest addition of 4,584 acres came in 2008 from The Nature Conservancy which had purchased it from Mountain Top Management. DNR Wildlife Resources

Section then purchased the property from The Nature Conservancy during 2008 and 2009. The area received its name from the Beury Family, specifically Lawton Beury, trustee for the Thayer Coal and Coke Trust, who contacted the DNR with the interest to provide the people of West Virginia an opportunity for outdoor recreation.

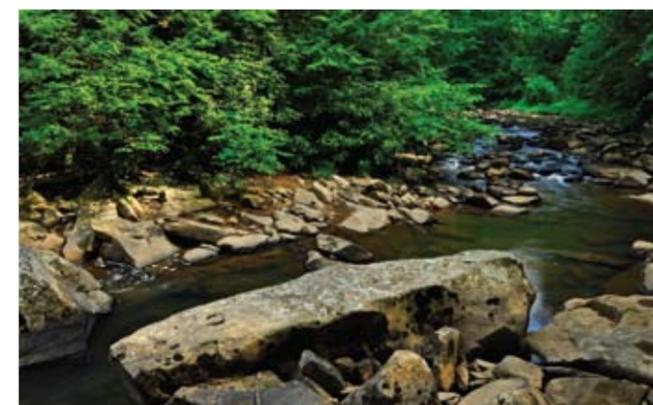
Large and broad mountaintop plateaus make Beury Mountain WMA unique from most of the public land in southern West Virginia. Hunters will find foot travel relatively easy on the gentle-sloping ridges and numerous logging trails. Aggressive logging practices in the mid-1980s left the area's oak-hickory forest in the pole-timber and early saw-timber age classes with numerous early succession tree and shrub species present. Squirrel hunters will find larger mast-producing trees in pockets and individual trees that loggers passed over located throughout the area. For deer hunters who seek the remote and rugged areas that hold those older bucks sporting the big head gear, don't worry, Beury has them too. Ephraim and Buffalo creek drainages are the largest and most rugged parts of the area, with elevations ranging from 3,000 feet above sea level atop the plateaus to 2,000 feet in the drainage bottoms. Buffalo Creek is also a brook trout stream for those die-hard trout anglers looking for an opportunity to fish a remote area.

Grouse hunters will be pleased to know that active grouse management is ongoing at Beury Mountain WMA. Gentle terrain features and good accessibility make the area a good candidate for grouse management. A majority of the area contained quality grouse habitat in the early 1990s with 5- to 15-year-old clearcuts. Now however, most of that habitat is past the prime age class that grouse prefer. Research has shown that a lack of suitable cover and nutritious foods are the limiting



Ruffed grouse on drumming log.

Jeff Craig



Steve Shaluta

Glade Creek runs along part of the boundary of Beury Mountain Wildlife Management Area.

◀ One of many wildlife clearings created to improve wildlife habitat.
Photo by Steve Shaluta



Larry Berry



Todd Dowdy



Todd Dowdy

From left to right: After the trees are cut, the fallen brush is cleared with a bulldozer, and the soil is fertilized with lime to prepare for seeding.

factors for grouse in the Mountain State. WRS personnel are improving these limiting factors with the help of the Wildlife Habitat Incentives Plan (WHIP) program. The Natural Resources Conservation Service WHIP program will assist the Wildlife Resources Section by providing cost sharing on habitat improvement projects. Beury Mountain was enrolled in WHIP in 2005 to improve the limiting factors for grouse and to provide habitat for other wildlife such as deer, bear and woodcock.

The plan designed to improve grouse habitat includes 600 acres split into five- and 10-acre blocks. The WHIP plan will cover 75 percent of the cost to create the first 80 acres of early successional habitat. The 600-acre grouse management unit is on an 80-year timber harvest rotation. Each cutting block has eight to 10 mast-producing trees per acre reserved as "leave" (won't be cut) trees to provide food and seed for regenerating each block.

Between each clearcut block is a block of similar size that will receive a crop-tree release treatment. This



Larry Berry

Six months after clearing, new growth provides nutrient-laden grass and feeding areas for various wildlife species.

involves designating the best quality trees in the block as crop trees and removing the small trees with sparse crowns which compete with them for food, water and minerals. Releasing the crown of the designated crop trees will increase their growth and mast production. Crop-tree release has been proven in some areas to double the amount of mast produced in a stand. The blocks that received the crop-tree treatment will also receive a prescribed fire to remove the leaf litter and encourage the growth of herbaceous vegetation on the forest floor, improving feeding areas for both grouse and woodcock. The spacing of these cut areas with the crop tree blocks will provide a patchwork of cover, brood range, nesting and feeding areas all within a short traveling distance.

Another part of the WHIP plan is to create 30 acres of permanent clearings on the area. WRS personnel created 10 acres in the summer of 2008. Previous logging roads and landings were used to develop the clearings. Trees were cut along logging roads to provide more sunlight for winter wheat and clover which were seeded. Log landings were expanded into clearings ranging in size from one to five acres. All roads and clearings received winter wheat seed in the fall as a cover crop. Personnel applied white clover by frost seeding in the winter of 2009. All clearings on the area will be maintained in various species of clovers to provide turkeys, grouse and woodcock with brood range and feeding areas. The high-protein forage in these clearings will also attract white-tailed deer. WRS personnel plan to develop more clearings during the summer of 2009.

Due to the ongoing habitat management and property acquisition, Beury Mountain WMA has greatly improved hunting and outdoor recreation opportunities. No camping is allowed on the area, but visitors can camp at nearby Babcock State Park. You can contact the WRS District Office in Beckley at 304-256-6947 for more information.

Todd Dowdy is the wildlife manager at Beury Mountain WMA.

