

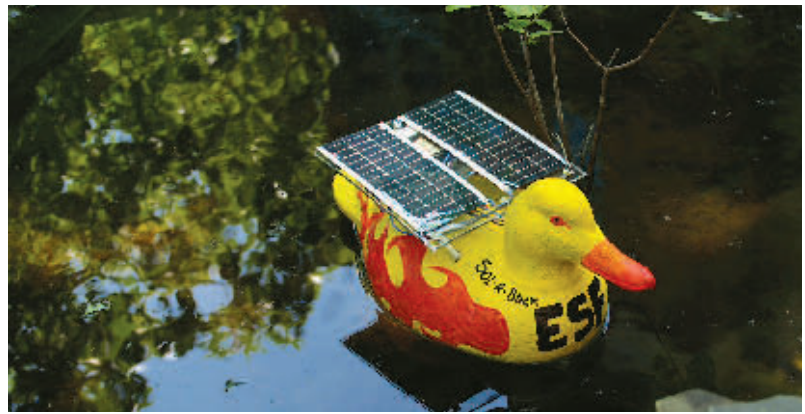
Fall 2006

INSIDE ESF

*The magazine of the
SUNY College of Environmental Science and Forestry*



IN THIS ISSUE



ESF's entry in this year's Community Wide Dialogue Duck Race to End Racism was the sunshine-yellow "Sol R Duck." Its star feature was a solar-powered quack, engineered by Mark Storrings, a staff member in ESF's Faculty of Environmental Resources and Forest Engineering, and Kevin Guerin of the college's Analytical and Technical Services department.

3 Campus Update

8 Feinstone Awards Honor N.Y. High School Science Teachers

Educators in New Rochelle and Wayland took home the honors.

9 Science Singalong

We put some catchy songs through rigorous scientific analysis.

14 Paper Chase

If it weren't for ESF students, this artist would be out of material.

16 'An Indoctrination I Didn't Expect'

An ESF alum took over the New Orleans District of the U.S. Army Corps of Engineers just before Hurricane Katrina slammed into town

18 Urban Optimism

ESF's Center for Brownfield Studies is helping to revitalize a long-troubled neighborhood in the South Bronx.

22 When He's 64

This Ranger School graduate has a different perspective.

On the Cover

Anna Huntington's "The Young Abraham Lincoln" occupies a place of pride on the ESF campus, between Bray and Walters halls. Photo by Jeri Lynn Smith.

About ESF

The State University of New York College of Environmental Science and Forestry offers a diverse range of accredited programs and degree options in chemistry, construction management and wood products engineering, environmental and forest biology, environmental resources and forest engineering, environmental science, environmental studies, forest and natural resources management, forest technology, landscape architecture, and paper science and engineering.

ESF takes affirmative action to provide equal opportunity for all people and to build a campus community that reflects a wealth of diversity.

Vision

A better world through environmental discovery.

Mission

The mission of the College of Environmental Science and Forestry is to advance knowledge and skills and to promote the leadership necessary for the stewardship of both the natural and designed environments.

Inside ESF is published four times each year for alumni and friends of the SUNY College of Environmental Science and Forestry.

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SCA Founder Receives Honorary Degree as ESF Graduates 370

ESF conferred about 370 degrees during Commencement exercises in May.

In addition, an honorary degree was bestowed upon Elizabeth Cushman Titus Putnam, who founded the Student Conservation Association (SCA) as an undergraduate at Vassar College.

The college conferred 291 bachelor's degrees, 59 master's degrees and nine doctoral degrees. ESF also awarded 37 associate in applied science degrees in May to students at the Ranger School in Wanakena, N.Y.

The SCA is the nation's leading provider of conservation service opportunities, outdoor education, and leadership training for young people between ages 15 and 25. The SCA encourages hands-on training while inspiring lifelong stewardship and building the next generation of conservation leaders.

Putnam laid the foundation for the association in her senior college thesis in 1955, in which she described an organization that would be a modern-day version of the Civilian Conservation Corps of the 1930s. Her thesis proposed matching student volunteers with conservation projects because she recognized the mutual benefits to be gained by students, the agencies, and the environment. She continued to work on the idea and in 1957 the Student Conservation Association was launched.

In its first year, the SCA placed 53 summer volunteers in Grand Teton and Olympic National Parks. Now, nearly 3,000 people volunteer with the association every year, working at more than 425 sites across the United States. The association's headquarters are in Charlestown, N.H.

Putnam served as the association's president from its founding in 1957 until 1990. Today, she continues to work on SCA's behalf as an ambassador-at-large while also serving on the board of other local and national conservation organizations.

ESF and the association have a long history of partnership, with about three ESF students working in internships through the SCA each year. In addition, Putnam received ESF's 1996 Feinstone Environmental Award.

Putnam received the President's Volunteer Action Award from then-President Ronald Reagan in 1982. President George W. Bush joined SCA volunteers in the Adirondack region of New York for a trail building project in 2002.

For a list of students honored at convocation, go to www.esf.edu/news/pubs/news/2006/05.04.commencement.htm. ■



Convocation and commencement exercises brought a swirl of activity to ESF in May. At top left, honorary degree recipient Elizabeth Cushman Titus Putnam addresses the crowd. At top right, Syracuse's Landmark Theatre provides an elegant forum for convocation ceremonies. In the center, honored graduates include valedictorian Timothy I. McAbee (left), salutatorian Donald W. Clark, senior class Chair Danielle Tommaso, and class marshals Jessica K. Fox and Jessica L. Herrington. At bottom left, Clarke Doody (left) celebrates with Eric Voss and Nicholas Castro; and at right, Sharon Crapo enjoys the day with one of her biggest fans.



The host, at left, his guests and the crew were all part of the action when ESF hosted *Talk of the Nation: Science Friday*.

NPR's Science Friday broadcasts live from ESF's Marshall Auditorium

Millions of people around the country tuned in Friday, May 19, to the popular radio talk show *Talk of the Nation: Science Friday* as it was broadcast live from ESF's Marshall Auditorium.

ESF worked in partnership with the WRVO Stations to bring the National Public Radio show hosted by Ira Flatow to Central New York. The two-hour show is broadcast nationwide on more than 200 NPR stations and reaches an audience of more than three million. Listeners in central and northern New York tuned in to the program on the WRVO family of stations. Another 300 people watched the show live in the auditorium.

ESF President Cornelius B. Murphy, Jr., who was a guest during the first hour of the broadcast, said, "...Science Friday and the show's highly respected host, Ira Flatow, are doing an exceptional job disseminating good science information to the nation. We count ourselves among the millions that tune in every week.

"We thank our colleagues at SUNY Oswego and WRVO for the opportunity to participate in this event," Murphy said.

WRVO is located at SUNY Oswego.

Murphy was a guest during a discussion on the development of alternative energy resources. He was joined by Edward A. Bogucz, Jr., executive director of the Syracuse Center of Excellence in Environmental and Energy Systems; Carol Murphy, executive director of the Alliance for Clean Energy New York; and William Moore, director of development at PPM Energy.

The second hour was devoted to ways to reinvigorate America's cities and make them sustainable. Flatow's guests were Emanuel Carter, Jr., an associate professor with ESF's Faculty of Landscape Architecture; Anne Mosher, an associate professor of geography at Syracuse University; Richard Smardon, chair of ESF's Faculty of Environmental Studies; and David Nowak, a project leader with the USDA Forest Service at ESF. ■

First Exemplary Researcher Award Goes to Myron Mitchell

Dr. Myron J. Mitchell, Distinguished Professor in the Faculty of Environmental and Forest Biology, received ESF's first Exemplary Researcher Award during this spring's Spotlight on Research event.

The award recognizes a successful, currently active ESF faculty member who has done exceptional work in the areas of research and publication, and who oversees an active undergraduate and graduate research program.

Mitchell was nominated for the award by his peers. He was honored for his accomplishments in biogeochemistry, hydrology and ecology.

Mitchell is director of the college's Council on Hydrologic Systems Science. His research involves aquatic and terrestrial ecosystem processes, sulfur and nitrogen cycling and dynamics, and acid precipitation in the Adirondacks. He and his team have published more than 50 papers in the last five years, with support from sources such as the National Science Foundation, the U.S. Forest Service and the Institute of Ecosystem Studies.

He has worked in the Canadian Rockies, Japan, Korea, Central Europe and New Zealand. ■

ESF Faculty Members Receive Research Foundation Honors

Three ESF faculty members were among 45 innovative scholars and scientists honored by the Research Foundation of the State University of New York and TIAA-CREF for their outstanding research and scholarship.

