

## Annual Report Fiscal Year 2005

### SUMMARY—FY 2005

A major highlight of the year 2004-05 was the establishment of a 50 meter meteorological monitoring tower (MET) atop the Taconic Range on the western flank of the Hopkins Forest. This tower, which is equipped with a wireless data transmitter, will help provide the data necessary to enable HMF researchers to model the wind dynamics on this ridge. At 690 meters, this site should be rather typical of other areas in the Taconics and Berkshires that have been proposed as potential wind generation sites, and could thus provide invaluable insight into planning future wind generation projects.

During the past fiscal year, the Wire Bridge Farm was incorporated into Hopkins Forest and the HMF faculty, with the assistance of a team of students from the Environmental Planning class, began the task of developing a management plan for this 73 acre parcel. This parcel will allow us to expand the types of research and demonstrations available at the Forest.

In research, Eric Kramer's study on hormone transport and orientation in poplars went into its second full year. Other established research projects continued—including those on ant/leaf hopper mutualism, garlic mustard growth dynamics, and meteorological and geochemical monitoring. The Hopkins Forest once again hosted a fall banding station for migrating northern saw-whet owls.

During the summer '05, the recently enlarged weather station field was disk-harrowed and seeded to a perennial cold season grass. Once these grasses are established in the coming year, the field will be divided into an array of plots to demonstrate various stages of old-field succession.

Educational programs continued at the Forest: two Biology classes held regular lab sessions and numerous programs were conducted for schools and the general public. As usual, a crew of student caretakers tended the facilities and grounds. The Forest hosted its normal array of public events, including the annual Fall Festival, Maplefest, Alumni Day and fall and spring Family Days.

In addition to research and educational activities, we enrolled the 389 acre Vermont Parcel into the Vermont Use Value Appraisal Program, which mandates that the land be sustainably managed for timber. Accordingly, we have developed and submitted a management plan for this parcel that will ensure the sustainable stewardship of its timber resources into the future. We also continued our association with the Massachusetts Woodlands Cooperative, with whom we will coordinate timber management activities and educational initiatives in the future.

In the coming fall Manager Drew Jones will be on leave; Tom Merrill has been hired to serve as the interim manager during Drew's absence.

### ACTIVITIES-RESEARCH and MONITORING Summer 2005 and Ongoing

Several scientific studies were underway during the past year (Table I).

#### Ant/Leaf Hopper Mutualism

This was the fourth year of a study on ant-leaf hopper (*Publilia*) mutualism by Manual Morales of the Biology Department. This experiment utilized the fields along Northwest Hill Road. Daniel Klein '06 and Patrick Huffer '07 worked on the study this year with Professor Morales, the focus of which was to investigate density effects on *Publilia* populations. This year Professor Morales initiated a study of the distribution of the exotic red ant (*Myrmica rubra*) in the Hoosic River Valley. Working with honors student Elise LeDuc, Professor Morales surveyed transects along the length of the river, including several in the Hopkins Forest (Wire Bridge Farm and the Hoosic River Trail parcels).

#### Garlic Mustard--Population Dynamics in Forested Ecosystems

Joan Edwards' study of the population dynamics of the invasive garlic mustard plant (*Alliaria petiolata*) continued in 2005. Sarah Martin '07 and Lauren Moscoe '07 provided the field assistance with this study, collecting data on established plots in three different areas of Hopkins Forest: the Beinecke stand, the former mansion site and the red oak stand. This was the ninth year of Dr. Edwards' investigations of the mechanisms of garlic mustard's growth in forests of different ages, its rate of invasion, and its effects on native flora.

#### Wildflower Distribution and Invertebrate Communities

Henry Art continued his investigations correlating wildflower distributions with historic land uses in Williamstown. Honors student Abby McBride '06 worked on this project, which incorporated several sites

in the Forest. Will Wetzel '05, working with Art, took this study to a higher trophic level this year. Wetzel inventoried soil macroinvertebrate communities in the area and will assess the effects of past land use on these assemblages.

#### Sugar Maple Genetics

This past year Tom Baribault, of the University of Vermont's Proctor Center, was unable to continue to sample sugar content of the remaining trees in the sugar maple plantation. Time and weather constraints conspired to keep Dr. Baribault away this year, but he intends to return to his sampling regimen in the coming years. This is part of a more comprehensive study to identify the gene (quantitative trait loci) that codes for high sugar content in maples. There are two other known plantations with sibling trees of the one in HMF, one in Vermont and the other in Ohio.

