**Front Cover:** Collage of images provided by EFB faculty, staff, and students
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Introduction

The topics and format of this annual report generally follow instructions from Provost Bongarten. Additional, brief material is included for readers external to ESF. Individual faculty annual reports, from which much of the information within the EFB Annual Report is directly taken, are available at: http://www.esf.edu/efb/annualreports.htm. Only a few of the many exciting activities and accomplishments within EFB the past academic year can be included in this brief summary.

Appendix A lists EFB faculty during the 2011-2012 Academic Year, including their rank, education, and scholarly interests. Numerous contributions by, and highlights of, the faculty follow throughout this report. Each faculty member’s summary (unedited) of their most significant accomplishments this past year is in Appendix B. Of the many faculty highlights this past year, only a few are included in this section.

Dr. Roy A. Norton, Professor, retired from EFB in December 2012. Roy was an outstanding scholar and teacher, and an extraordinary department citizen for 40 years. He received his B.S. from ESF in 1969, his M.S. in 1973, and Ph.D. in 1977. Roy published important scholarly papers for decades; a few years ago within one month he coauthored two papers in the Proceedings of the National Academy of Science, which may be unprecedented at ESF. His scholarship covered a tremendous breadth of topics including molecular, evolutionary, and feeding biology; cytology, genetics, paleontology, and systematics. Typically, the subject is mites, and Roy continues to be truly one of the world’s authorities of this group. In a typical year recently, his publications involved 19 coauthors from 11 institutions in the US, Germany, Mongolia, New Zealand, and Brazil. His international colleagues named 16 species of mites in his honor. Roy was also one of the most dedicated of all faculty at ESF to our undergraduates. He was EFB’s Undergraduate Curriculum Director for many years, guiding our 600 undergraduates through our seven majors. Each spring he taught Invertebrate Zoology (EFB 355) in which he covered the structure, function, classification, and evolution of invertebrates, and emphasized their functional biology and ecological interactions. His impact as faculty mentor will last for decades, and his role in EFB and dedication to ESF have been a model for everyone.

After a national search that yielded an outstanding pool of applicants, Dr. Rebecca J. Rundell was selected to replace Dr. Norton as EFB’s new Invertebrate Conservation Biologist. Rebecca was most recently the George Gaylord Simpson Post-doctoral Fellow at the University of Arizona following a post-doc fellowship at the University of British Columbia. She received her Ph.D. in Evolutionary Biology from the University of Chicago in 2008, an M.S. in Evolutionary Biology from the University of Chicago in 2004, and B.S. in Biology from Cornell University in 1996. Her research has been on the evolution of “micro”-snails of the Republic of Palau – a highly diverse taxonomic group, and she is already an expert on mollusks of Oceania. Rebecca will continue that research here as well as initiate research on land snails in New York, including the federally-listed Chittenango ovate-amber snail, which occurs nowhere else in the world except at Chittenango Falls State Park. She’ll be joining ESF in August of this year and will teach Invertebrate Zoology (EFB 355) and Principles of Evolution (EFB 311) as well as specialized graduate courses. Rebecca joins nine other new faculty hired in EFB since 2005.

Dr. Stephen Teale was promoted to Professor and Drs. Jacqui Frair and Lee Newman were promoted to Associate Professor. Additionally, Jacqui received continuing appointment, i.e., tenure.
Dr. Guy Baldassarre’s revision of the classic *Ducks, Geese and Swans of North America* is in press. Drs. John Castello’s and Steve Teale’s textbook, *Forest Health. An Integrated Perspective* (Cambridge University Press, May 2011) received an exceptional review in the journal *Ecology*. After joining EFB recently, Dr. Jonathan Cohen was quite busy managing $570,000 in grant funding and five research projects with sites in Florida, Cape Cod, Cape May, Brooklyn, western NY, and Syracuse; and teaching the capstone course for Wildlife Sciences majors, EFB 493/693 Wildlife Habitats and Populations. Dr. Martin Dovicak, as lead PI, received a two-yr grant from the NSRC to study climate change effects on spruce-fir forests in the protected areas of the northeastern US.

Besides continuing to direct an increasingly productive Thousand Islands Biological Station near Clayton, NY, Dr. John Farrell is PI of a new major research project (NOAA funded partnership with Ducks Unlimited) with a team of faculty (Drs. Gibbs, Leopold, Mitchell, Schulz), graduate students, and staff to examine the response of wetlands including biogeochemistry, lower trophic levels, plants, avifauna, herpetofauna, fish, and mammals to various restoration efforts relative to water level regulation in Lake Ontario and the upper St. Lawrence River. Dr. Danny Fernando served as Director of EFB’s Graduate Program for his fifth year and had two grant proposals funded for $182,476.00 by USFWS-GLRIP and USDA-NSRC to examine the genetic diversity of two of the rarest ferns in the Northeast (hart’s tongue fern, fragrant fern).

Dr. Melissa Fierke taught General Biology (EFB 101) for the fourth year, with more than 280 students this past year. Melissa also taught Forest Health Monitoring this past Maymester, a required field course for EFB’s Forest Health major, and continues to develop research projects that involve *Sirex noctilio* and the emerald ash borer. Dr. Beth Folta worked with the CCAC to complete the Natural History and Interpretation curriculum changes and taught two new courses, i.e., EFB 796 Research in Interpretation and Environmental Education (EFB 796) and Technology in Environmental Interpretation and Environmental Education (EFB 496/796). Beth also submitted, as co-PI, three grant proposals that total $3,461,845. Dr. Jacqui Frair organized a significant new experience for EFB students, i.e., a Hunter and Trapper Education for Wildlife Professionals course. Jacqui also has spent considerable effort on the Roosevelt Wild Life Station, working on a large endowment initiative and getting funding for a conservation assessment of the Roosevelt Wildlife Collection.

While coordinating EFB’s largest undergraduate major, Conservation Biology, Dr. James Gibbs served as International Scholar in the Higher Education Support Program of the Soros Open Society Foundation at the National University of Kyiv-Mohyla Academy, was elected as a member of the Charles Darwin Foundation’s General Assembly (its governing entity) while serving on its Program Committee to reformulate science programs of the Charles Darwin Research Station, prepared for activities under a recent fellowship from the Ecuadorian government’s science directorate (SENESCYT) to serve as a “Viejo Sabio” for one year to build capacity for scientific investigation within the Galapagos National Park Service, and served for the second year as external review member to Mexico’s Institute of Ecology. In March Dr. Charlie Hall travelled to London, England to speak to Parliament and two UK Departments and two major engineering firms about energy, especially oil, issues.

Dr. Tom Horton has initiated a book (final draft due January 2013), an edited volume on Mycorrhizal Networks for Springer’s Ecological Studies Series and has recruited a strong group of international authors for chapters. Dr. Robin Kimmerer served as founder and Director of The Center for Native Peoples and the Environment in 2011-12 which has brought significant
attention to the College’s leadership role in incorporating traditional ecological knowledge in environmental education and research. Dr. Don Leopold, with Christopher Baycura (ITS), produced 100 tree videos in HD, each about 2 to 3 minutes in length, and now available for downloading and viewing at ESF websites. Additionally, Don organized a bioblitz at Lucky Star Ranch last June, which had about 100 students, faculty, and staff involved with cataloguing the biota in a large alvar landscape over a 24-hour period, and was one of three invited speakers to make a presentation at the 2nd International Symposium on the Biology of Rare and Endemic Plants, in Mugla, Turkey, April 2012.

Dr. Karin Limburg has been engaged with the International Council for the Exploration of the Seas (ICES), the inter-governmental body for fisheries management in the North Atlantic and is focusing much attention on two large research projects, one on humpback chub in the Grand Canyon, and the other on river herring (two species of alosine herring) along the East Coast. Dr. Mark Lomolino’s 4th Edition of *Biogeography* (with Riddle, Whittaker and Brown; Sinauer Associates) continues to be the leading text in the field of biogeography. Dr. Greg McGee continued to coordinate, administer and teach multiple sections of the General Biology labs and two three-week sessions of EFB202 at Cranberry Lake. In January Greg began serving as the department’s Undergraduate Curriculum Director and the Curriculum Coordinator for ENB. Stacy McNulty was the lead instructor for Winter Mammalian Ecology and Associate Director of the AEC, and her co-authored paper on a predator-prey study of temporal patterns in mammals and beech mast was highlighted on the cover of the *Journal of Wildlife Management*.

Dr. Myron Mitchell spent a substantial portion of his time and energy on numerous SUNY wide efforts; he is a member of SUNY Research Foundation Board and was elected to Vice-Chair in January 2011 so now serves on the Executive Committee. Additionally, Myron authored or coauthored 15 papers and is finishing a large synthesis paper examining nitrogen biogeochemistry for a broad range of sites across southeastern Canada and the northeastern United States. Dr. Jim Nakas submitted a new patent application to the USP&TO based on his work on polyhydroxyalkanoates (PHAs). This is his second patent application; the first resulted in a European patent (Eur. Pat. # 1585821) issued for PHA production from wood-based feedstocks. Dr. Tsutomu Nakatsugawa participated in the first year of activities of the College-wide PT committee meetings (CRC), representing EFB because of his many years of service on the department’s Promotion and Tenure Committee. And in his 44th year of employment at ESF, Tsutomu announced his plans to retire in August of this year.

Dr. Lee Newman taught Cell Biology and Molecular Techniques and was very active with the International Phytotechnology Society (including serving as President), the Northeast Phytotechnology Society (Founder) the Association of Environmental Health Science, and continued as co-Editor-in-Chief for the *International Journal of Phytoremediation*. Dr. Dylan Parry taught for the first time a three-credit hour forensic entomology course at ESF and served on the NY State Invasive Species Advisory Committee. Dr. Bill Powell, with colleague and long-time collaborator Dr. Chuck Maynard (FNRM), planted the first transgenic American chestnut trees at the New York Botanical Garden in April, probably the first transgenic plants ever featured in any botanical garden; this planting was very close to the location that the chestnut blight was first discovered in North America. This event generated significant national and international media exposure for the College.

Dr. Neil Ringler served another year as Vice Provost for Research for ESF’s Office of Research Programs, taught Aquatic Entomology and Comparative Anatomy courses, and oversees construction of the new $1.47 million (from NSF) Center for Integrated Research and
Teaching in Aquatic Sciences (CIRTAS) to rebuild aquatic sciences labs in Illick Hall. Dr. Sadie Ryan introduced two new courses to support the new Environmental Health major at ESF: Emerging Infectious Diseases and Epidemiology; her recent paper, “Consequences of non-intervention for infectious disease in African great apes” (PLoS ONE), received substantial attention by the press. Besides continuing to teach her very popular courses in Limnology and Marine Ecology, Dr. Kim Schulz received ESF’s Exemplary Research Award for her grantsmanship and research activities, including her role in securing significant NSF funding to construct the new aquatic sciences labs (“CIRTAS”) in Illick.

Dr. Bill Shields was awarded the College Foundation Award for Exceptional Achievement in Teaching and was appointed Director of the Honors Program. Dr. Steve Teale received funding from the Galapagos Conservancy to identify chemical attractants in Philornis downsi, a fly that is an avian parasite, not native to Galapagos, and is severely impacting species of Darwin’s finches and other passerines. Dr. Scott Turner was informed that he will receive a $1.35 M grant from the Human Frontiers Science Program with several co-investigators, to expand upon his previous work on termite mounds to include work on advanced fluid mechanics, neurobiology of termite swarms, species diversity of termite-built structures, and application to novel methods of wind-driven control of built environments.

Dr. Alex Weir continued as Director of the Cranberry Lake Biological Station and took on major additional teaching assignments as instructor/coordinator of the two-semester required Diversity of Life sequence. These new courses had enrollments over 100 and were generally well-received although he is working on a number of refinements for the upcoming year. Dr. Chris Whipps again taught General Biology II (EFB 103; cell biology and genetics) which had 175 students and offered Parasitology (EFB453/653) for the first time. Chris also chaired ESF’s Institutional Animal Care and Use Committee.

EFB faculty submitted about 26% (totaling $17,078,904) of all grant proposals from all academic and non-academic units at ESF. Drs. Leopold, Folta, Kimmerer, Cohen, and Ryan accounted for about 60% of the total dollar amount of proposals submitted. The average amount per proposal was $257,406. As of the end of April, about 47% of EFB proposals were funded (for $2,208,372). Proposals for over $10,403,711 are still pending decision. Of the over $15,000,000 of expenditures made this past year from funded grants at ESF, EFB accounted for about $4,440,000 of these expenditures. Drs. Farrell, Powell, Teale, Gibbs, and Limburg spent about 40% of this EFB total.

EFB enrollments continue to be very strong with 38% of all undergraduates and about 31% of all graduate students at ESF. The undergraduate majors of Conservation Biology, Environmental Biology, and Wildlife Sciences accounted for nearly 75% of the over 633 undergraduates in EFB (26.2%, 25.8%, and 22%, respectively). Since EFB implemented its seven undergraduate majors, this is the first year that the Conservation Biology major has the largest number of students among all EFB majors. And the 633 undergraduates in EFB enrolled in the fall ’11 semester is the largest number of undergraduates in the history of EFB.

Of EFB’s 12 graduate areas of study, about 33% of the 156 graduate students are in Ecology, 24% in Fish and Wildlife Management, and 19% in Conservation Biology. About 55% of EFB’s 156 graduate students (enrolled in the fall ’12) are working towards an M.S. degree with 35% in the Ph.D. program and the remainder in MPS programs.

Among the various types of recognition that EFB’s undergraduates received last year, EFB undergrad David S. Andrews was one of two ESF students to receive the prestigious SUNY Chancellor’s Award for Student Excellence. Besides many local, regional, and professional
society awards to EFB graduate students, Andrew Brainard (K. Schulz, mp) won a prestigious National Estuarine Research Reserve System Graduate Research Fellowship from NOAA for three years.

Nearly $50,000 in awards were given out to students in May at EFB’s annual spring celebration and awards ceremony, held before the College’s Convocation activities. These funds are a result of gifts from alumni, and friends and past faculty of EFB.

The most significant change in EFB undergraduate majors was that after many years of discussion, beginning Fall 2011 the department required a two-semester Diversity of Life course (EFB 210 Diversity of Life I, EFB 211 Diversity of Life II) of students in all majors (except Biotechnology, requires only one semester). Dr. Alex Weir took the lead for both courses which also involved over one dozen EFB faculty. Instructional Support Specialist Kim Adams coordinated the many labs and was one of the lab instructors; without her assistance, we would not have been able to launch this new course. The EFB faculty generally felt that many undergraduates were not getting sufficiently broad education about all life forms. Additionally, EFB offered two courses during ESF’s second summer session in Maymester (besides courses at the Cranberry Lake Biological Station): Flora of Central New York (taught by Visiting Instructor, Michael Hough) and Field Ornithology (taught by Visiting Instructor, Alan Bedford).

EFB had two significant non-monetary donations this past year. An anonymous, retired ESF faculty member gave EFB his 2004 Alumacraft boat with 60 HP Mercury outboard, trolling motor, trailer and other miscellaneous items. This donation will greatly assist the faculty and students in the areas of aquatic and fisheries sciences with their research and teaching. Through the assistance of Kevin Guerin (ATS) we received 32 AO microscopes in very good condition from Upstate Medical University, sufficient to stock another instructional lab.

**Building(s)**

Following the $1.47 million award from the National Science Foundation to Drs. Ringler, Schulz, Farrell, Whipps, and Leopold, continued effort went into the planning for the new Center for Integrated Research and Teaching in Aquatic Sciences (CIRTAS, to be led by Dr. Kim Schulz) on the second floor of Illick. Construction is finally scheduled for summer of 2012 with completion in early fall 2012. Funding is being used to construct and equip controlled environment rooms and other research spaces, currently rooms 227, 228, 231 through 237 Illick. As part of the CIRTAS construction, the ESF administration funded construction of a new lab and enhanced remote data access at the Thousand Islands Biological Station which is scheduled to be completed by mid to late summer, 2012. This construction will greatly enhance research space at TIBS and establish an electronic link between research activities there with the CIRTAS facility in Illick.

Significant effort went into continued planning for the new Academic Research Building which will be the new building for the Department. Because funding is in hand for only half of the project (and one third of the faculty), the new ARB will be built in phases, with Phase 1 expected to be completed by 2015. The most lab-intensive EFB faculty (approximately 11) and their graduate students will move into the Phase 1 building upon completion. Currently, there is no schedule for Phase 2. Current plans for both phases are at: [http://www.esf.edu/efb/newhome.asp](http://www.esf.edu/efb/newhome.asp)

After much planning for the new roof and roof top greenhouses on Illick, construction is planned to begin during the summer 2012.
Autoclaves and cold rooms throughout Illick continue to break down and require ongoing, expensive repair. There are no alternatives since there are no funds to replace this outdated equipment that is essential to research and teaching in biology.

**Teaching**

Besides the significant curriculum change in requiring a two semester Diversity of Life course of most EFB majors, described later in this section, another important aspect of EFB course offerings was the continuation of summer courses besides those already authorized for EFB’s summer field programs. Although many scheduled courses were cancelled due to insufficient enrollment, EFB again offered Flora of Central New York (taught during Maymester ’12 by Visiting Instructor, Michael Hough). A new course, Field Ornithology (taught by Visiting Instructor, Alan Bedford), was also offered during Maymester ’12.

### Summary of main courses taught by faculty and enrollment in each course
*(as reported by each; does not include 420, 495, 498, 499, 798, 899, 999; Course prefix EFB unless otherwise noted)*

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Course #</th>
<th>Course Name</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baldassarre</td>
<td>390</td>
<td>Principles of Wildlife Management</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>482</td>
<td>Ornithology</td>
<td>30</td>
</tr>
<tr>
<td>Castello</td>
<td>217 (0.5)</td>
<td>Peoples, Plagues, &amp; Pests</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>303 (0.5)</td>
<td>Intro Environmental Microbiology</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>340</td>
<td>Forest and Shade Tree Pathology</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>345 (0.5)</td>
<td>Forest Health</td>
<td>10</td>
</tr>
<tr>
<td>Cohen</td>
<td>493/693</td>
<td>Wildlife Habitats and Populations</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>796</td>
<td>Population Parameter Estimation</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>797</td>
<td>Grant Writing in Fish and Wildl.</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>797</td>
<td>Adaptive Peaks Seminar</td>
<td>7</td>
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<tr>
<td>Dovciak</td>
<td>445/645</td>
<td>Plant Ecology &amp; Global Change</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>535</td>
<td>Flowering Plants: Diversity, Evol., &amp; Syst.</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>797</td>
<td>Global Change Ecology</td>
<td>10</td>
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<tr>
<td>Farrell</td>
<td>388</td>
<td>Ecology of Adirondack Fishes</td>
<td>12</td>
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<td></td>
<td>681</td>
<td>Aquatic Restoration Ecology</td>
<td>13</td>
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<td>Fernando</td>
<td>326</td>
<td>Diversity of Plants</td>
<td>73</td>
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<td>427/627</td>
<td>Plant Developmental Biology</td>
<td>18</td>
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<td></td>
<td>796</td>
<td>Plant Genomes, Evolution &amp; Biodiversity</td>
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<td>Fierke</td>
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<td>General Biology Lecture I</td>
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<td>439</td>
<td>Forest Health Monitoring</td>
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<td>Systematic Entomology</td>
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<td>EFB Core Course</td>
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<td>Adaptive Peaks Seminar</td>
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<td>797</td>
<td>Non-native Forest Insect Pests</td>
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<tr>
<td>Name</td>
<td>Course Numbers</td>
<td>Course Title</td>
<td>Credits</td>
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<td>Folta</td>
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<td>Natural History Museums &amp; Modern Sci.</td>
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<td>416/616</td>
<td>Intro/Environ. Interpretation</td>
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<td>417/617</td>
<td>Adv. Perspectives of Interpretation</td>
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<tr>
<td></td>
<td>496/796</td>
<td>Tech/Interpretation &amp; EE</td>
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<td>Frair</td>
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<td>Applied Wildlife Science</td>
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<td>Hunter Trapper Education for Wild. Prof.</td>
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<td>496 (0.5)</td>
<td>Wildlife Techniques</td>
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<td></td>
<td>796 (0.5)</td>
<td>Quantitative Methods and Models in R</td>
<td>18</td>
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<td>Gibbons</td>
<td>384</td>
<td>Field Herpetology</td>
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<td>413</td>
<td>Intro to Conservation Biology</td>
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<td>419</td>
<td>Problem Solving in Cons. Biology</td>
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<td>797</td>
<td>Citizen Science/Galapagos</td>
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<td>Hall</td>
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<td>Global Environment</td>
<td>116</td>
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<td>(ESC) 325/525 (0.5)</td>
<td>Energy</td>
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<td>Ecosystems</td>
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<td>Systems Ecology</td>
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<td>Biophysical Economics</td>
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<td>Horton</td>
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<td>General Ecology</td>
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<td>Evolution of Mycorrhizal Symbiosis</td>
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<td>Buller: A Phenomenal Mycologist</td>
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<td>Kimmerer</td>
<td>305/605</td>
<td>Indigenous Issues and the Environment</td>
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<td>Field Ethnobotany</td>
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<td>446/646</td>
<td>Ecology of Mosses</td>
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<td>Plants and Culture</td>
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<td>UMEB Seminar</td>
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<td>Dendrology I</td>
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<td>487/687</td>
<td>Fisheries Science and Management</td>
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<td>Weir</td>
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**Courses by Instructional Support Specialists, Adjuncts, & Visiting Instructors**

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<td>Eallonardo</td>
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<td>Ettinger</td>
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<td>Plant Propagation</td>
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<td>Folta, J.</td>
<td>311</td>
<td>Principles of Evolution</td>
<td>179</td>
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<td>Herpetology</td>
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<td>496</td>
<td>Issues in Mgt. &amp; Conflict Resolut.</td>
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<td>15</td>
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<td>Hough</td>
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<td>Flora of Central New York (Maymester ’11)</td>
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<td>Crane</td>
<td>414</td>
<td>Senior Synthesis in Con. Biol.</td>
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**Course teaching load summary by faculty members**

The following data are from the Faculty “Workload” Report (sent 6/12/12) by Dr. Maureen Fellows, and summarize the number of students multiplied by the number of credit hours for courses categorized as Research (e.g., EFB 498, 798, 899, 999), Problems/Seminars (e.g., EFB 420, 495, 797), and regular classes. The first number in each column is for undergraduate credit hours, the second for graduate. Co-taught courses yield the number of credit hours for that course divided by number of instructors. All courses are credited, regardless of departmental prefix. Note that although these data come from an administrative report titled “Workload”, only the teaching portion of a faculty member’s complete workload is included.
## Teaching Load Summary by Faculty Member

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Research CH</th>
<th>Prob./Sem. CH</th>
<th>Class CH</th>
<th>Total (U/G)</th>
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<td>17/28</td>
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<td>1220 (1176/44)</td>
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<tr>
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<td>2/0</td>
<td>59/0</td>
<td>965/0</td>
<td>1026 (1026/0)</td>
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<tr>
<td>Fierke (3)</td>
<td>7/42</td>
<td>9/20</td>
<td>837/23</td>
<td>938 (853/85)</td>
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<tr>
<td>Weir (4)</td>
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<td>9/0</td>
<td>860/17</td>
<td>905 (877/28)</td>
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<td>Hall (5)</td>
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<td>17/2</td>
<td>673/58</td>
<td>821 (723/98)</td>
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<td>Schulz (6)</td>
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<td>15/3</td>
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<td>690 (681/9)</td>
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<td>6/0</td>
<td>588/18</td>
<td>650 (606/44)</td>
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<td>96/7</td>
<td>465/0</td>
<td>613 (575/38)</td>
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<td>25/3</td>
<td>477/30</td>
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<td>10/5</td>
<td>446/20</td>
<td>544 (478/66)</td>
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<td>532 (509/23)</td>
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<td>Shields (13)</td>
<td>17/6</td>
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<td>524 (506/18)</td>
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<td>357/19</td>
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<td>383/8</td>
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<td>14/1</td>
<td>173/21</td>
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<td>Cohen (24)</td>
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<td>156/43</td>
<td>236 (159/77)</td>
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<td>123/75</td>
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<td>167/6</td>
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<td>3/16</td>
<td>123/15</td>
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<td>96/9</td>
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*rank out of all faculty; 1 highest, 32 lowest

### Teaching Load Statistics by Adjunct Faculty, Emeriti, Instructional Support Specialists, AEC Staff, Visiting Instructors, etc.

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<td>123</td>
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<td>0/0</td>
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<td>Eallonardo</td>
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<td>0/0</td>
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<tr>
<td>Ettinger</td>
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<td>J. Folta</td>
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<tr>
<td>Hocutt</td>
<td>0/0</td>
<td>0/0</td>
<td>23/0</td>
<td>23</td>
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</table>
Dr. Horton had the highest teaching workload (1220 total credit hours), followed by Drs. McGee (1026), Fierke (938), Weir (905), and Hall (821). EFB faculty were responsible for 14,848 credit hours (versus 13,489 last reporting period) of campus instruction. Another 1,692 credit hours were delivered by Visiting Instructors and others (versus 1,579 in last reporting period) for an EFB total of 16,450 credit hours.

**Undergraduate Student Advising Loads**

Listed below is the number of undergraduate advisees assigned to each faculty member, as reported by that faculty member. Additionally, some faculty members regularly and informally advise a much larger number of undergraduates, and some advise ES undergraduate students.

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<th>Undergraduate Advising Loads</th>
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<td>Castello* 19</td>
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<td>Cohen 20</td>
<td>Nakas 10</td>
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<td>Dovciak 11</td>
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<td>Fernando 13</td>
<td>Parry 15</td>
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<tr>
<td>Fierke 24</td>
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<td>Leopold 6</td>
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<td>Limburg 19</td>
<td>Weir 21</td>
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<tr>
<td>Lomolino 24</td>
<td>Whipps 27</td>
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</table>

*Also coordinator for one of EFB’s majors  
**Undergraduate Curriculum Director and coordinator for the environmental biology major

**Curriculum changes**

The most significant change in EFB undergraduate majors was that after many years of discussion, beginning Fall 2011 the department required a two-semester Diversity of Life course (EFB 210 Diversity of Life I, EFB 211 Diversity of Life II) of students in all majors (except Biotechnology, requires only one semester). The EFB faculty generally felt that many undergraduates were not getting sufficiently broad education about all life forms. Dr. Alex Weir took the lead for both courses which also involved over one dozen EFB faculty. Instructional
Support Specialist Kim Adams was instrumental to the delivery of these new courses, coordinating all of the labs and regularly instructing in some. Without any new resources to offer these courses with rather large enrollments, the Department was challenged to make this course the quality experience that was desired.

**Undergraduate students enrolled in each EFB major**

Enrollment numbers change throughout the year, especially after December and May graduations, e.g., there were 633 EFB undergraduate students enrolled in classes during the fall ’11 semester and 587 registered for the spring ’12 semester. The number of EFB undergraduates enrolled during the fall ‘11 is the largest number ever in the history of the department. The total number of undergraduates in EFB represented 38% of all full-time and part-time undergraduates (1657) at ESF in the fall. Fall ‘11 undergraduate enrollments (and percent of total) in each major were:

- Conservation Biology: 166 (26.2%)
- Environmental Biology: 163 (25.8%)
- Wildlife Science: 139 (22%)
- Biotechnology: 61 (9.6%)
- Aquatic and Fisheries Science: 57 (9.0%)
- Natural History and Interpretation: 34 (5.4%)
- Forest Health: 13 (2.1%)

Total 633 undergraduates in EFB (fall ’11)

**Listing of awards and recognition**

Jacqueline Frair: The Wildlife Society Student Chapter Advisor of the Year

Shields, William: ESF College Foundation Award for Exceptional Achievement in Teaching, May 2012

**Research/Scholarship**

**Summary of publications/presentations**

Appendix C lists books and refereed publications of the EFB faculty; papers submitted, in review, or pending decision are shown in Appendix D. Presentations by EFB faculty at science meetings are shown in Appendix E.

EFB faculty published an average of 2.55 (vs. 2.09 and 2.15, previous two years) refereed journal papers per person this past year (range of 0 to 15), and have an additional 1.45 (vs. 1.44 and 1.36, previous two years) refereed publications in press.


The “impact” of one’s overall publication record can be objectively assessed by a variety of citation indices. The following summary of the measures reported here was written by the Director of the ESF College Libraries, Stephen Weiter.
Citation analysis is a quantifiable measure of academic output. SUNY-ESF has access to two subscription resources used for citation metrics – Web of Science and Scopus. Web of Science contains authoritative, multidisciplinary content and covers over 10,000 of the highest impact journals worldwide, including Open Access journals and over 110,000 conference proceedings. The database includes current and retrospective coverage in the sciences, social sciences, arts, and humanities. Thompson-ISI is very selective in the journal selection process and this database includes only the most highly regarded publications in a field. Coverage begins in 1900.

Scopus is the world’s largest abstract and citation database containing both peer-reviewed research literature and quality web sources. Scopus includes over 18,000 titles from more than 5,000 international publishers in the scientific, technical, medical and social sciences fields and, more recently, also in the arts and humanities. Full coverage begins in 1996. It contains 41 million records, 70% with abstracts; 70% of its content is from international sources. It includes over 3 million conference papers and provides 100% Medline coverage.

There are limitations and incongruities in the use of citation metrics. The databases referenced above do not correct errors in citing papers. This means that one paper may be cited many different ways and appear as separate entries in these tools. Also, author and institutional naming inconsistencies complicate these analyses. Comparisons between these tools should be avoided. The databases use different sources to generate data and some are more comprehensive than others. In addition, the literature suggests that these tools are skewed towards the STM (science, technical and medical) community of scholars.

The h-index is rapidly becoming the standard accepted measurement of academic output and can be generated in both Web of Science and Scopus. The h-index is defined as:

A scientist has index h if h of [his/her] \( N_p \) papers have at least \( h \) citations each, and the other \( N_p - h \) papers have at most \( h \) citations each.

However, the h-index has significant limitations in terms of what it measures: (1) it does not include citations to the same work that have small mistakes in their referencing (of which for some publications there are many); (2) it only includes citation to journal articles (not to books, book chapters, working papers, reports, etc.); and, (3) it only includes citations in journals that are listed in the database being searched, which is never comprehensive of academic journals in the field. Therefore, the h-index should be viewed as one metric among many in considering academic output and productivity.

The following table (produced by ESF assistant librarian, Jessica Clemons, June 2012) shows the science citation indices for each faculty member. Using the number of citations for 2002 to 2011 as determined by Scopus, Dr. Karin Limburg had the highest number of citations followed by Drs. Myron Mitchell, James Gibbs, Tom Horton, and Mark Lomolino. Using this same data base for only last year, Dr. Karin Limburg had the highest number of citations followed by Drs. Myron Mitchell, James Gibbs, Tom Horton, and Charlie Hall. Applying the Web of Science citation index for EFB faculty last year yielded similar results for the top three faculty but had Drs. Mark Lomolino and Tom Horton ranked fourth and fifth, respectively.

Dr. Myron Mitchell had the highest SCOPUS h-index, followed by Drs. James Gibbs, Mark Lomolino, Karin Limburg, and Tom Horton.
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<th>Last Name</th>
<th>First Name</th>
<th>SCOPUS # Citations</th>
<th>Web of Science # Citations</th>
<th>SCOPUS # Citations 5 years 2007-2011</th>
<th>SCOPUS # Citations 10 years 2002-2011</th>
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<td>136</td>
<td>467</td>
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</table>
Summary of grant activity

From May 1, 2011 to April 30, 2012, EFB submitted 26.2% of all proposals (of 254 total) submitted by all units at ESF, versus 29.2% during the previous reporting period. These EFB proposals represent 27.5% of the $62,105,109 amount for all proposals submitted by all units to the ESF Office of Research Programs. The average amount per EFB proposal was $257,406 (versus $209,300 the previous reporting period). Nearly 47% of EFB proposals submitted during this period (for $2,208,372) have already been awarded, with another 39.3% still pending (for $10,403,711).

The proposal submission activity of each faculty member for the 12 month period ending April 30, 2012 follows. Dr. D. Leopold had the highest credited number of proposals submitted, followed by Drs. J. Cohen, R. Kimmerer, T. Horton, and C. Hall. Dr. D. Leopold had the highest credited dollar amount of proposals submitted, followed by Drs. E. Folta, R. Kimmerer, J. Cohen, and S. Ryan; these five accounted for $10,153,662, or about 61%, of the total.

Proposal Activity Summary by PI/CoPI
(12-Month Period ending 4/30/12)

<table>
<thead>
<tr>
<th>Name</th>
<th>Credited* Number</th>
<th>Credited Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrahamson, Lawrence</td>
<td>0.70</td>
<td>$130,484 (20)**</td>
</tr>
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<td>0.00</td>
<td>$0 (28)</td>
</tr>
<tr>
<td>Castello, John</td>
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</tr>
<tr>
<td>Dovciak, Martin</td>
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</tr>
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</table>
Appendix F lists all active grants of each EFB faculty. For the 12-month period ending 4/30/12, EFB accounted for 34.3% of all active sponsored research projects at ESF (of 398 total, all units) and 29.5% of the $15,055,221 of all sponsored program expenditures by all units at ESF. The average amount of expenditure per project was $32,524 versus $35,755 in the last reporting period.

Sponsored program expenditure activity by PI/coPI among EFB faculty for the 12-month reporting period ending 4/30/12 follows. Dr. Gibbs had the highest credited number of program expenditures, followed by Drs. Leopold, Limburg, Mitchell, and Farrell. Dr. Farrell had the highest credited dollar amount of program expenditures, followed by Drs. Powell, Teale, Gibbs, and Limburg.

### Sponsored Program Expenditure Activity Summary by PI/CoPI
(12-Month Period ending 4/30/12)

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*rank by credited amount; 1 highest, 31 lowest

**Patents and Patent Applications**

**Listing of Awards and Recognition**
Schulz, Kimberly L.: ESF Exemplary Researcher Award

**Outreach and Service**

**Service to the department, college, and university**
A summary of service by each faculty member to the department, college, and university is given in Appendix G.

