Friends,

It has been my honor and pleasure to have served almost 13½ years as president of the State University of New York College of Environmental Science and Forestry. As a team we have accomplished a lot. Our physical infrastructure has been greatly improved. Our rankings are very strong. We have had significant growth in student populations at both the undergraduate and graduate levels. Our research portfolio has risen substantially along with the endowment and assets held by the ESF College Foundation.

It is now time for new leadership to take the College to the next level, to achieve new dreams and to “Improve Our World.”

I wish my colleagues and friends a wonderful future. I will be watching with great pride.

Cornelius B. Murphy, Jr.
President
Murphy to Step Down as President of SUNY-ESF

Dr. Cornelius B. Murphy, Jr., announced he plans to step down as president of ESF.

Upon leaving the presidency, Murphy will focus on teaching and special projects at the College. The ESF Board of Trustees has initiated the search process for a new president. Murphy expects to remain in the position until a successor is named, which could be later in 2013.

Murphy was named president of ESF in 2000. He led the College through an unprecedented expansion of its physical facilities with the construction of the College’s first residence hall, Centennial Hall, and the Gateway Center. The rehabilitation of Baker Laboratory was completed during his tenure. In addition, ESF has embarked on plans to construct a new academic research building at the western edge of the campus.

During Murphy’s presidency, ESF has been widely recognized as one of the best colleges in the nation, garnering solid rankings in publications such as U.S. News & World Report, The Princeton Review, Forbes and Washington Monthly.

Murphy joined ESF after a 30-year career with Syracuse-based O’Brien & Gere, an environmental engineering firm, where he rose to the position of president and chairman of the board.

Murphy earned a Ph.D. in chemistry from Syracuse University, where he was a NASA Fellow, and a B.A. in chemistry from St. Michael’s College. He received an honorary Doctor of Science degree from Clarkson University in 1997 and Onondaga Community College in 2013.

ESF Named One of Princeton Review’s “Best Value” Colleges

ESF has been named one of the nation’s 150 “Best Value” colleges and universities by The Princeton Review.

The college guide describes ESF as “nationally renowned” and quotes ESF students who described the College as “a small, personal school” with “tough coursework” where professors are “brilliant in their fields” as well as “supportive and easy to find and speak to.” Students say they are impressed by faculty members who “can back up their teaching with real experiences.”
The 150 “Best Value Colleges” were selected based on institutional data and student opinion surveys collected from 650 colleges and universities the company regards as the nation’s best undergraduate institutions. Seventy-five public and 75 private colleges and universities were profiled.

The selection process analyzed more than 30 data points broadly covering academics, cost and financial aid. Data from students attending the schools included their assessments of professors and their satisfaction with financial aid awards.

ESF Named Top Environmental Programs College

Mother Nature Network ranked ESF second on a list of the Top 10 Best College Environmental Programs in the United States.

The colleges listed offer a range of environmental programs and often incorporate sustainability into all aspects of their curriculum. Mother Nature Network (MNN.com) is one of the world’s most visited online networks focused on environmental issues and sustainability. ESF is the only SUNY institution on the list, which includes Cornell, Duke and Yale universities.

Mother Nature Network noted ESF has more than 25,000 acres of land in Central New York and the Adirondack Park, and stated that “nearly 2,500 students in the graduate and undergraduate programs choose majors as specific as aquatic and fisheries science, construction management, forest ecosystem science, paper engineering, and bioprocess engineering. Research takes priority, too, with faculty working on more than 450 projects — including wildlife disease prevention, nanotechnology, and genetic engineering — around the world.”

ESF Earns Spot in Guide to Green Colleges from Princeton Review

ESF is listed in the 2013 Princeton Review Guide to 322 Green Colleges. The Princeton Review partnered with the U.S. Green Building Council to identify the schools with the nation’s most eco-friendly campuses and present information about each school’s sustainability, “green” majors and “green” job placement.

“SUNY-ESF is the only school in the nation where all of its academic programs are oriented toward natural resources and the natural and designed environments,” the book states. “With sustainability at the core of the university’s mission, SUNY-ESF has been at the forefront of nationally-recognized, government-supported research in green issues.” ESF’s entry continues, stating, “SUNY-ESF’s career center is dedicated to placing students in internships and careers in the science, design, policy, and management of the environment and natural resources.”

The publication cites ESF’s involvement with the development of an ethanol-producing biorefinery in New York and notes the College is committed to being carbon neutral by 2015. Also highlighted is the College’s new Gateway Center designed to achieve Leadership in Energy and Environmental Design (LEED) Platinum status. The building features a biomass–fueled power plant designed to generate 65 percent of the heat and 20 percent of the electrical power for the entire campus.

ESF Ranked as Top ROI College

ESF has been ranked a top college for return on investment by Affordable Colleges Online (www.affordablecollegesonline.org). ESF is ranked 38th on AC Online’s “Highest Return on Investment Colleges in New York” listing. The ranking analyzed data from 472 colleges in New York state and identified 84 colleges where degrees pay off the most. Students who graduate from these colleges earn more over their lifetimes, on average, than graduates from other New York institutions.

ESF Rises to 77 on U.S. News ‘Best Colleges’ List

ESF again earned a place among the top universities in America as ranked by U.S. News & World Report magazine.

ESF is ranked number 77 in the National Universities category of the magazine’s 2013 edition of Best Colleges and 32 on the list of Top Public Schools.

The National Universities category includes schools that offer a wide range of undergraduate majors and master’s and doctoral degrees while also being involved in major research activities. ESF moved up from the number 82
ranking it held last year. ESF is the highest-ranked SUNY institution on the list, which also includes the university centers at Binghamton, Stony Brook, Buffalo and Albany. Both public and private institutions are included in the National Universities category.

Among public universities, ESF moved up from the previous year’s ranking of 36. ESF is also the highest-ranked SUNY institution on that list.

**ESF Also Earned a Ranking of 42 on the Great Schools at Great Prices list.**

U.S. News & World Report pointed out that 65 percent of ESF students receive need-based grants. Inclusion in the Great Schools at Great Prices category takes into account a school’s academic quality and the net cost of attendance for a student who receives the average award of financial aid. The magazine says only schools ranked in the top half of their quality categories are included because U.S. News & World Report considers the most significant values to be among colleges that are above average academically. ESF is the only SUNY institution on that list.

**Huffington Post Includes ESF as ‘Collaborative’**

The Huffington Post this summer included ESF in a list of "The Top 100 Best And Most Collaborative U.S. Colleges." Compiled by blogger Vala Afshar of networking company Enterasys Networks, the ranking assessed the top 100 universities (as identified by U.S. News & World Report) based on a measure of their engagements across all major social platforms.

ESF is listed at No. 88.

"Not surprisingly, the very best schools are also the most collaborative..." the report states. "What does this mean to businesses today? The very best students, graduating from the very best schools, are extremely social and expect transparency and collaboration at all levels of the organization."

**Enrollment Remains Strong**

ESF enrolled a record number of 327 entering freshmen for the fall 2012 semester and added 224 transfer students for a combined total of 551 new undergraduates. The very large freshman class was a bit unexpected, with the percentage of accepted applicants choosing to enroll exceeding projections and stretching the College's residence hall capacity to the limit. A number of entering freshmen agreed to be placed in "tripled" rooms in Centennial Hall as a result.

New student enrollment goals for fall 2013 have been adjusted accordingly, and the College is now on target to enroll an entering class of 290 freshmen.
and 250 transfer students for the upcoming year. The increased number of transfer students will come in part from a larger class entering ESF’s Ranger School.

While the fall 2013 freshman class will not be record setting, it is still expected to be the third largest class in the past 10 years. Student quality measures will also remain strong, with the typical freshman earning a high school grade point average of 92 percent. The number of applications from outside New York state has increased, while in-state applications have reflected a declining number of high school graduates and increased competition for in-state applicants. Strategies put in place to recruit across a broader geographic area are helping new student enrollments to remain strong, and improved student retention rates are also contributing to enrollment growth. Total enrollment at ESF is projected to increase again for the fall 2013 semester, with the College enrolling more than 1,700 undergraduate students along with approximately 550 graduate students.

President Murphy Honored

ESF President Cornelius B. Murphy, Jr., was honored in the spring of 2013 as F.O.C.U.S. Greater Syracuse’s “Wisdom Keeper,” which recognized his efforts to make Central New York more sustainable and a better place to live, work and play.

According to Native American legends, the Wisdom Keeper is one who hears the earth’s story and teaches others to learn from, honor and care for the earth and the community.

The recognition was commemorated with a bronze plaque placed in the F.O.C.U.S. Wisdom Keeper Garden on the east side of City Hall Commons in downtown Syracuse. The Wisdom Keeper Garden is one way F.O.C.U.S. demonstrates the power and effect of sustainability on the local area.

