

Black Rock Forest Papers and Publications June 2008

2008

- Bowman, W.P., M.H. Turnbull, D.T. Tissue, D. Whitehead and K.L. Griffin. 2008. Sapwood temperature gradients between lower stems and the canopy do not influence estimates of stand-level stem CO₂ efflux. *Tree Physiology Special Issue: IUFRO workshop Regional Forest Responses to Environmental Change*.
- Boyd, J.N., and K.L. Griffin. 2008. Cost-effectiveness of leaf energy and resource investment of invasive *Berberis thunbergii* (Japanese barberry) and co-occurring native shrubs. *Oecologia*, in review.
- Burdette, C.E. 2008. Coarse woody debris dynamics in Black Rock Experimental Forest of the Hudson Highlands. 2008 Environmental Science Senior Thesis Poster Session, Columbia University.
- Burdette, C.E. 2008. Coarse woody debris dynamics in Black Rock Experimental Forest of the Hudson Highlands. Senior Thesis, Department of Ecology, Evolution, and Environmental Biology, Columbia University, New York.
- Chan, N.L. 2008. Reproductive and offspring traits in northern red oak, *Quercus rubra*, at Black Rock Forest. Poster. 2008 Environmental Science Senior Thesis Poster Session, Columbia University.
- Chan, N.L. 2008. Reproductive and offspring traits in northern red oak, *Quercus rubra*, at Black Rock Forest. Senior Thesis, Department of Environmental Science, Barnard College.
- Ferraz, G. 2008. Effects of food availability and predator presence on mixed-species flock formation: an experimental test. *Journal of the American Ornithologist's Union*, in review.
- Gerard-Little, P.A. 2008. Establishing a dated stratigraphy for a core from Black Rock Forest, Hudson Highlands, New York. 2008 Environmental Science Senior Thesis Poster Session, Columbia University.
- Gerard-Little, P.A. 2008. Establishing a dated stratigraphy for a core from Black Rock Forest, Hudson Highlands, New York. Senior Thesis, Department of Environmental Science, Barnard College.
- Levy, J. 2008. Total belowground carbon allocation at Black Rock Forest. MS thesis, Department of Earth and Environmental Sciences, Columbia University.
- Lewis, J.D., J. Licitra, A. R Tuininga, A. Sirulnik, G. Turner and J. Johnson. 2008. Oak seedling growth and ectomycorrhizal colonization are less in eastern hemlock stands infested with hemlock woolly adelgid than in adjacent oak stands. *Tree Physiology Special Issue: IUFRO workshop Regional Forest Responses to Environmental Change* 28: 629-636.
- Li, J., C. Xu, K.L. Griffin, and W.S.F. Schuster. 2008. Dendrochronological potential of Japanese barberry (*Berberis thunbergii*): A case study in the Black Rock Forest, New York. *Tree-ring Research*, in review.
- Schuster, W.S.F., K.L. Griffin, H. Roth, M.H. Turnbull, D. Whitehead and D.T. Tissue. 2008. Changes in composition, structure, and aboveground biomass over seventy-six years (1930-2006) in the Black Rock Forest, Hudson Highlands, southeastern New York State. *Tree Physiology Special Issue: IUFRO workshop Regional Forest Responses to Environmental Change*. 28: 537-549.

- Shapiro, J.B., H.J. Simpson, K.L. Griffin, and W.S.F. Schuster. 2008. Hydrogen ion, sulfate, nitrate and ammonium in precipitation at West Point, NY: decadal decreases in acidic deposition and regional emissions of SO₂ and NO_x. Atmospheric Environment, in review.
- Son Young Kim, D., C. Burns, and D. Burg. 2008. Impact of urbanization of amphibians in the New York Metropolitan Region. Poster, WildMetro.
- Tupper, E.B. 2008. Effects of urbanization on pigment content in red oak seedlings using remote sensing. 2008 Environmental Science Senior Thesis Poster Session, Columbia University.
- Tupper, E.B. 2008. Effects of urbanization on pigment content in red oak seedlings using remote sensing. Senior Thesis, Department of Environmental Science, Barnard College.
- Xu, C.-Y., and K.L. Griffin. 2008. Scaling foliar respiration to the stand level throughout the growing season in a *Quercus rubra* forest. Tree Physiology Special Issue: IUFRO workshop Regional Forest Responses to Environmental Change, 28:637-646.
- Xu, C. and K.L. Griffin. 2007. Seasonal variation in the temperature response of leaf respiration in *Quercus rubra* II: scaling foliar respiration to the stand level throughout the 2003 growing season. Ecological Modelling, in review.
- Xu, C. and K.L. Griffin. 2007. Seasonal variation in the temperature response of leaf respiration in *Quercus rubra* II: scaling foliar respiration to the stand level throughout the 2003 growing season. Poster, Lamont-Doherty Earth Observatory of Columbia University.

2007

- Applebome, P. 2007. Taking the measure of snowfalls, or the lack of them. New York Times. Sunday January 7, 2007.
- Bowman, W.P., W.S.F. Schuster, and K. Griffin. 2007. Between tree variation in stem CO₂ efflux is primarily related to diameter growth and wood respiratory activity, not xylem [CO₂] and sap flux density, in *Quercus rubra*, Plant, Cell, and Environment, in review.
- Buzzetto-More, N. 2007. Using Technology to Create Global Learning Communities. Journal of Distance Education. In review.
- Carpi, A., A. Frei, D. Cocris, R. McCloskey, E. Contreras, and K. Ferguson. 2007. Analytical artifacts produced by a polycarbonate chamber compared to a Teflon chamber for measuring surface mercury fluxes. Analytical & Bioanalytical Chemistry 388(2): 361-365.
- Collins, G. 2007. Forests in peril: Concern mounts that alien species will crowd out classic oak and maples. New York Times, Sunday October 7, 2007.
- Detroy, V. 2007. The photosynthetic potential of *Quercus rubra* L. as estimated from chlorophyll fluorescence along an urban to rural transect. Senior thesis, Department of Earth and Environmental Sciences, Columbia University.
- Ellison, A.M., S. Record, A. Arguello, and N.J. Gotelli. 2007. Rapid inventory of the ant assemblage in a temperate hardwood forest: species composition and assessment of sampling methods. Environmental Entomology, in press.
- Filosa, D.C. 2007. Unraveling the mercury mystery. Poster, Hunter College, CUNY.
- Pederson, D.C., Peteet, D.M. 2007 Carbon storage in soils of the Cascade Brook Watershed, Black Rock Forest. Poster, Lamont-Doherty Earth Observatory of Columbia University.
- Schuster, W.S.F., editor. 2007. Fifth Black Rock Forest Research Symposium: Proceedings.
- Searle, Stephanie, C. Marin and K. Griffin. 2007. Proposed causes and mechanisms for variation in photosynthesis of *Quercus rubra* along an urban to rural gradient. Columbia Undergraduate Science Journal 2:1.

- Shapiro, J.B., H.J. Simpson, K.L. Griffin and W.S.F. Schuster. 2007. Precipitation chloride at West Point, NY: Seasonal patterns and possible contributions from non-seawater sources. *Atmospheric Environment* 41: 2240-2254.
- Sircely, J.A. 2007. The influence of scale on the relationships among diversity, function, and invisibility. MS thesis, Department of Ecology, Evolution, and Environmental Biology, Columbia University, New York.
- Sircely, J.A., Schuster, W.S.F., Naeem, S. 2007. Evidence for niche-based community assembly in a deciduous forest understory plant community. Poster, Department of Ecology, Evolution, and Environmental Biology, Columbia University, New York.
- Trimarco, E. 2007. An observational study of community structure of the forest floor, Black Rock Forest, New York. MS thesis, Department of Ecology, Evolution, and Environmental Biology, Columbia University.
- Xu, C-Y., K.L. Griffin, and W.S.F. Schuster. 2007. Leaf phenology and seasonal variation of photosynthesis of invasive *Berberis thunbergii* (Japanese barberry) and two co-occurring native understory shrubs in a northeastern United States deciduous forest. *Oecologia*, 154:11-21.
- Xu, C-Y., W.S.F. Schuster and K.L. Griffin, 2007. Seasonal variation of temperature response of respiration in invasive *Berberis thunbergii* (Japanese barberry) and two co-occurring native understory shrubs in a northeastern United States deciduous forest. *Oecologia*, 153:809-819.

2006

- Abbott, D., M-A Courty, Sa. Costa, St. Costa, P. Gerard-Little, L. Burckle, D. Breger, and S. Pekar. 2006. Evidence for multiple Holocene marine impact events: Ejecta in a bog core. *EOS, Trans. AGU*, 87 (52), Abstract PP23D-1806.
- Breger, D., D. Abbott, L. Burckle, P. Gerard-Little, H. Elkington, and S. Martos. 2006. Plop plop fizz fizz: Identifying and characterizing Holocene microejecta from two oceanic cosmic impacts using analytical scanning electron microscopy. *EOS, Trans. AGU*, 87 (52), Abstract P51A-1179.
- Buzzetto-More, N. 2006. The story of Black Rock: How an early sustainable forest spawned the American environmental movement and gave birth to a unique Consortium that links science, conservation, and education. *Hudson River Valley Review* 22(2): 109 – 121.
- Giles, V. and J. S. Ascher. 2006. A survey of the bees of the Black Rock Forest Preserve, New York (Hymenoptera:Apoidea). *Journal of Hymenoptera Research* 15(2) 208-231, in press.
- Griffin, K.L., and C.Y. Xu. 2006. Seasonal variation in the temperature response of leaf respiration in *Quercus rubra* at the Black Rock Forest. IUFRO workshop.
- Johnson, J., A. Sirulnik, A.R. Tuininga, and J.D. Lewis. 2006. Molecular and morphological analyses of ectomycorrhizal fungal communities across hemlock defoliation and composition gradients. Annual Meeting of the Mycological Society of America, Quebec City, Canada.
- Lewis, J.D., J. Licitra, A.R. Tuininga, A. Sirulnik, and J. Johnson. 2006. Indirect effects of the hemlock woolly adelgid on oak seedling growth through effects on mycorrhizal richness and abundance. IUFRO workshop.

