

**PROPOSED ACTION PLAN – resulting from the
Managing Wildlife for Sustainable Forest/ Managing Forests for Sustainable
Wildlife Conference, March 3-5, 2005**

History

The forests of the Central Hardwoods Region and the wildlife populations that live in them face challenges today that have not been experienced throughout our history. During the past century, land cover throughout Indiana has gone full circle. Prior to the turn of the 20th century, the southern part of our state was predominately forested. This land was soon cleared and put into agricultural production. After the depression, much of this land was abandoned as agricultural land and returned to forest cover. Today we are blessed with an Oak -Hickory forest covering much of Southern Indiana. Many of these forests are now approaching maturity.

Management and ownership patterns of our forest land have also changed over time. Much of the agricultural land abandoned in the early – mid 1900's was placed in state and federal ownership and actively managed for timber and recreational opportunities. Private ownership also existed in larger blocks of forest cover and was managed for timber production. The even aged harvest management strategies applied to these forest lands (clear cutting and group selection cutting) somewhat mimicked natural disturbances (wind, fire, and disease) creating a mixture of early, mid and late successional forests on our landscape. The wildlife populations living in our forests also represented a mixture of species requiring each of these successional stages.

Where it's going

Forest are becoming fragmented and more urbanized

Are forests are becoming more fragmented. Between 1978-1994 average parcel size of private forest acres have declined to 20 acres while the amount of forest land has remained fairly steady. Sixty percent of forest landowners now own less than 9 acres. Forests are being converted in all metropolitan areas to other uses. The result is that our Hoosier forests are now less rural and are ultimately becoming more urban forests.

Forests are aging and the forest and wildlife species compositions changing

The smaller ownership parcels held by multiple landowners are no longer receiving the same level of active timber management. The forests in public ownership also are being managed with less even-aged harvest strategies. The result is that our Indiana forests are aging. The amount of early successional forest habitat is declining as are the wildlife species that depend on this habitat component. Over 75% of song birds require shrubland habitat are declining while declines are occurring in only 25% of song birds requiring mature hardwood habitats. The latest research also shows that even song birds using mature woodland habitats during their adult life stages make considerable use of shrub lands during their first few months of life in order to find the food they require. Shrub land songbird species and other wildlife species that require early successional forest habitats will continue to decline unless some policy or management interventions are made.

The composition of our forests is also changing. As forests age under our current management strategies, trees species composition is shifting from Oak dominated forests to forests dominated by Sugar Maple. As a result, wildlife species are also beginning to shift in response to this change in food resources.

Currently there are no incentives on private land to encourage active management that will regenerate our forests, restore a balance of early and late successional habitat stages, and ensure that an oak/Hickory component remain in our landscape.

Given the trend in forest ownership patterns, scientists do not believe that creating a balance of early successional habitat stages and regenerating oak/hickory forests will be feasible on small private land ownerships. Research tells us that early successional habitats are most beneficial to wildlife species and are most effective at regenerating oak when they occur in large blocks of forest cover (> 1,000 acres) adjacent to mature stands of hardwood timber. These large blocks exist and can be managed on large private land holdings, public lands, or on smaller private land holdings that are pooled together and managed cooperatively by their landowners. The real question facing forest managers and policy makers is: Can something be done to protect the remaining large contiguous blocks of forest land in Indiana and then manage these blocks so they provide a balanced mix of successional stages and a balanced mix of tree species?

Invasives

The prevalence of invasive plant and insect species are also exerting strong influences on our forest composition. These invasive species alter habitat structure, and drastically change food webs thus negatively impacting many of our native wildlife species. Research has found negative impacts most prevalent in some of our amphibian species. Current invasive species causing economic damage in Indiana as well as affecting native tree and wildlife species include: tree of heaven, bush honeysuckle, gypsy moth, emerald ash borer.

Action items

To take advantage of our scientific discoveries, several management and policy actions will be required if current threats facing our forest and wildlife species are to be reversed.

Short term actions

Private land management

We must devise effective ways to keep current scientific discoveries involving the future of our forests in front of users and voters. One of the most pressing research questions that will inform future management, land use, and policy structures is: how large of a block of rural, managed forests is required for sustainability of both forestry and wildlife species? Strategies will be needed to fund and conduct this research.

State Land Management

A planning model for state lands is needed that looks at a wide range of alternatives for management of DNR lands. This model should apply the same scientific principles summarized above and articulate the role of state lands in contributing to the balance of successional stages and forest species composition in Indiana as a whole.

Federal Land Management

Sound scientific discoveries regarding the sustainability of our Hoosier forests and wildlife populations should guide national forest management decisions so healthy, sustainable forest and wildlife populations result for generations to come. Scientific models presented at the conference show that even under to most aggressive forest plan alternative currently proposed, the declining trend of early successional wildlife species will not be affected and forest composition will continue to transition to predominately beech/Maple forests. An additional forest plan alternative is required that

- a. Regenerates enough of the forest to reverse trends in declining early successional wildlife species
- b. Creates regeneration blocks exceeding 10 acres so oak regeneration is possible
- c. Place regeneration blocks next to large blocks of mature timber so even wildlife species living in predominately mature forests can have the access to the early successional habitat they require during their post fledgling life stages to help reduce declines in their population numbers as well.

Mid-term actions

An outreach campaign collectively created and funded by assembled groups will be required to enable voters to accept and support proper forest management strategies needed to sustain our forests and wildlife populations for generations to come.

Statewide forest plan - investigate legislatively created state forest resources council like Minnesota that is publicly funded and is responsible for setting state policy and management guidelines necessary to support a viable forest based industry in the state.

Management agencies and landowner organizations should work collectively to develop a management structure and funded incentive system necessary to protect and manage private forest lands in Indiana so they can contribute to the balance of species and age structures required to sustain our forest and wildlife populations statewide.