Murphy was also honored with the Lifetime Achievement Award by the Technology Alliance of Central New York (TACNY). The award was presented at TACNY’s 14th Celebration of Technology Awards Banquet March 18, 2013, at the Holiday Inn on Electronics Parkway.

Founded in 1903 as the Technology Club of Syracuse, the nonprofit TACNY’s mission is to facilitate community awareness, appreciation and education regarding technology and to collaborate with like-minded organizations across Central New York.

New Hires, Promotions for Faculty, Staff

The College welcomed a number of new faculty and staff members to campus as others were promoted to new positions.

Dr. Michael Bridgen, professor at The Ranger School, was appointed the director of The Ranger School effective July 1, 2013. Bridgen has been a faculty member at the school since January 1992. He is the recipient of the 2003 Chancellor’s Award for Excellence in Teaching and will continue to teach a number of courses. Bridgen replaces Christopher Westbrook who retired in the summer of 2013.

Dr. Douglas Johnston was named professor and chair of the Department of Landscape Architecture effective July 1, 2013. Johnston came to ESF from Iowa State University where he was professor and chair of the landscape architecture department. He is a 1979 alumnus of the ESF landscape architecture program. He holds a master’s degree from the Harvard University School of Design and a Ph.D. in civil and environmental engineering from the University of Washington.

Moon Library welcomed Ruth Owens as assistant librarian. Owens has a bachelor of science in zoology from Colorado State University and a master of science in library and information science from Syracuse University. She comes to ESF from Cayuga Community College where she served as the instructional technologies librarian.

Promoted to professor was Susan Anagnost, Department of Sustainable Construction Management and Engineering.
Promoted to associate professor were Dr. Neal Abrams, Department of Chemistry; Dr. Biljana Bujanovic, Department of Paper and Bioprocess Engineering, Dr. Melissa Fierke, Department of Environmental and Forest Biology; Mariann Johnston, Department of Forest and Natural Resources Management; Dr. Giorgos Mountrakis, Department of Environmental Resources Engineering; Dr. John Stella, Department of Forest and Natural Resources Management; Dr. Christopher Whipps, Department of Environmental and Forest Biology.

Several faculty members were recommended for continuing appointment. They were Dr. Neal Abrams, Dr. Biljana Bujanovic, Dr. Melissa Fierke, Mariann Johnston, Dr. Huiting Mao, Department of Chemistry; Dr. Giorgos Mountrakis, Dr. Lee Newman, Department of Environmental and Forest Biology; Dr. John Stella, and Dr. Christopher Whipps.

Michael J. Kelleher, executive director of energy and sustainability, was appointed to the Department of Forestry and Natural Resources Management as a senior research associate.

Debbie Caviness was appointed as ESF’s new director of alumni relations. Caviness who has been in the Alumni Relations office since 1996, brings a wealth of experience and has established strong relationships with both ESF’s alumni and the College community.

Mary Chandler was named college registrar. She began her appointment Jan. 7, 2013. Chandler comes to ESF from LeMoyne College where she was registrar for 11 years.

Laura DeJoseph has been named internship coordinator. DeJoseph is a graduate of Syracuse University’s Higher Education Administration program. While pursuing her degree, she served as a full-time residence director at Syracuse. As internship coordinator, DeJoseph will increase internship opportunities for students and support faculty and employers in connecting students to internships.

Gary Peden was appointed director of physical plant. Peden previously served as associate facilities program director.

Emily Quackenbush joined ESF as coordinator for international education. Quackenbush comes to ESF from the University at Buffalo where she held a similar position, primarily serving international students.

John Shaylor joined the ESF community as food service manager at The Ranger School and Cranberry Lake dining facilities as of Jan. 2, 2013.

Previously Shaylor was school lunch director at the Thousand Islands Central School District in Clayton, N.Y. His professional experience includes 20 years of experience in the United States Army as a cook and dining facility manager at various duty locations including Fort Drum, Korea and Alaska.

Andrea Webster served as ESF’s first sustainability coordinator during the final year of her graduate studies. The position will continue in the future to help provide working experience in sustainability for graduate students and help push ESF’s sustainability efforts forward. Webster created and ran a new Eco-reps program that saw student volunteers deliver sustainability programming in Centennial Hall and also led the efforts to develop a course keyword search process to help students find sustainability courses on campus.

College Community Awards and Honors

Dr. Richard Smardon Appointed Distinguished Service Professor

Dr. Richard C. Smardon, Department of Environmental Studies, received SUNY’s highest faculty honor May 7, 2013, when he was appointed a Distinguished Service Professor.

Smardon has an outstanding record of service to the university, his professional colleagues and the community, both locally and beyond. He has served as a full professor for more than 15 years, also acting as co-director of the SUNY Great Lakes Research Consortium, co-director of ESF’s Division of Environmental Science, director of ESF’s Graduate Program in Environmental Science, chair of the Department of Environmental Studies and director of the Randolph G. Pack Environmental Institute.

Smardon’s record encompasses sustained, effective service at every level: local, statewide, national and international. He was cited for his service to students and professional organizations, his partnerships with an array of colleagues, and his willingness to share his expertise with organizations and agencies working to solve environmental challenges.

In attaining the rank of Distinguished Service Professor, a faculty member’s service must exceed the work generally considered to be a part of a candidate’s basic professional work. It must extend over multiple years and involve the application of intellectual skills drawing from the candidate’s scholarly and research interests to issues of public concern.

Smardon was one of 16 faculty members from the 64-campus system who were added to the distinguished ranks by the SUNY Board of Trustees.
Dr. Thomas Amidon Named ESF Exemplary Researcher

Dr. Thomas Amidon, Department of Paper and Bioprocess Engineering, was named ESF Exemplary Researcher. The award recognizes a current researcher who has outstanding research activity, an impressive publication record and active graduate/undergraduate student research programs.

Since coming to ESF in 2000 as chair and professor of what was then called the Department of Paper Science and Engineering and director of the Empire State Paper Research Institute, Amidon has been a leader in research and development.

He has led the College's efforts in biorefinery research and is recognized globally for his development of the hot water pre-extraction process for lignocellulosic biomass. Amidon has been the principal investigator for a number of large research grants from the U.S. Department of Energy and from the highly competitive National Science Foundation. Many processes that he has either originated or collaborated in developing are now at various licensing stages with private industry.

Along with his research activities, Amidon is an academic advisor who develops and administers a SUNY bioprocessing advanced certificate program. This program provides 15 graduate credit hours of biology and bioprocess engineering training with two to 18 graduates per year. Students are B.S. graduates currently in the work force and more than 60 have graduated so far.

A graduate of ESF, (B.S.'68, M.S.'72 M.S., Ph.D. '75) Amidon has authored or co-authored more than 60 publications.

This award, which is made annually, provides a $5,000 research account that can roll over for three years. Amidon will present a campuswide research seminar highlighting his work as the first seminar in the Adaptive Peaks Series during the 2013–14 academic year.

Miller Receives Foundation Award

Anthony J. Miller, an instructor in the Department of Landscape Architecture, received the 2013 ESF College Foundation Award for Exceptional Achievement in Teaching.

Miller, who earned his bachelor's degree from ESF in 1973 and returned to teach 14 years ago, was praised as a skilled educator who encourages students to think deeply about their chosen field. He has taught an array of classes in the department, including design studios, history of landscape architecture and graphic communication.

ESF students who supported the nomination stated Miller is routinely available to help them with projects and problem solving, even if they are not enrolled in his class. Students describe Miller as fun, understanding and forgiving. He was praised for encouraging his students to delve into history to understand the historic social and cultural mores that helped shaped the spaces they work on in their design projects.

In addition to his degree from ESF, Miller did graduate work at Edinburgh University and earned his M.A. from Syracuse University. He has extensive professional experience as a landscape architect.

The ESF College Foundation, the charitable organization that provides support to ESF, established the award in 1999 to celebrate the accomplishments of ESF faculty members who have achieved excellence in their teaching responsibilities. The Foundation provides winners with a personalized framed citation and a cash award of $1,000. A plaque displayed on the ESF campus permanently lists the names of all recipients.

Employees Honored with SUNY Chancellor Awards

Three ESF employees were honored with SUNY Chancellor Awards for their dedication and service to the College and the community at large.

Dr. Charles A.S. Hall, who recently retired as a professor in ESF's Department of Environmental and Forest Biology, received the Chancellor's Award for Excellence in Scholarship and Creative Activities. The award supports the pursuits that provide a foundation for sustaining the intellectual growth of SUNY institutions by recognizing consistently outstanding scholarly and creative productivity, conducted in addition to teaching, by SUNY's instructional faculty.

Hall was nominated for the award because of his dedicated and effective commitment to scholarship and creative research directed to problem solving in systems ecology and biophysical economics. Hall had been affiliated with ESF since 1987.

Hall, a systems ecologist, has produced 286 publications and authored or co-authored seven books. He developed the concept of "energy return on investment" and he predicted the energy crisis years before most other
He pointed out the societal importance of energy supplies, energy use and economic activity, and carbon emissions and made them into research topics for an entire generation of scientists.