- Maenza-Gmelch, T., J. Liddicoat, and K. Jennings, 2006. Paleomagnetic dating of late Pleistocene sediments in Sutherland Pond, Hudson Highland, New York. Annual Meeting of the Geological Society of America, October 2006, Philadelphia, PA.
- Mates-Muchin, J.T.. 2006. Changes in forest productivity and nitrogen cycling associated with decline of Eastern hemlock. Ph.D. Dissertation, Fordham University.
- Nelson, P.K. and K.B. Barringer. 2006. Mosses from Black Rock Forest, Orange County, New York. *Journal of the Torrey Botanical Society* 133: 490-493.
- Ovtsharenko, V. and A. Tanasevitch. 2006. The spider fauna of the Black Rock Forest, New York. 30th Annual Meeting of the American Arachnological Society, College of Notre Dame of Maryland, Baltimore, Maryland.
- Ronen, M. 2006. Relationship of understory vegetation, tree regeneration, and soil composition to stand age in Black Rock Forest. Senior thesis. Department of Ecology, Evolution, and Environmental Biology, Columbia University.
- Rothe, J., E. McGowan, and J. Danoff-Burg. 2006. The effects of hiking trails and forest roads on avian diversity and abundance. Contributed paper. American Museum of Natural History's Center for Biodiversity and Conservation Symposium.
- Rubino, L., S. Charles, A. Sirulnik, A. Tuininga, and J.D. Lewis. 2006. Hemlock woolly adelgid density affects net photosynthetic rates but not respiration rates or needle biochemistry in eastern hemlock. IUFRO workshop.
- Sirulnik, A.G, J.D. Lewis, A. Tuininga, and J. Johnson. 2006. Infestations of hemlock woolly adelgid are associated with changes in eastern hemlock ectomycorrhizal fungal communities and soil conditions. IUFRO workshop.
- Tuininga, A.R., A. Sirulnik, J.D. Lewis, and J. Johnson. 2006. The exotic, invasive hemlock woolly adelgid (*Adelges tsugae* Annand.) affects mycorrhizal fungal communities and soil conditions in eastern U.S. forests. August, 2006, Fifth International Conference on Mycorrhizae, Spain.
- Warrach, K., M. Stieglitz, J. Shaman, V.C. Engel, and K.L. Griffin. 2006. Twentieth century climate in the New York Hudson Highlands and the potential impacts on ecohydrological processes. *Climatic Change* 75(4): 455-493.
- Xu, C. and K.L. Griffin. 2006. Seasonal variation in the temperature response of leaf respiration in *Quercus rubra*: foliage respiration and leaf properties. *Functional Ecology* 20: 778-789.
- Xu, C-Y. 2006. Foliar dark respiration: scaling gas exchange characteristics and isotopic signals from leaf to canopy and ecosystem level. Ph.D. thesis. Lamont-Doherty Earth Observatory, Department of Earth and Environmental Sciences, Columbia

2005

- Avolio, M., A.R. Tuininga, J.D. Lewis, and M. Marchese. 2005. Nitrogen form affects ectomycorrhizal fungal colonization and growth. 90th Annual Meeting of the Ecological Society of America, Montreal, Canada.
- Bowman, W.P. 2005. Respiratory ecophysiology of woody stems and branches in temperate forest trees. Ph.D. thesis. Columbia University, Department of Ecology, Evolution and Environmental Biology.
- Buzzetto-More, N. 2005. Technology to Create Global Learning Communities. Contributed paper. International Conference on Global Perspective in Education March 13-18, 2005, Cambridge, MD.

- Buzzetto-More, N. 2005. Consortiums and Human Ecology: Bridging the Gaps Between Research, Practice, Education and the Community. Presentation. Proceedings of the 20th Anniversary Conference of the Society for Human Ecology, Salt Lake City, Utah.
- Cohn, J.P. 2005. Urban Wildlife. *BioScience* 55 (3): 201 – 205.
- Fener, H.M., J.R. Ginsberg, E. Sanderson, and M.E. Gompper. 2005. Chronology of range expansion of the coyote (*Canis latrans*) in New York. *Canadian Field Naturalist*, 119: 1 - 5.
- Ferraz, G. 2005. Dynamics of bird communities, populations, and individuals. Columbia University. PhD Dissertation, Department of Ecology, Evolution and Environmental Biology.
- Gompper, M.E. and A.N. Wright. 2005. Altered prevalence of raccoon roundworm (*Baylisascaris procyonis*) owing to manipulated contact rates of hosts. *Journal of Zoology* 266: 215- 219.
- Gould, K.L. 2005. Designing for the Built Realm, Fox and Fowle Architects. The Images Publishing Group. pp. 40-43.
- Pederson, N.A. 2005. Climatic sensitivity and growth of southern temperate trees in the eastern US: Implications for the carbon cycle. Ph.D. thesis. Columbia University.
- Schuster, W.S.F. (editor). 2005. Fourth Black Rock Forest research symposium: Talks titles and abstracts.
- Shapiro, J.B. 2005. Watershed budgets of chloride and sulfate as integrators of ecosystem processes. Ph.D. thesis. Columbia University, Department of Ecology, Evolution and Environmental Biology.
- Sirulnik, A., J.D. Lewis, A.R. Tuininga, and J. Johnson. 2005. Soil conditions, host community, and infestations of the hemlock wooly adelgid (*Adelges tsugae*) affect ectomycorrhizal diversity in eastern temperate forests. 90th Annual Meeting of the Ecological Society of America, Montreal, Canada.
- Sirulnik, A., J.D. Lewis, A.R. Tuininga, and J. Johnson. 2005. Hemlock wooly adelgid (*Adelges tsugae*) infestation reduces ectomycorrhizal diversity and accelerates N cycling in eastern hemlock (*Tsuga canadensis*) stands. 10th Biennial International Conference of the Soil Ecology Society, Argonne, Illinois.
- Steinberg, R., M. Kelly, J. Schaefer, V. Rinterknecht, R. Schwartz, and G. Balco. 2005. Measuring the retreat velocity of the Laurentide ice sheet by cosmogenic nucleides. Abstract, 2005 Annual AGU meeting, San Francisco, CA.
- Turner, G.D., J.D. Lewis, and W.S.F. Schuster. 2005. Effects of nitrogen on ectomycorrhizal abundance and diversity from red oak seedlings grown in contrasting soils. 90th Annual Meeting of the Ecological Society of America, Montreal, Canada.
- Wright, A.N. and M.E. Gompper. 2005. Altered parasite assemblages in raccoons in response to manipulated resource availability. *Oecologia*, 144: 148 - 156.

2004

- Blankley, S. 2004. Coarse woody debris and its role in carbon sequestration. Hughes Fellowship Report, http://www.barnard.edu/enviro/field_methods.htm.
- Bowman, W., R. Carson, W. Schuster and K. Griffin. 2004. Patterns of CO₂ efflux from woody stems in a red oak (*Quercus rubra*) chronosequence. Annual Meeting of the Ecological Society of America.

- Brady, J.F. 2004. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 14 pp.
- Buzzetto-More, N. 2004. The Black Rock Forest Consortium: A narrative. PhD Dissertation, Teachers College, Columbia University.
- Carson, R. 2004. Age-related decline in *Quercus rubra*: A physiological test of the hydraulic limitation hypothesis. M.A. Thesis, Columbia University, Department of Ecology, Evolution, and Environmental Biology.
- Carson, R. and W. Schuster. 2004. Hemlock woolly adelgid impacts: Results of a tree ring analysis of an introduced insect outbreak in the Black Rock Forest. Internal Report.
- Cerbone, W.C. and D.E. Karrmann. 2004. Morphological intergradation of two subspecies of *Chrysemys picta* within a discrete metapopulation. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Danoff-Burg, J.A., E. Nichols, and F. Koontz. 2004. From dung beetles to parasitic wasps: Keeping insects in the metropolitan mix. 18th Annual Meeting of the Society for Conservation Biology, July 30, 2004, New York, NY.
- Doobar, K. and D.E. Karrmann. 2004. Correlation of turtle *Chrysemys picta* feeding and thermoregulatory behavior and environmental temperature. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Effendy, A.G. and D.E. Karrmann. 2004. Dimorphisms in shell morphology of a *Chrysemys picta* metapopulation. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Effendy, A. and D. Karrmann. 2004. The sexual dimorphism of a *Chrysemys picta* metapopulation. Poster, Polytechnic University 2004 NYC Science Mathematics and Technology Regional Fair, March 2004.
- Hoyt, E. 2004. Carbon in coarse woody debris on the long-term plots of Black Rock Forest, Cornwall, NY. Undergraduate thesis, Department Ecology, Evolution and Environmental Biology, Columbia University.
- Karrmann, D.E., W.C. Cerbone, A. Effendy, K. Doobar, A. Lee, and S. Elsayd. Structure and dynamics of a *Chrysemys picta* metapopulation (Integrating Science and Education). 2004. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Koontz, F.W., S.B. Elbin and S.H. Newman. 2004. The New York bioscape initiative: A collaborative study of ecology and health. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- LaRocco, M. 2004. The effect of prior land use on biomass growth rates in the Black Rock Forest. Senior thesis, Department of Environmental Science, Barnard College.
- Lee, A. and D.E. Karrmann. 2004. Recatchability of a pit tagged *Chrysemys picta* metapopulation. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- May, D. 2004. Remote sensing of tree species using high-resolution spectrophotometry. MS dissertation. Miami University of Ohio.
- Mickelson, J.G. Jr. 2004. Initiation and development of a USGS National Biological Information Infrastructure (NBII) node for the northeastern U.S. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Mickelson, J., F. Koontz and W. Schuster. 2004. Delineating detailed ecological land units in the New York bioscape using multi-temporal Landsat Imagery. 18th Annual Meeting of the Society for Conservation Biology, July 30, 2004, New York, NY.