**Enumeration of outreach activities**
Appendix H shows unfunded service by EFB faculty to government agencies, public interest groups, etc. This list does not include the many hours of outreach made by our Instructional Support Specialists, graduate students, and undergraduate students. For example, the Instructional Support Specialists who manage our Roosevelt Wildlife Collection and the Illick greenhouses (Ron Giegerich and Terry Ettinger, respectively) host numerous tours for the ESF community (e.g., Family & Friends Barbeque, Annual Alumni Tour, college visitors which include many school groups).
Besides the numerous phone and email inquiries that faculty receive from the public, news channels, and newspapers, Ron Giegerich, Terry Ettinger, and Kim Adams respond to many similar requests for information from these sources. For example, Kim Adams receives hundreds of requests for information. Terry Ettinger assisted in the development and delivery of dozens of episodes of the ESF/Time Warner Cable “Going Green” collaboration which is broadcast weekly across all of upstate New York, western Massachusetts, and northern Pennsylvania and available on the web. Ron Giegerich coordinates EFB’s day at the NYS Fair each August which attracts hundreds of visitors.

Although there are no data to support this claim, the Department of EFB generates more print in the Syracuse Post-Standard than all other academic departments combined, and all other offices at ESF. Most of the dozens of local newspaper articles of this past year are posted in the main foyer of Illick. Much media attention often comes from beyond central New York.

Unfunded service to professional societies and organizations is summarized in Appendix I. Appendix J summarizes the funded service by EFB faculty to government agencies, public interest groups, etc. Appendix K lists the presentations made to the public by EFB faculty and Appendix L includes miscellaneous publications and outreach materials.

Summary of grant panel service (by agency)
Leopold, D.: EPA STAR Graduate Fellowship
Schulz, K.: NSF site visit panel for the review of the North Temperate Lakes LTER

Summary of journal editorial board service
Animal Conservation: S. Ryan
Bio-Complexity: S. Turner
Ecological Economics: C. Hall
Ecology and Society: K. Limburg
Ecology of Freshwater Fish: N. Ringler
Estuaries and Coasts: K. Limburg
Frontiers in Ecology and the Environment: K. Limburg
Journal of Great Lakes Research: J. Farrell (Guest Editor for special issue on Great Lakes Connecting Channels
Intelligent Buildings International: S. Turner (Guest Editor for special issue)
International Journal of Phytoremediation: L. Newman (co-Editor-in-Chief)
International Journal of Plant Developmental Biology: D. Fernando
Marine and Coastal Fisheries: K. Limburg (Guest)
Mycorrhiza: T. Horton
Northeastern Naturalist: D. Leopold
Reviews in Ecological Economics: K. Limburg (Founding editor with R. Costanza and I. Kubieszewski).

Number of journal manuscripts reviewed by faculty (#journals/total #manuscripts reviewed; excludes numerous reviews of NSF, EPA, USDA, McIntire-Stennis, etc. proposals

<table>
<thead>
<tr>
<th>Faculty</th>
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<td>Dovciak, M.</td>
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<td>Fernando, D.</td>
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<td>Fierke, M.</td>
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</tr>
<tr>
<td>Folta, E.</td>
<td>2/3</td>
</tr>
<tr>
<td>Frair, J.</td>
<td>5/7</td>
</tr>
<tr>
<td>Gibbs, J.</td>
<td>?</td>
</tr>
<tr>
<td>Hall, C.</td>
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</tr>
<tr>
<td>Horton, T.</td>
<td>4/7</td>
</tr>
<tr>
<td>Kapuscinski</td>
<td>2/6</td>
</tr>
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<td>Kimmerer, R.</td>
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</tr>
<tr>
<td>Leopold, D.</td>
<td>3/4</td>
</tr>
</tbody>
</table>
Listing of Awards and Recognition

Service Learning

Besides the engagement of students in classes listed below, EFB students were also very involved through independent studies (EFB 498) and internships (EFB 420).

EFB faculty indicate that the following courses have specific service learning components:

**EFB 416/616** (Introduction to Environmental Interpretation; Folta) Sixteen students volunteered to give a plant program at Wheeler Elementary School. The students scouted out the location, designed the program, and then presented it to each of the three 4th grade classes. Each student volunteered approximately 5 hours of his or her time to this project. This is the first time that I had an outreach component to EFB 416/616. It is something I hope to continue next year with the addition of the recitation sections.

**EFB 417/617** (Perspectives of Interpretive Design: Folta) The students worked with Baltimore Woods, Beaver Lake Nature Center, Friends of Beaver Lake, Montezuma Audubon Center, Green Lakes State Park, Clarks Reservation State Park, ESF Greenhouses, Leopold Education Project, and Rosamond Gifford Zoo. The students created brochures and wayside exhibits for the organization to use. Several of the groups are seeking funding to create the wayside exhibits the students created.

Three groups also created podcasts for their organizations. Below are links to two of the podcasts created by the students in EFB 417/617. In addition, each student volunteered at an event hosted by his or her organization or another community organization.

- Rosamond Gifford Zoo – [http://youtu.be/-lgiJoB7-9Q](http://youtu.be/-lgiJoB7-9Q)
- Experience Your Syracuse - [http://youtu.be/WPDhOJSL1Pc](http://youtu.be/WPDhOJSL1Pc)

In total, the students donate over 489 hours of service to the nine community organizations. The majority of the organizations would like to participate again next year. Recruitment of organizations is based on enrollment in the class. I try to have no more than 3-4 students working with an organization, so that projects are not a burden to anyone community group.

**EFB 496** (Wildlife Techniques; Frair) has a service-learning component where students engage with both the NYS Department of Environmental Conservation and the general public on a long-term wildlife population survey at the Wilson Hill Wildlife Management Area. This annual “goose round-up” involves herding flightless (molting) geese into pens to affix or read existing leg bands. The goals are to collect biological data on the Canada goose populations and also to bring together as many people and organizations as possible at a conservation event to improve
communication and understanding. Each year over 140 people participate in the drive, and this wildlife techniques class has been involved for the past 4 summers through my class. Students receive training on how to handle large numbers of birds, proper techniques of aging and sexing geese, as well as techniques for involving the public in conservation activities. In some years we participate in additional goose drives, such as one at Saranac Lake two years ago that gave a much more personal involvement of students with the public and even led to interviews with the press.

**EFB 496** (Hunter and Trapper Education for Wildlife Professionals; Frair and Giegerich) is fundamentally a service-learning oriented course. Students actively engage with the hunting and trapping public both through the training they receive for the different certification components and also in spending weekends at hunter check stations recording the demographic composition of harvested waterfowl and deer.

**EFB 496** (Conservation Biology in Ecuador; Lash) The students went to two villages in Ecuador, one in the Amazon and one in the Galapagos Islands. They helped host families understand and apply sustainable practices and helped build an elementary school. The trip was during winter break. During the spring semester we met on a weekly basis and discussed issues involved with ecotourism, comparing conditions in the Amazon and the Galapagos. Whitney Lash (Ph.D. student, GPES) took the lead in this course. It was clear that the students gained a great appreciation of the different constraints of dealing with and utilizing tourism in the two locations.

**EFB 446/646** (Ecology of Mosses), **EFB 305/605/NAT 300** (Indigenous Issues and Envir.), **EFB 497** (all, Kimmerer) Service Learning is a component of these three classes. In EFB 446/646, the Ecology of Mosses, the students are responsible for developing an outreach program to communicate their growing knowledge of bryophytes to a public audience. This year they chose to present an educational program of field walks, brochures and demonstrations for the community during the campus Earth Week. In EFB 305/605/NAT300 the students hosted a public forum on Indigenous Issues and the Environment which highlighted natural resource controversies with indigenous stakeholders including Tar Sands development, hydraulic fracturing and Onondaga Lake restoration. The UMEB seminar EFB 497 conducted a 4 part outreach program of environmental science education at the Onondaga Nation School.

**EFB 524** (Limnology Practicum; Schulz), had a significant service learning component for the second time this year. Students worked with a local lake association (Song Lake Association) to develop their independent projects on topics that were both scientifically relevant and of interest to the homeowners. About half of student time in the course was devoted to developing and performing these independent projects, in co-operation with homeowners, and culminating in a scientific poster session and reception in 12 Illick Hall during finals week that was open to the public and attended by approximately 25 members of the Song Lake Association and community. The projects resulted in an expanded database of water quality and species presence data that will be useful to the homeowners in lake management decisions. Among other projects, the students looked at spatial heterogeneity in a wide range of water quality parameters throughout the lake, and followed up on previous work last year related to two rare macrophyte (pond weed) plants in the lake as well as an endangered fish, the lake chubsucker, which has not been seen in NY for 60 years (my lab is following up on these discoveries along with Don Stewart and Chris Whipps' groups). After the ESF poster presentation, the students were invited by a larger lake association, COFOKLA, of which the Song Lake Association is a member, to present their posters at a meeting on April 18, 2012 (after the fall term limnology class), and 8 students brought the class posters to this kettle lake association's meeting and met with the regional lake association members. This service learning component seemed highly beneficial for both students and the public, and I hope to continue similar efforts in the future with this class.
Graduate Students

By the end of this reporting year, 38 (30, previous year) graduate students (Appendices N and O) completed all degree requirements for the Ph.D., M.S., or M.P.S. degree.

Number of students by degree objectives
At the beginning of this past academic year, there were 156 (versus 145 previous year) graduate students officially enrolled in EFB. EFB graduate students are about 31% of the total number of full- and part-time graduate students at ESF. Of this EFB total, about 55% (52% previous year) were in our M.S., 10% (6%) M.P.S., and 35% (41%) Ph.D. programs. The approximate percentage of students in each of our nine graduate areas of study is as follows (with percentages of previous year in parentheses):

<table>
<thead>
<tr>
<th>Graduate Area</th>
<th>% (Previous %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology</td>
<td>33% (32%)</td>
</tr>
<tr>
<td>Fish and Wildlife Biology and Management</td>
<td>24% (23%)</td>
</tr>
<tr>
<td>Conservation Biology</td>
<td>19% (22%)</td>
</tr>
<tr>
<td>Plant Science and Biotechnology</td>
<td>8% (6%)</td>
</tr>
<tr>
<td>Entomology</td>
<td>4% (3%)</td>
</tr>
<tr>
<td>Environmental Interpretation</td>
<td>4% (3%)</td>
</tr>
<tr>
<td>Forest Pathology and Mycology</td>
<td>3% (3%)</td>
</tr>
<tr>
<td>Chemical Ecology</td>
<td>2% (3%)</td>
</tr>
<tr>
<td>Environmental Physiology</td>
<td>0% (1%)</td>
</tr>
<tr>
<td>Applied Ecology</td>
<td>1% (&lt;1%)</td>
</tr>
<tr>
<td>Undeclared</td>
<td>2% (&lt;1%)</td>
</tr>
</tbody>
</table>

Graduate student national fellowships/awards (new awards only; all graduate student awards listed in Appendix P)

Juan Carlos Alvarez-Yepiz Award to attend “Next Generation of Sonoran Desert Researchers’ Summit
Juan Carlos Alvarez-Yepiz Award to attend Likelihood Methods in Ecology course at Cary IES
Andrew Brainard NOAA National Estuarine Research Reserve Graduate Fellowship
Andrew Brainard Sigma Xi Grant-in-Aid of Research
Shannon M. Buckley American Ornithologists Union Student Membership award.
Shannon M. Buckley Garden Club of America 2012 Francis M. Peacock Scholarship
James McCarthy Award to attend NSF/SMB workshop in South Africa
Brent Johnson Society of Wetlands Scientists Student Research Grant
Alison Kocek NPS Gateway Learning Center Fellowship
Christopher Nack Award to attend 36th Annual Larval fish Conference in Norway
Emily Ogburn Hudson River Foundation Tibor T. Polgar Fellowship
Patrick Raney NASA-MSU Professional Enhancement Award to attend US-IALE 2012
Anna Stewart Award to attend NSF/SMB workshop in South Africa
Rebecca Walling Mianus River Gorge Preserve Graduate Research Grant

Graduate recruitment efforts
There were 183 graduate applications to EFB for spring ’12 (25) and fall ’12 (158) matriculation, versus 169 in the last reporting period. This total number of applications is the largest in the history of the Department, surpassing the record number of 169 in the previous year. In total, EFB has recruited at least 34 new (i.e., since August 2011) graduate students for
this coming academic year (47 last year, 27 the previous year). As of mid July 2012, at least 25
new graduate students (i.e., “accepted/coming” applicants) will matriculate this fall ‘12 semester
(versus about 36 for fall semester 2011). Twelve additional students have been accepted but
have not yet indicated whether they will matriculate this fall. Another three applicants are still
being considered for matriculation this fall. Of the 183 applications 59 were rejected. Eight new
graduate students matriculated in January 2012 and two in the summer ‘12. The addition of new
faculty (Drs. Cohen, Folta, Newman, and Ryan) to replace those recently lost (Drs. Brunner,
Porter, Schlaepfer, Smart and Professor Saunders) was likely the single most important reason
for the significant number of applications and new graduate students entering EFB last and this
fall.

After many years of debate at EFB faculty meetings the faculty agreed in January to a
greatly revised ranking system of all graduate applicants. The ranking system used for decades
was based only on an applicant’s gpa and GRE scores, never including other measures of
potential success in our graduate program. Although many of the top-ranked graduate applicants
did complete their graduate programs in a timely manner and produced the products (including
peer-reviewed journal papers) expected by the faculty, an unacceptable number have not.
Beginning this past January, all EFB graduate applicants were ranked according to this scheme:

- 1st authored peer reviewed pub: 100 pts, or 125 pts if done while an undergrad; (PER PAPER)
- 2nd authored/multi-authored: 50 pts (PER PAPER)
- Master's degree (not MPS): 75 pts
- Discretionary points for each faculty person to dispense: 150 pts

This new scheme did indeed greatly alter the ranking of all applicants, and the faculty generally
seemed very pleased by the change. However, it will take a few years to evaluate whether our
new scheme helps us accept and support the applicants who are likely to be most successful in
our graduate program.

The most exciting news about EFB’s graduate program is that after many months of
negotiations and planning by Dr. James Gibbs, five Ukrainian graduate students will enter the
MPS program in Conservation Biology this fall, with the hope that a new cohort will come in
future fall semesters. These exceptional students, from National University of Kyiv-Mohyla
Academy (NAUKMA), will jointly earn a NaUKMA Master's Diploma in Environmental
Studies from NAUKMA and MPS from EFB. Dr. Gibbs is pursuing similar programs with other
international partners.

Graduate recruitment remains highly dependent on the efforts of individual faculty
members in attracting graduate students into their programs. We stress the importance of
updated faculty web pages and the importance of faculty obtaining research grants to provide
graduate stipends and tuition-waivers through graduate research assistantships (GRAs). In recent
years, EFB has been allocated 39.5 graduate teaching assistantships (GTAs); our graduate
enrollment at the beginning of the past two AYs has been at least 150. Although we have about
40% of the full-time graduate students at ESF, we receive about 30% of the 132 state-funded
graduate assistantships. GRAs are critical for maintaining and expanding our graduate support.
These GRAs can provide a larger stipend than that provided by TAs and include support for the
full calendar year. Teaching assistantships only provide academic year support. A robust
graduate program can only be sustained by recruiting graduate students who are competitive for
GTAs and national fellowships, and having an active research program that provides GRAs.
Graduate student advising

Below shows the approximate number of graduate students advised last academic year by each EFB faculty member, as each have reported. Some EFB faculty advise graduate students in other departments, especially in GPES, and even at other institutions. Co-major professors are counted as 0.5 graduate students.

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Graduate Students</th>
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<tbody>
<tr>
<td>Baldassarre</td>
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<td>Cohen</td>
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<td>Dovciak</td>
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<td>Fierke</td>
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<td>Foltz</td>
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<tr>
<td>Frair</td>
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<td>Gibbs</td>
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<tr>
<td>Hall</td>
<td>8</td>
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<tr>
<td>Horton</td>
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<td>Kimmerer</td>
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<td>Leopold</td>
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<td>Limburg</td>
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<td>Lomolino</td>
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<td>Mitchell</td>
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<td>Newman</td>
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<td>Turner</td>
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<td>Whipps</td>
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Courses having TA support and enrollment in each

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<th>Course Name</th>
<th># of Students</th>
<th># of GTAs</th>
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<td>General Biology Lab I</td>
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<td>General Biology Lecture II</td>
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<td>General Biology Lab II</td>
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<td>120</td>
<td>Global Environment (spring)</td>
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<td>Physics of Life</td>
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<td>210</td>
<td>Diversity of Life I</td>
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<td>211</td>
<td>Diversity of Life II</td>
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<td>217</td>
<td>Peoples, Plagues, &amp; Pests</td>
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<td>Intro Environ. Microbiology</td>
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<td>Indigenous Issues and the Environment</td>
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<td>Principles of Genetics</td>
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<td>311</td>
<td>Principles of Evolution</td>
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<td>General Ecology</td>
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<td>Diversity of Plants</td>
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<td>Principles of Wildlife Management</td>
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<td>401/601</td>
<td>Molecular Biology Techniques</td>
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<td>404</td>
<td>Natural History Museums</td>
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<td>Introduction to Conservation Biology</td>
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<td>415/615</td>
<td>Biogeochemistry</td>
<td>35</td>
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<tr>
<td>416/616</td>
<td>Intro. Environmental Interpretation</td>
<td>53</td>
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<tr>
<td>417/617</td>
<td>Advanced Perspectives of Interpretation</td>
<td>28</td>
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<td>419</td>
<td>Problem Solving in Conserv. Biol.</td>
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<tr>
<td>423/623</td>
<td>Marine Ecology</td>
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<tr>
<td>424/624</td>
<td>Limnology</td>
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<tr>
<td>445/645</td>
<td>Plant Ecology</td>
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<td>446/646</td>
<td>Ecology of Mosses</td>
<td>24</td>
<td>0.5</td>
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<tr>
<td>462/662</td>
<td>Animal Physiol.: Environ. &amp; Ecol.</td>
<td>93</td>
<td>0.5</td>
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<tr>
<td>480</td>
<td>Principles of Animal Behavior</td>
<td>99</td>
<td>3</td>
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<td>483</td>
<td>Mammal Diversity</td>
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<td>485</td>
<td>Herpetology</td>
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<td>486</td>
<td>Ichthyology</td>
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<td>Fisheries Science and Management</td>
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<td>491</td>
<td>Wildlife Ecol. &amp; Manage. Practicum</td>
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<td>1</td>
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<td>493/693</td>
<td>Wildlife Habitats/Populations</td>
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<td>1</td>
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<td>516</td>
<td>Ecosystems</td>
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<td>Systems Ecology</td>
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**Governance Structure**

**Components:**

Chair (D. Leopold)

- **Duties:**
  - Manage allocation of state, Research Foundation (research incentives), and College Foundation accounts
  - Manage allocation of 40 state graduate teaching assistantships
  - Convene regular department meetings
  - Represent department at biweekly Academic Council meetings
  - Work with Development Office for fundraising
  - Supervise about 35 faculty, one administrative assistant, two Instructional Support Specialists and other staff
Promote faculty and staff within and outside of the department and facilitate the many good ideas that regularly emanate from faculty.

Ensure that all regular and new undergraduate and graduate courses are offered as listed in the College Catalog or webpage; main contact with Registrar for any course changes.

Work with Physical Plant on all planned renovations and emergency repairs.

Assist Provost with special projects as needed.

Represent department at all college open houses.

Prepare annual department report.

Associate Chairs (J. Castello and J. Gibbs)

Duties: One (J. Castello) assists with annual EFB preconvocation student awards recognition, supervises the Keyboard 1 and 2 Specialists in the main administrative office, assists in other miscellaneous ways. The other (J. Gibbs) is working on benchmarking.


Curriculum and Course Assessment Committee (K. Schulz, chair; C. Whipps, M. Fierke, J. Gibbs, G. McGee, L. Newman)

Duties: review all course and curricula changes in EFB and College; oversee course assessment of seven EFB undergraduate majors.

Graduate Program Advisory Committee (K. Limburg, chair; M. Dovciak, D. Fernando, M. Fierke, T. Horton; Jeremy Hayward and Kean Clifford, graduate student representatives)

Duties: advise chair on graduate matters and facilitate department decisions about policies.

Building and Space Committee (currently vacant)

Field Program (including International Programs) Committee (Stephen Teale, chair; R. Davis, J. Farrell, C. Nowak, A. Weir, C. Westbrook)

Awards Committee (chaired by J. Castello)

• Undergraduate and Graduate Academic Awards
• Illustrious Alumni, Emeriti Awards

Supporting Offices, Committees, Directors, and Coordinators

Administrative Office

• Office Manager/Secretary 1 (Sandra Polimino)
  Duties: manages all department accounts (state, research foundation, and Development) and submits payment for department bills; manages ranking of graduate applicants and currently oversees all administrative aspects of EFB graduate program; assists with annual student recognition the day of convocation; manages EFB’s digital display in foyer; manages requests by faculty for all vehicles for their classes; assists in managing the chair’s calendar and schedule; assists in development activities; assists faculty in various ways; handles reimbursements, etc. for seminar speakers; assists the chair with a multitude of tasks.

• Keyboard Specialist 2 (Cariann Linehan)
  Duties: provides support to Undergraduate Curriculum Director (UCD) for undergraduate program (7 majors); schedules prospective/accepted undergraduate student visits with Admissions; assists UCD with open house and transfer days; oversees summer mailings to incoming students; revises undergraduate handbook; assists with data collection for Undergraduate Program Assessments; provides faculty support for manuscripts, class work, and report preparations; assists
with arranging meetings, conferences, travel and hotel accommodations; orders department supplies; processes State and Research purchase requisitions for faculty and staff; modifies, updates and maintains EFB websites for EFB faculty; handles incoming and outgoing mail when KB 1 is out; handles routine maintenance of office equipment including fax and copier; assists with Cranberry Lake Biological Station registration; assists with assigning rooms for graduate students; provides support to Department Chair and Secretary 1

- Keyboard Specialist 1 (Joanne Rappleyea)
  Duties: responsible for meeting and greeting all visitors to EFB; responds to all inquiries made by faculty, staff, and students; handles all incoming mail for EFB faculty, staff, and graduate students; assists Secretary 1, Keyboard Specialist 2, and Department Chair; orders office supplies for EFB administrative office; sets up a chart of each EFB conference room; handles routine maintenance of office equipment; oversees sign-out of digital equipment; types roster of faculty, staff and other key campus numbers and distributes to EFB faculty, staff, and grads; processes all Work Orders to Physical Plant; types Class Schedules (fall & spring) and post outside main office; processes State and Research purchase requisitions.

Duties:
- Coordinate student recruitment events with Admissions;
- Develop orientation materials and programs for freshmen and transfer students;
- Update curriculum plan sheets, directed elective lists and the student handbook;
- Facilitate petitions;
- Coordinate department undergraduate advising;
- Serve as the department’s representative on the Academic Standards Review Committee;
- Compile and summarize ENB assessment data.

Undergraduate Curriculum Coordinators (by major)
  Environmental Biology (G. McGee since Jan. 2012)
  Aquatic and Fisheries Science (D. Stewart)
  Biotechnology (W. Powell)
  Conservation Biology (J. Gibbs)
  Forest Health (J. Castello)
  Natural History and Interpretation (E. Folta)
  Wildlife Science (J. Frair)

Graduate Program Director (D. Fernando)
Duties:
- Act on petitions concerning different aspects of graduate program requirements and policies
- Review and sign (paper form and online) forms required for the completion of different majors and degrees (2A, 3B, 4, 5B and 6B)
- Reply to inquiries concerning EFB graduate program (through email, phone, and/or personal visits) on an almost daily basis from potential applicants and current graduate students
- Process each year about 150 graduate applications that involve the review of each application for initial assessment and designation of faculty reviewers, following up on the completion of the reviews on each application, summarizing the reviews for each application, and submitting EFB’s recommendation for each accepted and rejected applications to the Dean of Instructions and Graduate Studies.
Provide orientation seminars to new graduate students about EFB graduate program and the new faculty about the graduate application process
Serve as the department’s representative to the Graduate Council and raise issues regarding problems/suggestions on how to improve the graduate program, application and review process; shared the ideas and activities of the Graduate School to the department’s graduate committee and faculty
Review applications and participate in the deliberations in granting Fellows for SUNY Diversity Fellowship and Bristol Myers Squibb Sustainability Fellowship
Work with the Graduate Secretary on the update and improvement of the various facets of the EFB’s Graduate Webpage and graduate application filing system

Cranberry Lake Biological Station (A. Weir, Director)
Roosevelt Wild Life Station (J. Gibbs, Director; J. Frair, Associate Director)
Thousand Islands Biological Station (J. Farrell, Director)
Animal Use and Care Protocols (college-wide committee; C. Whipps)
Exhibits Coordinator (E. Folta)

Instructional Support Specialist Supervisors
• K. Adams – S. Teale
• R. Giegerich – J. Frair
• P. McHale – M. Mitchell
• B. McMaster – D. Leopold
• T. Ettinger – D. Leopold

Environmental Studies Program Coordinator (C. Hall)

Budget

EFB’s budget comes from three main sources, i.e., (1) state allocations; (2) the SUNY Research Foundation (RF) research incentives funds; and, (3) development funds through the College Foundation. A summary of the allocations from each source and expenditures follows.

State Budget Allocations: $61,750 (vs. $74,500 initial allocation previous year which was reduced to $67,550 in November ’10; state budget allocation to EFB in ’07-’08 was $79,500 for fewer faculty, students, and courses); excludes search committee allocations from the Provost, Biotechnology, Tree Pest Info Service, and Academic Equipment Replacement allocations – amounts of these shown below)

Initial Allocation (August 29, 2011): $61,750 ($57,000 OTPS; $4,750 TS)

Planned Expenditures:
- Offices (administration, faculty, staff, grads): $12,750 (-$2,250*)
- Computers: $0 (-$1,000)
- Photocopy: $5,000
- Mileage/Travel: $2,000 (-$1,000)
- Repairs: $2,000 (-$500)
- Building, facilities, exhibits: $2,000 (-$1,250)
- Seminars and receptions $8,500
Chairman Operating (over expenditures, all categories) $0 (-$4,500)
Greenhouses $1,000 (-$2,500)
Faculty subaccounts and additional requests: $23,750 (+$500)

Total OTPS $57,000 (-$12,500)

Temporary services (TS) $4,750 (-$250)
*numbers in ( ) are the differences with previous year department budget

Biotechnology accounts: $8,450
Tree Pest Info Service account: $1,600
Academic Equipment Replacement: $34,696 (versus $34,000 previous year)
End-of-year allocation: $0 (versus $0 previous year)

Of the extraordinary expenditures that are covered by state funds, the cost of the Department’s pre-Convocation reception for graduating students, their families and friends, and faculty and staff was $3,700.

SUNY RF Departmental Research Incentives Funds ($26,451 allocated 10/3/11 (versus $34,405 previous year); carryover of $3,771 balance from previous year; total available $30,222.

Expenditures (by general categories):
- Autoclave repair $5,100
- Department Seminars (incl. Adaptive Peaks) $5,000
- Faculty and Staff Development and Recognition $2,500
- Faculty and Staff Equipment and Supplies $3,500
- TIBS, CLBS undergraduate student fellowships $4,000
- Building Equipment and Supplies $3,500
- Student Development and Recognition $1,300
- Search (Invertebrate Conservation Biologist) $1,205

Total Expenditures $26,105

Balance (July 13, 2012) $4,117
(an additional $3,332 was spent from the $4,826 Chair allocation for similar purposes)

The Department could not function without these Research Incentive funds, i.e., the state allocation is insufficient to cover the basic teaching, research, and outreach expenses of a doctoral-granting biology program. Twenty percent (over $5,000) of our RI allocation was spent on unanticipated autoclave repairs (25% previous year, with no guarantee that any of these machines will continue to work for any length of time. But since a new autoclave is estimated to cost about $50,000 and there are no funds to purchase one, we will continue to hope that the remaining, barely working autoclaves can be repaired. The lack of service contracts on essential equipment (historically, a decision made by the College) continues to make budget planning extremely difficult.
**Development Funds** ($55,214 budgeted for ’11-’12)

Undergraduate and graduate student awards come from the following endowments: Maurice and Annette Alexander Wetlands Research Fund, Robert L. Burgess Graduate Scholarship in Ecology, Betty Moore Chamberlaine Memorial Fund, Leroy C. Stegeman Endowment in Invertebrate Ecology, Robert A. Zabel Endowed Scholarship, John and Etta Simeone Graduate Fellowship, Josiah L. Lowe-Hugh E. Wilcox Scholarship Fund, Phyllis Roskin, Joseph and Ruth Hasenstab, Edwin H. Ketchledge Scholarship, Lanier Memorial, Silverborg Memorial, and Patricia D. and Jeff J. Morrell Scholarship, and Dr. Samuel Grober ’38 Graduate Fellowship. At the annual EFB Spring Celebration and Awards Ceremony prior to the ESF Convocation, $49,250 was given out to EFB undergraduate and graduate students. The list of all awardees is in Appendix P.

EFB had an additional $2,079 in the Dence Memorial account and $2,935 in a General EFB Fund, the result of occasional donations to the department, primarily from current and retired faculty, and used for end of year student awards that are made at our annual spring recognition ceremony. The total amount of Development funds made available to EFB are about half of the funds that were available in’07-’08 (i.e., $109,213) before substantial endowment losses due to the poor economy.

Over the next few years and beyond we hope to attract sufficient development funds for a variety of significant purposes, including: endowed chairs (in biotechnology, conservation biology, wildlife and fisheries management, etc.), a research and residential building at the TIBS, museum display cases for the Roosevelt Discovery Center, a graduate seminar series, graduate fellowships (to attract the top applicants) and scholarships (to fully fund attendance at professional meetings), and undergraduate scholarships (for recruiting top students and support for attending professional meetings and field trips offered in our program, e.g., to Russia, Ireland, Australia, and Africa).

To have a better chance of reaching these goals EFB recently has taken two unprecedented steps. Beginning in May of this year, the department, through ESF’s Development Office, hired a highly successful development person part time (about 20%) for one year. Funds to support this position came from a generous donation from a retired EFB faculty member. The primary focus of this person’s effort will be on fundraising for an endowed professorship in wildlife sciences, the specifics of which will be in a future annual report. The department is also hiring a part-time (50%, first year) Executive Director of the Roosevelt Wild Life Station later this summer to assist Drs. Gibbs (Director) and Frair (Associate Director) with many tasks, including fund raising for numerous initiatives. Funding for this position was cobbled together from funds in the Roosevelt Wild Life Station account, summer salary in grants not taken by Dr. Gibbs, and new sources of funds to the department, i.e., money generated from summer course offerings and self-paying graduate students. Our hope is that this position can be self-supportive after our initial seeding of funds.

In May ESF College Foundation received a donation of $25K from an alumnus to establish a lecture series and other activities to publicly promote significant activities of ESF faculty. EFB was successful in working with the donor and the development office to craft programs to utilize this gift that will highlight significant activities of the Department. Next year’s annual report will include details about the unique activities supported by this significant donation.
EFB had two significant non-monetary donations this past year. An anonymous, retired ESF faculty member gave EFB his 2004 Alumacraft boat with 60 HP Mercury outboard, trolling motor, trailer and other miscellaneous items. This donation will greatly assist the faculty and students in the areas of aquatic and fisheries sciences with their research and teaching. Through the assistance of Kevin Guerin (ATS) we received 32 used AO microscopes (worth about $25,000) in very good condition from Upstate Medical University, sufficient to stock another instructional lab.

**Student Learning Outcomes Assessment** (with assistance from Dr. G. McGee, EFB Undergraduate Curriculum Director)

The Department of Environmental and Forest Biology formed in 1977 with the amalgamation of three smaller departments, Forest Zoology, Forest Botany and Pathology, and Forest Entomology. EFB’s undergraduate curriculum has substantially evolved since then, at one point allowing students to pick from nearly one dozen options, but all under the umbrella of our Environmental Biology major. That is, between 1965-2002, the Bachelor of Science in Environmental & Forest Biology was the single undergraduate program offered by the Department of Environmental & Forest Biology.

As part of the department’s strategic planning we adopted a vision statement in November 2001 that included as a key task the importance of strengthening our undergraduate curriculum, which we planned to do by offering a number of distinct majors. By Fall ’04, all seven of EFB’s current undergraduate majors (i.e., Aquatic and Fisheries Science, Biotechnology, Conservation Biology, Environmental Biology, Forest Health, Natural History and Interpretation, and Wildlife Science) were being offered, replacing the elective concentrations or options. But with the implementation of these seven majors, explicit student learning objectives were not developed for each nor had any formal assessment process been implemented although during the spring ’05 semester, according to a SUNY mandate, an external review of the Environmental Biology major was made.

This past year the Course and Curriculum Assessment Committee (CCAC) began the task of obtaining, compiling and distributing to curriculum coordinators the assessment data required for each EFB major. The assessment plans developed in 2009 called for assessment data to be generated from (1) grades or Likert-scale evaluations on targeted assignments, embedded exam questions and student surveys from EFB courses; and (2) final course grades. Last year, in anticipation of the sustained effort needed to manage the assessment data, the CCAC developed an “omnibus” spreadsheet to facilitate consistent, annual reporting of data across all majors to a central location. This year the CCAC began the first, concerted effort to populate that omnibus spreadsheet and realized the organizational challenges to obtaining and sorting data on hundreds of students from 49 courses and then redistributing those data to meet the reporting needs of seven curriculum coordinators. Last year we reported that turnover in the department’s secretaries disrupted the management (i.e., solicitation of data from faculty, data entry, file management) of the database. With continued secretarial turnover, this disruption is anticipated to continue. Also, while we have been able to populate the omnibus database with most intra-departmental assessment data, we experienced frustration in having multiple requests for final course grades go unfulfilled.
It is our understanding from the ESF administration that field tests alone will not be acceptable as assessment metrics either to the college or to SUNY, nor would grades alone. We still need to develop multiple metrics, but ones that are simple to collect and analyze. Given the experience this past year of implementing the seven major assessment plans, the CCAC began considering alternatives to collecting assessment data; these include delivering internally prepared exit examinations, or subscribing to several major field examinations. We anticipate the eventual need to conduct a cost-benefit analysis of dedicating continuous faculty and secretarial resources to creating effective assessment instruments and sustaining a complicated long-term data management system to fulfill assessment requirements, versus conducting assessment through the subscription to multiple field examinations.