Ragan Squier, assistant to the College president, received the Chancellor’s Award for Excellence in Classified Service.

Squier joined ESF as a temporary keyboard specialist in the Department of Chemistry in 1983, moving up to department secretary before moving to the President’s Office. She has been the assistant for President Cornelius B. Murphy, Jr., since he took the position in 2000.

In receiving the award, she was praised for her professional and leadership skills, creative problem solving, attention to detail, positive attitude and her ability to juggle numerous projects at one time. In addition, she has incorporated sustainable practices in the president’s office and seamlessly accommodates the needs of visitors to campus.

Mark Storrings, an instructional support specialist in the ESF Department of Environmental Resources Engineering, received the SUNY Chancellor’s Award for Excellence in Professional Service. The award to Storrings recognizes consistently superior professional achievement within and beyond the honoree’s job description.

Storrings has been affiliated with ESF since 2001. He was nominated for the award because of his positive, task-oriented attitude and knowledge of the hardware and software systems that are critical to the success of his department. He is skilled in the instruction of the use of this technology at all levels and he is constantly willing to share his knowledge and skills with others. He is proactive about helping his colleagues on ESF’s regional campuses solve technical problems and they depend on his expertise.

Storrings was praised for consistently demonstrating excellence in professional service and activities beyond those of his performance program and job description. He contributes his technical skills to ESF’s participation in community events, including the New York State Fair. He participates in the campus United Way fundraising event “A Taste of ESF” and has helped provide nearly 200 members of the campus community with training in cardio-pulmonary resuscitation and the use of an automated external defibrillator.

**Employees Recognized with Quality of Worklife Awards**

Two employees were recognized for their contributions to the ESF community and beyond by the College president and the Quality of Worklife Committee.

**Dr. Melissa Fierke**, Department of Environmental and Forest Biology, was awarded the President’s Quality of Worklife Award for Public / Community Service. The award is given to an employee whose outreach activities to the public provide excellent representation for the College and its mission and/or for those whose volunteer service to the community enhances life for others.

Fierke serves at the state level on the New York Forest Health Advisory Committee and is chair of ESF’s Faculty Governance Committee on Public Service and Outreach. She has made presentations to the public at large and in the public school system, and has given entomology presentations to local teachers.

Fierke annually gives presentations throughout Central New York on important forest insect issues. In the fall of 2010, she coordinated invasive species workshops for local, regional and state agencies. She has been working with the Syracuse city arborist and Cornell Cooperative Extension on developing and implementing an emerald ash borer preparedness plan for the city of Syracuse and Onondaga County. Fierke also maintains active teaching and research programs.

The President’s Quality of Worklife Award at ESF was awarded to Leslie Rutkowski of the Registrar’s Office. The award is given to a current employee who has demonstrated willingness to make the extra effort to perform a required service and shows exemplary performance of duties beyond ordinary expectations or requirements and involvement in campus activities demonstrated consistently during their employment.

Rutkowski served as acting registrar in 2012. She played a key role in the capacity of ESF to function as an educational institution during a crucial time as preparations began for the fall 2012 semester. Rutkowski ensured the office was able to generate the necessary reports needed by students and faculty. She also retained responsibility for room reservations campuswide.
ESF Professor Honored for Excellence in Education

Dr. Charles Hall, who retired this year as a professor in the College’s Department of Environmental and Forest Biology, was recognized for excellence in energy education.

Hall received the Matthew R. Simmons / M. King Hubbert Award for Excellence in Energy Education from the Association for the Study of Peak Oil and Gas. The award recognizes Hall’s work on energy return on investment, the ratio of the energy delivered by a process to the energy used directly and indirectly in that process.

Hall is a systems ecologist with an interest in energy, biophysical economics and the links between energy and society.

Greenfield Named Executive of the Year

Brenda Greenfield, executive director of the ESF College Foundation, was honored as a Nonprofit Executive of the Year by the Central New York Business Journal.

Greenfield has led the ESF College Foundation, a private, non-profit organization that provides financial support for the students and academic programs of ESF, since 1999.

On an annual basis, the ESF College Foundation provides more than $1 million in support to ESF. Funds provide nearly 300 student scholarships annually, the purchase of new equipment and facility enhancement. The foundation also operates Centennial Hall, the College’s first residence hall, which was built with foundation funds and opened in fall 2011.

Under Greenfield’s leadership College assets and endowment have increased tenfold and the foundation has successfully managed innovative and complex projects in Syracuse, the Adirondacks and abroad in support of ESF’s international work.

The Executive of the Year honor is presented to nonprofit executives (president, CEO, executive director) who exhibit leadership, planning skills, strong staff growth, board development, solid fiscal management and increased fund-raising. Greenfield was one of two people who received the award in the $1 million to $5 million category.

SUNY-ESF Feinstone Award Celebrates Conservation

ESF celebrated conservation during its 2012 Feinstone Environmental Awards dinner Oct. 25, 2012, by presenting the award to Jody and Doreen Garrett, who manage a private preserve in Chaumont, N.Y. The Garretts are outdoor enthusiasts who incorporate environmental conservation into their personal and professional lives.

Jody began hunting and trapping at the age of 10. In 1981 he graduated from the University of Idaho with a wildlife management degree. Today, Jody is president and owner of the Overhead Door Company of Watertown. Doreen founded Otis Technology at the age of 16. Otis, located in Lyons Falls, manufactures Breechto-Muzzle firearm cleaning systems and accessories developed for the military, competitive marksmen and hunters. The Garretts manage the 2,000-acre Lucky Star Ranch in Chaumont. It has become a gateway for the Garretts to share their passion through affiliations such as the National Rifle Association, Quality Deer Management Association, Wounded Warrior Project and various other community organizations.

The College’s relationship with the Garretts has included faculty and students conducting research at the Lucky Star Ranch, where they conducted a “bioblitz” that inventoried plant, animal and fungus species over a span of 24 hours.

The award was presented during a dinner at the Gateway Center on the ESF campus.

The keynote speaker was David Crockett, former director of the Office of Sustainability in Chattanooga, Tenn. An avid outdoorsman, Crockett is the great-nephew of the famous frontiersman.

Crockett has been called an “eco-pioneer” and has been credited as a visionary taking a practical approach to sustainability.

The Feinstone Awards program was established by Sol Feinstone, a widely known historian and author who was a 1915 graduate of ESF. 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 to do voluntarily the things that need to be done for the good of all.
ESF Launches Sustainable Energy Management Major

ESF introduced a new Bachelor of Science degree in sustainable energy management that focuses on energy markets, management and resources. The program is designed to give students an understanding of responsible energy resource use and insight into how these resources impact the natural world. The program is interdisciplinary and involves coursework in the natural sciences, social science and humanities, communication, and quantitative/qualitative problem-solving and critical thinking skills.

Twenty-nine students were enrolled in the program for the spring 2013 semester and an additional 16 new students will enter the program this fall. The ESF campus provides numerous opportunities for hands-on learning for students in the program. The College, which has committed to achieving carbon neutrality by 2015, already has several photovoltaic arrays, a biodiesel production facility and a fueling station for fleet vehicles that run on alternative fuels.

Students in the program will be able to learn through the operation of the Gateway Center which houses a state-of-the-art, biomass-based, combined heat-and-power plant that provides energy for the Gateway Center and four other campus buildings.

The new major is housed in ESF’s Department of Forest and Natural Resources Management. Students seeking the degree will earn at least 120 credits. Graduates will be prepared for jobs in energy resource management positions with public agencies, private industry and nonprofit organizations.

College Adds Environmental Health Program

ESF has received New York state and SUNY approval to offer a bachelor of science program in environmental health. The program will train students interested in the intersection of human health and the physical environment. Environmental health addresses how the environment impacts human health.

Students will focus on analysis, prevention and mitigation of potential environmental hazards (biological, chemical, physical). Students will be prepared for employment in private industry, government agencies, and nongovernmental agencies concerned with pollution abatement, protection of public health, and research in health science or advanced study in the science of environmental health or the allied health professions. The program is designed for accreditation by the National Environmental Health Science & Protection Accreditation Council.
ESF Heads to SEA; Plans New Marine Science Minor

ESF announced a new affiliation with the Sea Education Association (SEA) Semester, an internationally recognized leader in undergraduate ocean education, based in Woods Hole, Mass. SEA offers students a number of programs to choose from including ocean exploration, oceans and climates, energy and the ocean environment or marine biodiversity and conservation.

As an affiliated college, the admissions fee to SEA is waived for ESF students. There are also special fellowships available for ESF students, along with need-based financial aid. The credits earned at SEA transfer directly to ESF, the only SUNY affiliate for the SEA Semester. Students receive 17 credits during their SEA semester.

