

Indiana Forest Alliance: Rebuttal to Division of Forestry's Response to the Public Comments

10/30/17

PRESENTING A VERY MISLEADING CHARACTERIZATION OF THIS FOREST:

Mr. Seifert is mischaracterizing the condition of much of the land that was acquired to become state forest and part of this Back Country Area. Most of the land in the Morgan-Monroe/Yellowwood State Forest Back Country Area, more than 75%, was closed canopy forest according to aerial photographs taken in 1939. It was by no mean all "abused and abandoned" "cutover woodland, fruit orchards, farm fields and young growth."

Tract histories indicate there were relatively little "husbandry practices", i.e., no replanting, restocking, thinning, invasive removal, etc., undertaken by the Indiana Division of Forestry (DOF) on much of the lands that became the BCA. The DOF usually just inventoried the timber, watched open areas reforest naturally and let the forest grow older.

There have only been harvests on three tracts in the BCA since this BCA was created in 1981, not 13 tracts. Mr. Seifert is counting harvests that occurred before the BCA was designated. But even if you consider harvests back to when these tracts were acquired to be state forest, the BCA includes 30 tracts. Mr. Seifert is creating a false image of active DOF management when in fact, no commercial timber harvests have occurred at all on most of these tracts since they've become state forest (from the 1940s through the 1960s) and notably fewer have occurred after the area was designated as the Back Country Area.

PRESENTING A FALSE PICTURE OF WHAT THIS LOGGING WILL DO TO THE FOREST:

Seifert's assertion that only 5 to 7 trees will be removed per acre also creates a very misleading image of light impacts that will occur on the forest. This cutting level is far less than proposed in the harvest plans for these tracts but more importantly, is not borne out by the trees that have just been marked to be logged in the timber sale. The 5 to 7 trees are an average for the whole area. Indeed in some areas there are fewer than 5 to 7 trees marked to be cut. But in other areas, most notably on the flat ridge top in the center of Tract 3 where the forest canopy is more than 80 feet off the ground, a rarity anywhere in the state forests today, the trees marked to be cut are concentrated in groups of 20 to 40 per acre. Here removing this many marked trees will substantively change the undisturbed character of the forest replacing its deep green shade with much more sunlight and making it drier and hotter. Salvage cutting will remove as many ashes dead or alive that can be reached as well as dead or declining tulip poplars, black oaks, and scarlet oaks, to enlarge many openings that already exist (as explained in the DOF's harvest plans).

Many trees will be marred by skidders dragging logs from far corners across the forest to the main trails that will become gravel roads. Many pristine areas of forest floor will be scraped bare by this activity as well, providing fertile grounds for nonnative invasive plants such as Japanese Stiltgrass to grow quickly aided by more sun light from the increase in canopy openings.

The BCA guidelines restrict any timber to: "single tree selection of mature, damaged or diseased trees". Yet hundreds of healthy smaller trees, 8-20 inches in diameter that are far from being mature, are marked to be cut.

Forests thin themselves naturally. Thus the objective of the cut explained by Seifert to improve overall health and regeneration and leave trees less stressed from overcrowding will violate the primary objective of the BCA guidelines to manage this forest as a "primitive rugged" "natural woodland ecosystem" where "wilderness seekers" will be "visiting a forested area looking much the same as it may have appeared a

century and a half ago." Rather than truncating the forests' natural processes, the guidelines require that timbering be compatible with this condition and let visitors see it.

DOING NO EXAMINATION OF THE PLANTS AND ANIMALS THAT INHABIT THESE FORESTS. DISREGARDING SUBSTANTIVE SITE SPECIFIC INFORMATION ABOUT RARE ANIMALS AND PLANTS IN THESE TRACTS THAT HAS BEEN SUBMITTED BY TOP SCIENTISTS. IGNORING ANY RESEARCH THAT DOES NOT SUPPORT THE DOF'S VIEW THAT ITS LOGGING IS BENEFICIAL TO FOREST WILDLIFE:

The Draft Resources Management Guide (DMRGs) which outline the harvest plans for a state forest tract is supposed to discuss the plants, animals, soils and other natural resources found on that tract. Yet the discussions about wildlife in each of these DMRGs is either missing as in Tract 3 or identical in Tracts 2 and 4. Thus it does not appear that any inspection was made of the wildlife, herbaceous plant communities or other life besides trees in these tracts before decisions were made to log them. The DOF apparently believes a simple check of the Indiana Natural Heritage Data Base for the existence of rare, threatened or endangered species on these tracts meets its obligation to address possible impacts to our declining, forest dependent RTE species and species of conservation concern. However, the vast majority of state forest tracts have never been examined for RTE species. Staff of the Division of Nature Preserves which maintains this data base explain that it is only a collection of locations where RTE species have been reported and cannot be relied upon to decide what species of wildlife are inhabiting a tract of state forest that may be logged.

Seifert's assertions that forest wildlife will benefit from the logging proposed in this harvest are based purely on studies from the USDA/DOF-funded Hardwood Ecosystem Experiment (HEE). He is ignoring all other research by a large number of scientists many of whom are top experts in their fields even if that research is from this forest that they are proposing to log! His statement that the timber rattlesnake, hooded warbler, worm-eating warbler, black-and-white warbler, and Indiana Bat will benefit from logging ignores the fact that every one of these rare, threatened and endangered ("RTE") species as well as the whippoorwill, a state species of special concern, has been documented to be in Tract 3, the portion of this proposed harvest area inventoried in the Ecoblitz area. Furthermore, these animals aren't just passing through. The Ecoblitz has documented the breeding success of several of these species in the undisturbed forests of these tracts that will be logged.

Bats

For the last two years, mammalogists have netted Indiana Bats, a nationally endangered animal, in Tract 3. They found a maternity roost (with females and young) in Zone 1 in the Ecoblitz forest 100 yards from Tract 3 last year and another maternity roost in Tract 2 this year. They noted that a large number of dead tulip poplars and other snags make this forest good habitat for additional maternity roosts of this nationally endangered animal in a report submitted last year to the DOF. In addition, Mr. Seifert does not point out that even scientists in the HEE found a maternity roost of Indiana Bats with 90 females and young this year in the BCA between the western boundary of the Ecoblitz area and Low Gap Road.

Mr. Seifert asserts that half of known Northern long-eared bat maternity roosts occur in recently harvested areas (without explaining what "recently harvested" means), but ignores the fact that three of these nationally threatened bats have been found in the old forest in the Ecoblitz area, and two of them were lactating females. He also does not mention that mammalogists have told the DOF by email this year and in last year's report of the Ecoblitz bat surveys that the Ecoblitz netting results and acoustic data indicate that this older forest is harboring seven different bat species, one of which is listed by the federal government as "endangered", another as "threatened" and four others listed by the state as "species of special concern". These include the Eastern Pipestrelle and Little Brown Bat whose numbers have dropped by 71% and 90% respectively in winter surveys by the Indiana Division of Fish and Wildlife making the viability of their summer forest roosting habitat that much more important.

Birds

Ornithologists have found abundant numbers of state listed worm-eating warblers including at least five broods of parents with fledglings in or adjacent to Tract 3. They have also found adults and young of the oven bird, Louisiana waterthrush, wood thrush and scarlet tanager in Tract 3. They have also seen or heard the state endangered cerulean warbler at the southern end of harvest Tract 3 (in Ecoblitz Zone 2) and identified many other forest interior birds in Tract 3 including the state listed hooded and black-and-white warblers, whippoorwill, yellow-throated and red-eyed vireos, summer tanager, Acadian flycatcher and others.

Mr. Seifert says HEE research (Kellner, K.F., P.J.Ruhl et al. 2016. Multi-scale responses of breeding birds to experimental forest management in Indiana. *Forest Ecology and Management*, 382:64-75) shows that bird species abundance and diversity increases in harvested areas in the state forests. However, this and the other HEE studies have not examined the central issue of the impacts that the openings and edge created by logging have on the nesting success of neotropical migrant birds that depend on forest interior habitat. In addition to an increase in nest predators, one of those significant impacts is "brood parasitism" of forest bird nests by brown-headed cowbirds, a bird of open country and forest edges whose numbers have increased dramatically in the eastern US as hardwood forests were cleared. When cowbirds lay their eggs in a "host" bird's nest, their young hatch first and out-compete the chicks of the host bird usually pushing them out of the nest, killing them and leaving the host parent to raise the cowbird chick(s).