Following are the courses (by major) in which data are to be collected for assessment.

Courses in which EFB majors are assessed (data are collected), by major

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Objectives 2011-2012

Objectives, status, and relations to strategic plan

As a key part of our strategic planning process, the EFB faculty adopted the following vision statement in November 2001: “Environmental and Forest Biology will be a world leader in furthering our understanding of the structure and function of the world’s ecosystems and their biota, and in applying scientific principles to solving the pressing environmental problems of the biosphere. EFB will pursue this goal through excellence in basic and applied research, in service to the public, and in educating the next generation of environmental scientists, thinkers, and problem solvers”. The month before this vision statement was adopted, faculty discussions culminated in identifying the following tasks that if accomplished would help us realize this vision:

(1) attraction and retention of top-flight scientists;
(2) evolution of a stronger learning and mentoring environment for students, faculty, and staff;
(3) development of a more fully integrated field program;
(4) development of greater prominence and national/international recognition of our graduate program;
(5) enhancement and formal recognition of our public service, informational outreach, and service learning program;
(6) development of new undergraduate programs;
(7) development of international perspectives and opportunities; and,
(8) collaboration as College partners on data development and utilization.
Numerous examples and data throughout this annual report indicate that EFB continues to make substantial progress towards accomplishing these tasks.

The primary foci of the ‘11-'12 academic year were to: (1) launch the Diversity of Life courses required of nearly all EFB undergraduates; (2) invest substantial time planning for the new Academic Research Building, which a portion of EFB will occupy when Phase 1 is completed in 2015 (or beyond); and, (3) dedicate substantial time towards development activities. Other huge time commitments involved planning for construction of CIRTAS this summer; the rehabilitation of the Illick exterior, including greenhouse deconstruction and roof replacement; and construction of the Gateway Building green roof and interior displays. While these activities were anticipated last year, the significant amount of time needed for each was not. Additionally, we did not anticipate the amount of time wasted on dealing with the lack of perimeter heat (i.e., heat in entire east and west wings in Illick, all floors) for the autumn and most of the winter. Over half of the EFB faculty and many graduate students were without heat during this extended period.

**Objectives 2012-2013**

**Objectives and relations to strategic plan**

It has been increasingly difficult to impossible to meet department objectives when so much time is spent on basic building issues, so our objectives become more modest each year. A primary objective for this coming year is to gather data from peer departments and institutions on faculty teaching, research, and outreach to compare with data in these categories produced by EFB faculty. With substantial time invested in development activities, we hope that there will be some significant results this year. Without funds from external sources, we will never fully reach the potential and aspirations of the faculty and students. Although we were very fortunate to recently hire Dr. Lee Newman to cover some of the key teaching duties of Drs. Kretzer and Smart who are no longer in the department, EFB is still without a plant physiologist. A doctoral granting environmental biology program must have a plant physiologist so we are anxious to explore options that would fill this significant void.

**Undergraduate Recruitment Efforts**

Most of EFB’s undergraduate recruitment efforts are made through existing college programs, especially open houses, Transfer Days, and receptions for accepted students. For open houses, an overview of all our programs is presented in 5 Illick; this is followed immediately by a dynamic, fair-like gathering in the foyer. There, tables are organized by major and attended by at least one faculty representative - and when possible a current undergraduate student - to provide information and handle inquiries. Hands-on displays complement the information in the glass display cases about our undergraduate program. Additionally, EFB meets all requests by prospective and accepted students for personal visits with faculty during both the academic year and summer; the Keyboard 2 secretary is responsible for organizing these meetings.

EFB’s undergraduate curriculum director sends a letter to all Fall-accepted undergraduates in the summer, welcoming each into our program. These letters
are individualized to the student, and tailored to the circumstances, e.g., whether the accepted student is a Presidential Scholar, or in a particular major. Similar letters go to the few applicants who start in the Spring semester.

Four years ago, the chair and coordinators of our majors taped a web video message that all accepted students were encouraged in their acceptance letters to view. This message was tailored to accepted students within each major, highlighting unique aspects of the major and ESF. Acceptance letters include the link to this message.

As of June 16, 2012 we had received 875 total applications for fall 2012 (freshman + transfer students; vs. 1030 last June and 992 in June 2010). We have accepted 401 (vs. 444 and 433 the previous two years) applicants and have received 189 deposits (vs. 193 and 185). Of the total number of applications that we received, 71% were for freshman; about 66% of our deposits are from this group; about 46% of all applicants were accepted. The total number of deposits by EFB major and percent of total for the class entering fall 2012 (in parentheses) are: Aquatic and Fisheries Science, 13 (7% vs. 7% for class entering fall 2011); Biotechnology, 10 (5% vs. 9%); Conservation Biology, 55 (29% vs. 26%); Environmental Biology, 50 (26% vs. 26%); Forest Health, 2 (1% vs. 0%); Natural History and Interpretation, 3 (<2% vs. <1%); and, Wildlife Science, 56 (30% vs. 31%).

Longer Term Visioning and Planning

The EFB Chair spent an extraordinary amount of time this past year serving on the Core Committee to plan for the new Academic Research Building. Significant planning time was also devoted to the renovation of the Illick roof (including complete replacement of all greenhouses) and façade, the ESF Facilities Master Plan, and Illick’s Center for Integrated Research in Aquatic Sciences (CIRTAS). Besides these formal campus planning activities, the EFB Chair spends a substantial amount of time advising Physical Plant on campus plantings, which also are very important to EFB’s (and the Department of Landscape Architecture’s) teaching programs. Additionally, a variety of development efforts have been made in support of future, substantial gifts that are hoped to fund at least two endowed chair positions among other important needs.

Program visioning and strategic planning have not been undertaken formally at the department level in EFB since the department’s strategic plan was developed in 2001-2002. Very limited space, resources, and understaffed Development Office greatly limit the extent to which many significant ideas can be pursued and implemented. However, with the addition of ten faculty the past seven years, greater use efficiency and enhancements of existing space, and improvements at our field stations, the department is closer towards realizing its basic goal of being one of the premier environmental biology programs. The EFB Chair hopes that with the department’s strong foundation and energy from many new faculty that the department is poised to discuss and move towards EFB’s aspirations beyond what has already been articulated and attained.
# Appendix A. EFB Faculty: Rank (at end of reporting period), Education, and Interests

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<th>Name and Title</th>
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<th>Interest Areas</th>
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<td><strong>Baldassarre, Guy</strong>&lt;br&gt;Distinguished Teaching Professor</td>
<td>PhD, Texas Tech University&lt;br&gt;MS, Univ. of Wisconsin&lt;br&gt;BS, Univ. of Maine</td>
<td>Waterfowl and wetland wildlife ecology; shorebird ecology; nongame birds; ornithology</td>
</tr>
<tr>
<td><strong>Castello, John</strong>&lt;br&gt;Professor</td>
<td>PhD, Univ. of Wisconsin&lt;br&gt;MS, Washington State Univ.&lt;br&gt;BA, Montclair State College</td>
<td>Plant virology; viruses and mycoplasma in urban and forest tree decline; forest pathology; microbiology</td>
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<tr>
<td><strong>Cohen, Jonathan</strong>&lt;br&gt;Assistant Professor</td>
<td>PhD, Virginia Tech&lt;br&gt;MS, U. Connecticut&lt;br&gt;BS, Cornell University</td>
<td>Wildlife ecology and management, population and habitat ecology, threatened and endangered species.</td>
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<td><strong>Dovciak, Martin</strong>&lt;br&gt;Assistant Professor</td>
<td>PhD, Univ. of Minnesota&lt;br&gt;Dipl. Engin., Zvolen Technical University</td>
<td>Plant ecology; forest ecology; biodiversity; plant population &amp; community dynamics; spatial ecology; ecosystem management &amp; restoration</td>
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<tr>
<td><strong>Farrell, John</strong>&lt;br&gt;Associate Professor</td>
<td>PhD, SUNY ESF&lt;br&gt;MS, SUNY ESF&lt;br&gt;BS, Cornell University</td>
<td>Fisheries management, aquatic ecology, wetlands restoration, St. Lawrence River studies, muskellunge and northern pike ecology &amp; mgt., invasive species</td>
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<td><strong>Fernando, Danilo</strong>&lt;br&gt;Associate Professor</td>
<td>PhD, Univ. of Alberta, Canada&lt;br&gt;MS, Univ of Philippines&lt;br&gt;BS, Mountain State Agr. Coll.</td>
<td>Plant reproductive biology, plant structure and development, in vitro fertilization in conifers, pollen transformation &amp; gene expression during pollen tube development</td>
</tr>
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<td><strong>Fierke, Melissa</strong>&lt;br&gt;Assistant Professor</td>
<td>PhD, University of Arkansas&lt;br&gt;MS, Oregon State University&lt;br&gt;BS, Arkansas Tech University&lt;br&gt;AA, North Arkansas CC</td>
<td>Forest entomology and forest ecology; impacts of invasives in forested settings with a focus on wood-boring insects.</td>
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<td><strong>Folta, Elizabeth</strong>&lt;br&gt;Assistant Professor</td>
<td>PhD, North Carolina State&lt;br&gt;MS, North Carolina State&lt;br&gt;BA, University North Carolina</td>
<td>Natural History &amp; Interpretation, informal biology education, environmental education.</td>
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<td><strong>Frair, Jacqueline</strong>&lt;br&gt;Associate Professor</td>
<td>PhD, Univ of Alberta, Canada&lt;br&gt;MS, University of Wisconsin&lt;br&gt;BS, Cornell University</td>
<td>Wildlife and landscape ecology, animal movements and habitat use, predator-prey interactions</td>
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<td><strong>Gibbs, James</strong>&lt;br&gt;Professor</td>
<td>PhD, Yale University&lt;br&gt;MA, University of Missouri&lt;br&gt;BS, University of Maine</td>
<td>Conservation biology, ecological monitoring, wildlife management, population biology and conservation genetics</td>
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<tr>
<td><strong>Hall, Charles A. S.</strong>&lt;br&gt;Professor</td>
<td>PhD, Univ of No. Carolina&lt;br&gt;MS, Penn State University&lt;br&gt;BA, Colgate University</td>
<td>Systems ecology; synthetic studies of population and ecosystems, including studies of fish migrations, estuaries, tropical land use change and energetics. Emphasis on measuring and modeling human-dominated eco-systems and geographic modeling.</td>
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<td>Name</td>
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<td>Horton, Thomas</td>
<td>Associate Professor</td>
<td>PhD, Univ of Cal.-Berkeley MA, SanFrancisco State Univ. BA, Humbolt State University</td>
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<tr>
<td>Kimmerer, Robin</td>
<td>Distinguished Teaching Professor</td>
<td>PhD, Univ. of Wisconsin MS Univ. of Wisconsin BS, SUNY ESF</td>
</tr>
<tr>
<td>Leopold, Donald</td>
<td>Distinguished Teaching Professor and Chair</td>
<td>PhD, Purdue University MSF, University of Kentucky BS, University of Kentucky</td>
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<td>Limburg, Karin</td>
<td>Professor</td>
<td>PhD, Cornell University MS, University of Florida AB, Vassar College</td>
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<td>Lomolino, Mark</td>
<td>Professor</td>
<td>PhD, SUNY Binghamton MS University of Florida BS SUNY-Cortland</td>
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<td>McGee, Gregory</td>
<td>Assistant Professor</td>
<td>PhD, SUNY ESF MS, SUNY ESF BS, Allegheny College</td>
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<td>McNulty, Stacy</td>
<td>Research Associate</td>
<td>MS, SUNY ESF BA, SUNY Geneseo</td>
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<td>Mitchell, Myron</td>
<td>Distinguished Professor</td>
<td>PhD, University of Calgary BA, Lake Forest College</td>
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<tr>
<td>Nakas, James</td>
<td>Professor</td>
<td>PhD, Rutgers University MS, Seton Hall University BS, Lemoyn College</td>
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<tr>
<td>Nakatsugawa, Tsutomu</td>
<td>Professor</td>
<td>PhD, Iowa State University MS, Iowa State University B.Agric, Univ. of Tokyo</td>
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<tr>
<td>Norton, Roy</td>
<td>Professor (retired Dec. 2011)</td>
<td>PhD, SUNY ESF MS, SUNY ESF BS, SUNY ESF</td>
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<td>Name</td>
<td>Title</td>
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<td>Parry, Dylan</td>
<td>Associate Professor</td>
<td>PhD, Michigan State Univ.</td>
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<tr>
<td>Powell, William</td>
<td>Professor</td>
<td>PhD, Utah State University</td>
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<td>Ryan, Sadie</td>
<td>Assistant Professor</td>
<td>PhD, Univ. Cal. Berkeley</td>
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<tr>
<td>Schulz, Kimberly</td>
<td>Associate Professor</td>
<td>PhD, University of Michigan</td>
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<tr>
<td>Shields, William</td>
<td>Professor</td>
<td>PhD, Ohio State University</td>
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<tr>
<td>Stewart, Donald</td>
<td>Professor</td>
<td>PhD, University of Wisconsin</td>
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<tr>
<td>Teale, Stephen</td>
<td>Professor</td>
<td>PhD, SUNY ESF</td>
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<td>Turner, Scott</td>
<td>Professor</td>
<td>PhD, Colorado State Univ.</td>
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<tr>
<td>Weir, Alexander</td>
<td>Associate Professor</td>
<td>PhD, University of Newcastle upon Tyne</td>
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<tr>
<td>Whipps, Christopher</td>
<td>Assistant Professor</td>
<td>PhD, Oregon State University</td>
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**Education:**
- **Parry, Dylan:** PhD, Michigan State Univ.; MS, University of Alberta; BS, University of Alberta
- **Powell, William:** PhD, Utah State University; BS, Salisbury State University
- **Ryan, Sadie:** PhD, Univ. Cal. Berkeley; BA, Princeton
- **Schulz, Kimberly:** PhD, University of Michigan; BA, Cornell University
- **Shields, William:** PhD, Ohio State University; MS, Ohio State University; AB, Rutgers University
- **Stewart, Donald:** PhD, University of Wisconsin; MS, University of Michigan; BS, University of Michigan
- **Teale, Stephen:** PhD, SUNY ESF; MS, University of Kansas; BA, College of St. Rose
- **Turner, Scott:** PhD, Colorado State Univ.; MS & BA University of California-Santa-Cruz
- **Weir, Alexander:** PhD, University of Newcastle upon Tyne; BS, University of Bradford, UK
- **Whipps, Christopher:** PhD, Oregon State University; BS, University of Victoria at Malaspina University-College
Appendix B. Summary of Individual Faculty’s Most Significant Accomplishments

(As written by each faculty member in response to the following request for each individual’s annual report: [Provide a] “SUMMARY OF SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS DURING THIS REPORTING PERIOD, ESPECIALLY THOSE MOST NOTEWORTHY AND RELATIVE TO THE COLLEGE’S AND DEPARTMENT'S MISSION. One paragraph on each of the following would be most helpful: this past year, what have you done for our students, department/college, and self professionally?”)

Guy A. Baldassarre

John D. Castello

I continue to work hard to enhance the Forest Health major within EFB, of which I am the coordinator. This past year (2011-2012), five students graduated from the major. Despite the losses to graduation, the major is small but healthy. We still have 12 students in the major preregistered for the fall semester 2012.

My textbook on Forest Health, coedited with Dr. S.A. Teale, and published by Cambridge University Press in May 2011 received an excellent review in the journal ECOLOGY in May 2012. Three research manuscripts have been published or are in press in 2012 to date, and another is in review.

A McIntire-Stennis proposal with M. Johnston and S.A. Teale was funded in 2011, which allows me to continue my research efforts with my two grad students on beech bark disease for the next two years.

Jonathan B. Cohen

In 2012 I began trying to establish my teaching and research programs in earnest. I taught EFB 493/693 as both lecture and lab instructor, and got to know the senior class of wildlife majors very well. Although I stayed fairly close to the course's traditional format as a means to get to know the course, I updated the material with some experimental lectures and additions of modern approaches to wildlife management in lecture and lab. I also taught a seminar in grant and proposal writing for incoming graduate students, that attracted 9 enrollees from EFB and one audit from Syracuse University. I was happy to find that six of the enrollees applied for Sussman Internships and four were successful. In the spring semester I developed a new course on estimation of population parameters using Program MARK, co-taught with Dr. Ryan who focused her section on matrix population modeling. We had 8 enrollees and 1 audit and I learned a good deal about how to present quantitative techniques materials in a lecture format. I also advised a freshman in Conservation Biology for an EFB 498 project, conducting a behavior study of birds in the Rosamond Gifford Zoo aviary. She presented her work in a poster at the Spotlight on Research, and has prepared a manuscript with me that is currently under pre-submission review by another EFB faculty.

I pursued several grants to support existing and prospective graduate students. By May 2012 I had four graduate students with full or part-time research assistantships, and a fifth hired as a Research Analyst on an RF grant to complete her first field season, before she matriculates in August 2012. Managing five research projects with sites in Florida, Cape Cod, Cape May, Brooklyn, western NY, and Syracuse has turned out to be one of the greatest challenges of my career so far, and one of the most rewarding as I get to know my talented and enthusiastic students. I am currently managing $570,000 in grants and have more pending that appear to be close to an award. Until ESF I had little experience with securing funding for research and was uncertain about my abilities in that area, so I have been happy with my progress so far. I am perhaps even more proud of my graduate students who have begun to demonstrate success at obtaining small grants and fellowships to help support their research (Maureen Durkin received a travel award to attend the Waterbird Society Annual Meeting and a Sussman, and Alison Kocek received a Gateway Learning Center Fellowship from the National Park Service's Gateway National Recreation Area). I am also using my research projects to provide training and experience to one just-
graduated EFB senior and one rising senior, who are serving as technicians in western New York and Brooklyn.

I have attempted to jump into participation in Department and Campus life. At the College level I began my first term on the Committee on Research. During that time I reviewed dozens of proposal for the McIntire Stennis and ESF Seed Grant programs and helped to organize the Spotlight on Research. I also served for another term on the Sussman Review Committee, for which I reviewed approximately 30 proposals. At the Department level I volunteered for the Curriculum Advisory Committee because I felt my knowledge regarding the curriculum side of academia was lacking. I volunteered to host the Wildlife major table at an open house in the fall and in the spring, and enjoyed meeting prospecting and prospective students and discussing potential careers in wildlife. I also began my first year as faculty advisor to The Wildlife Society Student Chapter. This turned out to be a rewarding way to get to know some of the brightest and most eager students in the department. I attended monthly executive meetings to help provide advice on event planning, budget management, and other matters and attended several of the general meetings. I also now served on several steering committees and have been deeply involved in project development for three students in that capacity, and I served as Chair of a defense in ERE.

For my own professional development, I collaborated on an NSF pre-proposal with my old colleagues at Virginia Tech and we submitted a manuscript for publication. I reviewed manuscripts for two journals and continued to serve as chair of the Waterbird Society Conservation Committee, for which I oversaw the submission of public comments on federal policy and submission of advocacy letters. I participated in working groups for the Chittenango Ovate Amber Snail which met at the Rosamond Gifford Zoo, and the New England Cottontail which met in Albany.

Martin Dovciak

Students: As a part of our Ecological Monitoring and Biodiversity Assessment (EFB 202) offered in summer at CLBS, I taught 35 students how to assess/monitor vegetation and identify plant species. In the Fall, I was very pleased to teach my usual Flowering Plants: Diversity, Evolution, and Systematics (EFB 535) to a doubled audience relative to the previous years (i.e., 19 rather than 9 students that the course averaged in the past). The increased enrolment likely reflected well-advertised addition of field trips to local state and city parks which allowed students to observe plants in their habitats for the first time in this course. The significant additional work with preparing field trips was worth it based on positive student end-of-course surveys (mean score of 4.5), doubled enrolment, and many positive student comments. Course details are on a public website (http://www.esf.edu/efb/dovciak/EFB535.htm). I also developed and taught a new graduate seminar, Global Change Ecology (EFB 797), to 10 graduate students who enjoyed it based on their positive comments and end-of-course surveys (mean score of 4.5) and I contributed to our new team-taught Diversity of Life I (EFB 210) by developing and teaching three lectures and a laboratory on flowering plants. In the Spring, I taught my usual Plant Ecology and Global Change (EFB 445/645) which now attracts close to 50 students compared to ~30 in my first year and receives good student end-of-course evaluations (mean score 4.1). Course details are on a public website (http://www.esf.edu/efb/dovciak/EFB445-645.htm). In addition to courses, I gave a guest lecture in Diversity of Plants (EFB 326) and advised 21 undergraduates (incl. NSF-UMEB, NSF Envr. Scholar, and CSTEP students) and 7 graduate students (incl. two who completed their MS degrees). I served on steering or examination committees for another 10 graduate students (incl. two at Syracuse Univ.). My advisees were successful: in addition to graduations, several received departmental awards, presented at research conferences, and one co-authored a paper in J. Veg. Sci. and received funding to participate in a networking workshop in Arizona.

Department/College: My main contributions to the departmental/college national/regional profile were my involvement as a CoPI in a large multi-agency NPS-funded Appalachian Trail Mega-Transsect Acid Deposition Effects Study (http://science.nature.nps.gov/im/units/appa/projects/aciddep/aciddeposition.cfm), my
collaboration with state agencies such as the New York State Department of Environmental Conservation (in habitat management for the endangered eastern massasauga rattlesnake in Cicero Swamp Wildlife Management Area), and my continued service as a reviewer for major international peer-reviewed journals (14 manuscripts, 11 journals) and funding agencies (NSRC). I contributed within the College by participating as a founding member in one of the GPES Areas (Ecosystem Restoration), by contributing a teaching evaluation of a faculty member to the College Promotion & Tenure Committee, by arranging and co-hosting our Shifting Paradigms speaker (Peter Reich), and by continuing to serve as a core faculty member in the Center for Urban Environment and a founding member of ESF Beech working group. At the departmental level I contributed as a member of the faculty search committee for Invertebrate Conservation Biologist, and continued to serve as the Chair for the Selection Committee for the Burgess Graduate Scholarship in Ecology, member of the Graduate Program Advisory Committee, and by continuing to work with our greenhouse manager Terry Ettinger and others to develop our teaching collection.

Professional Development: This was a good year. As a lead PI, I received a 2-yr grant to study climate change effects on spruce-fir forests in the protected areas of the northeastern US (NY, VT, NH, ME) funded by NSRC ($89,497) and a seed grant to extend this work to Mexico ($5,250) funded by CONACYT. I co-authored four papers in well-regarded journals (Philos.T.R.Soc.B, Ecological Applications, Climatic Change, and Can. J. For. Res., with impact factors 6.1, 4.3, 3.0, and 1.6, respectively) and co-authored three additional manuscripts submitted for review. I gave an invited seminar for the Syracuse Botanical Club and co-authored five research presentations given by my students at the North American Forest Ecology Workshop in Roanoke, Northeast Natural History Conference in Syracuse, and SCCS-NY/the American Museum of Natural History in New York City. I continue my collaborative studies of woody species invasions into montane meadows with colleagues at the Technical Univ. in Zvolen, Slovakia, and we are currently preparing an invited paper for Biodiversity & Conservation. I have graduated my third and fourth masters’ students and recruited my third doctoral student. I continued as a CoPI on the NPS-funded Appalachian Trail MEGA-Transect Study ($747,242) and several smaller NSRC/McIntire-Stennis funded projects, and co-authored a new significant proposal to EPA with my AT MEGA-transect collaborators. Details about my research, publications, and teaching are on our lab website (http://www.esf.edu/efb/dovciak).

John M. Farrell

For the students: My research program continues to grow and over 20 people (students and staff) were on the payroll again this summer fulfilling grant and contract requirements and gaining significant research experiences. So much has happened it is difficult to report it all. I wrote dozens and dozens of recommendation letters for current and past students and supported five undergraduates working in my lab during spring and fall semester. For teaching I have offered experiential learning experiences with EFB 388 Adirondack Fish Ecology and EFB 681 Aquatic Restoration Ecology and Management. I try to provide some theory and rigor while integrating students in real-world issues through experiences. An example is examining fish life history and migration and examining effects of large and small hydropower by visiting and touring a fish ladder and major NYPA project. They also have designed restorations and met with many difference agency personnel.

Department/college: The TIBS renovations and research activity have kept us very busy this past year and we are starting to realize benefits of this initiative. Construction on our aquatics labs has begun and will nearly be complete in July 2012. With the help of physical plant we set up two temporary structures to house our research program while the construction occurs. We started a new major research project with three new graduate students and a team of faculty (Drs. Gibbs, Leopold, Mitchell, Leopold) and staff looking at the response of enhanced wetlands and reference wetlands with a holistic approach including biogeochemistry, lower trophic levels, plants, avifauna and herpetofauna, fish and mammals. This NOAA funded partnership with Ducks Unlimited led to several significant restoration efforts that will be
evaluated in the context of water levels regulation in Lake Ontario and the upper St. Lawrence River. This project comes with three other major projects ongoing for the St. Lawrence and Niagara Rivers (with Dr. Kapuscinski) involving fish and their habitat requirements. In all the program currently manages over $3M in contracts including the CIRTAS project led by Dr. Schulz.

Professional/self: I continue to strive to balance many facets of managing a large research program, directing a growing field station and fulfilling professional commitments and responsibilities while being a strong mentor to students and a dependable colleague. To accomplish this sometimes enormous workload, I try to give young people opportunities to participate in all aspects and it seems to be working. I assisted my PhD graduate and Post-Doctoral fellow Kevin Kapuscinski by nominating him for Adjunct status to begin his own program which he has by serving as PI of a significant grant and mentoring his first graduate student. He will also teach the fisheries course this fall. I also served as a Guest Editor for the International Association of Great Lakes Research to publish a special issue on Connecting Waters of the Great Lakes and it is nearing completion. For myself, I have been invited to help organize a major international conference IS.Rivers 2012 – 1st international conference Integrative Sciences and sustainable development of rivers, Lyon, France – June 26-28, 2012. I served as a scientific advisor, helped plan sessions and review submitted papers and select participants. I proposed and will host a session on Aquatic Habitat Restoration and Enhancement.

Danilo D. Fernando

For the Students: This past academic year, I taught Plant Anatomy and Development (course reformatted from Plant Developmental Biology) and Plant Diversity, trained several undergraduate students in my lab through independent research and internship, presented invited lectures to other courses (both in ESF and outside of ESF), and worked with my six graduate students (4 M.S. and 2 Ph.D.) on various aspects of the laboratory and/or field components of their research projects, draft manuscripts, grant/fellowship applications, and poster presentations. In total, at least 120 students have been served under various capacities.

For the department/college: I served as the Director of our graduate program for the fifth year and my major responsibilities included the following: 1) acted on various types of petitions concerning different aspects of our graduate program requirements and policies, 2) reviewed and signed on (paper form and online) various forms required for the completion of different majors and degrees (2A, 3B, 4, 5B and 6B), 3) replied to inquiries concerning our graduate program (through email, phone, and/or personal visits) on an almost daily basis from several potential applicants and current graduate students, 4) processed a total of 153 applications (21 for spring and 132 for fall) that involved the review of each application for initial assessment and designation of faculty reviewers, followed up on the completion of the reviews on each application, summarized the reviews for each application, and submitted EFB’s recommendation for each accepted and rejected applications to the Dean of Instructions and Graduate Studies, 5) provided orientation seminars to new graduate students about our graduate program and the new faculty about the graduate application process, 6) served as the department’s representative to the Graduate Council and raised issues regarding problems/suggestions on how to improve the graduate program, application and review process; shared the ideas and activities of the Graduate School to the department’s graduate committee and faculty, 7) reviewed applications and participated in the deliberations in granting Fellows for SUNY Diversity Fellowship and Bristol Myers Squibb Sustainability Fellowship; and 8) worked with the Graduate Secretary on the update and improvement of the various facets of the EFB’s Graduate Webpage, graduate application filing system, and continued the survey on the most effective means of attracting/recruiting graduate students.

For professional accomplishments: The following are what I consider as significant: 1) Successful completion of my second Ph.D. student – Christina R Quinn (August 2006 to Fall 2011); 2) Submission of two papers (out of Christina’s dissertation project) and two more that I’m currently editing/revising; 3)
As for the textbook (Sexual Reproduction in Forest Trees) that I am writing with my co-author Dr John N Owens (through Cambridge University Press), six chapters have already been written and seven more to go; 4) Two grant proposals (USF&WS-GLRIP and USDA-NSRC) have received successful reviews and total grant funding awarded was $182,476.00; and 5) three new graduate students (Jessica Bouchard, Rie Iriyama and Stephanie Smith) joined my lab this year, which in total, I have six graduate students - the most that I have thus far in one calendar year.

Melissa K. Fierke
In the fall semester, I taught General Biology for the fourth year with >280 students. I supervised three graduate TAs along with their workshops and grading - all went smoothly. I continued to make use of blackboard, posting assignments, quizzes, grades, etc. and contacted students that were doing poorly. A new tool I implemented with exemplary results was an online homework/learning program, Mastering Biology, offered through our textbook publisher. The students were extremely complimentary of the program and I was happy with the end of the course results of a 75.5% class average. Based on my positive experience with the program, I was asked to give presentations by Pearson representatives.

Overall class evaluations were again strong for the two lecture sections though, there was an end of the semester rush with catching students breaching ESF’s academic integrity code (13 students, 19 over the entire semester). I worked closely with our Judicial Coordinator to reach satisfactory conclusions. This past semester I was asked to serve on an Academic Integrity panel to hear a case with a second violation and this helped me to better understand the procedures and importance of bringing these cases forward.

I coordinated a seminar on Forest Pests for Entomology/Forestry graduate students this past fall and taught Systematic Entomology, a graduate level course essential to our entomology program, in the spring semester. I used the foundations of the Insect Diversity course I taught in 2009 to build this course and the lab was again co-coordinated with Kim Adams. I also taught Forest Health Monitoring this past Maymester, a required field course for our Forest Health major. I coordinated field trips and organized guest lectures from Forest Service personnel and other experts here at ESF. The class culminated in an independent field project, which far exceeded my expectations as a learning experience for the students, evidenced by a group paper and a presentation.

I facilitated three internships in summer 2011. Two were with the NYDEC Lands and Forests, including one student working with hemlock woolly adelgid and another on emerald ash borer. I also facilitated a Natural History and Interpretation internship. Three students worked on research projects under me this past fall/spring. One sorted samples for invertebrates along a calcium gradient, another evaluated soils data to determine where Cerceris fumipennis colonies are most likely to be found, and the third worked on developing a woodpecker survey for emerald ash borer.

I am happy with the current state of my research program and the progress of my graduate students. Three of my MS graduate students defended this past spring. Two of them already have publications in hand and the third is second author on a paper in review. I am still working with three of my previous graduate students on their publications as well. A new MS started in my lab in Jan. She is developing molecular markers to identify parasitoids of S. noctilio and so will be co-advised by Chris Whipps. My new PhD student is off to a good start on his dissertation research on Sirex noctilio and was the recipient of both the Stegeman and Silverborg 2012 departmental awards for invertebrate and forest health studies in EFB. He has presented at three venues since starting in Aug. 2011, is a coauthor on a paper we recently submitted and is first author on another that will be sent off shortly. With the help of my graduate students and collaborators we made a final push over spring to finish up the emerald ash borer delimitation and management project I initiated two years ago. It was an extremely satisfying culmination to this effort and I look forward to wrapping up our publications.

I’ve continued my outreach efforts, doing presentations, e.g., Termite Trails for ESF’s Take Your Kids to Work Day, and interviews, however, I pass most opportunities on to my graduate students who are doing an excellent job of taking them on, being enthusiastic and getting our science out there. Two of my grads
have presented entomology lectures at Bryant and Stratton this past year and another will be doing so over the summer. My grads and I manned the entomology display in the ESF booth at the 2011 New York State Fair. I’ve continued to serve as an active part of the ESF Learning Community committee as well as and the Graduate Program Advisory Committee and I also serve on several scholarships committees reviewing applications. I facilitated the EFB Core Course for graduate students this past semester where the main goal was a solid research proposal and I co-facilitated the Adaptive Peaks seminar in the fall.

Professional development has included attending conferences and accepting invitations to present my lab’s research. We attended an emerald ash borer conference in Wooster Ohio in August where I presented a talk and two of my grads displayed posters. This past spring I again organized a symposium at the NY Society of American Foresters annual meeting on Forest Invaders and two of my grads presented posters at this venue and one gave a talk. Two of my graduate students presented posters at the Annual USDA Invasive Insect meeting in Annapolis and another gave a talk at the National Entomological Society meeting in Reno, NV. I gave presentations at Utica College as well as Cornell University (both in Ithaca and the Geneva Ag Station) on my lab’s research and I continue to work closely with the NY-DEC and collaborators with Cornell and the USDA-Ag and Research Station as well as cultivating other professionals (e.g., National Grid and Arborjet) and researchers.

Elizabeth Folta

Students: This year I focused mainly on the students through a number of different avenues. I taught five interpretive courses, which had a total enrollment of 109 students. Two of the courses were offered for the first time, EFB 796 Research in Interpretation and Environmental Education and EFB 496/796 Technology in Environmental Interpretation and Environmental Education. The students had a chance to present activities at the NY Society of American Foresters conference as part of the class. In EFB 416/616, I added a service learning opportunity. The students designed and presented a program on plants to the entire 4th grade at Wheeler Elementary school in Nedrow, NY. I taught EFB 404 for the first time including taking the students to Washington, D.C. over spring break. The students of EFB 404 and INTERP redesigned five of the Illick lobby exhibits this year. I had four new graduate students who started this year, who have taken a lot of time to help focus their research interests. I arranged for a number of different educational workshops to be offered on campus allowing students a chance to interact with other educators in the local community as well as receive further education in a variety of specific topics. Finally, I worked with six students to start the INTERP club in the hopes that we can get other students involved in environmental interpretation.

