

Committee on Resources

Subcommittee on Forests & Forest Health

Testimony

**TESTIMONY BEFORE THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES
SUBCOMMITTEE ON FORESTS AND FOREST HEALTH
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Madam Chair:

The Wildlife Management Institute (WMI) applauds your decision to hold this hearing on Wildlife Conservation on National Forests, and I am pleased to be here to testify. Our National Forests offer tremendous opportunities for meaningful wildlife conservation. In many cases, federal lands are the only large blocks of land where wildlife conservation can be a priority, and where habitat needs of forest wildlife can be addressed on anything approaching the landscape scale necessary to sustain diverse wildlife species in abundance in a dynamically shifting mosaic of forest types and ages.

Much good wildlife conservation is already being practiced on federal lands. The current efforts to restore natural forest ecosystems are wonderful examples of good wildlife conservation. I am referring especially to efforts to restore ponderosa pine ecosystems in the West, longleaf pine/wiregrass ecosystems in the Southeast, and shortleaf pine/little bluestem ecosystems in Arkansas. All three of these ecosystems depend upon frequent ground fire, and their restoration is highly compatible with other important objectives, such as reduction of fuel loads and fire ladders, risks of catastrophic wildfires, and indeed, with forest health. I have personally stood amid restored stands of all three of these types, and was amazed at the variety and abundance of wildlife which could be seen and heard. Restored and healthy forests can be expected to be teeming with wildlife, and, not coincidentally, to contribute greatly to the recovery of numerous threatened, endangered, and "sensitive" species.

There is so much more opportunity to conserve wildlife on National Forests, however. WMI was involved in the creation of the Challenge Cost Share Program, where Forest Service dollars are matched with private dollars to fund habitat management for numerous game and fish species. In recent years, the Forest Service has been unable to match the dollars offered by private sportsmen's organizations, and, as a result, numerous opportunities to accomplish important fish and wildlife habitat management projects were missed. Strong funding of the Challenge Cost Share Program would be a very cost-effective way to achieve much wildlife conservation on National Forests.

A great deal of attention has been paid to the forests of the Pacific Northwest and the fire risks in forests of the Northern Rockies and Southwest. This is all well and good, but while our national attention has been

diverted to western forest issues, the forests of the Lake States, Appalachians, and Northeast have received comparatively little attention. These forests have real needs, too, and again forest health and wildlife conservation go hand in hand. I will focus my remaining comments on these forests.

Eastern forests were heavily cut over from the time of early European settlement through the 19th century. Many states went from 80%+ forested to as little as 20% forested, and are now 80% or more forested once again. The clearing of these forests was so substantial that wildlife species such as white-tailed deer, wild turkey, black bear, and beaver, all abundant today, would likely have been on an endangered species list had one existed at the time (MacCleery 1992).

Problems with forest condition and wildlife populations in eastern forests today are a direct result of that pattern of forest loss and regrowth. The majority of eastern hardwood forest today is 60 - 100 years of age, as forest regrowth occurred primarily from the last big logging of the 19th century through the large-scale abandonment of small farms in the Great Depression of the 1930s. This period of large-scale regrowth coincided with the first really effective fire exclusion and suppression, and occurred in the nearly total absence of large herbivores (deer, elk, and bison) which once browsed the eastern forests. The result is a forest which has an unnaturally truncated age distribution (lacking both young and old forests), and which is unnaturally dense because of the minimal influence of normal disturbance factors.

In central and Appalachian hardwood forests, oaks are extremely important to wildlife. Indeed, oaks and acorns fundamentally influence eastern wildlife communities. With the loss of American chestnut and the decline of American beech, oaks and their acorns have become vitally important to eastern wildlife. Acorns may comprise more than 80% of the seed crop in eastern forests, and acorn production may be 3 to 10 times greater than all other browse produced (Rogers *et al.* 1990, Segelquist and Green 1968). Yet, despite the fact that oaks have been self-perpetuating for the past 6,000 to 9,000 years, oaks have been declining for the last 50 years (Healy *et al.* 1997), and this period coincides with the exclusion of fire. However, severe disturbance may be important in maintaining the function of oak ecosystems, and fire without accompanying canopy disturbance may not benefit oak regeneration (Ashton and Larson 1996, Moser *et al.* 1996).

Bird species which nest and forage in the crowns of mature trees have done exceptionally well (with very few exceptions) as forests recovered. Even within mature forests, however, species which nest or forage on the ground or in the low understory are declining across the eastern forests. The size and density of the trees has created such dense shade that large areas are virtually devoid of ground plants, shrubs, or understory trees. Many species of shrubs and native wildflowers are declining due to years of heavy shade, and tree species which require direct sunlight are being replaced by different species which are more shade-tolerant. The loss of ground plants, shrubs, and understory trees leaves a forest which lacks the structural characteristics required by many species of wildlife. Moreover, the relatively even-aged forest and high tree densities have created ideal conditions for the spread of disease organisms which kill trees and for epidemic outbreaks of defoliating insects such as the gypsy moth. A healthy eastern deciduous forest should include vertical stratification of vegetation into several layers, including ground plants, shrubs and understory trees, as well as the canopy trees. Such a forest would sustain a diverse array of wildlife species.

The Breeding Bird Survey, conducted annually since 1966, is an excellent indicator of habitat changes. This survey was established by the U.S. Fish and Wildlife Service and is now coordinated by the Biological Resources Division of the U.S. Geological Survey. Thousands of volunteers, all highly skilled at identifying birds by sight or song, have performed roadside counts of birds along 24.5-mile long routes each spring.

These counts demonstrate long term changes in bird populations, and reflect the habitat changes which have occurred over the 30+ years of the Breeding Bird Survey.

