ESF at Work in the World
Dear Friends,

ESF is at work in the world with research, teaching and community service on all seven continents. Our faculty and students are leading the charge in learning new ways to protect our resources and developing new technologies for sustainable practices not only here in the United States but abroad as well.

ESF has fostered a number of international academic partnerships. The College has exchange programs with educational institutions around the world, including Moscow State University and Sichuan University. Our faculty continue to conduct research globally with projects involving fresh water resources in Mongolia, the regreening of Afghanistan with shrub willow, and climate change in Antarctica. We continue to develop programs at ESF’s first international field station in Costa Rica.

Following the example set by their teachers, our students study across the globe. Eighteen percent of our students have an international education experience. They not only learn about the world around them, they work to improve that world. ESF’s chapter of Engineers without Borders and students from the ecological engineering in the tropics class spent spring break researching Honduran water supply systems. Students in our Department of Environmental and Forest Biology traveled to Australia to study rainforest and reef ecology over winter break and our fifth-year landscape architecture students design their own “off campus” research topic that introduces them to different environments and cultures.

At ESF’s main campus, 35 countries are represented by 152 international students. This diversity brings a cultural richness that benefits the entire ESF community. The Office of Multicultural Affairs provides a cultural support system for international students while fostering a broad sense of community via numerous events and programs.

I invite you to read this year’s annual report and experience for yourself the variety of ways ESF is Improving our World.

Best regards,

C.B. Murphy

Dr. Cornelius B. Murphy, Jr.
President, SUNY-ESF
Rankings

SUNY-ESF Listed as a Top Value by U.S. News & World Report

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

In the “Great Schools, Great Prices” category of the 2010 edition of America’s Best Colleges, ESF is ranked 17th. The formula used in that category relates a school’s academic quality to the net cost of attendance for a student who receives the average level of need-based financial aid. The magazine states: “The higher the quality of the program and the lower the cost, the better the deal.”

In this category, ESF ranks between Vanderbilt and Johns Hopkins universities. ESF is the only SUNY institution on the list. Only one public school, the University of North Carolina at Chapel Hill, ranks higher than ESF.

ESF is listed at 37 among the top public national universities, again tied with SUNY Binghamton.

In the Best National Universities category, which includes both public and private national universities, ESF is ranked at 80, tied with SUNY Binghamton and Northeastern University. ESF and Binghamton are the highest-ranked SUNY institutions on the list. The national universities group consists of the 262 universities that offer a wide range of undergraduate majors along with master's and doctoral degrees.

Sierra Club says ESF is cool

ESF earned a place on the 2009 Sierra Club list of “Cool Schools,” earning a rating that puts the College in a tie for 33rd place.

The list was compiled after the Sierra Club surveyed hundreds of colleges and universities to gather information about campus environmental practices, green initiatives, and quality of sustainability-oriented education.

ESF received a perfect mark of 10 for academics based on the College’s broad range of environmentally related degree programs and the quality of faculty research in the field. ESF was one of only four schools to earn a perfect mark for academics. The others were Georgia Tech, Columbia University and the University of Georgia.

ESF also scored a 10 on the administration rating, which reflects the College’s institutional commitment to campus sustainability. ESF was one of only five schools to earn a perfect mark for administration.

ESF is the highest rated SUNY campus on the Sierra Club list this year, which also includes SUNY Binghamton and SUNY Albany.

ESF Named to President’s Service Honor Roll with Distinction

ESF was named to the 2008 President’s Higher Education Community Service Honor Roll with distinction.

This is the third year ESF has been named to the Honor Roll and the first year it’s been named “with distinction.” ESF was the only SUNY school to be included on the Honor Roll with Distinction list.

The nominating committee looked at the scope, innovativeness and effectiveness of a college’s community service and service learning programs. ESF students completed 61,500 hours of community service in 2008 with 190 diversified community partners. Projects included Freshman Saturday of Service, Adopt-A-Stream cleanup, the ESF SCIENCE Corps and the Campus Day of Service.

ESF Recognized for Technology Transfer

ESF is listed in the 2008 AUTM Better World Report Part Two, which highlights colleges that have successfully transferred academic research into real-world applications.

The report was published by the Association of University Technology Managers.
ESF is listed twice among the 100 innovators in the report and is one of only two SUNY schools included. The report includes colleges from the United States and around the world. The College received recognition for its willow biomass research and for improvements in forest integrated biorefinery technology.

**Treehugger.com Ranks ESF among Nation’s Top 10 Environmental Programs**

ESF is listed among the 10 best college environmental programs in the nation by Treehugger.com, a website devoted to sustainability and environmental news.

Treehugger states the colleges on the list “earn an A-plus for the education, experience, and research opportunities they provide.”

ESF is highlighted for its extensive network of field stations. The College’s research projects also earn praise. Treehugger notes that faculty members work on more than 450 projects including wildlife disease prevention, nanotechnology and genetic engineering around the world.

**ESF Named a Top School for Environmental Science**

ESF was named one of Kaplan/Newsweek’s 350 most interesting colleges in the 2009 edition of “How to Get Into College.” ESF was also listed as a top school for environmental science majors, along with Yale University, Barnard College and Rutgers University.

The 2009 Kaplan/Newsweek “How to Get into College” guide provides an in-depth guide to navigating the increasingly complex college admissions landscape.

