

Alternative Silviculture Systems in Northern Hardwoods Session: Roundtable Q and A

Gary J. Roloff, Michael L. Donovan, Jason P. Hartman, Michael B. Walters, Catherine R. Henry, and Evan J. Farinosi¹

The Roundtable Questions and Answers (Q and A) followed four science-centered talks on (1) the rationale, design, and implementation of a project evaluating alternatives to selection silviculture management of northern hardwood forests, (2) preharvest vegetation structure, (3) post-harvest vegetation structure and deer browsing, and (4) pre- and post-harvest deer use. Our rationale for the followup Q and A was to highlight the critical importance of the management-research partnership in the establishment and execution of the experiment and in the development of information from the experiment that is focused on management needs. Roloff provided an overview of the Roundtable Q and A and research highlights from previous talks. This was followed by a discussion among roundtable participants and closed with a question from session coordinator Brian Huttneck (Wisconsin Department of Natural Resources).

SESSION SUMMARY AND INTRODUCTION TO ROUNDTABLE Q AND A

Roloff opened the session by citing and further developing highlights and critical points from the preceding four research talks. From Walters' project overview he pointed out two critical aspects of the project partnership: (1) research-management partnership made feasible the implementation of a large, operational scale research project sharply focused on addressing management problems, and (2) the partnerships between wildlife and forestry is critical for understanding a problem that hinges on forest-deer interactions, and for developing and implementing novel management regimes based on research results to solve the problem. From Henry's presentation, Walters emphasized the importance of making the notion of how we measure tree regeneration success for multiple forest values central to our evaluation of treatment responses. From Farinosi's talk, Roloff highlighted that some of the more aggressive, and currently little used, overstory harvesting treatments show some promise for improving tree regeneration outcomes. From Starking's talk, Roloff highlighted that tree leave tops are deterring deer movements, possibly benefitting tree regeneration. Roloff finished by saying that we've heard a lot about the science, but that it's critical to hear from the managers about what makes the project work for them.

PANEL DISCUSSION AND QUESTIONS

Mike Donovan began by stating that there is a long history of Michigan Department of Natural Resources (MDNR) being associated with research, but that it's often difficult to tie science to management directly. What is working in the alternative silviculture systems in northern

¹ Professor (GJR), Michigan State University, Department of Fisheries and Wildlife and Ecology, Evolution, and Behavior, 480 Wilson Road, East Lansing, MI 48824; Natural Resources Manager (MLD), Michigan Department of Natural Resources, Lansing, MI; Forester (JPH), Michigan Department of Natural Resources, Lansing, MI; (MBW, CRH, and EJP) Michigan State University, Department of Forestry, East Lansing, MI. GJR is corresponding author: to contact, email roloff@msu.edu.

hardwoods project is the design. He stated that he is excited by the promise for management solutions of doing a research project within their management system at an operational scale. Previously, MDNR has been associated with many research projects, but it has often been difficult to tie research results directly to management. Given that the design is directly tied to their operations, incorporates MDNR staff into research directly, and the project's scale (140 sites distributed across the northern hardwood resource), the results will have high likelihood of being adopted by management. Hartman agreed that it is a big plus that the design has brought the project into everyone's backyard (i.e., MDNR districts across the State). MDNR has previously tried similar things (i.e., research projects aimed at management problems), but it has been difficult to get momentum to change due to lack of integration with management and limited scope and scale. Hartman stated that having examples within individual management units is what's making it work. Being tied to the project in the long term, with local examples, increase the likelihood of moving the needle in making management changes. Structure is important because institutional changes in management is going to be slow.

Donovan added that the formal research-management partnerships between the Michigan Department of Natural Resources and Michigan State University (i.e., Partnerships in Ecosystem Research and Management Program) has been going on for nearly a quarter of a century and that this long-term relationship has been instrumental in establishing the level of trust required to commit time and resources to a 10+ year project, especially given that state agencies are funded on an annual basis.

Walters returned to the topic of the benefits of a multisite, broadly dispersed, operational scale design. He said that in addition to the aforementioned benefits of "examples in everyone's backyards" for institutional commitment and adoption of results, that northern hardwoods regeneration solutions (i.e., best silvicultural treatments) will likely vary across the northern hardwood forest resource due to underlying variation in site quality, stand history, deer populations, etc. Thus, successful treatments may represent local potential solutions, and give managers a "back yard" adaptive management template to further tinker. For example, over time they can modify and refine approaches that show promise both to further improving regeneration outcomes and increasing operational efficiency of novel treatments.

Following the roundtable, Brian Huttneck (Wisconsin Department of Natural Resources) asked what was on the horizon for the MSU-MDNR research-management partnership. Roloff, Hartman, and Donovan brought up the establishment of similar research in the northern white cedar resource, the desire by MDNR managers to begin a project similar to the northern hardwoods project in southern Michigan oak-hickory forests, and the recent financial commitment to years 7–12 of the northern hardwoods experiment.

The content of this paper reflects the views of the author(s), who are responsible for the facts and accuracy of the information presented herein.

CITATION: Roloff, Gary J.; Donovan, Michael L.; Hartman, Jason P.; Walters, Michael B.; Henry, Catherine R.; Farinosi, Evan J. 2023. **Alternative Silviculture Systems in Northern Hardwoods Session: Roundtable Q and A**. In: Kern, Christel C.; Dickinson, Yvette L., eds. Proceedings of the first biennial Northern Hardwood Conference 2021: Bridging science and management for the future. Gen. Tech. Rep. NRS-P-211. Madison, WI: U.S. Department of Agriculture, Forest Service, Northern Research Station: 112–113. <https://doi.org/10.2737/NRS-GTR-P-211-paper21>.