

ESH is the KEY

The roar of chainsaws and rumble of logging trucks on Bluestone Wildlife Management Area in Summers County was causing a lot more noise and commotion than anticipated at that particular remote timber-cutting site. Some local residents and visitors to the area, including a few hunters, were upset and downright angry that the Division of Natural Resources Wildlife Resources Section was allowing the “devastation” and “destruction” of this prime forest hunting area.irate phone calls were received at the Beckley and Charleston DNR offices. Threats of petitions and cursing of loggers as well as DNR officials were voiced along the ridges and down in the hollows.

This same scenario also played out many years ago in Pennsylvania, when the Pennsylvania Game Commission proposed plans to create early successional habitat (ESH) in the form of clear-cuts on one of its large game lands. Because Pennsylvania has a much larger population than West Virginia, the proposed plan for logging a portion of the area to create habitat for wildlife that thrive in young, dense forest ESH stands was met with much more opposition than at Bluestone WMA. Environmental groups in Pittsburgh and Philadelphia were roused into action. A prominent state newspaper conservation writer, who owned property near the game land, took up the cause. He denounced the Game Commission in several editorials, claiming their proposal would be very detrimental to wildlife, the forest, hunters and other recreationists.

As stewards committed to the welfare of all wildlife, the Game Commission held public hearings, weighed the positive and negative aspects of their proposal, and carried forth their management program that included clear-cutting and other timbering

Early Success



Above, three-tiered habitat includes newly cut area (left and middle), two-year regrowth (right), and 15-year regrowth (background). This area in Canaan Valley provides excellent habitat for gamebirds, such as the American woodcock, at right.



for Some Wildlife Species

Successional Habitat



WV DNR

He was now enjoying more exciting, pleasurable hikes and had more wildlife sightings than when the game land was a totally mature forest. He pointed out that emotion overrides reason oftentimes. He apologized to the Game Commission and commended wildlife officials for sticking to their goals and performing their duties the way their profession and science dictated.

ESH is generally defined as young forest stands or shrub communities. These dense habitats gradually grow into pole-size timber and eventually large mature woods. They provide excellent wildlife habitat as they grow. Wildlife agencies in West Virginia, Maryland, Ohio, Pennsylvania and Virginia have identified more than 80 species of “Greatest Conservation Need” that require ESH in their Wildlife Action Plans. Included are the rufous-sided towhee, golden-winged warbler, American woodcock and ruffed grouse. Woodcock and grouse have received particular attention because of their popularity as game birds and their dramatic population declines in recent years. Several major, national bird conservation groups have ranked woodcock as one of the highest (global) priority species in need of conservation.

Forestry data in West Virginia show that ESH has declined more than 50 percent since the late 1970s and that development from housing and agriculture are also contributing factors in the loss of early successional habitat. Bird breeding surveys and flushing counts reveal grouse numbers also have declined in the Mountain State by about 50 percent during the same period. Drumming male grouse counts in Ohio have declined almost 65 percent.

Singing ground counts for male woodcock conducted by the U.S. Fish and Wildlife Service have shown a decrease of nearly 38 percent for the eastern

activities. After a few years, the various user groups stopped voicing concerns and the matter settled down. After several years the Game Commission was pleasantly surprised when the conservation writer printed a retraction. He reported that the affected area had more game animals as well as a larger diversity of wildlife species including nongame birds for birdwatchers. He also noted that the cutover areas were providing shelter and a variety of wildlife foods.

Sherril Young / WV DNR

U.S. woodcock population since 1970. Since 1980 the losses of young, high-stem density forests have declined 34 percent in oak woods and 40 percent in maple-beech-birch forests in northeastern states. Woodcock prefer ESH or timber stands with dense understories (vegetation near the ground) in flat, moist areas, such as those found along valleys and bottoms.

This loss of ESH, so critical for survival of many wildlife species, has caused concern among wildlife biologists throughout the United States. Recently, DNR Wildlife Resources Section personnel were involved in the development of the Ruffed Grouse Conservation Plan and the American Woodcock Conservation Plan. These plans provide habitat management recommendations, Best Management Practices (BMPs) and coordinated management implementation aimed at restoring ruffed grouse numbers to the 1980s level and return woodcock to the population levels of the 1970s.

