President’s Message

Dear Friends,

This is an exciting time for our College. Celebrating the Centennial of the SUNY College of Environmental Science and Forestry gives us an opportunity to look back with satisfaction on ESF’s first century of achievements while preparing for a future that will present a new generation of challenges, some of which we cannot foresee today.

The 100-year mark has provided us with an opportunity to showcase the accomplishments of our alumni, faculty, staff and students, from early advances in forestry and paper science to recent innovations in complex 21st-century problems involving climate change and sustainable energy.

As 2011 ends, we celebrate the growth of our academic offerings with the addition of environmental health and renewable energy management programs slated for 2013; the accomplishments of our faculty, who have won numerous awards and honors; and the growth of our campus with the completion of Centennial Hall, our first residence hall, and progress on the Gateway Building.

ESF continues to have an impact locally, with our students performing 74,000 hours of community service, and globally, with research focused on building sustainable environs, preserving biodiversity, and restoring communities.

Please join me in reviewing ESF’s accomplishments as we wrap up our first 100 years and look forward to our second century.

Cornelius B. Murphy, Jr.
The College continues to earn high marks in numerous national surveys that rank colleges and universities on an array of factors. The rankings place ESF among the nation’s most prestigious public and private universities.

ESF has, for the 11th year in a row, earned a place among the top universities in America as ranked by U.S. News & World Report magazine.

ESF is ranked number 82 in the National Universities category that includes colleges and universities that offer a full range of undergraduate majors, master’s and doctoral degrees while also being involved in major research activities. ESF is the highest-ranked SUNY institution on the list. Both public and private institutions are included in the National Universities category.

Among the nation’s top public universities, ESF is ranked at 36, tied with Auburn University and the University of Vermont.

ESF earned other high rankings in the annual survey:

- The College is 50th on the Best Value Schools list. The magazine pointed out that 60 percent of ESF students receive need-based grants. Inclusion in the Best Value category takes into account a school’s academic quality and the net cost of attendance for a student who receives the average amount of financial aid.
- ESF is listed among the schools in a special category titled “A+ Options for B Students.” At ESF, where academic programs focus solely on the environment, students’ interest in environmental matters is weighted heavily in the admission process in addition to grades and test scores.
- Forbes.com ranked ESF third on its 2010 list of the 20 best colleges for women in science, technology, engineering and mathematics (STEM). According to Forbes, “these are the schools that are getting it right” by helping significant numbers of women graduate with college degrees in these important and higher-salaried career areas.
- Forbes.com ranked ESF 10th in community service in its national rankings of 258 universities. The rankings didn’t focus on traditional metrics but instead on how these schools give back to their communities, based on social mobility (recruiting and graduating low-income students), research (producing cutting-edge scholarship and Ph.D.s), and service (encouraging students to give something back to their country).

ESF is listed in the Princeton Review Guide to 311 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. The Review presents information about each school’s sustainability, “green” majors and “green” job placement.

“Going green isn’t a campaign at the State University of New York College of Environmental Science and Forestry – it’s a modus operandi,” the book states. “With sustainability and environmental education at the core of the university’s mission, SUNY-ESF has been at the forefront of nationally recognized, government-supported research in green issues.”

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.

In recognition of its exemplary student community service and service-learning programs, ESF has been named to the President’s Higher Education Community Service Honor Roll for 2010.

This recognition comes to the College from the federal government for ESF’s commitment to volunteering, service learning and civic engagement. This is the third year ESF has been recognized through the Honor Roll. The College is listed among a select group of more than 600 universities honored across the nation.

The nominating committee evaluates the scope, innovativeness and effectiveness of a college’s community service and service learning programs to select the honored institutions. ESF students completed close to 71,000 hours of community service in 2009-2010. Student community service projects included a Freshman Saturday of Service, Adopt-A-Stream cleanup, the ESF SCIENCE Corps, a Campus Day of Service and Hurricane Katrina relief efforts.

The Washington Monthly ranked ESF 10th in community service in its national rankings of 258 universities. The rankings didn’t focus on traditional metrics but instead on how these schools give back to their communities, based on social mobility (recruiting and graduating low-income students), research (producing cutting-edge scholarship and Ph.D.s), and service (encouraging students to give something back to their country).
College Enrolls Largest Number of New Students Since Mid-70s

ESF enrolled 525 new undergraduate students for the fall 2011 semester, the largest number of new students to enroll at the College since the mid-1970s. The new students include 289 freshmen and 236 transfer students. The students come to ESF from 29 states and six countries outside the United States.

The freshmen class is 56 percent female, putting women in the class majority for only the second time in the College’s 100-year history (the first was in 2009). Twenty-five percent of the class is from outside New York state, a new record.

The freshmen enter ESF with the highest high school grades and college entrance examination scores (SAT/ACT) of any class on record. The College received 1,868 freshman applications and 882 transfer applications for fall term admission and accepted only 44 percent of the students who applied.

