HUBBARD BROOK ROUNDTABLE

FOREST CONNECTIONS: FORGING A NEW MODEL OF PUBLIC ENGAGEMENT WITH SCIENCE
OCTOBER 28-29, 2014

Interview synthesis and catalyst for dialogue

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The following text is a combination of direct quotes and paraphrasing from interviews conducted with the people intending to attend the Hubbard Brook Roundtable on Forest Connections to be held October 28-29, 2014. We have attempted to record faithfully the comments that were shared with us. No doubt, there are places where our own biases may have slipped in as we have made choices on what and how to report and synthesize what we have heard. This paper cannot aspire to the standards of science; rather, it will serve, hopefully, as a catalyst or "straw person" for discussion at the Roundtable. *– SG and DS*

PART I. EXECUTIVE SUMMARY (PG. 1-4)

From your perspective do you see areas where the interests and concerns of ecosystem scientists who study forests might overlap the interests and concerns of local citizens? If yes, please list the topics that come to mind.

- **Water issues**: water quality, water availability (near and long term), flooding
- **Climate change**: what are the local impacts? Winter conditions are important to recreation and forest products industries, and local culture, quality of life.
- **Extreme weather events**: what will happen to roads, water, wildlife? Erosion is a concern.
- **Forest health**: threats to trees and to the structure/function of the ecosystem from pests and pathogens. How should we respond to declines in many forest species?
- **Forestry and forest management**: what will the growth yield be? How do we maintain a sufficient bank of trees and species? What are best practices for forest managers? What are the impacts of logging practices? Why do logging practices occur?
- **Energy infrastructure and future**: What is our energy strategy in New England? What are the implications for biomass and wind?
- **Economy**: there's a lot of concern on the social and economic issues involving forests, not the ecological effects—loss of jobs, loss of young people in region. People may say they care about different things, but they really care about bucks. Interest in "being green" because it is good business.
- **Scenery and wildlife**: natural beauty is why we all live here. How do we sustain this?
- **Recreation**: How do we protect ecologically significant areas while also providing trails for various users (hikers, ATVs, dog sledding). What are effects on wildlife, including birds, of trail placements? What's the big picture? How to provide for all users?
- **Development**: What are the impacts of new roads, suburban development, forest conversion? Need to balance ecosystem and community growth needs. What do landowners want?
- **Human health**: Ticks and mosquitoes spreading diseases
- **Education:** Scientists can help with education projects in our communities

- **Pollution:** What is the interaction between the atmosphere and the ecosystem?

When we talk about personal and professional communities of citizens, which groups come to mind as having the most relevance to topics related to the science of forest ecosystems?

- Local and regional planning bodies, zoning boards, conservation commissions, selectboards
- State policy makers
- Landowners at different scales, including individual woodlot level
- Large landscape land managers: institutional landholders such as Dartmouth College; agencies including the Forest Service and state and federal fish and wildlife services; TIMOs such as Lyme Timber and Wagner; and large land-holding conservation organizations; large community forests.
- Foresters: Granite State Society of American Foresters; logger certification program; cooperative extension; Society of American Foresters; Forest Guild; Association of Consulting Foresters; forestry consultants who work with towns
- State and federal agencies: National Forest, DES, Health and Human Services
- Land trusts
- Philanthropists
- Recreation and tourism groups: AMC, snowmobilers, paddling groups, Ski NH, hunters, fishermen, mountain bikers, any user group
- Tourism and hospitality industry
- Private sector: Real Estate investors and developers, Insurance industry
- Other research communities, including social scientists
- Educational communities at all levels: public schools to higher ed
- Media

Of these, which groups do you think would benefit most from closer contact with forest scientists?

- People who influence landowners and land managers: e.g., State DEC Divisions of Forest and Lands provide advice to landowners and manage tracts for which the knowledge of forest scientists could be beneficial.
- Municipal planners
- Groups in charge of trail building/maintenance: AMC, WMNF, NH Snowmobile Association, North Country Off Highway Vehicle Association, New England Mountain Biking Association
- Land managers and woodlot owners
- Forest products industry
- Business community: chamber of commerce, business leaders. They have the ability to move the needle.

If we consider forest scientists benefitting from the experience, values, and concerns of local citizens, which particular personal and professional communities might play an important role in that regard?