The honorees, representing 18 SUNY campuses, were chosen for their dedication and efforts to advance humanity and enhance New York state's economy, and for contributing to the State University of New York's excellent reputation for research and scholarship. They were cited for their achievements in the humanities, arts, social sciences, sciences, medicine and engineering.



Thomas E. Amidon

Those honored from ESF during the May ceremony were Dr. Thomas E. Amidon, Dr. Charles A. Hall, and Dr. Edwin H. White.

Amidon, chair of the Faculty of Paper Science and Engineering, is a pioneer in evaluating new approaches for the disassembly of woody

continued on next page



Charles A. Hall

materials with the twin aims of preserving existing uses while making new raw materials available to develop new wood products.

Hall, a professor in the Faculty of Environmental and Forest Biology, is a systems ecologist who has written seven books and 200 scholarly articles. He is best known for developing the concept of EROI, or energy return on investment, which examines how organisms, including humans, invest energy to obtain additional energy to improve their biotic or social fitness. He has applied this approach to fish migrations, carbon balance, tropical land use change and petroleum extraction in both natural and human-dominated ecosystems.



Edwin H. White

White is director of the SUNY Center for Sustainable and Renewable Energy, based at ESF. He has contributed to the education of students and the advancement of science in the fields of forest soils, forestry, tree nutrition and bioenergy for nearly 40 years.

He has mentored more than 50 graduate students, secured more than \$18 million in support from government and private sources, and managed these programs to advance the scientific understanding of forested ecosystems and wood-based bioenergy systems. ■

ESF Students Receive Chancellor's Awards for Excellence

Two ESF students were among 270 SUNY students who received the 2006 Chancellor's Award for Student Excellence from SUNY Chancellor John R. Ryan this past spring.

The honors went to Deborah Visco of Huntington Station, N.Y., and Laura Wayne of Skaneateles, N.Y. Both students studied in ESF's Faculty of Environmental and Forest Biology and graduated in May.

The awards are given out annually to students who earn a grade point average of 3.78 or higher and make a significant contribution to their campus or local community. ■



Deborah Visco '06



Laura Wayne '06

ESF Sends Two High School Students to International Competition

Two high school students who participated in the ESF Science and Engineering Fair were finalists in the Intel International Science and Engineering Fair in Indianapolis in May.

Both students competed during their senior year at Valley Central High School in Montgomery, N.Y.

Christopher Olsen competed in the engineering category with his project, an all-terrain, omni-directional, stair-climbing wheelchair. He received an award worth \$10,000 in patent attorney services because his project was deemed to have the greatest patentable commercial merit.

Milan Satcher competed in the behavioral sciences category, examining the way some special education students are tested. Specifically, she looked at the way testing evaluates some strengths and weaknesses of children with Williams Syndrome, a rare genetic condition that causes medical and developmental problems.

ESF Project Staff Assistant Mary Eileen Wood coordinates the ESF Science and Engineering Fair, which serves 28 counties across New York state. ■

Bennett, Johnson Receive SUNY Chancellor's Awards

Two ESF faculty members received Chancellor's Awards this year from SUNY Chancellor John Ryan.

Dr. Marla A. Bennett was honored for excellence in professional service and Dr. David L. Johnson was honored for excellence in scholarship and creative activities.

Bennett is ESF's assistant dean of instruction and graduate studies and director of the ESF Honors Program. She joined the college as senior staff assistant in 1994.

In nominating her for the award, Bennett's colleagues cited her ability to anticipate and solve problems, her leadership skills, and her support for ESF's international students. In particular, her colleagues noted that she developed an electronic system of graduate thesis and dissertation submission and dissemination, and helped the graduate office establish an on-line application and data management system.

Johnson has been a professor of environmental chemistry with ESF since 1996. He joined the college in 1975.

Johnson pioneered the automated use of electron microscopy coupled with energy-dispersive X-ray spectrometry to characterize the chemistry of particles in environmental media. He combined his interests in particles and contaminant metals to determine the sources of lead-bearing particles in house dust, and linking lead-contaminated dust to blood-lead levels in children in urban environments.

Johnson has nearly 100 publications in scientific literature and has received more than \$1.5 million in research funding over his career. Currently, his major support is from the National Science Foundation for his work on urban lead contamination. ■



ESF's "Old Growth" hockey team skated to first-place finishes in both of Syracuse University's intramural competitions. Team members are (from left) Tim McAbee, a student in the Faculty of Forest and Natural Resources Management (FNRM); Pat McHale, staff member in the Faculty of Environmental and Forest Biology (EFB); Rene Germain, an associate professor in FNRM; Larry Smart, an associate professor in EFB; Dylan Parry (in front), an assistant professor in EFB; Dave Murphy, a graduate student in EFB; Nate Anderson, a graduate student in FNRM; Eddie Bevilacqua, an associate professor in FNRM; Tim Coalla, a student in FNRM; Polar Huemann of Syracuse University; Kraig Senter, a student in FNRM; and James Gibbs (kneeling), an associate professor in EFB.

ESF Shows Off its Willow-Harvesting Technique

ESF conducted a willow shrub harvesting demonstration this summer on a property just south of the college's LaFayette Road Experiment Station.

The college has been working with Case New Holland over the past two years to develop an effective and efficient harvesting system based on the New Holland line of forage harvesters.

John Gilliland, who grows and harvests willow on his farm in Londonderry, Northern Ireland, was in attendance. Gilliland was visiting ESF to share his knowledge and experience while learning about developments related to the use of willow biomass in North America.

Gilliland is managing partner of Brook Hall Estate family farm, where he is diversifying his farm business from arable production into willow biomass production. He has set up the United Kingdom's first on-farm, willow-fired, combined heat and power plant, which supplies 100 kilowatts of electricity to the national grid, plus heat for grain drying, and hot water and heating for the farm buildings.

Representatives from the office of U. S. Rep. James T. Walsh also attended the demonstration. Walsh has directed more than \$4.2 million in federal funding for ESF's willow and woody biomass research and development projects.

For more than 20 years, ESF has been developing short-rotation woody crops in New York state that can be used for bioenergy and biofuels production, living snow fences and remediation of brownfield sites.

Commercial biomass energy crops, like shrub willow, put marginal farmland back into production, create an alternative source of income for landowners, protect the environment and enhance wildlife habitat.

The ESF goal is to have several thousand acres of shrub willow growing in New York within a few years. In addition to the ESF plantation in Tully, N.Y., more than 500 acres have been planted in Central New York near Canastota, on the Tughill Plateau east of Lake Ontario, and in Western New York.

One of the college's partners, Catalyst Renewables Corp., established the first commercial shrub willow energy crop plantation to support the Lyonsdale Biomass Combined Heat and Power facility in Lyons Falls, N.Y. Lyonsdale Biomass produces nearly 20MW of renewable grid power and 15,000 pounds per hour of steam to Burrows Paper Corp.

Syracuse-based O'Brien & Gere Engineers, Catalyst Renewables and ESF have partnered to design, engineer and construct the first commercial wood-based sugar extraction facility for the production of ethanol from shrub willow as well as northeastern hardwood forests. ■



(l-r) Dr. Lawrence P. Abrahamson, director of the Salix Consortium at ESF; Mark Appleby, ESF researcher (harvester operator for the demonstration) and John Gilliland, an energy advisor to British Prime Minister Tony Blair on the last day of a three-week U.S. agriculture/energy tour.

ESF Grads, Students Help Protect Salmon River, Ontario Dunes

Five ESF graduates and two current ESF students have been hired as Lake Ontario dunes stewards and Salmon River stewards for 2006.

The 10-person stewards crew is managed by New York Sea Grant in cooperation with The Nature Conservancy, the New York state Department of Environmental Conservation (DEC), and New York State Parks. The stewards serve as goodwill ambassadors promoting environmentally-sound recreational use of the river and lake areas.

Stewards Program coordinator Mary Penney, who has worked as a DEC river steward, an environmental educator, and a creel census technician, said the stewards teach the public about natural resources.

"The stewards are the first line of communication with the public and can talk about the importance of maintaining strong habitats not only for rare and endangered species, but for everyday backyard wildlife," she said.

The ESF graduates on the stewards crew are Ryan Collins EFB '06, of Barneveld, N.Y.; Charlotte Gay FNRM '05 of Seneca Falls, N.Y., who is also a Ranger School alumna; Kyle McCanney EFB '05, of Camden, N.Y.; Mike Riegler FNRM '06 of Liverpool, N.Y.; Alexander Studdert EFB '06, of Parish, N.Y.