**ESF Honored for Environmental Action**

ESF received high marks for environmental action in Campus Environment 2008: A National Report Card on Sustainability and Higher Education, issued by the National Wildlife Federation.

ESF was among the colleges and universities described as “exemplary and committed” in the category, “Exemplary Schools for Students Taking a Course on Ecology or Sustainability.” The College was also listed as exemplary in the category that examined, “Environmental or Sustainability Goal Setting.”

**Admissions**

**ESF Enrolls Largest and Highest-quality Class**

ESF welcomed 283 freshmen and 238 transfer students to campus this fall. The combined total of 521 represents ESF’s largest entering class ever.

The College received a record number of applications for admission this year (1,678 freshman and 772 transfer) and accepted only 43 percent of its freshman applicants and 39 percent of its transfer applicants. Those are among the lowest acceptance rates in SUNY this year.

Of the accepted transfer students, 41 students are enrolled at The Ranger School.

The entering freshman class is the best-qualified ESF has enrolled, setting new records for high school grades (a 92 percent average), test scores and class rank. Forty percent of this year’s freshman class ranked in the top 10th of their high school class and 77 percent ranked in the top quartile. It is also a diverse class, with 20 percent of the freshmen coming from outside New York state, and 11 percent representing minority populations. It is the first freshman class in ESF history to enroll more women (53 percent) than men (47 percent).

The class includes four National Merit Scholarship winners and a National Achievement Scholarship winner, which is an unusually high number of national award winners, given the relatively small size of ESF’s student body.
On Campus

Graduate Enrollment Increases
Enrollment data for fall 2009 shows the College with a total graduate enrollment of 543, including 172 new students entering this year. The College had a 25 percent increase in the number of graduate applicants compared to fall 2008.

Achievements
ESF Nurtures International Academic Partnerships
ESF participates in a number of international academic initiatives. Among these partnerships are:

An exchange program with the Moscow State University facilitated by Dr. Alexander Weir of the Department of Environmental and Forestry Biology. In 2008-09, students from MSU visited ESF’s biological stations in Costa Rica and Cranberry Lake.

Since 2002, Landscape Architecture Associate Professor Emanuel J. Carter Jr. has been working with the Faculty of Forest Sciences at the University of Chile to establish a graduate program in landscape architecture. The scope of the program was accepted by the faculty in the summer of 2009. It includes three diplomas and a thesis that accrue to master of landscape engineering. Course descriptions will be completed by November 2009.

Carter is also working with the University to convert its summer forestry practicum camp in Frutillar, Chile, to a regional ecological observatory. The observatory would accommodate scholars, professionals and graduate students from Chile and around the world with an interest in research, teaching and public service related to the unique ecosystems of southern Chile. Carter has been working with his Chilean colleagues on developing the idea for about two years. Dr. Donald Leopold, chair of ESF’s Department of Environmental and Forest Biology, and Dr. Richard Smardon of the Department of Environmental Studies are working with Carter on this project.

The Department of Paper and Bioprocess Engineering (PBE) has collaborations with two universities and the depth of those collaborations is still evolving. ESF has an exchange program with Sichuan University in China for matriculated undergraduate students.

The College also has an agreement with Beijing University of Chemical Technology (BUCT). This partnership is for a joint bachelor of science degree in bioprocess engineering. BUCT students can spend one year at ESF and receive a joint degree. ESF has reserved the opportunity for its students to do the same.

PBE also has graduate student exchange programs with a number of universities, including Sichuan University, South China University of Technology, China University of Mining Technology, and Beijing University of Chemical Technology.

ESF Students Study the World Over
At ESF, 18 percent of students have an international education experience. Whether its bringing fresh water to a village in South America, conducting independent studies in Copenhagen or studying human ecology in India, ESF students learn about the world around them, in the world around them.

The Department of Landscape Architecture offers students a number of venues to study abroad. The sustainable futures studio is an Off-Campus Program offered during the summer in cooperation with the Monteverde Institute in Monteverde, Costa Rica. Sustainable Futures is a studio internship through which students undertake a range of service learning projects in community design and planning for existing rural communities and non-governmental organizations in the Monteverde region.

The department’s Off-Campus Program is the “capstone” experience for students enrolled in LA. Students design an off-campus research topic and plan their itinerary. During the fall of their fifth year, the students travel to their off-campus destination where they study a topic of individual
On Campus

interest. This entails direct experience with different environments and cultures. Since its inception in 1970, more than 1,457 students have participated in the program, living in more than 185 locations including more than 39 different countries.

Since 2000, Dr. Allan Drew has worked with The Tropical Forestry Initiative at the organization's reforestation site along the central Pacific coast of Costa Rica. Abandoned pasturelands are being reforested with native tropical hardwoods with much success. Drew and his students have been researching the ecology of tropical wet forest restoration on these degraded sites and have developed a model for ecosystem recovery. At ESF's field station along the Gulf of Nicoya, Drew is engaged in an inventory of woody trees and shrubs on the 30-acre property as a basis for further research and teaching activities.

As part of the tropical ecology course Drew teaches, he works with graduate and undergraduate students on the island of Dominica in the West Indies, where students undertake small research projects at the Archbold Tropical Research and Education Center. Such activities have entailed a wide range of research on subjects that include birds, insects, plants, aquatic studies, soils and agriculture.