Wildlife Diversity Notebook: Flat-spired Three-toothed Land Snail

Common Name: Flat-spired three-toothed land snail

Scientific Name:
Triodopsis platysayoides

Federal Status: The U.S. Fish and Wildlife Service lists this species as federally threatened.

West Virginia Status: This snail is known from a very restricted area of the Cheat River Gorge in Monongalia and Preston counties. There are 107 known localities for the species. The known range of the species is approximately 10,300 acres. Little information is available on the population trends of the animal, but most populations appear to be stable at this time.

Description: The shell of adult flat-spired three-toothed land snails average a little less than one inch diameter. The spire, or the dorsal surface of the shell, is quite flat and not cone-shaped as in most snails. The shell is brown in color, and the body of the animal is dark gray. The "three-toothed" portion of this animal's name is rather misleading, this snail has only one tooth located inside the opening of the shell (other closely related species do have three "teeth"). This tooth is actually a thickening in the wall of the shell that is thought to help the snail defend itself against predators, such as snail-eating beetles, that try to enter the snail's shell to attack the animal. When these snails mature, a white lip is formed around the edge of the aperture, and the snail's shell stops growing.

Habitat: This snail is usually associated with outcroppings of sandstone known as the Upper Connoquenessing Sandstone. Areas where this snail occurs are usually wooded and dominated by sandstone cliffs or areas of large sandstone boulders. The snails are often found in cracks and crevices in the rocks or in small cave-like structures. At two sites, the snail is associated with caves in the limestone layer beneath the sandstone.

Range: This snail is known only from the Cheat Gorge area of West Virginia.



Steve Shaluta

Life History: Little is known of the life history of this animal, but some information has been obtained from a captive colony. Small clusters of eggs are laid in the spring and summer. The eggs are usually buried in the soil or leaf litter. The young snails grow quite rapidly, and those that hatch early in the season can mature (produce a lip) around the aperture of the shell) during their first summer; the other snails mature the following year.

Diet: The diet of this snail consists of a variety of organic materials including fungi, flower blossoms, leaves, and even scat of the Allegheny woodrat. Leaves of birch trees may provide calcium in their usually calcium-poor habitats. This snail, like others, will also feed on the empty snail shells to obtain calcium for building their own shells.



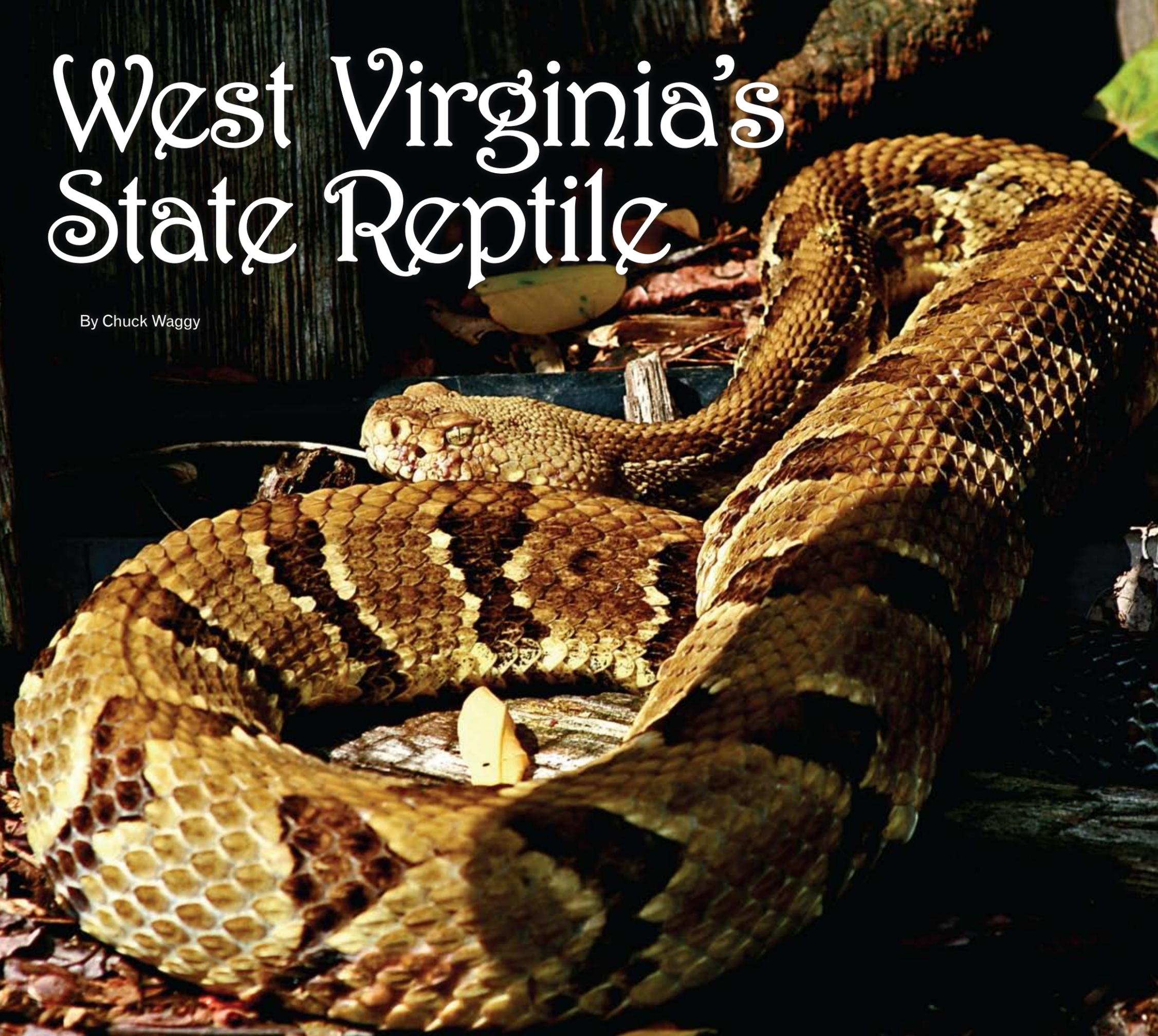
Threats and Prospects: Because this snail has a very restricted range, local catastrophes, such as forest fires, could impact a large segment of the population. At the site with the highest density of these snails, recreational activities have caused some problems. In addition, to the direct crushing of some snails, the foot traffic can destroy the leaf litter in which the snails live. Fences have been constructed at Coopers Rock State Forest as a means to reroute foot traffic away from the areas where the snail occurs. Another potential threat is the possible development of the rim of Cheat River Gorge for housing developments and recreation facilities. Any activities, such as forest fires or timbering, which alter environmental conditions (temperature, humidity, moisture of the soil, etc.) could be detrimental to populations of this rare snail. In addition, road building on steep slopes in the Gorge can lead to erosion that can impact the snails' habitat down-slope by filling in crevices in the rock features (outcrops and talus) where this snail lives.