- Nagel, J.M., and K.L. Griffin. 2004. Can gas-exchange characteristics help explain the invasive success of *Lythrum salicaria*? *Biological Invasions* 6: 101-111.
- Nagel, J.M., and K.L. Griffin. 2004. Can gas-exchange characteristics help explain the invasive success of *Lythrum salicaria*? Poster.
- Nagel, J.M., K.L. Griffin, and W.S.F. Schuster. 2004. Energy assimilation and expenditure of invasive *Berberis thunbergii* and co-occurring native understory shrubs. Annual Meeting of the Ecological Society of America, Portland, Oregon.
- Nichols, E. 2004. Community dynamics of dung beetles (family Scarabaeidae) and flies (superfamily Muscoidea) along an urban-to-rural gradient. M.A. Thesis, Columbia University, Department of Ecology, Evolution and Environmental Biology.
- Pederson, N., E.R. Cook, G.C. Jacoby, D.M. Peteet, and K.L. Griffin. 2004. The influence of winter temperatures on the annual radial growth of six northern range margin tree species. *Dendrochronologia* 22: 7 – 29.
- Pederson, N., E.R. Cook, and G.C. Jacoby. 2004. The geographic influence of winter temperatures on oak and hickory species. Abstract, Northeast Natural History Conference, May 2004, Albany, NY.
- Roth, H. and C. Law. 2004. The effects of deer browsing on forest regeneration in Black Rock Forest. BRF internal report.
- Schuster, W. 2004. Long-term trends in forest regeneration at Black Rock Forest, Cornwall, New York. 18th Annual Meeting of the Society for Conservation Biology, July 30, 2004, New York, NY.
- Tanasevitch, A., V. Ovtsharenko, and K. Catley. 2004. List of spiders of the Black Rock Forest. *Journal of the New York Entomological Society*.
- Trow, G.W.S. 2004. The Harvard Black Rock Forest. University of Iowa Press, Iowa City, Iowa.
- Whitehead, D., K.L. Griffin, M.H. Turnbull, D.T. Tissue, V.C. Engel, K.J. Brown, W.S.F. Schuster and A.S. Walcroft. 2004. Response of total night-time respiration to differences in total daily photosynthesis for leaves in a *Quercus rubra* L. canopy: Implications for modelling canopy CO₂ exchange. *Global Change Biology*, 10: 925-938.
- Whitehead, D., A.S. Walcroft, K.L. Griffin, D.T. Tissue, M.T. Turnbull, V. Engel, K.J. Brown, and W.S.F. Schuster. 2004. Scaling carbon uptake from leaves to canopies: insights from two forests with contrasting properties. In: *Forests at the Land-Atmosphere Interface*. CAB International, Edinburgh, England. p 321 – 254.
- Xu, C-Y. and Griffin, K. L., 2004. Seasonal variations in leaf respiration, temperature of leaf respiration and leaf characteristics of *Quercus rubra*. Supplement to the *Bulletin of the Ecological Society of America*.
- Xu, C-Y., G. Lin, K.L. Griffin and R.N. Sambrotto. 2004. Leaf respiratory CO₂ is ¹³C-enriched relative to leaf organic components in five species of C₃ plants. *New Phytologist*. 163: 499- 505.

2003

- Barringer, K. and S. Clemants. 2003. Vascular flora of Black Rock Forest, Orange County, New York. *Journal of the Torrey Botanical Society* 130 (4): 292-308.
- Blankley, S. and E. Hoyt. 2003. A guideline to methods of carbon measurement in coarse woody debris in the long-term plots of Black Rock Forest. Internal report, Black Rock Forest.
- Bowman, W. and K. Griffin. 2003. Quantifying Stem Respiration in Stands of Red Oak at Black Rock Forest. Third Black Rock Forest Research Symposium.

- Brady, J.F. 2003. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 13 pp.
- Daly, A. 2003. A Teacher's Guide to Black Rock Forest. A Manual for Use in the Classroom and in the Field. Friends Seminary, New York.
- Gompper, M.A., R.M. Goodman, R.W. Kays, C.V. Fiorello, and S.E. Wade. 2003. A survey of the parasites of coyotes, *Canis latrans*, in New York based on fecal analysis. *Journal of Wildlife Diseases* 39: 712 – 717.
- Gompper, M.A. and A.N. Wright. 2003. Changes in prevalence of *Baylisascaris procyonis* due to experimentally altered contact rates of raccoons. Abstract, 2003 Midwest Fish and Wildlife Conference, Kansas City, MO.
- Gompper, M.A. and A.N. Wright. 2003. Changes in the parasite community of raccoons in response to experimental manipulation of resource availability. Abstract, Annual Meeting of The Wildlife Society, Burlington, VT.
- Kimple, A. 2003. Hemlock decline in the Black Rock Forest. MS thesis, Bard College.
- Martin, A., L. Rubino, and J.D. Lewis. 2003. Hemlock woolly adelgid density affects net photosynthetic rates but not respiration rates or needle biochemistry in eastern hemlock. 88th Annual Meeting of the Ecological Society of America, Savannah, Georgia.
- Mates-Muchin, J.T., J.D. Lewis, G.D. Turner, J. Richards and W. Schuster. 2003. Variation in above and below-ground nitrogen and growth rate of a hemlock-hardwood forest with the loss of a dominant tree species. Poster, 88th Annual Meeting of the Ecological Society of America, Savannah, Georgia.
- May, D., S.A. Bohlman, and K.J. Brown. 2003. Evaluation of high-resolution, multi-band imagery for determining proportions of oak and maple LAI in Black Rock Forest, NY. Supplement to the Bulletin of the Ecological Society of America.
- Schuster, W.S.F. (editor). 2003. Third Black Rock Forest research symposium: Talks titles and abstracts.
- Shaman, J., M. Stieglitz, S. Zebiak and M. Cane. 2003. A local hydrologic forecast derived from seasonal climate predictions. *Journal of Hydrometeorology* 4(3): 611-626.
- Starkey, D.E., H.B. Shaffer, R.L. Burke, M.R.J. Forstner, J.B. Iverson, F.J. Janzen, A.G.J. Rhodin, and G.R. Ultsch. 2003. Molecular systematics, phylogeography, and the effects of Pleistocene glaciation in the painted turtle (*Chrysemys picta*) complex. *Evolution* 57: 119-128.
- Steiglitz, M., J. Shaman, J. McNamara, V. Engel, J. Shanley and G.W. Kling. 2003. An approach to understanding hydrologic connectivity on the hillslope and the implications for nutrient transport. *Global Biogeochemical Cycles* 17(4): 1105.
- Turnbull, M.H., D. Whitehead, D.T. Tissue, W.S.F. Schuster, K.J. Brown, K.L. Griffin. 2003. Scaling foliar respiration in two contrasting forest canopies. *Functional Ecology*, 17: 101-114.
- Turner, G.D. and J.D. Lewis. 2003. Ectomycorrhizal community patterns from *Quercus rubra* seedlings grown in soils from regional hemlock-hardwood forests. Fourth International Conference on Mycorrhizae, Montreal, Canada.
- Turner, G.D., J. Licitra, J.D. Lewis, and W.S.F. Schuster. 2003. Forest composition affects ectomycorrhizal fungal community composition on *Quercus rubra* seedlings. 88th Annual Meeting of the Ecological Society of America, Savannah, Georgia.

Turner, G.D. 2003. Host composition, light, and nitrogen effects on ectomycorrhizal communities from *Quercus* seedlings grown in soils from regional hardwood-hemlock forests. Ph.D. dissertation, Fordham University.

2002

- Bower, P., S. Jones, J. Stamatelos, S. Reynolds, S. Daddi, G. Kim, and C. Duerkes. 2002. Forest succession and biomass accumulation of 70-year-old experimental plots in Black Rock Forest, NY. www.columbia.edu/itc/barnard/envsci/bc3016/brf_online
- Brady, J.F. 2002. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 13 pp.
- Brown, K.J., K. Griffin, W. Schuster, D. Tissue, M. Turnbull, and D. Whitehead. 2002. Spatial and temporal variability of soil CO₂ efflux from xeric and mesic sites within Black Rock Forest, New York. Supplement to the Bulletin of the Ecological Society of America.
- Danoff-Burg, J.A, and S. Bird. 2002. Hemlock woolly adelgid and elongated hemlock scale: Partners in crime? Pages 254-268 in Proceedings: Hemlock Woolly Adelgid in the Eastern United States Symposium, February 2002, East Brunswick, NJ. USDA Forest Service.
- Danoff-Burg, J.A. 2002. Hemlock woolly adelgid and elongated hemlock scale: Partners in crime? Abstract, Northeast Natural History Conference, April 2002, Albany, NY.
- Danoff-Burg, J.A. 2002. Evolutionary lability and phylogenetic utility of behavior in a group of ant-guest staphylinidae beetles. *Annals of the Entomological Society of America*, 95(2): 143-155.
- Engel, V. 2002. Forest canopy hydraulic conductance and catchment water balance: observations and modeling. PhD dissertation, Lamont-Doherty Earth Observatory of Columbia University.
- Engel, V., M. Stieglitz, M. Williams, and K.L. Griffin. 2002. Forest canopy hydraulic properties and catchment water balance: observations and modeling. *Ecological Modeling* 154(3): 263-288.
- Gompper, M.E. 2002. The ecology of northeast coyotes: current knowledge and priorities for future research. Wildlife Conservation Society Working Paper 20:1-48.
- Gompper, M.E. 2002. Top carnivores in the suburbs? Ecological and conservation issues raised by colonization of northeastern North America by coyotes. *Bioscience* 52: 185-190.
- Karrmann, D.E. and A. Marchini. 2002. A field research project (turtle population assessment) integrated into the classroom. *National Science Teachers Association Abstracts* 2:71.
- Karrmann, D.E., E. Cordero, and J. Javier. 2002. A proposed long-term assessment of a scattered *Chrysemys picta picta* population. Abstracts, Northeast Natural History Conference VII, New York State Museum Circular 64: 34, 68.
- Kimble, A., and W.S.F. Schuster. 2002. Spatial patterns of HWA damage and impacts on tree physiology and water use in the Black Rock Forest, southern New York. Pages 344-350 in Proceedings: Hemlock Woolly Adelgid in the Eastern United States Symposium, February 2002, East Brunswick, NJ. USDA Forest Service.
- Lewis, J.D., J.T. Mates-Muchin, and G. Turner. 2002. Relationship between defoliation associated with the hemlock woolly adelgid (*Adelges tsugae*) and growth of eastern hemlock (*Tsuga canadensis*). Supplement to the Bulletin of the Ecological Society of America 83(3).

- Mates-Muchin, J.T., J.D. Lewis, and W.S.F. Schuster. 2002. Change in forest nitrogen cycling during the decline of a dominant tree species. Supplement to the Bulletin of the Ecological Society of America 83(3).
- Mickelson, J.G. Jr., Schuster W.S. and F.W. Koontz. 2002. Delineating detailed ecological land units in the New York bioscape using multi-temporal Landsat imagery: A pilot study. Center for Environmental Research and Conservation (CERC). Summary report. 9 pp.
- Nagel, J.M., K.L. Griffin, W.S.F. Schuster, D.T. Tissue, M.H. Turnbull, K.J. Brown, and D. Whitehead. 2002. Energy investment in leaves of red maple and co-occurring oaks at sites within a forested watershed. *Tree Physiology* 22: 859 – 867.
- Ovtsharenko, V. 2002. Biodiversity of spiders of Black Rock Forest. Abstracts Northeast Natural History Conference VII. NY State Mus. Circ. 64: 18.
- Ovtsharenko, V., K. Catley and A. Tanasevitch 2002. Biodiversity of spiders of Black Rock Forest. In: 20th European Colloquium of Arachnology Szombathely, Hungary.
- Ovtsharenko, V., A. Tanasevitch, and K. Catley. 2002. Spiders and insects of the Black Rock Forest. <http://research.amnh.org/entomology/blackrock>.
- Ovtsharenko, V., A. Tanasevitch, and K. Catley. 2002. Identification keys of BRF spider families and genera. <http://research.amnh.org/entomology/blackrock>.
- Peteet, D., T. Maenza-Gmelch, and D. Kurdyla. 2002. Long term wetland carbon storage in Black Rock Forest. BRF Small Grants Final Report.
- Shaman, J., M. Stieglitz, V. Engel, R. Koster, C. Stark. 2002. Representation of subsurface storm flow and a more responsive water table in a TOPMODEL-based hydrology model. *Water Resources Research* 38(8): 1156.
- Turnbull, M.H., D. Whitehead, D.T. Tissue, W.S.F. Schuster, K.J. Brown, V.C. Engel, and K.L. Griffin. 2002. Photosynthetic characteristics in canopies of *Quercus rubra*, *Quercus prinus* and *Acer rubrum* differ in response to soil water availability. *Oecologia* 130: 515 - 524.
- Turner, G.D., J.T. Mates-Muchin, J.D. Lewis, W.S.F. Schuster, and R. Evans. 2002. Ectomycorrhizal fungal community response to host species and host community composition. Supplement to the Bulletin of the Ecological Society of America 83(3).
- Wright, A.N. 2002. Changes in raccoon parasite communities in response to an experimental manipulation of resource availability. M.A. thesis, Department of Ecology, Evolution, and Environmental Biology, Columbia University.

