

HUBBARD BROOK RESEARCH FOUNDATION

Promoting the understanding
and stewardship of forest
ecosystems through scientific
research and monitoring,
policy outreach, and education.



A REPORT FOR 2011

Letter from the Executive Director

I am pleased to share the recent accomplishments of the Hubbard Brook Research Foundation (HBRF), a private, nonprofit organization founded to support and enhance the long-term ecological research at the Hubbard Brook Experimental Forest. In describing HBRF's mission, I speak often of the "Three Hubbard Brooks" — the Forest, the Study, and the Foundation. **The Forest** is a 7,800-acre scientific reserve which has been operated by the United States Forest Service since 1955. **The Study** is a collaborative effort of ecosystem scientists from dozens of research institutions, spanning nearly half a century. **The Foundation** is a friends group, think tank, and educator of the public. While each Hubbard Brook has a separate mission, our close collaboration has propelled the Hubbard Brook enterprise to the forefront of ecosystem studies, establishing it as a touchstone for field research conducted anywhere in the world. What makes Hubbard Brook truly special, setting it apart from other environmental studies, is the long term nature of the research. Over the course of five decades of intensive scientific study, a massive amount of data has been compiled, analyzed, and disseminated. Hubbard Brook is much more than a field site in the White Mountains of New Hampshire: it is a national treasure and a compelling model for how collaborative scientific research can be sustained over time.

This annual report provides a snapshot of the ways that HBRF supports the work at Hubbard Brook with policy outreach, education programs and housing and other facilities for scientists. Additional information can be found at our web site, www.hubbardbrookfoundation.org. This work could not be accomplished without the support of our federal partners, the Northern Research Station of the Forest Service and the National Science Foundation's LTER program; the institutional members of the Hubbard Brook Consortium; and the donors to our annual fund and projects. We thank them all for their continued support.

I also would like to give special thanks to Judy Brown, who recently left her position as Assistant Director at HBRF after more than ten years of service. Her own long-term record encompassed stints as Marketing and Development Director, Assistant Director, and Acting Executive Director. Judy was the institutional memory of HBRF, and she will be sorely missed.

Please consider visiting us at Hubbard Brook to see first-hand the extraordinary work that occurs at this special place.

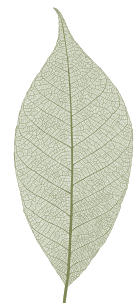
Sincerely,



David Sleeper
Executive Director
June 2012



While each Hubbard Brook has a separate mission, our close collaboration has propelled the Hubbard Brook enterprise to the forefront of ecosystem studies.



Report photography:
Judy Brown, Richard Guldin,
Jordan Jessop, and Buck Sleeper

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...the Forest, the Study, and the Foundation



Founded in 1993, Hubbard Brook Research Foundation works to sustain and enhance the Hubbard Brook Ecosystem Study in New Hampshire, in partnership with the U.S. Forest Service/Northern Research Station, the National Science Foundation's Long-Term Ecological Research Network, the Hubbard Brook Consortium, and 20 colleges, universities, and other research institutions.

Our goals are:

- To sustain and expand long-term ecological monitoring and research at the Hubbard Brook Experimental Forest.
- To bridge the gap between ecosystem science and public policy by enhancing the exchange of information among scientists, policymakers, and land managers.
- To foster public understanding of the functions of ecosystems and their importance to society and human health.

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HUBBARD BROOK CONSORTIUM

The Hubbard Brook Consortium is a membership group of research and educational institutions that supports the work of HBRF and the Hubbard Brook Ecosystem Study (HBES), with special emphasis on field research opportunities for undergraduates and public outreach events. Consortium members include the Cary Institute of Ecosystem Studies, Dartmouth College, Plymouth State University, Syracuse University, U.S. Forest Service/Northern Research Station, and Wellesley College.

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Hubbard Brook Experimental Forest
Robert S. Pierce Laboratory
Owned and operated by the
U.S. Forest Service
Ian Halm, Site Manager
Tel: 603-726-8902



Science and Policy

HBRF launched its hallmark **Science Links** program in 2001 in an effort to bridge the gap between ecosystem science and public policy. Science Links projects convene teams of scientists and policy advisors to identify and define questions and issues affecting forest ecosystems and to communicate scientific findings clearly and succinctly to decision makers and other members of the public. To date, Science Links projects have addressed acid rain, nitrogen pollution, long-term ecological monitoring, mercury pollution, and community responses to carbon emissions. In 2006, HBRF established the **Hubbard Brook Roundtable**, a series of facilitated dialogues that bring scientists together with stakeholders, NGO leaders, and government officials to discuss timely issues. Previous Hubbard Brook Roundtables have covered wood biomass energy, ecosystem services payments, winter climate change, and forest carbon sequestration. Hubbard Brook roundtables have led to *Proof of Concept Projects*, two of which are described immediately below.