For students interested in marine studies, ESF plans to introduce a new marine science minor. Drs. David Kieber, Mark Teece and Kim Schulz developed the interdisciplinary minor. Faculty hope to launch the new minor during the fall 2013 semester, and students will complete the minor by taking credits through the SEA Semester or via on-campus classes.

Classes within the minor will include marine ecology with Schulz, marine biogeochemistry with Teece, chemical oceanography with Kieber and invertebrate zoology with Dr. Rebecca Rundell.

Students engaged in the 12-week SEA Semester spend the first six weeks taking classes at the Woods Hole campus. While there they develop the independent projects that they will conduct while at sea. The second part of the semester has them on the water.

International Cooperative Agreements

ESF has entered into international cooperative agreements with universities in China and Brazil.

The College has a new dual degree 3+1 program in paper engineering with Shaanxi University of Science and Technology (SUST) in Shaanxi, China. Junior paper engineering students from SUST can apply to ESF to finish their last year of study and receive diplomas from both SUST and ESF.

ESF and Universidade Federal do Oeste do Pará, Brazil (UFOPA), established a formal, five-year cooperative agreement in August 2012 to develop academic and cultural interchanges between the two institutions through mutual assistance in the areas of research and education. The goal is to provide opportunities for students and faculty to participate in collaborative research and scholarship, particularly with regard to issues of environment, conservation biology, ecology, and resource management, especially as they relate to the giant fish Arapaima.

This agreement is facilitating an integrative study on “Growth, migration, species diversity, and trophic ecology of arapaima (Arapaima spp.),” with ESF activities coordinated by Dr. Donald J. Stewart, professor of environmental and forest biology. The project aims to improve the conservation and management of inland fisheries of the Amazon by studying key aspects of biology of the arapaima. In addition to ESF and UFOPA researchers, the project involves collaborators from the Brazilian National Museum (Rio de Janeiro), Instituto de Pesquisa Ambiental da Amazônia (Santarem), UC Davis, and Virginia Polytechnic Institute and State University. Two ESF doctoral students and an undergraduate honors student will participate in field activities during 2013–14.

ESF entered into a cooperative agreement with the University of Jinan’s School of Resources and Environment. This has provided the opportunity to apply for an International Cooperative Project of Shandong Province of the People’s Republic of China.

Dr. Hui Wang of the University of Jinan has obtained funding to research the coupling of nitrogen and carbon cycles in temperate forests. The results from the research will be turned into a paper to be submitted to an international scientific journal.

The cooperative members are also working on a manuscript related to the Huntington Wildlife Forest in the Adirondack Mountains. Some of this research was accomplished when Wang was a visiting scientist at ESF. Dr. Myron J. Mitchell of ESF’s Department of Environmental and Forest Biology has been working with the group of Chinese scientists in developing research plans and the development of scientific manuscripts.

Using this agreement as a basis, the University of Jinan wants to establish an international cooperative center, that will focus on research regarding the water quality and ecological restoration of Shandong Province. It is anticipated that such a cooperative center will result in the expansion of activity between the University of Jinan and ESF.
ESF Named to Community Service Honor Roll

ESF was named to the 2013 President’s Higher Education Community Service Honor Roll, which recognizes colleges and universities who achieve meaningful, measurable outcomes in the communities they serve throughout the nation and show a clear commitment to community service and service learning.

Students at ESF contributed more than 75,000 hours of service through the College’s Service Learning Initiative and community service projects in 2012-2013. Students have worked on projects on local, national and international levels. Projects included volunteering at the Carpenter’s Brook Fish Hatchery, helping rebuild neighborhoods damaged by Hurricane Katrina, and building a water system to bring potable water to a village in Honduras.

This is the seventh time ESF has been on the Community Service Honor Roll. ESF was among 13 SUNY schools to make this year’s list.

SUNY Honors ESF Student Excellence

Eugene P. Law and Aislinn Brackman, both 2013 graduates, received the Chancellor’s Award for Student Excellence. The award honors students who 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.

Law majored in environmental resources engineering. Among his many accomplishments, he was the undergraduate representative to the ESF Board of Trustees, the ESF representative to the Syracuse University Student Association and a brother of Alpha Phi Omega Community Service Fraternity and served as president of the ESF Undergraduate Student Association. He served as an orientation leader and peer mentor and is listed in Who’s Who Among Students in American Universities and Colleges.
Brackman majored in paper and bioprocess engineering. Her accomplishments include serving as president and treasurer of the Undergraduate Student Association and as a member of the Empire Forester yearbook staff and the Green Campus Initiative. She received numerous scholarships, was the student keynote speaker for the Syracuse Pulp and Paper Foundation annual meeting and volunteered at Vera House and the Guardian Angel Society.

LA Students Study Agrotourism in Puerto Rico

Forty-two ESF fourth-year landscape architecture (LA) students spent a week in Puerto Rico during the fall 2012 semester, working on a project to promote agrotourism.

The students made the trip as part of a semester-long project in which they are developing an agrotourism route along Route 123, a road in the southern part of Puerto Rico, where the city of Ponce and two small villages are located.

The ESF students worked in partnership with the Pontifical Catholic University of Puerto Rico (PUCPR) School of Architecture. PUCPR architecture students received a grant from the U.S. Department of Housing and Urban Development Rural Innovation Fund to research a way to revitalize the region. They asked the ESF students to help them complete research and plan an agro-tourism route that could help the economy and support the tourism sector. The students’ findings were submitted to the Pathstone Corporation, a collaborator on the project, in the hopes that both short- and long-term plans will be funded.

Isabel Fernandez, an ESF assistant professor of LA, grew up in Puerto Rico and established a relationship with the PUCPR School of Architecture professors. With the help of Tony Miller and Emanuel Carter, her ESF co-teachers for the fourth-year studio, she organized a class trip to Puerto Rico. Department Chair Richard Hawks helped find funding for the trip.

ESF Senior Fights for Climate Change Solutions

Anirudh Sridhar, during his senior year as an environmental policy, planning and law major, joined a delegation of 15 young environmental leaders to fight for progress at the UN climate talks in Doha, Qatar.

The conference in Qatar marked the 18th annual meeting on the UN Framework Convention on Climate Change (UNFCCC), a process that brings together 194 countries to negotiate reductions in greenhouse gas emissions in the hopes of keeping global temperature increases within two degrees Celsius, a threshold that scientists see as critical for containing irreparable damage to communities and ecosystems. Meetings were held Nov. 26 to Dec. 7.

Sridhar’s introduction to environmental advocacy came when he was still a high school student in Bangalore, India. A vegetarian, he took an internship at Greenpeace that took him across Southern India to interview small farmers about the impacts of climate change on their crop yield. Sridhar was selected for this team by SustainUS, a volunteer-led youth organization that has been sending highly qualified high school and college students to advocate for sustainability at international summits for more than 10 years.

ESF Quiz Bowl Teams Win Big

Two ESF Quiz Bowl teams took honors at separate competitions.

A team of ESF students won the Society of American Foresters (SAF) Student Quiz Bowl at the SAF Convention in Spokane, Wash., Oct. 25, 2012. They came out on top in a field of 34 teams and defeated two-time defending champion, Oregon State University (OSU), in the finals.

This was the first time ESF advanced past round eight in the SAF competition. The team comprised Kelly Nywening, a graduate student in the Department of Forest and Natural Resources Management (FNRM); Jeremy Newland, a senior in FNRM’s Forest Ecosystem Science program; and Lauren O’Connor and team Captain Patrick Dolan, both seniors in FNRM.

The competition pitted teams against each other in 15-question rounds until only ESF and OSU were left. The SAF Quiz Bowl trophy is housed at ESF until the next Quiz Bowl.
Also in October, ESF’s Wildlife Society Quiz Bowl team took second place in the national competition in Portland, Ore.

In the Wildlife Society competition, the ESF team dominated teams from University of Georgia, Purdue, and University of Wisconsin Madison. The team lost in the final round to Humboldt University.

Competing for ESF were senior **Captain Dave Keiter**, junior Peter Iacono, and senior **Vincent Mangino**, all wildlife science majors, and senior **E.J. Botchert**, a conservation biology major.

**Partnership with New York State Parks and Recreation**

ESF continues to build upon its long-standing relationship with the New York State Department of Parks, Recreation and Historical Preservation with the creation of three federal work-study positions established to foster community service.

Students in these jobs will provide community service with the New York State Department of Parks, Recreation and Historical Preservation while helping fulfill ESF’s requirements to have students provide community service during their time at ESF.

This program builds on the College’s Saturday of Service Program which occurs during first-year student orientation. It creates consistent opportunities to meet both the parks’ needs and to satisfy ESF students’ desire to contribute to the parks. **Elizabeth Mix**, community service and service-learning coordinator, worked with **Tom Hughes**, MPS, ’06, natural resources steward biologist with the department’s Central Region, on the program.

The positions were established in fall 2011 with two students hired in spring 2012, fall 2012 and spring 2013.