Sandstone boulders in wooded areas provide good habitat for this threatened species.

Photo by Craig Stihler

West Virginia's State Reptile

By Chuck Waggy



“DON'T TREAD ON ME.”



Barbara Sargent

This famous slogan imprinted alongside an image of the timber rattlesnake on the Gadsden and the First Naval Jack flags of the American Revolutionary War era was intended to send a message to England to not interfere with the affairs of the American Colonies. This illustration and the accompanying slogan was one of the earliest depictions of the supposed ferocity of the rattlesnake. Actually, the warning on the early flags was not meant to depict the timber rattlesnake as being ferocious or the American people as being warlike. The true message was that the citizens of the Colonies were a peaceable and freedom-loving people, but if England's King George III continued with his oppressive policies toward the Colonies, then they would respond with great wrath.

This response would be much like that of a timber rattlesnake, which is peaceable and slow to anger, but will attack aggressively when provoked and will not stop fighting until the enemy retreats. Benjamin Franklin, writing as an anonymous person, submitted the following statement concerning the disposition of the timber rattlesnake to the *Pennsylvania Journal* in 1775: "She never begins an attack, nor, when once engaged, ever surrenders: She is therefore an emblem of magnanimity and true courage. ... she never wounds 'till she has generously given notice, even to her enemy, and cautioned him against the danger of treading on her."

The timber rattlesnake is a shy, secretive creature of remote habitats and presents little or no danger to humans unless it is disturbed or surprised. The historic range of the timber rattlesnake encompassed all or parts of 32 states from eastern Texas to southern Minnesota, eastward to the Atlantic coast and north

Ron Snow



Ron Snow

A new segment is added to the rattle each time the snake sheds its skin.

to Maine. While once fairly common within this range, its populations have been severely reduced by human activities. Timber rattlesnake populations are now considered extirpated from two of these states. It is listed as threatened or endangered in nine states and protected by other laws in 12 other states.

At the time of European settlement the timber rattlesnake was believed to inhabit all of present day West Virginia. Presently it is thought to occur only in about half of the counties, mainly those in the southern, eastern and northeastern portions of West Virginia. In 2008 the West Virginia Legislature designated the timber rattlesnake as the State Reptile. It is listed as a species of concern on the Monongahela National Forest.

The timber rattlesnake is the only rattlesnake species inhabiting West Virginia. It can be distinguished from all other snakes found in the state by the presence of a segmented rattle on the end of its tail, which is used as a warning device. The timber rattlesnake, as well as West Virginia's only other venomous snake, the northern copperhead, can be distinguished from non-poisonous snakes by several characteristics. Venomous snakes have triangular-shaped heads, vertical pupils, and a single row of scales on the underside of their tails. Both the rattlesnake and copperhead are classified as pit vipers because they have a heat-sensing organ located between the eye and nostril that helps them locate warm-blooded prey.

The coloration of the timber rattlesnake can vary from sulphur yellow to almost solid black with many variations between the two colors. All timber rattlesnakes, regardless of color, have 15-30 dark, chevron-shaped cross bands across their backs, and all have velvet black tails. The sex of a rattlesnake

cannot be determined by its coloration. Some studies, however, suggest that a higher proportion of males are of the dark phase. Other studies indicate that the black coloration tends to be more common in snakes found in higher elevations. The darker colors allow for more heat absorption and may be a thermo-regulating adaptation to the cooler temperatures at higher altitudes. Adult males average about 43 inches in length, with larger individuals sometimes exceeding 50 inches. Adult females average about 38 inches in length. Timber rattlesnakes can live for 20 to 30 years. Rattlesnakes can be active at any time, but usually become more active at night during hot weather. Rattlesnakes also have thicker, stockier bodies than other snakes in West Virginia.

Bites to humans by timber rattlesnakes are rare; however, there is a potential for serious injury or death if a rattlesnake bite does occur. If a rattlesnake is encountered, simply stay at least 10 feet from the snake and enjoy viewing this magnificent creature. After you have viewed the snake, detour around it and continue on your hike or allow the snake to crawl away. Never attempt to handle or otherwise molest a rattlesnake as these actions are the major cause of most bites. A rattlesnake will defend itself vigorously if it feels threatened. When in rattlesnake country, especially in brushy areas or tall grass, always wear long pants and boots. Never put your hands in rock crevices, holes, hollow logs or under rocks where you can't see. When crossing a log, always step on top of the log, pause and look down on the far side of the log to be sure a resting



Barbara Sargent

Dark phase timber rattlesnake in defensive strike position.

