

## FOREST RESOURCES ([www.forest.umaine.edu/education/graduate.html](http://www.forest.umaine.edu/education/graduate.html))

### Program of Study

The School of Forest Resources, in the College of Natural Sciences, Forestry, and Agriculture, offers graduate study leading to a non-thesis Master of Forestry, a Master of Science in Forest Resources and a Ph.D. in Forest Resources. Several faculty members in the School participate in an interdepartmental degree in Ecology and Environmental Sciences.

Students may choose from a wide range of specialties, including forest biological sciences (forest ecology and silviculture, forest genetics, soils, entomology, physiology, and pathology), forest biometrics (inventory, remote sensing, GIS), forest management, forest economics and policy, forest business administration, forest operations science, wood science and technology (emphasis on wood properties, wood composites, wood preservation, and wood utilization), and forest-based park science, recreation, and tourism.

### Background and Research Facilities

The forestry program at The University of Maine is one of the oldest in the United States and has had accredited undergraduate degrees since the early years of professional forestry accreditation. All graduate forestry degrees are offered under full University accreditation and, in addition, the Master of Forestry degree is Society of American Foresters accredited as a first degree in forestry. "SAF is recognized by the Commission on Recognition of Postsecondary Accreditation as the specialized accrediting body for forestry in the United States". The School of Forest Resources is housed in Nutting Hall. Both basic and applied graduate research is accomplished through the use of well-equipped laboratories in Nutting Hall, greenhouse facilities on campus, and several field research stations throughout the state. Maine, the most heavily forested state in the country, sets the context for this research, though projects reach beyond state and national boundaries. Much of the research is field oriented, and there are a variety of ecosystems and socioeconomic conditions available for investigation. The College is responsible for the management of the Dwight B. Demeritt Forest, a 1,700-acre tract adjoining the campus, the 4,000-acre Penobscot Experimental Forest, and nearly 4,000 acres of other forest properties in Maine. Maine contains millions of acres of forest land that are owned by a few large, diverse companies, but half of its forests are in small ownership parcels. Through the cooperation of forest industry, opportunities exist for on-site wood processing studies. Maine's systems of land use regulation and forest taxation and the state's long-standing reputation as a "vacationland" for forest recreation indicate other categories of research interest.

### Admissions and Financial Aid

Recommendations for admission are made by the School of Forest Resources based on academic records, results of the Graduate Record Examination (required), experience, and letters of reference. Application procedures and forms are available through the School of Forest Resources (see web site below) or the Graduate School. All applicants requesting financial aid will be considered for the several teaching and research assistantships available each year; no additional forms are required. Research and Teaching Assistantships, awarded on a competitive basis, also include tuition waivers. Several private or government funded fellowships also are available on a competitive basis. Applications for admission in the fall semester should be submitted by February 15, especially if the applicant is seeking financial aid.

### Correspondence

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### Graduate Faculty

**Jeffrey Benjamin**, Ph.D. (University of New Brunswick, 2006), Assistant Professor of Forest Operations. Supply chain management within forest industry, forest / stand production and final product quality, analysis of transportation systems, harvesting system selection

**Thomas B. Brann**, Ph.D. (Virginia Polytechnic Institute and State University, 1979), Professor of Forest Resources. Inventory methods and computer sciences.

**John J. Daigle**, Ph.D. (Massachusetts, 1997), Associate Professor of Forest Recreation Management. Recreation planning and management, social research methods for natural resource professionals, human dimensions of natural resources management.

**Michael E. Day**, Ph.D. (University of Maine, 2000), Associate Research Professor. Physiological ecology.

**David B. Field**, Ph.D. (Purdue, 1974), Edwin L. Giddings Professor Emeritus of Forest Policy. Professor Emeritus of Forest Resources. Forest Economics and policy, forest resource valuation, forest taxation, forest planning.

**Douglas J. Gardner**, Ph.D. (Mississippi State, 1985), Professor of Wood Science and Technology. Program Leader, Wood Science and Technology. Wood surface chemistry, phenolic-adhesive chemistry, wood anatomy, wood composites, wood adhesion.

**Barry S. Goodell**, Ph.D. (Oregon State, 1983). Professor of Wood Science and Technology, Forest Products Lab. Cooperating Professor, Chemical Engineering and the Advanced Engineered Wood Composites Center. Control of decay in wood, wood microbiology, wood preservation, wood biotechnology.