Department/College: In addition to teaching, I worked with the CCAC members to complete the Natural History and Interpretation curriculum changes. The changes have been approved at the department level and currently are under review at the college-level. These changes included the removal of three courses (EFB 406 Great Naturalist Seminar, EFB 405 Literature of Nature, and EFB 215 Interpreting Science through Art), the addition of new directed elective options, the addition of EWP 390 Introduction to the Literature of Nature, the addition of a new Outdoor Recreation directed elective requirement, and updates to all the existing interpretive courses. I joined the CCAC committee this spring, which is helping me become more acquainted with procedures related to courses at ESF. I also served on the search committee for the Environmental Studies – Environmental Communication position. It was another good learning experience for me and allowed me to get to know some of the Environmental Studies faculty members.

Self: This is my first whole year serving as a graduate advisor. It has been an interesting experience working with the graduate students and helping them figure out their areas of interests. In addition to helping the graduate students with starting to establish their research, I have recruited two Natural History and Interpretation students to pursue the honors program in hopes of establishing the start of undergraduate research in interpretation. I continued to work with many of the environmental interpretation organizations in the local area and the state. I joined the Project Learning Tree steering
committee for New York. Besides attending the advisory meetings, I have reviewed grant applications the DEC submitted for PLT, and helped with professional workshops. I have also been asked to serve with Benette Whitmore as the regional representative for the New York State Outdoor Education Association, which I will learn more about over the summer. I took part in three grant proposals totaling $3,461,845. I presented papers at three national conferences. It was my first time attending all three conferences. Finally, I started working on the National Association for Interpretation Certified Interpretive Trainer certification. This certification will allow me to provide the Certified Interpretive Guide (CIG) certification to students. The CIG is an introductory level certification in the field of interpretation.

Jacqueline L. Frair

As in previous years, this year I engaged a moderately large cadre of undergraduate students on active research projects (helping graduate students identify wild cat and prey species from game camera photos and prey remains in coyote scats, as well as undertaking independent research projects on small mammals and marten), in projects supporting departmental as well as their own learning objectives (e.g., inventorying and repairing specimens in the Roosevelt Wild Life Collection), and as teaching assistants in my core undergraduate course. This past fall I organized a new and important experience for the future land and wildlife managers we are training – a Hunter and Trapper Education for Wildlife Professionals course. Through this course students learned from the hunting and trapping public as well as from professional wildlife managers on the social and professional value and challenges of game management. Students received firearm, bowhunter, trapper, and waterfowl ID certifications from certified instructors (members of the hunting public) and worked in the field alongside professional biologists to collect demographic data from waterfowl and deer harvested during the fall season. Course reviews indicated that the students greatly appreciated two aspects of the course: 1) the mix of public, professional, and academic instructors which provided different perspectives and showed how much cooperation is required to manage game species, and 2) the time spent outside either at the range learning how to safely handle firearms and bows or at hunter check stations. A common sentiment among students was that “I was able to see the wildlife profession in a personal way.” And many students commented on how this was their first experience interacting with “users” of the wildlife resource, as one student summarized “I never knew that hunters were such an intelligent, ethical, and important group of people. I admire them, and what they do, immensely now.” The DEC also feels this course to be of critical importance and they are working with other college’s (e.g., Paul Smith’s) to provide similar experiences modeled on the ESF course. I also worked for the first time this past fall with John Stella to co-teach the graduate course we used to call “The Ecological Detective” and now call “Quantitative Methods and Models in R”. This is a challenging course both for the students and for the professors that teach it, so co-teaching it is essential and I have been very fortunate to be able to teach this course first with Jesse Brunner and now with John Stella. John brings a wealth of experience that compliments mine and provides a richer experience for the 18 graduate students (4 from SU) that took the course. This is an intensive course, with a lab section and student projects, that is incredibly challenging to teach and incredibly rewarding both for the students and the instructors. I’ve said this before, but I believe this course is the strongest contribution I make to graduate education at this University aside from the personal mentoring of graduate students. This year I also completed my second M.S. student, Scott Warsen, who did a nice study on the evolving diets of coyotes in the Adirondacks (comparing contemporary diets to those Gary Brundige and Bob Chambers documented previously) and their competition with native carnivores in the region. Scott’s research involved a very successful collaboration with Mark Teece for stable isotope analysis and should result in two papers. Scott was also the first Grober Fellow at ESF and his work for that fellowship is also being prepared for journal submission.

My largest contributions to the Department and College this year have focused on the Roosevelt Wild Life Station. Along with James Gibbs (Station Director), Don Leopold, and Bob Quinn (Development Office), I continue to work on a large endowment initiative. Together we are re-envisioning the role of the Station, seeing it as a vehicle for facilitating, supporting, and promoting our applied conservation
research program. And we are steadily making progress towards a substantial endowment to provide a new faculty line and programmatic support. I have secured a Conservation Assessment of the Roosevelt Wildlife Collection that will take place next fall, am working with Ron and undergraduates to complete an inventory and taxonomic reorganization of the collection, and am working with Mike Simonovich to get that inventory online to make the collection more accessible to instructors and researchers. I also am Curriculum Coordinator to the Wildlife Science major (139 students in Fall 2011). This year I have been working with the Curriculum Committee to complete a program assessment as well as to standardize and better communicate to students what experiences qualify for the Upper Division Field Elective and those that wish to opt out of EFB 202. I also have helped elevate ESF’s presence on the national stage relative to wildlife management by offering two well-attended workshops this year. First, I co-lead a full-day “Geospatial Skills Workshop” with Hawthorne Beyer (University of Toronto) at the annual conference of The Wildlife Society in Hawaii (workshop attended by 30 people), and co-lead with Juan Manuel Morales (Universidad Nacional del Comahue, Argentina) a week-long workshop at ESF entitled “Likelihood and Bayesian Analyses for Ecologists” that engaged 26 participants from 8 different states (representing a mix of academic and professional, majority wildlife-focused). We offered this workshop under the auspices of the Roosevelt Wild Life Station, marking the first official outreach activity of the Station since it came under new leadership in 2011.

Contributions to my own professional development this year included taking on the role of Associate Editor for the Journal of Applied Ecology, becoming a reviewer for the Northern States Research Cooperative (Biodiversity and Protected Areas Management section), participating in a research expedition to the Russian Altai with James Gibbs, expanding my partnership with Panthera which now involves work on jaguar in Guatemala in addition to an ongoing project in Brazil, and (don’t laugh) taking up hunting. Honestly, I think the last item is the most important given my role as mentor for wildlife science majors, my ongoing research focus on game species, and my growing research collaborations with the NYS DEC. I also became recertified this year by Safe Capture International in the chemical immobilization of wildlife.

James P. Gibbs
This has been a busy year focused on both Departmental activities as well as research and outreach collaborations beyond ESF. At the Department level I coordinate our Conservation Biology major, track a sizable group of undergraduate advisees mostly in Conservation Biology, teach two of the primary courses for the Conservation Biology major, coordinate internships as needed (including the much expanded NYSDEC Fish, Wildlife and Marine Resources/SUNY-ESF internship program), work with key colleagues to advance several exciting and ambitious initiatives of the Roosevelt Wild Life Station, and serve on several key Departmental committees that saw significant activity in 2011-2012: CCAC, P&T, and a faculty search. I finished two graduate students (Hunter and Myers) and served on the committees of many graduate students in the College. Beyond SUNY-ESF I have focused on significant, international outreach opportunities that recently materialized including serving as International Scholar in the Higher Education Support Program of the Soros Open Society Foundation at the National University of Kyiv-Mohyla Academy, getting up to speed as an elected member of the Charles Darwin Foundation’s General Assembly (its governing entity) while serving on its Program Committee to reformulate science programs of the Charles Darwin Research Station, preparing for activities under a fellowship just received from the Ecuadorian government’s science directorate (SENESCYT) to serve as a “Viejo Sabio” for one year to build capacity for scientific investigation within the Galapagos National Park Service, and serving as external review member to Mexico’s Institute of Ecology. I am very pleased to see issues I have steadily pushed ahead for many years finally come to fruition in the form of funded workshops that bring experts together to advance these important issues for the Galapagos Archipelago: knowledge management, citizen science and giant tortoise conservation. Our collaboration on Altai wildlife conservation with The Altai Project, WWF-Russia and Wildlife Intelligence continues to unfold
in productive ways. Next year will be very busy with the possibility to spend a sabbatical leave during the spring semester to advance these and other opportunities.

Charles A.S. Hall

Students: I continued with my normal teaching: Systems Ecology and Energy in Fall, plus a seminar with Ruth Yanai, Global, Ecosystems and Biophysical Economics in Spring. All serious, demanding courses. Also as I think anyone knowledgeable will tell you, there is usually a line of students waiting for personal interaction with me essentially every afternoon. My graduate students continue to do very well. Anna Stewart continues to receive about every possible prize including a Fulbright for her PhD research. She just received a best poster award for her workshop at Columbia University. Suzanna el Granado received a Fulbright grant for her research in Bolivia. My former graduate students continue to receive what I consider premium job offers. David Murphy accepted a joint faculty/research position between Northern Illinois University and Argonne National Laboratory focusing on energy and its relation to economics. He turned down a position to be a Congressional Fellow in Washington, D.C. Aileen Guzman has a great position with an NGO in New York. Jill MacMichael has an offer (pending funding) for U.S. Department of Energy. Ridhima Nayaar is working for a green building company in New York.

Research accomplishments: My sabbatical paid off in many ways: Nearly 20 peer reviewed papers, although there is some double counting with papers in press last report; Editing a special issue of the Journal Sustainability on Energy Return on Investment, and administering the review process for some 20 papers; Publishing our new book “Energy and The wealth of Nations” while continuing the editing of a new Springer series of “100 page” books on energy. The book has received 6 very positive reviews so far in scientific, management and financial Journals. These are available on my web page.

Outreach: I run an energy list serve with about 500 members where I distill and send out at weekly intervals what I believe to be the most important energy and energy/economic information. I continue to be interviewed for Television and Media Several times a year. My research and teaching in Argentina constitute international outreach.

Self (My assessment of my year): This year I am 69 and have pretty much decided to retire in a year. We have purchased our retirement home in Montana. SO the year has been spent on consolidating what I perceive my gains at ESF and Life are. All of my courses are on line and some are being used in other Universities, for example UCLA. Well I guess I published a little and taught a little too.

Thomas R. Horton

Students: My greatest interaction with students comes with the teaching of General Ecology. This past fall I had approximately 280 students distributed into 10 lab sections. Like last fall, this cohort of students was wonderful with strong student engagement. I am happy to report that the overwhelming majority of student evaluations were high, ranging on average from 4 – 4.5 out of 5 for any given aspect of the course. I like getting lectures to that location of human knowledge, that place where in a 300 level course we are delving into the unknown. To me, this is where inquiry based learning is at its best (at least in such a large class), and the best students appreciate that. Sometimes I know exactly what I am doing and I take the class there. Often, it is a student’s question that gets us to this point. One graduating student wrote me a wonderful card this spring sharing that she was inspired by a professor who could say, ‘I don’t know’. It ‘got her thinking’, and I can ask for no better compliment! While it is bittersweet, I am happy to report that undergraduate students who gained research experience in my lab have finished their degrees and have joined graduate programs in EFB, the University of Idaho, University of North Carolina, University of Kansas, and the University of Buffalo, among others. Several students will be working as technicians or field assistants with colleagues in some excellent labs at the University of Utah and Stanford, among others. One student who finished here several years ago spent her time since graduation working on various projects and traveling. This fall she applied to three graduate programs and got into all three.
These are bright young researchers and I enjoy keeping in touch with them as they make progress on their career path. I also enjoyed working as the Faculty Advisor for the Student Conservation Biology club. This year the group again self-organized a winter break trip to Ecuador, visiting a village in the Amazon as well as the Galapagos Islands. These students are amazing as they not only visit some very interesting locations, but they help local communities develop sustainable technologies and other activities such as building a school house. In the spring the group met for a weekly seminar where they explored issues with ecotourism and human impacts on the fragile ecosystems in places like the Amazon and Galapagos. As a group they explored the interconnections between a places like the Galapagos or the Amazon and Syracuse, how things we do here impact lives there (wasting gasoline, buying cheap tropical wood furniture), and vice-versa (forcing a premium on tourism to increase sustainability). This is a neat course because it is largely self-taught and with such a great group, I can sit on the sides and watch it all unfold, though I find it hard not to pitch in sometimes. Of course, I am also very engaged in working with my own graduate students. Yazmin Rivera was my first Ph.D. student to finish (this May) and she is already getting job interviews for faculty positions at four-year colleges. Jeremy Hayward had a very successful year, taking the lead on two grant proposals that we landed (NSF REU $7500 and ESF Seed grant $6905). Jeremy also cranked out a manuscript with some samples collected while on vacation that resulted in a paper now in press with Mycorrhiza. Jeremy has been a great help training various undergraduate and graduate students who need help with the molecular approaches we employ (this will look great on his CV!). He also ran the Mycorrhizal Symbiosis seminar course this spring. Rebecca Walling joined my lab this spring. Before she even started she took the lead on a successful grant proposal with the Mianus River Gorge Preserve that will fund her travel and supplies for her project for three years ($21,000). I also enjoy interacting with students of other professors as they filter through my molecular lab to use various pieces of equipment (ultra cold freezer, freeze dryer, nanodrop, etc.). Sam Tourtellot is now writing up his Masters thesis on whether transgenic chestnuts resistant to fungal pathogens remain capable of associating with mycorrhizal fungi belowground (yes!). Elisabeth Holmes is an MPS student working on a dual degree with the SU teaching program. She is progressing nicely and should be finished by next spring. Lastly I will mention that I took on leadership in an award committee that honors our best undergraduate and graduate students in mycology and forest health. This year we were able to give out about $20,000, split among 10 outstanding students!

Department/college: As suggested above, I view my primary activity for the department and college as the teaching of a solid General Ecology course (see student section for some details). This past year also found me assessing learning outcomes for our Environmental Biology majors in General Ecology – no small task and an important one. Last year I was at the top of the EFB Faculty list in terms of teaching load, largely because of General Ecology. I also enjoy helping young faculty navigate their first years here in EFB. When things are going smoothly this is an easy task. When things get a little bumpy, it can be a challenge to provide helpful advice to work through the issue. But I like doing this and hope to continue to be successful in this role. I also manage the growth chambers in room 308. This is mostly a function of managing a game of musical chambers because we never seem to have enough chambers for the experiments that could be running (but always enough for those that are running!). It can be more taxing when a chamber fails, but let me state that John Suressi’s service was top notch in this regard. There was also the extra duty this year of communicating our growth chamber needs and specifications to the ARB (Academic Research Building) committee. Speaking of the ARB committee, I spent many hours on that committee, watching the details of the building unfold.

Self professionally: My papers continue to receive attention and influence the field as evidenced by the high numbers of citations. I am pleased to report that my former student Sara Ashkannejhad’s paper has now been cited 66 times (Google scholar since 2006) and my paper with Nuñez and Simberloff has already been cited 42 times (Google scholar since 2009). I had a great year in terms of seeing current and former students getting their work published: Karpati et al. (2011), Galante et al. (2011), Hazard et al. (in press), Hayward & Horton (in press). Similarly, it was a great year in terms of securing funding, with a
number of small grants totaling over $40,000 ($5000 INECOL/CONACYT; $21,000 MRGP; $7500 NSF REU; $6905 ESF Seed). My student Jeremy Hayward and I also submitted an NSF preproposal that did not get an invitation for a full proposal, but the reviews suggest it is worth another submission on this one. I am happy to report that Dan Simberloff, one of the collaborators on my funded NSF project, was elected a to the National Academy of Science this spring – it is an honor to work with him. We are gathering quite a bit of data in the field and lab on our work down in Argentina and will be peeling off manuscripts by this time next year. We are close to submitting the first data paper showing that the dispersal of ectomycorrhizal fungal spores by introduced boar and deer is facilitating invasion by pine and Douglas-fir in Bariloche, a follow up to our 2009 Ecology paper. Other papers will follow. But the big news for me is the initiation of a book. Springer accepted my idea for an edited volume on Mycorrhizal Networks for their Ecological Studies series. I have a great list of international authors for chapters and their contributions are now coming in. This will give my lab and ESF more visibility with respect to the work we do on mycorrhizal ecology. The final draft of the book is due January 2013, so this summer and fall will see me pretty tied up with this project. Fortunately, my courses and my lab are running along nicely with great students.

Kevin L. Kapuscinski

Students: I taught >140 students enrolled in EFB 202 at Cranberry Lake Biological Station during the summer of 2011. I taught four aquatics sections and two statistics sections, provided guidance during group “projects week”, and judged student presentations of these projects. I also provided support to Derek Crane who was teaching EFB 414 (Senior Synthesis in Conservation Biology), and I gave a guest lecture to his class. I am looking forward to teaching EFB 487/687 (Fisheries Science and Management) and EFB 488 (Fisheries Science Practicum) this fall.

Department/College: I served on the steering committee for Christina Killourhy (M.S. candidate, EFB) and invested a significant amount of time providing technical and editorial guidance to current and former graduate students of EFB. I also conducted a search for my first graduate student. I hired Matthew Gunderson as a Research Analyst for the summer of 2012, and he will transition to a M.S. candidate upon acceptance into the graduate program at EFB. I look forward to becoming more formally involved in the development of graduate students by serving on steering committee, etc.

Research: My main focus during the past year has been on publishing results of previous research and expanding my research program on Buffalo Harbor (Lake Erie) and the Niagara River. I published three peer-reviewed articles as lead author, submitted three more, and worked on several others (as lead or supporting author) that will soon be submitted for review. I also gave several presentations at professional conferences, public meetings, and college classes. During the past year I continued to oversee a $188,881 grant-funded project that is nearing completion, and I secured a new, two-year $519,246 grant (J. Farrell is co-PI on both grants). I hired and now supervise two Research Aides (Trevor Oakley and Michael Guinan, both SUNY-ESF students) and two Research Analysts (Andrew Panczykowski [SUNY-Buffalo State College] and Matthew Gunderson [SUNY-ESF]). I also secured a rental property (to house my staff and me while conducting field research on Buffalo Harbor and the Niagara River) and storage space for boats and equipment—my research program is slowly taking shape. John Farrell and personnel of the Thousand Islands Biological Station have been and continue to be key collaborators on these research efforts. Other important collaborators include personnel from the New York State Department of Environmental Conservation, SUNY-Buffalo State College Great Lakes Center, Brian Sloss (US Geological Survey/University of Wisconsin Stevens Point), and the Niagara Musky Association.

Robin W. Kimmerer

Contributions to our students: My major and most rewarding contributions during 2011-12 have been to our students, through my central focus on the scholarship of teaching. I have taught 6 distinct courses and
contributed to development of the new Diversity of Life course. I am pleased to be able to create innovative, interdisciplinary courses which broaden the scope of ideas and perspectives available to our students. Excellent student evaluations indicate that they appreciate the content and character of these offerings. I have participated in 3 professional education workshops in order to advance further development of my Plants and Culture class. In my capacity as Director of the NSF Undergraduate Mentoring in Environmental Biology Program, as a CSTEP mentor, an Honors advisor, undergraduate research advisor I have helped to mentor the academic, personal and professional development of 10 promising undergraduates this year in addition to my assigned advisees. All students completing the UMEB program presented research posters at the Spotlight on Research. I also serve as advisor to a student organization. I have contributed to teaching in diverse outreach settings and through a wide array of invited public presentations around the country. In addition to guiding my own graduate students, I have been invited to serve on the graduate committees of students at 3 other universities. A highlight of my contributions to our ESF students is the successful funding of a proposal to the USDA Multicultural Scholars Program which will support a full 4 years of fellowship and enrichment activities for 5 new students.

Contributions to Department and College: I have served as founder and Director of The Center for Native Peoples and the Environment in 2011-12 which has brought significant positive attention to the College’s leadership role in incorporating traditional ecological knowledge in environmental education and research. I’m particularly proud of the contributions of the Center as an emerging change agent in broadening the scientific dialogue to include traditional ecological knowledge. Our efforts have been rewarded with a significant private donation that supports the ongoing development of the Center. The many activities of the Center include a summer community environmental internship program at Onondaga Nation and at Tuscarora nation. The Center continues to develop and present the “Native Earth Environmental Youth Camp” with funding from the National Science Foundation. The camp has been a focal point for wide-ranging collaborations with 8 different indigenous nations in the region. The impact of the Center can be seen in the number of invited presentations and collaborations on traditional ecological knowledge requested from around the country. The validity of using TEK as a partner to ecological science in education and research is gaining traction through our efforts. The successful development of the Center has created a platform from which grant proposals have developed. The momentum behind this endeavor is reflected in the submission of 5 major collaborative grant proposals during the past year, with partners as diverse as the Smithsonian Institution and the US Forest Service, as well as several smaller initiatives. I served as the PI for the revision and development of this year’s resubmitted IGERT proposal with an interdisciplinary group of collaborators. Unfortunately, that proposal was not successful, but we are developing a collaborative initiative to advance those goals through other programs.

Contributions to Professional Growth: In addition to the contributions of traditional knowledge to environmental education and research, that I hope my work has made, I am increasingly involved in initiatives which incorporate my writing and speaking on indigenous knowledge systems, into the arena of environmental ethics and philosophy. I was honored to be invited to national gathering of leading environmental philosophers and to contribute to the creation of the “Blue River Declaration” an ethical manifesto on our moral obligation to the future in a time of climate change. I have also been invited to participate in several video projects and to deliver a TED talk on this subject this summer. Working in this interdisciplinary arena of public dialogue and engaging teaching tools outside of my academic experience has been both challenging and rewarding, contributing to professional growth in new directions which can benefit my creative capacity as an educator and writer.
Donald J. Leopold
To enhance instruction in EFB 336 (Dendrology) and beyond Christopher Baycura (ITS) and I produced 100 tree videos in HD, each about 2 to 3 minutes in length, and available for downloading and viewing at www.esf.edu/trees/youtube or www.esf.edu/trees/itunesu. Besides teaching Dendrology to over 160 students during the fall semester, I enjoyed giving three guest lectures (and two labs) on angiosperms and gymnosperms in the department’s first offering of Diversity of Life I (EFB 210). Among other guest lectures both semesters I gave two lectures in Freshwater Wetland Ecosystems (EFB 542), a course that I initiated at ESF in 1986 and last spring was taught (at no cost to ESF) by Dr. Tony Eallonardo (Research Scientist, O’Brien & Gere).

I organized a bioblitz at Lucky Star Ranch held last June, which had about 100 students, faculty, and staff involved with cataloguing the biota in a large alvar landscape over a 24-hour period. One of the highlights of the past year was hosting, on behalf of President Murphy, the gathering of alumni and friends for ESF’s Green Tie Dinner at the Scarsdale Country Club in July. A substantial amount of time was spent on a variety of Illick building issues (including lack of perimeter heat for months during the winter and plans for a new roof and greenhouses), the new biology building (“academic research building), and Gateway Building displays and greenroof. Much additional time this past year was spent on new contracts, particularly negotiations for ESF to host the NY Natural Heritage Program, which should officially take place soon in the ’12-13 academic year. A significant amount of time was also spent on development activities, some of which have yielded some promising results. This next academic year should indicate whether we are on the right track relative to development efforts.

Besides the numerous invited presentations and interviews to discuss native plant topics I was one of three invited speakers to make a presentation at the 2nd International Symposium on the Biology of Rare and Endemic Plants, in Mugla, Turkey, April 2012. The symposium included three days of talks and two days to explore southwestern Turkey near the coast. I have never seen so many new and globally rare plant species in my life so the trip was quite memorable.

Karin E. Limburg
ESF’s students: I taught my fisheries class this past fall. Once again, I broke the enrollment record on this ordinarily small class. There has been a continuing increase in Conservation Biology majors taking the course. Additionally, enrollees came from Environmental Science, Environmental Studies, Wildlife Science, and EFB, in addition to the expected Aquatic and Fisheries Science. I’m glad that the course has appeal to a broadening audience. This is likely due to the increased press about fisheries. In the spring, I taught my grant-writing graduate seminar, as well as a new graduate seminar titled “A Self-Help Course in R.” Why “self-help”? because I was learning R alongside the students. My interest in teaching the course was to see if a very basic, introductory seminar on the subject would get the students over the “learning hump” and comfortable with the language. It certainly seemed to do so. I plan to teach this course again next spring, so that it precedes Jaqui Frair’s advanced modeling class, which requires the use of R. Having sat in that course a few years ago, I found that learning R at the same time as learning complex statistical concepts was challenging, to say the least. Hence, if students can learn R in a separate course, they may be able better to grasp the modeling material in Frair’s class. Outside the classroom, I had several undergraduates working in my lab with grads and my post-doc. I also participated in the new freshman’s learning retreat in September. I was impressed with their depth of thinking and discussion.

The department and the college: I continued to chair the EFB Graduate Program Advisory Committee. This year we solved an important problem with respect to ranking accepted grad students for possible GA funding. The ranking system as it existed for many years placed emphasis on undergraduate achievements, with little or no recognition for work done at the Master’s level (if entering as a Ph.D. student with Master’s in hand), let alone other achievements. The new scheme, which was debated and modified in a departmental faculty meeting, now includes additional ranking points for a number of
scholarly criteria. This system will very likely result in more support for accepted doctoral students. In turn, this should aid the department to increase the fraction of doctoral students vs. MSc and MPS students. Additionally, we discussed a grad student/faculty retreat. Time constraints did not permit holding it this academic year, but I would like to try and convene it in the fall.

For myself: I continued to work with my grad students, post-doc, and visiting scientist from China (Professor Jiangyi Liu from the Chinese University of Geosciences in Wuhan). It was a productive year. I was also pleased to have another doctoral student (Rita Monteiro) and master’s student (Andy Boslett) defend their theses. Other students are presenting their research in national and international venues. I was actively engaged in research alongside my grad students and post-doc. My main foci were on two large projects, one on humpback chub in the Grand Canyon, and the other on river herring (two species of alosine herring) along the East Coast. I note that the former is officially an Endangered Species, and the latter are currently being considered for Endangered listing under the ESA. In addition, I chaired peer reviews of the coastwide stock assessments for river herring as well as American eel (also being considered for ESA listing) for the Atlantic States Marine Fisheries Commission. It’s sobering that species once so common – and not that long ago – are now in such serious decline that their only salvation may come from ESA protection. I completed my stint as Guest Editor for a special issue of Marine and Coastal Fisheries, focused on American shad and river herring biology and restoration. I also continue to collaborate with the Hudson River Fisheries Unit of the NYSDEC in their American shad recovery program. I also completed my task of conducting an assessment of the State of Maryland’s striped bass fishery for the Marine Stewardship Council, an international certifying body. It is very likely this fishery will be certified as sustainable in the coming months. This “eco-labeling” will have interesting consequences for the coastwide striped bass fishery, both economically and ecologically. It is the first time a government agency (the Maryland Department of Natural Resources) has served as an applicant for sustainable fishery listing by the MSC. I have also been engaged with the International Council for the Exploration of the Seas (ICES). Despite its name, ICES is really the inter-governmental body for fisheries management in the North Atlantic. I am co-chairing and organizing a major theme session at their Annual Science Conference this fall (Bergen, Norway).

Mark V. Lomolino
Course development: Ecology and Conservation of Island Life: I offered a preliminary version of this course as a 1 credit graduate course (EFB797) to 10 graduate students during Fall, 2009. Based on evaluations, the course was very well received and there would be much interest for a 2 or 3 credit course. Therefore, I developed and offered this as an exploratory course in the Fall of 2011. Given the very positive reactions of the students, I plan to add this as a course offering in alternate years, fall semesters, as a 3 credit course to upper level undergraduate students and graduate students. The series of seminars I have developed – Conservation Biogeography, continues as a graduate level, 1 credit course. I hope to continue this course in alternate semesters, with the topic for the Fall semester of 2012 being Ecology and Conservation of Soundscapes.

Research and Scholarship: Publication of the 4th Edition of Biogeography – Lomolino, Riddle, Whittaker and Brown, Sinauer Associates. This thoroughly revised and full-color edition should continue to be the leading text in the field of biogeography, and we continue to plan and update the book in preparation for its next publication. Expanded research program on ecology, evolution and biogeography of body size to include effects of climate change (dissertation topic of Katherina Searing) and evolution of body size in extant native, introduced and extinct insular mammals is now funded and establishing international collaborations with colleagues in Italy, Greece and the Netherlands. Development of proposal on the broad-scale dispersal which should ultimately contribute to a continental-scale Atlas of Long-Distance Dispersal. This information, the abilities of animals to cross significant barriers, is essential to understanding and predicting abilities of populations of these species to adapt to environmental
challenges including those associated with climate and landscape change. Proposal are being revised and prepared for various agencies including the SERDP, environmental research branch of DoD.

Gregory G. McGee
This year I continued to coordinate, administer and teach multiple sections of the General Biology labs and two three-week sessions of EFB202 at Cranberry Lake. I believe the instruction and administration of these courses continue to improve. For the General Biology labs I’m finding the right balance between the reinforcement of Fierke’s and Whipp’s lecture content, development of laboratory and writing skills, and application and practice of the scientific method. Neal Abrams, Betsy Hogan, Valerie Luzadis and I received a three-year NSF-TUES (Transforming Undergraduate Education in Science) grant to pilot an experimental section of freshman students that integrates instruction and skills development in General Chemistry Lab, General Biology Lab and Writing in the Environment. This spring we began to administer and develop lessons for this section. Over the next three years we will be testing various pedagogical approaches to improve student abilities to contextualize and synthesize information across disciplines and improve attitudes towards learning in STEM disciplines. As an extension of the General Biology lab instruction, I have also begun collaborating with a teacher from the Solvay school district, along with Melissa Fierke and Chris Whipps, to develop the General Biology sequence as an ESF in the Classroom offering. This last year I worked to increase expectations and enhance the educational experience for the 24 undergraduate teaching assistants in my general biology laboratories. I increased the credit hour load from one to two credits and invited the undergraduates to take on greater roles in weekly instruction. This has paid dividends. I have observed gains in self-confidence and leadership tendencies for many of these students, and the laboratory teaching atmosphere was more collaborative between undergraduate and graduate assistants. Late last summer I again collaborated with staff at the AEC to offer a five-day Pre-Orientation Adirondack Experience for eleven EFB and FNRM students. Students participated in a day-long canoe/bushwhack, whitewater rafting, a High Peak ascent, and a couple evenings around campfires having thoughtful discussions with two student orientation leaders regarding their transition to ESF.

I continued serving on the EFB Course, Curriculum and Assessment Committee (CCAC), which this year facilitated proposals of several new courses and/or descriptions for professional internship experience, independent research and research apprenticeships; proposed the Environmental Biology and Biotechnology minors; clarified departmental field credit requirements; began revamping the advising procedures and tracking for students in the pre-health professions; continued with ongoing coordination of the departmental assessment plans; and assisted Beth Folta in the redesign of the NH&I curriculum. In January I began serving as the department’s Undergraduate Curriculum Director and the Curriculum Coordinator for ENB. In this capacity I have begun to dedicate substantial effort to coordinating student recruitment events with Admissions; developing orientation materials and programs for freshmen and transfer students; updating curriculum plan sheets, directed elective lists and the student handbook; facilitating petitions; coordinating advising; serving as the department’s representative on the Academic Standards Review Committee; and compiling and summarizing ENB assessment data. This year I also became involved in Faculty Governance and chaired the new Committee on Student Life, which initiated a review of the current ESF policies and procedures on Academic Integrity and a faculty survey of involvement and understanding of current procedures. The committee worked closely with the Judicial Affairs Coordinator to identify means to improve the academic integrity procedures and faculty participation in those procedures. The committee also prepared for the Associate Provost for Assessment a report summarizing the results of the 2011 ESF National Survey of Student Engagement. I served on the ad hoc committee that proposed changes to the ESF course withdrawal policy, sat on two academic integrity hearing committees; and participated on the search committee that hired our new assistant librarian, Jessica Clemons.
Stacy A. McNulty
Students: Mentoring Master’s students in EFB continues to be rewarding; having three complete degree programs was a wonderful accomplishment for my “lab” this year. I encouraged each of my students to present at professional meetings; my UMEB advisee was one of three ESF students selected for the SUNY Discovery: Undergraduate Showcase. I spearheaded a weekly summer research seminar for students and scientists at AEC, and was gratified that ESF’s fifth and final cohort of NSF UMEB scholars shared their experience with underserved K-12 students, won accolades at conferences (e.g., CSTEP) and commencement, and are entering graduate school or beginning careers. NSF funded our RAHSS supplement to connect Junior Naturalists with AEC/AIC staff and UMEB scholars. The three high-school students were exposed to ESF’s college research program and careers in science/environment (a model I hope to institutionalize). Finally, I agreed to a second term on the Adirondack Research Consortium board, having successfully advocated greater student participation in the organization via a seat on the ARC board.

Department/college: I coauthored two refereed publications using long-term data collected at Huntington Wildlife Forest. These in-depth studies are based on decades of ALTEMP data and exemplify the value of field station contributions to science and society. The lake ice paper in Climatic Change received national attention (including an Associated Press article). A predator-prey study of temporal patterns in mammals and beech mast was highlighted on the cover of the Journal of Wildlife Management. These and other collaborative research efforts have brought positive visibility to ESF. I also helped grow the AEC’s social media presence for outreach and supported the Interpretive Center in its first year of operation from programs to planning how ESF can best utilize the AIC. As one of two ESF representatives to the Environmental Consortium of Hudson River Colleges and Universities, I joined the planning team for the 2011 conference, facilitated a session on technology and presented in a session on Hudson watershed field stations.