The largest study done on the effects of cowbird parasitism on "neotropical" forest birds in Indiana monitored 1,293 nests in six different forest landscapes in Yellowwood State Forest and the Hoosier National Forests during 4 breeding seasons. (See Winslow, D. E., D. R. Whitehead et al, Chapt. 34. Within-landscape Variation on Patterns of Cowbird Parasitism in the Forests of South-central Indiana. In: JNM Smith et al [eds] 2000. *The Ecology and Management of Cowbirds and Their Hosts*, University of Texas Press, Austin, pages 298-310). The study examined levels of cowbird parasitism on nests from large "exterior" forest edge created by clearcutting, utility corridors and agriculture and from the "interior" forest edge of "patch" openings from smaller clearcuts, selective group tree timbering or clearings for early successional wildlife habitat, stated objectives of this logging.

The study's data showed that nests of forest song birds closer to both exterior and interior edges from timber harvests were more subject to parasitism by cowbirds, than nests of these birds in unlogged interior forest. For example, the parasitism of worm-eating warbler and ovenbird nests increased from 12% and 8% respectively of nests in unlogged interior forest to 33% of their nests near interior forest edges. Parasitism of red-eyed vireo and wood thrush nests increased from 10% and 8% in unlogged forest to 20% and 50% respectively of their nests near forest interior edges created from logging. The authors concluded,

"When combined with other deleterious effects of forest fragmentation such as reduced habitat availability and increased nest predation, brood parasitism may seriously threaten neotropical migrant populations. . . . Management activities presently occurring in state and national forests, such as timber harvests and the creation and maintenance of forest openings, increase the area of internal edge habitat. Such habitat alteration may reduce nesting success and thus detract from this landscape's value as a source for populations of neotropical migrant birds."

Reptiles and Amphibians

Herpetologists, led by Dr. Robert Brodman who chaired the the DNR's technical advisory committee on amphibian and reptiles conservation, found two dens of the state endangered timber rattlesnake one of them with young, in the root buttresses of large logs in Tract 3. The harvest areas in Tract 3 and Tract 2 also encompasses the area of the Ecoblitz forest (Zone 1, the northeastern quarter and adjacent land on Shipman Ridge) where experts found 31 different reptiles and amphibians. This is nearly twice the

species richness, i.e., twice as many species of reptiles and amphibians, as found in any other Zone in the Ecoblitz area. Nine species of snakes, eleven species of salamanders, seven frog species, a lizard, a toad and two turtle species were found in or adjacent to the proposed logging area.

This harvest ignores recommendations by Dr. Brodman that substantive portions of Indiana's state forests should be spared from timber harvesting altogether in order to maintain healthy populations of amphibians on the state's public lands. These are based on an analysis of 24 peer reviewed studies which found that amphibian populations fared better in unharvested control areas than in areas with any method of timber harvest, including the single tree selection and salvage cutting proposed in this harvest. (see the Autumn 2014 issue of *The Forest Defender*, page 12-13).

Shrews

In addition, the top mammalogist in Indiana and much of the country on small forest mammals, Dr. John Whitaker, found rare pygmy and smokey shrews, state "species of special concern" under large logs in Tract 3. Dr. Whitaker mapped the range of these two species in Indiana and chaired the DNR's technical advisory committee on mammals for 25 years. His written comment to the DOF urging them to leave this forest undisturbed was rebuffed without acknowledgment. In fact large downed logs that are crucial habitat for the timber rattlesnake and pygmy and smoky shrews are marked for removal in the timber sale!