**Michael S. Greenwood**, Ph.D. (Yale, 1969), Ruth Hutchins Professor Emeritus of Forest Tree Physiology and Professor Emeritus of Forest Resources. Cooperating Professor, School of Biology and Ecology. Forest tree improvement, tree regeneration, tree physiology.

**Anthony Halog**, Ph.D. (University of Karlsruhe, Germany, 2002), Assistant Professor of Industrial Ecology & Life Cycle Assessment. Operations management and information system; data analysis; database management; business stimulation and modeling.

**Warren E. Hedstrom**, Ph.D. (Colorado State, 1970), Associate Professor Emeritus of Bio-Resource Engineering. Soil and water engineering, forest roads and structures, housing.

**Richard Jagels**, Ph.D. (Illinois, 1968), Professor, School of Forest Science. Cooperating Professor, School of Biology and Ecology. Plant reactions to environmental stress.

**Laura S. Kenefic**, Ph.D. (Maine, 2000), Assistant Research Professor of Forest Resources. Silviculture, leaf area relationships, effects of exploitative cutting.

**Alan J. Kimball**, M.S. (Maine, 1978), Associate Professor of Forest Resources. Integrated management of nonindustrial forest properties, ecology and management of oak-pine forests.

**Jessica Leahy**, Ph.D. (University of Minnesota, 2005), Assistant Professor of Forest Resources. Forest recreation, parks and tourism, community perceptions of forest recreation, quantitative survey methods.

**Robert J. Lilieholm**, Ph.D. (University of California-Berkeley, 1988), E. L. Giddings Associate Professor of Forest Policy. Forest economics and policies.

**William H. Livingston**, Ph.D. (Minnesota, 1985), Associate Professor of Forest Resources. Cold tolerance of conifers, forest pathology, forest diebacks and declines.

**J. Louis Morin**, M.S. (Maine, 1978), Instructor of Forest Resources. Global Positioning Systems and Geographic Information Systems as they relate to natural resource management.

**Robert W. Rice**, Ph.D. (Virginia Polytechnic Institute and State University, 1988), Professor of Wood Science and Technology. Wood physics, wood drying, non-destructive evaluation, forest products marketing, pulp and paper marketing and management.

**Steven A. Sader**, Ph.D. (Idaho, 1981), Professor of Forest Resources. Cooperating Professor of Wildlife Ecology. Director, Maine Image Analysis Laboratory. Remote sensing of forest environments, forest change and conservation easement monitoring, landscape ecology and metrics.

**Robert S. Seymour**, Ph.D. (Yale, 1980), Curtis Hutchins Professor of Forest Resources (Quantitative Silviculture). Silviculture; growth and yield; ecosystem management.

**Stephen M. Shaler**, Ph.D. (Pennsylvania State University, 1986). Professor of Wood Science and Technology. Cooperating Professor of Chemical Engineering and Assistant Director, Advanced Engineered Wood Composites Center. Wood composites and mechanical properties.

**Robert K. Shepard, Jr.**, Ph.D. (Michigan, 1970), Professor Emeritus of Forest Resources. Wood properties, sludge and wood ash application to forest lands.

**Robert G. Wagner**, Ph.D. (Oregon State, 1989), Henry W. Saunders Distinguished Professor in Forestry, Director of the School of Forest Resources, Professor of Forest Resources and Director of Cooperative Forestry Research Unit. Silviculture; forest ecology and regeneration; vegetation ecology and management.

**Aaron Weiskittel**, Ph.D. (Oregon State, 2006), Assistant Professor of Forest Biometrics and Modeling. Empirical and process-based growth models, regional variation in forest productivity, crown structure and dynamics, quantitative silviculture.

**Alan S. White**, Ph.D. (Minnesota, 1981), Professor of Forest Resources, Graduate Coordinator. Forest ecology, silviculture, plant competition, regeneration, old-growth stand development, disturbance ecology.

**G. Bruce Wiersma**, Ph.D. (SUNY, 1968), Professor of Forest Resources and Director, Center for Research on Sustainable Forests. Pollutant transport and monitoring, environmental science.

**Jeremy S. Wilson**, Ph.D. (University of Washington, 1988). Irving Chair for Forest Ecosystem Management, Associate Professor of Forest Resources. Silviculture; integration of GIS technology, growth and yield models, stand and landscape visualization, and analysis tools to evaluate future landscape conditions under a variety of management scenarios, forest development patterns.

(For a list of external Graduate Faculty, please visit the online Graduate Catalog → [gradcatalog.umaine.edu](http://gradcatalog.umaine.edu))

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