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In 1989-90 I helped to lead a "Cooperative Biological Inventory" of the Stearns District in Daniel Boone National Forest, which included the Jellico Mountains of Kentucky. This project was largely paid for by the US Forest Service, but they have largely ignored our results in subsequent planning. During the 1980s and 1990s, we seemed to be developing more promising cooperative research, discussion and planning on the Forest. But during the past 20 years or so, there has been an increase in alienation from diverse public interests and from the deeper professional partnerships that we need. The currently proposed "Jellico Vegetation Management Project" in Whitley and McCreary Counties would lead to clear-cutting or partial cutting of 9600 acres over the next 40 years. The essential justification by the US Forest Service in their Environmental Assessment is as follows: "the biodiversity provided by young (0-30 years old) and mid-aged (31-80 years old) forest is being lost". They go on to present a vast amount of supposedly supporting information, rooted in their arcane Forest Plan of 2004, which is available to the public but somewhat indigestible.

The sad old arguments that the Forest Service uses are based on a particularly limited view of "biodiversity" that this agency has presented, instead of their underlying but unstated primary goal here-to generate revenue from timber sales. They provide no assessment of the whole surrounding Appalachian landscape, where frequent logging on private land, abandoned farmland and many coal mines has left much young forest, thicket or grassland. They seek to provide more of these habitats throughout the National Forest, even in the Jellico Mountains, where old-growth forest prevailed before settlement and has begun to recover in many sections. There is indeed much evidence that grassy openings occurred further west in the National Forest, especially on broader ridges and bottomland terraces subject to frequent browsing or burning. But there is no evidence of such habitats before settlement in the Jellicos, except perhaps on lowlands near former villages of Native Americans (with possible remnants of canebrakes, plum orchards and willow-oak woodland).

A proper plan for conservation of biodiversity here would integrate action at our three general levels of interest, starting with the following questions.

1. Where should wilder sections be promoted to represent the natural landscape of this region-moving towards relatively little human use other than hiking and hunting?

It is logical to consider combining "reference streams" here (plus "designated critical habitat" for Cumberland Darter etc.) with plans for old-growth in their watersheds, so that these areas can provide deep scientific and recreational value. The Jellico Mountains offers one of the best opportunities in the upper Cumberland River watershed for development of a large natural area within the Rugged Eastern Hills of Kentucky (our former "coalfields"). The Environmental Assessment states: "When human disturbances are removed from the project

area, natural disturbances of unpredictable frequency, severity, and spatial extent cause changes in structure." It denigrates such natural unpredictability, but these natural processes are essential to public interest in wilder areas-they form much of the "ecological theatre" for the "evolutionary play" (Hutchinson 1956, Yale University Press). There would be much public interest in the ecological, recreational and aesthetic values of a large natural area here, close to Interstate 75 and promoted for tourism.

2. What is a reasonable classification of habitats in the region; and which types are most degraded; and how should restoration proceed? The 2004 Forest Plan uses a semantic

hodge-podge of habitat concepts, with little reference to inherited ecological gradients. The Jellico proposal seeks to restore younger forest classes in order to "increase project biodiversity" even though it would reduce potential for large blocks of older growth-an important component of broadly defined biodiversity. Their goal refers to "management indicator species" that are listed in the 2004 Forest Plan. That bizarre list was presented with no discussion; it consists mostly of selected birds, plus white-tailed deer and pitch pine-but why not more species of deeper woods? Rather than obsessively promoting pine or oak-and denouncing "mesofication"-why can't the Forest Service seek a more happy balance between interests in timber production (especially valuable oaks) and more "mixed mesophytic" forerst (with much sugar maple, basswood and buckeye)-which Lucy Braun (1950) established as a major interest for conservation in this region.

3. Which native species are imperiled, deserving special effort for recovery; and which alien species are invasive, deserving special effort for reduction? The proposal does not mention any particular native species for special care or recovery. Yet this project area harbors an important population of yellowwood, a globally rare tree species that deserves to be excluded from logging and propagated. It is also likely that butternut (white walnut) occurs here, an economically interesting species that has declined much due to disease and that also deserves micromanagement for recovery. A few other rare plants are known or expected, based on the 1990 Biological Inventory and subsequent field work. The forest also supports substantial populations of medicinal herbs. And are there any fish or mussel species that deserve special recovery here? There is insufficient assessment of such aquatic needs.

The proposal mentions two native plants for reduction: red maple and grapevine (a favorite food for many birds). However, there would be no need for such management if old growth areas were well-designed. On typical medium dry (subxeric) sites, oaks may be low in density but they can develop broad dominant crowns after 100-200 years, while red maples (which grow more slowly) mostly remain in the subcanopy of older growth and are reduced by occasional drought or burning. One particularly problematic invasive alien after logging would be treeof-heaven, which has become locally dominant in the Jellicos after logging during 1970 to 2000. On the steep north-facing base-rich slopes where yellow-wood occurs, some areas have been cut and tree-of-heaven now appears to be interfering with regeneration of yellowwood.

The Biological Evaluation states: "Nonnative invasive plants in the general project area would likely respond to the disturbance with increase of current population sizes and increased establishment of new populations. At the same time, for some species such as tree-of-heaven, princesstree, Amur honeysuckle, multiflora rose, and Japanese honeysuckle, increased extent of management activities would make treatment easier by improving detection of and increasing access to interior populations. Some species such as stiltgrass, miniature beefsteak

plant, and hairy jointgrass, if present, are likely to expand into interior locations making treatment more difficult." Claimed "easier" treatment, presumably due to increased road building, cannot be taken seriously given the complete lack of evidence that the US Forest Service has made any effort to control tree-of-heaven invasion here-the most obvious invasive after earlier logging.

Along with its self-serving invention of biological reasons for logging in the Jellico Mountains, the US Forest Service refuses to address the underlying financial goals for timber sales here. From a recent Freedom of Information Act request by the Southern Environmental Law Center, it appears that a large increase in timber extraction has been demanded by Forest Service superiors from Daniel Boone National Forest."No Action" should be taken in the Jellico proposal until more honesty and transparency is incorporated into planning by the Forest Service. It high time for the Forest Service to reflect on its role in the national "campaign" documented by Kellett et al. (2023; Frontiers in Forests and Global Change 5: 1073677): "A campaign is underway to clear established forests and expand early successional habitats-also called young forest, pre-forest, early seral, or open habitats-with the intention of benefitting specific species. Coordinated by federal and state wildlife agencies, and funded with public money... Taken together, and in the face of urgent global crises in climate, biodiversity, and human health, we conclude that public land forest and wildlife management programs must be reevaluated to balance the prioritization and funding of early-successional habitat with strong and lasting protection for old growth and mature forests, and, going forward, must ensure far more robust, unbiased, and ongoing monitoring and evaluation."