2001

- Bennett, C.E. 2001. Sex ratio dynamics of the northeastern coyote (*Canis latrans*) using non-invasive molecular techniques. MA Thesis, Columbia University, New York.
- Brady, J.F. 2001. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 13 pp.
- Brown, K.J. 2001. Remote detection of sun and shade leaf area for three tree species in the Cascade Brook watershed in Black Rock Forest. Internal report.
- D'Arrigo, R.D., W.S.F. Schuster, D.M. Lawrence, E.R. Cook, M. Wiljanen, and R.D. Thetford. 2001. Climate-growth relationships of eastern hemlock and chestnut oak from Black Rock Forest in the Highlands of southeastern New York. *Tree-Ring Research* 57: 183-190.
- Fener, H.M. 2001. Coyote (*Canis latrans*) colonization of New York: The influence of human-induced landscape changes. MA Thesis, Columbia University, New York.

- Garey, V. 2001. Bringing the classroom to the forest. Abstract, NTSA (National Science Teachers Association) Annual Meeting, San Diego, CA.
- Gompper, M.E. 2001. Parasites and host social structure: An experimental analysis. BRF Small Grants Final Report.
- Gompper, M.E., A.N. Wright, and R. Goodman. 2001. Sociality of seasonal den use in the raccoon, *Procyon lotor*. Second Black Rock Forest Research Symposium, Cornwall, New York.
- Gompper, M.E. 2001. The biology of an expanding coyote population. Second Black Rock Forest Research Symposium, Cornwall, New York.
- Gompper, M.E., C. Bennett, R. DeSalle, R. Kays, and J. Ray. 2001. Sex ratio dynamics of the northeastern coyote (*Canis latrans*) in New York using molecular genetics. 57th Annual Meeting of the Northeast Fish and Wildlife Conference, Saratoga Springs, New York.
- Gompper, M.E., C. Fiorello, R. Goodman, R. Kays, and J.C. Ray. 2001. Survey of enteric parasites of coyote scats and carcasses. 57th Annual Meeting of the Northeast Fish and Wildlife Conference, Saratoga Springs, New York.
- Gompper, M.E., C. Fiorello, and R. Goodman. 2001. Gastrointestinal parasites of New York coyotes and fishers. 57th Annual Meeting of the Northeast Fish and Wildlife Conference, Saratoga Springs, New York.
- Gompper, M.E., A. Wright, and R. Goodman. 2001. The sociality of den use in the raccoon, *Procyon lotor*. 57th Annual Meeting of the Northeast Fish and Wildlife Conference, Saratoga Springs, New York.
- Goodman, R. M. 2001 Parasitology and denning ecology of raccoons, *Procyon lotor*, in Black Rock Forest, NY. Undergraduate thesis, Columbia University.
- Griffin, K.L., O.R. Anderson, M.D. Gastrich, J.D. Lewis, G. Lin, W.S.F. Schuster, J.R. Seemann, D.T. Tissue, M.H. Turnbull, and D. Whitehead. 2001. Plant growth in elevated CO₂ alters mitochondrial number and chloroplast fine structure. Proceedings of the National Academy of Sciences 98: 2473-2478.
- Hoffman, E. 2001. Hemlock wooly adelgid in Black Rock Forest. Senior thesis, Barnard College.
- Madad, A. 2001 Analysis of heating the Black Rock Forest visitor center between November and March (2000-2001). Senior Thesis, Barnard College.
- Mates-Muchin, J.T., J.D. Lewis and W. Schuster. 2001. Effects of stand composition on changes in productivity associated with hemlock decline. Supplement to the Bulletin of the Ecological Society of America 82(3).
- Modi, P. 2001. Ground source geothermal power systems: How well do they work? Senior Thesis, Barnard College.
- Nagel, J. 2001. Energy and investment in leaves of red maple and co-occurring oaks at sites differing in soil moisture availability. MS Thesis, Lamont-Doherty Earth Observatory of Columbia University.
- Nagel, J.M., K.L. Griffin, and W.S.F. Schuster. 2001. Leaf energy and resource investment of *Acer rubrum* and *Quercus* spp. within a forested watershed. Supplement to the Bulletin of the Ecological Society of America 82(3).
- Nagel, J.M. and K.L. Griffin. 2001. Construction cost and invasive potential: Comparing *Lythrum salicaria* (Lythraceae) with co-occurring native species along pond banks. American Journal of Botany 88: 2252-2258.

- Ovtsharenko, V., A. Tanasevitch, and K. Catley. 2001. Biodiversity of spiders of the Black Rock Forest. <http://research.amnh.org/entomology/blackrock>.
- Ovtsharenko, V. 2001. Sequence analysis of 16S and 28S rRNA genes as a tool for resolving the phylogeny of ground spiders (Araneae: Gnaphosidae) West Virginia Academy of Science, V. 73.
- Ovtsharenko, V. 2001. The Australian ground spiders of the family Gnaphosidae. 15th International Arachnological Congress, March 2001, Badplaas, South Africa.
- Pederson, N., G. Jacoby, E. Cook, D. Peteet, and K.L. Griffin. 2001. Dendrochronological investigations of boreal and temperate tree species in the Hudson Valley. Association of American Geographers 97th Annual Meeting, February 28 – March 3, 2001, New York, NY.
- Perz, J.F., Wu, T.W., and Le Blancq, S.M. 2001. Multilocus genotypic analysis of *Cryptosporidium* in wildlife and humans in New York, USA.
- Perz, J.F. and Le Blancq, S.M. 2001. *Cryptosporidium parvum* infection involving novel genotypes in wildlife from lower New York State. *Applied and Environmental Microbiology* 67 (3): 1154-1162.
- Schuster, W.S.F. 2001. Changes in tree species composition over seven decades (1930-2000) in an aggrading deciduous forest. Abstract, Annual meeting of the Ecological Society of America.
- Schuster, W.S.F. (editor). 2001. Second Black Rock Forest research symposium: Talks titles and abstracts.
- Turnbull, M.H., D. Whitehead, D.T. Tissue, W.S.F. Schuster, K.J. Brown, and K.L. Griffin. 2001. Responses of leaf respiration to temperature and leaf characteristics in three deciduous tree species vary with site water availability. *Tree Physiology* 21:571-578.
- Turnbull, M.H., D. Whitehead, D.T. Tissue, W.S.F. Schuster, K.J. Brown, and K.L. Griffin. 2001. Photosynthesis and respiration characteristics in canopies of three deciduous tree species differ in response to soil moisture. IUFRO Workshop on Canopy Processes.
- Turner, G.D., J.D. Lewis and W. Schuster. 2001. Northern red oak (*Quercus rubra* L.) seedling response to community ectomycorrhizal diversity in declining eastern hemlock (*Tsuga canadensis*) stands. Supplement to the Bulletin of the Ecological Society of America 82(3).
- Walls, S.C. and M.G. Williams. 2001. The assembly of communities of pond-breeding amphibians: does species composition influence coexistence between predators and prey? *Oecologia* 128: 134-141.
- Wright, A., R. Goodman, and M.E. Gompper. 2001. Seasonal social den use in the raccoon, *Procyon lotor*. 57th Abstract, Annual meeting of the northeast fish and wildlife Conference, Saratoga Springs, NY, April 2001.

2000

- Agyarko, A., J.A. Danoff-Burg, K. Pease, and J. Ballantyne. 2000. Arthropod biodiversity in succession: separating the effects of litter depth and composition. Department of Biology, Barnard College of Columbia University, 21 pp., unpublished manuscript.
- Ballantyne, J. 2000. Bambi is destroying our forests: a case study in vegetation regeneration following a clear-cut. Senior thesis, Department of Environmental Science, Barnard College.

- Bongaarts, K. and D.E. Karrmann. 2000. Assessment of eastern painted turtle population in an artificial pond. Abstracts Northeast Natural History Conference VI, New York State Museum Circular 62: 26.
- Bossewitch, T.Z. 2000. The heat is on: geothermal heating and cooling systems. Senior Thesis, Barnard College, 28 pp.
- Brady, J.F. 2000. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 10 pp.
- Brown, K.J., W.S.F. Schuster, J. Simpson, and K.L. Griffin. 2000. A research overview of Black Rock Forest, NY. Northeastern Ecosystems Research Cooperative- Forest Sensitivity Workshop. United States Forest Service, Portsmouth, NH.
- Brown, K.J., K.L. Griffin, and V. Engel. 2000. Seasonal and topographic variation in water availability: implications for carbon and nitrogen cycling in the Cascade watershed of Black Rock Forest. BRF Small Grants Final Report.
- Chae, Y. 2000. Biodiversity of vagile arthropods and forest succession. Dept. of Earth and Environmental Sciences. Columbia University, Unpublished manuscript.
- Danoff-Burg, J.A. 2000. Summer Ecosystem Experiences for Undergraduates Online Introductory Ecology Textbook.
<http://www.columbia.edu/itc/cerc/seeu/atlantic/index.html>.
- Danoff-Burg, J.A. 2000. Why did the beetle not cross the road?: Linear barriers, habitat fragmentation, and Carrion Beetles. Poster, Entomological Society of America Meeting, Montreal December 2000.
- Engel, V., M. Stieglitz, M. Williams, and K. Griffin. 2000. Regulation of watershed hydrology by plant water-relations and topographic controls. ESA Abstract, Annual Meeting of the Ecological Society of America, Salt Lake City, UT.
- Engel, V., M. Stieglitz, M. Williams, and K. Griffin. 2000. Regulation of watershed hydrology by plant water-relations and topographic controls. Abstract, American Geophysical Union, San Francisco.
- Fet, V., V.I. Ovtsharenko, and W.I. Towler. 2000. Sequence analysis of 16S and 28S rRNA genes as a tool for resolving the phylogeny of ground spiders (Araneae: Gnaphosidae). Proceedings of the West Virginia Academy of Science, Vol. 73.
- Maher, N. 2000. "A very pleasant place to build a town on": An environmental history of land preservation in New York's Hudson Highlands. Hudson Valley Regional Review 16 (2): 21-39.
- Mates-Muchin, J.T., J.D. Lewis, and W.S.F. Schuster. 2000. Replacement of eastern hemlock (*Tsuga canadensis*) in the Black Rock Forest in the Hudson Highlands of New York. Supplement to the Bulletin of the Ecological Society of America 81(3).
- McDonald, M.M. and Danoff-Burg, J. 2000. The effects of roads on arthropod dispersal ability. Dept. of Biological Sciences, Barnard College of Columbia University, 24 pp., unpublished manuscript.
- Nagel, J. 2000. Construction cost and plant invasibility-Comparing purple loosestrife (*Lythrum salicaria*) with its native neighbors along artificial ponds. MS Thesis, Lamont-Doherty Earth Observatory of Columbia University.
- Nagel, J.M. and K.L. Griffin. 2000. Construction cost and plant invasiveness: Comparing purple loosestrife (*Lythrum salicaria*) with its noninvasive neighbors along disturbed ponds. Supplement to the Bulletin of the Ecological Society of America 81(3).

