

**J.H. Kerr 216 – Downstream Riparian Ecosystem Task Group  
Vegetation Sub-committee  
Notes from Conference Call on 2/27/04  
Prepared by Jim Mead**

Participating in call: Jim Mead (NCDWR), Bob Peet (UNC – Chapel Hill), Phil Townsend (University of Maryland), Jean Richter (National Wildlife Refuge), Sam Pearsall (The Nature Conservancy), and Masato Miwa (International Paper).

Mead mentioned that some task groups are considered a two-part phase 2 of the 216 study, with the first part being a literature search and review of information, followed by additional data collection and analysis. Townsend noted that for riparian vegetation, a two-part phase 2 might not be needed given the extent of existing research and knowledge of the sub-committee. There is a fairly good understanding of the species distribution of mature trees and the flooding regime (research by Townsend and Peet), but more work is needed on establishment and survival of seedlings.

Tentative Organization of Studies

1. Productivity – Use existing flood model and develop correlations with tree ring data (Hochman) stratified across different topography. Study size/class distribution within the same stratification. Biomass, including seed production, would require a long-term study.
2. Seedlings – laboratory studies
3. Mature Trees – species distribution data

Pearsall – What short term studies would build a case for long-term studies? What types of long term studies are needed?

Peet – Not sure that hardwood productivity is what we should focus on. Component most altered by flooding is seedlings/regeneration. Resampling of 1995 vegetation plots only will examine changes over last 10 years (hydrology altered long prior to 1995). Maybe look at a reference reach.

Productivity – Use existing tree cores and test for correlations with 70 years of real flow data. Test hypotheses for growth versus flooding. May need to collect additional cores to make sure different types of topography are represented.

Seedlings:

Miwa – micro-site differences make field studies difficult.

Peet – compare age composition with a reference reach?

Mead – lab studies?

Peet – lab studies have a hard time duplicating what we want to test.

Townsend – another option would be predictive succession models

After additional discussion, three potential studies were identified to develop further:

1. Seedlings in laboratory setting
2. Tree cores correlated to flood model and flow data
3. Compare size, age, and species distribution with a reference reach

**#1 Pearsall, with assistance from Miwa, will draft a strawman scope of work.**

Pearsall requested that other members of the sub-committee nominate species for the experiments.

**#2. Richter, with input from Townsend, will draft a strawman scope of work.**

**#3. Townsend, with input from Peet, will draft a strawman scope of work.** This study should be structured so that it can move into a long-term effort as needed. Miwa noted that community composition is preferable to species-specific studies due to less influence of micro-site characteristics. Townsend noted that the light environment is an important factor. Three comparisons can be tested: 1995 data versus new data at the same sites; new data from Roanoke versus a reference reach; and new data from one Roanoke plot versus new data from another plot (with a different degree of flooding). Pearsall suggested devoting time at the full riparian task group meeting to discuss reference reaches. Richter noted that the International Paper property on the Meherrin River has potential.

**Strawman rough drafts will be circulated to the rest of the vegetation sub-committee by no later than noon Tuesday, March 16. Drafts will be circulated as Word documents to allow redline track changes for review comments. Comments will be provided to the authors (Pearsall, Richter and Townsend) by the end of March.**