

The SPRUCE MOOSE

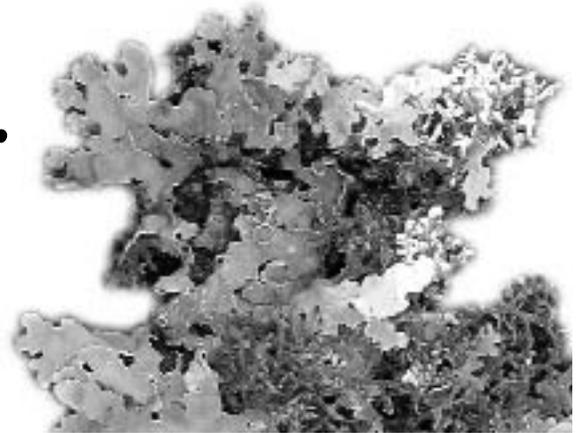


A publication of the Adirondack Ecological Center

Summer 2006



Lichen Researcher Discovers Three New Species



By Heather Root

When Glen Gray, the superintendent of Saratoga National Historical Park, commissioned a contest for a new symbol for the park he didn't get what he expected. Saratoga commemorates the pivotal battle of the Revolutionary War and among about 50 entries were just two depicting the Revolution. The remainder showed a white-tailed deer. The abundance of deer in the park since the 1980s is impressive, but those entries failed to capture the contemporary importance and historical roots of the battlefield. When the question about the Spruce Moose symbol we use at AEC was voiced, it caused me to consider whether we measured up to those criteria. Are we capturing an important historical value and also a sense of who we are today?

Ask people: What one image epitomizes the Adirondacks? The answer is almost always in concert with the wilderness of the region: a loon, or a deer or sometimes Treetops at the Huntington Wildlife Forest are teeming with life. Hummingbirds flit by on sunny mornings, woodpeckers and red-eyed vireos sing, and lichenologists clad in bug nets peer through hand lenses at epiphytes. Lichenologists study lichens, which are small but beautiful organisms comprised of fungi and algae (and sometimes even cyanobacteria!) living together in a mutually beneficial arrangement. The fungus provides a home for the algae, which may otherwise dry out, and the algae provide its fungal partner with sugars from photosynthesis. Although lichens do not hurt trees, they frequently grow on bark, which is why treetops are natural habitat for lichenologists like me.

Lichens may seem esoteric, but they are important in forested ecosystems. Lichens provide food for snails, slugs, caterpillars, beetles, mites, and in some places, mammals in winter. They're also useful for hummingbird nests, and butterflies and moths use them for camouflage. Lichens are inhabited by a diverse collection of arthropods. These are even less well known than their lichen homes but could have important connections to bird, small mammal, and amphibian populations. My research was the first to access and extensively sample arboreal lichens and their invertebrate communities in a northern hardwood forest. My objectives were twofold. First, I aimed to determine how lichen communities are affected by two silvicultural management regimes. Second, I wanted to know which invertebrates inhabited arboreal lichens.

On the 81 sugar maples that I climbed, I found 52 lichen species. As I had predicted, lichen communities visible from the ground were dramatically different from those in tree crowns. Several lichen species were associated with tree crowns and others with bole habitats. I found that lichen communities varied with tree diameter and that large and small trees had associated lichen communities. On large and small trees, lichen communities in old growth differed from those in reserve shelterwood, however, lichen communities in selection systems could not be distinguished from either of the other stand types.

My invertebrate sampling focused on mites, which are little 8-legged creatures akin to spiders and ticks that trundle around on and in lichens and bark.

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Long term deer studies contribute to understanding CWD

by Frank DeSantis



For many of you, memories of summers spent at Huntington Wildlife Forest conjure thoughts of anxiously checking Stephenson's box traps in hopes of catching an uncollared deer. Perhaps, as I do, you vividly remember your heart beating so hard that you were sure the deer inside the trap could hear it. And who

can forget those pesky black flies that seemed to know just when to bite? The long list of people who can relate to these experiences is no surprise given that the deer trapping and telemetry at Huntington seemed to be a yearly rite of passage for many.

What has come from nearly 40 years of deer research at Huntington Forest? The answer is a wealth of biological information on deer movements, social behavior, population dynamics, and habitats, as well as an understanding of the many influences deer exert on forested ecosystems in general.

This knowledge is now valuable to addressing a new concern, the finding of chronic wasting disease (CWD). The disease was discovered in a small area of Oneida County in April 2005. CWD is a fatal disease infecting deer, elk and moose. The disease has a 15- to 35-month incubation period, during which time infectious, contagious animals may behave normally and appear outwardly healthy. Death is inevitable and occurs within four to six months following the onset of clinical symptoms.

How might the disease spread geographically from a given point of occurrence? This question is particularly perplexing in New York where deer densities, habitats and landscape features vary widely across the State. Here is where the long-term studies of deer at Huntington prove especially valuable. All those years of trapping and telemetry have given us a knowledge about social and spatial organization of deer

populations (the famous rose-petal hypothesis) and the knowledge of migration between summer and winter range. This knowledge provides valuable insight to the spread of disease in the Adirondacks.

We are complementing our Adirondack data with field work to gain new data on the movements of deer in central New York. The central New York studies employ technology of GPS (geographic position system) satellites to gather high-accuracy data on locations of deer every five hours for a year. The Adirondack and central New York data will



Researchers attach a collar and take a tissue sample from a deer.

be combined to produce a Risk Assessment Mapping Program. This RAMP model will allow for biologists to better assess how to respond when outbreaks of CWD, or other diseases, occur.