#### Wood Grain Development in Quaking Aspen

Professor Eric Kramer, of Bard College at Simon's Rock, continued his study of Indoleacetic Acid (IAA) transport in quaking aspen (*Populus tremuloides*). Dr. Kramer's intent is to study and model the physiological mechanisms by which trees generate new tissue in response to wounds. This summer concluded two years of field sampling and work may continue in the next field season.

#### Northern Saw-whet Owl Migration Banding

Ken Schmidt and Drew Jones continued their Northern saw-whet owl (*Aegolius acadicus*) banding station in the fall of '04. Mist-nets (a single-tier array of three 12 meter nets) were set up on a trail south of the Rosenburg Center; an audio lure was used to attract the migrating owls into the nets. The station was open on dry, calm nights from dark until around midnight between October 1st and November 14th (for a total of 35 net-nights). During this period 85 saw-whets, including several recaptures from other stations, were recorded. This represents a substantial decrease from the past two seasons. The HMF station continues to be one of the major ones of its kind in New England and is associated with a network of more than 50 other stations throughout the county. The station also served as a major drawing card for local bird enthusiasts: approximately 150 people (including students and instructors from Berkshire Community College) visited the station during its fall operation.

#### Hay-scented Fern Allelopathy

Analia Sorribas '06, working with Chemist David Richardson, implemented a field study of the allelopathic mechanisms of hay-scented fern (*Dennstaedtia punctilobula*) during 2005. This study assessed the effects of inoculating soils with extracts from the fern on common garden varieties grown in natural conditions (under the forest canopy).

#### Habitat Use of Wood Turtles

This year Drew Jones undertook a pilot study of the movement and habitat use of wood turtles (*Glyptemys insculpta*) in the Hoosic River Valley. Two turtles were equipped with radio transmitters and tracked during the spring and summer months. These turtles, species of special concern in Massachusetts, use the stretches of the river adjoining Hopkins Forest. Several students and faculty from local colleges were involved in this pilot study, which may be expanded in the coming year.

#### **Watershed/Meteorological Monitoring (Environmental Analysis Lab)**

Once again, the Center for Environmental Studies' Environmental Analysis Lab--under the guidance of David Dethier and Technical Assistant Jay Racela--continued the process of gathering and analyzing meteorologic, hydrologic and biogeochemical parameters in the Forest. Four weather stations and two stream gauging stations were monitored continuously throughout the year with the aid of digital data loggers. Data from the main weather station continued to be electronically connected to the campus network and data downloads from that station are automated in real time.

Recently the Lab expanded its realm of environmental monitoring in the Forest with the establishment of the new meteorological tower and the incorporation of the Wire Bridge Farm (and its accompanying thermal spring) into the Forest. Lab workers have already begun collecting and processing data from these two sources.

On August 2nd 2005, the weirs along the South Branch and Main Stem of Birch Brook were dredged and the sediment load weighed by HMF and lab personnel and volunteers. Kate Scheider '06 and Aubryn Murray '05 were hired with CES funding to assist Jay Racela in running the lab during the past summer.

Table I HMF STUDENT RESEARCHERS-Summer 2004

<u>Student</u>	<u>Supervisor</u>	<u>Project</u>	<u>Funding</u>
William Wetzel '06	Art	Invertebrate Community Distributions	Biology
Abby McBride '06	Art	Wildflower Distributions	Biology
Sarah Martin '07	Edwards	Garlic Mustard	Biology
Lauren Moscoe '07	Edwards	Garlic Mustard	Biology
Daniel Klein '06	Morales	Mutualism	Biology
Elise LeDuc '06	Morales	Exotic Ant Distribution	
Patrick Huffer '07	Morales	Mutualism	Biology
Analia Sorribas '06	Richardson	Hay-scented Fern Allelopathy	Chemistry
Aubryn Murray '05	J. Racela	Weather/Stream monitoring. Lab assistant	CES
Kate Scheider '06	J. Racela	Weather/Stream monitoring. Lab assistant	CES

### **Rare Species**

Though no thorough population censuses were done for rare species this year in the Forest, a monitoring protocol for crooked-stem aster (*Symphiotrichum prenanthoides*) was implemented along the Hoosic River Trail in June 2005. Six square meter plots were established in known aster populations along the trail and baseline inventories were done. The intent is to assess the effects of increased trail use on this rare plant population.