Graduate Enrollment Projected as Strongest Ever in Fall 2011

Graduate enrollment remains strong at ESF. The fall 2011 entering class of 140 new full-time graduate students has enrolled following the most selective admissions process to date. The application pool for fall 2011 was the largest on record, with more than 600 applications, a more than 10 percent increase over 2010. Commitments to enroll were particularly strong this year, improving by more than 75 percent following the critical April 15 funding commitment deadline. Eighteen of the College’s new graduate students are supported by Ford, Muskie or Fulbright fellowships.

College Welcomes New Faculty and Staff/Promotions

Dr. Anne Lombard was named dean of student life and experiential learning. Lombard comes to ESF from Ohio University where she served as assistant to the vice president for student affairs. She joined the ESF community in July 2011.

Laura Crandall was named director of student activities in February 2011. Crandall graduated from ESF in 2005 with a degree in environmental biology. She holds a master’s degree in higher education administration from Syracuse University’s (SU) School of Education. Previously, Crandall worked as program coordinator in Orientation and Off-Campus Programs and First-Year and Transfer Programs at SU and served as assistant director in the university’s Office of First-Year and Transfer Programs.

Dr. Gregory Boyer, professor in the Department of Chemistry, has been appointed department chair replacing Dr. Arthur Stipanovic who remains on the department’s faculty. Boyer has been a member of the chemistry faculty since 1985. Boyer was also honored with ESF’s Exemplary Researcher Award in 2008-09. Drs. Theodore Dibble and David Kiefer were appointed associate chairs of the department. All appointments took effect March 14, 2011.

Dr. Theodore Endreny, professor in the Department of Environmental Resources Engineering (ERE), has been appointed chair of the department replacing Dr. Charles Kroll, who remains on the department’s faculty. Endreny has been a member of the ERE faculty since 1999. The appointment took effect Sept. 1, 2011.

Dr. James Gibbs, professor of conservation biology, was appointed director of the Roosevelt Wild Life Station, replacing Dr. William Porter who retired in August 2010. Dr. Jacqueline Frair, assistant professor of wildlife biology, has been appointed associate director.

David Dzwonkowski joined ESF in November 2010 as the director of business affairs. Prior to coming to ESF, Dzwonkowski was the assistant controller at The Post-Standard, Syracuse, for almost 10 years. Before that, he was with Niagara Mohawk for 16 years, holding several positions: associate senior budget analyst, lead financial analyst and finance director.

University Police added three new officers to its ranks. Officers Christopher Annunziato, Brian McGuire and Andrew R. Schneider joined the department.

The College welcomed new faculty members: Jamie Vanuchi and Isabel Fernandez joined the Department of Landscape Architecture as visiting assistant professors; and Huiting Mao is the new associate professor in the chemistry department.
Students Receive Chancellor’s Awards

Two ESF students were presented with the 2011 Chancellor’s Award for Student Excellence.

Shannon Carpenter of Liverpool, pictured bottom right center, a senior in the Department of Chemistry, and Jennifer Ma of Brooklyn, pictured top right center, a senior in the Department of Environmental and Forest Biology, were honored with some 240 other SUNY students at the Empire State Plaza Convention Center in Albany.

The Chancellor’s Award for Student Excellence was established 14 years ago to recognize students who have best demonstrated, and been recognized for, the integration of academic excellence with accomplishments in the areas of leadership, athletics, community service, creative and performing arts, or career achievement.

(Pictured with Carpenter and Ma are SUNY Chancellor Nancy Zimpher, left, and Elizabeth Mix, ESF community service and service-learning coordinator.)

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.

Bonnie Charity, library clerk 3 at F. Franklin Moon Library, received the 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.

Charity joined ESF in 1995. During the course of her service she has been promoted twice. She was recognized for her dedication, work ethic, positive attitude, service on College committees and her professionalism.

Susan Sanford, director of undergraduate admissions, 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.

Sanford has been with ESF since 1985 and has served as director of admissions and inter-institutional relations for the past 13 years. Under Sanford’s leadership ESF, one of the smallest SUNY colleges, continues to successfully enroll more than 250 new undergraduate transfer students and 300 freshmen each year. She has held board positions within SUNY organizations and has served on numerous committees at ESF.

Dr. Ruth Yanai, professor in the Department of Forest and Natural Resources Management, received the SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities. The award is given to faculty “who have demonstrated sound and sustained scholarship in the sciences, humanities, and professional studies or consistent creative productivity in the fine and performing arts.”

Yanai has been with ESF since 1994. Her research and teaching focus on forest ecology, ecosystem nutrient cycling, roots, and forest soils. Since 1991 she has published an average of three research papers a year. The papers appear in a variety of high-impact journals. She has presented at countless national and international conferences and has secured a total of $5.6 million in research funding.

Malmsheimer Honored by College Foundation

Dr. Robert Malmsheimer was honored with the ESF College Foundation Award for Exceptional Achievement in Teaching. The award celebrates the accomplishments of ESF faculty and staff members who excel at the art of teaching.