Self: Leadership emerged as thematic this year. I took on a greater role in the Org. of Biological Field Stations, visiting other field stations to assist in strategic planning and beginning a term on the OBFS board. I assisted the NSF Field Stations and Marine Labs program planning for emerging initiatives at NAML and OBFS institutions. Through these experiences I gained insight into FSML administration, and noted how ESF’s array of facilities are plentiful and special yet face many of the same problems. I was invited to participate in a workshop, Mapping the Future of Adirondack Park, where a cross-section of the community (e.g., business owners, educators, officials, citizens) explored scenarios to forge a common vision for the region. While there was no predetermined outcome, it was fascinating to see the common ground across hundreds of participants and to hear bank managers and others advocate the Adirondacks as a world-class site for research and education. I developed and delivered a presentation on leadership and the participatory visioning process as a result; the experience has also fed into my doctoral program thinking.

Myron J. Mitchell
My contribution to students has focused on the support and development of our program related to water resources. We have updated web page on water programs at ESF. This past spring we had another successful seminar entitled "Cross-Disciplinary Seminar in Hydrological and Biogeochemical Processes" with over 500 attendees including faculty members, staff and students. I also have employed four undergraduate students in my laboratory. I had five graduate students during the reporting period (3 Ph.D.; 2 M.S.). The newest member of my group, Tamir Puntsag, has come from Mongolia with support from the Fulbright Foundation. One of my Ph.D. students, Shannon Buckley graduated in May 2012 and another Ph.D. graduate student, Phil-Goo Kang, will defend his dissertation in June 2012.

Over the past year a substantial portion of my time and energy has been devoted to SUNY wide efforts. I am a member of SUNY Research Foundation Board and was elected to Vice-Chair in January 2011.
Hence I now serve on the Executive Committee. The RF Board has been active in a number of areas including a revision of bylaws and various matters associated with research operation across the SUNY system. These activities necessitate regular trips to Albany as well as New York City and numerous conference calls. I have also been involved with the personnel searches for a new president and new chief financial officer of the Research Foundation.

I have continued to maintain a vigorous research program with more than one million dollars in grants. I am also the lead scientist in maintaining the funding and infrastructure for atmospheric deposition and watershed analyses at the Huntington Forest in the Adirondack Mountains. The maintenance of the infrastructure, data analyses, data reporting and personnel for the watershed and deposition efforts at the Huntington Forest as well as the two urban tower sites in the City of Syracuse are all major challenges. Last year I was able to arrange through the Syracuse CoE the hiring of a technical support position (Geoffrey Millard) who is now being paid 50% by Syracuse University and 50% by ESF. This has been a critical support position. During the period of this report I authored or coauthored fifteen papers. I am currently finishing up a large synthesis paper examining nitrogen biogeochemistry for a broad range of sites across southeastern Canada and the northeastern United States. Another major research effort is associated with the measurements of carbon dioxide, heat and water fluxes at two sites (Upper Onondaga Park and the Syracuse Center of Excellence Headquarters). I was on the organizing committee for the International Acid Rain meeting that was held in Beijing in June 2011. I was also an invited participant for the Northwatch Workshop held in Potsdam Germany in May 2012.

James P. Nakas
Students: I continued to make my laboratory available to undergraduates interested in microbiology and who wish to pursue research interests in microbiology. I usually assign undergraduates to work with a specific graduate student whom they will assist in all aspects of their thesis research. This will usually include experimental design, using sophisticated equipment for data collection, and data analysis and data organization for inclusion in publications. Three undergraduate students worked in my laboratory during this past year.

Department/College: Produced a five year summary report on the SUNY-Center for Applied Microbiology (2005-2011) which describes the Center’s membership, publications, grants received, near term/long term goals, and future plans. To date, the Center members (generally 6 but now 5 with the departure of John Fieschko) have garnered over $7M in sponsored research funds and published 56 papers (11 per year) in high-end journals. This report, now available, will be distributed to potential corporate collaborators as well as the research foundation identifying ESF and specifically EFB as a center of excellence in applied microbiology.

Self: Submitted a new patent application to the USP&TO on Nov.24th, 2011 (cited above) on our work on polyhydroxyalkanoates (PHAs). This is our second patent application; the first resulted in an European patent (Eur. Pat. # 1585821) issued for PHA production from wood-based feedstocks. Our most recent submission is for PHA production from biodiesel-glycerol, another renewable feedstock. The application was partially sponsored by financial support from corporate interests.

Tsutomu Nakatsugawa
Having relinquished the duties of EFB PTC chairmanship, this year’s task was considerably less taxing; I did conscientiously engage in reviewing the three candidates’ dossiers. I also made written contributions to the discussion of future procedures which was called for by the new chair, Dr. Castello. Later, I participated in the first round of activities of the College-wide PT committee meetings (CRC) called by the Provost and noted a clear difference between the ESF and EFB guidelines. Therefore, I conveyed the senses of this committee and the Provost to Dr. Castello and the EFB PTC so they may take this into consideration as they continue to explore a clearer set of goals and standards to be met in the PT process.
In essence, EFB’s guidelines have tended to consider contributions in the three areas of duties (scholarship, teaching and service) as potentially of equal value (e.g., “one must excel in one and do well in others” without prioritizing one area over others) whereas in the “new” ESF’s (and Provost’s) guidelines the scholarship as the basic requirement that must be met regardless of other contributions. My tenure on the CRC ended in May, 2012.

I remain on the college IACUC through the summer, 2012, after passing the chairmanship to Dr. Whipps before the 2011 academic year began. My contributions as chair were organizing the records with the help of secretaries and identifying issues in need of implementation (annual reviewing, training processes, compensations to the voluntary citizen member, etc.). I continue to participate in the committee activities, reviewing a number of protocols. I am pleased to note that under the competent leadership of Dr. Whipps, it appears likely that most of the long-neglected issues will soon be corrected/improved.

Lee Newman
Having been in the department only one year at the start of this reporting period, I still spend a significant amount of time/resources setting up the laboratory and recruiting new students. I brought one graduate student and one undergraduate student with me. Since then, I have recruited an additional 3 graduate students, two of whom are starting in the fall. I currently have 11 undergraduate students (two others graduated in May 2012). The students have been instrumental in the set up of the lab, including a new gel documentation system and real-time PCR. In addition to the students working in my lab, I am the academic mentor for 15 addition students. The two students in my lab who were having academic difficulties continue to improve.

As an additional learning experience for the students, both within my lab and the department, I have continued a ‘Question of the Day’ competition, where students compete for points by answer questions about science, current events, ecology, natural history, and ESF history. Students with the highest points at the end of the month win $25 dollar gift certificates.

I have increased the credits for the BTC401/EFB601 course that I teach in the fall to be able to have more lecture time to include the latest technologies in molecular biology in a more comprehensive manner. I have led the effort to develop a Biotechnology minor for the program, as well as proposing and helping to define the EFB/BTC 298 courses that would allow students with limited research experience to learn about research without the higher expectations of a 498 course.

In the spring, I taught a Phytoremediation course for both graduates and undergraduates. For the course, I brought in three speakers from Alcoa Corporation, BP Corporation and Brookhaven National Laboratory. The speaker sessions were open to the public, and attracted people from O’Brien and Gere, Syracuse University, several local environmental groups as well as faculty from multiple departments. This was accomplished at a cost of $1072. As a result of the visit by the Alcoa speaker, Dr. Neil Murphy is in communication with the speaker and others at Alcoa to try to develop a collaborative relationship and research with between ESF and Alcoa

I have continued to work on plans for developing a new Phytotechnology program that would both educate and train students to do research and do work in the any of the areas that utilize plants to address environmental problems.

I have been in discussions with Dr. Greg Boyer to put together a team of researchers that would enable ESF to apply for an National Institute for Environmental Health Science, Superfund Research Program center grant. These grants generally fund 3-7 research programs, as well as support graduate students, do community outreach and tech transfer, with an annual budget of $1.5-2M. Last summer, Dr. Boyer and I attended the NIEHS SRP annual meeting, and conversations continue as a result of that trip. Dr. William
Suk, director of the program, has agreed to visit ESF in the fall to outline what ESF would need to do to be competitive for this grant program.

I have been actively involved in the design meetings for the Academic Research building, including attending meetings with outside consultants and the University Board, as well as attending meetings on laboratory and building design, landscaping and building environment and safety.

Not exactly raise-worthy, but I again contributed a hand-made afghan to assist in the Colleges United Way fund raising efforts.

I have continued to be active in the International Phytotechnology Society (President and then Immediate Past President when my term expired and Chair of two committees, as well as serve as a member of the conference committee), the Northeast Phytotechnology Society (Founder) and the Association of Environmental Health Science (Scientific Advisory Board Member and Session Organizer for annual conference). I am also continuing as co-Editor-in-Chief for the International Journal of Phytoremediation. And I am continuing to attend and be invited to present at several national and international conferences, and to bring as many students as possible to the meetings with me.

I have two reviewed papers published, and one book chapter published and one peer reviewed paper in press. I continue as co-PI on a five year USDA grant ($1.49M), and PI on a contract from NASA ($73K) and an NSF grant ($278K). I have submitted one new grant as PI ($363K), and three grants as Co-PI ($333K, $587K and $588K). The grant on which I am PI has a co-PI from within the department, and the three of which I am co-PI are collaborations with faculty in ERE (1) and Chemistry (2).

I have taken students to 2 meetings this year, 5 to the Eight International Phytotechnology Conference, Portland, OR (Adam Hoffman, Ph.D., and Funmi Aeflumo, Beverly Agtuca, Robert Hamilton and Joesph Whitaker) and 6 to the 2012 Biotechnology Symposium, Syracuse, NY (Adam Hoffman, Ph.D., and Funmi Aeflumo, Beverly Agtuca, Robert Hamilton, Anna Yim and Vic Maietta)

With Thomas Amidon, I was a co-Chair of the Organizing Committee for the 2012 Biotechnology Symposium, which brought in speakers from around the country to present on the latest developments in Biotechnology and Entrepreneurship.

I did a graduate student recruiting booth at Brookhaven National Laboratory in August 2011, and brought Dr. Neil Murphy to BNL as the plenary speaker for the closing ceremony for the Summer Undergraduate Laboratory Internship program. His meeting with the BNL administration team has resulted in the development of a Memorandum of Understanding between SUNY, the Research Foundation, and BNL, which will be officially signed this August at BNL. I am organizing the signing event and coordinating the travel and visit by several SUNY and Research Foundation personnel, including Chancellor Zimpher, who will be this year’s plenary speaker.

I have been working with administration from Dowling College to develop an agreement between Dowling College and ESF to facilitate the acceptance of high-quality environmental students into the ESF Ph.D. program from Dowling. One of the students who will be joining my lab this fall is a result of these discussions.

I have been working with the ESF Development Office and administration from Roux Associates to develop a scholarship program that would support Ph.D. students wishing to work on applied biological remediation systems. The program would offer summer student support and funding for the calendar year research efforts.
I have sponsored a new adjunct professor, Dr. Guy Lanza, formerly of the University of Massachusetts, to develop increased international relationships and programs for ESF. We are currently working with universities in Armenia to develop a conservation program and Mahidol University in Thailand to develop an exchange program. I am also working to arrange for two international Ph.D. students to spend an academic year in my laboratory, one from Tarbiat Modares University (TMU), Iran, and the other from King Mongkut's University of Technology Thonburi, Bangkok, Thailand.

I have started discussions with both faculty from the Landscape Architect program and the Veterans Administration hospital to develop a Horticultural Therapy program at ESF, that would include these entities, as well as Upstate Medical University and Syracuse University. We are hoping to develop a certificate program within ESF, as well as establish a research program to use Horticultural Therapy as a tool to help with PSTD victims.

Dylan Parry

Students: Fall semester marked the first time I taught a full 3-credit forensic entomology course at ESF. This was in addition to teaching it at Syracuse University where I engage a very different audience (primarily graduate students in the forensic science program). This was by far the most labor-intensive course I have ever taught, with more than 2/3rds of the classes in the field at either Lafayette Rd Field Station or at Heiberg Forest, or in the laboratory. The course utilizes simulated homicide investigations, which necessitates extensive crime scene and ‘victim’ (100 lb euthanized swine) preparation, the transport and deployment of an array of analytical and sampling equipment in a variety of field settings and the oversight and / or care of large quantities of living insect evidence and temperature data collected by the students and critical to their post-mortem interval calculations. Decomposition is a highly temperature dependent process which introduces a lot of unpredictability into planned activities (and syllabus sequences!) but on the whole, I was very pleased with how the course went and will build on the experience (and diligently promote the class) to increase enrollment up to a logistical cap in Fall 2013 when it will next be offered. Feedback from the SU listed course (the e-evaluations at ESF were useless with only 2 respondents) were the best I’ve gotten in any class over my teaching career.

In spring 2012, I again taught EFB-502, continuing to add new components to this course to keep it fresh and current in this rapidly developing field and I turned over more than 25% of the lecture material this year. Often not recognized is the large input effort required to teach a course of this size with continued utilization of labor-intensive written exams and projects. Having taught a large service course with TA support, I can attest that instructing a demanding upper division course without TA’s is considerably more time demanding. While it would be easy to use a SCANTRON format, my philosophy has always been that the value of multiple choice tests are limited and that student learning is best when they are required to synthesize material in solving the kind of problems they will encounter in the real world. Perhaps this is why this course continues to get excellent evaluations from the majority of students that take it (~ 4.75 average on evaluations).

On the graduate side, Chris Stanclay, (co-advised with M. Fierke) finished a very comprehensive MS in May with a paper already published in a solid journal and a couple more ready for submission. New MS student Georgia Keene started her research in the Albany Pine Bush, and Giovan Girardi, a self-funded MS student will start this summer. Recruitment has proved challenging as one of the top-ranked PhD students whom I had cultivated over an extended period of time ultimately turned down a very competitive fellowship and financial package to work in my lab to pursue a PhD elsewhere. I hope to bring a student on at the PhD level to work on the transgenic chestnut project once that funding is in place – this student would be eligible to apply for EPA STAR fellowship through the connection to their scientific mandate I outlined above.
I served on the GPAC committee this year in an effort to enhance our graduate program. We made headway on changing the evaluation process of graduate applications to better identify candidates that are going to succeed in the metrics that are important in graduate studies. GPAC also worked on identifying areas where the graduate program can improve and evaluated the candidates for Outstanding Graduate Student Award. In addition, I oversaw the Stegeman Award process and was once again able to provide a well-deserving student with an award and some supplemental funds for research.

Department and College: I served on two college-wide committees this year, COR and have been a member and stand-in chair for hearing academic integrity violations. I represent the college’s interests as a member on the NY State Invasive Species Advisory Committee, a group of governmental, non-profit, private sector, and academic organizations who function to advise NY State on invasive species issues and help to craft legislation that effectively combats targeted species or pathways. Although budget cuts have taken a toll on the organization, we were still able to play a large role in developing and changing the forthcoming ‘clean-boat’ bill that should clear any legislative hurdles this year. The Northeast Natural History Conference was held in Syracuse in 2012 and provided a good opportunity for ESF to showcase faculty and students. I took the initiative to organize and moderate a session entitled “Insect Diversity and Conservation” which was well attended and for which I received a lot of positive feedback on both the quality of the presentations and the breadth of topics.

Self: This was a challenging year both personally (birth of my son in September, death of my father in May) and professionally. The current budgetary situation at the federal and state level has fallen particularly hard on forest entomology in the Northeast. Long gone are the days of the so-called “big-bug” projects that built many forest entomology programs and research careers across the US from the early 1970’s through the 1990’s. In the past 10 months for example, in the northeast, the US Forest Service has released just one RFP relevant to entomology and it focused on a very limited area of research (developing attractant lures for detection) for two invasive insects. As such, I have begun to re-focus my program, as funding sources for the more fundamental, ecologically focused forest entomology with which I built my career do not appear likely in the near future. This has proved challenging, as it is hard to develop novel research in new fields with already established scientists. However, I have begun two collaborations with researchers working on climate change, one on integrating insects into understanding the effects on forests (Colin Beier and Greg Lawrence - USGS), and with another group looking at the effects of climatic shifts on invasive insects (see the comprehensive book chapter in publications section). My association with the transgenic American chestnut program has also proved fruitful with former MS student Keith Post (2009) publishing a paper on non-target effects of transgenic trees on insect herbivores this past year, and we (Powell et al.) recently received confirmation of another round of significant USDA funding (~500 K) to continue research on the system. The publication of Castello and Teale’s Forest Health book in June 2011 generated some very favorable press for the college over the past year and my invasive species chapter was one singled out for excellence in a recent book review in the high profile journal Ecology. My nomination to the National Invasive Species Advisory Council was submitted and is currently pending. If approved, this would give ESF a high profile spot on a very important and respected body with significant input into federal invasive legislation and policy.

William A. Powell

Highlights of what I have done for our students: This year focused on my graduate students. I encouraged them to write grant proposals and they were successful. Amelia Zhang was awarded a USDA/China exchange grant which coupled with a TACF awarded to Katie D’Amico supported most of the research trip to China. They were also awarded travel awards to present our research at the IUFRO Tree Biotechnology meeting in Bahia, Brazil. From this meeting they were able to publish extended abstracts (~2 pages long) in the proceedings. Both graduated this spring and have submitted papers for review. In addition to working closely with my graduate students, I updated my plant biotechnology course to give the students much more of a realistic lab experience. I could only do this because of my
research funding which supported most of the lab experience. Even though this course was “experimental” and has several bugs to work out, the students truly liked it and I received very good feedback. In addition, I continue to do my best at presenting interesting lectures I all my classes, give the best advice I can during advising, help recruit new students, and provide research opportunities for undergraduates in my lab.

Highlights of what I have done for our department and college: For the college, our team of researchers and students continue to make great progress with the American chestnut project. Our research to develop a resistant American chestnut tree puts ESF in the forefront of tree restoration. This is unique because restoration of a tree species has never done before. This year we planted the first transgenic American chestnut trees at the New York Botanical Garden. I believe this is the first transgenic plants of any kind ever featured in any botanical garden. This is most significant because it brings full circle the fight against blight. This planting is very close to the location that the chestnut blight was first discovered and it should be the place where restoration will begin. This event has generated a lot of good press for the college, from newspaper articles across the US and all the way to Germany, and just recently Australia. It also made it on PBS TV’s “Reith” show. Now, we can’t yet say if these particular trees are fully resistant, but we are very close to solving this problem, which will allow us to move toward restoration. For our department, I continued serving as one of the faculty representatives for the new ARB building. As part of this I am also producing chestnut trees the landscape around the building, which will be a reminder of historic nature of this research.

Highlights of what I have done for myself professionally: I am continuing to collaborate with researchers with various backgrounds from genomics to mycorrhizal interactions, across campus and across the country. This keeps my thinking broad, which is necessary for the chestnut project. From these types of collaborations, we were just awarded a new Biotechnology Risk Assessment Grant (BRAG), and talking with the program manager, he stated that our proposal was ranked number one and the panel was very enthusiastic about it. With this grant and, hopefully, a renewal of the FHI grant, we will move forward toward a restoration program quickly.

Neil H. Ringler
I taught EFB courses in Aquatic Entomology and Comparative Vertebrate Anatomy, which featured strong students as well as capable teaching assistants at graduate and undergraduate levels. One doctoral student (Stefanie Kroll, now at Cornell U. for Post-doc) and one MPS student (Mary Penney, NY Sea Grant) completed their degree requirements, with three more scheduled for completion before the end of the year. Onondaga Lake, Salmon River and Mohawk River projects have proved valuable not only to seven graduate students, but to the team of interns as well. USGS funding handled by the Great Lakes Research Consortium continues to be productive seed funding on Salmon River studies. Helping to facilitate a new agreement with NYDEC to bring the New York National Heritage Program under the ESF/RF umbrella should prove of long-term value to EFB, ESF and the natural resources that the program supports. Construction has actually begun on the NSF $1.47 M grant to modernize the aquatic labs at the Thousand Islands Biological Station and Illick Hall. The Center for Teaching and Research in Aquatic Sciences is coming to fruition through teamwork by Kim Schulz (future Director), Brian Boothroyd, John Farrell, Don Leopold, Chris Whipps and the Office of Research Programs. Clearing of the old laboratory facility (232 Illick Hall) proved intriguing, including recovery of valuable samples of aquatic insects and fish.

College-level events of importance to EFB include the $22 M Biotechnology Research Center, scheduled for completion in December, 2012. Although recently advertised as a “Biotechnology Accelerator” to attract startup companies, the new facility should provide opportunities for collaborative EFB research, for example, in microbiology. A biofuels research and development laboratory earlier targeted for the Center of Excellence Building is also intended for the new facility. The Hill Collaboration in
Environmental Medicine (ESF, Upstate Medical University, Veterans Administration Hospital, Syracuse University, with support from SUNY-RF) successfully secured $60,000 as seed funding for collaborative studies of cancer, diabetes and disorders of the nervous system. An initiative in Warrior Research is especially encouraging. The new arrangement with SUNY Binghamton serving ESF’s needs and opportunities in Technology Transfer has greatly accelerated new technology disclosures and the patent process. Our College-wide Mentoring Symposium hopefully provided all of the faculty attending (and some graduate students!) an opportunity to think more about mentoring opportunities and challenges. The marvelous presentation and planting of blight-resistant chestnut trees by Bill Powell and Chuck Maynard (@ NY Botanical Garden) was a highlight for EFB and the entire College.

Sadie J. Ryan

Students: In this past year, I have introduced 2.5 new 3-credit classes in EFB, 2 of which are in the new track of Environmental Health: Emerging Infectious Diseases (Fall), and Epidemiology (Spring). Both of these classes enabled upper level undergraduate students to explore a new realm of biology, and see a different perspective on their broader training in ecology. I used innovative classroom techniques, such as a daily short presentation by each student, including Powerpoint™ slides and point-by-point handouts, which will prepare them for the real world, in terms of synthesizing often complex information in a publicly accessible way. I placed strong emphasis on written assignments, creative projects and participation, in addition to quizzes and tests, in order to appeal to a range of learning styles. This was particularly useful in Epidemiology, which can be dry and technical without a larger context, and I was eager to make it accessible and applicable. The written evaluations suggest that this worked, and is a good grounding for the future of this class, and the Environmental Health program.

In the graduate level class (EFB 796) that Dr Cohen and I put together on parameter estimation and population modeling, I conducted the population modeling component. This class represents ESF’s offering for population modeling at the graduate level; before I came to ESF, it was stressed to me that this was a gap that many of the faculty wanted to see filled, so it was a pleasure to do so. As this class was conducted in a computer lab, it was a great way to introduce both concepts and coding examples in R (which is open-source and therefore available to students after graduation, in the real world). In the first week, I demonstrated a classic example of using long-term census data, and how one might present this in a report to wildlife managers; as I looked at the class, I realized that there were at least 3 state employees looking back, and that I probably had directly influenced applied management outside the classroom. I cannot express how rewarding that was, given my desire to be an academician with applied impact. In addition to brand-new courses, I also interacted with both undergraduates and graduate students in a research mentoring role. I had five undergraduates working on research projects during the year; each with different backgrounds and different objectives. They worked on

1. Data collection and analysis for primate ecology and evolutionary questions – including reading classic articles in phylogenetic methods, and discussing how this fit into their data research.
2. Collecting and collating mosquito identification information for the greater Washington D.C. area, as preparation for an internship in a vector ID lab. We discussed how this would be best derived from literature and internet resources, and then put together for a practical field and lab identification tool. Ultimately, this exists as a poster, and as a Prezi presentation (Prezi is a web hosted application that allows nonlinear presentation of information, which is a truly innovative means to think about field/lab identification guides).
3. Research and preparation of introductory materials for the Environmental Health program, including logo generation, poster and flyer graphics and text, and general brainstorming about community outreach and involvement, and how ESF and EH will operate.
4. Investigation of a metapopulation disease in a wetland restoration site, and using social media to fund raise for summer field equipment and lab supplies.

Having undergraduates as part of the lab group has been fantastic; they challenge me to think in their modern, highly connected and technology-driven world, and I gain additional opportunities to explore research ideas, teach concepts on the fly, and learn about undergraduate life at ESF. An additional benefit
that this provides is to let my graduate student gain some mentoring experience. While my graduate student earned research credits with me on his own project this spring (manuscript in prep), he also oversaw and discussed progress on data collection and research questions for one of the group’s returning undergrads. Three of the five undergraduates will be returning to continue their research with the lab group, and with the addition of 3 incoming graduate students (1 PhD, 1 MS, 1 MPS), this will be a solid group.

Department/College: In terms of the larger picture (department/college), this summer marks the first placement of an ESF graduate student at the NYC Urban Field Station (UFS), a joint US Forest Service and NY City Parks and Recreation operation, to work on a project to answer questions relating to policy needs at the station. The student will also be helping to write protocols for use of the station and lab, to help establish a framework for future researchers. I hope that the bond I am forging will increase the use of the UFS by ESF students, and open up future internship opportunities for applied research and analyses.

This year, I have also been putting together the materials for proposing the new Environmental Health major. In November, 2011, the letter of intent was approved and well-received by SUNY. In May, 2012, after external review, the full proposal was completed to be sent out for review. As a preamble to the establishment of the new major, I took on two positions in the Division of Environmental Science (where the EH major will be established): curriculum coordinator, Health and Environment focus, and faculty member of GPES. I have revised the curriculum for the Health and Environment focus area, in coordination with Tim Knight and Dr Briggs, to ensure that it remains a pre-health track option, and that the classes are available at ESF. I have also been working with Dr Colin Beier to revise the presentation of our program area in GPES, and understand how to best serve students working in coupled human-natural systems (CHNS) at ESF.

In related endeavors, I have joined the Center for Global Health and Translational Science (CGHATS) at Upstate Medical University, as voluntary faculty in Microbiology and Immunology. This will open up countless opportunities to pursue research in the human health side of environmental health, engage with practicing medical professionals, and connect into SUNY joint research initiatives. I remain active in the Hill Collaborations; the ESF/SU/UMU/VA joint initiatives on collaborative research; I am a member of all three groups - Diabetes, Cancer and Neurological Disorders.

Self: In terms of contributing to my own, personal, professional career, this year saw 6 peer reviewed papers into the literature, 3 of which were first-authored. My Google Scholar Citations* reported H-index increased from 8 to 11. Published in December, 2011, “Consequences of non-intervention for infectious disease in African great apes” (PLoS ONE), got a decent amount of press, likely due to a combination of charisma and controversy. The success of three grant applications assures continuation of my collaborative work in Uganda, and a new opportunity in Mexico. With a few more pending grant applications (totaling requests of approximately $2 million) and four more co-authored manuscripts in review, the challenge of balancing a slightly higher than normal administrative load (Environmental Health) with staring up a lab group and brand new courses, has not disastrously undermined my professional research trajectory.

*I use Google Scholar Citations as a completely open access – thus, no fee - research tool; these numbers may differ from those reported by Web of Science and Scopus

Kimberly L. Schulz

Students: This year I invested a lot of time in undergraduate teaching and training, and I am pleased with the results, although I hope to incorporate even more video and other digital resources into Limnology this fall. I continue to teach Limnology (424/624) and the two credit Limnology Practicum (525) in the fall, and had record enrollment this year (the lab was filled with a wait list and the lecture had to be moved to a larger room). I have been revising the materials and content of Limnology, and including more hands on materials. These changes have been well-received and I have been working on some
additional modifications for this year. Last year I began a service learning component with Limnology Practicum, where students working on their independent projects have an opportunity to work with a local lake association and then present their findings to the homeowners, in addition to their classmates and the ESF community. Once again this was a big success with over 20 members of the community and over 30 faculty and students attending a final poster session in Illick; 8 students attending a regional lake association meeting to present their work. We are building a database of water quality data that can be used by the homeowners when deciding on lake management issues. Several students expanded their independent projects into senior projects for Environmental Science. In addition, I revised the Marine Ecology class to include expanded hands on activities and more digital resources. The course was filled and well-received by students. The weekend field trip to Cape Cod was almost entirely revised to include more interaction with aquaculturists and fishermen, as well as a special behind the scene tour of deep water oceanography labs and vessels courtesy of one of my former PhD students, Juliette Smith, who now has a position at WHOI. Teaching such a large spring class along with a graduate marine ecology seminar was made more challenging by the large number of lectures (8) and laboratories (4) that I developed for the Diversity of Life class.

In addition to formal teaching, I mentored 12 undergraduates in independent research, including an honors student who won best honor's thesis. Three manuscripts with student co-authors are in final stages of preparation and one is in review. In addition, I currently have 7 graduate students in my laboratory group, two of whom will defend during the next academic year, and three of whom have successfully won large fellowships from national granting agencies (NOAA, NSF - a new NERR fellowship was awarded to Andrew Brainard this year). The lab group is productive and several graduate student manuscripts are either in review or nearing completion. Finally, I serve on numerous graduate committees in several ESF departments and at other universities, as well as graduate and undergraduate training panels, and as advisor to the Nautilus Club.

Department/college: I rotated off as an Associate Professor Representative to the Promotion and Tenure Committee in EFB after the fall semester, but continue to serve as chair of the Course and Curriculum Assessment Committee for the second year. We accomplished a number of tasks including numerous (>20) course and curricular proposals passing through the department and college, including some clarifying the internship and undergraduate research options for students, and the adoption of two new EFB minors. Assessment is an ongoing and vast project that will also require much effort over the summer to prepare for the EFB assessment in fall. I also served on the Invertebrate Conservation Biologist search committee. In terms of service to the college, I continue to spend a huge amount of time writing quarterly reports, project execution plans and generally organizing the NSF renovation grant for CIRTAS (Center for Integrated Research and Teaching in Aquatic Science) and TIBS to apply for funds to renovate the laboratory spaces in Illick Hall (CIRTAS) and TIBS. This is a great opportunity for us to bring aquatic science at ESF to a new level, and I am looking forward to helping lead these efforts over the next few years. In addition I serve on the college-wide Middle States Steering Committee and am the EFB representative to the Water Resources Minor. I also continued to co-facilitate the college-wide AquaBreak seminar and mentor three early-career faculty members.

Self: This year I focused on improving my Limnology Practicum and Marine Ecology classes, mentoring undergraduates and graduate students, grant writing and research. I continue to run a very active research laboratory that successfully pursues a number of ongoing funded research efforts. My NSF research grant for work at the Heiberg Forest has brought an exciting new direction to my research program and a pre-proposal to NSF with a large EFB (Gibbs, Stella) and Illinois team to advance the research there was well-received and accepted for a full proposal submission for the August deadline. I was surprised to receive the EFB Exemplary Researcher Award this year. My lab group made progress moving undergraduate, graduate and my own publications to submission, and next year I hope to be able to sequester even more time for my research efforts without the heavy load of much of a new course
(Diversity of Life) and the alternate year Marine Ecology course in the spring semester. I also benefitted from serving on a NSF site visit panel for the review of the North Temperate Lakes LTER. I found the process very informative and will be able to apply some of the positive aspects of their organizational and management structure to our CIRTAS program.

William M. Shields
The two major highlights were my being awarded the College Foundation Award for Exceptional Achievement in Teaching and my appointment as the director of the Honors Program on June 1, 2011. In my year directing the Honors Program we have managed to attract significant outside support for the program ($60,000 this year with similar amounts promised for 4 more years by the main donors, the Dellmores). As a result of changes we made to the program and the new funds supporting those changes, the program has grown significantly. Thirteen students graduated with honors in May 2012 in contrast to the total of 5 the previous 3 years. In addition, 8 Honors students received $5000 summer internships by the end of May for work across the globe this summer. I hope to grow the program to a sustainable size and continue to teach the lower division courses in the program for the near future. Barbara and I published our first joint paper on Dragonflies this year with more to come. I taught Animal Behavior again this spring with a return to normal enrollment (99 students and the class was "closed" at 96). I continue to act as official and unofficial advisor for a number of undergraduates including many of the Honors students regardless of their program of study and enroll lots of students in EFB 420 and 498.

Donald J. Stewart
(no annual report)

Stephen A. Teale
Within the past 12 months, I have taken two graduate students to China and one undergrad to Galapagos to conduct field research. In China, we worked with faculty and graduate students from the Fujian Agricultural and Forestry University in Fuzhou initiating field experiments designed as part of a broader project that is identifying pheromones in several species of longhorned beetles that are considered high risk for introduction to the U.S. This project is also expanding our knowledge of this important but poorly understood group of forest insects. In 2011, we travelled extensively in Fujian Province including to Pingtan Island in the Taiwan Strait and to Sanming in the mountainous interior. We also worked in Heilongjiang Province in northeastern China with faculty and students from the Northeastern Forestry University in Harbin. In Heilongjiang we also conducted field experiments with the Asian longhorned beetle. These projects address very serious invasive forest pests in both Asia and the U.S. from both applied/management and basic (pheromone biology) perspectives.

I am very pleased to have received funding from the Galapagos Conservancy to identify chemical attractants in Philornis downsi, a fly that is an avian parasite, not native to Galapagos, and is severely impacting species of Darwin’s finches and other passerines. This was a boot-legged project before this year, but funding enabled me to bring one of our outstanding conservation biology honors students to Galapagos to conduct important behavioral studies in February. This project makes a nice connection between insect chemical ecology and conservation biology.

The textbook that John Castello and I co-edited (and wrote several chapters) Forest Health was published by Cambridge Univ. Press in August, 2011. A recent review of the book, which was published in Ecology was very favorable.

The course, EFB 217 Peoples, Plagues and Pests continues to very successful. The enrollment dropped this year by about 25%. This is likely due to curricular changes that require fewer General Education courses. My introductory entomology courses (EFB 351 Forest Entomology and EFB 352 Entomology)
continue to grow and have received very favorable evaluations. In 2011, my introductory Entomology course had 90 students making it one of the largest, if not the largest, entomology course in the country.

J. Scott Turner

EFB 200 Physics of Life was offered for the third time. Its enrollment continues to be strong. EFB 462 was offered again, with continued healthy enrollment.

I was awarded a $1.35M grant from the Human Frontiers Science Program. I am the Principal Investigator for this grant, and it includes several co-investigators, including L Mahadevan (Harvard), Rupert Soar (Greenwich), Eugene Marais (National Museum of Namibia) and Sanjay Sane (National Centre for Biological Sciences, Bangalore, India). This grant will expand upon my previous work on termite mounds to include work on advanced fluid mechanics, neurobiology of termite swarms, species diversity of termite-built structures, and application to novel methods of wind-driven control of built environments.

