The Future of Long-Term USDA Forest Service Research Sites in the Northeast

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The mission of the Northeastern Research Station is "Improving Lives and Protecting Our Earth Through Research." Our nine experimental sites are the keystone of this mission. Our experimental sites are located in major forest types from West Virginia to Maine, and in Baltimore, Maryland, where we have a long-term ecological research site representing urban forests that are so important in the Northeast (Figure 1).

There are 77 experimental forests and ranges managed by the Research and Development Branch of the USDA Forest Service. In the Northeast, our first experimental forests were established in the late 1920s. Establishment continued, on and off, into the 1950s. Hubbard Brook Experimental Forest, perhaps the best known experimental forest in the Northeast, was established in 1955. Our newest long-term research site is the Baltimore Ecosystem Study, which started in 1998.

Experimental forests in the Northeast include a range of ecosystems for unparalleled scientific information quality (Table 1). In addition, they cover a broad range of scientific inquiry. Studies at Hubbard Brook, for example, include nutrient cycling, acid deposition, and water quality, while at Bartlett the focus is hardwood management for timber and wildlife. The Massabesic has been the site of research on tree improvement, soils, and aquatic insects; while the focus at Kane is forest regeneration processes, and at Silas Little it is fire management. At Fernow Experimental Forest the emphases are watershed management and wildlife habitat, while at Penobscot the focus is on northern conifer silviculture. Thinning and prescribed fire are studied at Vinton Furnace Experimental Forest, while at the Baltimore Ecosystem Study the focus is urban natural resource stewardship.

What is so special about our experimental forests and what about their future? Five key points illustrate the strengths we must build on and the challenges we face:

One: As "National Treasures", we must manage and maintain these long-term research sites, including all the facilities, infrastructure, and databases that support the various research programs.

Two: Partnerships are critical to sustaining our "National Treasures." With a wide range of informed advocates, we can ensure continued discovery to "...improve lives and protect our Earth." Together we can make an impact.

Three: "Tell to sell." Very few know about our "National Treasures." As "living archives," the experimental forests are the content knowledge of our environmental literacy. We need to do a better job of informing those with influence about the scientific and demonstration value of experimental forests.

As we look ahead, this may be the golden age of forestry research. Long-term science about our ecology and environment is the elixir to our success. However, we must ask two driving questions: "Are the experimental forests being taken for granted?" Do those who decide know about these "National Treasures"? Unfortunately, I suspect the answers are "Yes" and "Probably not." Making decision makers aware of the value of these long-term research sites is a major challenge, but one we must take on.

Four: Like a fine tool, we must keep our "National Treasures" well maintained. One way of accomplishing this would be to advance a budget initiative through the Forest Service to accomplish this in the Northeast. Funds would be used for database management, facilities, and research opportunities with partners. This funding would insure the future of the experimental forests.

Five: To make the budget initiative effective I need your help to develop a strategy, "tell to sell" that strategy, secure funding, implement the plan, and monitor our success. The future of the experimental forests of the Northeastern Research Station is bright. These special places are treasures and we continue to make the scientific and administrative commitments to ensure their value for future generations of managers, scientists, and students. However, we can use your help. Research is expensive, long-term research especially so. If you have stories about how work on experimental forests has increased your understanding or improved your management practices, share those stories with your Representatives and Senators in Congress.

Experimental forests provide for continued discovery to improve our lives and protect our Earth. They represent the content knowledge of our environment literacy. The Northeastern Research Station is committed to maintaining our experimental forests, but we need your help. Keeping these "National Treasures" vibrant keeps us vibrant.

State	Site	Established	Focus
MD	Baltimore Ecosystem Study	1998	Urban natural resources stewardship
ME	Massabesic Experimental Forest	1937	Eastern white pine – northern red oak management; tree improvement
	Penobscot Experimental Forest	1950	Northern conifer silviculture
NH	Bartlett Experimental Forest	1932	Northern hardwood silviculture – wildlife habitat relationships; remote sensing
	Hubbard Brook Experimental Forest	1955	Nutrient cycling; acid deposition; water quality
NJ	Silas Little Experimental Forest	1933	Fire management; tree improvement
OH	Vinton Furnace Experimental Forest	1952	Central hardwood silviculture; prescribed fire
PA	Kane Experimental Forest	1932	Allegheny hardwood silviculture; regeneration processes; wildlife habitat
WV	Fernow Experimental Forest	1934	Central Appalachians hardwood silviculture; watershed management and wildlife habitat

Table 1. Location and research focus of long-term research sites of the USDA Forest Service, Northeastern Research Station.

