KANE EXPERIMENTAL FOREST

Kane, Pennsylvania

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The Kane Experimental Forest was set aside in 1932 in northwestern Pennsylvania to conduct forestry research. Today the 3,563 acre (1,443 ha) experimental forest located on the Allegheny National Forest is dedicated to long-term research on the ecology and stand-development processes in stratified mixed hardwood forests and the interaction of these processes with forest management. Some studies span more than 70 years, and are entering their second generation of trees. Information gleaned from research on the Kane has significantly improved management of mixed hardwood forests, especially of the Allegheny hardwood forest type. Research findings provide practical information to forest managers and landowners. Sustainable forest management training offered annually at the Kane is eagerly sought by forest and resource managers from public, private, and nongovernmental organizations. The Kane is part of the National Atmospheric Deposition Program, the National Trends Network, and the Clean Air Status and Trends Network.

Assets:

Scientists: 7 Northern Research Station scientists are currently conducting studies on the Kane, including an emeritus research plant physiologist.

Scientific support: 12 professionals and/or technicians provide support for these scientists, including a data manager and supervisor.

Cooperators: The Pennsylvania State University, The State University of New York College of Environmental Science and Forestry, the University of Pittsburgh, University of Georgia, other FS research units, the Allegheny National Forest, the Pennsylvania Bureau of Forestry, and others.

Needs:

Annual operating costs: $344,464

Critical needs: High-speed internet access

Long-term needs:

- Rewire and equip classroom facility with laptop computers and internet access for modern forestry and natural resources instruction - $50,000
- Secure data storage (fire, water, wind resistant) - $100,000

The Kane Experimental Forest is administered by:

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More About the Kane Experimental Forest

Location: Lat. 41°35´52˝ N, long. 78°45´58˝ W
The Kane Experimental Forest is located on the Allegheny National Forest about 7 miles southeast of Kane, PA or about 130 miles northeast of Pittsburgh, PA.

Vegetation: Vegetation is primarily of the Allegheny hardwood variant of the northern hardwood type. Tree species include black cherry, sugar and red maple, American beech, eastern hemlock, sweet birch, and striped maple.

Climate: Approximately 44 inches (1,100 mm) of precipitation falls on the Kane Experimental Forest each year, mostly as rain, including 4 inches (10 cm) per month during the growing season. Wind events of all scales are the most common natural disturbances. Precipitation can be highly acidic, as the Kane receives some of the highest deposition levels of both sulfate and nitrate in the eastern United States.

Research—past and present: Research at the Kane EF is aimed at understanding ecology and stand-development processes in stratified mixed hardwood forests and the interactions of these processes with forest management. Current research topics include silviculture, regeneration and renewal processes in managed and unmanaged forests, impact of white-tailed deer on forests, recovery from wind disturbance, stress and nutrient requirements of northern hardwood species, including the effects of acidic deposition on forest ecosystems, wood production, carbon sequestration, and wildlife habitat.

Research opportunities: In addition to the opportunities that arise simply because long-term data sets are associated with many plots on the Kane, there are numerous subjects for which data from existing study plots could provide important insights on herbaceous plant communities, soil mega- and micro fauna, lichens, fungi, genetics of tree and other plants, and various wildlife communities. Because a great deal is known about the disturbance history of much of the Kane, such studies could be rich and rewarding in a short time. There is also the opportunity to resume hydrologic studies.

Facilities: Facilities on the Kane include a conference center with classroom and meeting capabilities, 2 residences that can provide housing for up to 8 people, an office building, and a garage/storage facility.

More information can be found at: **http://www.nrs.fs.fed.us/ef/locations/pa/kane/**

Northern Research Station
USDA Forest Service

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All photos by U.S. Forest Service