Members of ESF's chapter of Engineers without Borders and students from the ecological engineering in the tropics class spent their spring break researching Honduran water supplies.

Dr. Theodore Endreny led a trip to Honduras during spring break '09. The 15 students from the Department of Environmental Resources and Forest Engineering who participated established a nursery for the Honduran emerald, a species of hummingbird found only in Honduras, and its key habitat of the Very Dry Tropical Forest. The group also took donated clothes to a Honduran fishing village in the buffer zone of the Punta Sal National Park and cleaned stretches of Caribbean beach.

Over the past decade, Dr. William Shields and ESF adjunct Dr. Barbara Hager have brought more than 100 students to Australia to study rainforest and reef ecology. The course takes place over winter break. Shields also has had numerous graduate students working in foreign sites including Ph.D. students working on ecology and tiger conservation in India, wolf and jackal ecology in Kyrgyzstan and lemur ecology in Madagascar, and master's students working on giraffes in Niger, frogs and spiders in Peru, and human ecology in India.

ESF Welcomes New Faculty/Staff to Campus

Joseph Rufo was named vice president for administration at ESF. Previously Rufo was employed by the Syracuse City School District as its chief fiscal officer and was responsible for a $400 million budget. He also served as chief financial officer and vice president for administration and finance at Onondaga Community College (OCC).

Rufo worked in the private sector for several years at Niagara Mohawk Power Corporation and has been an adjunct professor at Onondaga and Cayuga community colleges. He received an M.B.A. from SUNY Binghamton and a B.A. in economics from SUNY Cortland. Rufo is pursuing his Ed.D. in educational leadership at Syracuse University.

Carolyn Salter was named coordinator of international education at ESF. She is responsible for facilitating the needs of ESF international students in meeting requirements to study in the United States and coordinating ESF's study abroad programs.

Dana Piwinski joined the ESF Development Office in December 2008 as a development officer. Piwinski holds both undergraduate and graduate degrees from ESF and had previously served as director of program development for the Institute for the Application of Geospatial Technology in Auburn, N.Y.
Steven Weiter was named director of Moon Library. Weiter comes to ESF from the New York State Appellate Division Law Library in Rochester, N.Y., where he served as senior law librarian for automation.

Lt. Scott Becksted was promoted to chief of University Police. Becksted joined ESF in 1980 as a police officer and was promoted to lieutenant in 1984. He holds an A.A.S. degree in administration of justice and a B.A. degree in criminal justice. A graduate of the Police Academy, he also holds 20 individual training certificates in subject-specific law enforcement areas.

Scott Shannon was named dean for instruction and graduate studies. Shannon is a faculty member and undergraduate coordinator in the Department of Landscape Architecture. He has also served Faculty Governance in many roles including chair of that body.

Students Receive Chancellor’s Awards
Two ESF students were honored with the Chancellor’s Award for Student Excellence during an April ceremony. Jorge Barbosa of New York City and Jingnan Lu of Cicero were presented with their awards during a ceremony at the Empire State Convention Center, Albany, where they received framed certificates and medallions, which were worn at commencement.

Chancellor Award honorees excel both in academic achievement and in at least one of the following areas: leadership, athletics, community service, creative and performing arts, or career achievement.

Barbosa was an environmental and forest biology major. He served as president of the ESF Alpha Xi Sigma Honor Society and president and founder of ESF’s Nautilus Society. He was the student member of the ESF Board of Trustees, head photographer for the yearbook and a class marshal. He was on the Dean’s List and President’s List during her academic career at ESF. She received the ESF Foundation Award, the Chemistry Citizen’s Award, and the John A. Meyer Award for Environmental Chemistry. She served as the vice president of the ESF Alchemist Club, was a member of Alpha Xi Sigma, the SU Women’s Choir, MIT Converge and P&G Research and Development for Undergraduates.

ESF Soccer Team Wins Club Title
ESF men’s soccer team won the Men’s Collegiate Club Soccer Playoffs in November 2008 with a dramatic win in penalty kicks over an unbeaten Cornell University team. The game went into overtime and ended with a score of 4–3.

The Collegiate Club Soccer League includes six upstate New York teams sponsored by Cornell University, SUNY Cortland, ESF, Ithaca College, SUNY Oswego, and Syracuse University. The ESF men’s soccer program is in the early stages of development and recruitment, with a goal of moving to a higher level of intercollegiate competition in 2010.

ESF Students Pick Mighty Oaks for Mascot
The teams that compete as part of ESF’s growing athletic program will be known as the Mighty Oaks, an identity chosen by more than 800 current and incoming students who participated in an online poll.

The project was sponsored by ESP’s Student Government Association and the Office of Communications. Mighty Oaks won by a wide margin, with many students noting they were looking for a unique name that seemed to fit the College.
On Campus

In addition to saluting ESF’s deep roots in the field of forestry, the team name is a nod to one of the most identifiable landmarks on the College’s campus in Syracuse: the Robin Hood Oak. ESF has teams that participate in golf, men’s and women’s soccer, and men’s and women’s cross-country. ESF’s oldest intercollegiate team, the Woodsmen’s Team, was founded in 1912 and continues to compete in traditional timber sports.