The Huntington data are specifically being used to examine how the spatial distribution of winter ranges may be used to delineate areas at highest risk of disease spread from a given point of disease occurrence in the Adirondacks. One hypothesis is that greatest risk of transmission of the disease from one animal to another is on winter range because of the high concentrations of

deer. Deer that become infected on winter range can spread the disease on summer range.

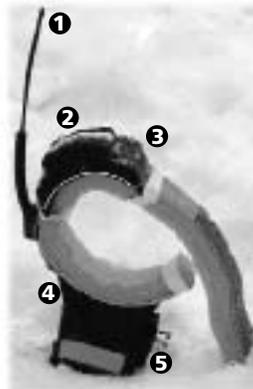
From past research we know that animals captured on Huntington Forest typically migrate 10 to 15 miles between summer and winter ranges. We also know that they tend to follow drainages as their migratory route. By mapping wintering areas throughout the Adirondacks and the associated potential summer ranges, we will begin estimating the statistical probabilities for direction and distance of spread of the disease.

Your help trapping and tracking all of those deer through the years may prove crucial to understanding potential patterns of spread of CWD and many wildlife diseases.

GPS satellites and high-tech collars allow researchers to closely monitor deer movements.



A network of twenty-four satellites located eleven miles above the earth in geo stationay orbits allows GPS receivers to triangulate their position to within a few feet, any place on earth.



- 1 VHF Antenna** – Transmits a signal that is used by radio telemetry receivers to locate the collar for easy retrieval.
- 2 GPS Antenna** – Constantly receives signals from the satellites in orbit around the world.
- 3 Memory** – Every five hours, the unit records the GPS coordinates, ambient temperature and mortality of the deer.
- 4 VHF Radio** – Radios are tuned to specific frequencies to help researchers locate them.
- 5 Battery Pack** – Gives these units operating power for about one year.



Frank DeSantis checking on a collared deer.



Kudos to the AEC

Wildlife Society Honors AEC

The Adirondack Ecological Center received an Outstanding Professional Organization Award from the New York chapter of The Wildlife Society.

The award honors “a group of wildlife professionals working together, for outstanding professional accomplishments in the wildlife field in New York State.”

Criteria for the award include the organization’s contributions to knowledge, innovation, and leadership in any facet of wildlife work, including research, management, preservation, conservation, and education.

In nominating the AEC for the award, Dr. Charles R. Smith, of Cornell University’s Department of Natural Resources, praised the center for providing “a superb environment for teaching and learning.”

“Over the more than three decades of its existence, AEC has contributed to mentoring hundreds of undergraduate and graduate professionals in wildlife conservation. Many of AEC’s ‘graduates’ now contribute to the discipline of wildlife management from positions of prominence with colleges, universities, and state and federal agencies throughout North America,” Smith wrote.

Spruce Moose Wins Press Club Award

The Spruce Moose won a 2005 Professional Recognition Award from the Syracuse Press Club. The publication received the honor in the Special Mention Newsletter Category.

The issue submitted to the competition was the spring/summer 2005 edition. Material was prepared by the staff of the AEC and edited by Karen B. Moore of ESF’s Office of News and Publications. The issue was designed by Vance Blackburn, of the Office of News and Publications.

The category was judged by members of the Atlanta, Ga., Press Club.

“Discovering a new species is always exciting... it opens doors to the unknown...”



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Mites from page one...

In the very small area I sampled, I discovered at least three new mite species and a great diversity of named mites. Discovering new species is always exciting, not just because it allows an opportunity to name them but also because it opens doors to unknown biological and ecological discoveries. I also found that certain mites were associated with lichens and others with bare bark and that there were a greater number of mites in lichen samples than on bark.

As my research comes to a close, I breathe a sigh of relief; I didn’t fall from any trees! I also went to places that nobody goes, got great views of the forests and mountains, and learned about the habitat associations of species that are seldom studied. These tiny organisms are truly beautiful and trying to see the world on their scale has been as great a part of the adventure as swinging from the treetops.

Her head may be in the canopy, but Heather Root’s feet are firmly planted on the ground.

Her discoveries as a graduate student at SUNY-ESF will impact future biologists for years to come.



Bill and Helen Webb Internship: A ‘Wonderful Experience’

by Aaftab Jain



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I worked at the Adirondack Ecological Center for three months in the fall of 2005. I had a wonderful experience and met some great people.

My work involved continuing a beech bark disease study that started in 1988 and was revisited in 1991 and 1998. The research involved documenting the progression of beech bark disease and the subsequent mortality of the trees involved. The study gave me a lot of time to be out in the forest on my own, enjoying the great fall weather while searching for trees and sampling for beechnuts. Finally, I was able to use the data from previous years to coauthor a publication with AEC staff and others who worked on the study.

In addition to the main study, I worked on other projects as well, searching for beaver and moose activity, and surveying salamanders. Working with the ecologists and foresters at the AEC was a great experience and a lot of fun. The atmosphere at the main office was always friendly and yet professional. I learned a lot, and will always be eager to return!