The two current ESF students on the stewards crew are Theresa Evans, of Fulton, N.Y., a freshman majoring in environmental studies; and Norman Jones of Adams, N.Y., a junior majoring in fisheries and aquatic science.

Their duties include monitoring visitor use, sign and dune fence installation and beach/shoreline cleanup. Dune stewards walk up to eight miles a day along Lake Ontario beaches. River stewards assist state fish, wildlife and forestry staff and help out at the Salmon River Fish Hatchery in Altmar, N.Y. ■



The 2006 New York Sea Grant Lake Ontario dune and Salmon River stewards crew includes, front row from left, Charlotte Gay, Terri Evans, Joe Stredny, and Ashley Quarella. Also, back row from left, Alex Studdert, Kyle McCanney, Mike Riegler, John Koltz, Norm Jones, and Ryan Collins.



U.S. News & World Report: ESF Ranks among Nation's Best

For the sixth year in a row, ESF has earned a place among the top universities in America, as ranked by U.S. News & World Report.

ESF is tied at 46 in the list of top 50 public national universities, and is 98 in best national universities, which includes both public and private institutions.

In the "Great Schools, Great Prices," category, ESF is ranked 43.

One of the key criteria in judging schools is the proportion of classes with fewer than 20 students. In that category, ESF was ranked fifth in the nation, in a tie with Yale University.

Dr. Robert C. French, vice president for enrollment management and marketing, said the selective nature of the national universities category puts ESF in good company.

"The national universities category places us among the best-known universities in the country and reflects our academic quality and reputation among our peer institutions," French said.

According to U.S. News & World Report, the national universities category contains the 248 American universities (162 public and 82 private) that offer a wide range of undergraduate majors as well as master's and doctoral degrees.

ESF President Cornelius B. Murphy, Jr., pointed to the "Great Schools, Great Prices," ranking as evidence of the value of an ESF education.

"We're pleased to be recognized by U.S. News & World Report, especially the best value ranking. In that regard, we continue to enhance the value for our students and their parents." ■

ESF, NYPA Show Off Cool Energy Developments

The successful installation and operation of two state-of-the-art chillers and other cooling improvements at ESF were showcased this fall as the result of the college's continuing partnership with the New York Power Authority (NYPA).

The goal is to further advance clean and efficient energy technologies on the campus, making the college "greener."

"Cooperating with the Power Authority has brought many benefits to the college, allowing us to test, demonstrate and use the latest advances in energy-efficiency, and these chillers are some of the coolest we've undertaken—both for the cool air and cool savings," said ESF President Cornelius Murphy, Jr. "At SUNY-ESF, we are committed to energy-efficiency and related technologies to save energy, lower utility costs and provide a more comfortable environment for learning."

Among the new technologies at ESF is the first high-temperature carbonate fuel cell to be installed at a New York college. The 250-kilowatt generator stems from another college partnership with NYPA, in addition to the New York State Energy Research and Development Authority. Producing electricity through a chemical process, the fuel cell gives off virtually no emissions in meeting about 17 percent of the campus's electricity requirements.

ESF also benefits from energy-efficient lighting installed by NYPA during the mid-1990s under the statewide utility's Energy Service Program.

"Governor Pataki's Executive Order 111 directs New York State facilities to reduce their energy use by 35 percent by the end of the decade, compared to 1990 levels, and the Power Authority has shown its readiness to support this effort, with the new SUNY-ESF chillers the latest example," said Timothy S. Carey, NYPA president and chief executive officer.

NYPA provided all aspects of project management for the \$1.2 million chiller project, including planning, procurement and supervision of contractors. The low-cost financing for the project, will be paid back by the college, in part, from its annual energy savings of close to \$60,000. Additional savings will accrue from the lower operating and maintenance costs associated with the high-efficiency cooling equipment. Together with the other clean and efficient energy technologies, the annual savings to ESF amount to \$170,000. The measures also reduce annual oil consumption by 2,500 barrels a year. ■



Mechanic John A. Suresi and College President Cornelius B. Murphy, Jr., show off the software that runs ESF's state of the art chillers.

Feinstone Awards Honor High School Science Teachers

High school science teachers from the New York communities of Wayland and New Rochelle were the co-recipients of the 2006 Feinstone Environmental Awards.

The honored teachers were Carmen Glenn de Luna of the City School District of New Rochelle, N.Y., and Robert C. Hughes II of the Wayland-Cohocton Central School District. The winners will each receive a \$1,000 prize. They were chosen from among a pool of nominees from across New York State.

Glenn de Luna has been teaching in New Rochelle for four years. She teaches ninth-grade Regents living environment and 11th- and 12th-grade advanced placement environmental science. She designs hands-on, inquiry-based lessons for her classes and developed an environmental science elective course. She has planned numerous field trips and on-campus field experiences for students to study ecology and human impact on the environment. She has also organized student recycling, cleanups, and Earth Day events.

Hughes has been teaching in Wayland-Cohocton, since 1990. He teaches both middle and high school students and serves as a summer school health teacher for Genesee County BOCES. He established an elective course in environmental science at the high school after participating in ESF's Stalking Science Education in the Adirondacks program. Hughes gathered or created all the course materials himself. His students learn about their local environment, covering topics such as geology, social history, land use practices, limnology, fisheries, and issues unique to the Finger Lakes.

The annual Feinstone awards dinner was May 18 at the Marx Hotel and Conference Center, Syracuse.



Honored guests gather at the Feinstone Awards dinner. Pictured are Ira Flatow, left, host of *Talk of the Nation: Science Friday*, who spoke at the dinner; recipients Carmen Glenn de Luna and Robert C. Hughes; and ESF President Cornelius B. Murphy, Jr.

The Feinstone program has made more than 100 awards, honoring individuals from across the United States for their significant contributions to protecting the environment, promoting the wise use and management of our country's natural resources, and promoting the spirit of volunteerism.

Sol Feinstone, a widely known historian and author who was a graduate of SUNY-ESF, established the Feinstone awards program in 1976. His goal was to reward people and organizations that exemplified his belief that the best insurance for a free society lay in people's desire and ability to do voluntarily the things that need to be done for the good of all.



Whaley Receives Honorary Feinstone

The 2006 honorary Feinstone Award was presented to Ross S. Whaley, former ESF president and current chair of the Adirondack Park Agency (APA).

Whaley is one of the nation's most respected environmental scientists. His career has spanned more than four decades and he has been a volunteer for some of

the biggest environmental organizations in the world.

Whaley is a specialist in natural resource economics and development. He was president of ESF from 1984 through 2000 and served SUNY as a University Professor until New York Governor George Pataki named him chair of the APA in 2003.

During his 16-year tenure at ESF, Whaley expanded both ESF's physical space and academic programs, adding interdisciplinary and cooperative programs in writing, computing, biotechnology, geographic information systems, renewable materials and science education.


Outside of his service to the college, Whaley chaired the Governor's Task Force on Forest Industry, served as president of the Society of American Foresters, and was on the board of directors for such organizations as The Nature Conservancy, the Pinchot Institute, and the University of Vermont School of Natural Resources.

In 1998, Whaley was honored with the Pinchot Medallion, among the most prestigious conservation honors in the United States.

Science Singalong

What's the truth behind those lyrics we love?

A medley by Karen B. Moore, Dave White and Claire B. Dunn



A song comes on the radio and you start singing along. You're not thinking about what you're singing, just relaxing with some music. But what if, just once, you really paid attention? Do the lyrics make sense? Did the songwriter take his or her poetic license off-road when composing this opus or is there a nugget of science behind those pretty turns of phrase? We asked ESF experts to dissect some lyrics for us and the results might surprise you.

"Big Yellow Taxi" by Joni Mitchell

They paved paradise
And put up a parking lot
With a pink hotel, a boutique
And a swinging hot spot
Don't it always seem to go
That you don't know what you've got
Til it's gone
They've paved paradise
And put up a parking lot.

Are we paving paradise for parking lots?

"Without question, yes we are," said Emanuel Carter, Jr., an associate professor in the Faculty of Landscape Architecture.

"The song is a direct comment on the process of reckless suburbanization. In the 1960s, when Joni Mitchell wrote the song, the economy was booming and we were destroying all sorts of nice things," he said.

In the past 40 years, that attitude has not changed much. Carter pointed to the planned expansion of Carousel Center and the Destiny project in Syracuse.