Faculty Awards

Professor George Curry Takes Carnegie Honors

George Curry, a faculty member in the Department of Landscape Architecture, was named 2008 New York Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education.

Curry, the Kennedy Distinguished Faculty Chair in Landscape Architecture at ESF, was selected for the prestigious award from among nearly 300 top professors in the United States. He is a licensed landscape architect and a specialist in urban design and historic preservation.

Curry has taught at ESF for more than 30 years. He founded the program’s Off-Campus Study Abroad Program for fifth-year LA students. His involvement in cultural landscape preservation research with the National Park Service and the New York State Office of Parks, Recreation and Historic Preservation has been a major professional focus for the last 18 years while he continues to teach undergraduate and graduate students at ESF.

Curry has a number of honors to his credit. In 2007 he was named Landscape Architecture Educator of the Year by DesignIntelligence magazine. He has been recognized as a State University of New York Distinguished Teaching Professor, and has been honored by groups as varied as ESF students and the SUNY Research Foundation.

Dr. Gregory Boyer Recognized for Exemplary Research

ESF biochemist Dr. Gregory Boyer was honored with ESF’s Exemplary Researcher Award. The award recognizes a current researcher who has exemplary research activity, an impressive publication record and active graduate/undergraduate student research programs.

Boyer is ESF’s principal investigator on a $3 million, five-year study to determine the best way to detect — and respond to — toxic algae blooms. He has been involved with an industry-based partnership to develop near-real-time water quality monitoring systems. His research also includes restoration of Great Lakes fish communities and implementation of the Great Lakes observing systems.

Boyer is a professor in ESF’s Department of Chemistry. He has built a thriving research program since arriving at ESF in 1985 from the University of British Columbia, where he was a research associate. He has degrees from Reedley College in California; University of California, Berkeley; and University of Wisconsin, Madison.

In 2003, Boyer received the SUNY Research Foundation award for Excellence in the Pursuit of Knowledge and, in 2005, received the ESF Award for Integrating Outreach Activities with Teaching and Research.

Ken Tiss Receives ESF College Foundation Award

Ken Tiss, an instructor in the Department of Construction Management and Wood Products Engineering, was honored with the ESF College Foundation Award for Exceptional Achievement in Teaching. He was cited for his dedication to students, his innovation in curriculum development, and his role as an outstanding student advisor.

For the past 20 years, Tiss has taught courses in construction management and wood products engineering. He is not only a faculty member, but also an alumnus, having earned his bachelor’s and master’s degrees at ESF. He is pursuing a Ph.D. at ESF that he expects to complete this year.
Tiss has added OSHA safety training and the opportunity to take the Associate Constructor Examination, the first step to becoming a Certified Professional Constructor. At the completion of the construction safety course, students are issued a 30-hour OSHA training safety certificate.

**Trio of ESF Employees Honored by Chancellor**

Three ESF employees were honored by Chancellor Nancy L. Zimpher for their service to the State University of New York.

**Lawrence Rathman**, a maintenance supervisor at ESP’s Ranger School in Wanakena and Cranberry Lake Biological Station (CLBS), was awarded the inaugural SUNY Chancellor’s Award for Excellence in Classified Service. The award is given to University Classified Service staff who have consistently demonstrated superlative performance within and beyond their position.

Rathman joined the Ranger School and CLBS in 1977. For more than three decades, he has annually moved his entire family to the biological station, which is accessible only by boat, in the spring and back to their winter house before Thanksgiving. During the summer session at CLBS, he rarely leaves the property on nights and weekends because he is the emergency medical technician and the boat pilot and serves many other functions.

**Dr. Lianjun Zhang** of the Department of Forest and Natural Resources Management, received the Chancellor’s Award for Excellence in Faculty Service. The award recognizes the superior service contributions of teaching faculty.

Zhang was recognized for his dedication to both students and faculty. Zhang provides individual consultation and voluntary assistance with statistical methods to faculty and students. In addition, he has been an exemplary model in a more traditional faculty service role as an active and energetic leader of professional organizations of regional, national and international significance.

**William J. Nicholson** was honored with the Chancellor’s Award for Excellence in Professional Service. The award recognizes consistently superior professional achievement within and beyond the position and those who serve as professional role models for a university system in the pursuit of excellence.

Nicholson has been with ESF since 1982 and is the coordinator of sponsored programs within the Office of Research Programs. His helpfulness, creativity, patience, diligence and attention to detail have helped secure millions of research dollars for ESF scientists.

**Dr. Donald Leopold Receives Gold Medal Award from NYSNLA**

Dr. Donald Leopold, chair of the Department of Environmental and Forest Biology, was honored by the New York State Nursery and Landscape Association in August with the Gold Medal Award.

The award is given to an individual who has made outstanding contributions to horticulture in the state of New York. Leopold was honored for his significant contributions to New York’s horticulture through his teachings at ESF and through his many years of promoting the use of northeastern U.S. native trees, shrubs, perennials and grasses.

Leopold earned his Ph.D. in forest ecology from Purdue University in 1984, his M.S.F. in forest ecology from the University of Kentucky in 1981, and B.S. in ornamental horticulture/nursery management from the University of Kentucky in 1978.