AEC Staff Uses GIS Technology to Help Map Future of Adirondack Park

Geographic Information Systems
Provide Detailed Data

by Steve Signell

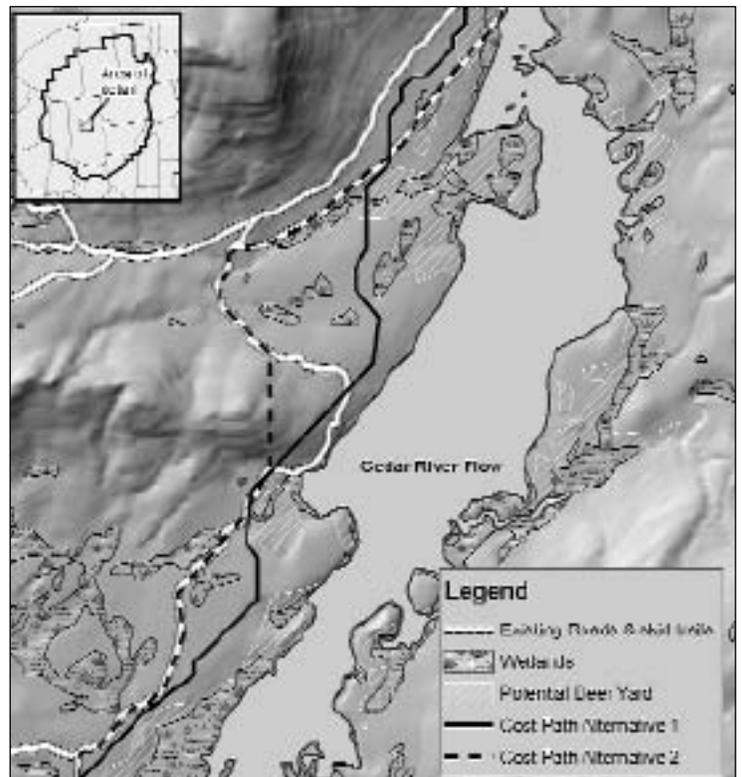
Adirondack Park land managers are faced with many complex stewardship decisions, and perhaps none more challenging than this question: How can we provide for increasing recreation needs and, at the same time, maintain the ecological integrity and wild character of the park?

Management of the snowmobile trail system is a perfect example of this balancing act. Every year, thousands of snowmobilers come to the Adirondacks to take advantage of the network of trails that wind through public and private lands. The N.Y. Department of Environmental Conservation maintains snowmobile trails on wild forest land. When placing new trails, DEC planners must minimize the cost of trail construction and avoid sensitive ecological features, such as deer wintering areas or wetlands.

AEC staff and students have been working closely with DEC planners to tackle these complex problems with geographic information systems (GIS). Using digital maps of wetlands, potential deer yards, elevation, slope, and old roads in a GIS, we can locate an optimal path between two points, or the path of least cost. I work with DEC planners who decide which factors to consider and what relative importance each should have. A number of alternatives are developed and compared. For example, if minimizing construction costs is important, then a GIS layer of abandoned roads is given greater weight than other layers. Alternately, steep slopes can be assigned a high cost, and thus less steep slopes will be selected.

Cost-path analysis is an excellent exploratory tool and is best used early in the process to help identify potential routes. Because GIS data are generally of coarse resolution, land planners still assess the feasibility of each option on the ground. However, cost-path analysis has saved many hours of time and effort by helping planners focus their field work in the most suitable areas. Recently, this kind of analysis has aided the Unit Management Planning process in places like the Shaker Mountain Wild Forest, Vanderwhacker Wild Forest, and the Blue Ridge Wilderness.

GIS is revolutionizing how we attack ecological questions. Only a few years ago, it seemed that we relied on GIS to produce simple maps. Today, the increasing sophistication of the tools, and those who understand how to use them, are helping us improve decision making about the management of public lands in the Adirondack Park.



Above: A hypothetical example shows two alternatives for the relocation of the Northville-Lake Placid Trail near Cedar River Flow in the central Adirondacks. The solid line avoids high slope areas, wetlands and potential deer yards. To generate the dotted line, use of pre-existing logging roads was added to the model to explore the influence on construction costs and impacts of human disturbance. Below: Satellite photo show borders.

Reflections on a successful partnership

by ?????????????????????????????????

A lot has changed at the Adirondack Park Agency Visitor Interpretive Center (VIC) in Newcomb since it opened Oct. 15, 1990: programs, exhibits, technology, staff, and volunteers, to name a few.

What hasn't changed, except to grow stronger, is the VIC's partnership with SUNY-ESF, and the support it receives from the college and its Adirondack Ecological Center. Consider the VIC's beginning: Our facility and trails were built in the Huntington Wildlife Forest (we have a lease with ESF); the trail crew that constructed our Rich Lake Trail, Peninsula Trail and part of the Sucker Brook Trail consisted of four Newcomb residents and three ESF students. Each year, two ESF students participate in a professional interpretive internship, working at the VIC for 12 weeks. Our interns live in the dorms and eat in the cafeteria at Huntington Forest. This summer, our interns are Melissa Misco and Kristy Blakely.

The VIC has also utilized the HWF accommodations and food service each fall since 1994, enabling us to offer an overnight residential research program for middle and high school students from throughout New York State.