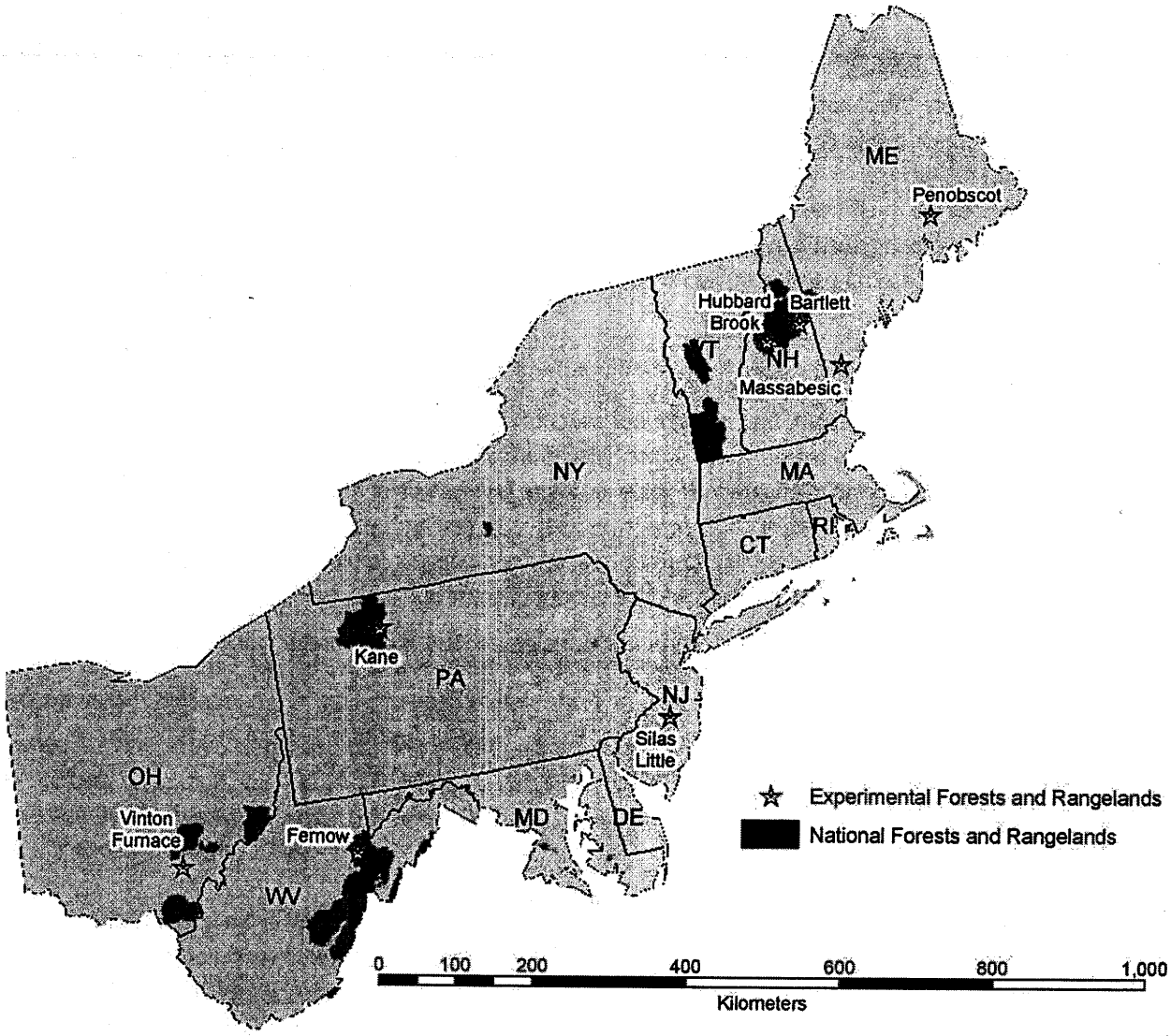

Figure 1. Long-term research sites of the USDA Forest Service, Northeastern Research Station.