- Ovtsharenko, V.I. 2000. The study of spiders. Seminars on Science. CD, American Museum of Natural History.
- Phillips, J.G. 2000. Estimation of canopy storage capacity as a function of leaf area index for use in modeling rainfall interception. *Journal of Hydrology*.
- Shestakovich, N. 2000. The heat is rising: Exploring geothermal resources at the Black Rock Forest Preserve. Senior Thesis, Department of Environmental Science, Barnard College, 30 pp.
- Simpson, H.J. 2000. Black Rock Forest discharge calibration data. Columbia University, unpublished manuscript.
- Tanasevitch, A. 2000. Spiders of Black Rock Forest. 2000 Internal Report, 45 pp.
- Turnbull, M., D. Whitehead, D. Tissue, W.S.F. Schuster, K. Brown, and K.L. Griffin. 2000. Photosynthesis and respiration characteristics in canopies of three deciduous tree species differ in response to soil moisture. Joint Annual Meeting of the Australian and New Zealand Societies of Plant Physiology, Wellington, New Zealand.
- Watt, L. 2000. Soils in a hemlock-hardwood watershed at Black Rock Forest in the Hudson Highlands, NY. Undergraduate thesis, Northland College.
- Wiljanen, W. 2000. A three dimensional GIS model for a forest preserve in the Hudson Highlands. Abstract, North American Cartographic Information Society, Annual Conference, Knoxville, TN.
- Williamson, A. 2000. Analyses of dissolved organic nitrogen in forested and estuarine ecosystems: Black Rock Forest and Hudson River. Senior thesis, Department of Environmental Sciences, Barnard College.

1999

- Brady, J.F. 1999. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 10 pp.
- Chae, Y. 1999. Aerial arthropod diversity and forest succession. Senior thesis, Department of Earth and Environmental Sciences, Columbia University.
- Chin, M. 1999. How many top carnivores can Black Rock Forest support? Senior thesis, Department of Environmental Sciences, Barnard College.
- Cohen, J. 1999. Sustainability. Black Rock Forest Paper No. 32. Cornwall, NY. 4 pp.
- Grimaldi, D. and T. Nguyen. 1999. Monograph on the spittlebug flies, Genus *Gladochaeta* (Diptera: Drosophilidae: Cladochaetini). American Museum of Natural History Bulletin No. 241, New York.
- Hahn, W. 1999. Floristic inventory and development of monitoring programs for rare and invasive plant species at Black Rock Forest. BRF grant report.
- Hasan, F. 1999. Reconstructing past environmental conditions from diatom abundance in lake sediments at Black Rock Forest, Orange County, New York. Senior thesis, Department of Environmental Sciences, Barnard College.
- Jensen, T.E. and W.A. Corpe. 1999. The study of enigmatic microbial communities. Book chapter in: *Enigmatic Microorganisms and Life in Extreme Environments*. Seckbach, J., ed., Kluwer Academic Publishers, The Netherlands.
- Kastens, K.A., W. Schuster, and A. Kimple, 1999. Lessons from the digital library of the Black Rock Forest. *EOS Transactions, AGU Vol. 80, No. 46*, p.

- Le Blancq, S.M. and J.F. Perz. 1999. *Cryptosporidium* spp. systematics and water-borne challenges in public health. EPA Office of Water, Office of Science and Technology, Washington, D.C.
- Nichols, J. 1999. Dry deposition estimates of nitrate, sulfate and chloride based on throughfall measurements at Black Rock Forest Lamont-Doherty Earth Observatory/Columbia University, unpublished manuscript.
- Ovtsharenko, V., A. Tanasevitch, and K. Catley. 1999. Biodiversity of spiders of the Black Rock Forest. <http://research.amnh.org/entomology/blackrock>.
- Patel, A. 1999. Strategies for thermal tolerance developed by Biosphere 2 plants and Black Rock Forest plants in the advent of global climate change. Senior thesis, Department of Environmental Sciences, Barnard College.
- Perz, J.F. 1999. The epidemiology at *Cryptosporidium* infection: analyses of the roles of drinking water and wildlife. Doctor of Public Health Thesis, Columbia University.
- Tanasevitch, A. 1999. Spiders of Black Rock Forest. Internal Report, 45 pp.
- Vidor, C. 1999. An index of winter severity for the overwintering deer population at Black Rock Forest. Senior thesis, Department of Environmental Sciences, Barnard College.
- White, M. and W. Schuster. 1999. Long term carbon storage in Black Rock Forest: conversion of historical data to modern units. BRF internal report, 5 pp.
- Wiljanen, M. 1999. GIS at Black Rock Forest. Museum of the Hudson Highlands lecture, Cornwall-on-Hudson, N.Y.
- Williamson, A. 1999. Analyses of dissolved organic nitrogen in forested and estuarine ecosystems: Black Rock Forest and Hudson River. Undergraduate thesis. Department of Environmental Sciences, Barnard College

1998

- Aengenheyster, K. 1998. Estimating population structure in two species of turtle using mark and recapture methods. Senior Thesis, Department of Earth and Environmental Sciences, Columbia University.
- Agyarko, A., J. Danoff-Burg, K. Pease, and J. Ballantyne. 1998. Arthropod biodiversity in succession: separating the effects of litter depth and composition. Abstract, Annual Meeting of the National Entomological Society of America, November 1998, Las Vegas, NV.
- Ashton, I. 1998. The West Point temperature record and volcanic forcing. Senior Thesis, Department of Earth and Environmental Sciences, Columbia University.
- Berger, J. 1998. Effects of clear-cutting and white-tailed deer herbivory on soil and litter arthropods at the Black Rock Forest, NY. Senior Thesis, Department of Environmental Sciences, Barnard College.
- Brady, J.F. 1998. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 10 pp.
- Caldwell, J. 1998. Students becoming scientists. BRF grant report, Newburgh School District.
- Cannella, J. 1998. Observed carbon and biomass trends within the long term tree growth plots of the Black Rock Forest. BRF internal report, St. Lawrence University, 7 pp.
- Chae, Y. 1999. Biodiversity of vagile arthropods and forest succession. Annual Meeting of the National Entomological Society of America, November 1998, Las Vegas, NV.

- Danoff-Burg, J.A., S. Bird, and J. Berger. 1998. Deer exclusion enhances predatory arthropod biodiversity. Poster, Annual Meeting of the National Entomological Society of America, November 1998, Las Vegas, NV.
- Danoff-Burg, J.A. 1998. Arthropod biodiversity in succession: separating the effects of litter depth and composition. Poster, Entomology Society of America, November 1998, Las Vegas, NV.
- Danoff-Burg, J.A. 1998. Species diversity, trophic redundancy, and community stability. Poster, Entomology Society of America, November 1998, Las Vegas, NV.
- Danoff-Burg, J.A. 1998. Aerial arthropod diversity and forest succession. Poster, Entomology Society of America, November 1998, Las Vegas, NV.
- Danoff-Burg, J.A. 1998. Roads, habitat fragmentation, and beetle dispersal. Poster, Entomology Society of America, November 1998, Las Vegas, NV.
- Ford, R.E. 1998. The biology of an invasive plant species, *Phragmites australis*. Senior thesis, Department of Environmental Sciences, Barnard College.
- Gracey, S. 1998. The effects of traffic density on biodiversity in Black Rock Forest. Senior thesis, Biology Department Columbia University, 28 pp.
- Ho, D.T., P. Schlosser, W.M. Smethie, Jr. and H.J. Simpson. 1998. Variability in atmospheric chlorofluorocarbons (CCl₃F and CC₁₂F₂) near a large urban area: implications for groundwater dating. *Environ. Sci. Technol.* 32: 2377-2382.
- Jennings, K. 1988. Paleomagnetic dating of Late Pleistocene vegetation and climate recorded in sediment from Sutherland Pond, Black Rock Forest, Orange County, New York. Senior thesis, Department of Environmental Sciences, Barnard College, 124 pp.
- Kastens, K.A., B. Blumenthal, and A. Kimple. 1998. What does it take to make real data useful in pre-graduate school education? A case study using environmental sensor data from the Black Rock Forest, NY. *Proceedings of the American Geophysical Union*, spring 1998, Boston Massachusetts, pp. S13.
- Kroenke, A.E., R.F. Bopp, D.A. Chaky, S.N. Chillrud, E. Shuster, F.D. Estabrooks, and J. Swart. 1998. Atmospheric deposition and fluxes of mercury in remote and urban areas of the Hudson River Basin. *EOS, Transactions of the American Geophysical Union* 79(17): S86.
- McDonald, M.M. and J. Danoff-Burg. 1998. The effects of roads on arthropod dispersal ability. Abstract, Annual Meeting of the National Entomological Society of America, November 1998, Las Vegas, NV.
- Paek, W.L. 1998. Organic carbon in soils from Black Rock Forest, Cornwall, New York. Senior thesis, Department of Environmental Sciences, Barnard College, 26 pp.
- Schuster, W. 1998. Our forests and the global carbon cycle. *Earth Matters*, Fall 1998, pp. 6-7, Columbia University.
- Tobin, M. and M. Stute. 1998. Residence times of fractured rock groundwater flow systems at Black Rock Forest. *EOS, Transactions of the American Geophysical Union*, 79 (17): S8
- Weber, G. 1998. Microclimatic effects on spring ephemeral flower species at Black Rock Forest in the Hudson Highlands, NY. Senior Thesis, Department of Environmental Sciences, Barnard College, 62 pp.
- Zhang, S. 1998. The development of sampling techniques for pore waters in lake sediments. Senior Thesis, Department of Environmental Sciences, Barnard College.