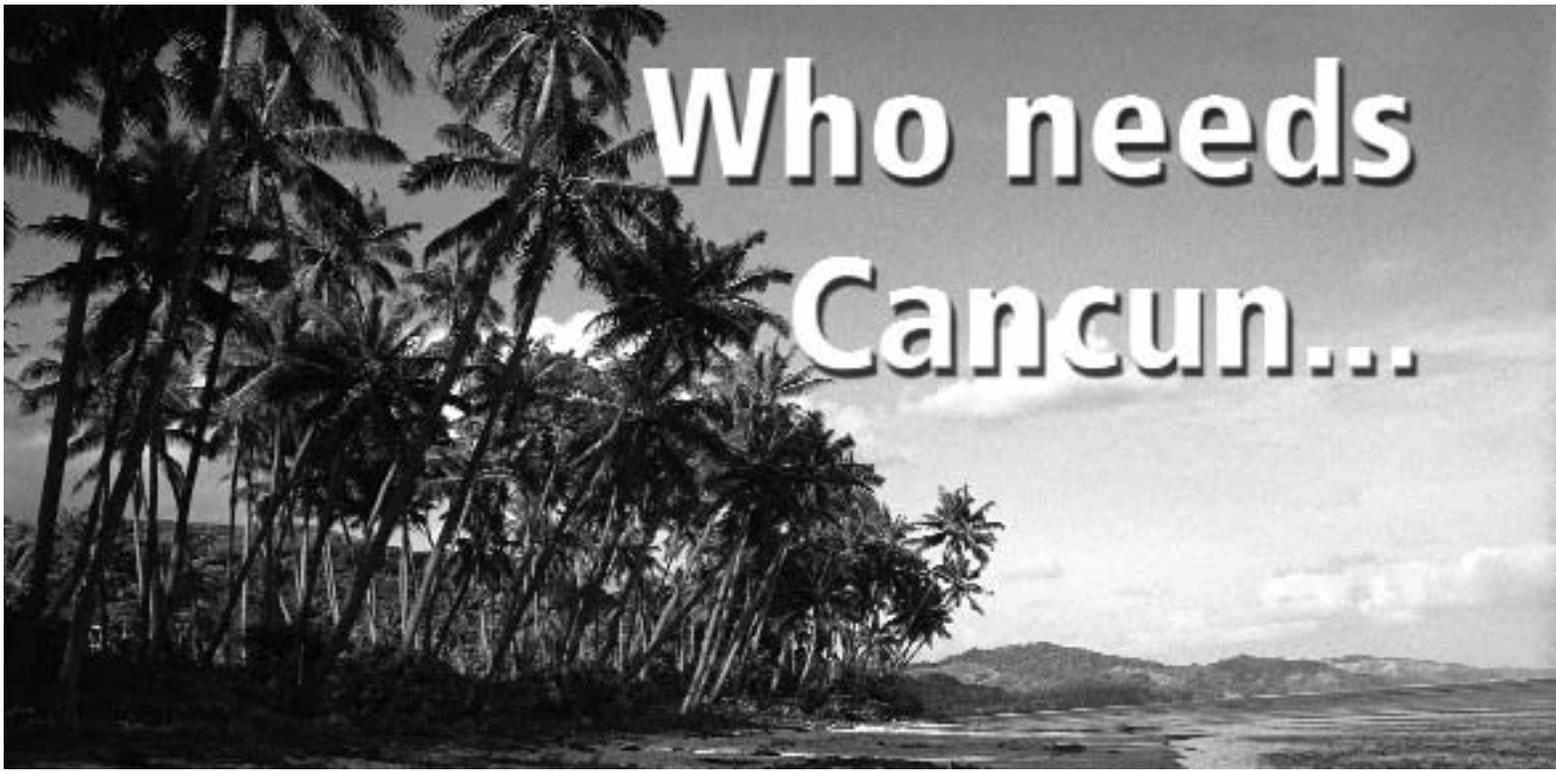
The VIC staff seeks out suggestions and recommendations from the AEC staff concerning exhibits, information, research, and equipment. The AEC staff has always been very helpful.

In the realm of programs, AEC staff members have presented lectures and workshops, have and led trail walks as part of the VIC schedule. The VIC also hosts the Huntington Lecture Series, which is put together by Ray Masters and is sponsored by the AEC each summer. Stalking Science Education in the Adirondacks, a weeklong residential program for science teachers, is another example of our longstanding partnership with ESF. The VIC has hosted various ESF classes over the years, and ESF students have written the self-guided brochures for our trails.

And finally, this summer the VIC plans to complete and open the R.W. Sage Jr. Memorial Trail, a 1.1-mile loop trail located off the Sucker Brook Trail. The trail is named in honor of the late Richard W. Sage Jr., who was associate director of the AEC.

On behalf of the staff and volunteers, both past and present, of the Adirondack Park Agency Visitor Interpretive in Newcomb, we express our most sincere gratitude and appreciation to ESF and the AEC staff for all their support and contributions to the success of the VIC. And may both the AEC and the VIC continue to enjoy a beneficial partnership.





Who needs Cancun...

By Desiree Narango



Its black eye shone with fear and glared up at me. My hand swung around to grab a scruff of dust-colored hair, just missing the needle-sharp teeth that flashed in my direction. I breathed a sigh of relief, for I had successfully handled my very first shrew!

Then the frantic insectivore bit me on the finger.

This is just one incident that makes up the adventure that is winter mammalian ecology. Although thoughts of cold drinks and bikinis dance through most undergraduate heads in the weeks prior to spring break, I had other plans. I signed up to spend the better part of the week three and a half hours north of Syracuse, outside Long Lake, N.Y., at ESF's Adirondack Ecological Center.



There, 14 other students and I got to experience the beauty of winter and the famous dynamic of two widely known teachers. We met Dr. Merritt, director of the Powdermill Biological Station who joined us as contributing educator. Dr. Merritt, a small-critter enthusiast, brought a fascinating academic background and a lively sense of humor to the class.