Yellow phase rattlesnake. ▶



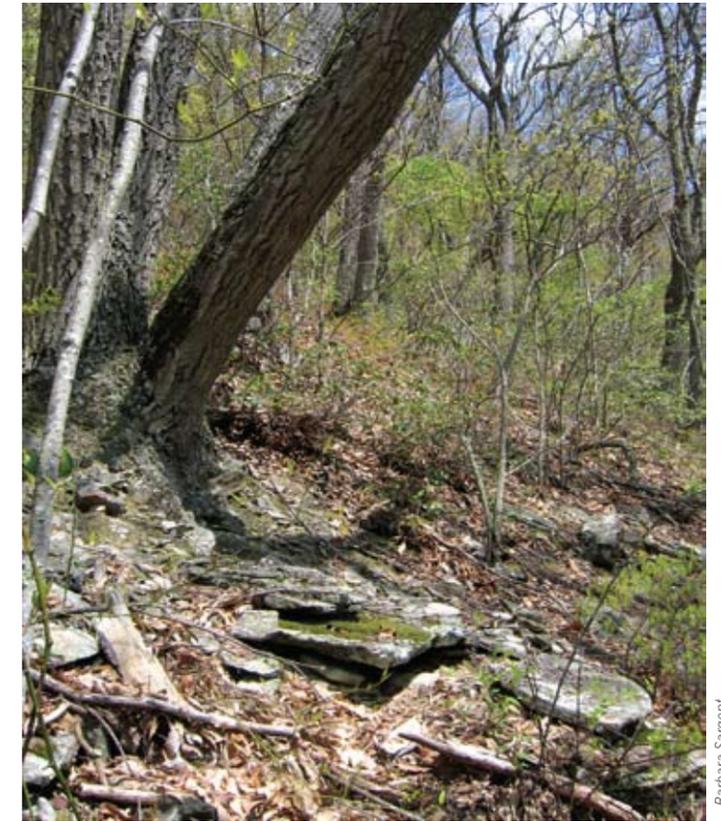
Barbara Sargent

rattler is not there. You do not want to surprise it! When camping, always use a light at night and wear shoes when walking around your campsite.

Rattlesnakes can be discouraged from staying around human residences by removing nearby wood, rock and trash piles, keeping grass trimmed short, and removing tin, boards and other debris that may provide cover for snakes. If a rattlesnake bite does occur it is important to remain calm, remove any potentially restricting jewelry such as rings and bracelets, and immediately seek medical help. Do not drink alcohol or attempt to perform any field first aid procedures such as applying ice or constricting bands. These procedures are ineffective and could even compound the problems associated with snakebite.

The timber rattlesnake's year begins with the warming days of late April and early May when it leaves its winter den where it has hibernated for the past six months. Upon emerging from the underground dens, snakes spend several days basking nearby to regulate their body temperatures. They soon start feeding and begin moving to habitat where they will spend the summer. Pregnant females may move only a few hundred yards to a suitable area for giving birth, while males and non-pregnant females may travel as far as two to four miles to areas that will provide food and cover. This habitat is usually forested land or clearing edges where small mammals such as chipmunks, voles and white-footed mice are abundant. Timber rattlesnakes are important predators in helping control rodent populations.

During late May and early June, all rattlesnakes shed their old, dull skin and replace it with a brilliant new one. A new segment is added to the rattle string at each shedding. The age of a rattlesnake cannot be



Barbara Sargent

Rattlesnakes locate den sites, such as this one, in rocky areas which receive several hours of sunlight each day.

accurately determined by the number of rattle segments because some rattlesnakes shed more than once a year. Young, vigorously growing snakes may shed three or four times a year while pregnant females may only shed once a year. Older snakes will likely break off some rattle segments. About a week before shedding, a rattlesnake's eyes turn bluish from fluids that are produced to assist with removing the old skin. A few days before the actual shedding begins, the eyes again become clear, signaling that shedding is imminent.

Pregnant females move to more open areas, known as rookeries or birthing areas, where they will spend the entire summer preparing to give birth. The timber rattlesnake gives birth to live young. The eggs (embryos) are incubated within the female's body. The birthing areas chosen by these females are usually rock outcrops, hollow logs or stumps. These areas provide ample sunlight to warm their bodies to proper temperatures to allow for the proper embryo development. During this time the female rattlesnakes don't eat, devoting all their time to absorbing warmth and conserving energy to ensure development of the embryos. Birthing occurs in late August through early September. Average litter size is about six, and

newborn rattlesnakes are 10 to 11 inches long.

Regardless of the coloration of the parents, all newborn timber rattlesnakes are grayish in coloration. Newborn snakes have a small protuberance at the end of the tail known as a pre-button. Young rattlesnakes can be confused with young snakes of other species because of the gray coloration, which is common among young snakes, and because of the difficulty in seeing the tiny pre-button. Seven to 10 days after birth the young rattlesnakes shed their skins and begin to exhibit the yellow or black coloration that they will have all of their lives. During this first shedding, the pre-button is shed and the young snake will obtain its first rattle segment, called a button.

Newborn rattlers have fully formed venom sacs and fangs and are capable of biting and injecting venom. The adult females may spend a few days at the birthing site. This is probably because of a resting period for the female after giving birth. The female does not provide any care for the young after they are born. Females don't breed until they are six to eight years old and will only produce young every three to five years. Pregnancy and birthing cause a significant depletion of fat reserves in the female's body. If she is unable to adequately feed and replenish these reserves before denning, she may not survive the winter.