I grouped forest birds into species of young forest habitats and species of mature forest habitats, then used population trends from Breeding Bird Surveys to compare the number of species whose populations have increased with the number of species whose populations have declined for each of 23 different forested regions (physiographic areas - see Figure 1) from the Lake States south to the Gulf of Mexico and east to the Atlantic Ocean. I then looked for patterns of population change in birds of young and mature forests across the eastern United States.

For the 30-year period from 1966 - 1996, there is a pretty consistent pattern in population trends of forest birds from the Lakes States to the Northeast. Birds of young forests have more declining species than increasing ones (Figure 2), while birds of mature forests have more increasing species than declining ones (Figure 3). This demonstrates the aging of the forests across the region, with forests continuing to mature and young forest habitats advancing into more mature stages.

From the Ozarks to the Atlantic, the pattern is similar. The 30-year trends show that more birds of young forests are declining than are increasing in abundance across the Southeast (Figure 4), and except for a few areas, more birds of mature forests are increasing than declining (Figure 5).

It takes centuries to produce old-growth forests. However, many of the structural characteristics of old-growth forests can be created in the 60-100 year old forests existing today throughout the East by careful management. Young forest habitats can be created in just a few years by cutting trees, but such forests don't stay young. It may be only 5-15 years before trees have grown too tall and the ground too shady to provide the habitat needs of species needing really young forest. So such habitats need to be recreated over and over again, and on a scale sufficient to maintain populations of species dependent on them.

Madam Chair, eastern forests generally will continue to age. Private forest lands are being divided into smaller and smaller parcels, creating more and more owners, who are not buying their land for timber management, but for second homes and recreation (Birch 1997). Eastern National Forests must provide much of the habitat for species needing very young forests.

Perhaps as little as 5% to 10% of the forest needs to be less than 10 years old to meet the needs of these species. Yet at the current harvest rates, the George Washington and Thomas Jefferson National Forests in Virginia, for example, would have to cut between 4 and 5 times their current annual harvest levels just to maintain that little amount of young forest habitat. The reductions in timber harvest on eastern National Forests in the last 25 years have been so substantial that there is an inadequate supply of local loggers today. Forest Service personnel say it could take up to a decade to rebuild a sufficient supply of loggers to harvest timber at rates that would leave only 7% or so of the forests under ten years old at any given time.

In the last 10 years, we have heard much about forest fragmentation, the splitting of forests into small, isolated blocks. This can have a strong negative effect on species which require large blocks of mature forest. This was well demonstrated by research performed primarily in southern Illinois, northern Missouri, and northern Chesapeake Bay area. These are some of the most highly fragmented landscapes in the eastern United States, where agriculture has replaced forest habitats. The Breeding Bird Survey data, however, show that forest fragmentation is NOT a major problem throughout most of the forested East, i.e., the Appalachians, Northeast, and northern Lake States, where landscapes are 70%-80% forested. Unfortunately, some National Forests in these heavily forested eastern landscapes insist on managing for large blocks of

mature forest out of concern for these so-called "forest interior" birds, while the declines of species needing forest openings and early stages of young forest continue unabated because timber harvests are inadequate to provide the needed habitat.

It is very difficult to prescribe management (silvicultural) methods which would be appropriate to create needed wildlife habitat on eastern National Forests. The variety of forest types is too large and current forest conditions too variable to permit blanket recommendations. However, it is clear that we should keep all silvicultural management tools in our tool kit. This means canopy-opening timber harvests are needed. This could include widespread thinning to reduce the basal area and densities of trees to permit increased light penetration to the ground and encourage the recovery of a well-developed ground flora and understory. It would also mean providing at least 5% of the area in young, regenerating forest stages under 10 years of age. That could be accomplished through the use of small group selection cuts (2-5 acres) distributed widely across the landscape, in combination with larger stand regeneration cuts (clearcuts, seed tree, and shelterwood cuts) up to 40 acres in size where appropriate. Declining species of eastern forests which would benefit from group cuts include the eastern wood-pewee, least flycatcher, northern flicker, and whip-poor-will. Declining species which would benefit from opening the canopy to induce dense, shrubby understory and ground cover include the wood thrush, veery, Canada warbler, black-and-white warbler, worm-eating warbler, white-eyed vireo, American redstart and Kentucky warbler. Declining species which would benefit from stand regeneration cuts include the golden-winged warbler, prairie warbler, eastern (rufous-sided) towhee, yellow-breasted chat, common yellowthroat, gray catbird, field sparrow, ruffed grouse, and American woodcock.

Madam Chair, timber harvests on our eastern National Forests in the last two decades have not been adequate to provide habitat needs for many species needing very young forest habitat or needing forest openings and dense, shrubby understory. Some have argued that species needing very young forests are having their needs met on private lands, but neither the Forest Services's Forest Inventory and Analysis (FIA) data nor the Breeding Bird Survey support that argument. Private lands in the Southeast do provide much young forest habitat, but it is almost all in pine plantations which for 3-4 years provide habitat for some species of young forests, but their reproductive success in such plantations is very poor. Southeastern forests have seen much land converted from deciduous forest to pine forest, and young deciduous forest habitats are in very short supply.

National Forests in the east comprise millions of acres of public land. There is plenty of room to meet the needs of species of old forest and the desires of people seeking solitude in large roadless areas, while at the same time meeting the needs of other species requiring forest openings, dense understory, and very young regenerating forest. We do not have to choose between one extreme and the other. While we can't meet all needs on the same acres, the National Forests are large enough that we can find a place to meet all needs, while at the same time producing sustainable fiber supplies, jobs, and local economies - and those economies can be based on recreation and tourism as well as timber.

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