Plants

The DOF's response to public comments has also not acknowledged the written comments from nationally-recognized botanist Dr. Paul Rothrock that voiced concerns about the logging in Tract 3 which he and the vascular plant team have inventoried for three years in the Ecoblitz. Dr. Rothrock spearheaded the design of the "floristic quality assessment" process used today by a majority of states to rate the natural quality of native plant communities based on their species richness, the presence or lack of nonnative plants and the affinity that native plants in them have for undisturbed environments. Dr. Rothrock's assessment of the Ecoblitz forest found "*very high remnant natural value, higher than many nature preserves and perhaps the highest in the state*". He told the DOF: "*It needs to be understood that portions of the area in question contain the highest floristic quality possible for Indiana forests and represent remarkable natural treasures of the State.*" His conclusions echoed those from a floristic quality assessment one year earlier on this same forest by botanist, Dr. Don Ruch of Ball State who represented the Indiana Academy of Science on the IDNR's policy and rulemaking board, the Indiana Natural Resources Commission. Ruch concluded: "*These matrices indicate the Morgan Monroe Back Country Area possesses sufficient conservatism and species richness to be of paramount importance from a regional perspective.*"

INDICATING NO INTEREST IN GENUINELY CONSIDERING THE RESULTS OF THE FIRST COMPREHENSIVE BASELINE INVENTORY OF FLORA AND FAUNA EVER UNDERTAKEN ON STATE FOREST LAND CARRIED OUT ON THESE VERY TRACTS AT NO EXPENSE TO THE STATE:

Mr. Seifert asserts the DOF is staffed by foresters and "other scientists" with a combined 500 years of field experience. While we do not doubt the field experience or expertise of DOF staff in forestry, we do not believe that forestry and biology involve the same expertise and are aware of only one biologist who works in the DOF with an advanced college degree.

We can only be dismayed however at the absolute lack of regard shown by Mr. Seifert for the opinions of the many scientists with Phd's and decades of research in the fields of biology and forest ecology whose findings do not support his views that the health of our forest ecosystem depends upon logging. Responsible management of the state forests should solicit and appreciate a diversity of views from the scientific community and openly and objectively consider data that may not support current management directions.

We support the HEE's objective to measure the impacts of timber harvests on our state forests over 100 years. However, the HEE is not a baseline survey. It has yet to include any inventories of vascular plants, nonvascular plants, fungi, lichen or most invertebrates on its harvest or control tracts. These broad groups of species are fundamentally important to the healthy functioning of Indiana's hardwood forest ecosystem.

The lack of a single comprehensive baseline survey of the life that exists in the interior forests within our state forests should make the information being produced by the Ecoblitz a useful complement to the HEE and very important for the DOF to consider in decisions about logging older tracts of state forest, particularly these tracts. The Ecoblitz is a four year inventory and examination of life in the 900 acre tract of old forest that includes Tract 3's 149 acres, half of the area now proposed for this harvesting. Some 46 scientists (30 with Graduate College Degrees including 19 PhDs) from 12 Indiana colleges and universities, three government agencies, three consulting firms, the Dupage County park system (from Illinois) and the New York Botanical Garden led 191 volunteers to identify species in 10 taxonomic groups inhabiting this forest. The study has been supported by more than \$250,000 in private support from two foundations, several individuals and six organizations including the Indiana Academy of Science. IFA had to submit detailed applications for 14 permits to the DOF and the Division of Nature Preserves (DNP) and 2 permits from the US Fish and Wildlife Service to conduct the surveys in this Ecoblitz.

We have submitted multiple reports of the findings and data each year from the 10 teams to the DOF and the DNP. For the first time in the history of the state forests, forest managers have been given baseline data on the fungi, lichen and other hardly studied creatures that exist in an older tract of Indiana state forest. The data includes 200 species of fungi in Tract 3 including at least three dozen species of the genera Amanita, Lactarius, and Russula hardly studied in Indiana but known to form mycorrhizal relationships with large trees in old growth forests that aide regeneration, help trees resist pests and cope with drought. It includes 22 species of spiders and more than 60 lichens never before found in Indiana. Nearly 40 of those lichens were found this year in micro sites in the forest to be logged in Tract 3. The species identified in this forest may surpass 4,000 once our final identifications of insects are completed by the Hanover College Insect Laboratory. We have just finished sampling woody vegetation on 65 plots, and dendrochronologists from Hanover College, Ball State and Indiana University have cored 47 trees and taken profiles of 11 logs this summer to characterize the stand structure and age of this forest providing landscape context for the biodiversity that we have identified in this forest. We have long planned to discuss our findings in a peer-reviewed report to the DNR and present these findings to the Indiana Academy of Science at its spring, 2018 Annual Meeting.

