

## Indiana Department of Natural Resources Division of Fish & Wildlife

Draft Speaking Notes for Steve Backs, DFW perspectives on State Forest Stewardship Planning 9:45 am

Forest Stewardship Coordinating Committee, Wednesday, September 27, 2017

Morgan Monroe State Forest, Training Center, Fire Headquarters, 6220 Forest Road Martinsville, IN 46151

Good Morning, The Division of Fish and Wildlife appreciates the opportunity to be a part of today's program.

My charge is to present the Division of FW's perspectives on forest stewardship and how our Statewide Wildlife Action Plan (SWAP) integrates with the Indiana Forest Action Plan priorities. For the sake of simplicity, I'll cut my charge in half, and speak only to the terrestrial wildlife resources, recognizing that fish and other aquatic fauna are often influenced by watershed factors related to forest ecosystems. The purpose of Indiana's SWAP is to manage, conserve, and enhance habitats' and populations' stability for diverse fish and wildlife resources. The intent of the SWAP is to avoid "random acts of conservation" and to help people feel more connected to the land and natural resources.

The DFW's responsibilities are quite broad in covering the life history and habitat needs in the management of Indiana's fish and wildlife resources. Many animal populations are influenced by forces beyond Indiana's borders, beyond the Midwest, and in the case of migratory wildlife, beyond the US. The SWAP process defined 8 major habitat categories covering 60 different habitat types identified in

the Comprehensive Wildlife Strategy (CWS). The 8 major habitat categories were **Agricultural Lands, Aquatic Systems, Barren Lands, Developed Lands, Forests, Grasslands, Subterranean Systems, and Wetlands.**

Forests currently cover about 21% of the state (~5 million acres) or about ¼ of their historical composition of around 85%. Forest acres have increased in the past 50 years, although there are reasons to believe this increasing trend has peaked. From a wildlife perspective, let's step back to reflect. Imagine if we still had 1/4<sup>th</sup> of the historical native grasslands and wetland habitats and they had increased over the last 50 years? We would certainly have more diverse wildlife communities. This is not to minimize the importance of forest habitats, it's just a rear view perspective since the Division's responsibility is frequently directed at **"species of greatest conservation' needs (SGCN)"**. Many of the critically imperiled species are associated with grasslands and wetlands, but nearly 50 species of greatest conservation need are associated with forest habitats. In some instances, public forest lands likely provide the only long term opportunity to maintain some populations of species of greatest conservation need (e.g., ruffed grouse). When we survey our publics about wildlife values, forest habitats rank high in value, right

up there at the top with wetlands. Forests and the wildlife that inhabit forests are very important to our publics.

**(Slide #1)** To help focus the “acts of conservation” and facilitate a greater personal connection with the public and various conservation minded partners, the Statewide Wildlife Action Plan identified 8 **Conservation Opportunity Areas** (COA’s) or Regions in the state: **Great Lakes, River/Lakes/Terrestrial, Valley/Hills, Corn Belt, Kankakee, Interior Plateau, Drift Plains, and Urban**. The proportion of Forest habitat composition varies greatly among these Conservation Opportunity Areas or regions and thus do the identified threats and proposed needed actions. So how does the Statewide Wildlife Action Plan integrate with the Indiana Forest Action Plan and Indiana Forest Stewardship?

**(Slide 2)**, To illustrate the similarities, I have highlight similar sections or keywords in yellow on both plans, as they pertain to forests. As will be illustrated by the yellow highlighted sections, there is considerable overlap between the two plans and needed actions. First, the 2010 Indiana Forest Action Plan followed by 4 slides covering the 8 Conservation Opportunity Areas. Obvious common themes or keywords pertain to: **controlling invasive species, keeping forest as forests (land**

**use conversion), enhancing habitat connections and corridors, and increased public education. (Slides 3-6 showing yellow highlighted similarities).**

The invasive species control issue is a serious one that not only threatens the integrity of both private and public forests and the associated wildlife, but often limits or constrains the management options to enhance forest habitats for wildlife. Thankfully, this issue has received more public awareness in recent years, however, I suspect in some situations much too late. I'm sure subsequent speakers will address the invasive species issue further, so I'll try to address a couple other issues of mutual concern or interest in the limited amount of time available.

The ever increasing pressures for more acres of row crop agriculture and human development are primary factors threatening the future of keeping privately owned forest as forests and subsequently influence the connectivity of habitats or corridors for wildlife movement. Suburbanization of woodlands and reduced forest ownership size generally increases adverse edge effects across the landscape, increases the probability of domestic predators (e. g, cats and dogs) and populations of mid-level predators (e.g., raccoons, opossums) that negatively impact prey level wildlife (small-game species, songbirds, small mammals, herps,

reptiles), and increased excessive herbivory issues. Suburbanized forests generally shift toward open, park like stands of older trees with little or no native vegetative understory, habitat important to forest wildlife. Suburbanization and reduced ownership also limit management options to counteract these problems.