**Dr. Peter Black honored by American Institute of Hydrology**

Professor Peter E. Black received the prestigious Ray K. Linsley Award for outstanding contributions in surface water hydrology during the annual water symposium of the American Institute of Hydrology in August.

Black is Distinguished Teaching Professor of Water and Related Land Resources, Emeritus, who has taught and conducted research at ESF since 1965. He has taught...
courses and conducted environmental impact analyses across the United States and internationally in China, Chile, Spain, Nepal, and Australia, among others.

Since officially retiring in 2000, Black continues to lecture and conduct workshops. He serves on the Skaneateles Lake Watershed Agricultural Program, New York City Watershed Agricultural Program, New York State Soil and Water Conservation Committee, and several other local, state, and national advisory committees.

In 2006, Black launched his radio career with a weekly, two-minute essay titled “Water Drops,” celebrating the wonder of water in culture, law, history, policy, hydrology, and science, airing on NPR affiliate WRVO FM.

**Dr. Maureen Fellows Honored for Environmental Action**

Dr. Maureen O’Neill Fellows was honored for her leadership in protecting the environment by the Syracuse Commission for Women (SCW).

Fellows, director of governmental relations and institutional planning at ESF, was among six adults and four high school students honored for their environmental vision and action during the SCW’s annual Women’s History Month luncheon.

The SCW recognizes women, youth and community groups for their unique examples and contributions to creating an eco friendly environment.

**ESF Enjoys Cultural Richness**

ESF does no formal recruiting for international students, however the College had 152 students representing 35 countries on campus for the 2008-09 academic year.

The College’s Office of Multicultural Affairs partners with undergraduate and graduate student organizations to provide events that support a cultural connection for students. Those events include Latin Night, the Culture Fest LGBT Night, the Native American Feast and Film, the Spirit and Essence Banquet, and the International Food Festival.

The office also runs a Language Bank that represents 43 different languages. Students, along with faculty and staff serve as “depositors” in the bank. When someone in the ESF community needs assistance with any of the languages in the bank, they contact the Office of Multicultural Affairs, which connects the person in need of translation with someone who can help.

The language bank serves many purposes, including translating, providing an opportunity to practice a language before going abroad, and connecting people with a common language who just want to speak and hear their native tongue while in the States.

**Service Learning/Community Service**

For eight years, ESF’s Service Learning Initiative has been improving the student experience while contributing to local communities. As it has every year, the College expanded the scope of its service learning initiative with increased community involvement.

Faculty use service learning to give students hands-on experience while the community service helps students clarify their career goals by affirming their chosen path or introducing them to new possibilities.

Students contributed more than 67,000 hours through the service learning initiative and community service in 2008-2009. The hours of service were completed by 2,591 students participating in 113 activities, or taking any of the 26 courses that employ service learning. ESF works with 192 community partners.
In the Community
In the Community

ESF and Industry

ESF faculty are partnering with local industry to help them incorporate green strategies and practices into their businesses. Those partnerships include:

**Dr. James Nakas** of the Department of Environmental and Forest Biology is working with Blue Highway, a wholly owned subsidy of Welch-Allyn focused on science and technology acceleration associated with bio polymers, primarily from ideation to proof-of-concept for the worldwide healthcare community.

ESF’s Department of Paper and Bioprocess Engineering is home to The Empire State Paper Research Institute (ESPRI) at ESF. In partnership with ESPRI, ESF researchers current research endeavors include improving the mechanical strength and optical properties of paper, developing an understanding of paper structure and development of new processes for the pulping and bleaching of wood.

Biorefinery process technologies under current investigation include the separation of lignocellulosics and fermentation to yield bioethanol, biobutanol and similar biofuels and fermentation to produce biodegradable plastics.

Numerous technologies have been developed and successfully commercialized at this institute, including significant technologies for deriving energy, materials and platform chemicals from wood and other natural resources.

ESF continues its partnership with the Anheuser Busch brewery in Baldwinsville, N.Y. The College conducted a study for Anheuser Busch on the availability of biomass for energy in the region. The company provided the College with funding to help analyze and convey energy information on campus as part of ESF’s continuing sustainability efforts.

ESF has been working with Honeywell International and O’Brien & Gere since 2003 to grow shrub willows as an alternative cover for the harsh conditions left at the Solvay settling basins after 100 years of soda ash production. This project started with greenhouse experiments that laid the foundation for small-scale field trials and has moved to a demonstration of a 10-acre shrub willow and 5-acre inland salt marsh on the settling basins.

ESF is also collaborating with other academic institutions and small businesses. Varieties of willow from the ESF program have now been established in yield trials in 11 states, four provinces in Canada and Northern Ireland.

ESF Surpasses SEFA/United Way Goal

With more than half the campus participating, ESF exceeded its SEFA/United Way goal by almost $5,000. The campaign included a dunk tank fundraiser that had the campus community bidding on the chance to dunk College administrators and faculty.

ESF Fields 8 Teams in 2009 Heart Walk

Eight teams of ESF walkers raised $13,380.62 for the Syracuse 2009 Heart Walk in April. The event celebrated its 25th anniversary this year. President Murphy set a goal of $10,000 for the ESF teams.