Thus in addition to being stunned by the announcement of these harvest plans in late July, we are even more astounded by the DOF's lack of any acknowledgement of the Ecoblitz in these harvest plans. The DOF has long been aware of the Ecoblitz, the extent of this undertaking and the schedule for its completion by 2018. Yet after the tremendous effort that has gone into this baseline inventory, the DOF decides to move forward with a timber sale covering much of the Ecoblitz forest and an equal amount of adjacent interior forest in what can only be described as an inexplicable and cavalier dismissal of any of the data and findings that the Ecoblitz is producing.

IGNORING THE PLAIN ENGLISH OF THE SUSTAINABLE FORESTRY AUDIT:

Mr. Seifert touts the audits that certify the DOF's practice of sustainable forestry in its logging of the state forests. Although we are alarmed at the 400 percent increase in logging of the state forests that has occurred since Mr. Seifert took over the DOF in 2005, we agree that the DOF's practice of single tree selective forestry in many areas of the state forest is more sustainable and less destructive to the natural forest ecosystem than other forms of timbering such as clearcutting. However, for at least the past five years, these audits have recommended that the DOF manage the state forests to let more of the under

represented old growth condition that would occur naturally, return to these forests. Specifically, on page 75 of the Forest Stewardship Council audit which applies to all of the state forests, the FSC states:

6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including a) Forest regeneration and succession. b) Genetic, species and ecosystem diversity, c) Natural cycles that affect the productivity of the forest ecosystem.

6.3.a. Landscape-scale indicators 6.3.a.1 The forest owner or manager maintains, enhances and/or restores under-represented successional stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.

We continue to believe that a reasonable interpretation of this language means that the DOF should set aside more than the 4,000 acres of state forest currently set aside from logging out of the entire 158,378 acres of Indiana's state forests to return to the old growth condition. These acres comprise a mere 2.5% of the state forests. They are designated in small nature preserves usually less than 100 acres, HEE control areas and Indiana Bat winter hibernacula sites spread across the state forests and do not conserve the native biodiversity found in these forests on a viable landscape scale as also implied by the title of this objective in the audit. They are far below the 60,000 acres of state forest that was set aside from silviculture by the DOF prior to 2005 and well below the acres of state forests set aside by every other eastern and midwestern state that we have examined which includes: Michigan, Illinois, Wisconsin, Ohio, Pennsylvania, Maryland, and Connecticut.

The average age of trees cored in Tract 3 in the Ecoblitz inventory is 121 years old. At least two of these trees were alive during our Revolutionary and Civil Wars, and more tree of this age likely would have been found had the permit for the Ecoblitz permitted more trees to be cored. The tract histories for all three of the Tracts proposed in this harvest indicate that the majority of the acreage in them was closed canopy forest in 1939. There has been very little timber management on these tracts since they became state forests in the 1950s. The DOF has stated in its response to public comments on this proposed timber harvest that it believes there is no old growth forest within the state forests and that old growth conditions return to Indiana's hardwood forests when the dominant trees are 145 years old. The DOF's Continuous Forest Inventory indicates that only 8.7% of all forest stands in the state forests are 120 years or older, and only 1.8 % of forest stands in the state forests are 140 years or older.

Accordingly, we urge the DOF to reconsider its decision to move forward with the harvest on these 299 acres and decide instead to let the old forest on these acres return to the old growth condition in keeping with the intent of the sustainable forestry audit and the objectives of the guidelines for managing the Morgan-Monroe/Yellowwood Back Country Area established by Governor Robert Orr in 1981 which the DOF claims to support.