The breeding season of the timber rattlesnake occurs from mid-July to September. During this period, adult males travel day and night over large areas actively seeking receptive females. This is usually the time when dead rattlesnakes are observed on roads and photos of rattlesnakes appear in local newspapers. During September, with the breeding and birthing seasons finished, adult rattlesnakes focus on feeding to put on fat reserves before migrating toward the winter dens, known as hibernacula, to hibernate. Some actively growing snakes will shed again. Recently born rattlesnakes will be attempting to obtain their first meals, usually very small mice, and following the scent trails of adults migrating toward the dens. Rattlesnakes must find their own way to these dens or risk freezing. Dens are usually located on south- or southwest-facing

slopes amid rocky outcrops or talus slopes. Dens must provide habitat for the snakes to spend the winter below the frost line. Rattlesnakes begin arriving at the den sites during late September. Depending on the weather, all snakes should be hibernating by the end of October.

The greatest threat to the timber rattlesnake in West Virginia is habitat destruction. Mountaintop removal mining, construction of site pads for wind turbines and oil and gas wells along with their associated roads and supply lines, and highway construction contribute to the destruction and disturbance of snake dens, feeding areas and snake movements. These activities can further stress rattlesnake populations by providing humans with easier access into rattlesnake habitat. Real estate developments in rattlesnake habitat can

disrupt dens, interfere with feeding and birthing areas, and increase encounters between humans and rattlesnakes. Other threats to the timber rattlesnake are indiscriminate killing of snakes, excessive and illegal collecting, and frequent disturbances to dens and basking areas.

The timber rattlesnake is as much a symbol of the wild and remote areas of West Virginia as the brook trout, black bear, snowshoe hare, bobcat and fisher. All West Virginians should strive to ensure that this symbol of wildness does not vanish from our mountains.

Chuck Waggy is a wildlife biologist stationed in Romney.



Young rattlesnakes exhibit a gray coloration.

Barbara Sargent

West Virginia Wildlife

The magazine comes to life.

Visit www.wchstv.com to watch two segments of **West Virginia Wildlife** on rattlesnakes in West Virginia and what the DNR is doing to monitor their populations.



Virginia Creeper

Virginia creeper, *Parthenocissus quinquefolia*, has always intrigued me. The vine with heavily veined, dark-green, palmate-shaped leaves may grow prostrate across the ground or climb 30 feet straight up any surface. Consequently, Virginia creeper is frequently found spreading like a fan across the south or southwestern sides of large buildings, particularly those with brick walls.

While the dark-green foliage creates a lush growth on the sides of buildings, trees and utility poles all summer, it is not until late summer that Virginia creeper matures into the stunningly gorgeous beauty that it is destined to be. The foliage turns a brilliant red, announcing to more than 30 species of birds that its dark-blue berries are ripe for their feasting. As fall progresses, the leaves fade to a lovely soft rosy pink.

Beginning in early July, the plant produces its tiny flowers. Each flower bears five petals with five spreading stamens. The berries mature by fall. The blue-black fruits get a whitish powdery substance on their surface.

Mockingbirds, robins, thrushes, bluebirds, woodpeckers and brown thrashers are among some of the birds that feed on the berries.

Adding Virginia creeper into our landscape can create an opportunity to attract the magnificent sphinx moths to our backyards, as well as providing food and some cover for a host of birds. Inviting Virginia creeper into our suburban or urban yards, however, is not an invitation to be made without pre-establishing a strategic location and a set of behavior control tactics. Virginia creeper tends towards aggressive and opportunistic behavior.

First, Virginia creeper has a unique way of climbing. Not only does it produce curling tendrils which wind around structures, much as greenbrier and grape do, it also generates tiny adhesive discs at the tips of each tendril that come in contact with a surface it can stick to. Several sources have quoted that Darwin once did an experiment with the plant and discovered that if just five discs were to grow on one tendril, their combined strength could



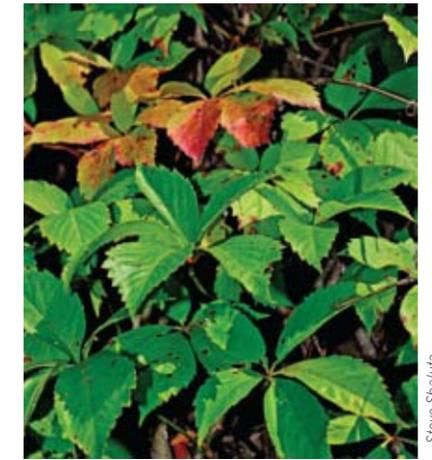
The berries often cling to the vine until late winter, providing food to many species of birds.

Steve Shaluta

The scientific species name for Virginia Creeper – quinquefolia – is very descriptive of its leaves and a great aid in identifying the plant. If you know Latin (or are familiar with the word quintuplets), you would recognize that the first half of the name – quinque – means “five” and the last half means “leaf.” Though often confused with poison ivy, the five leaflets quickly distinguish this nonpoisonous plant from the poisonous three-leaflet look-alike.



Steve Shaluta



Steve Shaluta

Virginia creeper can spread quickly if not controlled.

support 10 pounds. Once attached, these discs are extremely difficult to pull free from a surface. Removing the plant from a surface can peel paint, dislodge vinyl siding, and bring down gutters.



Art Storno

Tiny adhesive discs at the end of tendrils enable Virginia creeper to climb buildings and other structures.

The plant will grow as high as any surface it can cling to, and with its curling tendrils will expand onto nearby surfaces. Consequently, you should provide a trellis, or start a plant against an outbuilding away from your house or garage. But what an incredibly beautiful addition it can make to your landscape if you can carefully nudge and direct its growth over an arbor or trellis to create a border. If you have a large tree, you can establish a plant at the base of the tree. Virginia creeper does best in full sunlight for at least part of the day.