1997

- Brady, J.F. 1997. Black Rock Forest Consortium white-tailed deer management. BRF internal report, 10 pp.
- Bower, P. 1997. Stream-gauging stations for research at Black Rock Forest. BRF grant report.
- DeMatteis, M. (ed). 1997. Black Rock Forest: Of bugs and biodiversity: lessons of the forest. Rotunda Magazine, American Museum of Natural History, July/August 97, 22(7): 5.
- DeWitt, K. 1997. Intra-annual rainfall variability and hardwood growth in Black Rock Forest: comparing tree-rings and climate model results for the chestnut oak. Senior thesis, Department of Environmental Sciences, Barnard College.
- Farrell, D. 1997. The diversity and species composition of woody plant species in a managed forest: A study of treatment effects in Black Rock Forest after 65 years. Senior thesis, Department of Earth and Environmental Sciences, Columbia University, 142 pp.
- Leger, A. 1997. Pressure and temperature conditions 1000 million years ago in and around Black Rock Forest, Cornwall, New York. BRF Small Grants Final Report.
- Liu, M. 1997. Chemistry and residence time of groundwater in Black Rock Forest springs and wells. Senior Thesis, Department of Environmental Sciences Barnard College.
- Maenza-Gmelch, T.E. 1997a. Holocene vegetation, climate, and fire history of the Hudson Highlands, southeastern New York, USA. *The Holocene* 7(1): 25-37.
- Maenza-Gmelch, T.E. 1997b. Late-glacial - early Holocene vegetation, climate, and fire at Sutherland Pond, Hudson Highlands, southern New York, USA. *Canadian Journal of Botany* 75: 431-439.
- Maenza-Gmelch, T.E. 1997c. Vegetation, climate, and fire during the late glacial-Holocene transition at Spruce Pond, Hudson Highlands, southern New York, USA. *Journal of Quaternary Science* 12: 15-24.
- McKinsey, K. 1997. Effects of pond acidity levels on the distribution of turtle populations (*Chrysemys picta* and *Cheldrya serpentina*), at Black Rock Forest, NY. MS thesis, Earth and Environmental Sciences, Columbia University.
- McKinsey, K. and C.J. Raxworthy. 1997. Effects of pond acidity levels on turtle populations at Black Rock Forest, NY. BRF grant report.
- Simpson, H.J. 1997. Monitoring of rain and stream chemistry at Black Rock Forest. Year 5 report: trends in precipitation chemistry at West Point, NY and trends in dissolved chloride, sulfate and nitrate in Cascade and Canterbury Brooks at Black Rock Forest. Lamont-Doherty Earth Observatory of Columbia University.
- Tobin, M., M. Stute, and M. Liu. 1997. $^3\text{H}/^3\text{He}$ dating of groundwater in fractured rock at Black Rock Forest, NY. Abstract, NSF GRT-Trainee Meeting, October 26-28, 1997, Washington, DC.

1996

- Brady, J.F. 1996. Black Rock Forest deer population management, 1985-1996. Black Rock Forest report. 65 pp.
- Caldwell, J. 1996. Black Rock Forest resource repository. BRF grant report, Newburgh Magnet Middle School.
- Corpe, W.A. and T.E. Jensen. 1996. The diversity of bacteria, eukaryotic cells and viruses in an oligotrophic lake. *Applied Microbiology Biotechnology* 46: 622-630.

- Goldberg, J., H. Gonzalez, T.E. Jensen and W.A. Corpe. 1996a. Quantitative analyses of the elemental composition of polyphosphate bodies in several bacteria. Abstracts of Annual Meeting of Amer. Society for Microbiology.
- Goldberg, J., H. Gonzalez, T.E. Jensen, and W.A. Corpe. 1996b. Quantitative elemental analysis of bacterial polyphosphate bodies using scanning transmission electron microscopy and energy-dispersive X-ray spectroscopy. Proc. 54th Ann. Meeting Microscopy Soc. America, San Francisco Press, CA, pp. 802-803.
- Jeselsohn, A.M. 1996. An analysis of weather patterns along the lower Hudson Valley. Senior Thesis, Department of Environmental Sciences, Barnard College, Columbia University, 125 pp.
- Kamlet, J. 1996. The white-tailed deer of Black Rock Forest. Teaching Manual. Cornwall Central School District.
- Leger, A. and G.E. Harlow. 1996. Cl-rich biotite and amphibole from Black Rock Forest, Cornwall, New York. BRF grant report, American Museum of Natural History.
- Leger, A., C. Rebbert, and J. Webster. 1996. Cl-rich biotite and amphibole From Black Rock Forest, Cornwall, New York. American Mineralogist 81: 495-504.
- Maenza-Gmelch, T.E. 1996a. Post-settlement vegetation and fire in the Hudson Highlands, southeastern North York, USA. Abstracts, 81st Annual Ecological Society of America Meeting, p 279, Providence, RI.
- Maenza-Gmelch, T.E. 1996b. Early and middle Holocene forest composition in the Hudson Highlands, southeastern New York, USA. AMOUA Abstracts, 14th Biennial Meeting, p 176. Northern Arizona University, Flagstaff, AZ.
- Moed, A. 1996. Sensurround. Metropolis Magazine, September 1996, pp. 53-57.
- Muschamp, H. 1996. In cyberspace, seeing the forest for the trees. New York Times Architecture Section. February 25.
- Quigley, M.F. and W.J. Platt. 1996. Structure and pattern in temperate seasonal forests. Vegetatio 123: 117-138.
- Schuster, W.S.F. 1996. Differences in carbon storage rates over time on long-term (65-year) forest plots in southeastern New York. Abstract, 1996 Annual Meeting of the Ecological Society of America.
- Simpson, H.J. 1996. Monitoring of rain and stream chemistry at Black Rock Forest. Year 4 report: trends in precipitation chemistry at West Point, NY and trends in dissolved chloride, sulfate and nitrate in Cascade and Canterbury Brooks at Black Rock Forest. Lamont-Doherty Earth Observatory of Columbia University.
- Walls, S. C. 1996. The assembly of communities of pond-breeding amphibians: does high species richness promote coexistence between predators and their prey? Abstract, Annual Meeting of the American Herpetological Society.

1995

- Brady, J.F. 1995. Black Rock Forest Consortium white-tailed deer management, 1995. Black Rock Forest report, 10 pp.
- Clark, J.F., P. Schlosser, R. Wanninkhof, H.J. Simpson, W. Schuster, and D.T. Ho. 1995. Gas transfer velocities for SF₆ and ³He in a small pond at low wind speeds. Geophysical Research 22(2): 93-96.
- Kantzos, B. 1995. Black Rock Forest: An examination of chloride and sulfate. Senior Thesis, Department of Environmental Sciences, Barnard College, Columbia University, 60 pp.

- Kipping, K. 1995. Black Rock Forest and the global carbon cycle: rates of carbon sequestration from 1931 - 1994. Senior Thesis, Department of Environmental Sciences, Barnard College, Columbia University, 44 pp.
- Leger, A., C. Rebbert, and J. Webster. 1995. Cl-rich biotite and amphibole from Black Rock Forest, Cornwall, New York. Abstract, Proceedings of the Annual Meeting of the American Geophysical Union, Baltimore, MD, June 1995.
- Li, Z.-h, P.D. Matthews, B. Burr, and E.T. Wurtzel. 1995. Cloning and characterization of a maize cDNA encoding phytoene desaturase, an enzyme of the carotenoid biosynthetic pathway. *Plant Mol. Biology*.
- Mahar, N. 1995. Black Rock's hidden past: A history of land use in Black Rock Forest from the pre-colonial period to 1927. BRF grant report, New York University, 80 pp.
- Maenza-Gmelch, T.E. 1995a. High-resolution late-Quaternary biostratigraphic records from southeastern New York State, USA: paleoenvironmental implications. Ph.D. Thesis. New York University. 106 pp.
- Maenza-Gmelch, T.E. 1995b. Forest, climate and fire history of the Hudson Highlands, southeast New York during the last >12,500 Years. *Trailside Museum and Zoo Botanical Papers*, B-2/95, Palisades Interstate Park Commission, Bear Mountain, New York.
- Maenza-Gmelch, T.E. 1995c. The role of fire in the development and maintenance of *Quercus* forest in the Hudson Highlands, lower Hudson Valley, southeastern New York. Abstracts, 80th Annual Ecological Society of America Meeting, p 164. Snowbird, Utah.
- Mellett, J.S. 1995. Profiling of ponds and bogs using ground-penetrating radar. *Journal of Paleolimnology* 14: 233-240.
- Phillips, J. and F. Tubiello. 1995. Preliminary estimate of evapotranspiration from Black Rock Forest, 1994. Internal report, Global Systems Institute of Columbia University and Goddard Institute of Space Studies. 11 pp.
- Simpson, H.J. 1995. Monitoring of rain and stream chemistry at Black Rock Forest. Year 3 report. Lamont-Doherty Earth Observatory of Columbia University.
- Tang, M., T.E. Jensen, and W.A. Corpe. 1995. The occurrence of polyphosphate bodies in polyhedral bodies (carboxysomes) in *Synechococcus leopoliensis* (Cyanophyceae). *Microbios* 81: 59-66.
- Thetford, R.D., E.R. Cook, and R.D'Arrigo. 1995. Development of tree-ring records from the Black Rock Forest. BRF grant report, Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University.
- Wurtzel, E.T. 1995a. Carotenoid expression in maize and rice: a comparison. Abstract, Gordon Research Conference on Carotenoids, Oxnard, CA, Feb. 5-9.
- Wurtzel, E.T. 1995b. Regulation of carotenoid biosynthesis in maize endosperm. Abstract, Maize Genetics Conference, March 16-19, Asilomar, CA.

1994

- Barringer, K. 1994. The terrestrial vegetation of Black Rock Forest: a prototype. Internal report, Brooklyn Botanic Garden, 43 pp.
- Baxter, M. and T.E. Jensen. 1994. Cultural conditions which favor polyphosphate body formation in *Staphylococcus aureus*. Proceedings of the Annual Meeting American Society of Microbiologists. Las Vegas, NV. May, 1994.
- Brady, J.F. 1994. Black Rock Forest Consortium white-tailed deer management, 1994. Black Rock Forest report, 9 pp.