Several invited papers, relevant to my current book project, were completed, and are in process for publication.

I began production on a new series of video lectures to supplement my current book project. Four videos in this series (entitled Biology’s Second Law) have been completed. Links to these videos are listed in “Unrefereed publications.”

I hosted two interesting speakers to campus this year: Nora Bateson, who screened her documentary, An Ecology of Mind, about her father, Gregory Bateson, and Eugene Tssui, a “biomimetic architect.” I was part of a discussion panel for Nora Bateson’s screening at Cazenovia College, and ran a discussion forum for Eugene Tssui. Both were guests on Christopher Baycura’s series Conversations (links in “Unrefereed publications”) where they were interviewed by me.

Alexander Weir

Students: This year I took on major additional teaching assignments as instructor/coordinator of the two semester required Diversity of Life sequence. Diversity of Life I had an ending enrollment of 111 students in 5 lab sections and Diversity of Life II had an ending enrollment of 113 students in 4 lab sections. Although there were some initial problems on the whole this 2-semester course was well-received and I am already working on a number of refinements for the upcoming year. I also taught a 1 credit seminar type class entitled “Topics in Lichen Biology” to 7 students in addition to my regular Mycology offering (47 students enrolled). I also took students to Ireland (May/June 2011) and to Costa Rica (February/March 2012) contributing again to the international programs at the College. I have continued to serve students in my capacity as Director of the Cranberry Lake Biological Station, answering many questions and queries throughout the year. At the graduate level I finished one MS and have one PhD student who successfully passed her Candidacy Exam and is now making good progress toward obtaining her degree. Cat Cort also successfully completed an undergraduate Honors thesis in my lab and is currently preparing her work for publication.

Department/College: My major contribution to EFB/ESF this past year has been my leadership role as Director of the Cranberry Lake Biological Station. Enrollments at the Station are still rising and we ran at almost full capacity for the summer of 2011, with similar enrollments expected for the summer 2012 program. Both the teaching and research programs were successful with almost 200 undergraduate students present at the Station during the summer of 2011, and research groups from Indiana State University, Cornell University as well as our own Grober Research Fellow (graduate) and one Cranberry Lake Fellowship awardee (undergraduate) in residence. We also held an Alumni weekend at the Station in mid-August (about 55 attendees) and hosted the 2011 New York State Peck Foray for 92 mycologists in
September. Another important assignment this past year was my development and coordination of the new required two-semester sequence in Diversity of Life (see above). I also contributed as a member of the EFB Promotion and Tenure Committee. In addition to regular meeting activities, I have also monitored the teaching of two of our beginning faculty and provided feedback to the candidates and to the committee. I have also continued to serve the Department as Curator of the Herbaria, and as the contact point for international opportunities for our students.

Self: This has been another good year on the NSF PEET grant with resolution of the phenomenon of “position specificity” arising from Lauren Goldmann’s MS work. Lauren presented the results of this work at the 9th International Mycological Congress in Edinburgh, Scotland in August 2010 and was one of 18 award winners (out of 1092 entries). This research has now been formally written up and accepted for publication in *Mycologia*. In addition to this, we have also added many new sequences to our growing database for a phylogenetic overview of the order, including at least 9 new genera collected during our expedition to Costa Rica in Feb/March 2012. We now have more than enough results for publication of at least 3 additional manuscripts. My other graduate student, Jessica Gibson, successfully defended her MS thesis and is currently preparing a paper for publication.

Christopher M. Whipps

Students: This was the first year EFB453/653 Parasitology was offered and it was a pleasure to teach. The class filled quickly with both undergrads and grads and made for a nice balance. Often a challenge with courses made up of both grads and undergrads, I tried something new this year to provide a deeper level of learning for graduate students. In Parasitology, the grad students worked in pairs, with my guidance, to devise and lead a lab. In addition, the grads gave a conference-style presentation to the class on a topic of their choosing on an advanced topic. The idea here is that a grad level offering can be offered concurrently with an undergraduate course if a deeper level of learning is expected of the graduate students, and I believe having them actually teach something is a great way to do this. In EFB103, there were 175 students enrolled and in this class I continued with what has been successful in previous years, and also incorporated the Mastering Biology online system from Pearson Publishing. The site provides practice quizzes, tutorials, movies, and other activities to accompany the course. I plan to use this more extensively next year based on the feedback this past semester. I advise 27 undergraduates from 4 majors, several of which have a pre-health focus including dental, veterinary, medical, and optometry schools. In my laboratory, I had 5 undergraduate students conducting research this year. The work of 2 of these students has contributed strongly to forthcoming publications. At the graduate level, I supervise 4.5 graduate students on broad ranging topics. I also have served on committees as a member, examiner or chair for 18 students in the review period.

Department/College: A new assignment for me this year was to chair the Institutional Animal Care and Use Committee. It was a fortunate coincidence that a special Wildlife IACUC course was offered this past fall in Albuquerque, and with that training and with the guidance of the previous chair Dr. Nakatsugawa, I have made several steps to streamline ESF’s animal care procedures. Some were simply organizational; we now have numbering system for protocols, reviews are carried out electronically, and a master spreadsheet summarizes all ongoing activities. In addition, I have proposed an improved protocol form and forms for protocol amendment and annual review, which were lacking previously. The IACUC chair position occupies about 10% of my time with some weeks being busier than others, including those with the semiannual meeting and the 2 weeks before summer field season. The IACUC has overseen the approval of 12 protocols in this academic year. Finally, following the most recent inspection in May, we are 100% compliant with USDA regulations, having corrected all previous deficiencies. I also serve on our departmental curriculum committee (CCAC) and the college level Committee on Curriculum (CoC). I enjoy representing our department and the CCAC on the CoC which has seen many course and curriculum proposals, as well as college policies cross our desks. Following each meeting, I provide a summary of the CoC’s activities to the CCAC. The CCAC this year has focused on formalizing the
different internship and research experience courses as well as assessment of our departmental programs. I continue to be involved in the Academic Research Building committee, which included several half day or day long meetings, providing faculty input as necessary and look forward to the next phase in this project.

Professional: My 2 primary areas of research remain mycobacterial diseases of laboratory zebrafish and parasites of wild fishes. The zebrafish work has produced an invited review (In Press) and 2 other studies that are nearing completion on the disinfection zebrafish facilities and outbreak investigations at zebrafish facilities. In addition, I was invited to speak on this topic at workshops in New York and at the University of Oregon. The fish parasitology work resulted in 5 publications this year, and the amassing of specimens and data to inform future directions. Beyond fishes, I am also collaborating with a colleague in Canada on the spread of the lancet fluke found in sheep, deer, goats, etc., which has helped to strengthen some ongoing collaborations with colleagues at Cornell and the DEC. Four other publications this year are a result of the work of my graduate student Megan Kirchgessner, who will defend in June, and with her likely success, will be my first graduate student to finish. I am entering the third year of a 4 year term on the American Fisheries Society’s Fish Health Section’s Technical Standards committee, for which I will serve as chair this coming year. This committee is responsible for the production of the AFS-FHS Blue Book, the definitive guideline for fish health diagnostic testing. This is a publication year and the committee of four have updated or invited 15 chapters of the book. I have also recommended a new organizational system for the chapters which will provide greater flexibility and expansion of the Blue Book, and this will be implemented this year. With regard to teaching this was the first year I taught both of my main courses in the Spring semester. By loading up my teaching in one semester, I was able to focus primarily on research in the Summer and Fall. Overall I am pleased with the progress made on my various projects this year, with several reaching the point of publication.
Appendix C. Faculty Publications (published or in press; papers in review or accepted and waiting revision not included)

Books

Refereed Publications

John D. Castello

Jonathan B. Cohen

Martin Dovciak

John M. Farrell

Melissa K. Fierke

Elizabeth Folta

Jacqueline L. Frair

James P. Gibbs


Charles A.S. Hall


Murphy, D.J., Hall, C.A.S. 2011 Adjusting the economy to the new energy realities of the second half of the age of oil. Ecological Modeling 223:67–71


Hall, C.A.S., and Hanson, D. (Eds.) 2011. Sustainability: Special Issue on EROI (Will be book)

Hall, C.A.S. 2011. Introduction to special issue: Sustainability: Special Issue on EROI. Pages 1773-1777.


Murphy, D.J., C.A.S. Hall, 2011. Adjusting then economy to the new energy realities of the second half of the age of oil. Ecological Modeling Pages 67-71

Thomas R. Horton
Hayward JA, Horton TR (online first) Edaphic factors do not govern the ectomycorrhizal specificity of Pisonia grandis (Nyctaginaceae). Mycorrhiza DOI 10.1007/s00572-012-0442-2
Galante TE, Horton TR, Swaney D (2011) 95% of basidiospores fall within one meter of the cap- a field and modeling based study. Mycologia. 103:1175-1183.

Kevin L. Kapuscinski

Donald J. Leopold
Karin E. Limburg  


Mark V. Lomolino  

Gregory G. McGee  

Stacy A. McNulty  


Myron J. Mitchell  


James P. Nakas


Lee A. Newman

**Dylan Parry**


**William A. Powell**


**Sadie J. Ryan**


**Kimberly L. Schulz**

William M. Shields

Stephen A. Teale

J. Scott Turner

Alexander Weir
Goldmann, L. and A. Weir. 2012 Position specificity in Chitonomyces (Ascomycota, Laboulbeniomycetes) on Laccophilus . Mycologia (in press, Sept/Oct issue 2012). One of our plates from this paper was also chosen as the front cover for the journal.

Christopher M. Whipp
Appendix D. Papers Submitted, In Review, Accepted and Waiting Revision, and Pending Decision

John D. Castello

Jonathan B. Cohen
Fraser JD, Karpanty SM, Cohen JB, Truitt BR. The red knot decline: is there a lemming connection? Canadian Journal of Zoology

Martin Dovciak
Brown J, Dovčiak M. Forest re-growth after clear-cutting moderates microclimate but amplifies vegetation edge-effects in deciduous forests of the eastern United States. Biological Conservation.

John M. Farrell

Danilo D. Fernando
Quinn CR and Fernando DD. Computational prediction of conserved microRNAs and their targets in Pinus taeda. Tree Genetics and Genomes.

Melissa K. Fierke
Elizabeth Folta

Thomas R. Horton

Kevin L. Kapuscinski

Robin W. Kimmerer
Searching for Synergy: integrating traditional and scientific ecological knowledge in environmental science education. Journal of Environmental Studies and Sciences.

Donald J. Leopold

Karin E. Limburg

Stacy McNulty

James P. Nakas

Lee A. Newman

Dylan Parry
Parry, D. Egg hatch in an outbreak defoliator is independent of bud break phenology despite large fitness costs. Oecologia.
William A. Powell

Sadie J. Ryan
Ryan, S.J. and Hartter, J. Beyond ecological success of corridors: integrating land use history and demographic change to provide a whole landscape perspective.

Kimberly L. Schulz
Brown, B.L., K.L. Schulz and N.H. Ringler. Testing Survival of a potential mayfly colonist (Stenonema femoratum) to an urban lake undergoing remediation (Onondaga Lake, NY); in revision.

Stephen A. Teale

J. Scott Turner
Turner, J S. The insect mound as superorganism. Insectes Sociaux.

Alex Weir
Thompson, L. and A. Weir. Laboulbeniales on Elateridae (Coleoptera); a review. Mycologia.
Goldmann, L. and A. Weir. Two new species of Ilyomyces from New York. Mycologia

Christopher M. Whipps
Kirchgessner, M.S. Dubovi, E.J., Whipps, C.M. Disease risk surface for Coxiella burnetii Seroprevalence in white-tailed deer. Emerging Infectious Diseases.

Kirchgessner, M.S. Dubovi, E.J., Whipps, C.M. (Accepted) Seroepidemiology of Coxiella burnetii in wild white-tailed deer (Odocoileus virginianus) in New York, United States. Vector-Borne and Zoonotic Diseases.
Appendix E. Papers/Posters Presented at Science Meetings

Jonathan B. Cohen
Durkin MM, Cohen JB, Zdravkovic M. Human disturbance of breeding snowy plovers in Florida. 11/2011. Waterbird Society Annual Meeting, Annapolis, MD
Cohen JB. Proposed study of the effects of wind turbines on breeding piping plovers. 1/2012. Piping Plover and Least Tern Workshop, Sheperdstown, WV

Martin Dovciak
Northeast Natural History Conference, annual meeting, Syracuse, NY (2012)
1. “Forest communities along acid deposition, soil, and climate gradients of the Appalachian Trail” (co-author, presented by J. Quant).
2. “Overstory and understory tree communities and light environment in an old growth forest” (co-author, presented by M. Holdrege).
Student Conference on Conservation Science, American Museum of Natural History, NY (2011)
2. “Climate change effects on páramo vegetation in Colombian Andes” (co-author, presented by ME Gutiérrez Lagoueyte).

John M. Farrell
Crane, D. P. and J. M. Farrell. 2012. Walleye spawning habitat restoration: substrate size, shape, and condition influence egg retention. Bi-annual meeting of the Fisheries Advisory Committee to the Fish Enhancement, Mitigation, and Research Fund, Cortland, NY
Kevin L. Kapuscinski and John M. Farrell. 2012. Selective feeding among species of submerged aquatic vegetation by a non-native Cyprinid, the rudd. 55th Annual Conference on Great Lakes Research, Cornwall, Ontario, Canada.
Kevin Kapuscinski, John Farrell, and Derek Crane. 2011. Great Lakes muskellunge research. NYSDEC Great Lakes Section Meeting, Cortland, NY.


Melissa K. Fierke


Elizabeth Folta


Folta, E. (November 9, 2011). Interpreting Nature through Augmented Reality Games. Paper presented at the national workshop of the National Association for Interpretation (NAI), Saint Paul, MN.


Jacqueline L. Frair
Modeling the cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the montane and boreal forests of the Rocky Mountains of Alberta, Canada, E.H. Merrill, J. L. Frair, M.S. Boyce, annual meeting of the Canadian Section of The Wildlife Society, Alberta, Canada (2011)
Northeast Fish and Wildlife Conference, Manchester, NH (2011)
Spotlight on Student Research, SUNY ESF, Syracuse, NY (2011), poster presentation

James P. Gibbs

Charles A.S. Hall
UK all party Parliamentary group, Parliament
U.K. Atkins Engineering
New Economics Foundation
U.K. Dept for International Development
Arup Engineering
U.K. Department of Energy and Climate Change
Oxford University: Sir David King and colleagues
Plenary Speaker Sustainability Summit Milwaukee Wisconsin
Lead Pleanary speaker at Ecological Engineering Meeting, June 7th 2012.
Speaker NSF ULTRA conference, San Juan Puerto Rico

Thomas R. Horton


Multiple posters with students at the 2012 Spotlight on Student Research – SUNY-ESF

Kevin L. Kapuscinski
Kevin L. Kapuscinski and John M. Farrell. 16 May 2012. Selective feeding among species of submersed aquatic vegetation by a non-native Cyprinid, the rudd. 55th Annual Conference on Great Lakes Research
Kevin L. Kapuscinski, John M. Farrell, and Brian L. Sloss. 3 February 2012. Genetic population structure of muskellunge in the Great Lakes. New York Chapter of the American Fisheries Society Annual Meeting
Kevin L. Kapuscinski, John M. Farrell, and Michael A. Wilkinson. 2 June 2011. Trends in the muskellunge (Esox masquinongy) population and fishery of the Buffalo Harbor (Lake Erie) and upper Niagara River. 54th Annual Conference on Great Lakes Research
Kevin L. Kapuscinski, John M. Farrell, and Michael A. Wilkinson. 31 May 2011. Feeding ecology and population structure of a non-native cyprinid, the rudd, in the Buffalo Harbor (Lake Erie) and upper Niagara River. 54th Annual Conference on Great Lakes Research

Robin W. Kimmerer
Restoring Reciprocity”, Indigenous Women’s Science Network. 11/10/11 Minneapolis, MN

Donald J. Leopold
Brumbelow, T. and D.J. Leopold, Current status of the federally-listed American hart’s-tongue fern in central New York, Northeast Natural History Conference, Syracuse, NY, April 2012
Scanga, S.E. and D.J. Leopold, European studies may apply to North American fen management, Northeast Natural History Conference, Syracuse, NY, April 2012
Scanga, S.E. and D.J. Leopold, Plant demography in wetland canopy gaps: nonlinear and indirect responses, Northeast Natural History Conference, Syracuse, NY, April 2012
Quant, J., M. Dovciak, and D.J. Leopold. Forest communities along acid deposition, soil, and climate gradients of the Appalachian Trail, Northeast Natural History Conference, annual meeting, Syracuse, NY, April 2012
Leopold, D.J., Rare and unique plant communities as templates for restoring degraded landscapes and creating sustainable green systems, invited presentation at 2nd International Symposium on the Biology of Rare and Endemic Plants, in Mugla, Turkey, April 2012.

Karin E. Limburg
11/09/2011, 21st Biennial Conference of the Coastal and Estuarine Research Federation, Daytona Beach, FL.
Nack, CC, Limburg, KE. Diet of larval American Shad in the Hudson River Estuary. 4/16/2012, Northeast Natural History Conference, Syracuse, NY.
Turner, SM, Limburg, KE. Natal Origin and In-river Movements of River Herring in New York Waters. 4/16/2012, Northeast Natural History Conference, Syracuse, NY.

Mark V. Lomolino
Overview: Ecological and Evolutionary Responses of Mammals to Climate Change – NE Naturalist Conference, April 2012, Syracuse, NY

Gregory G. McGee

Stacy A. McNulty
An Analysis of the Effects of Upland Habitat on Wood Frog (Lithobates sylvatica) and Spotted Salamander (Ambystoma maculatum) Reproduction in Vernal Pools. Katie McKissick, Discovery: An Undergraduate Showcase of SUNY, Albany, NY 29 February 2012.
Field Programs and Stations: Where and How to Extend the Classroom. McNulty, S. Environmental Consortium of Hudson River Colleges and Universities, Albany, NY, 12 November 2011.

Myron J. Mitchell
International Acid Rain Meeting, Beijing China, June 15-18, 2011. Invited Presentation: Interactions between Atmospheric Deposition and Climate in Affecting Watershed Responses in Eastern North America with a Focus on Sulfur
Northwatch Workshop, Potsdam, Germany, May 21-25, 2012. Invited Presentation: Regulation of Sulfur Budgets of Forested lake/watersheds in the Adirondack Mountains of New York State: Shift from Atmospheric Regulation to Climatic Control
James P. Nakas

Lee A. Newman
Phytoremediation Education; Newman, L. 8th International Phytotechnology Society Meeting, 13-16 September 2011.
Using plants to solve environmental Problems; Newman, L. Central New York Biotechnology Symposium, Syracuse, NY 2-3 June 2011
Fate and transport of gold nanoparticles in soils by Tomato (Lycopersicon esculentum ‘Brandywine’).
Trichloroethylene Degradation by genetically modified Tobacco (Nicotiana tabacum var. xanthi)
Fate and transport of gold nanoparticles in soils by Tomato (Lycopersicon esculentum ‘Brandywine’).
The potential for herbicide safeners to reduce the symptoms of heavy metal toxicity in Zea mays.

**Dylan Parry**

Parry, D. Legacy Biological Control as the Driver of Giant Silk Moth Decline in the Northeast? Northeast Natural history Conference. Syracuse, NY. 04/2012
William A. Powell
Update on American chestnut research. 6/2/11. Forest Health Initiative annual meeting, Washington DC. Two oral presentations given by graduate students Amelia Bo Zhang and Katie D’Amico at the annual IUFRO meeting in Brazil, June 27-July 1, 2011. Titles: “Enhancing Agrobacterium-mediated cotransformation of American chestnut (Castanea dentata) somatic embryos,” and “Assessing ectomycorrhizal associations and transgene expression in transgenic Castanea dentata, respectively.”
American Chestnut Research & Restoration Program, 9/7/11, Beijing Forestry University, China. (Presentation to students and researchers as part of China trip to collect DNA & RNA samples from wild Chinese chestnut species)
Technician, Lilibeth Northern, presented an update at the Annual NE1033 chestnut researchers meeting at the Incarnation Conference Center, Ivoryton, CT, 10/28-29/11
Graduate student, Amelia Bo Zhang, gave an oral presentation, “Oxalate Oxidase Expression Reduced Cryphonectria parasitica Necrosis in Transgenic American Chestnut (Castanea dentata)” at the annual Consortium for Plant Biotechnology Research (CPBR) symposium, Washington, DC, 3/6-7/12
Graduate students & technicians presenting posters at the CNY Biotechnology Symposium 2012, 5/21/12

Neil H. Ringler

Sadie J. Ryan


Kimberly L. Schulz
"Direct and indirect linkages between anthropogenic stressors, biogeochemistry and aquatic food webs"
Biogeochemistry and Environmental Complexity (BEB) Seminar, Cornell University, 21 October 2011.


Stephen A. Teale


Teale, S. Field-screening of chemical attractants in China to detect Asian cerambycids in the U.S. (oral pres.) 23rd USDA Interagency research Forum on Invasive Species, 11 January, 2012, Annapolis, MD (Invited)

Teale, S. Chemical attractants of Philornis downsi. Workshop to develop an action plan for the control of Philornis downsi, Feb. 1, 2012, Puerto Ayora, Santa Cruz Island, Galapagos Islands, Ecuador

J. Scott Turner

New concepts in ventilation of animal-built structures. 5 January 2012. 12th Pan-American Congress of Applied Mechanics, Port of Spain, Trinidad and Tobago.

Christopher M. Whipps


March 11-14, 2012. 2012 International Conference on Emerging Infectious Diseases, Atlanta, GA. A tale of anthropogenic disturbance: how forest degradation and human proximity to howler monkey populations influences zoonotic parasitism in both species. W.D. Helenbrook, Shields W.M., Whipps, C.M. [Poster]


Appendix F. Faculty Grants
(active during reporting period)

**John D. Castello**

**Jonathan B. Cohen**

**Martin Dovciak**
PI: USDA CSREES/McIntire-Stennis. Forest change in the Adirondacks over 40 years. $25,563; 2011-12.
PI: NSRC. Global change fingerprints in montane boreal forests: Implications for biodiversity and management of the northeastern protected areas. $89,497; 2012-14.
PI: CONACYT. Global ecotones under climate change: developing a general theory of climate-vegetation interactions across tropical, temperate, and boreal ecotones. $5,250; 2012.
Co-PI: Picker Interdisciplinary Science Institute, Colgate University. Whole-ecosystem restoration through liming of acidified tributary streams in the Honnedaga lake basin in the Adirondack Mountains. $70,000; 2012–13.
Co-PI: USDA CSREES/McIntire-Stennis. Coupling local-scale climate change and forest ecosystems. $81,271; 2010-12.

**John M. Farrell**
Fish Habitat Restoration Efforts in the Buffalo Harbor and Niagara River. Niagara River Greenway Fund, Greenway Ecological Fund Standing Committee $188,881
Ringer, N. H., K. A. Schulz, J. M. Farrell, M. A. Teece, and J. Brunner. 1/1/10-12/31/12. Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching. National Science Foundation $1,470,000

**Danilo D. Fernando**
Confronting the obstacles to willow genetic transformation (Tim Volk, co-PI). USDA McIntire-Stennis, $50,591. May 15, 2010 - Sep 12, 2011.

**Melissa Fierke**
Colin Beier, J. Gibbs, M. Fierke, M. Mitchell, M. Dovciak. Impacts of acidic deposition and soil calcium depletion on terrestrial biodiversity and food webs in Northern hardwood forest ecosystems. Northern States Research Cooperative. $150,000. 08/10-10/12. Cheryl Bondi, PhD.

**Elizabeth Folta**
ESF Seed Grant, Plugging-in the Outdoors: Engaging Visitors in Nature through Augmented Reality Games; $3000.00; 6/2012 – 12/2012; E. Folta.

**Jacqueline L. Frair**


James P. Gibbs


National Council on Science and Technology (CONACYT, Mexico), “Seed grant program to stimulate collaboration of research, outreach and instruction”, J. P. Gibbs and D. J. Leopold. $50,000. 12/15/11-12/14/12.


Trust for Mutual Understanding, “Effective Protection of endangered snow leopard and argali sheep in Altai Republic, Southcentral Siberia, Russia,” J. Castner, J. P. Gibbs, M. Paltsyn, and S. Spitsyn. $15,000.00. 5/15/11-5/14/11. (through The Altai Project)

US Fish and Wildlife Service (International Programs), “Anti-poaching measures to protect the Argut snow leopard population in Russia’s Altai Republic”. J. Castner, J. P. Gibbs, and M. Paltsyn. $30,000. 1/1/2012-12/31/12. (through The Altai Project)


New York State Energy Research and Development Authority (NYSERDA), “Assessing the Viability of Radar and Acoustic Data as a Predictor of Collision Risk to Night Migrating Birds and Bats: A Test Using Data from the Maple Ridge Wind Power Project, Lewis County, New York.” $49,000. J. P. Gibbs, 9/1/10-12/31/11

Vice President’s Office, United Republic of Tanzania. “Evaluation of toxicity of endosulfan for Kihansi spray toads: Direct exposure effects and interactions with nutritional status and infection by pathogenic Chytrid fungus.” J. P. Gibbs. $34,109. 11/10-6/11.


National Science Foundation, “BE/CNH: Biodiversity dynamics and land-use changes in the Amazon: Multi-scale interactions between ecological systems and resource-use decisions by indigenous peoples,” J. M. V. Fragoso, J. P. Gibbs, J. Read, K. Silvius. $1,192,518. 9/05-9/12.

Charles A.S. Hall
National Science Foundation $ 5,000,000 (my share $152,000) Long Term Ecosystem Research in the Luquillo Forest Grant period 2006-2012

Positioning Rust-Belt Cities for a Sustainable Future: A Systems Approach to Enhancing Urban Quality of Life.” National Science Foundation Urban Long-Term Research Area Exploratory Award (ULTRA-EX), ($300,000; my research $37,596), David Nowak (PI), Myrna Hall, Charlie Hall, Rick Smardon, and E. Carter (co-PIs). September 2009 – December 2011.

Social-Ecological System Change, Vulnerability, and the Future of a Tropical City” National Science Foundation Urban Long-Term Research Area Exploratory Award (ULTRA-EX), ($300,000; my research $30,000), Ariel Lugo (PI), Tischa Munoz (co-PI), March 2010 to March 2012.

[Administered in Puerto Rico]

United Kingdom Department of International Development $180,000 Consolidating and promulgating EROI Research

An Environmental Basis for Rural Planning in the Province of Cordoba, Argentina.” Argentine National Government Award ($1,000,000, my research portion (about $10,000); Oscar Giayetto and Juan-Jose Cantero (PIs). May 2010 to May 2013.

Thomas R. Horton


Horton, TR. Mianus River Gorge Preserve. The effects of invasive earthworms on soil microbes and nutrient cycling in hemlock forests. $21,000 total award, $7,000 annually. June 2012 – May 2015.


Yanai R, Horton TR. USDA-CREES/McIntire Stennis program. Sustainable nutrient supply after forest harvest: Characterizing the fungal link from soils to roots. 8/212011 – 9/30/2013. $54,105.

Kevin L. Kapuscinski
Niagara River Ecological Standing Committee, Fish and Wildlife Habitat Enhancement and Restoration Fund; Evaluation of Nearshore Fish Assemblages, Habitat, and the Effects of Herbivorous Rudd (*Scardinius erythrophthalmus*): Facilitating Successful Fish Habitat Restoration Efforts in the Buffalo Harbor and Niagara River; $519,246; January 2012 to December 2013, Kevin Kapuscinski and John Farrell
Niagara River Greenway Ecological Fund; Evaluation of Nearshore Fish Assemblages, Habitat, and the Effects of Herbivorous Rudd (*Scardinius erythrophthalmus*): Determining the Efficacy of Fish Habitat Restoration Efforts in the Buffalo Harbor and Niagara River; $188,881; March 2011 to December 2012, Kevin Kapuscinski and John Farrell.

Robin W. Kimmerer
National Science Foundation, Undergraduate Mentoring in Environmental Biology, $600,000 June 2006-August 2012.
United States Department of Agriculture, Multicultural Scholarship Program, $200,000, May 2012-May 2016.
National Science Foundation, Summer Science Camp for Native Youth, $147,000, August 2009-August 2013
United States Forest Service, Traditional Knowledge of Black Ash Ecology, $47,000. 2009-2011
Onondaga Lake Partnership Minigrant: Environmental education with Onondaga Nation Youth $5000
Tribes and Climate Change: engaging northeastern indigenous nations. US Forest Service $60,000 2011-2014
National Science Foundation, UMEB Supplement for Native Earth Youth Camp $45,460 5/2012-5/2013

Donald J. Leopold
Honeywell, Inc., Restoration of inland salt marsh, marl fen, and select woody species: Short-term goals of the native species component of the SWRS demonstration plan; $648,274; January 2008 to August 2012; D.J. Leopold.
Honeywell, Inc., Descriptions of natural communities and plant sources for restoration of Onondaga Lake shore and adjacent areas; $25,895; June to December 2011; D.J. Leopold
National Geographic Society, Climate buffering in temperate zone fens: implications for climate change; $5000; May 2010 to December 2011; D. Leopold and P. Raney.
National Science Foundation, Environmental scholars: A scholarship program in Environmental Chemistry, Biology, and Engineering; $600,000; March 2009 to February 2013; K. Donaghy, D.J. Leopold, J.P. Hassett, J.M. Hassett, and J.E. Turbeville.
National Science Foundation, ARRA Renovation to wet labs and cyber infrastructure to enhance integrated research and teaching in aquatic sciences; $1,470,000; October 2010 to September 2013; N. Ringler, K. Schulz, J. Farrell, C. Whipps, and D. Leopold.
NYS-DEC, Student internship program; $24,297; March 2008 to February 2013; J.P. Gibbs and D.J. Leopold.
NYS-DEC, Invasive plants program coordinator; $100,733; January 2010 to June 2012; D.J. Leopold.
University of New Hampshire, Genetic diversity, morphometrics and habitat analysis of a rare wood fern in the northern forests: Implications for management and long-term survival; $82,876; July 2011 to September 2013; D.D. Fernando, D.J. Leopold, and S. Bailey.
USACE, Development of database and algorithms to support the National Wetland Plant List; $94,419; September 2011 to December 2012; D.J. Leopold.

USFWS, Production of genetically diverse American hart’s-tongue fern for introduction or reintroduction in the Great Lakes Region, $99,682; July 2011 to September 2014; D.D. Fernando and D.J. Leopold.

USFWS, Control of Japanese knotweed (Fallopia japonica var. japonica) on Leedy’s roseroot (Rhodiola integrifolia subsp. leedyi), a federally-threatened plant; $69,902; September 2011 to August 2015; D.J. Leopold.

USDA CSREES (SUNY ESF McIntire-Stennis program), Restoring small ephemeral wetlands in forested landscapes of New York State; $87,817; August 2009 to September 2012; J.P. Gibbs, J.C. Stella, D.J. Leopold, and K.S. Schulz.


USDA Forest Service-NSRC, Importance of calcium-rich substrates for supporting refugia of biodiversity and productivity in an increasingly acidified landscape; $41,543; July 2008 to June 2013; C. Beier, M. Mitchell, J. Gibbs, D. Leopold, and M. Dovciak.

Arizona Game and Fish Department; Novel survey methods to increase detectability of rare frogs in the field; $46,948; May 2010 to May 2013; D.J. Leopold and M. Schlaepfer.


Karin E. Limburg

NOAA: “Habitat Use by American Shad Larvae in the Hudson River Estuary, New York,” $40,000, 5/01/10 – 5/31/12.


National Science Foundation: “Positioning Rust Belt Cities for a Sustainable Future: A Systems Approach to Enhancing Urban Quality of Life,” (D. Nowak and M. Hall, PIs), $300,000, 1/1/10 – 12/31/11.

USGS (via U. Florida): “Near Shore Fish Ecology in the Grand Canyon,” 4 years, $1,178,711 total, $272,976 to ESF. Role: co-PI, but PI at ESF.

USGS Grand Canyon Monitoring and Research Center: “Validating of δ13C and δ18O otolith chemistry signatures of resident Little Colorado River fish using secondary ion mass spectrometry.” 1.25 years, $64,000.


NYS DEC and New England Interstate Water Pollution Control Commission: “Analysis of samples collected in the Hudson River Estuary for various Alosa projects.” $40,000, 2 years.

Riverkeeper Inc.: “Filling in the gaps: building the knowledge base on ecosystem function, utilizing partnerships to move forward.” $115,000, 3 years.

Fellowship award to Master’s student Emily Ogburn: “Fish Parasites in the Hudson River Estuary’s Littoral Habitats: A Prelude to Restoration.” T.T. Polgar Fellowship, $4,000, summer 2012. (KL is co-advisor with Chris Whippis)


New York State Water Resources Institute: Relative Abundance of Blueback Herring (Alosa aestivalis) in Relation to Permanent and Removable Dams on the Mohawk River. 5/1/2012 – 2/28/2013, $20,000.

Mark V. Lomolino
NSF – Of Mice and Mammoths: Toward a General Theory of Body Size Across Space and Time requested $420,681; received partial funding for initial period of grant (1 ½ years) of $100,000

Gregory G. McGee
National Science Foundation, Integrated Knowledge-Based Experiences for First-Year Biology and Chemistry Laboratories (with N. Abrams, E. Hogan and V. Luzadis), $193,290; June ’12 – May ’15.

Stacy A. McNulty

Myron J. Mitchell
Co-Investigator. Long-Term Ecological Research (LTER) at Hubbard Brook Experimental Forest (HBR) (MJ Mitchell, $90,000) 2011-2016
Co-Investigator. NOAA Coastal and Marine Habitat Restoration Project Grants under the American Recovery and Reinvestment Act, “Recovery Act – Coastal Fisheries Habitat Restoration in the St. Lawrence River ($202,317 subcontract to ESF) of $1,086,010 Ducks Unlimited. 2011-2013

Principal Investigator. Collaborative Research: Winter Climate Change in a Northern Hardwood Forest. NSF Ecosystems. $179,149. 2010-2013.