Malmsheimer, associate professor of forest policy and law in the Department of Forest and Natural Resources Management, was honored for his dedication to teaching, his guidance to advisees, his high level of positive course evaluations and his willingness to serve as a guest lecturer across campus.

Dr. Nomura Named Exemplary Researcher

Dr. Christopher Nomura was honored with the ESF 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.

Since coming to ESF in April 2006, Nomura, an assistant professor in the Department of Chemistry, has secured $3.8 million in grant funding from numerous organizations including the National Science Foundation, Tokyo University of Science, U.S. Department of Energy, New York State Energy Research and Development Authority, and the U.S. Department of Agriculture McIntire-Stennis program.

Nomura specializes in the fields of microbiology, biotechnology and molecular biology with special interest in using molecular techniques to improve the supply of precursors for biobased products. He has submitted three notices of technology disclosure for patent applications.
Eileen Baldassarre Receives Unsung Heroes Award

Eileen Baldassarre, administrative coordinator in the multicultural affairs office at ESF, was honored with the 2011 Unsung Heroes Award during the Martin Luther King Jr. Celebration Jan. 23, 2010.

Baldassarre was honored for her extensive dedicated service to others in the community. Her community service involvement includes volunteering at the Loretto nursing home and St. Leo’s Church in Tully. She has spearheaded fundraising efforts to help a family rebuild their home after a fire and another to send U.S. Olympian Lopez Lomong’s adoptive parents and coach to see him compete at the Olympic games in China in 2008.

At ESF, Baldassarre is the coordinator for the Collegiate Science and Technology Entry Program (CSTEP). In that capacity, she works with students and plans educational programs in the office of multicultural affairs.

The awards are presented annually by Syracuse University to people who have made a positive difference in the lives of others but who are not widely recognized for their efforts.

ESF President Presents Quality of Worklife Awards

ESF recognized the contributions of two of its employees to the College and the broader community.

Dr. Richard Beal was presented with the ESF Public/Community Service Award. The award is given annually to an employee whose outreach activities to the public represent the College and its mission in a positive fashion and whose volunteer service to the community enhances life for others. Beal, associate director for educational outreach, works with high schools throughout New York state to promote ESF in the High School. He works with area high school teachers to ensure they are qualified as adjunct instructors and provides mentoring programs for them. Beal serves on numerous committees, partnerships and advisory groups.

Robin Perkins, secretary 2 for the vice president of enrollment management and marketing, received the ESF Quality of Worklife (QWL) Award, which is given annually to an employee whose positive attitude and positive approach to work provides an excellent example of service and improves the work environment for the campus community. Perkins’ willingness to go the extra mile for students, faculty and staff touches many people on campus. She serves in a leadership role on the QWL Committee and is an active member of the Centennial Committee and serves with the Civil Service Employees Association.

New Undergraduate Programs

The College is in the process of adding two new undergraduate programs to its academic offerings. Letters of Intent have been sent to SUNY to initiate new programs in environmental health and renewable energy management. Environmental health will be offered through the Division of Environmental Science while renewable energy management will fall under the Department of Forest and Natural Resources Management.

The comment period from other SUNY institutions on ESF’s Letters of Intent has passed and approval is expected to move forward with development and submission of the full program proposals. The proposals will require external review.

It is anticipated the approval process will be completed by the end of the 2011-2012 academic year with the first students enrolled in these programs in fall of 2013.

These programs are being added to meet a clear societal need for instruction and research in these areas and to fulfill ESF’s environmental mission.

ESF Establishes International Cooperative Agreements

The ESF College Foundation, the Provost’s Office, and Fundacion Neotropica signed an agreement April 7, 2011, that provides for the in-country management of the Arturo and Maria Sundt Field Station (AMSFS) in Coyolito, Costa Rica. The 30-acre property is located in dry tropical forest and will be available as a site for teaching and research. Neotropica will be responsible for scheduling all uses of the Sundt Station; the process and contact information will be forthcoming. The Provost’s Office will recommend a set of guidelines for property use that provide for the broadest set of research, teaching, and outreach uses.

ESF has signed a Memorandum of Understanding (MOU) with the Institute of Ecology, A.C. (INECOL) to conduct collaborative
ecological research and explore academic linkages for cooperation. Dr. Bruce Bongarten, provost and vice president for academic affairs, is ESF’s representative in fulfilling the terms of the MOU.

Feinstone Award Celebrates Native Visions in 2010

ESF celebrated Native American visions for a sustainable future during its 2010 Feinstone Environmental Awards dinner.

The directors of the Allyn Family Foundation, Lew and Dawn Allyn of Skaneateles, received the Honorary Feinstone Award. The Allyns’ fascination with the natural environment and enjoyment of the outdoors led them to an interest in Native American traditional ecological knowledge. That interest grew into support for the Center for Native Peoples and the Environment at ESF.