Also with us was Dr. William Porter, ESF professor and AEC director, who showed the class a more relaxed side of his personality that we might not have experienced if we had clung to the Syracuse campus.

The week started out unseasonably warm. The snow almost melted and we should wear T-shirts while checking mammal traps. I almost regretted not bringing my bathing suit for a swim in Arbutus creek. Who knows, I might have been able to find a water shrew! By Tuesday, the chance of snow flurries caused some excitement and we found that there's no better way to write journals than wired with too much coffee.

On Wednesday, the snow began to fall. As the inches accumulated so did our good spirits. We skipped to deer yards, moose tracks and bear dens. Using radio telemetry, we tracked a collared moose. During the hike, some of the students, and even Dr. Merritt, took a dip into some murky pond water. With plenty of fun in the snow, the class





When there's Newcomb?



worked together to make a structure known to the Inuit as a quinzhee (or snow fort to the child in all of us). To show the insulative value of the structure, we piled inside to observe the changing temperature and sing merry shanties. Our evenings were spent in true Adirondack fashion inside Huntington Lodge, enjoying the warmth of hot chocolate, s'mores and good company, and some interesting scientific presentations.



On the last day, our final was a breeze considering all the info we had absorbed during the week. Journals were handed in, and we said our goodbyes to the staff and faculty. After one last snowball fight, we piled back into the ESF vans to head back to the city. On the ride home I thought about what had transpired that week. I learned much about the adaptations of mammals for winter in a short time. I gained a new respect for snow, something I had previously loathed. I got to see first-hand various field techniques, like identifying snow tracks and 'mustelid mushing.' I also got to learn about some real research that uses these techniques. I discovered the life that lives in the snow and trapped a few critters as well. And I earned two desirable credits in only a week.

We arrived at ESF on a clear, moderately chilly day without snow, a stark difference to the environment we left three hours earlier. The 15 of us gathered our gear, exchanged phone numbers and said our goodbyes. Yet again, a field course had brought together students who otherwise might have not known each other and let them enjoy the great outdoors while gaining some valuable experience. As the group parted ways, I walked away thinking, "Honestly, who needs Cancun?"



NSF GRAN

\$600,000 grant will fund 'Integrating Science and Stewardship in the Adirondacks'

A \$600,000 grant from the National Science Foundation will provide 24 ESF students with an opportunity to do hands-on research while tackling biological questions relevant to the people and ecosystems of the Adirondacks.

The grant from the NSF's Undergraduate Mentoring in Environmental Biology (UMEB) program funds a new project titled Integrating Science and Stewardship in the Adirondacks. It is designed to support and mentor biology students from under-represented groups, particularly Native Americans. The project, which builds upon an existing UMEB program at ESF, emphasizes place-based education and focuses on the application of research to land use, water quality, and other environmental policy issues.

Dr. Robin Kimmerer, an ESF botanist, and the Adirondack Ecological Center's Stacy McNulty obtained the grant.

"The idea is to get kids involved early, before they really start to make their career path," McNulty said. "It will get them out as undergraduates to do independent research and work with mentors in the field. It will be great preparation for grad school or careers in natural science."