**Mighty Oaks Men Run to Second National Championship**

The ESF Mighty Oaks men’s cross-country team defended its national title Nov. 9, 2012, finishing first in the U.S. Collegiate Athletic Association Cross-Country National Championships in Lake Placid for the second consecutive year.

The women’s team finished third in a competitive field despite the absence of their strongest runner who was sidelined by a knee injury.

The competition featured 29 teams in both the men’s and women’s races. The ESF men, led by sophomore **Timmy Callahan** who finished second overall with a time of 27:45 on the 8K course, took seven of the first 15 places. Dine College of Arizona finished second.

Finishing first for the ESF women in the 6K race was **Kristen Campbell** in 14th place with a time of 25:48.

**Mighty Oaks Soccer Teams Wrap Up Successful Season**

The Mighty Oaks men’s soccer team played in the U.S. Collegiate Athletic Association (USCAA) National Championship Tournament. The team lost 6-0 to the second-seeded Golden Bears of West Virginia University Institute of Technology in the semifinals.

The sixth-seeded Mighty Oaks had earned a spot in the semifinal by upsetting the third-seeded Concordia College Hornets 3-0 in a first-round game. The Mighty Oaks were invited to the tournament in only their third season as a varsity intercollegiate team.
The men’s soccer team finished the season with an 11–3–1 record. The women’s soccer team ended with a 7–6–1 record.

For the second year running ESF’s men’s soccer team took home the Bark-eater Cup in the annual competition with Paul Smith’s College. The Mighty Oaks women were able to bring their game to overtime before losing 1–2. The ESF men’s and women’s soccer teams presented an honorary captainship of the match to senior Kevan Busa, a former team member and captain who continued his ESF studies while undergoing treatment for leukemia.

**Mighty Oaks Golf Team Places 8th in USCAA championship**

The ESF golf team wrapped up a strong fall season placing 8th in the USCAA National Championships held at Penn State.

Prior to the championships the team had a successful season including a win at its home opener Sept. 8, 2012, at the Links at Erie Village and a second place finish in the Onondaga Community College invitational.

The championships consisted of a practice day and two days of 18-hole stroke play to determine the winner. After the first day the ESF team was in the middle of the 19–team field with a score of 340. The ESF squad finished with a 342 total on day two for a 682 two-day score. Low individual score for the ESF team went to Ryan Dirado, a sophomore in landscape architecture, with a two-day total of 164 putting him in a tie for 25th place out of more than 100 golfers who participated.

**ESF Teams Receives Honors**

ESF students were honored for their academic excellence and outstanding athletic achievements.

Members of the men’s and women’s soccer teams received United States Collegiate Athletic Association (USCAA) Academic All–American Soccer honors.

Academic All–Americans must maintain a cumulative GPA of 3.5 or higher. Students named Academic All–Americans were Christina Elliott, senior, environmental and forest biology; Ashley Miller, sophomore, environmental resources engineering; Drew Gamils, senior, environmental studies; Megan Kuczka, sophomore, environmental science; Dan Arseneau, senior, landscape architecture; and Steven Tyrrell, senior, paper and bioproces engineering.

Students named USCAA Athletic All–Americans were Kyle Siegel, junior, environmental studies; Tyrrell; and Miller. Miller was the only woman from ESF named to the USCAA Athletic All–American team.

Named USCAA Second Team Athletic All–Americans were Kyle Bardwell, sophomore, environmental resources engineering; and Ryan Graig, junior, environmental studies. Athletic All–Americans are chosen by the coaches.

Members of the men’s and women’s cross country teams received Academic–All–Americans Cross Country honors. Students named Academic All–Americans were Matthew Allen, senior, bioproces engineering; Brian Busby, junior, wildlife science; Timothy Callahan, junior, conservation biology; Nicholas Grieco, sophomore, environmental resources engineering; Malcolm Moncheur, freshman, bioproces engineering, Nathan Sleight, senior, environmental science; Taylor Yerrick, junior, wildlife science; Lauren Alteio, junior, environmental biology; Elizabeth Bourguet, junior, conservation biology; Kristin Pasquino, senior, natural history and interpretation; and Cambria Ziemer, sophomore, environmental resources engineering.

Members of the men’s team named to the All–American Men's Cross–Country First Team were Callahan, Yerrick and Stephen Slonsky, freshman, wildlife science.

Named to the All–American Men’s Cross–Country Second Team were Busby, Jon Cleveland, junior, forest and natural resources management; and Jeremy Driscoll, freshman, environmental resources engineering.

Kristen Campbell, sophomore, forest ecology science, was named to the All–American Women’s Cross–Country Second Team.

Zachary Kalette, senior, landscape architecture, was named Basketball Academic All–American and was also the winner of the SUNY Chancellor’s Award for a Student Athlete.
Members of the timber sports team named Academic All-Americans were Keith Binsted, sophomore, environmental science; Timothy Schnaufer, junior, conservation biology; Katherine Cappiello, junior, natural resources management; Emily Hall, junior, conservation biology; Bethany Holbrook, senior, environmental studies; Stephen Tramposch, sophomore, paper science; Jesse Olsen, junior, aquatic and fisheries science; and Kathryn Littlefield, junior, natural resources management.

Named USCAA Second Team Athletic All-Americans were Kyle Bardwell, sophomore, environmental resources engineering; and Ryan Graig, junior, environmental studies.

USCAA Honors ESF Basketball Player

Danny MacElrath, a member of the Mighty Oaks basketball team at ESF, was honored as the Men's Basketball Division II Player of the Week by the U.S. Collegiate Athletic Association.

MacElrath had two double-doubles for the week totaling 31 points and 22 rebounds, which earned him the honor. He had 13 points and 10 rebounds in a game against Paul Smith's College Feb. 10, and 18 points and 11 rebounds in a game against The New School Feb. 16.

MacElrath is a sophomore environmental resources engineering major from Milton. The 2012–13 season marked the program's inaugural season as a collegiate varsity team at ESF.

Oakie the Acorn Advances to Round 2 in Mascot Madness

Oakie, the mascot for the Mighty Oaks, made it to Round 2 of SUNY's Mascot Madness competition in March 2013. Facing mascots from 30 other SUNYS, Oakie upset fifth-seed SUNY Delhi's Lucky the Bronco to advance to Round 2. However, Oakie fell to Farmingdale's Rambo the Ram in the second round of competition.

The online contest pitted SUNY mascots against each other in a standard single-elimination bracket of four divisions with five rounds. The competition was based on a series of questions posed to the mascots prior to the tournament including mascots’ origin stories, thoughts on representing their teams, favorite events, friends and food, and what they like to do for fun.

Seeds were based on the number of teams a particular campus represents with enrollment data used to break any ties. Oakie represents nine men’s and women’s teams in ESF’s growing athletics program.

Oakie was also named to Buzzfeed.com's list of "11 Somewhat Strange, But Mostly Awesome College Mascots," coming in at #10. ESF was the only SUNY school included on the list.

BuzzFeed Community

11 Somewhat Strange, But Mostly Awesome College Mascots

College mascots serve as a representative caricature of a school, and we love whatever these mascots are trying to tell us. Check out this list of cool, unique, and slightly bizarre mascots.

posted on June 26, 2013 at 11:36 am EDT

10. State University of New York College of Environmental Science and Forestry: Acorns

Via facebook.com

The first ever nationally registered historic tree is at SUNY-ESF, and it is said to have grown out of an acorn. Their mascot Oakie the Acorn is an adorable little — um, big — guy.
ESF Supports the United Way

The ESF community made a strong contribution to the annual United Way campaign. Through donations, raffles, and campus events including The Taste of ESF, faculty, staff and students raised $59,110.82 to benefit various non-profit organizations throughout Onondaga County and New York state.

ESF Honors Alumni at December Convocation

Three alumni were honored during convocation Dec. 7 at Hendricks Chapel on the Syracuse University campus.

Douglas G. Dellmore ’68 received the Lifetime Achievement Award bestowed by the ESF Alumni Association. Richard J. Ahearn ’74 and Robert W. Hargrove ’78 received the Graduate of Distinction – Notable Achievement awards.

Dellmore, a wood products engineering major, created numerous companies focused on producing environmentally friendly products and services. He established a company based on the technology and business of making and supporting seawater desalination plants for use on offshore drilling and production platforms.

He holds a patent for the combination of coconut pith and sphagnum peat moss for use as plant-growing media. Developed in collaboration with the Scotts Company the process is used by the Sungro Companies in professional potting soils. Scotts uses the material in products such as Scotts Miracle Gro Moisture Control Potting Soil.

As president of Ahearn-Holtzman Inc., a construction company located in Port Chester, N.Y., Ahearn used his wood products engineering degree to open the family-owned business and has spent the last four decades serving an impressive range of clients. He is a long-time supporter of the Department of Sustainable Construction Management and Engineering.