The Allyns are leading supporters of the center and have provided major support for community intern projects at both the Onondaga and Tuscarora nations. The award was presented Oct. 21, 2010.

Henry Lickers of the Mohawk Council of Akwesasne was the evening’s keynote speaker. Lickers is a member of the Seneca Nation, Turtle Clan, and is the director of the Department of the Environment for the Mohawk Council of the Akwesasne. He has been instrumental in incorporating First Nation’s people and knowledge into environmental planning and decision making.

The Feinstone Awards program was established by Sol Feinstone, a widely known historian and author who was a 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.

The program recognizes leaders who care for the environment, encourage volunteerism and add to society’s understanding of environmental issues and their solutions. The Feinstone program has made more than 100 awards, honoring people from across the United States for their significant contributions to protecting the environment and promoting the spirit of volunteerism.
Community Service Remains Cornerstone of ESF Experience

The College’s Service Learning Initiative with its focus on community service has engaged students, faculty and staff to facilitate students’ growth as engaged citizens and improve the community. Students contributed more than 74,000 hours through the Service Learning Initiative and community service in 2010-2011. The hours of service were completed by 3,508 students participating in 155 activities or taking any of the 27 courses that employ service learning. ESF works with 207 community partners to provide service opportunities.

Service learning is a form of structured experiential education in which students engage with the community to be active learners, enrich their sense of civic responsibility, and explore a practical application for course content. Service Learning projects included assisting the DEC with a brook trout population genetics study; working with local non-profit organizations on such activities as Onondaga Creek restoration plans; developing community gardens for bio-cultural restoration; designing and installing rain gardens; developing master plans for downtown Riverhead, N.Y., (Long Island), and National Grid Harbor Point Post-Remediation; helping with green infrastructure plans for Lincoln and Thornden Parks; and working with the Onondaga Nation on a phytoremediation investigation in an auto salvage yard.

ESF Habitat for Humanity Honored by SU Chancellor

ESF’s participation in Habitat for Humanity received a Syracuse University Chancellor’s Award for Public Engagement and Scholarship and was feted at a celebration dinner March 30, 2011. SU Chancellor Nancy Cantor said the ESF-SU participation was selected for “outstanding work in improving the quality of life in the greater Syracuse community” and because it exemplifies “the highest ideal of sustained, quality engagement with citizens in our community.”

The joint SU-ESF Habitat for Humanity Chapter has a long record of community service including a new home under construction on Gifford Street in Syracuse and a new home constructed and dedicated on Elliott Street in 2010. In December 2010, more than two dozen chapter members spent winter break helping victims of Hurricane Katrina in New Orleans. In March 2011, nearly 80 students traveled to several locations in Florida and elsewhere to help with Habitat for Humanity building projects.

Soccer Players Earn Academic Awards

Eight members of the ESF Mighty Oaks men’s and women’s soccer teams earned Academic All-American status from the U.S. Collegiate Athletic Association during the 2010-11 academic year. They are Amy Chianucci of Endicott, N.Y., a sophomore conservation biology major; Drew Gamils of Mount Vernon, N.Y., a sophomore environmental studies major; Christina Elliott of Pleasantville, N.Y., a sophomore environmental biology major; Jessica Haerter of East Northport, N.Y., a senior environmental resources engineering major; Susan Fassler of Parish, N.Y., a junior environmental studies major; Daniel Arseneau of Whitney Point, N.Y., a sophomore landscape architecture major; Colin Hoffman of Lewisburg, Pa., a senior wildlife science major; and Steven Tyrrell of Baldwinsville, a junior paper science engineering major.

ESF Golfers Receive National Awards

Two members of the Mighty Oaks golf team were honored with national awards when the golf team wrapped up its first season of official intercollegiate play with a seventh-place finish in the U.S. Collegiate Athletic Association Men’s National Championship. Senior Brendan Beeke received All-American honors after placing in the top six in the tournament’s field of 88 golfers. Senior Chris Shrimpton was named to the Academic All-American team, which includes only golfers with a cumulative GPA of 3.5 or higher. The two-day event, with the golfers playing 36 holes over two days, was held at the Pennsylvania State University Blue Course Oct. 10-12, 2010.
College Recognized for Generosity to United Way/SEFA Campaign

By contributing $70,000 to the annual United Way/State Employees Federated Appeal (SEFA) campaign the College was ranked 20th among more than 600 companies and organizations that participate in the annual fundraising campaign. ESF was presented with a Silver Award from the United Way to recognize this accomplishment. Terry Ettinger, ESF greenhouse manager, and Lisa Campagna, purchasing manager, served as campaign co-chairs. Ettinger was one of 16 finalists for the United Way's Campaign Volunteer of the Year.

