

4 WORK IN PROGRESS

Adaptive Management of NCSSF

As the NCSSF program has advanced, the Commission has invited its broad target audiences to help interactively identify the most important work for improving the basis for sustainable forestry and biodiversity conservation. The initial NCSSF project selections were based primarily on the broad expertise of the diverse Commission members, but later projects emerged from extensive external input from a larger set of stakeholders as well as the Commission's deliberations over the earlier projects' results.

Stakeholders have repeatedly urged NCSSF not only to continue research and tool development but also to shed light on where consensus exists on major issues related to biodiversity and sustainable forestry (the goals of Sections II and III of this report). The Commission is viewed as a much needed impartial mediator who can

address controversial issues more objectively because of its independent, multi-stakeholder character. This Findings Report attempts to do that by synthesizing the significance of the NCSSF project results into broader "findings" and providing the Commission's consensus on key issues. Feedback and responses to this report will be used to make future reports and materials published by the Commission even more effective in reaching our communication goals.



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In response to the stakeholders' articulated needs, NCSSF also is addressing two major concerns by hosting meetings of key parties to identify consensus (as well as divergence) to help the broader stakeholder communities sort out these issues. These meetings will assess the role of globalization of forest products markets on biodiversity (C9) and develop a better definition of "old growth" from the practical aspects of sustainable forestry and conserving biodiversity (C10). Other high priority needs identified by stakeholders in surveys and workshops (NCSSF R4) and examples of the projects that NCSSF is now conducting to address these users' needs include:

- determining public awareness, knowledge, and attitudes about biodiversity (C5)
- developing protocols for participatory monitoring and research (C8)
- identifying incentives for non-industrial landowners to address biodiversity (C2)
- conducting tool applications with diverse stakeholders on the ground (A8 II, R5)
- enhancing practitioners' knowledge of non-timber forest products (A4 II)
- improving measures of conservation success and applications (C3, B4, A8 II, A9)
- determining the impacts of sustainable forestry on invasives (C7)
- documenting how ownership changes influence biodiversity (C11).

- examining the consequences of plantations for biodiversity (C1)
- understanding the impacts of fire management strategies on biodiversity (C4).

These and other ongoing NCSSF projects are building a firmer basis for sustainable forestry and biodiversity conservation practices by practitioners, managers, and policy makers. The new projects begun in 2004 are described briefly below in Table 6.

Next Steps

Current funding will support one more round of project grants in 2005. NCSSF will be increasingly focused on providing information and tools to users through applications workshops, guide books, and other means of communication and technology transfer. The Commission also will work with current and potential new sponsors to frame the focus of the next five-year phase of the NCSSF program.

Over the next two years, NCSSF-funded work will yield additional useful findings. Equally important, NCSSF will generate additional practical tools based on science and tested for their utility to enable practitioners to achieve more progress where it counts—on the ground across America's diverse forest landscapes. Along the way, this work will also reveal gaps where yet more research is needed, guiding future efforts by NCSSF and others to advance sustainable forestry and biodiversity conservation.



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Table 6

NCSSF Ongoing 2004-2005 Project Descriptions

NCSSF is supporting the following 17 new biodiversity and sustainable forestry efforts, initiated in June 2004. More detailed information can be found at www.ncssf.org. (A list of all NCSSF projects is in Appendix Table A-I)

A4 II: Curriculum Development for Non-Timber Forest Products—Will capture the wealth of information gained from A4 results to use as the foundation for development of new curriculum for academic and professional education programs. Expected results include (1) needs assessment report, (2) completion of a pilot academic course, (3) completion of a pilot short course for managers, (4) hard copy and CD-ROM of course materials, and (5) evaluation of courses and recommendations for future academic programs on non-timber forest products and biodiversity.

A5 West II: Part 2—Assessment of the Scientific Basis for Standards/Practices at the Stand, Management Unit, Landscape, and Regional Level: Oregon Coast Range—Will develop images and general insights about multi-scale management across ownerships, clarifying scientific knowledge and demonstrating what ecosystem science can contribute to environmental, social, and economic priorities. Expected results include (1) additional biodiversity indicators for the Coastal Landscape Analysis Modeling Study, (2) biodiversity implications of 1 to 2 new feasible policy alternatives, (3) new landscape simulation movies on the web, and (4) workshops.

A5 East II: Part 2—Assessment of the Scientific Basis for Standards/Practices at the Stand, Management Unit, Landscape, and Regional Level: Southeastern U.S.—The objective of this renewal includes developing new perspectives and insights about multi-scale management across ownerships. By providing a scientifically based picture of large areas over long-time frames, the work will provide new perspectives to managers, policy makers, and the public, and through these new perspectives help sharpen the focus of forest management debates.