- Corpe, W.A. and T.E. Jensen. 1994a. An analytical electron microscope (TEM) study of metal content of microbes and inorganic particles in aquatic environments. Abstract, Northeastern Microbiologists, June 22-24, Minnbrook, Blue Mt. Lake, NY.
- Corpe, W.A. and T.E. Jensen. 1994b. Morphological diversity of microorganisms in activated sludge. Proceedings Annual Meeting of Society for Industrial Microbiology. Boston, MA. August 1-5, 1994.
- Gonzalez, H. and T.E. Jensen. 1994. Nickel uptake by *Staphylococcus aureus*: a quantitative energy dispersive x-ray (TEM-STEM) analysis. Abstract, Annual MBRS Symposium, Hilton Head, South Carolina, Dec. 1994.
- Gresko, M.A. 1994. An investigation into the chloride ion concentrations of four brooks within Black Rock Forest over a six-month period, as an indicator of chemical concentration increases of acid deposition. Internal Report, Columbia University Research Fellow Program. 9 pp.
- Jensen, T.E. and W.A. Corpe. 1994a. Elemental composition of non-living particles in picoplankton fractions from oligotrophic lake water. *Water Research* 28: 901-907.
- Jensen, T.E. and W.A. Corpe. 1994b. Picoplanktonic cyanophytes from three small lakes. *Arch. Hydrobiol. Suppl. Algological Studies* 75: 149-156.
- Jensen, T.E. and W.A. Corpe. 1994c. The electron microscope in the in-situ study of microorganisms in several aquatic environments. Abstract, Northeastern Environmental Symposium, Meadowlands Conv. Center, Secaucus, N.J., Dec. 6-8.
- Jensen, T.E. and W.A. Corpe. 1994d. The microbial loop in Black Rock Forest lakes. Lehman and Columbia Universities, BRF grant final report.
- Jones, E. and T.E. Jensen. 1994. A morphometric analysis of structural responses in *Anabaena doliolum* to aluminum at selected pH levels. Proc. of Annual Meeting American Society for Microbiology. Las Vegas, NV. May 1994.
- Maenza-Gmelch, T.E. 1994. Paleoecology of the late-glacial/Holocene transition in the Hudson Highlands, New York, USA. AMQUA Abstracts of the 13th Biennial Meeting, p.124. University of Minnesota, MN.
- Schuster, W. 1994. Environmental research at Black Rock Forest, Proceedings of Symposium on Hudson River Research, Monitoring, and Information. The Hudson River Environmental Society, Marist College, Poughkeepsie, NY.
- Simpson, H.J. 1994. Monitoring of rain and stream chemistry at Black Rock Forest, Year 2 report. Lamont-Doherty Earth Observatory of Columbia University.
- Tang, M. 1994. Ultrastructural changes in *Synechococcus leopoliensis* produced by cadmium as influenced by pH. Ph.D. Thesis, City University of New York Lehman College.

1993

- Barringer, K. and S. Clemants. 1993. Checklist of the plants of Black Rock Forest, Black Rock Forest report to accompany BRF Herbarium, 53 pp.
- Brady, J.F. 1993. Black Rock Forest Consortium white-tailed deer management, 1993. Black Rock Forest report, 6 pp.
- Calquhoun, S. and T.E. Jensen. 1993. The uptake of Al, Pb, and Hg by *Staphylococcus aureus*. Abstract, Annual MBRS Meeting, Atlanta, GA.
- Corpe, W.A. and T.E. Jensen. 1993. Metal content of microbes and inorganic particles in natural aquatic environments: an analytical electron microscopic study. Abstract, Institute of Gas, Oil and Environmental Biotechnology, Nov. 29 - Dec. 1, Colorado Springs, CO.

- Jensen, T.E. and W.A. Corpe. 1993a. Elemental composition of the polyphosphate bodies in microbial cells from a small lake. *Arch. Hydrobiol.* 127(4): 285-293.
- Jensen, T.E. and W.A. Corpe. 1993b. Picoplanktonic cyanophytes from three small lakes. *Proceedings of the XIIth International Symposium on Cyanophyte Research*, Bleking, Sweden.
- Lieberman, S., K. Lieberman, W.A. Corpe, and T.E. Jensen. 1993. Comparative study of the elemental composition of polyphosphate bodies in bacteria and yeast cultures. Annual Meeting, Amer. Soc. Microbiol., Atlanta, Georgia.
- Murray, T. 1993. The Black Rock Forest Project: creating connections in the living laboratory. *Holistic Education Review* 6(3): 44-55.
- Rachlin, J.W. and A. Pappantoniou. 1993. Populations of *Enneachanthus gloriosus* not *E. obesus* are in the lakes of Black Rock Forest, Orange Co., NY. Abstract, 49th Annual Northeast Fish and Wildlife Conference, April 18-21, 1993, Atlantic City, NJ.
- Shimoda, M. 1993. Visits to nine wetlands in northeastern United States. *Bulletin Water Plant Society, Japan* 49: 5-11.
- Simpson, H.J. 1993. Monitoring of rain and stream chemistry at Black Rock Forest. Year 1 report. Lamont-Doherty Earth Observatory of Columbia University.
- Wurtzel, E.T. 1993. Molecular genetics of maize carotenoid biosynthesis. Abstract, New York Area Plant Molecular Biology Symposium, Jan. 23, 1993, New York University, NY.

1992

- Brady, J.F. 1992. Black Rock Forest Consortium white-tailed deer management, 1992. Black Rock Forest report, 8 pp.
- Corpe, W.A. and T.E. Jensen. 1992. An electron microscopic study of picoplanktonic organisms from a small lake. *Microbial Ecology* 24: 181-197.
- Grimaldi, D. 1992. Systematics and life histories of fungus gnats. Black Rock Forest grant report, American Museum of Natural History, NY.
- Grimaldi, D., A.C. James, and J. Jaenike. 1992. Systematics and modes of reproductive isolation in the holarctic *Drosophila testacea* species group (Diptera: Drosophilidae). *Ann. Entomological Society of America* 85(6): 671-685.
- Kozower, C. 1992. White-tailed deer ecology and management at Black Rock Forest. Senior Thesis, Barnard College.
- Moore, K.E.B. and C.G. Jones. 1992. Estimating field hatch of gypsy moth (Lepidoptera: Lymantriidae). *Environmental Entomology* 21(2): 276-280.
- Sveck, Sherry, 1992. Black Rock Forest. *The Times Herald Record, Sunday Magazine* November 15, 1992. Middletown, NY.
- Tang, M., T.E. Jensen, and W.A. Corpe. 1992. The toxicological response of *Synechococcus leopoliensis* (Cyanophyceae) to cadmium. A morphometric and x-ray microanalysis study. Annual Meeting Amer. Soc. Microbiol., New Orleans, LA.
- Wurtzel, E.T. 1992. Use of a Ds chromosome-breaking element to examine maize Vp5 expression. *Journal of Heredity* 83(2): 109-113.

1991

- Brady, J.F. 1991. Black Rock Forest Consortium white-tailed deer management, 1991. Black Rock Forest report, 8 pp.

- Chemych, A. and C. Eisenberg. 1991. Magnetite ore deposits and related rocks in the Black Rock Forest, Cornwall, New York. Black Rock Forest grant report, Hunter College and American Museum of Natural History.
- Matthews, P. and E.T. Wurtzel. 1991. Molecular genetics of maize carotenoid biosynthesis. New York Area Plant Molecular Biology Symposium, Waksman Institute, Rutgers University, NJ.
- Quigley, M.F. 1991. Understory composition and change in temperate and tropical seasonal hardwood forest. Ph.D. Thesis, Louisiana State University. 20 pp.
- Schlessman, M. 1991. Size gender and sex change in dwarf ginseng *Panax trifolium* (Araliaceae). *Oecologia* 87(4): 588-595.

1990

- Brady, J.F. 1990. Black Rock Forest Consortium white-tailed deer management, 1990. Black Rock Forest report, 5 pp.
- Jones, C.G., M.K. Steininger, P. Luciano, and K.E.B. Moore. 1990. Estimating gypsy moth (Lepidoptera: Lymantriidae) fecundity in the field: comparison of data from North America and Sardinia, Italy. *Environmental Entomology*, 19(1): 108-110.
- Schlessman, M. 1990. Phenotypic gender in sex changing dwarf ginseng *Panax trifolium* (Araliaceae). *American Journal of Botany*, 77(9): 1125-1131.
- Wallner, W.E., C.G. Jones, J.S. Elkinton, and B.L. Parker. 1990. Sampling low-density gypsy moth populations. Proceedings USDA Interagency Gypsy Moth Research Review, NE Forest Experiment Station, General Technical Report NE-146: 40-44.

1989

- Brady, J.F. 1989. Harvard Black Rock Forest white-tailed deer management 1984 -1988. Black Rock Forest report. 33 pp.
- Brady, J.F. 1989. Harvard Black Rock Forest white-tailed deer management, 1988. Black Rock Forest report, 5 pp.

1988

- Brady, J.F. 1988. Harvard Black Rock Forest white-tailed deer management, 1989. Black Rock Forest report, 1 p.
- Jones, C.G. 1988. Habitat-differentiated gypsy moth population dynamics at low densities. USDA Forest Service Project summary, NE Station, 2 pp.

1987

- Brady, J.F. 1987. Harvard Black Rock Forest white-tailed deer management, 1987. Black Rock Forest report, 1 p.
- Kelley, S.L. 1987. Patterns of germination and establishment for striped maple (*Acer pensylvanicum* L.). MA Thesis, Lehman College, City University of New York. 124 pp.
- Moore, K.E.B. and C.G. Jones. 1987. Field estimation of fecundity of gypsy moth (Lepidoptera: Lymantriidae). *Environmental Entomology* 16: 165-167.
- Schlessman, M. 1987. Gender modification in North American ginsengs; dichotomous sex choice versus adjustment. *BioScience* 37: 469-475.
- Yost, S.E. 1987. The effect of shade on petiole length in the *Viola fimbriatula-sagittata* complex (Violaceae). *Brittonia* 39: 180-187.