Other rare species that have been monitored in the past include:

- Wild Ginseng (*Panax quincifolia*)
- Appalachian Brook Crayfish (*Cambarus bartonii*)
- Wood Turtle (*Glyptemys insculpta*)
- Northern Spring Salamander (*Gyrinophilus porphyriticus*)
- Glade fern (*Diplazium pycnocarpon*)

### **Breeding Bird Point Surveys**

During June, Drew surveyed 44 points that had been established in 2001 throughout the Forest to monitor breeding birds. This past year exceeded the previous four in both total numbers of individuals (462) and species (53). As in years past, the red-eyed vireo was the most abundant species, followed by the ovenbird, American redstart, veery and black-capped chickadee. These points will continue to be surveyed on an annual basis

### **Data Management**

Chris Warren of the Office of Informational Technology continued to work with HMF researchers to improve the accessibility of HMF data via the internet. Now both long term vegetation and meteorologic data can be accessed and queried via a web-based user interface. The weather data can be viewed in real time.

### **TEACHING**

During the fall semester BIOL/ENVI 203—*Ecology* (Joan Edwards) held many lab sessions at the Forest. The spring saw some use of the Forest by several courses. Students in BIOL 302/ENVI 312--*Communities and Ecosystems* (Visiting Professor Brian Spitzer) used the Forest for their independent research. In addition, ENVI 102--*Introduction to Environmental Science* (Bingemann/Stoll/Art) used the Forest for several of its lab sessions. Several other classes, including BIOL 102--*The Organism* and ENVI 101--*Humans in the Landscape*, conducted field trips to the Forest as well.

### **RESOURCES/FACILITIES/CARETAKING**

#### Meteorological Tower

November 2004 saw the installation of a 50 meter meteorological monitoring (MET) tower atop the Taconic Range on the western flank of the Hopkins Forest . Working with Geosciences Professor David Dethier, Nicholas Hiza '00, who had been hired previously by CES to study the feasibility of having a wind energy generation facility on the College's Berlin Mountain property, spearheaded the logistics, contracting and planning of the HMF wind tower; most of the funding was provided by the Vice President's office. The

tower is equipped with a wireless data transmitter that links the station to the campus information network. Early problems with the cellular service provider have apparently been fixed and, as of the summer of 2005, the system was up and running. The location of the tower appears to be rather typical of other areas in the Taconics and Berkshires that have been proposed as potential wind generation sites; therefore, data from this station could be useful in modeling wind conditions on other nearby mountaintops and assessing their suitability as sites for future wind generation.

#### Wire Bridge Farm

During the past fiscal year, the purchase of two-thirds of the Wire Bridge Farm was completed and the parcel was incorporated into Hopkins Forest. With this addition we began the process of planning the future use of this parcel. To that end, a team of students from the Environmental Planning class began the task of developing a management plan for this 73 acre parcel. This team interviewed faculty, students and local residents and developed a report outlining several management alternatives that emphasize research and teaching. The Hopkins Forest Users Committee will consider these recommendations and other alternatives in implementing an academic program for this parcel in the coming years.

In the meantime, research activities have already begun on the former Wire Bridge Farm. David Dethier and his staff began monitoring discharge and temperature of the thermal spring at the base of Northwest Hill. Addie Robinson '05 conducted a Winter Study independent project with the hydrology of the spring as its focus. A small weir with an accompanying data logger was installed at the base of the spring in January 2005.

Biological research was also underway on the new land; Manuel Morales and his student assistants established sampling transects for red ants during the summer of 2005. In addition, Hank Art and his assistants surveyed the wooded section of the parcel for wildflowers and soil macroinvertebrates. During the past fiscal year, we marked and posted the boundaries of the new land and began clearing the invasive multiflora rose that was choking off the areas around the spring and fen. Currently we are working on property access issues with neighboring land owners.

#### Timber Management-- Vermont Parcel

During the past year we enrolled the Vermont parcel into the Vermont Use Value Appraisal Program. In exchange for a significantly lower tax rate on those 389 acres, we will be obligated to comply with a state-approved forest management plan that we submitted in late 2004. This plan calls for the ecologically sustainable harvesting of timber from that tract in the future. The timber on this parcel was inventoried by student workers in the summer of 2003. A preliminary analysis of the data shows that we are still a decade or more away from being ready to harvest any significant timber from that parcel. >

We aim to have all timber management activities on the parcel serve the education and conservation mission of Hopkins Forest. To this end, we have been in discussions with the Massachusetts Woodlands Cooperative (MWC), an association of woodland owners in western Massachusetts that aims to make environmentally sustainable forestry more widespread in the region. The cooperative works to improve markets for environmentally certified, non-traditional wood products, and pools resources to reduce the cost of management to small private landowners. During FY '05 we began the process of joining the Cooperative and we aim to become members in the coming year.