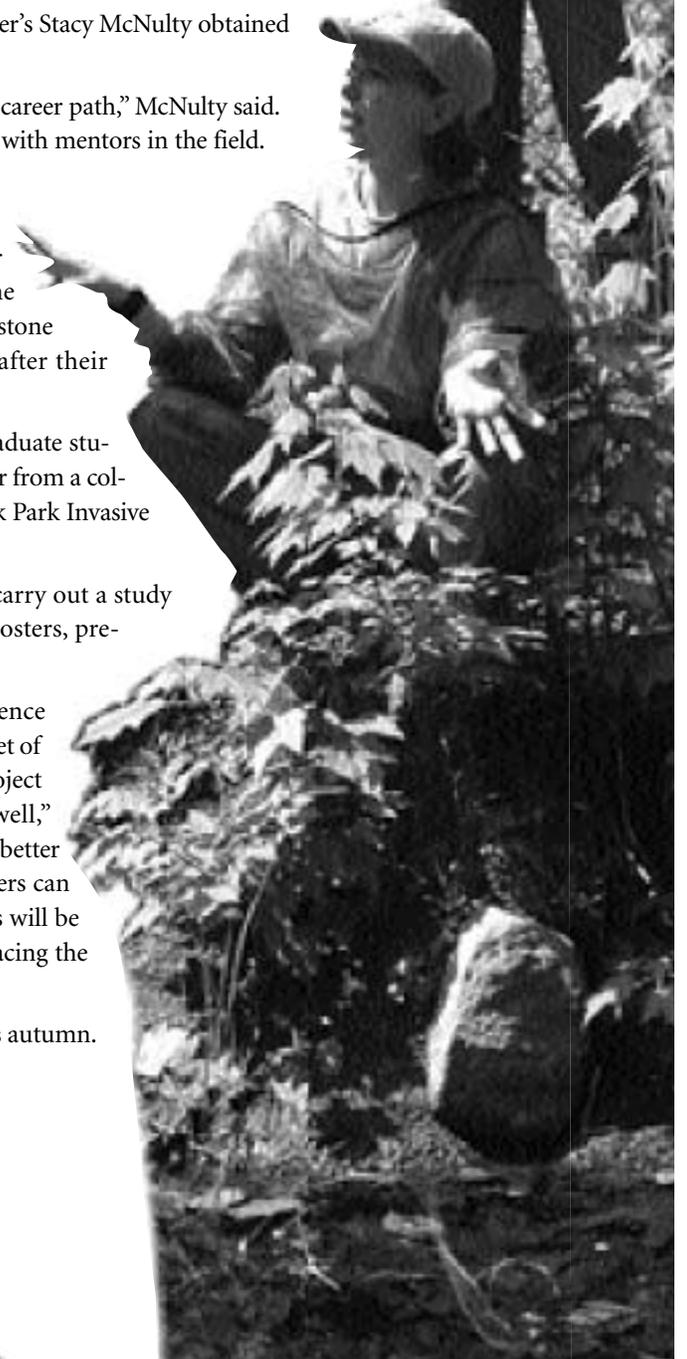
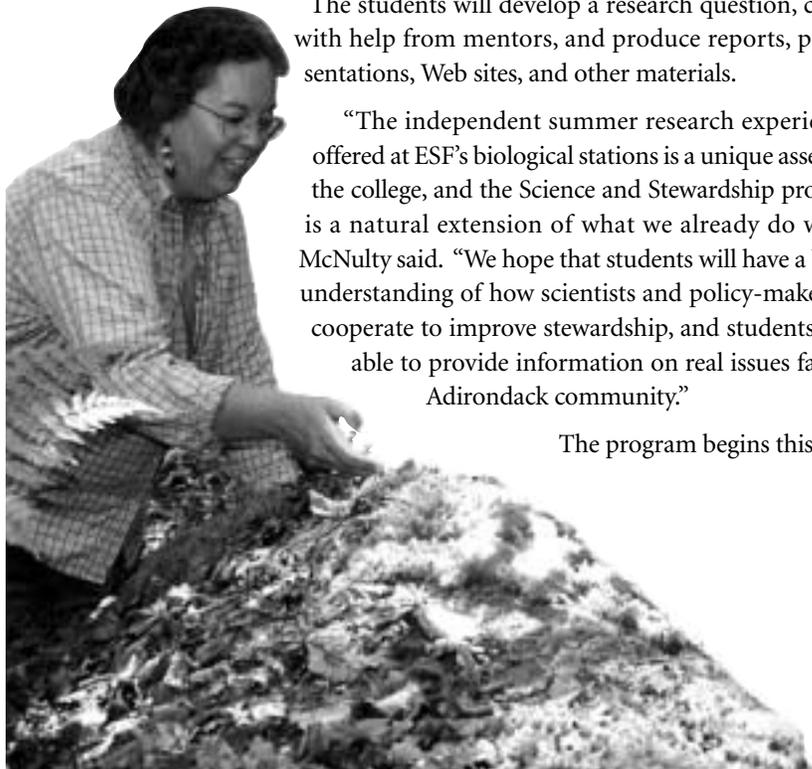
Participating students will complete an intensive two-year experience with plenty of fieldwork. They will take weekend field trips to the AEC during their freshman and sophomore years, and a five-week summer field course at the Cranberry Lake Biological Station (CLBS) after their sophomore year. The capstone experience will be mentored summer field research at the AEC or CLBS after their junior year.

Science mentors include ESF faculty members as well as biologists and graduate students at AEC and CLBS. Participants will also work with a stewardship mentor from a collaborating organization such as the Wildlife Conservation Society, Adirondack Park Invasive Plant Program, or Adirondack Park Agency.

The students will develop a research question, carry out a study with help from mentors, and produce reports, posters, presentations, Web sites, and other materials.

"The independent summer research experience offered at ESF's biological stations is a unique asset of the college, and the Science and Stewardship project is a natural extension of what we already do well," McNulty said. "We hope that students will have a better understanding of how scientists and policy-makers can cooperate to improve stewardship, and students will be able to provide information on real issues facing the Adirondack community."

The program begins this autumn.



Loose Moose

AEC Visitor a Surprise to Staff

Cameras set up as part of a deer research project revealed the presence of an unexpected visitor to Huntington Wildlife Forest: a male moose.

The moose was photographed twice in June, heading for salt licks that were intended to attract deer.

“We didn’t even know it was here,” AEC director William Porter said. “Who knew a moose would wander in? We know there are moose in the Adirondacks, but this tells us there are moose where there are also a lot of people. You have to wonder how many moose there are in the Adirondacks if even the biologists aren’t seeing them.”

Estimates generally indicate there are about 200 moose in the six-million-acre park, a population density that Porter likens to needles in haystacks.

AEC researchers are using three cameras, which snap pictures when the animal breaks an infrared beam, to collect data about animal movement and interaction to learn more about the transmission of chronic wasting disease among deer. Photos of a young male moose were a surprise.

“We didn’t even know there was a moose on the property,” said AEC staff researcher Stacy McNulty. “We hadn’t seen any tracks or anything that indicated it was here.”

Collecting the photos was the work of ESF junior Caitlin McAuliffe.

INCREDIBLE NIGHTTIME DISCOVERY



A bit of history

Huntington Forest Provides a Link between City Folks

It was a snowy Easter Sunday, April 29, 1947, when Herbie Welcker and his wife, Louise “Billie” Welcker, arrived in Newcomb. Herbie had accepted a job at the National Lead mine in Tahawus, so the couple moved from New York City and purchased a house adjoining the eastern boundary of Huntington Forest.