Continued on next page

Proposed designs include blocking the barge canal corridor and then building a replica of the canal inside Destiny.

“We’re blocking reality and building a fake canal,” Carter said.

Nearby Cornell University literally paved paradise when Redbud Woods was cut down to make room for a parking lot. “They did put up a commemorative marker that tells of the fight to save the woods and the failure to do so,” Carter noted.

It doesn’t have to happen this way.

“Europeans will find a great view and create a great park for everyone. We offer the land to developers and people can buy pieces of that view,” he said.

They took all the trees
Put ‘em in a tree museum
And they charged the people
A dollar and a half just to see ‘em.

And while we haven’t started selling tickets to see them yet, there is a tree museum of sorts at ESF’s Heiberg Forest. A stand of American chestnuts was planted in 1991 to demonstrate what the once majestic trees look like.

“We show them to foresters and tour groups so they see what the tree looks like,” said Dr. Charles A. Maynard, co-director with Dr. William A. Powell of the American Chestnut Research and Restoration Center.

“Many people haven’t seen a reasonably big American chestnut.”

The American chestnut used to dominate the American landscape until a blight in the early 1900s decimated the tree’s population. While ESF researchers work to restore the tree, your best bet to see a good-sized one (unless the blight finishes its work there) is in the ESF “tree museum.”

Carter pointed out that Joni Mitchell’s song was recently covered by the band Counting Crows proving its continued relevance.

“Pickup Man” by Joe Diffie

Well I got my first truck when I was three,
Drove a hundred thousand miles on my knees.
Hauled marbles and rocks, and thought twice before
I hauled a Barbie Doll bed for the girl next door.
When she paid me with a kiss I began to understand,
There’s just something women like about a Pickup Man.

What are the environmental impacts of being a pickup man?

“Songs like ‘Pickup Man’ are reflective of our culture, an indication that we don’t understand what’s happening,” said Professor Charles A. Hall, a systems ecologist in the Faculty of Environmental and Forest Biology.

The pickup truck — the gas guzzling, aerodynamically challenged, darling-of-the-redneck-set pick-up truck — is now one of the most popular vehicles burning up the asphalt on America’s highways.

Taking a cue from Ford, General Motors and Dodge, even the manufacturers of more efficient automobiles, like Toyota and Nissan, are now advertising and selling full-size pickup trucks.

But Hall has a different perspective, which is based on what he calls the global peak and decline in oil production. “I do not know when it will occur, some people say 2007, some people say 2015, but it is certainly coming. Once we pass the peak, oil will never again be anything like as cheap and available as it is in 2006,” he said.

The production of oil in the United States actually peaked 35 years ago, according to Hall, and the country is now producing only 40 percent of what it was at peak. Few Americans understand that.

Hall explains, “Increasing imports has solved the oil shortage problem for the time being but it cannot last much longer.”

Nevertheless there’s a devotion to vehicles like pickups and SUVs.

Hall realizes it’s difficult to overcome popular culture, even with facts.

“I’m an ecologist,” he said. “An ecologist looks at environmental interaction. I am someone who tries to understand how the environment (including humans) works and I have studied how humans interact with oil and other energy sources for 30 years. I’ve published seven books on energy. One is known as the energy bible. We as scientists know a great deal about energy, but almost everything I hear in the media is just ignorance.

“People are a product of evolution but two-thirds of Americans don’t believe in evolution so how can they believe in the end of oil?” he asked.

“As a scientist, I’m convinced that the oil is running out so the only real question is: How do you want to use what’s left?”

In the U.S., by the way, that is roughly 3,200 gallons per person.

“You’re an American so you get to choose. If you want to use it up on your pickup truck, fine, just recognize that you’re using it up faster,” Hall said.





“Norwegian Wood” by John Lennon and Paul McCartney

I once had a girl
Or should I say she once had me.
She showed me her room
Isn't it good Norwegian wood?

What's really the deal with Norwegian wood? Is it good?

In the case of Norway pine, yes.
Norway spruce? Not bad.
Norway maple? No way.

So says Dr. Donald J. Leopold, a dendrologist and chair of ESF's Faculty of Environmental and Forest Biology.

Norway pine is another name for red pine, a native conifer with reddish bark and long needles that grow in bundles of two.

“It's not native to Norway,” Leopold said. “It doesn't make sense that our red pine is called Norway pine, but it is.”

On the other hand, Norway spruce, a fast-growing tree with dark green needles, is a native of Europe. It was planted widely in New York state in the early 20th century to reclaim land that had been used for farming. It is the source of wood used to make Stradivarius violins.

“It has naturalized in New York state. It's not going to go away,” Leopold said.

But the trees' presence in highland areas is not a big problem because it does not grow invasively and if it is removed, foresters can generate a hardwood stand in the same area.

Norway maples are another story.

“They should not be planted,” Leopold said.

Whether they longed for familiar foliage or simply did not know what to do with the trees they found in America, European immigrants brought Norway maples to America with them. And the species flourished.

Several states now list it among their most invasive species. Its foliage is so thick it shades out even shade-tolerant species and prevents anything from growing underneath it.

“They pretty much smother everything else, including our native sugar maple, and the Norway maple is an inferior tree. You're not going to get maple syrup from it,” Leopold said.

The trees were widely planted in the 1920s and '30s because they are drought tolerant and grow well along streets, where heat and road

salt would present problems for more site-sensitive species. Leopold said 25 percent of the street trees in Syracuse are Norway maples.

“Everybody thought they were perfect. They didn't realize they were going to start escaping and growing everywhere,” he said. “People should have caught on at some point that these things were not working out.”



“It's a Chemical Reaction”

From the musical “Silk Stockings” by Cole Porter

Say in love with you I fall
And in love with me you also fall
Though the uninstructed faction calls it
mutual attraction
It's a chemical reaction, that's all.

So what's the connection between chemicals and love?

“Chemical communication does a lot of things,” said ESF's Dr. Francis Webster, a chemical ecologist. “And one of the most important things it does is attract mates.”

At least that's the way it is among the insect pests that Webster has worked with. Among humans, it's a bit more complicated.

“I think the consensus on humans is that there are chemical signals, it's just that they're more subtle,” he said.

Pests like cockroaches, with their limited nervous systems, respond almost robotically to pheromone communication, he said.

“Humans have to process the chemical signs along with everything else that's going on. And that makes testing the response a lot more difficult. It makes drawing conclusions a lot more difficult.”

Webster researches the use of chemical communication among many types of organisms. He was the first scientist to replicate the pheromone that the female German cockroach uses to attract mates.

The research team has submitted material to manufacturers to determine if the pheromone can be used as a commercial product to control insect pests. The process could take a few years.

Continued on next page



On the subject of human chemical communication, Webster said research has documented that a specific pheromone explains why women who experience a lot of togetherness, such as in a college sorority house, often discover that after a few months, their menstrual cycles are synchronized.

“There’s no question that humans use chemical communication,” Webster said. “But nobody seems to be that interested in it except when it comes to attracting members of the opposite sex.”

“Cool Water” by Bob Nolan

All day I face the barren waste without the taste of water,
Cool water.
Old Dan and I with throats burned dry and souls that cry for water,
Cool water.

How much do we need water?

“Water is a strange and wonderful substance. It is the basis for life as we know it on this planet,” said Dr. Peter E. Black, professor emeritus. “If life does exist elsewhere in the universe, it is most likely pretty much the same as that with which we are familiar.”

Black said there is water out there, beyond Earth. He said, “Water formed in the initial expansion of the material universe. Some of it has persisted in comets where recent space probes have found it, where it is believed to be in much the condition in which it was created.”

Water exists on Earth naturally in all three forms: solid, liquid and gas. So which one is producing the water source our mournful singer and his mule “Dan” are seeing?

Keep a movin’, Dan, don’t you listen to him,
Dan, he’s a devil not a man
and he spreads the burnin’ sand with water.
Dan, can’t you see that big green tree where the waters runnin’ free
and it’s waiting there for me and you?
Water, cool water.

“None of the above,” said Black, who pointed out that mirages are an illusion, often a product of heat waves, and therefore not in his area of expertise.

Black, a specialist in hydrology and water resources, suggests that a different perspective might have changed our cosmic address. “Had we viewed our planetary home from the moon, it would have been more appropriate to call it ‘Water,’ since nearly three-fourths of the planet is covered with watery oceans — and the rest is completely covered with a water-laden atmosphere that controls our weather and climate,” he said.