#### Weather Station Field

Fiscal Year 2005 saw the final preparation and seeding of the expanded weather station field in Hopkins Forest. The site had been seeded to an annual cover crop in the fall 2004 upon completion of its clearing earlier that summer. A contractor was hired in the summer 2005 to disk-harrow the field and plant perennial cold-season grasses, a job that had to be done in several phases over the course of three months. This newly planted field, comprising approximately four acres, will be divided into a series of early successional plots for experiments and demonstrations in the coming year.

#### Permanent Plots

During the summer 2005, student workers began to repaint the cruise-lines that join the 400 permanent vegetation monitoring plots of the Forest. The plots are spaced along a grid at 100 yards (east-west) by two hundred yards (north-south). Five of the 13 east-west running cruise lines were re-blazed this year.

#### Rosenburg Center

The Rosenburg Center was used again for classes, lab set-ups, public events, workshops, and as an exhibit space for visitors. Three of the computer work stations, two in the dry lab and one in the office, were upgraded during the fall of 2004. In addition, the office was equipped with a new desk jet printer.

#### Farm Museum

Once again, the Moon Barn was used as exhibit space and was open during public events and peak

visitation periods. The museum collection has become more serviceable since it was organized during the summer of 2001.

Canopy Walkway

This year the canopy walkway saw increased public use. Several schools and community groups, in addition to Williams affiliated groups, used the facility. A fee structure has been established to help defray the cost, in administration and student labor, of using the walkway. The facility passed its annual safety inspection in the spring.

Trails/Ski Track

As in past years, the Upper and Lower Loop trails were groomed for cross-country skiing; use of the trails was steady during the winter of 2004-05

Roads The entry road to the Rosenberg Center was resurfaced in the spring of 2005 with funding assistance from the Buildings and Grounds Department. In addition, the Lower Loop Trail leading to the weather station field was reconditioned to mitigate the effects of the heavy use it sustained during the clearing of the field the previous year.

**Caretaking**

During the Fall of '03, Tom Merrill was hired to pick up some of Drew's caretaking responsibilities as approximately 25 percent of Drew's time during the semester was diverted to lab instruction for BIOL 203. Merrill served ably, doing mostly on-the-ground caretaking and management as well as working with student crews. Funds to pay Merrill were transferred from other college accounts and did not affect the

HMF budget.

As in the past, HMF relied for a major part of its maintenance, upkeep and outreach activities on the efforts of student caretakers (Tables II and III). The fall and spring semesters had a regular crew of eight to ten students, each working about 3 to 5 hours per week under the leadership of head caretaker Ken Brown '04. The fall crew kept busy working in the Buxton Garden; preparing for and hosting the Fall Festival; marking and posting boundaries; preparing for hunting season; and doing general property maintenance. In the spring, the major effort was the maple sugaring campaign; some time was spent preparing equipment and splitting wood before the season and in cleaning up afterwards. The crew was also involved with preparing for and hosting *Maplefest*.

Table II STUDENT CARETAKERS ACADEMIC YEAR 2003-04

Katie Nicoll '05	Ben Brown '06
Peter Holland '05	Kate Majzoub '06
Ken Brown '05	Daniel McKenna-Foster '07
Chloe Turner '05	Lizzy Koltai '07
Nathan Kolar '05	Matt Summers '07
Michael Gallagher '06	Liz Gleason '08
Parker Shorey '06	Kim Taylor '08
Oliver Burton '06	Anna Merritt '08

A summer caretaking crew--consisting of Anne Smith'07 and Lizzy Koltai '07, with a short stint from Lily Thiboutot of Carleton College--labored throughout the summer. The crew was engaged in many of the regular summer tasks—mowing, gardening, equipment maintenance, trail and water-bar maintenance—in addition to invasive weed control on the Wire Bridge Farm and remarking the cruise lines that connect the permanent monitoring plots.