It seems improbable that there could be a connection between Archer Huntington, and the Welkers, but there was. Before moving to Newcomb, Billie had worked in a Manhattan office and every day walked to lunch. One day on her return she found her path blocked by a rope, red carpet and canopy stretching from a museum to the street, completely blocking the sidewalk. Two burly guards told Billie she could not pass and would have to take a long detour because Mr. Archer Huntington was about to arrive. She told them she didn’t know who this Huntington was and didn’t care if it was “King Tut,” she was not going the long way around, and anyway, her boss was very strict and she needed to get back to work. At about that time, an impressive limo arrived and a large man was escorted up the carpet to the museum and she was allowed to pass.

Mr. Huntington later inquired about the commotion and learned of Billie’s refusal to take the detour. Huntington was a man who admired spunk in people, especially those who worked for him. In an effort to find out more about this woman, he sent a message, inviting her to lunch. Billie, not inclined to dine with strangers, refused the invitation. Mr. Huntington was persistent however and had lunch delivered to her on a silver platter, including a half a chicken and a bottle of champagne.

Still admiring her tenacity Mr. Huntington offered Billie a job, which she refused. In the spirit of persistence, Mr. Huntington sent a large box of chocolates to Billie every year. Proving that our world is, indeed, a small one, in the spring of 1947, Billie moved to her new home adjacent to her would-be employer’s former estate.

(From a 1994 Newcomb Historical Society interview)

A Visit with William C. Tierson Part II

Forester, Forest General Foreman
Forest Property Manager and Director of Wildlife Research 1951 – 1983



Bill Tierson during construction work.

In 1960, Donald Behrend, a future Huntington Forest director, arrived and began his work on a doctoral degree. Robert Bernhardt also came to pursue his doctoral work. These folks were involved in two major projects: the clearing study and the ground cover study. These studies involved the establishment of various clearings and site treatments to evaluate plant establishment and growth. These studies included the use of deer exclosures to measure the deer's influence on plants. I was encouraged to re-evaluate the deer exclosure that Webb, et al. 1954 had reported on. This re-evaluation followed site treatment including logging and use of herbicides to open the canopy. The response was dramatic and I wrote my first article for publication. Thanks to all who helped spur me.

In 1963, I returned to Syracuse for one semester to complete coursework on my Master of Forestry degree. Again, my colleagues at Newcomb were very supportive. Thanks to Bob Bernhard for supervising the timber sale in the Catlin Mountain/Panther Mountain basin. He reported that while checking felling operations one day, he came upon a trail of blood and first thought someone had taken a deer. It turned out, however, that the logger had sustained an injury from a fallen limb, which nearly removed his ear.



George Mattfeld doing research on a fawn.

During this period the staff had succeeded in populating the Huntington, not with deer but with people. We had accounted for 16 children and that was before George Mattfeld came!

I remember when the state auditors came to review our operation as part of the overall college audit. There were some raised eyebrows when they found about \$1,500 in our petty cash account. "Petty cash accounts should only have \$25," they said, but I don't believe anything was done about it. The money resulted from the sale of copper wire that had been acquired on the surplus market and later proved unsuitable for an electric fence that I was experimenting with. A few years later, when I was director, a similar audit questioned my opening a checking account at the local bank to replace the petty cash system. I do not know whether it is still being used but it sure was better than the "cloak and dagger" system. But the state auditors were really helpful and I learned much from them. They believe, at least I think, that everything should be transparent and records need to be kept.

Earl Patric was to leave in 1967 and, with others on the staff, had set the stage for a comprehensive look at deer influences on northern hardwood forests in the central Adirondacks. This involved the evaluation



Deer trapping, 1974.

of at least 150 deer exclosures and began a series of deer drives to assess population levels on the Huntington. The deer drives were intensive efforts in planning and manpower. In 1966, a controlled hunt to reduce deer density was begun and continued until 1970. In addition, we had, through work on the clearing ground cover studies, developed procedures to assist in the eradication of plants in the lower forest canopy, which would allow for tree seedlings to become established following overstory opening.

After Pat's departure from Huntington to the Syracuse campus, Don Behrend also left to take a position in Maine. George Mattfeld and I were asked to share the director's position. At this point, there were many reports due on the two main federal agencies that were supporting our research. George and I worked closely on these tasks and



Students begin to arrive for the deer drive.

spent many hours on them. George was a consummate worker on these important, but sometimes dull, jobs. In 1968, Don Behrend returned to Huntington as director.

The 1970's

Rainer Brocke had arrived in 1969 to join our staff as a research biologist. I remember when he visited to look over our program and meet us. It was midwinter and very snowy. He was taken on a tour of the Huntington, riding a sled pulled by a snowmobile, to look at our winter deer-trapping program. I was at our office when they returned after more than 10 miles on less than smooth trails. He was completely covered with snow and, I have to guess, was cold. Although not intended, it was a "test by fire." He came through with flying colors demonstrated this good spirit under adverse conditions during his employment at Newcomb.

During this period a new office and research building was constructed along route 28N. This history was well described by Ray Masters in his book, *A Social History Of The Huntington Wildlife Forest* I might



Lunch assembly after a morning deer drive.

add that the location of this building was discussed at length. We had considered several options, including the renovation of the Stone Garage, and other locations in the Arbutus area. We were unsure about the Arbutus area for several engineering reasons. The



Deer hunt check station.

garage looked like a difficult site to work with and the marvelous character of the building would likely be changed if it were chosen for the new office. In addition, there were serious doubts about the soil's ability to handle sewage effluent safely in the Arbutus area. Surveys in the 1960s had shown coliform bacteria counts in Arbutus Lake and we were concerned about adding additional wastewater to that site. At this time we had considered a dormitory building to be built just west and north of the sawmill site. This of course did not happen and I am happy to see it is still in the works. The current collection of small cabins is rather quaint but must be difficult to maintain and administer.