Students Collect Jeans for Housing Insulation

Students at ESF parted ways with their old pairs of jeans as part of a national effort to bring attention to sustainable housing construction. The denim drive was part of Cotton Incorporated’s campaign, “Cotton. From Blue to Green,” which converts donated jeans into sustainable, natural-fiber housing insulation to be used by Habitat for Humanity. ESF launched its participation in the campaign with an event in Marshall Hall featuring promotional Frisbees and shirts and informational pamphlets.

Green Campus Initiative, a student organization that promotes sustainability at ESF, led the effort to bring the campaign to ESF and oversaw the collection events and donation bin maintenance on campus.

Toxins Reduced in Village’s Wastewater

Drs. Christopher Nomura, Klaus Doelle and David Johnson introduced a three-piece plan to ultimately solve the dilemma of toxins in America’s water and provide energy at the same time. Working with the village of Minoa and leaders of the New York State Environmental Facilities Corporation, the scientists are testing their process at the Minoa wastewater treatment facility.

Pharmaceuticals that are discharged to our wastewater collection and treatment systems are frequently inadequately treated and find their way into our receiving waters. Scientists say they are affecting the well-being of humans and wildlife.

Special microbes introduced into the treatment process in Minoa have successfully eliminated 32 percent of the ibuprofen and acetaminophen in that village’s water. Nomura predicts that a polymer-capturing device invented at ESF will further reduce pharmaceuticals and carcinogens to zero.

In addition, research done by Johnson uses algae and organic wastes to provide power for the treatment facilities, making them fully self-sufficient, or “sustainable.” Johnson says leftover food from schools and other institutions can be anaerobically digested at the plant to produce methane to fuel vehicles and electricity to run the plant.

The whole operation uses little power, making it enticing for any locale that needs a low-cost energy source and a method of ensuring clean water, such as facilities operated by the military or located in developing countries.

ESF has partnered on this project with a local engineering company, Antec, as well as the village of Minoa.

CCDR Helps University Neighborhood Plan for the Future

The Center for Community Design and Research (CCDR) at ESF is working with the University Neighborhood Preservation Association to develop a vision plan for housing in the neighborhood east of ESF and Syracuse University.

Working with a community advisory committee, the CCDR is gathering community input to create the plan. The CCDR study will expand on a current citywide housing study. The group’s work will allow the association to set housing goals and create an action plan to achieve them. It will also help them secure housing money and other assistance from the city of Syracuse.

One issue facing the neighborhood is the coexistence of owner-occupied and rental properties. The association hopes to promote owner occupancy and a better quality of life in the neighborhood. The association provides grants and loans to homebuyers to encourage owner occupancy in the neighborhood.

The CCDR also worked with representatives of the town of Montezuma, including Supervisor John Malenick, LA ’83, who requested design assistance for the town. Town officials are interested in revitalizing their hamlet and capitalizing on one of their resources—
140 acres of town-owned land on the Seneca River, adjacent to a noteworthy historic structure, The Richmond Aqueduct. This is a historic relic of hand-cut stone that is crumbling into the river. The junior landscape architecture students worked with the village and community residents to investigate site conditions, determine possible improvement elements and characteristics, and prepare alternative design studies for review and discussion. The interim and final reviews attracted and engaged the continued interest of 40 community residents. The town has received a grant from the State Office of Parks, Recreation and Historic Places for more detailed design studies and will use ideas generated through the studio design process as the basis for the improvements.

**ESF Landscape Architecture Project to Create Urban Minifarms**

A landscape architecture class project that began several years ago has helped transform about a dozen vacant lots in the city of Syracuse into urban farms.

Under the direction of Emanuel Carter, associate professor in the Department of Landscape Architecture, the idea began several years ago to put vacant property to use. Jubilee Homes, an organization focused on the revitalization of the city’s southwest side, used the class plans to tie the urban farms with the agency’s Urban Delights Project which has inner-city youths growing and selling produce.

The mini-farms will consist of raised beds and outdoor crops to start, with hopes that greenhouses will eventually be installed for year-round, controlled-environment agriculture.

Not only will the gardens bring nutritious food to the neighborhood but it will help the students who operate the farm stand develop marketable skills.

Other partners include the city of Syracuse and Cornell Cooperative Extension. Site preparation began in November 2010 with plantings done in the spring of 2011.

**ESF Honors Graduates of Distinction**

ESF alumni Howard “Bud” Ris and James V. Breuer received Graduate of Distinction Honors during the December 2010 convocation. Robert Sand was honored posthumously, with the Lifetime Achievement Award.

Ris, MLA ’75, has been president and chief executive of the New England Aquarium since 2005. Prior to leading the aquarium, Ris was president of the Union of Concerned Scientists (UCS), a multi-issue environmental organization tackling a range of public policy issues from climate change to biotechnology and invasive species. Following his retirement from UCS, he became a senior fellow at the World Economic Forum (WEF) in Geneva, Switzerland, where he served as primary liaison between the WEF and the United Kingdom prime minister’s office on climate change policy.