- On policy or regulatory issues: DES and other regulatory agencies, Army Corps.
- Local and regional panning boards
- Recreation groups and other forest user groups
- Foresters
- Landowner groups
- Policymakers and elected officials

- Real estate and insurance decision-makers
- Funding organizations like Open Space Institute, NH Charitable Foundation
- Existing forums and networks like the Coos Symposium; Common Ground Alliance; Maine Woods Consortium.
- Educators
- Land trusts and conservation organizations

What types of decision making within these citizen communities could benefit from ecosystem science?

- Decisions within the ecosystem services framework
- In the recreation communities: where to put a trail, how to maintain it, whether to harden it, trail density
- Investments: ski area development
- Quality of life decisions at the local level
- State-level policy decisions
- Conservation decisions: trade-offs involving which lands to conserve and which to develop. And how to develop in particular areas.
- Decisions NOT to do something (involving timber cutting, for example) that have impacts on jobs and the economy.
- Decisions about forest products
- Decisions about land use, development. Even private homeowners: pumping septic, application of fertilizer.
- Questions about water management (stormwater) and how the protection of land (woods, wetlands, floodplains) is a sink for heavy water, which can be so enormously powerful, as Irene demonstrated. This is especially important because 100 year storms may now occur every 10 years.

If you could suggest research agendas for forest scientists—or at least propose questions or topics that would be of interest to you or impact your life—what would they include?

- Need to broaden and synthesize: the way scientists frame questions is often too narrow. Peoples' interests are much broader and messier.
- Need to get outside the boundary of Hubbard Brook to get to more regional issues.
- Concerns about pests and pathogens: What is coming that's going to damage the forests? How will these damages impact tourism and recreation?
- Interested in changes to the environment based on climate change, like ticks, for example. What changes are coming?
- Natural disturbance regimes—how well can we counter natural disturbances such as the ice storm of 1998, or are such disturbances even important? It would be good to get out ahead of such events (icing, hurricanes) in a proactive, rational manner in order to offer advice to land managers.
- How will forest composition change because of climate change and other disturbances? As we lose hemlock, ash, and beech, how will other species come to dominate? How can we manage for resilient forests—keeping the greatest range of adaptive possibilities open?
- What are the 10 best practices of managing land? What should be our forest management practices? For example: effects of clearcutting on forests. And what could be done to minimize

the impact, including encouraging certain tree species to grow back more quickly to create a healthy mixed forest.
- Development and open space: regionally really important: what are the effects of open spaces; second-home development.
- How do we optimally manage for all the ecosystem services forests provide? How do we prioritize among the services?
- What are differences in forest function between the alpine zone and Hubbard Brook?
- Moose population – tourism – what is the future?
- Regarding nutrient cycling, do we have the depth of nutrient storage to maintain the productivity of soils over the next 40-50 years?
- People are interested in topics such as why and when leaves change color. Is it because of dry weather? Other factors?
- We should ask what are HB scientists not doing? Work on diseases: lyme disease, human health issues. Bioenergy research. We're not spending enough time asking what people care about. Exurbanization.

What are some ways that scientists and citizens might share knowledge and perspectives more productively?

- Challenges: there are a few scientists and a million citizens. As a scientist/educator, I give these little talks but cannot gage their general value. How can the interaction between the few and the many be scaled up?
- Online and social media: Facebook, Twitter, Instagram, blogs and online newsletters
- Visual tools: multi-media
- Via school groups and teachers
- Citizen science projects
- Bringing young people into nature at an early age
- Town hall gatherings with lectures/panel discussions — but organized by multiple groups (i.e., land trusts, nature conservancy, AMC, etc.), vs. all these small distributed efforts
- Face-to-face meetings, conferences, seminars: Q and A sessions and dialogue, not just lectures
- Regular forums and roundtables
- Scientists attend planning board meetings
- Via existing programs and networks like EPSCoR projects
- Via local institutions and networks: people trust their neighbors: energy committees, libraries, conservation commissions, parks & recreation committees, historical societies.
- Reports: policy reports and the Carsey Institute Briefs model

Why are you interested in participating in the roundtable? What do you hope to accomplish?

- The roundtable is aligned with my professional goals and interests
- I want to learn what other people are really interested in; what other people care about. I want to learn other perspectives.
- I want to get a robust dialogue started. I enjoy the roundtable process: the exchange of ideas.
- I want to learn more about forest science.
- I want to be a better communicator.
- I'm interested in the topic and the group of people.
- I'm really interested in learning about what people perceive and value in nature and how that relates to behavior.