Emily Grafton is a former Wildlife Resources Section biologist.

URBAN DEER

What Can We Do?

By Gary Foster

West Virginia is blessed with an abundance of wildlife resources which provide endless hours of enjoyment and recreation for our state's citizens. Hunting, wildlife observation, trapping, bird watching, wildlife photography and feeding birds are the more popular activities associated with our state's wildlife. Unfortunately, in many cities and suburban settings across West Virginia, deer and other species of wildlife currently exceed levels which are desired by many home and property owners, often resulting in human/wildlife conflicts.

White-tailed deer have become common inhabitants in many of our state's cities and suburban areas. These areas are commonly characterized by significant expanses of woodland habitat associated with land which is unsuitable for development (steep terrain, for example) which provides quality habitat for deer and other forest creatures, while at the same time providing non-hunted refuges where deer and other wildlife populations for the most part thrive. Subsequently, human/wildlife conflicts often become common occurrences in these situations.

Interactions and conflicts with wildlife have increased over the past 25 years as urban and suburban sprawl have impacted the landscape and associated habitat. In most of these scenarios, deer populations are typically below their biological carrying capacity (population level at which the habitat can support and sustain the population), but are often at levels which can't be tolerated by homeowners and property owners.



Art Shorno

Subsequently, what is often referred to as the "cultural carrying capacity" in these areas is exceeded. Deer/human interactions which are most often reported include browsing damage to ornamental flowers and shrubs, increased deer/auto collisions, horning (rubbing of antlers) of small fruit trees and shrubs, and browsing damage to home gardens.

Human tolerance levels for deer and other wildlife species vary significantly among individuals based upon a person's background, values and life experiences. This in itself often creates additional challenges in developing solutions to deal with a property owner's concerns. For example, it is not uncommon for one homeowner to feed deer while their neighbors are dealing with a browsing problem in their shrubs and gardens due in large part to the artificial feeding which is occurring nearby. Unfortunately, all too often deer/human conflicts are exacerbated by good-hearted individuals feeding deer to attract them to their yards for viewing. Feeding corn or other products to deer

should be discouraged by homeowners as this practice can inflate deer carrying capacities, create wildlife disease reservoirs and enhance the spread of wildlife diseases, and habituate deer and other wildlife to people, often with negative consequences.

Homeowners commonly use various control methods to address deer problems. This includes installing various types of fencing (electric or woven wire for example) and using repellents. Properly installed electric fences have been proven to be very effective at deterring deer in addition to groundhogs, skunks and raccoons which are also common invaders of home gardens. Proper wire placement and adequate voltage are necessary for an electric fence to be effective. Repellents, whether home remedies or commercially manufactured products, have also been used effectively in site-specific situations and smaller scale problems, but reapplication of repellents is often required after rainstorms.

Deer depredation permits have also been used in select situations in urban and suburban settings. This approach often is not an option, however, due to weapon restrictions in these areas. Alternative methods such as using sharpshooters, trapping and relocation, chemical immobilization and relocation, and the use of fertility control compounds are extremely expensive, often ineffective, and for many other reasons are typically not practical options for deer population management.



Gary Foster

Obvious browse line created by deer before the fence was put in place.

Top photo: Fencing is one measure homeowners can use to protect trees, shrubs and other plants.

Photo by Gary Foster

Hunting under controlled conditions continues to be the most effective way to manage deer populations throughout the United States. Although public perception of hunting as a management tool in populated areas is often negative, controlled deer hunts have been found to be safe and effective in many urban and suburban settings. Currently, numerous state wildlife agencies throughout the country have established special deer hunting season regulations to provide local governing bodies with a potential solution to address deer overpopulation problems in cities and suburban areas.

In West Virginia, regulations were implemented years ago which provide incorporated cities and homeowner associations with a potential solution to address deer overabundance problems. A special urban deer archery season, which typically opens two weeks prior to the statewide traditional deer archery season in October and runs through the end of December, has been used effectively by several cities and homeowner associations throughout the state. The municipalities of Barboursville, Bethlehem, Charleston, Ronceverte, Weirton and Wheeling took advantage of the special urban archery season regulations during the fall of 2008, with varying degrees of success. In addition, several homeowner associations throughout West Virginia implemented these special regulations this past fall.

Hunters participating in this special season are permitted to take up to two deer which do not count toward a hunter's annual archery deer season bag limit. The special urban deer archery season

regulations do not supercede city ordinances, local regulations or community prohibitions on hunting. Typically, local governing bodies are required to modify regulations and ordinances to permit the use of archery equipment in these areas. The local governing board often incorporates special conditions such as hunter proficiency requirements, shooting from elevated locations, and minimum acreage requirements into the special archery season regulations to address various concerns and to minimize conflicts with other homeowners. Homeowner associations interested in participating in this special season must submit a written request for consideration to the DNR Director by March 1 of the year the hunt is requested.

Dealing with deer in populated areas often requires a multi-faceted approach with controlled archery hunting in many cases being a potential solution. The implementation of a special urban hunting season, preferably prior to a deer population growing to an undesirable level, can be an integral component of a sound management program, in conjunction with the more traditional approaches including fencing and repellents in dealing with deer damage problems.

City officials and/or property owners needing additional information in addressing deer problems in urban settings should contact the District Wildlife Biologist at their local DNR District Office for additional guidance.

Gary Foster is the Supervisor of Game Management stationed in Elkins.



Gary Foster

Large amounts of forested land exist within Wheeling's city limits, which has held an urban deer season since 1995.