As president of Heuber-Breuer Construction Company, Inc., a family business that has been part of the fabric of Syracuse since 1880, Breuer, FNRM ’72, has helped build the company from a small construction firm to one that is playing a key role in reshaping Syracuse. Heuber-Breuer also played a pivotal role in the construction of Centennial Hall.

The project’s aim is to take post-consumer food waste — which at best can be composted in traditional practices — and use it to grow fish. The fish waste is then used to provide nutrients to grow lettuce. The composting process is bypassed.

Amadori, a master’s student in ecological engineering, said the idea of combining aquaponics with hydroponics is a very sustainable practice. Aquaponics — a practice that combines traditional aquaculture (the raising of fish) with hydroponics (growing vegetables without soil) — is not a new endeavor. But this is the first time anyone has experimented with using post-consumer food waste to feed the fish.

If he’s successful, he will have found a way to reduce the amount of food that enters the waste stream while also devising a way to significantly lower the cost of growing fish and vegetables commercially. The story received national media attention including a story on National Public Radio (NPR).

**ESF Grad Student Puts a New Twist on Aquaponics**

Graduate student Michael Amadori is conducting a first-of-its kind experiment in urban food production, using dried food waste to raise fish and using the fish waste to nourish a crop of Boston Bibb lettuce in the greenhouses in Illick Hall.
During his lifetime, Robert “Bob” Sand was an avid supporter of ESF and its philosophies and teachings. When he died in September 2010, the College lost a true friend, faithful supporter, and superlative forester.

A naval veteran of WWII, he graduated from the then-College of Forestry in 1950. He became the first chief forester for Cotton-Hanlon, Inc., a firm which specializes in timberland management. During his 40-year career he managed thousands of acres of land.

Sand was an active member of the New York State Forest Owners Association (NYFOA). He was a member of the New York Chapter of the Society of American Foresters (SAF), serving as both president and vice president.

He was dedicated to ESF, serving as president of the ESF Alumni Association and speaking at many commencement exercises. He also established and endowed the ESF Bauer-Sand Scholarship Award for ESF students.

Research at ESF Continues to Thrive

Total expenditures for sponsored research in fiscal year 2010-2011 were at $13.4 million and the book value was $63.2 million.

There were 242 funding proposals submitted for a total of $75 million. The College was among the most active research campuses in SUNY with an average research expenditure of $108,585 per faculty member.

Approximately 85 percent of ESF’s faculty is actively and successfully pursuing extramural support at state and federal levels.

New energy was devoted to stimulating and highlighting the 32 centers, institutes, consortia and councils on campus. Initiatives begun this year included a multi-campus collaboration between ESF, SUNY Upstate Medical University and the Veterans Administration to pursue funding in environmental medicine. New centers created this year included the Institute for Sustainable Materials and Manufacturing; the Center for Cultural Landscape Preservation; the Biorefinery Research Institute; and Center of Membrane Technologies for Sustainable Water and Wastewater Treatment, jointly with Clarkson University, Syracuse Center of Excellence for Environmental and Energy Systems, and Rochester Institute of Technology (RIT).

Research Spans the Globe

The world is the laboratory for ESF faculty and students who conduct research in locales near and far including the Baltic Sea, Tanzania, and Brazil. A sampling of that research includes:

Dr. Karin Limburg, Department of Environmental and Forest Biology, has discovered that fish can pick up - and physically record - evidence of “dead zones” in oceans and coastal waters which could help scientists understand how fish deal with the growing problem of low-oxygen areas that threaten fisheries and tourism worldwide.

In a paper published in the Proceedings of the National Academy of Science, researchers report that fish are shown to pick up a chemical “signature” from dead zones. The discovery has the potential to revolutionize the way we understand fish interactions with this growing environmental problem.

Dr. James Gibbs, an ESF conservation biologist, undergraduate student Chelsae Radell and graduate student Brooke Reeve studied Kihansi spray toads in an effort to find ways to safely reintroduce the animals to the Kihansi River Gorge in southeastern Tanzania.

The species no longer exists in the wild and without the help of captive breeding will go extinct.

The Kihansi spray toad was discovered in 1996 in conjunction with the construction of a dam on the Kihansi River. The toads lived in a nearly vertical wetland created by the forceful spray that came off the pounding water. After much searching, it turned out to be a truly endemic and unique species.

Construction of the dam resulted in reduced spray in the toads’ habitat and their numbers quickly declined. Some 500 of them were removed to the Bronx and Toledo zoos, where staff members habituated them to captivity and got them to reproduce. After dwindling to about 50 individuals, the captive population has rebounded.

Scientists are concerned about how a returned toad population might be affected by pesticides in the river, particularly endosulfan from upriver agriculture, and the chytrid fungus that is harming amphibians worldwide.

In an agreement with the National Environment Management Council of Tanzania, Gibbs and his team are researching the effect of the fungus and the pesticide, both together and separately, on the toads.
The Tanzanian government would like to reintroduce the animals but they want to be sure the environment has been stabilized enough to provide a suitable habitat. The story received national media attention including a story on National Public Radio (NPR).