Co-Investigator. Positioning Rust-Belt Cities for a Sustainable Future: A Systems Approach to Enhancing Urban Quality of Life. NSF ULTRA-Ex. $300,000. 2010-2012

Principal Investigator. Collaborative Research: Evolution of Dissolved Organic Nitrogen (DON) from the Headwaters to the Catchment Outlet: Sources, Variation with Scale, and Differences with DOC. NSF-Hydrology. $70,256.00. 2008-2011


James P. Nakas
Blue Highway (Welch Allyn, NYSERDA), Polyhydroxyalkanoates (PHAs); $350,000; 2008-2012

Lee A. Newman
White, Jason, PI (Connecticut Agricultural Research Station); Baoshan Xing (University of Massachusetts) Lee Newman and Xingmao Ma (Southern Illinois University). USDA. Nanoparticle contamination of agricultural crop species. Mar 11-Mar 16. $1,498,080.


Dylan Parry


William A. Powell
The New York Chapter of The American Chestnut Foundation. Supplemental grant for technician support for Chestnut research. $20,000 (1/1/11-12/31/12). PI with Dr. Maynard as co-PI.

Forest Health Initiative. Supplemental funding to develop an early blight resistance-screening assay for American chestnut. $105,000 (7/1/10 – 6/30/12). PI with Dr. Maynard as Co-PI.

ArborGen LLC. Transformation of American chestnut with genes encoding transcription factors. $20,000 (1/1/11-12/31/12) PI with Dr. Maynard as Co-PI. Another year of 10 years of support beginning in 2002 totaling $500,000.

The American Chestnut Foundation. Travel grant to China to collect DNA and RNA samples from Asian chestnut species. $16,600. PI.
Forest Health Initiative. First and second-generation transgenic American chestnut trees. $900,000 (8/1/09 – 7/31/12). PI with Dr. Maynard as Co-PI. Currently supporting 2 MS students. This is our part of a multi-institutional grant totaling $5.2 million.

Forest Health Initiative. Supplemental funding to examine early flowering genes in transgenic American chestnut. $83,000 (6/1/10 – 5/31/12). PI with Dr. Maynard as Co-PI.

Consortium on Plant Biotechnology Research (CPBR). Collaborative research: Developing blight resistance in transgenic American chestnut for agroforestry and restoration. $67,000 (5/1/10-12/31/12) PI with Dr. Maynard as co-PI.

The New York Chapter of The American Chestnut Foundation. Testing Transgenic Events for Gene Copy Number, Gene Expression, and Blight Resistance. $100,000 (5/08-12/31/12). PI with Dr. Maynard as co-PI.

The New York Chapter of The American Chestnut Foundation. Regenerating Transformation Events into Whole Plants and Expansion of Field Trials. $300,000 (5/08-12/31/12). Co-PI with Dr. Maynard, PI.

Neil H. Ringler
PI, Honeywell, Inc., $703,535; 1/15/08 – 6/30/13; Onondaga Lake Biological Assessment and Monitoring
Co-PI, NYS DEC; $115,888; 6/1/09 – 5/31/12; Assessment of Lake Sturgeon Stocking in the Oswego Basin
Co-PI, NSF; $275,335; 1/1/10 – 12/31/14, Collaborative Research: Impacts of In-Stream Restoration on Hydrological, Chemical and Biological Heterogeneity in the Hyporheic Zone
PI, NSF; $1,470,000; 10/1/10 – 9/30/13; Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching in Aquatic Science at SUNY ESF
PI; USDA McIntire Stennis Program; $544,532; 10/1/11 – 9/30/12, McIntire Stennis Program
PI, USDA FS; $13,500; 9/22/11 – 12/31/13, Enhanced Effectiveness of Planning and Managing Urban Forest Ecosystems
PI, Cornell; $10,000; 5/18/12 – 8/31/12, Relative Abundance of Blueback Herring (Alosa aestivalis) in Relation to Permanent and Removable Dams on the Mohawk River

Sadie Ryan
Co-PI: National Geographic: “Parks, People, and Climate Change: Assessing Household Vulnerability in Equatorial Africa” - $20,000 (project costs only), 2012-2014.
Co-PI, INECOL/SUNY-ESF Seed Grant, “Emerging diseases and health status of black howler monkeys in degraded habitat in Balancan, Tabasco, Mexico” - $5,000; 2012.

Kimberly L. Schulz
NSF, Collaborative Research: EAGER – Eco-evolutionary feedback on community assembly, K.L. Schulz and C.E. Cáceres (U. Illinois); $300,000; Sept 2009-Aug 2012
NSF, REU Collaborative research: Eco-evolutionary feedback on community assembly, K.L. Schulz; $8,000; May 2012-31 August 2012
Sustainable Enterprise Partnership, Effectiveness of post-consumer food waste as a means for nutrient recovery and waste reduction when used as fish feed in an aquaponic system; D. Daley and K.L. Schulz; $6,220; May 2011-June 2012
NSF, Renovation of wet labs and cyber-infra-structure to enhance integrated research and teaching in aquatic science at SUNY-ESF; Neil Ringler, K.L. Schulz, J.M. Farrell, D.J. Leopold, C.M. Whipps; $1,470,000; October 2010-September 2013
SUNY-ESF McIntire-Stennis Research Program, Restoring small, ephemeral wetlands in forested landscapes of New York State: Initiating a large-scale, long-term collaborative research program based at Heiberg Forest; James Gibbs, John Stella, D.J. Leopold, K. Schulz; $80,000; May 2009-December 2012.


NSF; Dissertation Research: Quantifying the role of mixotrophic feeding in aquatic food webs; K.L. Schulz and Jacob Gillette; $15,000; June 2011-May 2013.


Stephen A. Teale

Alphawood Foundation, PI: Teale, S. “Asian Longhorn Beetle Research at SUNY-ESF” $92,082; 28-JAN-2011 To 27-JAN-2013

Alphawood Foundation, PI: Teale, S. “Asian Longhorn Beetle Research at SUNY-ESF” $ 92,016; 14-FEB-2012 To 13-FEB-2013

USDA Forest Service STDP, PIs: Teale, S., J.D. Castello, J.G. Millar. “Fungal Attractants for Sirex noctilio and its Parasitoids” $123,630 July 1, 2010 - June 30, 2013 ($40,000 in first year)


J. Scott Turner
US Army Research Office, Collective structural defense of the mound-building termites of the genus Macrotermes; $300,000; June 2008 to June 2012

Jacob Blaustein Center for Scientific Cooperation (Ben Gurion University of the Negev), Visiting Foreign Scientist; $5,000; December 1, to 31 December 31, 2012

Alexander Weir
National Science Foundation – Monographic Approaches to the Laboulbeniales, Subtribe Stigmatomycetinae and the Genus Stigmatomyces. NSF PEET (Partnerships for Enhancing Expertise in Taxonomy) Program. Total Amount $750,000! January 2006 to December 2011. One year no-cost extension approved by NSF during 2011 and then another 6 month no cost extension approved December 2011-30 June 2012.

National Science Foundation – Macrofungi Collections Consortium – Grants to Advance Digitization of Biological Collections, ESF portion $34,000 (total Amount unknown)

Christopher M. Whipps
Whipps, CM. SUNY-ESF Seed Grant Program (04/01/11-06/30/12) - $8,000. Molecular Prospecting: Genomic DNA Sequence Data for Myxozoans.
Ringler NH, Schulz KL, Farrell JM, Leopold DJ, Whipps CM. National Science Foundation (1/1/10-12/31/12) $1,757,801. Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching in Aquatic Science at ESF.

Whipps CM. NIH Subaward P0274A-A (3/1/10 - 5/31/12) $60,000. Characterizing *Mycobacterium* species from zebrafish and diagnostic development.
Appendix G. Service to Department, College, and University

**John D. Castello**
Associate Chair  
Chairman of EFB Promotion and Tenure Committee  
Coordinator of the Forest Health major  
Faculty coordinator of the 2012 departmental spring awards ceremony  
EFB point person for departmental autoclave repair

**Jonathan B. Cohen**
Faculty advisor for student chapter of The Wildlife Society  
CLBS and TIBS Undergraduate Fellowship Committee Chair  
Curriculum Advisory Committee  
EFB Open House  
Committee on Research  
Reviewer for Sussman Internship Applications

**Martin Dovciaik**
Invertebrate Conservation Biology Faculty Search Committee, member  
Chair, Committee for Robert Burgess Graduate Scholarship in Ecology.  
Graduate Program Advisory Committee, member.  
EFB greenhouse collections development with Terry Ettinger and others (ongoing)  
Graduate Program in Environmental Science–Ecosystem Restoration (founding member)  
Teaching evaluation of a faculty member for Promotion & Tenure Committee, SUNY-ESF (December 2011)  
Beech Working Group (founding member)  
Center for Urban Environment (core faculty member)  
Council for Geospatial Modeling and Analysis (member)

**John M. Farrell**
Served as member of the Invertebrate Conservation Biologist Search Committee (with Teale, Gibbs, Schulz, Dovciaik) within EFB  
Served on Promotion and Tenure Committee  
Mentored an Assistant Professor in EFB  
Supervised two EFB funded Federal Work-study assistants at TIBS  
Served with team lead by Kim Schulz, Neil Ringler and Brian Boothroyd in execution of $1.4M NSF award to enhance EFB’s aquatics program via improvements at CIRTAS and TIBS laboratory facilities and cyberinfrastructure. Participated in numerous meetings and site visits and reporting and served as lead for TIBS component of project leading to laboratory renovation construction start in April 2012.  
Served as mentor to TIBS undergraduate intern who is starting independent research in spring 2012  
Served as Director of the Thousand Islands Biological Station (TIBS). Including oversight and supervision and participation in activities at TIBS including research, community outreach, facilities and development.  
Continued work on development initiative for new TIBS multipurpose building with Gary Pedan, Brenda Greenfield, Bob Quinn leading to A&E firm hire and projected start August 2012 of new building. Worked closely with RF on multiple grant contracts during this period and supervision of numerous staff including three Senior Research Support Specialists (Barry, Brown and Avruskin).
Danilo D. Fernando
Director, EFB Graduate Program
Member, Graduate Program Advisory Committee
Coordinator, Committee on Optical Instruments and Equipment
Member, Graduate Council
Review Committee for SUNY Diversity Fellowship
Review Committee for Bristol Myers Squibb Sustainability Fellowship

Melissa K. Fierke
Graduate Program Advisory Committee
EFB’s representative, Urban Ecology minor
Scholarship committees: Roskin undergraduate award to outstanding female senior, Outstanding PhD student award, Burgess outstanding PhD student award in ecology
Chair, Committee on Public Service and Outreach
Faculty Governance Executive Committee
Athletics Committee
ESF Learning Community, Participated at the Freshmen Learning Community Retreat at Orenda Springs
Graduate Assistant Colloquium on Teaching and Learning Blackboard training
Academic Integrity hearing committee
Development of a college biology course, with Outreach, to be offered in local high schools
ad hoc committee on bicycle facilities
December and May Senior Soiree

Elizabeth Folta
Open Houses: Fall & Spring
Program coordinator for Natural History and Interpretation major
Updated the Natural History and Interpretation curriculum with EFB faculty.
Member of the Course and Curriculum Assessment Committee (CCAC; starting Spring semester)
Search committee member for Environmental Studies - Environmental Communications Faculty Position
Worked with six students during the fall semester to form the INTERP club, which became an official club at ESF 12/2011. I am currently, serving as their advisor.

Jacqueline L. Frair
Wildlife Science, Curriculum Coordinator
Roosevelt Wild Life Station, Associate Director
Oversee Roosevelt Wildlife Collection and supervise Ron Giegerich and Coordinated Roosevelt Wildlife Collection inventory, which involved up to 8 undergraduates per semester and is ongoing.
Working with Mike Simonovich to get online, searchable database of collection inventory
Submitted successful application to Conservation Assessment Program for the Roosevelt Wildlife Collection
Serve as liaison for wildlife program to the NYS DEC
Developing an umbrella MOU for all projects eligible for funding under Pittman-Robertson Act, with annual work plan.
Provide support to Roosevelt Wild Life Station programs
Coordinating the digitization of the original station publications for publishing online, helping to design new web site and new promotional materials
Worked with D. Leopold, J. Gibbs and Development Office on endowment initiative
Coordinator of Betty Moore Chamberlaine, Phyllis Roskins, and Ralph T. King departmental awards.
Routinely participated in open houses, accepted student receptions and personal meetings with prospective and accepted students.
NY State Fish and Wildlife Management Advisory Board, Science Advisor for SUNY ESF (legislatively-mandated position).
Council for Geospatial Modeling and Analysis, member.
Attended spring Banquet and Commencement
Routinely attended faculty governance meetings

James P. Gibbs
Coordinator, Conservation Biology Major
Coordinator, Internships (including NYSDEC Fish, Wildlife and Marine Resources / SUNY-ESF internship program)
Member, Course and Curriculum Assessment Committee
Member, Promotion and Tenure Committee
Member, “Invertebrate Conservation Biologist” Faculty Search Committee
Associate Chair
Director, Roosevelt Wild Life Station
INECOL/SUNY-ESF seed grant competition coordinator

Charles A.S. Hall
President’s committee on a carbon-neutral ESF
Informal committee to generate a program in Biophysical and Ecological Economics

Thomas R. Horton
Graduate Program Advisory Committee
Mentor for Dovciak, Fierke, Newman, Ryan
Faculty in charge of growth chambers in Illick room 308.
Mycology/Forest Health Awards committee – Chair (Lowe-Wilcox, Zabel, Morell awards)
Provided reviews of four EFB Assistant Professors as part of the P&T files
Provided review of dossier for an Assistant Professor at University of Washington, Tacoma
Academic Research Building committee
I teach General Ecology which is a core course for multiple departments
Faculty in charge of growth chambers in Illick room 308.

Robin W. Kimmerer
Peer classroom evaluation for Promotion and Tenure Committee
Mentor for junior faculty member
Presentation to New Visions Program, visiting students 10/18/11
Advisor to Primitive Pursuits student organization
Hiawatha Institute for Indigenous Knowledge, ESF liaison
CSTEP Mentor
SU Native Student Outreach Day, Fall 11/2/11
SU Native Student Outreach Day, Spring 4/21/12
Environmental Studies Promotion and Tenure Committee, external member 2012
Director, Center for Native Peoples and the Environment
Acting Director, Cranberry Lake Biological Station

Donald J. Leopold
Chair, Department of Environmental and Forest Biology
SEFA Coordinator, Fall 2011
Organized and led Bioblitz at Lucky Star Ranch (http://www.esf.edu/efb/bioblitz/), June 2011 (100 faculty, staff, and students participated)
Participant at CLBS Reunion, August 2011
Represented ESF at Scarsdale Country Club for Green Tie Gala Event, July 2011
Participant, ESF Learning Community Retreat, Marcellus, September 2011
Presenter (twice, on campus trees and shrubs) for annual Alumni, Family, and Friends BBQ, September 2011
Reviewer, McStennis proposal
Member, Organizing Committee for Hardy L. Shirley Faculty Mentoring Colloquium (held January 2012)
Presentation (with Tim Toland), Native Plants for Sustainable Landscapes, ESF Sustainability Training Series (1st talk of series), February 2012, Moon Conference Room filled to capacity.
Member, Core Team for Academic Research Building
Member, Core Team for Illick Hall rehabilitation project
Member, SUNY-ESF Facilities Master Plan Committee
Member, Advisory/Steering Committee for ESF Campus Master Plan Study (now Gateway Building)
Reviewer of dossier for P&T candidate in Chemistry Department
With Tim Toland (lead) and others, was awarded $413,000 grant from the NYS Environmental Facilities Corporation to help pay for Gateway Building green roof project
Participant in press event for Gateway Building green roof project and award of $413,000 grant from the NYS Environmental Facilities Corporation, included interviews for print and radio (local WRVO), May 2012

Karin E. Limburg
Chair, EFB Graduate Program Advisory Committee
Member, EFB Promotion and Tenure Committee
Participated in Freshmen Learning Community Retreat, September 10
Participated in Faculty Mentoring Symposium, January 12
Judge for Norma Slepecky Prize for Undergraduate Research, Syracuse U., April 2012

Mark V. Lomolino
Teaching Evaluations for P&T Committee

Gregory McGee
EFB Curriculum Director (beginning 1/1/12)
ENB Curriculum Coordinator (beginning 1/1/12)
EFB Course, Curriculum and Assessment Committee
Coordinator, Freshman Pre-Orientaion Adirondack Experience
Chair, Faculty Governance Committee on Student Life
Academic Integrity Hearing Committees (participated in two separate hearings)
ESF Learning Community Management Team
Faculty Governance ad hoc committee to propose course withdrawal policy
Search Committee – Assistant Librarian

Stacy McNulty
Associate Director, Adirondack Ecological Center
Organizer, Huntington Lecture Series
Editor, Spruce Moose newsletter
Council for Geospatial Modeling and Analysis (CGMA)
Promotion and Tenure Committee, spring 2012

Myron J. Mitchell
Director of Council of Hydrologic Systems Science
Consortium of Universities for the Advancement of Hydrologic Sciences, Incorporated (CUAHS), alternate representative for ESF (2001-present).
Member of Board of Directors of New York Research Foundation
Vice-Chair of Board of Directors of New York Research Foundation (January 2011-present)
Member of Executive Committee of the New York Research Foundation (January 2011-present)
Member of SUNY Higher Education Advisory Committee
Reviewer Committee for SUNY Distinguished Professors
Chair of Hubbard Brook Experimental Forest Archive Committee
Member of Research Foundation Board of Directors SUNY Relationship Task Force (2010-2011)
Member of Research Foundation Committee on Research Supported Economic Development

James P. Nakas
Chairperson, Institutional Biosafety Committee
Director, SUNY Center for Applied Microbiology

Tsutomu Nakatsugawa
Member, Promotion and Tenure Committee; continued through spring semester, 2012.
Member, IACUC (Institutional Animal Care and Use Committee); continued as a member through summer of 2012.
Member, College-wide Review Committee for Promotion and Tenure (July 1, 2011 to May 31, 2012)

Lee A. Newman
I have served on the Course and Curriculum Assessment Committee since joining ESF in August 2010. In this capacity, I have reviewed new course proposals as well as participated in discussions regarding the creation of the new course series on biodiversity.
I am participating in teaching a learning unit of the new biodiversity course
I took a leading role in putting together a Biotechnology Minor.
I took a leading role in developing a new course, BTC 298, which would serve as an introduction to research for those students wishing to participate in active research projects, but who do not currently have the background to enable them to do so.
I serve as Core Team Member for the design and planning of the Academic Research Building. In this capacity, I have attended meetings on laboratory design, landscaping, and building safety.
With my research involving plants and greenhouse needs, I have participated in design review for greenhouse renovation. I was involved in helping to outline greenhouse space needs and design that would stay within cost while increasing space for research.
I have met with students and faculty at the receptions held for new freshman and transfer students to explain the program in EFB and more specifically the requirements and opportunities of the Biotech major.
I have participated in the group academic advising of the new transfer students starting at ESF
I have participated in the updating of the Natural History and Interpretation major in EFB
I currently serve on the ESF Committee on Research
I have participated in developing the new Environmental Health major at ESF
I participate in the Biotechnology Research Center planning meetings
I am a member of the SUNY Catalyst Committee for Research
I am a member of three Hill Collaboration Committees: Nervous System, Cancer, Post-Traumatic Stress Disorders

Dylan Parry
Chair the LeRoy C. Stegeman Award in Invertebrate Ecology committee; evaluate applications, and present award (as I have done since 2003)
Ad hoc committee member, Burgess Award.
Member GPAC (Graduate x Advisory Committee)
Member, Committee on Research. Committee members evaluated and ranked McIntire-Stennis pre-proposals and full proposals, reviewed and ranked Seed Grant Proposals, determined this year’s exemplary ESF researcher, and organized and convened the Spotlight on Research.

Judge, Spotlight on Research (Ranked a subset of graduate student posters)

Member and stand in Chair (for Ken Tiss), Academic Integrity Committee. Convened hearings for students accused of academic integrity violations, evaluated the evidence, upheld or dismissed cases based on the documentation, and recommended punishments where appropriate.

**William A. Powell**
Faculty representative on ARB building Committee
Coordinator for the undergraduate Biotechnology major
Awards Ceremony: Gave the Joseph & Ruth Hasenstab Scholarship and the Distinguished Scholar in Biotechnology. Took photos of the awards ceremony.
Represented the Biotechnology major at the Spring Open house.
Director of the Council on Biotechnology in Forestry
IBC (Institutional Biosafety Committee) member

**Neil H. Ringler**
Ex-Officio Committee on Research
Mentoring Conference January 2012
SUNY/RF: Research Council
SUNY/RF: Research, Innovation and Entrepreneurship Committee
SUNY/RF: Research Officers

**Sadie J. Ryan**
Burgess Awards Committee
Phyllis Roskins Award Committee
Wildlife Faculty Committee
CGMA – Committee on Geospatial Modeling and Analysis, member
IACUC – Institutional Animal Care and Use Committee, member
Program Coordinator, Health and Environment focus, Division of Environmental Science
Faculty member, Graduate Program in Environmental Science (GPES), CNH group
Lead coordinator, establishing Environmental Health (EH) major proposal materials.

**Kimberly L. Schulz**
EFB Course and Curriculum Assessment Committee Chair
Associate Professor member of EFB Promotion and Tenure Committee (fall term)
Faculty mentor for Jacqui Frair, Greg McGee, Beth Folta
Member of Phyllis Roskin Award Committee
P&T Teaching reviewer for Whipps, Frair
Invertebrate conservation biologist search member
Member of the Middles States steering committee
Coordinating effort to develop CIRTAS – Center for Integrated Research and Teaching in Aquatic Science, to find funding to develop a collaborative aquatic science experimental facility for teaching and research at ESF, and efforts to organize aquatics group in EFB
Co-ordinate college-wide AquaBreak seminar (formerly AquaLunch) and run seminar with graduate students Jacob Gillette and Cheryl Whitenour
EFB representative to the Water Resources Minor
Faculty advisor to the Nautilus Club (student marine science club)
Environmental Science advisor and Curriculum Group Participant in Division of Environmental Science area of Watershed Science
William M. Shields
Director of the ESF Undergraduate Honors Program, May 2011 to present

Stephen A. Teale
Search Committee Chair – Invertebrate Conservation Biologist
Secretary, ESF College Governance

J. Scott Turner
Ad Hoc Technology Committee.

Alex Weir
Curator of the EFB Herbaria appointed 09/03-
Member, EFB Promotion and Tenure Committee (until spring 2012)
Member, Field Programs Committee EFB
Active participant in EFB majors for Forest Health, Conservation Biology and Natural History and Interpretation.
Member, Lowe-Wilcox Award Committee, Zabel Award Committee Morrell Award Committee
Director, Cranberry Lake Biological Station, 08/06-
Participant, Middle States Accreditation Review

Christopher M. Whipps
ESF Institutional Animal Care and Use Committee (Aug 2011-present). Chair: Whipps
ESF Committee on Curriculum, General Education subcommittee (Sept 2010-present). Chair: Doug Daley.
ESF Academic Research Building Core Team (Apr 2010 – present).
ESC Health and the Environment Curriculum Group Participant (Mar 2011-present)
Appendix H. Unfunded Service to Governmental Agencies, Public Interest Groups, etc.

Jonathan B. Cohen
Advisory board for the Goldenrod Foundation (private nonprofit)
Advisor to the U.S. Shorebird Conservation Plan (US Fish and Wildlife Service)

Martin Dovciak
Reviewed 11 full proposals, 25 pre-proposals for NSRC/USDA FS
Worked with the National Park Service (incl. Great Smokey Mts. NP, Shenandoah NP, and Delaware Water Gap) to document how acid deposition may have affected ecosystems along the Appalachian Trail.
Worked with the New York State Department of Environmental Conservation to adapt prescribed fire as a management tool for restoring summer habitat of endangered eastern massasauga rattlesnake in Cicero Swamp Wildlife Management Area, New York.
Worked with Shingle Shanty Preserve and Research Station in the Adirondacks, New York, to develop their ecological research and monitoring program.
Responded to various inquiries from the public (e.g., Pheasants Forever Inc., Syracuse Botanical Club).

John M. Farrell
Central Michigan University – CMU Biological Station Great Lakes Research Advisory Board members – travelled to Beaver Island for 2-day meeting, developed advisory report with board.
Cornell University – member of the Cornell Biological Station Advisory Board – attended CBFS Advisory Committee Meeting and provided recommendations on CBFS development.
NYSDEC – water levels research and policy – service to inform managers of research outcomes regarding water levels management influences on habitat and fauna
International Joint Commission – expert consulting on water levels issues
Thousand Islands Land Trust Zenda Farms Picnic, Provided live fish and poster displays as part of community event (June 2011; ~250 attendees)
Save The River, Clayton, NY, 2012 Board of Directors, advisory roles on environmental issues, development of teacher training initiative for North Country districts.
Ontario Ministry of Natural Resources – assisted with development of northern pike monitoring program.
Environment Canada, Montreal – worked with genetics study on muskellunge in Montreal Harbor (with Dr. Kapuscinski).
St. Regis Mohawk Tribe, Consulting meeting and tour of potential wetland enhancement initiatives on tribal lands with SRMT Environmental Division Staff

Elizabeth Folta
Rosamond Gifford Zoo, Education Committee 12/2010 – current
Friends of Beaver Lake, Board Member 1/2011 – current
Education Task Force Member 8/2011 – current
Future Planning Committee 4/2011 – current
Programs subcommittee 6/2011 – 4/2012
Project Learning Tree Steering Committee (NY) 7/2011 – current
Leopold Education Project State Coordinator 2011 (unofficial) – current (official)

Jacqueline L. Frair
Reviewed 20 pre-proposals, 11 full proposals for Northern States Research Cooperative
Binghamton University, consulted on deer management issue (~4 hrs)
NY State Fish and Wildlife Management Advisory Board, SUNY ESF Science Advisor
NY State Biodiversity Conservation Advisory Committee, member
James P. Gibbs
Instituto Ecologia, Xalapa, Mexico, Member of Comité Externo de Evaluación del INECOL, 4 year term, appointed 12/10
Vice Chair, Altai Assistance Project (Wadhams, NY, USA/Gorno-Altaisk, Altai Republic, Russia), (elected 3/09)
Member, Chittenango Ovate Amber Snail recovery team (2002-present)
Nine Mile Creek Conservation Council, Council Member, Camillus, New York (2001-present).
Board member, The Wetlands Trust (2009-present)
Member, General Assembly, Charles Darwin Foundation (elected 2012)
International Scholar, HESP Academic Fellowship Program (Russia-Ukraine-Moldova), Soros Open Society Foundation, 2011-2012.

Thomas R. Horton
Faculty advisor for the Central New York Mycological Society
Vincent Neil Mushroom Festival at Beaver lake. A joint program with myself as faculty advisor, members of the CNYMS, Mid-York Mycologicial Society and Beaver Lake Nature Center. September 18, 2011. ~100 attendees.

Kevin L. Kapuscinski
Judge of student poster presentations at the International Association of Great Lakes Research 55th Annual Conference on Great Lakes Research. 14 May 2012.
Panelist for a discussion on career paths in aquatic sciences and fisheries, New York American Fisheries Society, 2nd Annual Student Colloquium. 21 April 2012.
Reviewer of papers submitted to the IS.Rivers Integrative Sciences and Sustainable Development of Rivers 1st International Conference. December 2011.
Member of the Niagara Habitat Conservation Strategy Technical Advisory Committee (2011-present)

Robin W. Kimmerer
Grants review for American Indian Science and Engineering Society, GeoSciences Project
Manuscript review for Syracuse University Press. Mary Hood, “Seasonal Roads”

Donald J. Leopold
Reviewed P&T dossier for candidate at Purdue University, Dept. of Forestry and Natural Resources
Member, NYS Biodiversity Research Institute Executive Committee
Member, Board of Trustees, The Wetland Trust, Inc.
Assisted National September 11 Memorial & Museum regarding tree plantings, summer 2011
Review of historical photos for Chapman Historical Museum (Glens Falls, NY), Winter 2012
National Technical Committee for Wetland Vegetation, northeastern U.S. representative from academia to this US Army Corp of Engineers advisory committee, January 2007 to present.
Fire Island National Seashore Science Team, January to present
Upper Susquehanna Coalition, consulting on various wetland issues
Frequent contributor, upon request, to the Syracuse Post-Standard, including feature stories this past year on warm spring
Frequently answer questions from city of Syracuse employees regarding city trees, park plantings, and green infrastructure projects
Numerous local TV and radio interviews including interviews on fall color, abnormally warm weather, allergy season, native plant species
Interviewed by Forbes.com which ran an article on early and unusually warm spring, based on interview and follow up questions; article picked up by US News & World Report, ouramazingplanet.com, Yahoo news, and dozens of other websites and news organizations

Karin E. Limburg
Provided advice to various groups, e.g., Sustainable Hudson Valley
Ad-hoc reviewer for National Science Foundation
External reviewer for P & T decision, Drexel University
IMBER-LOICZ Continental Task Team (IMBER = Integrated Marine Biogeochemistry and Ecosystem Research; LOICZ = Land-Ocean Interactions in the Coastal Zone) – member, 2011-2014
Committee to advise NYSDEC/NYS DOS initiative on Ocean Ecosystem-Based Management Action Plan

Mark V. Lomolino
Outside Reviewer for Tenure and Promotion Decision – University of Rochester
Outside Reviewer for Tenure and Promotion Decision – Utah State University

Gregory G. McGee
Biology in the Classroom, with Solvay School District through ESF Outreach.
Reviewed 12 proposals (primary reviewer for 2) for Northeastern States Research Cooperative

Stacy McNulty
Adirondack Biodiversity Project (All-Taxa Biodiversity Project) – an expert-driven, citizen science-based project to inventory all life in the Adirondack region and excite residents of and visitors to Adirondack Park
Northeastern Partners in Amphibian and Reptile Conservation – co-lead vernal pool working group

Myron J. Mitchell
Board of Directors of Upstate Freshwater Institute
Member of Finance Committee of Upstate Freshwater Institute
Reviewed three research proposal for Greek Ministry of Education
Reviewed one research proposal for Norway Center of Excellence

Lee A. Newman
Judge for 11th ESF Environmental Challenge Science Fair, 14 March 2012

Dylan Parry
Member, New York State Invasive Species Advisory Council
Albany Pine Bush Preserve. I have continued a long-standing relationship with the Albany Pine Bush preserve. The director, Neil Gifford, and I have collaborated on numerous projects, and I provide consultation on the effects of management on insect species that are of conservation concern. Although there is no direct compensation, we benefit through free labor from preserve staff and occasional housing for graduate students. Brian Hoven (MS 2010), in particular, was availed a significant amount of Pine Bush resources during the implementation of his project. My new MS student, Georgina Keene, is working in the Preserve as well. As a goodwill ambassador for ESF, I was able to connect Bill Shields with the APBP, facilitating opportunities for honors student internships within the preserve.
NY DEC. I share ecological information on insect defoliators and exotic forest pests with Jerry Carlson, head of Forest Protection for NY-DEC. In addition, I have been running a pilot study on the use of forest tent caterpillar pheromone as a monitoring tool and coordinating sites with the DEC so that we
can compare their traditional sampling methods with this new tool. The DEC will fund trapping costs (fuel, pheromone, traps, etc.). Jerry has been providing a state vehicle and gas, which given the thousands of miles of driving this project entails, is a real important contribution.

Project Advance – Syracuse University, Forensics for High School teachers. I continue to run a two-day workshop each summer for the best and brightest high school science teachers in the state. I run a forensic entomology lab for them and teach them how to introduce this material into their own teaching programs. As forensic science is a great way to gain and keep student interest in biology, this program is in high demand. Although I get a token honorarium, the time investment is significant and thus is functionally un-compensated.

William A. Powell
Advisor to the NY chapter of The American Chestnut Foundation
Science advisory board member of the national American Chestnut Foundation
ESF Alumni Reunion Weekend tours of labs and greenhouse (9/24/11)

Neil H. Ringler
Onondaga Lake Habitat committees: Assistance tied to graduate mentoring program

Kimberly L. Schulz
Upstate Freshwater Institute Board Member October 2011-current

William M. Shields
Board of Directors (1996- ) and Treasurer (1996-2001), Melinda Gray Ardia Environmental Education Foundation, P.O. Box 621, Skaneateles, New York 13152.
Pro Bono consulting and expert witness for various individuals and entities including the Alliance of Families of MIA’s and POW’s, the Russian Orthodox Church, and the Innocence Project.

Alexander Weir
National Science Foundation Grant Application Reviewer (2 applications fall spring 2011
Continued Liaison with Central New York Mycological Society
Participant NSF funded Assembling the Fungal Tree of Life (AFTOL) Program
Appendix I. Unfunded Service to Professional Societies and Organizations

Jonathan B. Cohen
The Waterbird Society, Chair of Conservation Committee

Martin Dovciak
Appalachian Trail Mega-Transect Research Consortium (member)
Mountain Research Initiative Expert Database (member)
H.J. Andrews Experimental Forest LTER Program, OR (collaborator)
Demonstration of Ecosystem Management Options (DEMO) Study (collaborator)

John M. Farrell
International Association of Great Lakes Researchers, Session Chair at the 2012 Annual Meeting in Cornwall, Ontario, Habitat Restoration in the Great Lakes.
Guest Editor for special issue on Great Lakes Connecting Channels, Journal of Great Lakes Research
American Fisheries Society, Hutton Scholar Mentor for 2011 - applied to serve as mentor, sought applicants and an individual (Erica Mincerella) was awarded an 8 week scholarship to assist with research at TIBS (co-mentor with Chris Barry).
Board of Directors, Save The River Inc. – 1200 member Environmental Advocacy organization on the St. Lawrence River.
Thousand Islands Land Trust – service as conservation partner for TIBS.