Poultney Woodshed Project

Generating wood biomass energy at the community scale is among the best ways to use the natural resources of the Northern Forest to mitigate climate change. The Poultney Woodshed Project, done in partnership with Green Mountain College (GMC) in Poultney, VT, sought to secure an increasing portion of the college's 5,000-ton biomass energy requirements from local, privately owned forestlands, with the wood harvested in a sustainable manner. The project brought traditional stewards of the forest — landowners, loggers, foresters, and mill owners — together with GMC science faculty members, state natural resources officials, and leaders of nonprofit land-stewardship organizations. The result was an innovative system that tracks wood supplies for the college, encourages landowner participation in Vermont's Use Value Assessment Program, and helps create new markets for local wood energy. The Poultney Woodshed Project was supported with grants from the Rutland Regional Planning Commission with funding from the U.S. Department of Energy, High Meadows Fund, Riverledge Foundation, Merck Family Fund, and Northeastern States Research Cooperative.

Monetizing Ecosystem Services: CleanWaterFuture.org

In 2008, HBRF led a Hubbard Brook Roundtable as part of the 1st Summit for the Northern Forest to explore ways to monetize ecosystem services, rewarding private landowners for conserving natural services provided by forests. The roundtable resulted in a three-year conservation-innovation grant from the USDA's Natural Resources Conservation Service, done in partnership with the American Forest Foundation and other organizations, to use market mechanisms to protect water-related ecosystem services in the Upper Connecticut River watershed. The keystone of the project is *CleanWaterFuture.org*, a web-based marketplace that uses crowd-funding techniques to enable people to contribute to on-the-ground conservation projects that protect watershed services. Along with funding from USDA/NRCS, the project has received financial support from Dartmouth College, the Davis Conservation Foundation, and many individual "investors" who have supported specific projects.

Clean Water Future

Northeast Science & Policy Consortium

In an effort to extend and strengthen its Science Links program, HBRF helped establish a consortium of research institutions that will explore ways to integrate science into the policymaking processes that are brought to bear on complex environmental issues in the northeastern United States. Along with HBRF, the founding members of the Northeast Science & Policy Consortium (NSPC) are: Cary Institute of Ecosystem Studies; The Ecosystems Center, Marine Biological Laboratory; Harvard Forest, Harvard University; Syracuse University; and University of New Hampshire. With seed funding in place from the initial member institutions, NSPC will seek multi-year funding from foundations and government agencies in order to hire a core staff, conduct media training for scientists, and launch five major policy projects. HBRF's initial project will use the extensive avian research at Hubbard Brook to develop interactive tools to assess the relative effects of different environmental threats on bird populations. HBRF's participation in the consortium is supported by grants from the Fine Fund and the Northeastern States Research Cooperative.

Education

HBRF was founded in part to amplify the impacts of the Hubbard Brook Ecosystem Study through education and community outreach. We achieve this by cooperating with regional groups engaged in teacher professional development; by working with undergraduate students to develop their research skills; by interacting with communities in New Hampshire and beyond; and by conducting field trips at the Hubbard Brook Experimental Forest for visiting schools and the general public.

The Environmental Literacy Program (ELP)

ELP is a cooperative effort with the U.S. Forest Service and the National Science Foundation's Schoolyard LTER program. It is designed to support secondary science teachers through hands-on training in scientific field methods and techniques, and also through the development of teaching resources. Participating teachers bring new perspectives and approaches to the classroom and, in so doing, invigorate the required science curriculum, their students, and fellow teachers. ELP produces lessons and slide shows for classroom use; mock exams to support teachers preparing their students for the New England Common Assessment Program; presentations to professional teacher organizations; and activities for A Forest for Every Classroom, a nationally renowned teacher professional development program.



Research Experience for Undergraduates (REU)

In 2011, HBRF paired five undergraduate students with principal investigators at Hubbard Brook who serve as research mentors. Students perform their own research projects, while also learning about science communication and how to collaborate with local nonprofit organizations. Students attend "Science Nights" with senior scientists and also the annual Hubbard Brook Cooperators' Meeting. The REU field season concludes with presentations by students of their research results.