Hargrove is a driving force in protecting the environment. He received a Bachelor of Science degree in resources management and began his career with the U.S. Environmental Protection Agency’s (EPA) Region 2 Office as an environmental reviewer and project manager for the Wastewater Treatment Construction Grants Program in the Environmental Impacts Branch. He was promoted numerous times and, in 2004, Hargrove accepted the position of director of the National Environmental Protection Act (NEPA) Compliance Division in EPA headquarters. In this capacity, he is responsible for overseeing
the implementation of the EPA's NEPA Compliance Program and the review
of other agencies' environmental impact statements in relation to the NEPA
and the Clean Air Act.

Roosevelt Wildlife Collection Earns Heritage Preservation Assessment

ESF's Roosevelt Wildlife Collection, which contains more than 10,000
specimens of wildlife ranging from songbirds to an African lion, was chosen
to participate in Heritage Preservation's 2012 Conservation Assessment
Program (CAP).

The Roosevelt Wildlife Collection holds animal specimens that are invaluable
for students studying the biodiversity of life. The collection enhances classes
addressing biodiversity by making tangible the volume and variation of life.
Participating in CAP will enhance the care, display, and access to the
collection. It will also augment preservation of the collection's extensive
photographic archives, documenting early-20thcentury field expeditions
of Roosevelt Wild Life Station scientists.

The Roosevelt Wildlife Collection is housed in ESF's Illick Hall. It contains
specimens of birds, mammals, freshwater and marine fishes, reptiles and
amphibians. The collection is part of the legacy of the Roosevelt Wild Life
Station established at the College in 1919. A portion of the collection is
also on display in the College's Gateway Center.

Through the assessment program, a professional conservator spent two
days surveying the site and three days preparing a comprehensive report
to identify conservation priorities. The on-site consultation enables the
Roosevelt Wildlife Collection to evaluate its current collection's care policies,
procedures, and environmental conditions. The assessment report will help
the museum make appropriate improvements for the immediate, mid-range
and long-range care of its collections.

ESF's Outreach Activities Increase

ESF's Outreach department continues to provide educational programs to
thousands of people across New York state.

The College's Summer Session continues to grow after its inception in 2011.
Classes are taught on campus, online and in the field by ESF faculty as well
as adjunct instructors who are practicing professionals and leaders within
their disciplines. Required general education courses are also accessible
during summer months. Since its launch, Summer Session registration has
grown by 68 percent.

Through a U.S. Department of Labor, Employment and Training Administra-
tion H-1B Technical Skills Training Grant, Outreach delivered a number of
programs for professional education in the field of UV/EB. One of the pro-
grams, the Radiation Curing Program leading to an advanced certificate at
ESF was accepted by the New York State Education Department June 27. The
course is the first program in the nation to concentrate on radiation curing.

Through ESF in the High School, the College served 580 students in 33
schools in New York City, Rochester and throughout upstate New York. More
than 30 teachers took part in on- and off-campus teacher professional
development programs, and collaboration with the Syracuse City School
District's (SCSD) Institute for Technology at Syracuse Central allowed 83
students to take ESF college classes in 2012–13.

More than 180 students participated in ESF SCIENCE (Summer Camps Investig-
ing Ecology in Neighborhood and City Environments). The Environmental
Challenge science fair for the SCSD engaged more than 450 students.

A group of Central New York manufacturers of thermal and environmental
controls (TEC) was selected as one of only 10 clusters in the U.S. targeted for
enhanced support under the Advanced Manufacturing Jobs and Innovation
Accelerator Challenge program. Services designed to grow and strengthen
the competitiveness of the group and its member firms will be provided by a
team that includes ESF, the Syracuse Center of Excellence in Environmental
and Energy Systems, Central New York Technology Development
Organization, Manufacturers Association of Central New York, CenterState
Corporation for Economic Opportunity, and the Small Business Development
Center at Onondaga Community College. The project targets manufacturers
and suppliers of TEC equipment and components in a five-county region of
Central New York.
Research Flourishes at ESF

Research continues to find fertile ground at ESF. Total expenditures for sponsored research in fiscal year 2012-2013 were $14.3 million and the book value was $67.7 million.

There were 281 funding proposals submitted for a total of $68.8 million. The College was among the most active research campuses in SUNY with an average research expenditure of $107,757 per faculty member.

Approximately 89 percent of ESF’s faculty is actively and successfully pursuing extramural support at state and federal levels.

ESF Partners in $10M USDA Biofuels Grant

ESF is a partner in a $10 million research grant from the U.S. Department of Agriculture (USDA) aimed at developing a robust biofuels industry in the Northeast.

The funding establishes the Northeast Woody/Warm-season Biomass Consortium, a regional network of universities, businesses and governmental organizations dedicated to working together to develop biomass supply chains.

The funding, made available through the USDA’s Agriculture and Food Research Initiative is intended to focus on developing regional, renewable energy markets, generating rural jobs, and decreasing America’s dependence on foreign oil. ESF’s role in the project involves research in areas of sustainability, logistics and social science.

Four ESF faculty members are involved in the project:

• **Dr. Timothy Volk,** assistant director of the new consortium, is also co-director of the SUNY Center for Sustainable and Renewable Energy based at ESF. He will work on the project with an ESF colleague, Dr. Larry Abrahamson. Their research will focus on sustainability issues and harvesting, storage and logistics aspects of willow biomass crops in the region.

• **Dr. Theresa Selfa,** associate professor in the Department of Environmental Studies, is a co-project director and co-lead for the human dimension work on the project. She will provide research leadership and participate in social science data collection and analysis in case study sites in New York and Pennsylvania for the duration of the five-year project and will supervise a Ph.D. student working on the research.

• **Dr. Andrea Feldpausch-Parker,** assistant professor in the Department of Environmental Studies, is a co-principal investigator for the project and member of the human dimensions working group. She will participate in social science data collection during the second and third years of the project with a focus on public and stakeholder perceptions of and interest in biomass energy.

The project is the next step in commercializing years of research into the viability of biomass as a sustainable energy source.

The new funding builds on ESF’s long involvement in the development of shrub willow as an alternative, sustainable energy resource. The College is already a partner in a $4.3 million USDA Biomass Crop Assistance Program.
grant to encourage the growth of shrub willow as a renewable energy fuel in Central and Northern New York.

The lead partner in the new grant is Pennsylvania State University. Joining ESF and Penn State in the project are Cornell University, Delaware State University, Ohio State University, Rutgers University, West Virginia University, University of Vermont, Drexel University, American Refining Group, Ernst Conservation Seeds, Case New Holland, Praxair, Inc., Idaho National Lab, Mascoma Biofuels, Primus Green Energy, Double A Willow, Aloterra Energy, Oak Ridge National Lab and USDA's Agricultural Research Service.

**ESF Scientists Research New Way to Battle Bacteria**

Scientists at ESF are developing a biochemical process that uses a protein molecule to disrupt the process by which bacteria become virulent, a finding that could have widespread implications for human health.

The work is led by Dr. Christopher Nomura of the College's Department of Chemistry, who discovered that a simple protein molecule can interrupt the process bacteria use to move, eat, attach to surfaces, and communicate with one another or, in other words, to become potentially harmful.

Exposing bacteria to the synthetic protein disrupts the developmental sequence that is common among such organisms. This gives the process the potential to work against an array of bacteria including those that threaten patients with certain illnesses, such as cystic fibrosis, stubborn strains that commonly affect hospital patients and strains that occur in desert environments and prove troublesome for U.S. troops serving in Afghanistan or similar arid environments.

The College is seeking to patent the process.

Nomura’s research group focuses on the synthesis and properties of eco-friendly, biologically based materials, in particular the production of biobased polymers that can be used to make biodegradable plastics. He and his post-doctoral researcher, Dr. Benjamin Lundgren, were working on experiments in that realm when they overproduced some proteins that they thought would increase the expression of genes to produce the bioplastic materials. But instead of making the bacteria produce large quantities of plastics, the protein had the opposite effect.

Nomura began to investigate the chemistry behind the development and discovered that specific proteins can attach themselves to the bacterial DNA in a manner that essentially prevents the organism from expressing the information contained within its genes and results in short circuiting the ability of bacteria to respond to changes in their environment.

The antimicrobial process has an added advantage over traditional antibiotics currently in use: It will be extremely difficult for bacteria to do an end run around the process by simply mutating. Since the protein targets hundreds of genes simultaneously, a corresponding mutation would also involve hundreds of changes. Traditional antibiotics attack only one aspect of the bacteria’s development, making mutation a simpler task.

**Fish Journeying Upstream Are Hampered by Hydropower Dams**

Major hydropower dams in the northeastern United States, constructed with state-of-the-art features designed to allow migratory fish to pass through them on their way to spawn upstream, have failed in that regard, raising questions that should be addressed as more dams are planned worldwide.

Those findings were reported in a study published in the journal Conservation Letters. Dr. Karin Limburg, a fisheries ecologist at ESF, was a member of the research team and is the second author on the paper.