Jacqueline L. Frair
The Wildlife Society
 College and University Wildlife Education Working Group (member, 2011-present)
 Marcellus Shale Working Group (chair, 2011-present)
 Shale Development Impacts on Wildlife Technical Review, panel member (2011-present)

Robin W. Kimmerer
Orion Society, Board of Directors
Oregon Museum of Science and Industry, advisor to Generations of Knowledge Project
Fabius Pompey School District, presenter at career Fair 12/8/11
Reviewer and Judge, John Burroughs Medal Award Committee 2011/12
Neighbors of the Onondaga Nation
Great Law of Peace Education Center Initiative
Haudenosaunee Environmental Task Force
Indigenous Women’s Science Network, founding member, participant in Wisdom of the Elders video project
Session organizer, Northeast Natural History Conference, Syracuse NY 4/12

Donald J. Leopold
Member, 2012 Program Committee, Northeast Natural History Conference, Syracuse, NY (held in April 2012)

Karin E. Limburg
Awards Committee, Kenneth Boulding Award for Ecological Economics, International Society for Ecological Economics
Convener, Fish Ecology sessions, Northeast Natural History Conference, April 16-18, 2012
Co-convener, Theme Session J, International Council for the Exploration of the Seas (ICES) Annual Science Conference (September 2012)
Ran for (and lost), President of Bioengineering Section, American Fisheries Society
Mark V. Lomolino  
Advisory Board, International Biogeography Society; Frontiers of Biogeography, online journal

Stacy McNulty  
Chair, Human Diversity Committee, Organization of Biological Field Stations  
Board Member-at-Large, Organization of Biological Field Stations  
Board Member, Adirondack Research Consortium

Myron J. Mitchell  
Member of International Scientific Steering Committee of the 8th International Conference on Acid Deposition to be held in Beijing, China, June 2011  
Chair of Hubbard Brook Experimental Forest Archive Committee  
Member of Search Committee for Data Manager for Hubbard Brook LTER (Syracuse University)

Lee A. Newman  
Association of Environmental Health Sciences – Scientific Advisory Board, organizer for Phytoremediation session at Annual Conference in Amherst, MA  
International Phytotechnology Society – President and then Immediate Past President; Chair of Gordon Award Committee, Chair of Educational Award Committee, Member of Organizing Committee for Annual Conference  
Chair: Organizing committee for CNY Biotechnology Conference  
Organizing committee for International Phytotechnology Society Conference

Dylan Parry  
Member, New York State Invasive Species Advisory Council  
Member, New York Forest Health Advisory Group. Share information, collaborate and coordinate activities of academic and government agencies involving major threats to the health of New York’s forests.

Sadie J. Ryan  
Society for Conservation Biology (SCB)  
Chapters committee, Member  
Student affairs committee, Chair  
2012 conference committee, Member  
Reviewer for SCB Student Awards for talks at:  
ICCB in NZ (December, 2011)  
ECCB in Edinburgh (April 2012)  
NACCB in Oakland, CA (July 2012)  
Reviewer for SCB’s Student Spotlight for North American Section (January, 2012)  
European Section (March, 2012)

William M. Shields  
Reviewed six proposals for American Philosophical Society Lewis and Clark Expeditions

Christopher M. Whipps  
American Fisheries Society Fish Health Section Technical Standards Committee (appointment June 2010-Jun 2014)
Appendix J. Funded Service to Governmental Agencies, Industrial and Commercial Groups, Public Interest Groups, etc.

John M. Farrell
USFWS Fisheries Advisory Committee Presentation, October 2011, Cortland NY (25 attendees)
Restoration Site Visit, August 2011 Department of State, NOAA, Ducks Unlimited, DEC, Clayton NY (10 attendees)
Review of Honeywell Onondaga Lake Shoreline Restoration Projects – development of restoration plan with group to restore habitat function for northern pike spawning (with Don Leopold and Neil Ringler).

Melissa K. Fierke
Presented on my experience with using Mastering Biology, an online homework program developed by Pearson, Inc., the publisher of the Campbell Biology textbook we use in EFB101. The presentation was in Albany to a university lecturers considering using Mastering in their classrooms.

James P. Gibbs
Website beta-tester, NYSERDA April 2012
Co-director, Wildlife Intelligence, LLC.

Robin W. Kimmerer
University of Wisconsin, consultant/advisor to POSOH indigenous environmental education project
College of the Menominee Nation, curriculum development

Donald J. Leopold
Served on Kansas State University, Department of Landscape Architecture Jarvis Faculty of Distinction jury, summer 2011
EPA STAR 2012 Graduate Fellowship Panel – F3 Terrestrial Systems Soil-Plant Ecology, Washington, DC, March 2012, 18 proposals reviewed, about 80 total in panel

Karin E. Limburg
Atlantic States Marine Fisheries Commission: Chair, peer review, American Eel Stock Assessment
Atlantic States Marine Fisheries Commission: Chair, peer review, River Herring Stock Assessment
External reader of doctoral dissertation, University of New South Wales, Australia

Gregory G. McGee
Northeastern States Research Cooperative, Theme I, University of Vermont, Burlington.

Stacy A. McNulty
Reviewer, National Science Foundation Field Stations and Marine Labs programmatic planning and site review

Myron J. Mitchell
Member of the EPA’s Clean Air Scientific Advisory Committee (CASAC)
Member of City of Syracuse the Natural Environment team for developing the sustainability plan for the City of Syracuse (2012-present)
Tsutomu Nakatsugawa
Reviewed and critiqued a document, Picloram critical review, by Syracuse Environmental Research
Associates for Forest Service

William A. Powell
One of my photographs of a person planting transgenic American chestnut is being published in a general
biology textbook (Brooker: Biology 3e).

Sadie J. Ryan
Research and Policy for Infectious Disease Dynamics (RAPIDD) “Foot and Mouth Disease”, 2011-
Supported by Fogarty Institute, NIH and the Department of Homeland Security (DHS) RAPIDD
program
Steering Committee Member, NSF iRCN-URE (Incubator Resource Coordination Network for
Undergraduate Biology Education). “Research Coordination Network: Interdisciplinary
Communication Laboratory for Undergraduate Biology (iCLUB)"

Kimberly L. Schulz
Member of National Science Foundation Evaluation Team for review of Long Term Ecological
Research Station at the University of Wisconsin, September 2011.

J. Scott Turner
Ran a workshop on water potential and soil water measurement for the Akwesasne Nation
Appendix K. Presentations to the Public

Jonathan B. Cohen

Martin Dovciak

John M. Farrell
Save The River, In the Schools Program Teacher Training Workshop June 2011 (20 participants)
Save The River, In the Schools Program Teacher Training Workshop August 2011 (15 participants)
Lake Ontario Fisheries Coalition Jan 2012 (20 participants)
Thousand Islands Land Trust Lecture to Board of Directors, Restoration of Coastal Wetlands in the Thousand Islands Region July 2011 (20 attendees)
Zenda Farms Picnic June 2011 Thousand Islands Land Trust Interpretive display (250 participants)
Goose Bay Association August 2011 lecture - A Fish Habitat Conservation Strategy for the upper St. Lawrence River (30 participants)

Melissa K. Fierke
Girdling, peeling, splitting and rearing to know: emerald ash borer and Sirex noctilio research in New York State. Presented at multiple venues:
3/2012, Cornell University Geneva Campus Agriculture Station. 30 people.

Jacqueline L. Frair
ESF Foundation Board of Directors Meeting – Blue Mountain Lake, NY (2011)
NY State DEC Regional Directors Meeting – Hamilton, NY (2011)
Erie County Federation of Sportsman’s Clubs – Armor, NY (2011; 450 people)

James P. Gibbs
Ecology, evolution and conservation of Galapagos tortoises, Invited lecture, Texas A&M IGERT Program, College Station, TX Nov 2-4, 2011 (40 attendees)
Wildlife conservation in the Russian Altai: Starting from scratch, Invited lecture, Texas A&M IGERT Program, College Station, TX Nov 2-4, 2011 (20 attendees)
Ecological surveys in the Galapagos Islands, SUNY-ESF Chapter of the Society of Conservation Biology, April 19, 2012 (35 attendees)
Of herps and human culture, SUNY-ESF’s Office of Multicultural Affairs, April 11, 2012 (8 attendees).

Charles A.S. Hall
“Peak oil, EROI and your financial future” SUNY Oswego April 23
“Peak oil, EROI and your financial future” Oxford University U.K. March 29th

Thomas R. Horton
Numerous mushroom forays and meetings with the Central New York Mycological Society, average attendees 10 – 20/event.
Kevin L. Kapuscinski
Kevin Kapuscinski, John Farrell, and Derek Crane. 5 October 2011. Great Lakes muskellunge research. NYSDEC Great Lakes Section Meeting, ~ 30 in attendance

Robin W. Kimmerer
Restoration and Reciprocity. Adirondack Center for Writing. ECHO center, Burlington, VT 9/27/12, 30
Returning the Gift. Remarks for the Spring Creek Project for Nature, Philosophy and the Written Word, environmental ethics gathering for the “Blue River Declaration”, 120
Becoming Indigenous to Place, St. Olaf’s College, Visiting Scholar 3/25-27 Northfield MN, 50
Earth Stewardship. Young Biologists Club, Sacred Heart School, 2/16/12 40
Syracuse Botanical Club, Introduction to Moss Identification, 3/5/11
Revitalizing Traditional Plant Knowledge, Northwest Indian College, Bellingham WA.3/21/12
Finding Common Ground between Indigenous and Scientific Knowledge, Humboldt State University, Arcata, CA 3/22/12, 50
Environmental Sustainability Roundtable, Humboldt State University, Arcata, CA 3/23/12, 10
Finding Common Ground between Indigenous and Scientific Knowledge, Cornell University, Ithaca, NY.

Donald J. Leopold
Native plants for the landscape, Watson’s Greenhouses, Lafayette, June 2011, about 25 people in attendance
Woodland and inland salt marsh ecology at Montezuma Wildlife Refuge, Finger Lakes Native Plant Society, August 2011 (with T. Eallonardo), about 12 people in attendance
Natural communities as templates for gardens, urban plantings, and restoration projects, Habitat Gardening in CNY, Liverpool, NY, September 2011, about 75 people in attendance.
Natural communities as templates for restoring sustainable landscapes, keynote talk at The American Chestnut Foundation annual meeting, Java, NY, October 2011, about 150 people in attendance.
Tree walk on the Mt. Hope Reservoir Trail, Oneida, NY, October 2011, about 25 people in attendance.
Neat native plants for the Garden, Fayetteville Garden Club, Fayetteville, January 2012, about 50 people in attendance.
Native plant species for the landscape, GardenScape Professionals and Cornell Cooperative Extension Monroe County Annual Educational Conference and Trade Show, Rochester, February 2012, about 150 people in attendance.
Natural communities as templates for restoring sustainable landscapes, Utica College Seminar Series, Utica College, February 2012, about 50 people in attendance
Woody plant species for the winter garden, Annual CNYSNLA Trade Show and Education Day, Skaneateles, NY, February 2012, 100+ people in attendance
Native plant species and their use in sustainable landscapes, Annual STNLA Education Day, Owego, NY, March 2012, about 100 people in attendance.
Success in the Shade, 17th Men’s Garden Club of Syracuse Spring Gardening Seminar, East Syracuse, April 2012, about 90 people in attendance.
Native plant species and natural communities as templates for restoring degraded landscapes and creating sustainable, green systems, Keynote (invited) to New York Flora Association Annual Meeting held in conjunction with the Northeast Natural History Conference, Syracuse, NY, April 2012, about 60 people in attendance.
Natural communities as templates for native plant selection for gardens, urban plantings, and restoration projects, Syracuse Chapter of the Society of Conservation Biology, Syracuse, April 2012, about 60 people in attendance.


**Karin E. Limburg**

**Gregory G. McGee**
Bryant & Stratton General Ecology Class, Winter Botany Hike at Highland Forest, Feb. 11, ~30 attending

**Stacy A. McNulty**
Teddy Roosevelt Days Sept. 11, HWF - 14
Sportsmen: Got Game? Deer and Bear, Oct. 2, AIC - 15
BioBlitz, Oct. 8, AIC - 20
Northern NY Audubon bird walk, Dec. 3, Newcomb - 8

**James P. Nakas**
LaFayette Optimists, LaFayette, New York, Fall 2011, attendance 50 (approx.), “Rabies in the Environment”.

**Lee Newman**
Environmental Phytotechnologies. Richard Stockton College Biotechnology Seminar Series, Pomona, NJ, 16 November 2012 (~50)
Phytotechnology for addressing environmental problems, a two-day presentation as part of Contaminacion Ambiental y Biorremediacion at the Instituto de Ecologia, Presented as a video lecture, Xalapa, Veracruz, Mexico, 22-23 August 2011 (~25)

**William A. Powell**
Presentation on chestnut research and panel discussion, The Annual American Chestnut Foundation meeting at Javis Center, Buffalo, NY, 10/20 – 22/12 (approximately 100 attended)
Restoration of the American chestnut: Old problem, New solutions. 4/18/1. New York Botanical Gardens, Bronx, NY (approximately 120 attended) – Also Planted the first transgenic American chestnut trees ever at NYBG.

**Sadie J. Ryan**

**Kimberly L. Schulz**
Limnology Poster Session for the Cortland-Onondaga Federation of Kettle Lake Associations, Inc. (COFOKLA). 60 attendees; April 18, 2012
William M. Shields

J. Scott Turner
The air-conditioned termite nest revisited. Seminar program, Jacob Blaustein Institute for Desert Research, Sede Boqer, Ben Gurion University of the Negev. 20 December 2011. About 20 people in attendance.
Appendix L. Miscellaneous Publications and Outreach Activities and Materials

John M. Farrell

Thomas R. Horton

Kevin L. Kapuscinski

Robin W. Kimmerer
“Wildflowers on the Verge” Plank Road magazine in press
“Braiding Sweetgrass” book, in press from Milkweed Editions, scheduled release date fall 2012

Donald J. Leopold
Produced (summer 2011), with Christopher Baycura (ITS) 100 tree videos in HD, each about 2 to 3 minutes in length, and available for downloading and viewing at www.esf.edu/trees/youtube or www.esf.edu/trees/itunesu. Tree species include most of the trees included in the outdoor labs for EFB 336 (Dendrology) plus dozens of introduced but commonly planted tree species in CNY.
Produced (fall 2011), with Christopher Baycura (ITS) a five-minute video on fall colors, available on ESF web sites.
With Paul Otteson’s assistance, added Guide to Fall Colors in Upstate New York on ESF web site (http://www.esf.edu/ecenter/CNY%20Fall%20Colors.pdf)

Karin E. Limburg
Myron J. Mitchell

Lee A. Newman

Dylan Parry

Stephen A. Teale

J. Scott Turner

Media

<table>
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<tr>
<th>Title/Description</th>
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<td>Scott Turner and Berry Pinshow outline the basic method for using laser</td>
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sheets to illuminate the structure of complex flows.

**J S Turner. 2012**

Using lasers to visualize boundary layer flows
Berry Pinshow, Nils Napp, Kirstin Petersen and I use laser sheets to visualize boundary layer flows near the entrances of the ant *Pheidole*. Filmed on location in Namibia

**C Baycura. 2012**

Biology’s Second Law. Introduction.
The problem with biology today is we think we have a coherent theory of biology, but we don't. Homeostasis—biology's second law—can be the bridge to get us there.

**J S Turner. 2012**

Biology’s Second Law: Homeostasis
If homeostasis is Biology's Second Law, what's homeostasis? Our current conception of homeostasis is a pale imitation of Claude Bernard's original conception of it. To appreciate how profound an idea it is, we must define it properly, and clear away some of the misconceptions that have built up around it.

**J S Turner. 2012**

Biology’s Second Law: Lamarck
Lamarck, widely regarded as a misguided predecessor of Darwin, is one of the most misunderstood figures in biology. Here I try to set the record straight, for it is in the true understanding of Lamarck that the need for Biology's Second Law is justified.

**J S Turner. 2012**

Biology’s Second Law: The Weismann Barrier. The barrier that wasn't
The Weismann barrier—the doctrine of germline segregation developed by the German biologist August Weismann in the late 19th century—has long been regarded as the decisive disproof of the Lamarckian idea. New discoveries in molecular genetics are showing the Weismann barrier to be just the opposite of what it has long been thought to be. Rather than isolating the germline cells, the Weismann barrier is the active manager of epigenetic inheritance between soma and germline.

**J S Turner. 2011**

An Introduction to Namibia
A brief introduction to the country of Namibia, prepared in support of SUNYESF’s mission for advancing international environmental science.

**C Baycura. 2012**

Conversations with Scott Turner: Lisa Margonelli
Lisa Margonelli is a freelance journalist. Until recently, she was an energy policy analyst for the New America Foundation in Washington DC. She is also the author of the acclaimed book *Oil on the Brain*. Here, we discuss energy, oil and its future.

**C Baycura. 2012**

Conversations with Scott Turner: Paul Ottesen
Paul Ottesen, webmaster of SUNY-ESF, discusses the big changes coming in the relationship between higher education and educational content delivery on the web.

**C Baycura. 2009**

Conversations with Scott Turner: Robert Sternberg
Robert Sternberg, a biologist and filmmaker from Imperial College of London, visited ESF to discuss his film about the controversial biologist Donald Williamson, who claimed to have shown a new process of evolution in his work on starfish larvae.
C Baycura. 2012. Conversations with Scott Turner: Eugene Tsui
Eugene Tsui is an internationally renowned architect, planner and
designer, interested in applying lessons from nature to his designs.

Nora Bateson, daughter of the famous anthropologist, psychologist and
evolutionist, visited ESF to screen her film about her father, An Ecology of
Mind. We talk about her father, her film, and what she learned from her
father about life.

Eugene Tsui is an internationally renowned architect, planner and
designer, interested in applying lessons from nature to his designs.

J S Turner. 2011. The paradoxical locomotion of the water strider
Water striders inhabit the interface between air and water. When they move
about, are they swimming or walking? The answer will surprise you.

The rich social interactions of swarms of Macrotermes workers.

J S Turner. 2011. Angie and the vortex
Swimming, flying and paddling all rely on a common mechanism for
generating thrust - imparting momentum to a relatively stationary fluid
vortex.

J S Turner. 2011. Life at low Reynolds number
The strange viscous world of little things that live in ponds.

The mound building termites of southern Africa are natural miners that have
developed some novel methods for ventilating their subterranean habitats.
Prof Scott Turner describes new findings that clarify these mechanisms,
and outlines some of their implications for novel strategies for ventilating
mines. Presented to the Mine Ventilation Africa 2011 conference at the
Sandton Sun Hotel, Johannesburg, 16 November 2011.

J S Turner. 2011. Transient state gas exchange
How termite mounds capture transient state turbulent winds to power the
colony's respiratory gas exchange. This video summarizes the two principal
mechanisms that are believed to promote mixing of stratified nest air and
mound air: pendelluft mixing and resonant mixing. This video is an excerpt
from a longer video presented to an international conference on new
concepts in mine ventilation, in Johannesburg, South Africa

This is a 22 hour time lapse sequence of Macrotermes workers building in
an observation pipe. This demonstrates a kind of cognitive trap, where
building continues for much longer than it does in the mound. This is due
to a distortion of the feedback signals that control repair building, caused
by confining building within the impermeable walls of the pipe.

J S Turner. 2011. Repair building by a Macrotermes swarm
When a hole is drilled in a Macrotermes mound, a crew of workers is
mobilized to plug the breach. Here is a time lapse video (spanning 8 hours)
of that process in action
Appendix M. Foreign Travel

Martin Dovčiak
Visit to Technical University in Zvolen, Slovakia (August 14-20, 2011) to discuss new collaborative opportunities stemming from the past studies of woody colonization of abandoned mountain meadows in Carpathians. Currently we are preparing an invited paper for the special issue of Biodiversity & Conservation that deals with diversity patterns in European grasslands across multiple taxa, regions, and scales (Wiezik M, Svitok M, Dovčiak M, Wieziková A. Shrub encroachment alters composition and diversity of ant communities in abandoned grasslands in western Carpathians. Biodiversity & Conservation.

John M. Farrell
Ontario, Canada Serve a session Chair at the International Association of Great Lakes Research Meeting

Jacqueline L. Frair
Russian Altai, Siberia, August 2011, Participate in Argali sheep surveys with World Wildlife Fund and Russian Parks personnel. Expedition led and funded by James Gibbs.

James P. Gibbs
Galapagos Islands, Ecuador 5/15-6/12, 2011 (launch phase II: Project Pinta, collaborate on conducting ecological surveys of Santa Fe Island, advise Park Service on conservation research needs)
Galapagos Islands, Ecuador, 9/29-10/5, 2011 (help coordinate and deliver Galapagos Knowledge Management workshop)
Altai Republic, southcentral Siberia, Russia, 7/10-8-23, 2011: coordinate installation of anti-poaching devices in Altaisky Zapovednik during July with Burnett and Carney and coordinate ESF graduate student contingent (Arrigoni, Hunter, Atwood) along with Frair and Zabala for argali sheep census extending from Ukok plateau through Sailugem National Park to Chikhachyova Ridge.
Bilboa, Spain 12/25-12/31, 2011 (collaboration with colleague in IHOBE–Sociedad Pública de Gestión Ambiental)
Veracruz/Xalapa, Mexico 2/13-2/17, 2012 (site visit as member of INECOL external evaluation committee)
Kiev, Ukraine 3/17-21 2012 (second site visit to National University of Ukraine Kiev Mohyla Academy as International Scholar, HESP Academic Fellowship Program Soros Open Society Foundation).
Budapest, Hungary, 3/21-25 2012 (present as Academic Fellow at Soros Open Society Foundation Cross-Regional Discipline Group Meeting at the Central European University)

Charles A.S. Hall
Toronto, to International Degrowth conference.

Donald J. Leopold
One of three invited speakers to make a presentation at the 2nd International Symposium on the Biology of Rare and Endemic Plants, in Mugla, Turkey, April 2012.

Karin E. Limburg
Traveled to Sweden (Stockholm and Lund), June 2011, to discuss research collaborations.
Myron J. Mitchell
Acid Rain meeting in China, June 2011
Northwatch workshop in Germany, May 2012

Sadie Ryan
Krakow, Poland, July 2011, European Congress for Theoretical and Mathematical Biology
Auckland, New Zealand, December 2011, International Congress for Conservation Biology

Stephen A. Teale
China, July, 2011 – Fujian Prov. (Pingtan Island, Fuzhou, Sanming), Heilongjiang Prov. (Harbin, Laoshan); Research on chemical attractants of longhorned beetles.
British Columbia, July, 2011 – Simon Fraser Univ, Burnaby, BC – to attend the annual meeting of the International Society of Chemical Ecology
Ecuador, February, 2012 – To conduct field research on Philornis downsi, an invasive insect parasite of birds in the Galapagos Islands.

J. Scott Turner
Trinidad and Tobago. December 2011. To present a paper at PACAM XII
Israel. December 2011. Grant development
Namibia. April 2012. Field research
Namibia. June 2012. Field research

Alex Weir
Costa Rica, Feb/March 2012, NSF-supported Research with 4 students (1 graduate, 3 undergraduates)
Italy, June 2012, collaboration with Professor Walter Rossi
Appendix N. Theses and Dissertations completed
(i.e., all requirements met and degree awarded)

M.S. Theses
Boslett, Andrew. A hedonic analysis of urban environmental amenities in the city of Syracuse, New York (Limburg and Beier).
Collignon, Robert. Semiochemicals of Philornis downsi (Diptera: Muscidae), A parasite of passerine birds of the Galapagos Islands (Teale).
Dean, Kimberly. Parasitoids and pathogens of emerald ash borer: Implications for biological control at all life stages (Fierke).
Farrell, Molly. Plant community Development and invisibility at an industrial waste restoration site (Leopold).
Gereg, Ian. Growth rates, plumage development, and behavioral observations of monotypic Anseriformes (Baldassarre).
Gibson, Jessica. Ultrastructural Observations of the Laboulbeniales (Weir).
Henning, Brian. Fish habitat enhancement – role of aquatic excavation in cattail-dominated wetlands on fish movement (Farrell).
Hunter, Elizabeth. Ecosystem restoration through the introduction of ecological analog giant tortoises to Pinta Island, Galápagos (Gibbs).
Lagoueyte, María Elena Gutiérrez. Vegetation-environment relationships under current and future climate in the páramos, tropical high mountain ecosystems of Colombia (Dovciak).
LaMere, Courtney. Influence of variable mast production on American black bear reproduction and human-black bear conflicts in The Adirondack Mountains of New York State (McNulty).
Marmolejo, Arlen. Community assemblage patterns of inland fishes in southern regions of the Dominican Republic (Stewart).
Meyers, Andrew. Landscape and microhabitat drivers of bog turtle (Glyptemys muhlenbergii) occurrence in southeastern New York State (Gibbs).
Reeve, Brooke. Ranavirus-exposed wood frog (Lithobates sylvaticus) tadpoles are robust to three natural environmental challenges. (Brunner).
Skabeikis, Dominick. Male pheromone of the pine sawyer beetles, Monochamus s. scutellatus (Say) and Monochamus notatus (Drury) (Coleoptera: Cerambycidae): Production, response and circadian rhythms (Teale and Fierke).
Snyder, Caitlin. Terrestrial salamanders in the Adirondack Mountains: Feeding ecology and implications of calcium (McNulty).
Standley, Christopher. Emergence phenology and ecological interactions between the exotic Sirex noctilio, native siricids, and a shared guild of native parasitoids (Fierke and Parry).
Still, Joshua. Common merganser (Mergus merganser) Effects on hatchery-reared brown trout (Salmo trutta) and spring movements of adult males in southeastern New York (Baldassarre).
Vineis, Joseph. Links between the community structure of ectomycorrhizal fungi and nitrogen availability (Horton).
Ph.D. Dissertations
Buckley, Shannon. Towards a greater understanding of the urban carbon cycle: Variations of atmospheric CO₂ fluxes within Syracuse, New York, USA (Mitchell).
Kapusinski, Kevin. Ecology of Great Lakes muskellunge stock identification and contributions of individual spawners to young of year production as inferred from genetic analyses (Farrell).
Kroll, Stephanie A. The influence of climate and flow regulation on aquatic macroinvertebrate communities, 134 p (Ringler).
Monteiro, Rita. Land use and its influence on coastal fisheries (Limburg).
Mukherjee, Som. Isolation and characterization of tobamo- and tombusviruses from waters in New Zealand (Castello).
Quinn, Christina. Profiling and characterization of microRNAs involved in loblolly pine (Pinus taeda) pollen germination (Fernando).
Rivera, Yazmin. Anthropogenic effects on ectomycorrhizal fungi at the population and community levels (Horton).
Watson, Linet. Ecology and conservation of Arapaima in Guyana: implications for a giant fish in distress (Stewart).
Zhang, Bo. Transgenic American chestnut (Castanea dentata) expressing oxalate oxidase developed through Agrobacterium-mediated Co-transformation shows reduced Cryphonectria parasitica necrosis, 131 p. (Powell).
Zhu, Chengjun. Production and characterization of polyhydroxyalkanoates (PHAs) from renewable feedstocks by Burkholderia cepacia ATCC 17759 (Nakas).
Appendix O. MPS students who completed degree requirements

Braunmueller, Julia (Shields)
Grosso, Michael (Underwood)
Joy, Amanda (Saunders)
Orlousky, Marian (Horton)
Penney, Mary (Ringler)
Appendix P. Faculty and Student Awards

FACULTY – DEPARTMENT, COLLEGE, AND SUNY RECOGNITION

FACULTY – REGIONAL, NATIONAL AND INTERNATIONAL RECOGNITION
Cohen, Jonathan (co-author) The Wildlife Society Outstanding Publication Award, Monograph Category
Jacqueline Frair The Wildlife Society Student Chapter Advisor of the Year
Jacqueline Frair (co-author) The Wildlife Society 2011 Wildlife Publication Award – Outstanding Article

GRADUATE STUDENTS – DEPARTMENT AND COLLEGE RECOGNITION
Juan Carlos Alvarez-Yepiz Robert L. Burgess Graduate Scholarship in Ecology
Juan Carlos Alvarez-Yepiz Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Ceili E. Bachman Maurice and Annette Alexander Wetlands Research Award
Eric Bauer Edna Bailey Sussman Foundation Fellowship
Jessica Bouchard Edna Bailey Sussman Foundation Fellowship
Elaina Burns Edna Bailey Sussman Foundation Fellowship
Jonathan A. Cale Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Jonathan A. Cale Dr. Samuel Grober ’38 Graduate Fellowship
Maureen M. Durkin Betty Moore Chamberlaine Memorial Award
Maureen Durkin Edna Bailey Sussman Foundation Fellowship
Christopher J. Foelker Leroy C. Stegeman Award
Christopher J. Foelker Savel B. Silverborg Memorial
Lauren M. Goldmann Robert A. Zabel Scholarship
Jeremy A. Hayward Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Rie Iriyama Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Betty Jo Jivoff Edna Bailey Sussman Foundation Fellowship
Brent Johnson Edna Bailey Sussman Foundation Fellowship
Kevin L. Kapuscinski EFB Outstanding Doctoral Student
Georgia R. Keene John and Etta Simeone Scholarship
Matt Regan Edna Bailey Sussman Foundation Fellowship
Scott J. Sveiven Maurice and Annette Alexander Wetlands Research Award
Chad Walz Edna Bailey Sussman Foundation Fellowship
Jay Ward Wason III Edwin H. Ketchledge Scholarship
Rebecca L. Walling Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Justin L. West Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship
Jennifer Yantachka Edna Bailey Sussman Foundation Fellowship
Amelia Zhang Josiah L. Lowe-Hugh E. Wilcox Graduate Scholarship

GRADUATE STUDENTS – REGIONAL AND NATIONAL RECOGNITION
Juan Carlos Alvarez-Yepiz Award to attend “Next Generation of Sonoran Desert Researchers’ Summit
Juan Carlos Alvarez-Yepiz Award to attend Likelihood Methods in Ecology course at Cary IES
Andrew Brainard NOAA National Estuarine Research Reserve Graduate Fellowship
Andrew Brainard Sigma Xi Grant-in-Aid of Research
Shannon M. Buckley American Ornithologists Union Student Membership award.
Shannon M. Buckley Garden Club of America 2012 Francis M. Peacock Scholarship
James McCarthy Award to attend NSF/SMB workshop in South Africa
Brent Johnson Society of Wetlands Scientists Student Research Grant
Christina Killourhy Best Student Paper, NYS American Fisheries Society Annual Meeting
Christina Killourhy Best Student Paper, Great Lakes Research Consortium Annual Meeting
Alison Kocek NPS Gateway Learning Center Fellowship
Christoper Nack Award to attend 36th Annual Larval fish Conference in Norway
Emily Ogburn Hudson River Foundation Tibor T. Polgar Fellowship
Patrick Raney NASA-MSU Professional Enhancement Award to attend US-IALE 2012
Anna Stewart Award to attend NSF/SMB workshop in South Africa
Rebecca Walling Mianus River Gorge Preserve Graduate Research Grant
_funmi afelumo 1st place, suny esf spotlight on research poster session
David S. Andrews Graduate of SUNY ESF Undergraduate Honors Program
David S. Andrews SUNY Chancellor’s Award for Student Excellence
Alexandra Ashby John Morrison Award
Jaime Barrett Class of 1951 Scholarship
Timothy Callahan Class of 1951 Scholarship
Catherine E. Cort Graduate of SUNY ESF Undergraduate Honors Program
David S. Andrews Graduate of SUNY ESF Undergraduate Honors Program
Kristin M. Doherty Graduate of SUNY ESF Undergraduate Honors Program
Jennifer Eberl J.M. Chamberlain Award
Gennaro A. Falco III Distinguished Biology Scholar Award – Forest Health
Brie D. Foltz Distinguished Biology Scholar Award – Conservation Biology
Kristen M. Gloeckler Graduate of SUNY ESF Undergraduate Honors Program
Victor S. Koos Ralph T. King Memorial Award
Katherine L. McKissick Distinguished Biology Scholar Award – Biotechnology
Katherine L. McKissick Graduate of SUNY ESF Undergraduate Honors Program
Erin T. Moody Phyllis Roskin Memorial Award
Rebekah Meyers 2nd place, SUNY ESF Spotlight on Research poster session
Rebekah C. Myers Distinguished Biology Scholar Award – Wildlife Science
Rebekah C. Myers Graduate of SUNY ESF Undergraduate Honors Program
Michael A. Pardo Distinguished Biology Scholar Award – Environmental Biology
Michael A. Pardo Distinguished Biology Scholar Award – All Majors
Michael A. Pardo Graduate of SUNY ESF Undergraduate Honors Program
Michael C. Patton Distinguished Biology Scholar Award – Aquatic & Fisheries Science
Danielle M. Salisbury Phyllis Roskin Memorial Award
Danielle M. Salisbury Distinguished Biology Scholar Award – Natural History & Interpretation
Jenna Sanford 3rd place, SUNY ESF Spotlight on Research poster session
Eric J. Stone Izen Ratzlaff Award
Colin R. Swider Distinguished Biology Scholar Award – Environmental Biology
Colin R. Swider Distinguished Biology Scholar Award – All Majors
Colin R. Swider EFB’s Departmental Scholar
Colin Swider Alumni Association Memorial Scholarship (Senior class)
Mariah S. Taylor Thousand Islands Biological Station Undergraduate Research Fellowship
James Tucci Alumni Association Memorial Scholarship (Soph. class)
Angela G. Vitale Patricia ’78 and Jeff ’77 Morrell Scholarship
Jogan Ruth Will Joseph & Ruth Hasenstab Memorial Scholarship
Jonathan Willow Cranberry Lake Biological Station Undergraduate Research Fellowship
Gwendolyn Withers Robin L. Peitropaoalo Award

UNDERGRADUATE STUDENTS – REGIONAL & NATIONAL RECOGNITION
Katherine L. McKissick SUNY (wide) Undergraduate Research Showcase poster selection
ESF Chapter TWS NYS TWS Quiz Bowl Champions