A four-foot-high chain link fence does little to stop deer.



Kim Shomo

A Sense of Wonder...

Wildlife Detective

What to do

Method

Children ask questions to discover what kind of animal is illustrated on their back.

Materials

Pictures of wild animals, masking tape

Location

Indoors or outdoors

Find fairly good-sized photos of wild animals. (You could use past issues of this magazine or print ones off the Internet.) Tape a photo of a wild animal on a child's back. (Don't let the child see the image.) Have the children turn around so that the other children can see the picture. The child then asks questions to discover his new "identity." When they think they know who they are, they make a guess. If they guess wrong, they keep on asking questions until they guess their identity correctly. The questions must have Yes-No answers. Examples: Do I have fur? Do I have four legs? Am I cold-blooded? Do I eat only meat?

This game will make the student think about an animal's characteristics. You may want to make permanent cards by mounting the photos on posterboard. (To help reduce household waste you may use the cardboard from used cereal boxes or shipping boxes you receive.) If you wish, you can punch holes in the cardboard and tie string or yarn through the holes so the photo can be worn around the neck.

A variation of this activity involves having all the children place an animal picture on their backs at the same time. The children then walk around, taking turns asking questions to discover their identity. When a child thinks he knows his identity, he writes it down on a slip of paper along with his name and hands it to you. When everyone is finished, call the children back up one at a time and have them stand with their back to the other children. Then read the child's guess with a brief discussion on what question helped them guess correctly. If the guess is wrong, help them ask some additional questions to figure it out.

Another variation of this activity doesn't require the use of signs. A child leaves the room while the other children pick an animal. The child then returns and asks questions as described above to identify the animal.



Art Shomo

Nature Note

The annual cycle of antler growth is a source of wonder for many folks. When daylight hours begin to lengthen in early spring, the pituitary gland of the buck is stimulated to produce the hormone prolactin, triggering the production of antlers. A soft velvet-like covering protects and nourishes the growing antlers. Beneath the velvet, blood vessels carry and deposit calcium and other minerals.

Throughout spring and summer, antlers continue to grow. By September, an increase in the level of the hormone testosterone in the blood dries up the blood supply to the antlers, and they become hardened. The male deer then begin to rub off the dried velvet and polish their new antlers in preparation for combat with other bucks during the breeding seasons. As the shorter days of winter arrive, the buck's testosterone level drops and the antlers are shed, usually by late winter.

The size of antlers varies, depending upon heredity and diet. The number of points on antlers varies as well, with the antlers of animals in their prime generally carrying more points than those of younger and older bucks.

The development and loss of antlers is just one of the many responses of the white-tailed deer to the cycle of the seasons.



Mark Shrock

Buck in velvet.

What's in the Water?

By Jim Hedrick

Have you ever been fishing or just walked up to a lake or pond and seen beautiful clear water that looks so clean you could drink it? Our first natural instinct is to say "Wow! That is clean good quality water". Not so fast, don't let clear, clean looking water lead you astray. Could this clear water indicate good quality water? Absolutely, especially in northern cold water lakes, but it may not always be true in West Virginia. Crystal clear water can indicate that little or nothing is growing in the water column. For example, if a lake or pond is receiving acidic water, the water may be clear because the acid in the water prevents plant and animals from growing.

What most people don't realize is the water column of a healthy lake or pond should be full of life, microscopic life. This microscopic life that lives suspended in the water column of lakes and ponds creates the very beginning of the food chain.

Microscopic plants that grow in water are known as phytoplankton, which means drifting plant. These small plants need sunlight like other plants, and absorb nitrogen and phosphorus from the water; the same basic elements that make our gardens grow. Phytoplankton are found in many



Crystal clear water is not necessarily indicative of a healthy aquatic ecosystem.

Photo above: The green water color of Rollins Lake in Jackson County indicates a healthy plankton population.

Photo by Art Shomo



A microscopic female zooplankton with egg sacs attached.

Photo below: a species of microscopic zooplankton with long horns on its head and tail to defend against predators.

Photos by Jim Hedrick



shapes and forms with a large number of species occurring simultaneously in a single body of water.

These phytoplankton are consumed by microscopic animals known as zooplankton, which means drifting animal. Zooplankton are the second link in the food chain of most lake and ponds. Similar to phytoplankton, the zooplankton community is very diverse with a large number of species not easily distinguished from one another. Most zooplankton in West Virginia range in size from completely microscopic (1/1000 of a millimeter) up to a couple millimeters (about 1/8 inch).

The combination of phytoplankton and zooplankton in the water column gives lakes a deep dark green, almost cloudy color. If you've ever been swimming in a lake or pond and accidentally swallowed a mouthful of water, you've eaten a couple of thousand

phytoplankton and zooplankton. Yep, you just ate a couple thousand phytoplankton and zooplankton. But don't worry. They won't hurt you. The larger danger is the potential for eating bacteria that could be harmful.

Zooplankton are an important and often sole food source for freshly hatched fish. The coincidence of zooplankton population with the hatching of many species of fish is very important. If zooplankton densities are inadequate at the time of fish egg hatching, survival of these young fish could be very low.

Phytoplankton and zooplankton are excellent biological indicators, and changes in plankton species often indicate changes in water quality. Biologists can evaluate phytoplankton and zooplankton densities by analyzing water samples and/or pulling a very fine mesh net through the water to collect these small plant and animals. Zooplankton often sink deep into the lake during the day to avoid predators and swim toward the surface at night to feed on phytoplankton. Therefore, biologists submerge a specialized net to the bottom of the lake and pull it up through the water column to capture the zooplankton from all depths of the lake.