Water is so much a part of us and our environment that Black believes it appropriate to think of water as our canary in the coal mine. If something is

wrong — or changing to our detriment — with the water, then we are in trouble.

Just as a drought begins almost without our knowing it and builds until we notice its occurrence and then, perhaps, to a point where there is nothing we can do about it, so do problems with water on this planet.

“Glowworm” by Lilla Cayley Robinson and Paul Lincke

Modern words by Johnny Mercer

Glow little glowworm, glimmer, glimmer
Shine little glowworm, glimmer, glimmer.
Lead us lest too far we wander
Love’s sweet voice is calling yonder.
Shine little glowworm, glimmer, glimmer
Shine little glowworm, glimmer, glimmer
Light the path below, above
And lead us on to love.

About that glow...

The Mills Brothers, who recorded this song in 1952, were more about a sweet melody and smooth rhymes than science when they sang about the glowworm.

“Glow like an incandescent wire, Glow for the female of the species, Turn on the AC and the DC” makes for a better melodic rhyme than “oxidate your luciferin in the presence of the enzyme luciferase.”

“The light is a chemical reaction,” said Kim Adams, an extension service specialist in the Faculty of Environmental and Forest Biology. What is correct is that the light is related to mating. “It’s the way they get together.”

Another misconception, but a great rhyme:

“Thou aeronautical boll weevil illuminate yon woods primeval.”

“Boll weevils are pests of cotton,” said Adams. “I don’t know why they’d say that since fireflies don’t destroy anything.”

An interesting side note: In some species of glowworms (also known as fireflies, lightning bugs, and blinkies) once the female has mated, she will change her rate of blinking to mimic a different species to attract other males to her, whereupon she eats them.

Clearly, such duplicity didn’t fit the Mills Brothers’ lighthearted style, but it might make a nice country song — “She Lured Me with Her Light and Ate my Heart for Lunch.”





“Inchworm” by Frank Loesser

Two and two are four
 Four and four are eight
 Eight and eight are sixteen
 Sixteen and sixteen are thirty-two.
 Inchworm, inchworm
 Measuring the marigold
 You and your arithmetic
 You'll probably go far.
 Inchworm, inchworm
 Measuring the marigold
 Seems to me you'd stop and see
 How beautiful they are.

Do inchworms really care about the size of flowers?

Inchworms (geometrid caterpillars) don't have any special mathematical ability and their particular looping style of locomotion is caused not by what they have, but what they don't have.

“They lack a full set of prolegs,” Adams explained. (Non-experts, please note: Prolegs are the middle legs.) To compensate, the worms use their front legs to pull their back end up to the front giving them the appearance of measuring.

The inchworms, or loopers, themselves aren't necessarily an inch long either.

“I don't know how long they are exactly,” said Adams, “because I haven't measured them, but some are larger than an inch and some are very, very tiny.”

“The Lumberjack Song” by Terry Jones and Michael Palin

I'm a lumberjack, and I'm okay.
 I sleep all night and I work all day.
 I cut down trees. I eat my lunch.
 I go to the lavatory.
 On Wednesdays I go shoppin'
 And have buttered scones for tea.

Who would know the truth better than ESF's own Eustace B. Nifkin?

“Okay? Just OKAY? Lumberjacks are the bomb.”

“Lumberjacks are more than just tree-choppers. These days, we are forest technologists. We help manage forests and use our resources wisely.

“In these days of global environmental issues, lumberjacks are philosophers who delve deeply into the trenchant metaphysical questions that help us understand existence. It was around the lumberjack campfire (fueled by sustainable native biomass) that they first posed the question, ‘If a tree falls in the forest and no one is there, does it still make noise?’

“And on a more personal level, the only shopping we do is for new steel-toed boots or maybe a hard hat. Very important to be safe, you know.

“Buttered scones? Only if they serve them at the Ranger School dining hall.”

An iMix of these songs has been compiled for your listening pleasure on iTunes. To preview the music go to the iTunes music store homepage and click on imix. Search for “An ESF Science Singalong.” (And for all you purists, yes, we know the listed version of “Norwegian Wood” is not the original by the Beatles. But the Beatles’ music catalog is not available on iTunes, so we included a cover by Peter Frampton, who sings it with a little help from a friend: Ringo Starr.)

This article was compiled by members of ESF's Office of News and Publications. Moore is public relations associate, White is media relations coordinator, and Dunn is assistant director.

Got any suggestions?

If your favorite song contains an environmental reference that you'd like us to check with our experts, e-mail us at InsideESF@esf.edu. We'll post the responses on the Web at www.esf.edu/newspubs/songs.





Paper Chase

by Claire B. Dunn

ESF class project keeps artist supplied with material

An artist in North Carolina who specializes in the traditional design technique of paper marbling has been able to continue her work, thanks to a group of ESF students who made paper for her as a class project.

“This ESF batch of paper is tiding me over,” said Mimi Schleicher. “It’s keeping me producing right now.”

The pile of paper that arrived this past spring in Schleicher’s Weaverville, N. C., studio was the result of a chance meeting between the artist and ESF Associate Professor Emeritus William Holtzman, followed by the efforts of students in the college’s papermaking course.

And it illustrates ESF’s tradition of exposing students to practical experience and real-life problem-solving.

“It’s amazing that I met Bill Holtzman,” Schleicher said. “And the fact that anybody offered to do what he did is astonishing in my book.”

The process began in 2003 when Holtzman and his wife, Sandy, were vacationing in North Carolina. They attended a craft festival at a museum along the famous Blue Ridge Parkway, where Schleicher had an exhibit. Sandy Holtzman and the artist began chatting, and Sandy Holtzman knew her husband, whose pre-ESF career was in the area of specialty papers, would have an interest in Schleicher’s work.

“My wife said to me, ‘You have to meet this woman,’” Holtzman said. “And I said, ‘Yeah, OK, in a minute.’ And she said, ‘No, you have *got* to meet this woman.’”



Mimi Schleicher

Holtzman was fascinated by the marbling process, which he had never seen before, and he told Schleicher he was affiliated with ESF's Faculty of Paper Science and Engineering.

In turn, she said she had recently been having a problem finding paper that would hold the specially prepared water-color inks she uses to make the colorful, swirling designs that are characteristic of marbling.

Holtzman immediately suspected that Schleicher's troubles were caused by a change in the paper industry. Manufacturers had been switched from an acidic rosin-sizing process to one that is alkaline-based. The new system made the paper more durable over time and less likely to discolor. But it was more difficult for artists like Schleicher to work with because the updated process prevented the paper from absorbing the paints properly.

Schleicher, who has been marbling for 20 years, learned the art from her mother, Patty, who died in 2004. Mimi Schleicher is the co-author of two books on marbling and, with her mother, produced a one-hour instructional video on the technique. The finished product has decorative uses, particularly as stationery and end papers in bookbinding.

"I said, 'I'm going to find out if our students can devise a solution,'" Holtzman said.

Enter the students in PSE's papermaking processes course, which Holtzman described as "the crown course of the whole curriculum."

Dr. Gary Scott, who took over as PSE's curriculum director after Holtzman retired, said the students must replicate four types of paper after seeing samples of them. Scott gives them no information about how the paper is made; they have to

figure it out themselves. He and instructional support specialist Raymond J. Appleby are on hand to prevent the students from doing anything potentially dangerous or damaging to the equipment. The students choose leaders from among themselves, establish the schedule for the semester, make assignments and complete reports along the way.

"What has to be done is too much for any one person to do," Scott said. "And it's not just the technical challenge. They really have to work as a team."

The project is so complex that the work can't get done without the involvement of every student in the class. They do the research and development, the production, the quality control and all the final reports. Holtzman said the course is unique to ESF.

"This is really something," Holtzman said. "These students have already done things in school that they might not get to do for years in their career."

He and Scott showed the students two samples of Schleicher's paper: an older variety that worked for her marbling and a newer one that didn't. The trick was to figure out the difference and replicate the first sample. The students researched its contents and experimented with proportions. They produced small amounts and sent them to her for analysis before making a larger batch on the paper machine in the basement of Walters Hall.

One of the keys was the sizing agent, which is used on writing paper to prevent the ink from "fuzzing out" into a blurry smear. Schleicher needs rosin-sized paper, which has a relatively low pH. The question was so challenging that Holtzman resorted to hinting broadly to the students that they should look at the pH.

"It involved the colloidal properties of a complex fluid and its interaction with the surface properties of paper. It's very complicated," Holtzman said.