College’s Biodiesel Research Benefits Community

ESF worked with community agencies to make two signature events in Syracuse more sustainable. The College turned 900 pounds of butter used in the New York State Fair butter sculpture into biodiesel. It also donated 40 gallons of biodiesel fuel to the city of Syracuse for use in the annual St. Patrick’s Parade.

The biodiesel was mixed with traditional diesel and used to fuel street sweepers. The sweepers work early to prepare the parade route. The sweepers are busy again after the three-hour event.

The donation, initiated by ESF President Cornelius B. Murphy, Jr., who was the parade grand marshal in 2007, is part of the St. Patrick’s Parade Committee’s effort to make the annual event more sustainable.
By 1976, Mullen merged BCI, with Newark Boxboard, bought several mills from Continental Can, and then acquired Newark Boxboard from its original owners. He turned this into the Newark Group, which uses vast amounts of waste paper to make a variety of high-quality products, and employs hundreds of workers while promoting recycling.

Mullen has been a strong supporter of ESF and the Syracuse Pulp and Paper Foundation. He supported the Jahn Laboratory campaign and is a member of the 1911 Society.

College scientists, in collaboration with the American Dairy Association and Dairy Council, Inc., and the Onondaga County Resource Recovery Agency, converted the butter into biodiesel at the production facility on the ESF campus.

Thirty-seven percent of the college’s fleet runs on some form of renewable energy, including biodiesel.

The sculpture yielded approximately 96 gallons of biodiesel. The work was an extension of a project already in place at ESF, in which students collect used fryer oil from dining facilities at neighboring Syracuse University and use it to make biodiesel fuel for the college fleet.

The butter to biodiesel story received national media attention including a story on NPR.

ESF Alumni Honored During Convocation

Two ESF alumni were presented with Graduate of Distinction Awards during the December 2008 Convocation exercises.

James “Jake” McKenna, construction management ’77 BS, ’79 MS, is owner of Parsons-McKenna Construction Co., a general contracting company based in Liverpool, N.Y., that concentrates on the design/build method of project delivery. Parsons-McKenna is a mid-sized general contracting business that partners with clients and architects to produce high quality projects.

McKenna helped revitalize the village of Baldwinsville in the northern part of Onondaga County through the restoration of the village’s first gristmill into an inn and conference center. He is president of the ESF College Foundation, Inc.

Edward K. Mullen, pulp and paper ’47, lead the way in using recycled waste paper to make other products. Upon graduating, Mullen worked for the Richard Gair Company, a manufacturer of paperboard. In 1958, he joined Newark Boxboard, and in 1962, co-founded a separate company, BCI. Along the way, he and a business partner earned 10 patents dealing with paperboard structures.
Ground Breaking Research
Rearch Funding
ESF continues to do a great deal of sponsored research, locally, nationally, and internationally. Total expenditures for sponsored research in fiscal year 2008-09 were $14.4 million.

There were a record 261 proposals submitted for a record total of $81.5 million. The College was among most active research campuses in SUNY with an average per capita research expenditure exceeding $115,419.

Approximately 94 percent of ESF’s faculty is actively and successfully pursuing extramural support at state and federal levels.

International Research
ESF faculty and students continued their studies at many locations including the Galapagos Islands, Quebec, Honduras, Costa Rica, Guyana, Spain, Mongolia and India. A sampling of that research includes:

Dr. Myron Mitchell is conducting research at Lake Hovsgol in northern Mongolia, just south of the Russian border. Lake Hovsgol is the second-largest freshwater lake in Asia and holds 70 percent of Mongolia’s fresh water. Mongolians are the largest group of nomadic people in the world and their livelihood is directly linked to the environment. In the Lake Hovsgol region, a series of watersheds is being subjected to different grazing intensities of domestic animals (sheep, goats, yaks, horses, etc.). Increased warming in the area is resulting in a loss of permafrost and this loss will have major impacts on the landscape. As part of a National Science Foundation-Partnerships for International Research and Education project headed by the University of Pennsylvania, Mitchell is examining the effects of domestic grazing and climate change. Current work includes analyses of water chemistry and microbiology to evaluate temporal and spatial patterns in water quality.

In the spring of 2005, at the request of then-U.S. Senator Hillary Clinton, ESF researched which varieties of willow from its collection could be used to assist in the re-greening of Afghanistan. ESF partnered with the Global Partnership for Afghanistan and sent 10,000 willow stems that were used in trials at research stations and with farmers in different parts of the country. Survival and growth of the plants has been very good and farmers have already developed new uses for these fast-growing plants.

Dr. David Kieber’s laboratory group has been studying the organosulfur cycle in Antarctica to understand how it is affected by physical, biological and chemical processes in the oceans and atmosphere. Antarctica is widely known for its spectacular springtime algal blooms of the colonial species Phaeocystis antarctica. These blooms are so massive that they are easily seen from space, and are important because they produce copious quantities of the gas dimethylsulfide (DMS). This compound is of interest to oceanographers, ecologists and atmospheric scientists because DMS oxidizes in the atmosphere affecting cloud formation and climate. Additionally, the Antarctic is among the world’s most sensitive regions to climate change and it is subject to increased ultraviolet-B radiation (UV-B) because of seasonal ozone depletion. Climate change is expected to affect the cycling of DMS in Antarctic waters, but it is unknown how changes in DMS cycling will in turn affect climate.