The vitality of a forest ecosystem is measured not only by its existence, but the time that has passed since the last major vegetative disturbance. Historically, the diversity of forest habitats was defined by the frequency of natural, catastrophic, destructive events such as firestorms, tornadoes, massive insect infestations, and the intentional fires set by Native Americans to assure their own survival in creating a diversity of habitats and native foods. Disturbance processes are a youthful renovation of habitats that provide for a diversity of wildlife within a very dynamic, resilient forest ecosystem needing young trees, just as much as old trees.

Natural forces, however, no longer function as they did historically in the much reduced forest environment, diced up by human development, and along wildfire suppression aided by a million plus miles of asphalt firebreaks. To paraphrase a notable forester and wildlife expert, Aldo Leopold, the key to maintaining a diversity of wildlife habitat lies in the use of an axe, match, cow and plow. An actively managed forest is still a forest and not a Wal-Mart parking lot.

Given our ever increasing urban environment, we can only hope that environmental education will bridge the public's disconnection of understanding how vegetative disturbances can enhance biodiversity. Perhaps more projects like the HEE and the MOFEB in Missouri will provide not only the needed information for the education efforts, but demonstration areas where the public can 1<sup>st</sup>-hand observe the diversity of wildlife habitat and wildlife not readily observed elsewhere.

Both private and public forests, lack of adequate levels of vegetative disturbance, and our forests are shifting from shade intolerant to shade tolerant species. The oak/hickory forest type is transitioning toward a beech maple forest, another subtle but progressing change that will significantly influence future wildlife populations as we know them. Besides the obvious loss of acorns and hickory nuts that provide food for some wildlife, there is a whole cadre of wildlife species that are dependent on other aspects of the oak/hickory type and do not feed on hard or soft mast foods. Indirectly, the economic importance of the oak/hickory type may also be the incentive currently helps keep forests as forests.

Finally, I'm not an economist, and as a naïve college student that disdained the required economic courses in college, I never foresaw the need to better understand economics. As a young biologist, I had little desire to understand how economic market influences on the natural world. Now after nearly after 40 years of natural resource experience, I now recognize the value of item #5 of the Indiana Forest Action Plan to, "Maintain and expand markets for Indiana hardwoods, ..".

I can't help but wonder, if ton of hardwood fiber were worth more than a ton of corn or soybeans, would there be more acres of forest? Would there also be a greater diversity of forest age structure in our woodlands and an increased habitat and wildlife diversity? I believe there is a need for developing new markets for the lower quality hardwoods that often composed the frequently high-graded woodlots. These markets would potentially increase the probability of keeping forests as forests, increase the potential for pre and post-harvest treatments to reduce invasive species, and provide for more opportunities for a more balanced age structure and composition of existing forests.

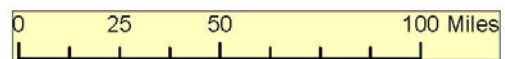
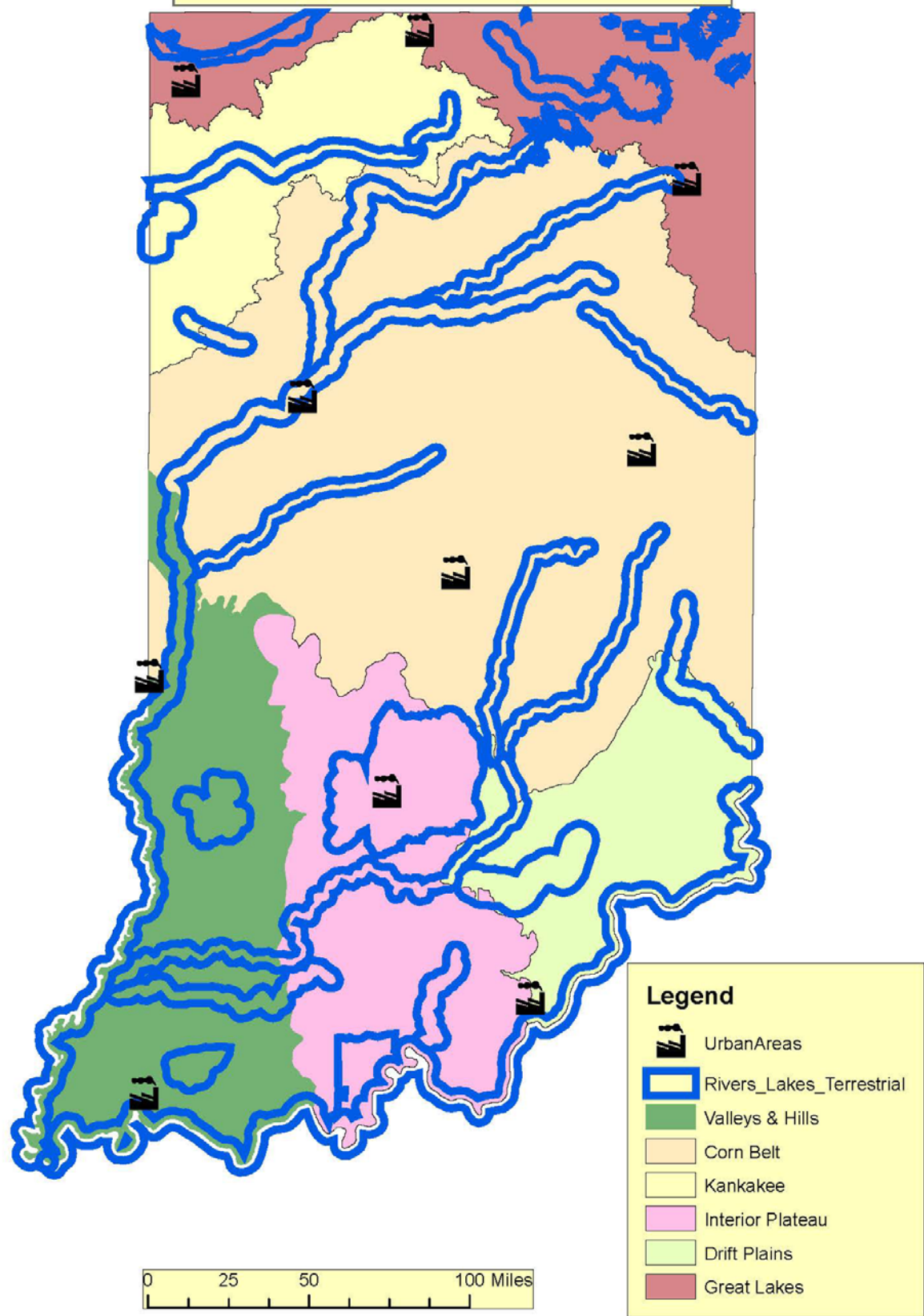
Again, thank you for the opportunity to present some wildlife perspectives but as indicated at the beginning, given the Division's broad and diverse species responsibilities, it's impossible to cover the topic or issues in 15 minutes. There