He said the students were working in an area of physical chemistry that is not normally in an undergraduate curriculum.

"They took the paper I'd been using and came as close as they could," Schleicher said.

The first shipment of paper was sent to Schleicher when the class completed the project in 2005. This past spring, Holtzman sent her more. There is still some in Walters Hall, which Holtzman plans to send her.

"Right now I'm relying rather heavily on the paper Bill sent. I'm still trying to find a commercial supplier," she said.

Holtzman said the market for the type of paper Schleicher needs is too small a niche for large paper companies to fill.

The artist put it another way: "The paper companies don't want to talk to me. They think I'm a wacko."

Dunn is assistant director in the Office of News and Publications.



Col. Richard P. Wagenaar FNRM '82

'An Indoctrination I Didn't Expect'

by Claire B. Dunn

ESF alumnus leads Army Corps of Engineers in New Orleans

Col. Richard P. Wagenaar FNRM '82 was just six weeks into his new job as leader of the New Orleans District of the U.S. Army Corps of Engineers when Hurricane Katrina blew into southeastern Louisiana.

"When it struck, I still hadn't even met some of my employees yet. I didn't know all the streets in the city," Wagenaar said. "The hurricane was truly an indoctrination I didn't expect."

Within a few weeks, Wagenaar saw his annual budget balloon from \$350 million to some \$3 billion. The focus of his work narrowed from a variety of areas to hurricane protection and environmental restoration.

"I'm running a billion dollar corporation here," Wagenaar said.

As the Corps continues its work in New Orleans, Wagenaar approaches his job with the sensibilities of an environmental scientist.

“The Corps of Engineers is probably the largest civil engineering organization in the world, and probably 50 percent of the leaders are engineers,” he said. “They typically don’t have environmental scientists as leaders. I just lead the district a little differently.”

Wagenaar spent his childhood on a farm in Carthage, N.Y., 85 miles north of Syracuse. He was recruited into the ROTC program at the New Mexico Military Institute, where he earned an associate’s degree in biology. He was commissioned as a lieutenant in the U.S. Army and returned east to study forestry at ESF, graduating with his bachelor’s degree in 1982. He later earned master’s degrees from Cardinal Stritch College in Wisconsin and the National Defense University in Washington, D.C.

The Army matched him with the Corps of Engineers because of his interest in the environment.

“I was always an outdoorsman. That’s the way I was raised. I wanted to study environmental science and forestry because I thought it would be great to work outside.”

His career took him to Massachusetts; Kentucky; Fort Drum, N.Y.; Minnesota; and Virginia. He also served in Korea and Germany. His most recent assignment before taking over in New Orleans was as chief of the Engineer Plans Division with the Republic of Korea Combined Forces Command.

He became the 59th district engineer in New Orleans in a military ceremony July 12, 2005.

“I look back at ESF and see that degree is paying dividends because I look at things as an environmental scientist would, which is very beneficial in this day and age,” he said.

When he joined the Corps, Wagenaar said, it did not have a reputation as an environmentally friendly organization. “Now, when we take an action, we’re doing environmental consideration at the same time,” he said.

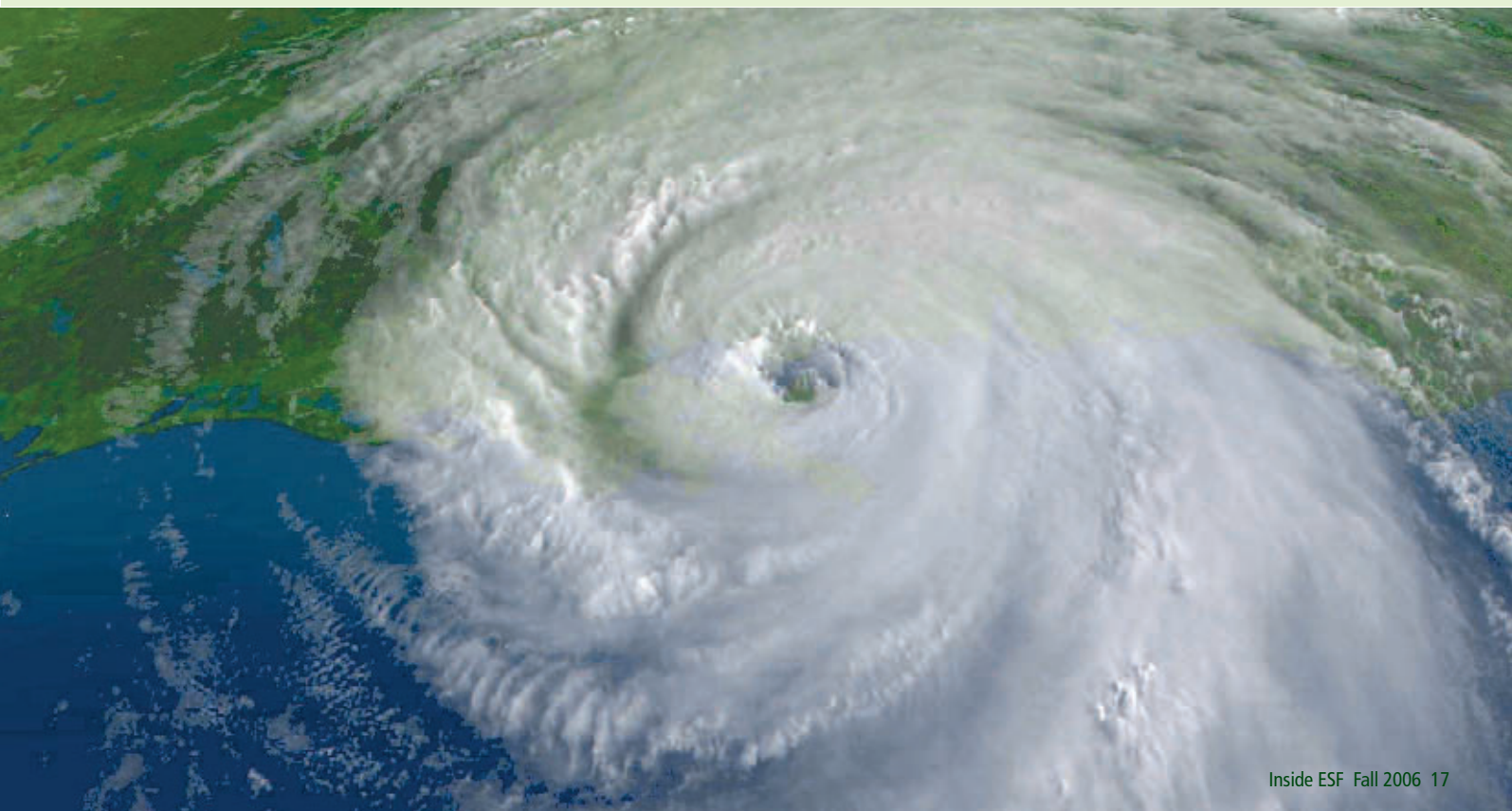
He emphasizes that perspective as the Corps focuses on rebuilding levees and protecting New Orleans from future hurricanes.

“My first thought is, ‘How are we going to protect the marshes and ensure there’s fresh water flowing?’ I think about the surrounding ecosystem. A lot of folks aren’t used to that type of thinking from the Corps.”

Dunn is assistant director in the Office of News and Publications.



Vice President Dick Cheney, second from left, tours the devastation in New Orleans with Col. Richard Wagenaar, third from left, after Hurricane Katrina. Below, Katrina hits the region.