The deer movement research continued with Ray Masters, Mike Tracy, and Dick Sage carrying the brunt of the fieldwork. Don Behrend left to assume an administrative position at the Syracuse campus and active trapping of deer began to phase down but telemetry work continued. I assumed the position of director and began to get the feeling that publication of the deer movement work was likely to be a tough job to finish. This became even more apparent when George Mattfeld left us to take employment with the Department of Environmental Conservation. Fortunately, Dick Sage had been actively involved in this project, including data analysis and I was to have his help while writing up this study. It was finally in print three or four years after I retired. It had always been my conviction that we owed the publication of our



AEC Headquarters 1970.

research to our sponsors. This is difficult with personnel changes occurring throughout the life of any project. Publication, with peer review, is important in the advancement of science. Peer review can be tough to take, however. One of my first manuscripts came back with so much "blue pencil" that I figured they had sent me the wrong article. I am not an accomplished writer as you have perhaps ascertained by now but being of Dutch lineage, I persist. That is probably why Charles Maddison had nicknamed me "Old Hemlock".

After 31 years of living and working on the Huntington there are some reflections that come to mind. I first visited the Natural Area in 1951 with Ralph Hutchinson and was impressed by the forest and the fact it would be left undisturbed. I have heard the suggestion that this area become part of the Forest Preserve. I hope this never happens. The last time I visited there was in the latter 1980s and I saw dramatic changes in the character of the forest, some because of the beech scale disease, some from old age. This is a function that most of us accept. Nothing remains as it was. Now, many of the forests that were logged during my tenure are becoming places to admire.

Being a forester and working as one for most of my tenure at Newcomb was a wonderful experience and I marvel at things I saw this very day. One February morning at the so-called Bureau Bros. sale area I arrived at their log landing to mark trees for a week or so of cutting. It had been very cold that night and at 9 a.m., they had not succeeded in starting any of their equipment. I set about my work on snowshoes as the snow depth was about 50 inches and there was a fine

coating of ice on the surface. At the top of a low hill near the log landing, the snow in front of me exploded as four or five ruffed grouse emerged from their snow roosts. There was a shower of ice crystals in the morning sun and they came clattering to the ice-covered surface. It was great! Incidentally, when I returned to my vehicle about 2 p.m., the loggers had succeeded in starting one tractor used for skidding trees. That had to be a bummer of a day for them!

I often marveled at the gorgeous stands of cinnamon fern in small wetlands, many taller than myself. Somewhere near the east boundary there was an area of perhaps an acre of maidenhair fern, not too common on Huntington. This particular site is in an area where Grenville marble is exposed which might explain the presence of this fern. It might also explain my finding walking fern on Big Sucker Brook south of the big flow.

One morning in June 1952, I was checking a two-man crew harvesting spruce blowdown near Deer Lake. I could hear splashing near the outlet of the lake and it seemed that someone was enjoying a swim. I walked out on the boggy shoreline and saw my swimmers.



A. G. Boyer during Fall deer drive.

There were several deer in four or five feet of water including three magnificent bucks in velvet. They were submerging themselves and then bursting to the surface with a spray of water and a mouthful of *Brasenia* (watershield). I left them to their fun. Don Behrend can relate to this.

Once Bob Bernhardt was helping me mark trees near the "6-line" south of the electric fence area. We were on snowshoes and I stepped too close to a small spruce top sticking above the snow. One foot was down near the bottom of the snow pack, the other on top. Without Bob's help I would have had a difficult time freeing my bindings. Thanks again Bob!

I could go on and on. Why, I can remember.....

On a personal note, I can't think of a more picturesque spot to raise a family of seven children than the shores of Rich Lake. Vange and I have many wonderful memories of those days, as well as some hair-raising experiences that required urgent house calls by Dr. Lazar. Some of them involved kids falling out of trees, as the case when son David tried to lasso a deer from an old apple tree, and one involved the birth



1982 AEC reunion.

forever.

of our daughter Eve—at the director's residence. Earl Patric also provided needed help in baby sitting and providing their automobile for transportation. Our family has 31 years of memories of living on the Huntington Forest and they are memories we will all cherish

Come back to old friends

Come back Huntington

*All HWT alumni are invited for a weekend
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August 25 to 27, 2006

*There will be the traditional wine and cheese party,
Rich Lake beach cookout, and various tours and research updates.
Check in begins Friday, Aug. 25, and you may linger until Sunday afternoon.*

*Make reservations by calling Ray Masters at (518) 582-4551 ■ E-mail us: rmasters@esf.edu
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A Salute to

Ray Masters



If it lives in the Adirondacks, has fur, fins, feathers, leaves, needles or fronds chances are Ray Masters, the AEC's instructional support technician, has worked with it.

From moose to microbes, beech to bass, history to home range, Ray has been a staple of the Huntington's expert scientific staff. Thousands of students and researchers have benefited from his knowledge, patience and friendship.

Ray's tenure as friend, teacher, mentor and guide is about to come to a close. With the Huntington Reunion August 25-27, we will celebrate Ray's accomplishments and send him off to retirement.

Won't you please join us? We'd like all our alumni to make a special attempt to attend this year's reunion to give Ray a heartfelt "Thank You" for his tireless efforts on behalf of ESF and the Adirondack Ecological Center.

Individuals who aren't able to attend the reunion are encouraged to contribute a written memory of Ray, preferably an embarrassing one, to Charlotte Demers at cdemers@esf.edu.