Dr. Donald J. Stewart, Department of Environmental and Forest Biology, Leandro Castello, ESF doctoral graduate now at Woods Hole Research Center, and C. Arantes, a Brazilian colleague, developed a model to help understand population dynamics of the giant fish, Arapaima, in tropical river floodplains.

Arapaima are characterized by very large bodies, relatively late sexual maturity, small clutches, and large parental investment per offspring. Their populations are overexploited and declining due to overfishing throughout much of the Amazon. The researchers used unparalleled time series data on growth, reproduction, catch-at-age, and size-class abundance estimates for a population that has increased several-fold and undergone drastic changes in fishing practices in the Amazon, Brazil.

Scientists found that annual recruitment is directly and positively related to spawner abundance. Fishing of arapaima with harpoons and gillnets lowers yield potentials dramatically through selective removal of faster-growing individuals of the population. That is in part because few individuals live long enough to reproduce and the average survivor takes longer to reach reproductive age. When harvest of immature fishes was stopped, the population increased rapidly. Researchers found arapaima populations can sustain annual catches of up to 25 percent of adults in the population if minimum size and closed season regulations are followed. These findings can be used in ongoing conservation and management initiatives.

NYSERDA Grant Powers ESF Center to Aid Manufacturing

The New York State Energy Research and Development Authority (NYSERDA), ESF and RadTech International established a research, development and industrial testing center to help make coating-based manufacturing processes in New York more energy efficient, environmentally friendly and economical.

NYSERDA is providing nearly $1 million in funding for the Ultra-violet Light (UV) and Electron Beam (EB) Process Curing Systems Technology Center on the ESF campus.

The goal is to develop environmentally friendly ways to make an assortment of coatings and resins dry more quickly - nearly instantaneously - thereby reducing both costs and emissions while streamlining manufacturing processes. The facility will allow manufacturers to test the UV and EB technologies to see how they can apply the new technologies to their businesses before investing in equipment.

ESF’s Dr. Mark Driscoll, Department of Chemistry, and Dr. Jennifer Smith, Department of Sustainable Construction Management and Engineering, are co-directors of the center.

Industrial partners in the project include Knowlton Technologies of Watertown, Transparent Materials of Rochester, IBA Industrial of Long Island, and MAS Associates of Indian Lake.
Centennial Hall Opens

Centennial Hall, named in honor of the 100th anniversary of the College’s founding in 1911, opened its doors in August 2011 and provides the first resident housing exclusively for ESF students. Previously, ESF students lived in SU residence halls or in rented apartments and houses in the university neighborhood.

The building is home to 452 students. Freshmen live in two-person shared suites with private baths and upper classmen can choose either private or semi-private suites or apartments.

The $30 million residence hall, constructed by the ESF College Foundation, Inc., was built to be an environmentally friendly Leadership in Energy and Environmental Design (LEED) Gold-certified building. Its impact on the environment is reduced by the use of storm water management techniques, sustainable building materials where possible, landscaping that includes native plants and a limited need to mow, extensive indoor storage and cleaning facilities for bicycles, and a pedestrian-friendly design.

ESF Receives $1.47M to Renovate Aquatic Labs

A team of aquatic scientists at ESF was awarded a $1.47 million grant by the National Science Foundation (NSF) to renovate aquatic laboratories to expand research into topics such as fish disease, invasive species and water quality.

The ESF team won the grant in a competitive bidding process. The funding will provide 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 will undergo extensive renovation.

The funding will also provide a digital infrastructure that will establish new connections between the main ESF campus in Syracuse and the biological station on Governor's Island in the St. Lawrence River.

ESF Receives $963,000 for Gateway CHP Biomass Energy System

The College received a $963,000 grant from the New York State Energy Research and Development Authority (NYSERDA) to help fund an innovative $3 million combined-heat-and-power (CHP) system that will provide energy and heat for the College’s new Gateway Building, currently under construction.

The $28.3 million building is designed to achieve a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Platinum certification and will house the combined (CHP) system.

The CHP project is made up of two complimentary systems. The first is a biomass-based system that will produce high-pressure steam that will be used to generate electricity by moving through a steam turbine before it is used to heat campus buildings. Complementing the biomass system will be three natural gas-fired microturbines that will provide a balance of electricity and steam for heating.

The CHP system will provide the Gateway Building and four other buildings on campus with both thermal and electrical energy. Combined heat-and-power systems produce electrical and thermal energy simultaneously, reducing waste energy and improving overall system efficiency.

This system will provide approximately 65 percent of campus heating needs 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.

Building construction is progressing toward its Fall 2012 anticipated completion. Steel and heavy timber framing are complete, along with the concrete floor slabs. Current work includes wood decking, waterproofing, fireproofing, light-gauge metal framing, and rough-in of piping and conduits.