Informal Science Education (ISE)

Our Informal Science Education Program is designed to engage the community at large in order to promote the understanding and stewardship of ecosystems through scientific research, long-term monitoring, and education. By introducing ecosystem science to the public, we hope to activate citizens to take ownership of our shared landscape, inspiring them to work together with neighbors, scientists, and legislators to affect positive change. A Hubbard Brook Roundtable on Winter Climate Change brought together ecosystem scientists with community stakeholders (see photo below) who use the winter landscape for their livelihoods and recreation. This roundtable will help inform a new program called Communities Exploring Ecosystem Science, which will explore how rural communities in New Hampshire understand and value the ecosystem services that derive from the forested landscape.

HBRF's education programs are funded by the U.S. Forest Service's Northern Research Station, the Northeastern States Research Cooperative, and the National Science Foundation's Schoolyard LTER program.



Facilities

HBRF owns and operates two residential and research facilities adjacent to the Hubbard Brook Experimental Forest. The facilities are available to researchers, visiting scholars, students, and nonprofit organizations throughout the year.

Pleasant View Farm is a dormitory-style house with shared kitchen and common areas including a large wrap-around screened porch where students and researchers meet for "Science Nights," potluck dinners, and other social and academic activities. The adjacent Towers Laboratory offers on-site laboratory facilities for scientists.



Stay at Hubbard Brook

Bring your family or group for a private eco-retreat at one of the world's best-studied experimental forests. Individual lakefront cabins at HBRF's Mirror Lake campus and communal lodging at Pleasant View Farm are available for rent to the general public and organizations during the non-research season, August through April. These facilities are ideal for organizational retreats or family get-togethers, especially during fall foliage or ski season. With advance planning, educational tours of the Hubbard Brook Experimental Forest can be arranged.



Mirror Lake Campus comprises a classroom and six cottages with eight separate living units that can accommodate up to 60 people.

For more information and to make a reservation, call 603-726-8911.



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¹ In honor of Robert. S. Pierce

² In honor of Curt & Alice Dietrich
and their family



Hubbard Brook Research Foundation



December 31, 2011 and 2010

Statement of Financial Position

ASSETS	2011	2010
Cash and cash equivalents	\$ 94,436	\$ 90,934
Pledges receivable	200	18,020
Grants receivable	38,242	16,971
Other receivables	2,440	198
Deferred expenses	0	74
Prepaid expenses	1,466	2,908
Total current assets	138,786	129,105
Property and equipment:		
Buildings and improvements	1,921,801	1,913,757
Equipment	68,682	68,682
Land	470,200	470,200
	2,460,683	2,452,639
Less: accumulated depreciation	512,161	451,094
Total property and equipment	1,948,522	2,001,545
Total Assets	2,087,308	\$ 2,130,650

Note: These schedules should not be confused with HBRF's 2011 audited financial statements. That report, including footnotes and the auditor's opinion, is available upon request or may be found on the HBRF website.

LIABILITIES AND NET ASSETS

Current Liabilities:		
Accounts payable and accrued liabilities	74,475	\$ 11,580
Deferred income	-	27,885
Accrued interest	-	819
Total current liabilities	74,475	40,284
Note Payable	714,909	707,934
Net Assets:		
Unrestricted	1,239,925	1,277,420
Temporarily restricted	57,999	105,012
Total net assets	1,297,924	1,382,432
Total liabilities and net assets	2,087,308	\$ 2,130,650

STATEMENT OF ACTIVITIES AND CHANGES IN NET ASSETS

Revenue & support		
Contributions and grants	461,933	\$ 439,008
Rental Income	79,474	74,190
HBRF Consortium dues	72,586	63,078
Donated Services	29,303	47,170
Other Income	13,806	9,802
Total revenues and support	657,102	633,248
Expenses		
Program costs:		
Facilities	198,600	167,946
Education	353,205	348,699
Total program expenses	551,805	516,645
Supporting services expense:		
Management and general	148,729	126,196
Fundraising	41,076	49,906
Total supporting services	189,805	176,102
Total expenses	741,610	692,747
Change in net assets	(84,508)	(59,499)
Net assets, beginning of year	1,382,432	1,441,931
Net assets, end of year	\$ 1,297,924	\$ 1,382,432