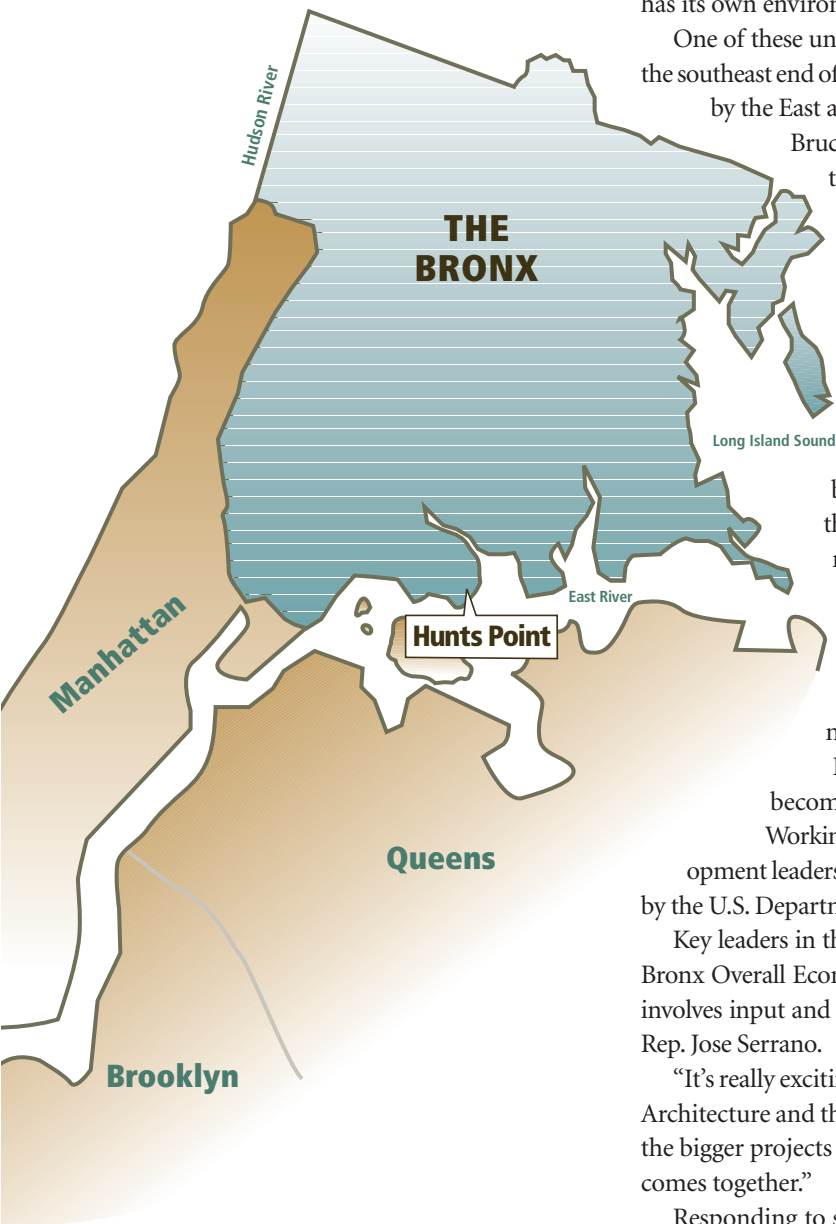




URBAN OPTIMISM

The South Bronx . . . the name alone evokes an image of urban failure and the demise of civilized society. During the 1970s and '80s, the media perpetuated this perception through images depicting a legacy of environmental contamination against a backdrop of social and economic despair.

By Preston S. Gilbert
Operations Director
SUNY-ESF Center for Brownfield Studies



Those images show us a wasteland of empty lots, gang violence and crumbling abandoned buildings. But the reality is different. Although the South Bronx continues to suffer economically, it is not uniformly devastated. It comprises a diverse collection of neighborhoods, each with a vibrant social and cultural life, underscored by Latino influence. Correspondingly, each neighborhood has its own environmental and community development problems.

One of these unique neighborhoods is tucked below Bruckner Boulevard on the southeast end of the South Bronx: Hunts Point. The neighborhood is bounded

by the East and Bronx rivers on the east, south and west, and the elevated Bruckner Boulevard on the north. These boundaries serve not only to define Hunts Point as a neighborhood, but to effectively isolate it from the rest of the borough and New York City

Because of its relative isolation, its environmental condition, and the economic difficulties of its residents, Hunts Point is acknowledged to be one of the most challenged urban neighborhoods in New York City and in New York state; arguably, it could be one of the most challenged urban neighborhoods in the United States.

Through the '80s and '90s, Hunts Point was viewed by both its residents and the broader city as a neighborhood on the brink of hopelessness, facing myriad environmental issues, marginally legal and illegal businesses, metal scrap yards, junk cars, brownfields and overall economic deterioration. Today, Hunts Point is still one of the poorest census tracts in the eastern United States. But there is immense potential for renewal, and its geography and recent economic developments provide reasons for optimism.

ESF, through its Center for Brownfield Studies (CBS), has become part of the reawakening of Hunts Point.

Working in partnership with local governmental and economic development leaders, the CBS is part of a demonstration-planning project funded by the U.S. Department of Commerce Economic Development Administration.

Key leaders in the effort are the author and Ray Salaberrios, president of the Bronx Overall Economic Development Corporation (BOEDC). The effort also involves input and support from Borough President Adolpho Carrion and U.S. Rep. Jose Serrano.

“It’s really exciting,” said Richard Hawks, chair of ESF’s Faculty of Landscape Architecture and the principal investigator in the project. “This could be one of the bigger projects in the New York City area in the next couple of years if it all comes together.”

Responding to severely challenged neighborhoods and communities is the mission of the CBS. The center is a resource for communities to discover, design and develop innovative and transformational economic development solutions on brownfields.

In Hunts Point, the work began in July 2005, with a lengthy planning, assessment and development strategy effort. The first step was to create an extensive GIS-based neighborhood model. The second was to craft an asset-based plan to develop and reuse selected sites. Targeted sites were chosen and finally, the partners, financing and strategies were assembled.

The effort met with significant success this fall with the endorsement of a plan by key partners, including the New York City Economic Development Corporation; New York City developers; Anheuser Busch Corporation; the Point Community



“Pieces of this project would have been done but the whole redevelopment, as a coordinated effort, would not have happened without the involvement of the ESF students and the Center for Brownfield Studies,” Hawks said. “The community just wasn’t in a position to see the potential for what Hunts Point could become.”

Development Corp., a major community-based organization dedicated to youth development and the neighborhood’s cultural and economic revitalization; and two neighborhood schools.

This \$214 million green development initiative will establish a new paradigm for community regeneration. Some \$150 million of that total is being funded by private investors; the remaining \$64 is public funding from various federal, state and city sources.

The initiative will engage five waterfront sites along the Bronx and East rivers in a development called Hunts Point Food Village. The project will involve construction of a 300,000-square-foot facility to accommodate 100 food producers, who will sell their products both wholesale and to the general public. The development will also accommodate the New York City Distribution Center for Anheuser Busch, a community education center, a brewpub, a food discovery/science center, refrigeration recovery systems, a water-oriented environmental education greenway, an anaerobic digester/methane-powered generator, solar power, a refrigeration recovery system, fish habitat enhancements, and a pier to accommodate visitors. The program will create a vibrant urban commercial “village” that provides high quality food and food products, and a unique education and visitor experience.

Hawks credited the center’s involvement with pulling all the elements of the project together.

“Pieces of this project would have been done but the whole redevelopment, as a coordinated effort, would not have happened without the involvement of the ESF students and the Center for Brownfield Studies,” he said. “The community just wasn’t in a position to see the potential for what Hunts Point could become.

“When the team displayed the drawings and explained the larger vision, it caught people’s imagination. It created some synergy, so the whole is greater than the sum of the parts,” Hawks said.

The project will be in development this winter with private and public financing, leadership from the BOEDC and planning, design, and technical support from the CBS.

The development will contribute to a rebirth already marked by the Fulton Fish Market’s move to Hunts Point from Lower Manhattan in 2005. The market, one of the world’s largest fish markets, is part of the 329-acre Hunts Point Food Distribution Center, one of the largest facilities of its kind in the world. Many residents of the New York metropolitan area are consumers of food that moves through the center, which is host to more than 115 wholesalers that generate revenue of more than \$3 billion each year.

Hunts Point offers Gilbert and his colleagues a unique set of challenges.

"The Center for Brownfield Studies has been invaluable in helping us address redevelopment and brownfield issues in Hunts Point," Salaberrios said. "At the same time, the center's support in developing a plan for an industrial food village has made it an extremely important partner for the BOEDC."

The neighborhood's geography endows it with an expansive waterfront that offers better water access to the rest of the city and Long Island than any neighborhood in New York City. But the food distribution facilities generate 15,000 truck trips per day, along with associated traffic and air quality problems and tons of organic solid waste. The shoreline along all three sides of the peninsula has been significantly degraded and contaminated from years of industrial use. The southeastern end of the peninsula is all manufactured land; it was formed from years of landfilling industrial waste and coal ash.

At the same time, there are socioeconomic challenges. Hunts Point is 75 percent Latino and 20 percent African American. There are few single occupant households and few senior citizens; it is a neighborhood of large families. The median income for these families is \$16,000 per household, almost \$10,000 lower than that of the Bronx as a whole. The educational level of its residents lags well behind the rest of New York City and the nation.