are still many unknown influences of climate change and likely new forest disease threats on the horizon.

I also want to thank Brad Feaster, our SWAP coordinator and the SWAP team, for providing some of the distilled information use for this presentation.



# State Wildlife Action Plan Conservation Opportunity Areas



## **2010 Indiana Forest Action Plan**

- 1) Conserve, manage and protect existing forests, especially large forest patches**
- 2) Restore and connect forests, especially in riparian areas**
- 3) Expand Best Management Practices, with special attention to invasive species**
- 4) Coordinate education, training, and technical assistance, especially to develop strategic partnerships with land-use decision makers**
- 5) Maintain and expand markets for Indiana hardwoods, especially those that are sustainably certified and for local use**

# Identified Threats & Actions in SWAP (Related to Forest management/habitat)

## Great Lakes Region

### Priority Threats (via Conservation Partners)

1. Invasive & alien species
2. Conversion of natural habitats to other land uses (Urban, ag & industrial)

### Priority Actions (via Conservation Partners)

1. Control invasive species
2. Reduce loss of fish and wildlife habitats
3. Develop educational programs in general

## Kankakee Region

### Priority Threats (via Conservation Partners)

1. Invasive and alien species
2. Conversion of natural habitats to other land uses (Ag, residential, urban & industrial)

### Priority Actions (via Conservation Partners)

1. Reduce conversion to cropland
2. Preserve currently existing corridors
3. Develop educational programs in general

## Identified Threats & Actions in SWAP (Related to Forest management/habitat)

### Corn Belt Region

#### DFW Identified Priority Threats & Actions

1. Habitat fragmentation: Preserve and restore habitat corridors

#### Priority Threats (via Conservation Partners)

1. Invasive and alien species
2. Conversion of habitat to other land uses (Ag, residential, urban, industrial)

#### Priority Actions (via Conservation Partners)

1. Reduce loss of fish and wildlife habitats
2. Preserve currently existing corridors

## Identified Threats & Actions in SWAP (Related to Forest management/habitat)

### Valleys and Hills Region

#### Priority Threats (via Conservation Partners)

1. Invasive and alien species
2. Conversion of habitats to other land uses (Ag, residential, urban, industrial)

#### Priority Actions (via Conservation Partners)

1. Preserve currently existing corridors
2. Reduce conversion to cropland

### Interior Plateau Region

#### DFW Identified Priority Threats & Actions

1. Habitat loss to early successional forest: Land management (timber cutting, fire, girdling, mechanical and chemical).
2. Habitat degradation to Forests: Controlling problematic native wildlife and land management (timber cutting, fire, girdling, mechanical and chemical)

#### Priority Threats (via Conservation Partners)

1. Invasive and alien species
2. Conversion of natural habitat to other land uses (Ag, residential, urban, industrial)

#### Priority Actions (via Conservation Partners)

1. Reduce loss of fish and wildlife habitats
2. Control invasive species in forests
3. Acquire currently unprotected forests

## Identified Threats & Actions in SWAP (Related to Forest management/habitat)

### Drift Plains Region

#### Priority Threats (via Conservation Partners)

1. Invasive and alien species
2. Conversion of habitats to other uses
3. Plant diseases

#### Priority Actions (via Conservation Partners)

1. Promote a diversity of forest types and successional stages
2. Control invasive species in forests
3. Preserve currently existing corridors