The team of ecologists and economists reported that despite the presence of fish passage facilities that were built into the dams, the actual numbers of fish that passed through them over several decades were only tiny fractions of targeted goals.

The three large river systems studied — the Merrimack, Connecticut and Susquehanna — are historically important rivers for a suite of fishes that migrate from the sea to rivers. These fish include species such as sturgeon, salmon, shad, river herring and eel.

These rivers once supported tens of millions of pounds of biomass of these species and provided valuable protein to the nation.

Today these river systems contain hundreds of dams. The dams with largest impacts on the fish populations are those constructed on the main stems of the rivers for hydropower generation.
Using publicly available data collected by various agencies since the 1960s, the research team shows that these state-of-the-art fish passage facilities have been unsuccessful. Some migratory species, such as sturgeon do not pass through at all. But even the species that do make it through do so in numbers far less than stated targets.

The authors support innovative solutions to the problem, inviting more scrutiny to finding alternatives to main stem dams. The researchers say the case study serves as a cautionary tale not to count on fish passage facilities to mitigate dam projects, even as many developing nations look to their undammed rivers — the Amazon and the Mekong, among others — as valuable potential sources of hydropower.

**Study Casts New Light on Malaria Transmission**

A researcher from ESF contributed to a study that shows the most deadly form of malaria is most effectively transmitted at temperatures six degrees cooler than previously believed, a finding that could lead to more effective disease control.

Past estimates put the optimal temperature for malaria transmission at 88 degrees F. But according to a new mathematical model based on mosquito thermal physiology, the temperature for peak transmission is lower. The research indicates transmission of malaria is likely to peak at 77 degrees F and dramatically decrease above 82 degrees F.

The findings were published in the journal, “Ecology Letters.”

Dr. Sadie Ryan, an assistant professor in ESF’s Department of Environmental and Forest Biology, was a member of the research team. Ryan analyzed data from previous scientific studies to determine how temperature affects mosquitoes. It had been believed that malaria was likely to worsen with increasing temperatures but the study showed the transmission drops off dramatically above 82 degrees. She is now using the information to create maps of where malaria is likely to occur.

The findings go beyond malaria, which occurs in the tropics and subtropics. They are also relevant for all vector-borne diseases, such as encephalitis and West Nile virus, anything that’s caused by an insect that bites, such as a mosquito, tick or midge.

The study could also help researchers learn more about how climate change might affect the transmission of such illnesses.

**Bringing Back the Tree That Built America**

ESF harvested nearly 16 acres of special white pine trees at the College’s Huntington Wildlife Forest in Newcomb, N.Y. in September 2012. The harvest of the historic white pine plantation took place along Route 28N at the base of Goodnow Mountain.

The harvest was part of a research and demonstration project funded under a McIntire-Stennis grant administered through a 50-year-old federal program that funds forestry research.

Many of the trees were 140 feet tall and 25 to 30 inches in diameter. White pine has significant historical importance in the United States as nearly every structure in the New World was constructed with white pine. It is commonly known as the tree that built America.

The white pine plantation at Huntington was planted in 1916. The stand represents the most productive growing stock (of any species) in New York state, supporting nearly 60,000 board feet per acre. By comparison, a typical northern hardwood stand in the state averages 3,000 to 5,000 board feet per acre.

The trees had reached economical maturity and the stand was ready to regenerate; without silvicultural investments, the stand will revert to hardwoods. The first objective of the research is to test the effectiveness of a modified shelterwood regeneration method and site preparation techniques for regenerating white pine on high-quality sites.

Another aspect of the research is economic. Researchers will follow the harvested logs through the Ward Lumber sawmill in Jay, N.Y., to monitor the yield and quality of the lumber. This will help determine the economic viability of investing in white pine trees on high-quality sites where they would otherwise succumb to hardwood competition.

The researchers want to contribute to the restoration of white pine in New York state by demonstrating how well white pine can grow when planted and well maintained in high-quality soil.
New York is in danger of losing white pine as a cover type in the state. Currently, it represents less than 5 percent of the state’s forest cover, while in the 1970s white pine represented about 10 percent of the state’s forest cover. Researchers are also surveying salamanders, small mammals and songbirds to assess biodiversity and inform future forestry practices.

ESF Scientist RedisCOVERS Long-loSt Giant Fish from Amazon

Dr. Donald Stewart, a fisheries professor at ESF, put aside nearly a century and a half of conventional wisdom with the rediscovery of a species of giant Amazonian fish whose existence was first established in a rare 1829 monograph only to be lost to science some 40 years later. Stewart found evidence in the monograph of a second species belonging to the genus Arapaima, air-breathing giants that live in shallow lakes, flooded forests and connecting channels in the Amazon River basin.

For 145 years, biologists have thought that Arapaima consisted of a single species whose scientific name is A. gigas. But Stewart rediscovered a second species that he described in the March issue of the journal “Copeia,” published by the American Society of Ichthyologists and Herpetologists.

Scientists don’t know if it still exists in the wild. According to Stewart scientists have had the impression that Arapaima is a single species for such a long time that they have been slow to collect new specimens. Their large size makes them difficult to manage in the field and expensive to store in a museum. Arapaima can grow to three meters in length (about 10 feet) and weigh as much as 200 kilograms (440 pounds).

This different species was originally named A. agassizii in 1847 by a French biologist but a catalog published in 1868 considered it to be the same species as A. gigas. That second opinion was widely accepted and, since then, no scientist has questioned that view.

Stewart has had doctoral students studying the conservation of Arapaima in both Brazil and Guyana. For those studies, it was important to be clear about the taxonomy of the fishes being studied in each country. In an effort to determine if they were really all one species, Stewart began to review taxonomic literature from the early 1800s.

Those drawings reveal numerous distinctive features that leave little doubt it should be considered a valid species. Those features include details related to the fish’s teeth, eyes and fins.

The previously recognized Arapaima species is known by the common names “pirarucu” in Portuguese and “paiche” in Spanish. Because they rise to the surface to breathe every 5 to 15 minutes, they are easy to locate and fishermen harpoon them to sell their valuable meat or to feed their families. That combination of high value and vulnerability has led to widespread depletion of their populations and they are now listed as endangered.

Stewart expects the diversity of the genus to increase further with additional studies. His research was supported, in part, by National Geographic Society and ESF.

ESF Alumnus, Dr. Jean Fréchet, Honored With Japan Prize

Dr. Jean M.J. Fréchet, an ESF alumnus, was a recipient of the 2013 Japan Prize, one of the most prestigious international awards in science and technology.

Fréchet was honored along with C. Grant Willson for their outstanding achievement in the “development of chemically amplified resist polymer materials for innovative semiconductor manufacturing processes.” The Japan Prize Foundation annually awards the Japan Prize, now in its 29th year, to scientists and researchers in two categories who, regardless of nationality, made substantial contributions to their field as well as peace and prosperity of mankind.

Fréchet (M.S. ’69, Ph.D., ’71) studied chemistry at ESF with Dr. Conrad Schuerch, chemistry professor who was renowned for his work in polymer, carbohydrate and wood chemistry. Fréchet, who also holds a doctorate from Syracuse University, is vice president for research at King Abdullah University of Science and Technology in Saudi Arabia. He has served as an adviser to several global companies, including Unilever, IBM Corporation, Xerox and DuPont.
ESF Foundation Posts Most Successful Fundraising Year

The ESF College Foundation completed its most successful fundraising year ever with more than $3.5 million in gifts received during the fiscal year. The increase in giving to the foundation is attributed to increasing support for “The Centennial Campaign for ESF” with gifts to the campaign totaling in excess of $15.5 million: 77 percent of the $20 million five-year fundraising goal and $1.5 million ahead of the target for the end of the 2012-2013 fiscal year.

Other accomplishments noted by the Foundation include:

- Maintenance of an alumni gift participation rate among the highest in SUNY
- Initiate construction of a new Foundation-funded student and researcher residence at Thousand Islands Biological Station
- The acquisition and beginning renovation of the Masten House property, a new conferencing facility in the Adirondacks that will support the work of the ESF Northern Forest Institute
- Completion of the design and approval phase for an 84-bed addition to Centennial Hall, the Foundation-owned student residence
- Adoption of a new comprehensive Foundation strategic plan by the ESF College Foundation Board of Directors

Gateway Center Opens Its Doors

ESF officially opened its newest building, the Gateway Center, in 2013. The building offers a hub for campus events while giving visitors a snapshot of what ESF represents. The high-performance building provides a centerpiece for campus activities, explores financially feasible and technologically sound strategies to operate using renewable energy, produces its own power, demonstrates a carbon-neutral facility and conserves resources in innovative ways.