Coyotes Make Themselves at Home in Eastern U.S.

Dr. Jacqueline Frair, a wildlife ecologist at ESF is a principal investigator in a five-year, $670,000 study, funded by the state Department of Environmental Conservation (DEC), that aims at getting a better idea of how many coyotes live in the state and where that population is distributed, and what effect, if any, their eating habits could have on New York’s white-tailed deer herd.
Ground Breaking Research

Frair and two graduate students, along with volunteers both in the field and in ESF laboratories, are trapping coyotes, collaring them with global positioning system (GPS) units or VHS radios, and then painstakingly tracking them in search of feeding sites and scat piles.

The GPS collars record the animals’ location every hour and transmit it to the researchers’ handheld units. The scientists download the information into a computer, map the coyotes’ whereabouts and return to the field to backtrack where the animals have been.

They find feeding sites and analyze coyotes’ diet. They also find scat deposits along trails and bring them back to the lab, where ESF students develop a DNA fingerprint that identifies each individual animal. The students also do microscopic inspections of the scat to determine in great detail what types of prey have been consumed.

ESF Researchers Find Birds Moving North

ESF researchers have documented that a variety of North American bird species are extending their breeding ranges to the north, adding to concerns about climate change.

The study was published by the journal Global Change Biology.

In a study published on the journal’s web site, the ESF researchers state the change in the birds’ breeding ranges “provides compelling evidence that climate change is driving range shifts.”

Dr. William Porter, ESF faculty member and director of the college’s Adirondack Ecological Center (AEC) worked on the study with Ph.D. student Benjamin Zuckerber and AEC staff educator Annie M. Woods. The study was also slated for publication in Global Change Biology magazine.

Focusing on 83 species of birds that have traditionally bred in New York state, the researchers compared data collected in the early 1980s with information gathered between 2000 and 2005. They discovered that many species had extended their range boundaries, some by as much as 40 miles.

CNY Naturally Chilled Water Project Charts Its Progress

Cold, clean water from lower waters of Lake Ontario has the potential to act as a natural coolant for buildings in Syracuse while reducing emissions of greenhouse gasses, substantially cutting energy costs, and aiding in the restoration of Onondaga Lake.

The environmentally friendly undertaking would pipe water from deep in Lake Ontario into Onondaga and Oswego counties. The lake water would provide a greenhouse gas-free cooling source that would reduce emissions and cut the amount of fossil fuels used to power mechanical chillers and coolers in regional private and public buildings.

After being used, the oxygen-rich water would flow back through Onondaga Lake and then return to Lake Ontario, closing the loop on the system.

Not only does the project stand to provide natural cooling to CNY buildings, but the water, when deposited in Onondaga Lake, can aid in the lake cleanup. The water entering Onondaga Lake would be approximately 52 degrees, which is cooler than Onondaga Lake in the summer. This cooler, oxygen-rich water will help reduce mercury and other toxins, add oxygen naturally and enhance aquatic fisheries.

Then-Congressman James T. Walsh appropriated $1.5 million in funding for the feasibility study, which would develop the alternative cooling system. The College is partnering with Onondaga County and the county’s Metropolitan Water Board on the project. Also collaborating are Stearns and Wheeler, Upstate Freshwater Institute, Syracuse Regional Planning and Development Board, Exponent, Gryphon International Engineers, Ecologic, and Hiscock and Barclay, LLP.
**Ground Breaking Research**

"Lost" Salt Marsh Species Discovered in Syracuse by ESF Researchers

ESF researchers found thriving populations of a plant, native to inland salt marshes, that was previously thought to have vanished from the Syracuse region.

The once-abundant seaside goldenrod was discovered in unlikely locations along major highways running through the city of Syracuse by Dr. Donald Leopold and doctoral student Tony Eallonardo.

The fact that the plants are growing well in seemingly inhospitable locations — heavily trafficked areas that are treated with substantial amounts of salt during the winter — could make them important components of urban landscaping.

In their work with salt marsh restoration, Eallonardo and Leopold have found several species that are rare in New York state. When possible, Eallonardo has been propagating these species for eventual outplanting. The scientists hope to promote the use of these species in urban plantings, specifically along roadsides and in urban rain gardens and retention basins. These native species are much more suitable to these conditions than species typically selected.

This work is supported by a grant from New York State's Biodiversity Research Institute. The work focuses on studying the inland salt marshes west of Syracuse in the Montezuma Swamp area.

Overfishing Pushes Baltic Cod to Brink of Economic Extinction

Dr. Karin Limburg, a fisheries ecologist at ESF, was the lead author on a report published in the British scientific journal, Proceedings of the Royal Society B. The study shows overfishing by humans is causing fish populations to evolve and driving commercially valuable species like cod to the brink of economic extinction.

An international team of scientists found that 4,500-year-old earstones, known scientifically as otoliths, and vertebrae from Baltic cod found in a pre-Viking settlement on the Swedish island of Gotland indicate the fish harvested by Neolithic fishers were older and larger than those hauled in by 21st century trawlers.

The findings were reported in one of two scientific journals published by the Royal Society, the United Kingdom's national academy of science. Proceedings B publishes articles about the biological sciences. Limburg collaborated on the study with Yvonne Walther of Sweden's National Board of Fisheries; Bongghi Hong, an ESF research associate; Carina Olson, a doctoral student at the University of Stockholm; and Jan Storå, an archaeologist at the University of Stockholm.