Historically, young small-diameter forests were created and sustained by fire (caused by lightning or Native Americans) or other natural disturbances such as hurricanes, tornadoes and beaver colonies. Today, however, ESH is created by commercial timber harvests or proactive management practices, such as prescribed fire or forestry mulches. These activities must be implemented at regular intervals, every 10-15 years, to maintain a continuous supply of important early successional habitat.

Even-aged timbering systems such as clear-cut, seed trees and shelterwood are the most effective methods to create ESH. Removal of all or most trees at one time from an area three acres or more, provided by even-aged logging, establishes and sustains quality ESH for grouse and other species. The resultant thick young forest growth provides protective cover, diversity of foods, and nesting/brood habitat for many wildlife species requiring early successional habitat.

The Wildlife Resources Section has been very active the last several years in developing ESH on



Above, Wildlife Resources Section personnel clear an area at Stonewall Jackson WMA with a recently purchased mulcher. Right, a ruffed grouse.

state WMAs. A forester was added to the staff in 2005 to assist district wildlife personnel in identifying merchantable stands, cruising and marking timber, and implementing timber sales. All timbering activities on WMAs are conducted with the primary goals of benefiting wildlife and sustaining mast-producing trees. WMAs on which timbering activities for ESH have occurred include: Pleasant Creek and Lewis Wetzel in District 1, Short Mountain in District 2, Elk River and Stonewall Jackson in District 3, Bluestone and Plum Orchard in District 4, and Chief Cornstalk in District 5.

The Wildlife Resources Section recently purchased a large forestry mulcher for areas deemed not suitable for commercial harvest. This skidster machine with mulching head is capable of cutting and grinding trees up to eight inches in diameter. It was purchased with assistance from the U.S. Fish and Wildlife Service and a \$10,000 donation from the state chapter of the National Wild Turkey Federation.

In addition, wildlife personnel are planning woodcock demonstration areas — sites that show BMPs



WV DNR

woodcock emerges from his diurnal haunts — often thick brushy cover (ESH) along a stream bottom. He flies low, often silently, to his singing ground located in an old field with scattered shrubs. Shortly after landing, he begins to emit frog-like “peents.” This peenting may last several minutes before the amorous male leaves the ground in a low twittering flight that begins to spiral above his earthly-singing ground. Upon reaching a height of as much as 300 feet, wings constantly emitting the twitter sound at a faster and faster rate, the woodcock then begins sharp dives that bring forth a beautiful, high-pitched “chirping song” high in the twilight sky. This song is produced not by voice, but by the outer wing feathers that have also produced the twitter. After a short series of dives and loud chirps, an act to attract females to his singing area, the male drifts down like a far-off leaf drifting down from the sky, landing at his original “peenting” site. This performance is repeated several times in the next 30–40 minutes, until complete darkness settles in.

On one such evening in early April 2010, a DNR wildlife employee, about to begin work on a deer spotlight count, heard a peenting male and moved closer to observe the enchanting aerial courtship display. The bird’s descent ended with its alighting in a log landing beside a recent clear-cut — on the Bluestone WMA in Summers County.

Although logging using Best Management Practices in a mature forest has a short-term visual impact on an area, the aesthetic impact lessens in a few years, and the diversity of wildlife increases. Proper timber management practices create a diversity of habitat, including ESH that is vital to certain species of wildlife such as the unique woodcock. Continued management for ESH will mean more opportunities to experience outdoor thrills like spying the love dance of the American woodcock.

for developing woodcock habitat — in each district of the state. Currently three areas are being treated: Spruce Knob, District 2; Stonewall Jackson WMA, District 3; and Green Bottom WMA, District 5. The Spruce Knob site is nearing completion following a 30-year timber cutting — an ESH development project that has primarily focused on grouse. Recent monitoring efforts by Wildlife Resources Section personnel indicated six singing woodcock males lived on the treated area (where timbering has occurred at intermittent intervals in coordination with the U.S. Forest Service) while no singing males were observed on the control area where no timbering was done.

Funding for the Green Bottom, Stonewall Jackson and future woodcock demonstration areas has been provided by the Highland Drummer and North Central West Virginia chapters of the Ruffed Grouse Society, the National Ruffed Grouse Society and the West Virginia Bird Dog Association. These monies will be matched by federal dollars dedicated through the Wildlife Management Institute and allocated through the Appalachian Mountains Woodcock Initiative.

The courtship display of the American woodcock is a remarkable nature show. Those who have never seen the male’s “sky dance” on a balmy spring evening are missing one of life’s fantastic outdoor adventures. Just before evening light turns to darkness, the male

Jeff Craig