Table III

TOTAL CARETAKING HOURS & OUTLAYS
ACADEMIC YEAR 2004-05
Fall 371.00
Spring 391.25
Total 762.25

PUBLIC

## Public Outreach

### Community Events

Once again HMF hosted several events for the public and college communities. Events were generally well attended and well received by visitors. The following events were held the past year:

- **Fall Festival** - The Fall Festival was held on Sunday, September 26th and, owing in part to good weather, attracted a large crowd of 333. Traditional forest and harvest activities—beam hewing, shake-splitting, cross-cut sawing and apple butter and cider production--and live music were featured
- **Fall Family Days** This was the fifth year that events were planned for the fall family weekend with two guided trail hikes held on Saturday, October 23rd.
- **Maple Festival** - “Maplefest” was held on Saturday, March 12th. A solid turnout of 199 people weathered an early snowstorm to come and see sugaring exhibits and demonstrations and to taste HMF produced syrup served over pancakes and 'on (fresh) snow’.
- **Spring Field Day** This annual event was held on April 16th. It featured hikes and trips up the canopy walkway—approximately 70 people attended the various events.
- **Alumni Day** - HMF again offered a variety of activities, including hikes, trips up the canopy walkway, and children’s activities, during this year’s Alumni Weekend (June 11th). As usual a good crowd of approximately 125 took advantage of a pleasant spring day to partake of the activities.

### Seminars

On October 16th and 17th 2005, HMF faculty and staff hosted a two day colloquium on wind energy for a group of 20 students from the MIT Martin Fellows for Sustainability. The program featured lectures and discussions as well as guided hikes and activities led by CES faculty and staff

### Local Schools

As in years past, HMF hosted a variety of school groups from around the area. Drew, and in some cases, student naturalists served as guides or interpreters for these school groups. Aquatic-oriented and maple-sugaring activities, as well as forest explorations, continued to be popular. Of special interest was a collaboration between the Forest and the fifth grade faculty at Williamstown Elementary School; the entire fifth grade visited the Forest to round out its curriculum on trees.

### Publicity

The local press published articles announcing the hunting season and community events in the Forest. In addition, the Forest’s canopy walkway was featured in a network television program that aired in June 2005 on WCVB--Channel Five, Boston. Hank Art and Drew Jones were interviewed in the segment.

## Recreation

This year numerous hikers, horse-back riders, skiers and nature observers used the trails of the Forest in their recreational pursuits. Fortunately, the year was a quiet one insofar as public use problems were concerned. Although there were a few trespass problems and rules violations, matters generally remained under control. This year we implemented a program to monitor soil and botanical resources along the Hoosic River Trail as part of a conditional agreement that was struck last year to permit horseback riding on that trail. Nine monitoring transects were established along the trail; along each of these, soil loss and tread width will be periodically measured and documented through photography. In addition, six one square meter plots were situated along the north end of the trail to monitor a population of crooked-stemmed aster (*Symphiotrichum prenanthoides*). Baseline measurements were taken during the summer 2005 and these plots will be monitored for the next two years to detect possible adverse impacts from increased traffic on the trail. Signs were posted along this trail to inform riders of the conditional horse-back riding policy.

Other public recreational issues include:

- **Wheeled vehicles**—four wheelers and mountain bikes continue to be used sporadically on HMF trails, especially the Taconic Crest Trail and the Vermont trails where violators are generally hard to catch.
- **Hunters**—hunting problems were minimal during the 2004 season.
- **Vermont Lands**—there continues to be evidence of minor trespass (four-wheelers) in this area, although no serious incidents were reported during the past year.

## Williams Outing Club

The Outing Club cabin saw a constant stream of use during 2004-05, accommodating hostellers on approximately 25 nights. The cabin was also used during Maplefest in March. The Outing Club lean-to was used sparingly by the Williams Community; use by unauthorized persons was not noted this year, although

the remoteness of the facility prevents us from monitoring it closely. The low-ropes course has proven to be very popular; the Outing Club used the facility often (approximately 12 times with 250 total users) for community and college members during the past year. The WOC student naturalists were active in HMF during the past fall. Led by Kate Majzoub '06, the naturalists conducted a variety of hikes and bird-walks and educational activities.

## SPECIAL PROGRAMS

### Hunting

As in past years, HMF hosted a special permit deer hunt during the Massachusetts shotgun season. As usual, no hunting was permitted in Vermont, New York or east of Northwest Hill Road, nor was archery hunting allowed. One hundred hunters from throughout Massachusetts and several other states registered eight deer (unofficial sign-in), mostly antlerless, during the twelve day season. Williams College security officers, along with Williamstown police officers, were hired to provide security during the hunt. The season went smoothly with few problems reported.