Limburg said the research will provide baseline information so modern managers can better assess the fishery and plan for its future.
Funding and Facilities
The ESF campus will undergo major changes in the next decade with a master plan for the College that includes new buildings, roadways and a large focus on sustainable energy. Three new buildings have been proposed for the College: the Gateway Building, the Academic Research Building and student housing along Oakland Street.

The Gateway Building will house the Admissions Office, Outreach offices, exhibition/gallery spaces, café/snack bar, a Roosevelt Wildlife Collection display, a bookstore and event space with seating for 500 people. The building will be a LEED-Platinum building and be a zero net energy showcase building with the design including biomass combined heat and power, photovoltaics, a green roof, passive solar heating components and rain gardens.

Archeterra, a design firm from Boston, is designing the building, which will be located on the site that is now occupied by the parking lot behind Moon Library. Completion of the Gateway Building is anticipated for the College's centennial celebration in 2011.

Student housing along Oakwood Street is also being developed. The complex would house 454 students with freshmen in shared rooms, and with single bedrooms in...
Funding and Facilities

suites or apartments for upperclassmen. As with all the proposed buildings, it would be LEED certified and use sustainable heating and cooling.

The Academic Research Building (ARB), to be located on Standart Street/Raynor Avenue block, will house the administrative/faculty and graduate student offices for the Department of Environmental and Forest Biology, dry/wet research labs, greenhouses, study/collaborative space, insect museum, mycological collection and vascular plant herbarium display. The building will also include a 240-plus space parking facility. It is anticipated the ARB will be completed by 2014.

The existing campus buildings are on a preliminary rehabilitation schedule that begins in 2014 and runs through 2024. Energy systems within the buildings would be improved and space utilization would be increased.

All ESF properties are being looked at to find ways to use more sustainable energy.

The College has already instituted a number of initiatives, including conservation, the green roof on part of Walters Hall, use of waste to make biodiesel, the use of a fuel cell and the photovoltaic arrays on Baker and Walters halls.

**College Foundation Reports Successful Year**

The ESF College Foundation headlined a successful year by raising $2.4 million, a 45 percent increase over fund-raising in 2007-08. Other accomplishments noted by the Foundation include:

- Receiving a gift of more than $1 million, the second largest gift in the College’s history, from the estate of former SUNY administrator J. Lawrence Murray and his late wife, Antoinette, to establish a scholarship for economically disadvantaged students
- Securing the necessary private funding to complete the renovation of historic Huntington Lodge at the College’s Adirondack Ecological Center in Newcomb, N.Y.
- Receiving donations of real property valued in excess of $100,000
- Establishing seven new endowments
- Hosting a successful Feinstone Environmental Awards fundraising banquet, with more than 220 attendees raising nearly $30,000 for ESF scholarships and academic programs
- Featuring Harvard professor and world-renowned environmental expert John P. Holdren as Feinstone Environmental Awards speaker shortly before his appointment as a top science advisor for the Obama administration
- Hiring a campaign consultant and completing the planning phase and revision of the case statement for the Centennial Fundraising Campaign, with a working goal of $20 million
- Completing property acquisition for a student residence development, increasing Foundation real property assets in excess of $3.6 million
- Completing project evaluation, pre-construction planning, and schematic design for the student residence and beginning the permitting process for a construction start date of May 2010
- Recruiting new Foundation board members from IBM, HSBC Bank, Bristol-Myers Squibb and Syracuse Research Corporation
- Having ESF College Foundation management practices cited as examples of “best practices” in SUNY report on Foundation Governance

**Feinstone Award recognizes environmental entrepreneurship**

ESF celebrated environmental entrepreneurship by presenting the honorary 2008 Sol Feinstone Environmental Award to alumni Jesse M. Fink and Elizabeth C. “Betsy” Mitchell-Fink.
The award was presented Oct. 23 at a dinner at the Renaissance Syracuse Hotel in downtown Syracuse. The event focused on environmental entrepreneurship — the interplay between scientific research, public policies and market forces — as an important emerging force in the application of science to address issues that range from local to global in scope.

The dinner featured remarks by Dr. John P. Holdren, the Teresa and John Heinz Professor of Environmental Policy at Harvard University and director of the Woods Hole Research Center in Falmouth, Mass.

Jesse Fink and Betsy Mitchell-Fink graduated from ESF in 1979. They now reside in Wilton, Conn.

Jesse Fink is co-founder and managing director of Mission-Point Capital Partners, a private investment firm focused on accelerating the transition to a low-carbon economy. He was co-founder and chief operating officer of priceline.com. Betsy Mitchell-Fink owns and operates Millstone Farm in Wilton, Conn., an organic farm that promotes local, sustainable agriculture.

The Finks also run the Betsy and Jesse Fink Foundation, which focuses on catalytic philanthropy that supports ground-breaking research and action to promote awareness and solutions in the environmental domain, specifically climate change and local agriculture.

The awards program was established by Sol Feinstone, a widely known historian and author who was a graduate of ESF, to reward people and organizations that exemplified his belief that the best insurance for a free society lay in people’s desire to do voluntarily the things that need to be done for the good of all.
On Campus