Academic Research Building Project Moves Forward

The College is moving forward with its plans to build a new academic research building on campus. Currently in the schematic design phase, construction of the building will follow property acquisition and is expected to begin in 2013. The building is anticipated to be approximately 120,000 gross square feet with aspirations for LEED Platinum certification. Landscaping surrounding the building is intended to reinforce the College’s identity and mission, perhaps featuring a salt marsh.
ESF Takes Over Adirondack Visitor Center

ESF and the Adirondack Park Agency (APA) entered into an agreement to ensure the Visitor Interpretive Center (VIC) in Newcomb continues to serve as an important environmental programming facility. The APA transferred ownership of the state-owned buildings and equipment to ESF in July 2010. The agreement supports the work of the College’s Adirondack Ecological Center, which is located on the Newcomb property. The new initiative extends the mission of the AEC, with additional educational resources for both students and visitors so they can learn about the wonders of ecology in the Adirondacks.

The agreement includes the transfer of all state-owned buildings on the 236-acre Newcomb site. The 6,000-square-foot main public assembly building with its 150-seat multiple purpose room, 700-square-foot exhibit room and staff offices as well as an adjacent 2,500-square-foot garage and classroom building have been transferred to ESF.

Programming needs in reference to staffing, hours of operation, public visitation, special programs inclusive of groups and schools, off-site programs and outreach are directly managed and funded by ESF together with the town of Newcomb.

ESF Partners With Upstate Medical University on Biotechnology Center

ESF and Upstate Medical University have joined forces to create a biotechnology research center to house companies spun off from their research.

Construction of the CNY Biotechnology Research Center on the grounds of the former Kennedy Square apartments on the city’s east side stalled last year due to a cut in state funding. Funding was restored in the fall of 2010 and the work rebid. Contractors are again onsite installing the building shell. It is expected crews will be able to work inside the building throughout the winter once the shell is installed.

The center will serve as a centerpiece for the area and help transform it into a mixed-use neighborhood featuring residential and commercial ventures in addition to the research facility.

Illick Greenhouses, Roof and Exterior to Be Renovated

Roof and exterior work will begin on Illick Hall in spring 2012. A main component of the project will be replacement of the College’s greenhouses. The greenhouses will be reconfigured to better support the instruction and research conducted by the Department of Environmental and Forest Biology. The greenhouses will also be more energy efficient and will be organized to make maintenance easier. Construction documents are being developed.

The project also includes replacing the roof membrane and repairing exterior masonry.

College Foundation Reports Successful Year

The ESF College Foundation had a successful year that included publicly launching its Centennial Campaign for ESF, opening a new residence hall and hosting a major campus event. Accomplishments noted by the Foundation include:

- A successful fundraising year with more than $1.7 million in gifts received
- Documented gifts and pledges of more than $11 million to the leadership phase of the Centennial Campaign, surpassing leadership phase goal of $10 million
- Publicly announcing the $20 million Centennial Campaign July 28, 2011, in conjunction with the College’s 100th anniversary celebration
- Hosting approximately 500 guests on the ESF main campus and 250 guests at off-site receptions for a “Green Tie Dinner” to celebrate the College’s Centennial
- Increasing the assets of the ESF College Foundation to $50 million
- Completing construction of Centennial Hall, ESF’s first dedicated student residence
ESF Receives STARS Silver Rating for Sustainability Achievements

ESF received a STARS Silver Rating in recognition of its sustainability achievements from the Association for the Advancement of Sustainability in Higher Education (AASHE).

STARS, the Sustainability Tracking, Assessment and Rating System, is a program that measures and encourages sustainability in all aspects of higher education.

ESF has committed to carbon neutrality by 2015; the STARS program is an integral part of that effort.

ESF’s plan to eliminate its carbon footprint by 2015 uses a combination of energy conservation, alternative energy projects, new construction that focuses on energy-efficient design and innovative combined heat and power systems, action to engage the College community in reducing waste, and forest carbon sequestration centering on design and management of ESF’s forested properties.

Two ESF graduate students, Andrea Webster and Hannah Morgan, were instrumental in preparing the material that resulted in the STARS Rating. Then-undergraduate student Justin Heavey, ES’11, wrote the College’s Climate Action Plan.

College Receives Award from New York Water Environment Association

ESF received an inaugural Sustainability Award from the New York Water Environment Association (NYWEA).

The award honors an organization that has instituted policies and practices that recognize the need for long-term preservation of assets, human capital and natural resources while satisfying present-day needs, societal goals and the organization’s environmental mandate. Award winners demonstrate success in developing a culture that encourages and rewards sustainable decision making at all levels of the organization.

ESF graduate student Matthew Huchzermeier was honored during NYWEA’s 83rd annual meeting in New York City when he won a $600 first-place award for an oral presentation in the university forum. Huchzermeier’s paper was titled, “Overcoming Challenges to Recovering Phosphorus from Anaerobically Digested Dairy Manure.” ESF Assistant Professor Wendong Tao was co-author of the paper.