Carrion's office and the BOEDC believed the neighborhood's future rests in its unique waterfront, its food distribution facilities and its ethnic richness.

The BOEDC and the borough's leadership just needed some highly specialized expertise. They needed a better understanding of the environmental challenges and the economic development opportunities that were masked by the environmental conditions. They needed help developing a detailed vision for renewal and translating that vision into innovative feasible projects. They needed technical support to enable them to bridge the gaps between opportunities, hopes and ideas, and real projects.

"The Center for Brownfield Studies has been invaluable in helping us address redevelopment and brownfield issues in Hunts Point," Salaberrios said. "At the same time, the center's support in developing a plan for an industrial food village has made it an extremely important partner for the BOEDC."

The regeneration at Hunts Point is not the only focus of the CBS in the Bronx. The center will soon be engaged with a second project with the BOEDC, looking at industrial use along the entire South Coast of the Bronx.

The underlying premise of the center is that brownfield redevelopment is not an environmental or technical initiative. It is a community building process that involves planning, landscape architecture, architecture, real estate development/finance, public administration, community capacity building, transportation planning, logistics management, hydrology, chemistry, marketing, law, insurance, public health, social work, housing development and small business development.

The Center for Brownfield Studies draws assistance in these disciplines from other departments at ESF and from other campuses throughout the SUNY system.

The center is chaired by ESF President Cornelius B. Murphy Jr. It is directed by a two-person leadership team: Environmental Resources and Forest Engineering Faculty member Dr. Douglas J. Daley provides academic and administrative oversight; the author directs field and project operations. The support team also includes Hawks, who provides project-specific leadership.

"We have established a record of success in our first four years," Daley said. "Our message is that community redevelopment does not happen by just cleaning up a site. It happens by addressing environmental and civic concerns, engaging the community in strategic redevelopment, exploring new market opportunities and designing appropriate solutions."

Hunts Point is dotted with empty lots and old industrial sites, such as those at left and on opposite page, but it also retains neighborhoods with vibrant cultural aspects.



When He's 64

Ranger School
Grad Adds Associate's
Degree to his Ph.D.



William Mueller '06

by Claire B. Dunn

William “Bill” Mueller had some concerns when he enrolled in the Ranger School’s forest technology program at the age of 64:

Could he keep up with classmates who were 40 years younger as they juggled a demanding course load?

How do you safely cut down a tree?

And what’s the secret to hacky sack, anyway?

Mueller received his associate’s degree in forest technology during the Ranger School’s graduation ceremony in May, becoming—as far as anyone knows—the oldest graduate in the school’s history. He joined 36 classmates for the graduation ceremony at Clifton-Fine High School.

Halfway through his year at the Ranger School, Mueller received a Wesson Scholarship for Academic Achievement, bestowed by the Ranger School Alumni Association. At graduation, he received the Award of Recognition from the faculty for dedication, perseverance and courage.

“Bill has been a great addition to his class and has been an absolute joy to teach,” said Wayne Allen, an associate professor at the Ranger School. “He asked insightful questions but was open to all that his experience here had to offer. He is a cracker-jack draftsman and his hand drawn maps and lettering were a treat to grade.”

Allen described Mueller as a soft-spoken person who was extremely patient with both the Ranger School students and the faculty, all of whom are younger than Mueller.

“He brought a whole new perspective to the program for the students who were sitting around him,” said Ranger School Director Christopher L. Westbrook. “He has already had a career and he has a Ph.D.”

Mueller added the associate’s degree to a bachelor’s degree from Syracuse University, where he studied industrial arts in the 1960s, and a doctorate in anthropology from the University of Texas.

Mueller resumed his education shortly after his retirement because he and his wife, Pat, bought a home in South Colton, N.Y., north of Wanakena, and with it came 69 forested acres. He wants to learn how to manage it.

“I’m interested in keeping the property healthy. A lot of landowners with forest property don’t know what to do with it,” he said.

Allen said the Muellers have developed an extensive trail system on the property.

Mueller’s ties with ESF go back to his youth in Syracuse, where he grew up in the university neighborhood and delivered the newspaper

to former Professor William Harlow. A scholarship lured him to study industrial design at neighboring Syracuse University instead of pursuing landscape architecture studies at ESF. A stint in the Peace Corps in Colombia sparked an interest in anthropology so he pursued a doctorate and taught behavioral sciences for 30 years at the University of Texas School of Public Health in Houston.

But the sprawl of Houston was not where he wanted to retire.

“Houston is flat and huge and it’s hard to get out to anything very pretty,” he said.

His wife also had lived in the Northeast, so they searched for a place to retire in northern New York. They settled on a property that has a farmhouse built in 1883, several outbuildings, three beaver ponds and a forest that contains both hardwood and softwood trees.

“I had a lot of trepidation about coming back to school with all these young people. Could I keep up? It’s a pretty intensive program.”

Westbrook said Mueller had no trouble keeping up academically.

“He was anxious to learn and he never complained,” Westbrook said. “And he was also able to keep up physically, with all the fieldwork. He was able to put on a pair of snowshoes and hike up a hill with them.”

And Westbrook said the younger students respected Mueller’s maturity and experience in addition to his academic abilities.

“It’s just eye-opening. It’s amazing,” Mueller said, referring to the challenges of living amid students two generations removed from his own. “They are wonderful kids but they can also be very trying. My bedtime is about 10 p.m. and there’s a lot of activity at that hour.”

Some of the skills he learned, such as using a chainsaw and cutting down trees, were new to him.

So was hacky sack.

“At the beginning of the year, some of them were playing hacky sack and they said, ‘Hey, Bill, come on. You play, too.’ I didn’t see myself as a hacky sack player. It was kind of a rite of passage.”

Dunn is assistant director in the Office of News and Publications.

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AWARDS AND HONORS

Baldassarre, Guy A., Best Teacher Award from the ESF Undergraduate Student Association.

Dugan, Robert C., '03, graduate, St. Lawrence County Law Enforcement Academy, and sworn officer, ESF University Police Department.

Leopold, Donald J., Silver Award for Achievement from the Garden Writers Association in the writing category for his book, *Native Plants of the Northeast*.

Limburg, Karen E., recipient of a Fulbright Scholar grant to study trends in diadromous fishes in the North Atlantic, to be done in France.

Robbins, Virginia, C., president of ESF College Foundation, Inc., included in the 2007 edition of "The Best Lawyers in America®".

Smith, Juliette, Outstanding Student Poster Award from the American Society of Limnology and Oceanography.

Weir, Alexander, Best Advisor Award from the ESF Undergraduate Student Association.



October 17

Daylong Teach-In on Environmental Issues at ESF. Additional information: Jack Manno, 315-470-6816.

October 20

Alumni & Family Fall BBQ, sponsor: ESF Alumni Association. Additional information: www.esf.edu/alumni/fallBBQ/ or ESF Alumni Office, 315-470-6632, alumni@esf.edu.

October 26

SAF National Convention Alumni Reception, Omni William Penn Hotel, Pittsburgh, Pennsylvania. Sponsor: ESF Alumni Association. Additional information: Alumni Relations, 315-470-6632, alumni@esf.edu.

Syracuse Pulp and Paper Foundation Annual Meeting, ESF campus. Directors meeting is 8 a.m. to noon Oct. 27. Additional information: 315-470-6592 or lafagan@esf.edu

October 30

PV Installer's Class, through November 2, ESF. Sponsor: SUNY ESF and NASA. Additional information: <http://www.esf.edu/outreach/pd/spare> or M. Wakefield, 470-6888/6817, mwakefield@esf.edu.

www.esf.edu

October 23 to 25

125th ESPRA Conference, SUNY ESF. Additional information: www.esf.edu/outreach/pd/2006/fallespra/ or Maureen Wakefield, 315-470-6888/6817, mwakefield@esf.edu.

October 27

Prospective Graduate Student Open House, 10 a.m. to 2 p.m., Alumni Lounge, Marshall Hall. Additional information: Marla Bennett, 315-470-6595/6599, mbennett@esf.edu.

October 28

Fall Open House (Syracuse Campus), 8 a.m. to 3 p.m. Additional information: www.esf.edu/forms/adm/openhousereg.asp, Rocky Feola, 315-470-4849/6600, rjfeola@esf.edu.

December 8

December Convocation, 3 to 5 p.m., Hendricks Chapel, Syracuse University. Additional information: www.esf.edu/students/comcon/, Julie White, 325-470-6658, jrwhite@esf.edu.