As in the past, the HMF hunting program was subsidized by the Forest's operating budget, although this cost has been reduced somewhat in the past several years through a combination of a fee increase in 2003 and an effort to control security costs. We feel that this expense is necessary to maintain both the level of hunters and security needed to achieve our goals of managing the Forest's deer population in a safe and effective manner

### Maple Sugaring

The maple sugaring season was rather brief but satisfactory this year, with production only slightly below levels of the past few years. The tapping period began on February 28th and continued until the first week in April. The cold late winter weather caused a delay in the sap flow and most good runs were delayed until late in the month—the spring break period. A total of 1680 gallons of sap were gathered by student caretakers, a marked reduction from the past several years. Nonetheless, this smaller amount of sap was boiled down to approximately 35 gallons of bottled syrup (Table IV), thanks to a higher than average sugar content (approximately 3.0 percent). A new (reconditioned) evaporator was installed prior to the season and that, along with improved bricking and insulation, seemed to contribute to an increase in boiling efficiency during the 2005 season.

During the sugaring season, we again hosted the 'Maplefest' celebration and entertained numerous public visitors, including some from foreign countries.

Table IV SUMMARY OF SUGARING ACTIVITIES-2005

Trees tapped	125*
Tapping Period (days)	36
Tap Nights	4330
Gallons of Sap	1680
Days (sessions) Boiled	11
Hours	71.5
Gallons (approx.)	
Raw Syrup Drawn Off	37
Bottled	35
Caretaker hours	192**
Manager's hours	85**

\*Most figures are approximate

\*\*Not including before and after tapping period

## MEETINGS/COORDINATION

### Affiliations

Taconic Crest Trail Consortium: This consortium--which seeks to promote sustainable recreational use of that 35 mile trail and coordinate management and maintenance activities—had a meeting on August 1,

2005. However, trail maintenance activities were ongoing, both on the part of Hopkins Forest and other members. In addition, the consortium published a new map of the trail, which will be distributed in the HMF kiosk at the Petersburg Pass trailhead among other places.

Hoosic River Watershed Association (HooRWA): Drew continued his activities as a Member of the Board of Directors and Secretary of this local non-profit organization. His involvement led to the hosting of a third HooRWA co-sponsored workshop at the forest; this very successful program on reptiles and amphibians, led by noted Herpetologist Tom Tynning, drew 75 participants of all ages.

Bird Clubs: HMF continued to collaborate with the North Berkshire Audubon Chapter on bird counts and bird walks. In addition, the Forest has become a destination for members of the Hoffman Bird Club during the fall owl banding season.

Clark Art Museum: During spring 2005, Drew Jones and Hank Art collaborated with the Clark Art Museum, each leading one or more nature hikes on their campus

**Conferences/Workshops**

Drew attended the following conferences during the past year:

- ?Organization of Biological Field Stations, Annual Meeting—September 16th-18th 2004, Isle of Shoals, ME.

- ?Pittsfield Garden Club—February 23rd, 2005—gave presentation on HMF and maple sugaring activities.

ADMINISTRATIVE

**HMF Users Committee**

The Hopkins Forest Users Committee is charged with deciding most of the management and planning issues that pertain to the Forest and its infrastructure. Most of its members--selected from among College faculty, staff and students--have vested research or teaching interests in the Forest (Table V). Under the direction of David Dethier, the committee met on several occasions to decide matters of forest management and policy.

Table V HMF USERS COMMITTEE--2004-05

David Dethier, Chair, Geosciences	
Hank Art, CES Director, Biology	Jay Racela, CES, Environmental Analysis Lab
David Smith, Biology	Scott Lewis Director, Williams Outing Club
Joan Edwards, Biology	Drew Jones, HMF Manager
Manuel Morales, Biology	Kenneth Brown '05

FUTURE

**--What is in store for 2005-06?**

In the coming six months Manager Drew Jones will be on sabbatical leave. He plans to visit other field stations and institutions around the country in an effort to increase the visibility of HMF and gain insights that might be helpful to managing the forest in the future. Tom Merrill has been hired to replace Drew on a part-time basis from August 29, 2005 through February 6, 2006. Most of the fall programs and events will go on as in years past. When Drew returns for the spring semester, he and the HMF Users Committee will work on several new research and management initiatives. These include:

- ? Developing an academic plan for the Wire Bridge Farm.
- ? Establishing research and demonstration plots on the newly enlarged weather station field and moving the anemometer tower and other gauges more toward the center.
- ? Joining and continuing to strengthen our affiliation with the Massachusetts Woodlands cooperative.

We look forward to the continuation and expansion of the academic program--including the research projects, classes and outreach programs--in the coming year.