A8 II: Field Tests, Refinement, and Training of the NCSSF/Manomet Biodiversity Indicators Selection Protocol and Web-based Tool—Will field test, refine, and implement the NCSSF/Manomet Protocol for selecting core indicators for biodiversity in sustainable forestry. Expected results include (1) field tests and review of the A8 indicators database and selection protocol, (2) refinement of both, and (3) “train the trainers” workshop(s) leading to people nationwide capable of training and assisting others in using the database and protocol.

A10 II: Decision Support Systems for Forest Biodiversity Phase II: Requirements Analysis and Development Plan—Will undertake a comprehensive requirement analysis to advance the next generation of decision support tools for policy makers, managers, and scientists in government, industry, academia, and nongovernmental organizations. Expected results include (1) a development plan for building a state-of-the-art tool, or suite of tools, for forest biodiversity management; (2) minimum and optimal data needs to make use of the tools; and (3) individuals and organizations capable of creating the needed tools.

C1: Biodiversity & Intensive Even-Aged Forest Management—Will compare the effects of modified intensive forest management systems on biodiversity for planted even-aged loblolly pine and Douglas Fir using biodiversity indicators (see also NCSSF Project A8 report). Expected results include comparisons at the regional level, integrated evaluation of prescriptions and diversity effects, and recommendations for management alternatives.

C2: Existing and Potential Incentives for Practicing Sustainable Forestry on Non-Industrial Private Forest Lands—Addressing several of the needs identified at the NCSSF User Needs Workshops, this project will (1) review and compile summary information on “sustainable forestry” incentives available to non-industrial private landowners and (2) determine the incentives that are most attractive (e.g., cost-share for stewardship practices, preferential tax-assessments, market incentives, etc.). Expected results include a written report and a web-based searchable database of incentive programs.

C3: *The Conservation Context of Forestry*—Will analyze Florida’s existing state Comprehensive Wildlife Conservation Plans, which identify land and water areas requiring some form of conservation status for protection of the habitat of one or more species, to assess the range of areas and forest practices that could be compatible with conservation needs and values on non-industrial private forest lands. Expected results include case studies of important habitat areas.

C4: *Biodiversity Implications of Post-Fire Recovery Strategies*—Will facilitate the development of a knowledge base for managers and the public to better inform both parties about how different approaches to post-wildfire recovery—contour felling trees to reduce soil erosion, salvage logging, tree planting, vegetation control, etc.—affect ecosystem diversity and functions. Expected results include a written report and user-friendly products.

C4.1: *Looking At Soils and Soil Fungi under Oaks and Pines Following Fire in California*

C4.2: *Using Remote Sensing to evaluate the 2002 Biscuit Oregon Fire Post-fire Restoration (using A8 indicators)*

C4.3: *Understory Species Recovery in Rehabilitated and Un-rehabilitated Portions of the 2002 Hayman Colorado Fire*

C5: *Assessment of Public Knowledge, Values, and Attitudes toward Biodiversity and Sustainable Forestry*—Will assess the scope of research on public values about biodiversity with emphasis on public attitudes about biodiversity versus other forest values, e.g., water quality, wood production, recreation, carbon sequestration, etc. Expected results include a report assessing breadth and depth of current research, research methods, and data quality on this topic and recommendations for future survey research.

C7: *Understanding How Forest Management Practices Affect Species Invasions and Impacts*—Will synthesize learning about how forest management practices affect species invasions in forested ecosystems and derive prescriptions for minimizing the most harmful effects on forest biodiversity. Expected results include a written report.

C8: *Guidelines for Participatory Biodiversity Inventory and Monitoring of Sustainable Forest Management*—Will develop a broad-based biodiversity inventory and monitoring system for implementation by trained volunteers at the local level. Expected results include (1) a manual and implementation handbook and (2) a “train the trainer” curricula for use by forest managers.

C9: *Building a Common Understanding of Likely Global Market Changes for Forest Products and the Implications for Forest Biodiversity in the United States*—NCSF will organize a forum of leading stakeholders and researchers to develop a common perspective on how projected market changes for forest products will influence forest harvesting, product mix, management intensity, rotation lengths, etc. as a basis for research and policies related to forests and biodiversity. Expected results include a written report.

C10: *Defining the Characteristics, Functions, and Strategies for Protecting and Perpetuating Old-growth and Late-successional Forests at Stand and Landscape Scales*—Will bring the best regional scientific thinking on old-growth and late-successional forest ecology, classification, and conservation together in the Northwest and Northeast to develop a synthesis useful for application to Federal forest policies such as the Healthy Forest Restoration Act of 2003. Expected results include a white paper.

C11: *Examining Non-industrial Ownership and Biodiversity in the Northeastern U.S.*—Will test hypotheses linking the effects of ownership on biodiversity through changes in major policies and on-the-ground practices, e.g., are there consistent differences in application of BMPs, type and level of forest certification sought, kind and extent of easements sold, etc? Expected results include evidence-based advice for regulators and purchasers of conservation easements.