The Gateway Center offers spaces for students to gather and socialize on the green roof seating areas and throughout the open concourse with tables and chairs. The Center is also home to the Undergraduate Admissions and Outreach offices, the Trailhead Café, the ESF bookstore, exhibition space for specimens from the College’s Roosevelt Wildlife Collection, and conference and event facilities.
Designed to achieve a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Platinum certification, the Gateway Center features an innovative combined heat-and-power (CHP) system made up of two complementary components. A biomass-fueled system produces high-pressure steam to drive a steam turbine and generate electricity, while a set of three natural gas-fired microturbines provide a balance of electricity and steam for heating.

The CHP system provides the Gateway Center and four other campus buildings with both thermal and electrical energy, meeting 65 percent of campus heating and 20 percent of campus electrical needs, while reducing the campuswide carbon footprint by 22 percent. It is a major component of ESF’s Climate Action Plan.

The Center also features a green roof that uses native plant species from eastern Lake Ontario dunes and alvar pavement barrens at the northeastern end of Lake Ontario. Planting media depths of 6 to 18 inches support larger plants, even woody plants, and provide extra insulation for the building. The green roof serves as both a research and demonstration project, providing designers and ecologists with knowledge about how well these native species from marginal but natural plant communities can serve as alternatives to sedums for green roof installations.

**Trailhead Café Opens For Business**

The Trailhead Café on the ESF campus celebrated its grand opening March 26. The café, located in the College’s Gateway Center, is a collaborative venture between ESF and Morrisville State College. The eatery is operated by the Morrisville Auxiliary Corporation (MAC) through the new ESF Auxiliary Services division. MAC currently operates five food service locations on the SUNY Morrisville campus.

The name Trailhead Cafe was chosen by students, faculty and staff via online voting earlier in the year. Artwork used in the café’s logo design was inspired by an illustration found in a 1929 Camp Log produced by the sophomore students who attended a mandatory ESF Summer Camp that year.

The café supports New York state producers, growers and manufacturers by purchasing many products within the state. The kitchen is outfitted with equipment that meets LEED Platinum certification requirements.

**Expansion of Centennial Hall**

Just shy of its two-year anniversary, Centennial Hall will be expanded. The 452-bed residence hall located on the campus’ west side reached full occupancy quickly after opening in 2011. To answer the growing need for housing, the College plans to build a five-story, 84-bed addition onto the west end of the hall, near the intersection of Oakland Street and Fineview Place.

The 34,000-square-foot addition will cost approximately $7.3 million. The original building cost $30 million to construct and was built with funds provided by the ESF College Foundation.

The Onondaga Civic Development Corp. is providing tax-exempt bonds for the expansion.

Site work began this summer with construction slated to ramp up during the spring 2014 semester and project completion in time for the fall 2014 semester. ESF will utilize modular construction in building the expansion, as it did with great success in the original building. This process speeds construction, reduces material waste and results in a cleaner construction site.
Academic Research Building Design Work Progressing

Site preparation for ESF’s new academic research building (ARB) has begun. The College is working with Syracuse University on a land swap that would allow the building to be constructed across from Centennial Hall and provide for a more contiguous ESF campus. The institutions are currently conducting environmental assessments of the Syracuse University property on Oakland Street and Stadium Place and the ESF property located one block north.

The 120,000-square-foot ARB will house the Department of Environmental and Forest Biology. Currently, EFB is housed in Illick Hall which was built in 1968. Illick will be renovated for other uses including swing space for classrooms and offices temporarily displaced by renovations to other buildings on campus.

The new building will primarily house research labs, but classroom and faculty office space are also included in the design. The building will be constructed in two phases. The first will be a four-story building costing $44 million. Completion of Phase 1 is slated for summer 2015. Phase 2, a six-story building, will begin soon after the completion of Phase 1, with the exact start date dependent on securing funding.

The site will include innovative greenspace landscaped with a variety of trees, plants, a salt marsh and walkways.

Illick Hall Gets Facelift

Illick Hall is undergoing a major exterior renovation including the replacement of its greenhouses and roofs and rehabilitation of its exterior brick and concrete masonry.

The new greenhouses will feature:

- 7,200 square feet of new greenhouse space, which exceeds previous greenhouse space by 18 percent.
- A block of seven greenhouses designated for either research or teaching and collections purposes. The consolidated footprint and insulated glass sidewalls will reduce the amount of energy needed to heat the greenhouses by approximately 25 percent.
- One segregated containment greenhouse suitable for conducting studies on invasive insects.
- Automated climate control technology to modulate temperature and humidity. Teaching and collection greenhouses will rely on a radiant floor heating system and natural ventilation for cooling and dehumidification while research greenhouses will rely on mechanical systems for heating, cooling and dehumidification. All greenhouses will rely on fogging systems for humidification.
- Automated environmental controls for artificial lighting. Research greenhouses will also have automated shade systems to regulate solar radiation.
- Building-integrated photovoltaic roof panels in one teaching and collection compartment.
- Continuous 18-foot eaves that will allow faculty to grow much larger plants for instructional needs.
- Enhanced circulation patterns in teaching and collection greenhouses that will make visits more convenient and comfortable.
All roofs are being replaced with new thermoplastic polyolefin roofing. The exterior of the building is undergoing extensive brick, mortar and concrete repairs to stabilize the structure. Ivy was removed from the building to prepare for the masonry rehabilitation.

Other work being done in Illick Hall includes replacement of the building entrances on the north, east and south sides of the building and replacement of windows on the east and west ends of the building. Construction is anticipated to be complete near the end of 2013.

**Aquatics Lab to Open in Fall 2013**

A new aquatics lab on the ESF campus will be operational in October. The lab was made possible through a $1.47 million grant by the National Science Foundation (NSF) to increase research into topics such as fish disease, invasive species and water quality.

The funding provided for renovation of more than 4,000 square feet of wet labs, so called because they are specially equipped for aquatic experiments, in ESF’s Illick Hall, which was constructed in the late 1960s. Seven rooms on the second floor of Illick Hall and a wet lab at the Thousand Islands Biological Station underwent extensive renovation.

The funding also provided a digital infrastructure to establish new connections between the main ESF campus in Syracuse and the biological station on Governor’s Island in the St. Lawrence River. The digital connection will allow researchers on the main campus to monitor conditions in the river, such as water velocity, the amount of dissolved oxygen and algal density, in real time, and to coordinate experiments in real time between scientists in Syracuse and at the river.

The lab will be a shared use facility with no one department or faculty assigned permanent space. Faculty and students will apply to a committee of faculty to use space in the lab for specific experiments and projects.

**Tenants Move Into CNY Biotech Accelerator**

The CNY Biotech Accelerator (CNY BAC) opened its doors in early 2013. A collaborative effort between ESF and Upstate Medical University, the CNY BAC provides space for emerging companies — including both office and wet lab space — that meets the state-of-the-art specifications of the biotech industry.

The CNY BAC is a major component of Governor Cuomo’s Start-Up NY initiative that works to foster entrepreneurialism and job creation on a large scale by transforming public higher education through tax-free communities across the state, particularly upstate New York. The Biotech Accelerator also provides clients with all the resources necessary to be successful including business planning support, access to legal services and venture capital, as well as the research and clinical facilities of ESF and Upstate Medical University.

ESF also helped foster the first tenants to occupy space in the CNY BAC, Rapid Cure Technologies, Inc., a company that develops and manufactures unique resins, coatings, inks and adhesives. RCT was one of the first companies to utilize space in ESF’s Ultraviolet, Electron-Beam Curing Technology Center and was the first to move into the CNY BAC.
ESF Receives Climate Leadership Award

ESF was selected to receive a 2013 Climate Leadership Award by Second Nature, Inc. (www.secondnature.org) in an annual competition among U.S. colleges and universities that are signatories of the American College & University Presidents’ Climate Commitment.

ESF was one of only 10 colleges and universities nationally to receive the award and the only SUNY institution so honored. The College won in the doctoral-granting institution category.

ESF was selected as a finalist based on a nomination that detailed the College’s commitment to achieving carbon neutrality by 2015, its incorporation of sustainability into the accreditation process and technological innovation, particularly in the construction of the Gateway Center. In addition, ESF has expanded its academic offerings to include a sustainable energy management major and renewable energy minor, while outside the classroom, students are encouraged to take initiative in launching sustainability projects. The College also cultivates relationships with industry and community partners to improve sustainability on and off campus.

The awards program is sponsored by Second Nature, a national nonprofit organization that seeks to create a sustainable society by transforming higher education, and PlanetForward, a media company that publishes news, opinion, and insight about energy, climate and sustainability.

Student Sustainability Fund Sponsors Green Endeavors

The College administration worked with ESF’s Green Campus Initiative to fund a portfolio of student-propose sustainability projects. These projects focus on a bike-sharing project, engineering projects, a garden shed (to support the student-run organic garden and orchard), and a composting project. This is the second year of successful student-led projects focused on sustainability. The program requires students to develop formal proposals that are critiqued by their peers and then presented to the Campus Climate Action Committee for approval.