So what does all of this mean for anglers? If microscopic phytoplankton and zooplankton levels are low in any given year from any number of environmental conditions, your fishing success could be affected several years down the road. If fish eggs hatch during a time period when plankton abundance is low, most of the young fish will be eaten by larger fish. It's all about survival. Small fish must have lots of food available and grow quickly to reduce their chances of becoming prey of a larger fish. It is hard to believe that these microscopic organisms directly and significantly affect our fish populations on an annual basis.

Jim Hedrick is the District Fisheries Biologist stationed in Romney.

Lt. Tim Coleman Wins International Hunter Education Association Award in Recognition of Success Against Health Obstacles

Lt. Tim Coleman of the DNR Law Enforcement Section recently won the prestigious Darrell Holt Memorial Award, presented by the International Hunter Education Association (IHEA). Lt. Coleman is the state coordinator for DNR's Hunter Education and Boating Education programs. The award was made in recognition of his courage in overcoming a life-threatening illness.

In May 2008, Lt. Coleman was attending the IHEA conference near St. Louis when he became ill. He was found unresponsive in his hotel room and was rushed to a hospital. "The doctors did not think I would make it to morning and called my family to fly out to be with me," Coleman said recently. "I had a massive septic infection that had affected my organs and was slowly shutting them down."

Coleman fought to survive, however, and spent the next five months in five different hospitals, including Cleveland Clinic, where he had a kidney removed. He was left virtually paralyzed in his extremities and was confined to a wheelchair for another month. Following several more months of physical therapy, he was able to get around on his own and returned to work in March 2009, nearly a year later.

The Holt Memorial Award is named for former Texas Hunter Education



Lt. Tim Coleman accepting award from DNR Director Frank Jezioro.

Coordinator Darrel Holt, who was diagnosed with leukemia in the early 1970s and was told he would succumb to the deadly disease within six months. He lived for 17 more years after a valiant fight, all the while undergoing experimental treatment and drugs. Despite his terminal illness, Holt established an outstanding program in Texas.

"This award recognizes the hunter education coordinator or administrator who is working or has worked under conditions that call for a determination to succeed despite seemingly insurmountable obstacles such as physical disabilities, accident, disease, or personal hardship," explained IHEA executive director Wayne East.

New State Length Record Blue Catfish

David Wayne Green of Wayne, W.Va., caught a new state record blue catfish. Green caught the 40.4-inch, 22.3-pound fish from Twelvepole Creek in Wayne County on August 5, 2009. His catch establishes a new West Virginia record for length.

The previous record for blue catfish was a 36.85-inch, 27.2-pound fish caught by Chad Bright from Krodel Lake in Mason County in 2008. Bright's fish still stands as the state weight record.

Anglers who believe that they have caught a state record fish should check the listing in the current DNR Fishing Regulations brochure. The brochure also outlines the procedure to follow for reporting a state record catch. This information is also available online at www.wvdnr.gov.



Zack Brown

DNR Charleston Offices Moved to South Charleston

The Charleston office of the West Virginia Division of Natural Resources has moved from the State Capitol Complex to three-story building in South Charleston. All state agencies housed in Building 3 of the Capitol Complex are being relocated so the nearly 60-year old building can be completely rehabilitated during the next few years.

The new address is 324 Fourth Avenue, South Charleston WV 25303. It is situated beside the South Charleston Library. All DNR telephone numbers, fax numbers, and e-mail addresses will remain the same.

DNR Director Frank Jezioro said the new location will be convenient and the agency's in-person services will be easily available to the public. Affected by the move are the Director's offices; the Administration, Law Enforcement, Parks and Recreation, and Wildlife Resources sections; and the Office of Land and Streams.

Jerry Jenkins

DNR Chronic Wasting Disease (CWD) Response Team Receives Prestigious Award

The Division of Natural Resources Chronic Wasting Disease (CWD) Response Team received a prestigious Certificate of Recognition Award from the Northeast Section of The Wildlife Society. The award was presented in April 2009, during the 65th Annual Northeast Fish and Wildlife Conference.

In accepting the award, District wildlife biologist Rich Rogers noted the outstanding assistance that other wildlife biologists and managers, along with conservation officers from across the state, have made in DNR's efforts to manage CWD.

The discovery of CWD in Hampshire County represents a significant threat to the state's white-tailed deer. While the disease does not cause an immediate widespread die-off of deer, if allowed to spread, CWD could cause long-term damage to the herd. Those who have tried to predict the outcome of the disease on a deer population have described the disease as a 30- to 50-year epizootic. Due to the uncertain



DNR Photo

Rich Rogers holds award he accepted on behalf of DNR CWD Response Team.

ramifications that CWD may have on the state's white-tailed deer resource, the Wildlife Resources Section implemented appropriate actions as described in its CWD Incident Response Plan.

Rich Rogers, Jim Crum, Al Niederberger and Travis Metcalf have been the primary wildlife professionals responsible for implementing this plan. The actions outlined in the plan are designed to accomplish the following goals:

- Determine the prevalence and the distribution of CWD through enhanced surveillance efforts.
- Communicate and coordinate with the public and other appropriate agencies on issues relating to CWD and the steps being taken to respond to this disease.
- Initiate appropriate management actions necessary to control the spread of this disease, prevent further introductions of the disease, and possibly eliminate the disease from the state.

"Without question, the outstanding, professional efforts of the CWD Response Team have contributed significantly to the success of our agency's surveillance and management programs," noted Paul Johansen, Assistant Chief in Charge of Game Management for the DNR Wildlife Resources Section. "Their dedication, commitment and just plain hard work have allowed our agency to effectively address this serious wildlife disease threat."

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