1986

- Becker, A. and R.H. Boyle, 1986. The vulnerability of lakes, ponds, and reservoirs in the Hudson Highlands to acidification. Report to the Hudson River Fishermen's Association, Garrison, NY. 68 pp.
- Brady, J.F. 1986. Harvard Black Rock Forest white-tailed deer management, 1986. Black Rock Forest report, 1 p.
- Curtis, L. 1986. Bird population studies on gypsy moth research areas in the Northeast. Entomology Research Laboratory, Plant and Soil Sciences Department, University of Vermont, progress report, 9 pp.
- Jones, C.G. 1986. Development of adequate larval and pupal sampling procedures. Pages 18 – 29 in Gypsy Moth Research Review Progress Reports, 1985 season, USDA Forest Service, NE Station, Windsor Locks, CT.
- Pijanowska, J. 1986. A report from summer research on zooplankton composition and distribution in the lakes of different pH. Institute of Zoology, University of Warsaw, Poland. 14 pp.
- Schlessman, M. 1986. Interpretation of evidence for gender choice in plants. *American Naturalist* 128: 416-420.

1985

- Ahrens, E.H. Jr. and W.S. George, Jr. 1985. The Future of the Black Rock Forest. The Ernest G. Stillman Forest Committee. Black Rock Forest Internal Report.
- Brady, J.F. 1985. Harvard Black Rock Forest white-tailed deer management, 1985. Black Rock Forest report, 1 p.
- Friday, K.S. and J.B. Friday. 1985. Black Rock Forest inventory. Harvard Black Rock Forest internal report.
- Jones, C.G. 1985. Quantifying habitat-differentiated gypsy moth population dynamics at low densities. Pages 20 – 24 in Gypsy Moth Research Review Progress Reports, 1984 season, USDA Forest Service, NE Station, Windsor Locks, CT.

1984

- Brady, J.F. 1984. Harvard Black Rock Forest white-tailed deer management, 1984. Black Rock Forest report, 4 pp.
- Lorimer, C. 1984. Development of the red maple understory in northeastern oak forests. *Forest Science* 30: 3-22.
- Trow, G.W.S. 1984. Annals of discourse, the Harvard Black Rock Forest. *The New Yorker Magazine* 6/11/84, p. 44-99.
- Yost, S.E. 1984. Habitat partitioning in *Viola sororia* and *V. fimbriatula*. Ph.D. Dissertation, City University of New York. 229 pp.

1983

- Ledig, F.T., R.P. Guries, and B.A. Bonefeld. 1983. The relation of growth to heterozygosity in pitch pine. *Evolution* 37: 1227-1238.
- Karnig, J.J. 1983. One view of clearcutting. Assessment of an oak forest 25 years after cutting the overstory. *Northern Logger* 32(3): 12-42.

1982

Quadro, A.P. 1982. An analysis of production and costs of three small tractors used in fuelwood harvesting in New York State. MS Thesis, State University of New York, College of Environmental Science and Forestry. 124 pp.

1981

Lorimer, C.G. 1981. Survival and growth of understory trees in oak forest of the Hudson Highlands, New York. *Canadian Journal of Forest Research* 11: 689-695.

Karnosky, D.G. and C.G. Jones. 1981. Living with the gypsy moth. *Garden Magazine* 5(3) 6pp.

1977

Bascietto, J.J. 1977. Seasonal aspects of the ecology and microenvironment of beaver (*Castor canadensis* Kuhl) in New York. MS Thesis, New York University. 62 pp.

1975

Harrington, C.A. 1975. Statistical analysis of a soil-site study. MS Thesis. State University of New York Syracuse, NY. 96 pp.

Harrington, C.A. and J.J. Karnig. 1975. Growth increase after moderate thinning in a 70 year-old mixed oak stand. *Black Rock Forest Paper No. 31*. Cornwall Press, Cornwall, NY. 8 pp.

1972

Karnig, J.J. 1972. Nitrogen fertilizer increases diameter growth of northern red oak. *Journal of Forestry* 70: 629.

1969

Karnig, J.J. and B.B. Stout. 1969. Diameter growth of northern red oak following understory control. *Black Rock Forest Paper No. 30*. Cornwall Press, Cornwall, NY. 16 pp.

1968

Karnig, J.J. and W.H. Lyford. 1968. Oak mortality and drought in the Hudson Highlands. *Black Rock Forest Paper No. 29*. Cornwall Press, Cornwall, NY. 13 pp.

1966

Karnig, J.J. 1966. Recreation use within the Harvard Black Rock Forest. *Black Rock Forest Paper No. 26*. Cornwall Press, Cornwall, NY. 11 pp.

Stillman, C.W. 1966. The issues in the Storm King controversy. *Black Rock Forest Paper No. 27*. Cornwall Press, Cornwall, NY. 18 pp.

Stillman, C.W. 1966. The price of open space - The need for research. *Black Rock Forest Paper No. 28*. Cornwall Press, Cornwall, NY. 7 pp.

1964

Norbert, E.A. 1964. Assessment of forest floor fuels. MS Thesis, Harvard University. 30 pp.

1963

Karnig, J.J. 1963. Chemical control of hardwood sprouts using ammonium thiocyanate crystals. *Proceedings of the Northeastern Weed Control Conference*, Jan. 9-11, 1963. Vol. 17, 5 pp.

1959

Stout, B.B. 1959. Supplemental irrigation of 75-year-old hardwoods. Black Rock Forest Paper No. 25. Cornwall Press, Cornwall, NY. 6 pp.

1958

Ross, P. 1958. Microclimatic and vegetational studies in a cold-wet deciduous forest. Black Rock Forest Paper No. 24. Cornwall Press, Cornwall, NY. 89 pp.

1956

Stout, B.B. 1956. Studies of the root systems of deciduous trees. Black Rock Forest Bulletin No. 15. Cornwall Press, Cornwall, NY. 45 pp.

1949

Stillman, C.W. 1949. Economic relations of the Black Rock Forest. Black Rock Forest Paper No. 23. Cornwall Press, Cornwall, NY. 5 pp.

Tryon, H.H. and R.F. Finn. 1949. Twenty-year progress report 1927 - 1948. Black Rock Forest Bulletin No. 14. Cornwall Press, Cornwall, NY. 89 pp.

1947

Tryon, H.H. and R.F. Finn. 1947. On obtaining natural hardwood regeneration. Black Rock Forest Paper No. 22. Cornwall Press, Cornwall, NY. 4 pp.

1945

Tryon, H.H. 1945. The management of young volunteer hardwood stands. Black Rock Forest Bulletin No. 13. Cornwall Press, Cornwall, NY. 28 pp.

1943

Finn, R.F. 1943. The leaching of some plant nutrients following the burning of forest litter. Black Rock Forest Paper No. 21. Cornwall Press, Cornwall, NY, 7 pp.

Tryon, H.H. 1943. Practical forestry in the Hudson Highlands. Black Rock Forest Bulletin No. 12. Cornwall Press, Cornwall, NY. 50 pp.

1942

Finn, R.F. 1942a. Notes on the resampling of certain fertilized plots. Black Rock Forest Paper No. 16. Cornwall Press, Cornwall, NY. 2 pp.

Finn, R.F. 1942b. Mycorrhizal inoculation of soil of low fertility. Black Rock Forest Paper No. 19. Cornwall Press, Cornwall, NY. 2 pp.

Finn, R.F. and H.H. Tryon. 1942. The comparative influence of leaf mould and inorganic fertilizers on the growth of red oak. Black Rock Forest Paper No. 17. Cornwall Press, Cornwall, NY. 2 pp.

Tryon, H.H. and R.F. Finn. 1942a. Test of chemical control of hardwood sprouts. Black Rock Forest Paper No. 18. Cornwall Press, Cornwall, NY. 2 pp.

Tryon, H.H. and R.F. Finn. 1942b. Improvement cuttings in mixed hardwoods. Black Rock Forest Paper No. 20. Cornwall Press, Cornwall, NY. 7 pp.

1940

- Hardesty, J.S. 1940. Erosion and related land use conditions in the Black Rock Forest. MS Thesis, Harvard University. 40 pp.
- Tryon, H.H. and R.F. Finn. 1940. A compact precipitation record. *Journal of Forestry* 38(8): 644-645.

1939

- Mitchell, H.L. 1939a. Preliminary notes on a method for the prevention and control of white grub infestations in nursery soils. Black Rock Forest Paper No. 14. Cornwall Press, Cornwall, NY. 2 pp.
- Mitchell H.L. 1939b. The growth and nutrition of white pine (*Pinus strobus* L.) seedlings in cultures with varying nitrogen, phosphorus, potassium and calcium. Black Rock Forest Bulletin No. 9. Cornwall Press, Cornwall, NY. 135 pp.
- Mitchell, H.L. and R.F. Chandler. 1939. The nitrogen nutrition and growth of certain deciduous trees of the northeastern United States. Black Rock Forest Bulletin No. 11. Cornwall Press, Cornwall, NY. 94 pp.
- Mitchell, H.L. and R.O. Rosendahl. 1939. The relationships between cumulative solar radiation and the dry weight increase of nursery-grown white pine and red pine seedlings. Black Rock Forest Paper No. 13. Cornwall Press, Cornwall, NY. 6 pp.
- Tryon, H.H. 1939a. Ten-year progress report 1928 - 1938. Black Rock Forest Bulletin No. 10. Cornwall Press, Cornwall, NY. 76 pp.
- Tryon, H.H. 1939b. A high-duty woodsaw. Black Rock Forest Paper No. 15. Cornwall Press, Cornwall, NY. 3 pp.

1938

- Denny, C.S. 1938. Glacial geology of the Black Rock Forest. Black Rock Forest Bulletin No. 8. Cornwall Press, Cornwall, NY. 70 pp.
- Raup, H.M. 1938. Botanical studies in the Black Rock Forest. Black Rock Forest Bulletin No. 7. Cornwall Press, Cornwall, NY. 161 pp.
- Tryon, H.H. 1938. Hardwood brush disposal in the Hudson Highlands. Black Rock Forest Paper No. 12. Cornwall Press, Cornwall, NY. 5 pp.

1937

- Hatch, A.B. 1937. The physical basis of mycotrophy in *Pinus*. Black Rock Forest Bulletin No. 6. Cornwall Press, Cornwall, NY. 168 pp.
- Mitchell, H.L., R.F. Finn, and R.O. Rosendahl. 1937. The relation between mycorrhizae and the growth and nutrient absorption of coniferous seedlings in nursery beds. Black Rock Forest Paper No. 10. Cornwall Press, Cornwall, NY. 20 pp.
- Scholz, H.F. 1937a. Diameter outside bark as an index of bark thickness at breast height for red and chestnut oak. Black Rock Forest Paper No. 8. Cornwall Press, Cornwall, NY. 3 pp.
- Scholz, H.F. 1937b. The effect of soil texture upon the growth of red and chestnut oaks. Black Rock Forest Paper No. 11. Cornwall Press, Cornwall, NY. 4 pp.
- Tryon, H.H. and R.F. Finn. 1937a. Cordwood volume table for red oak and red maple in the Hudson Highlands. Black Rock Forest Paper No. 7. Cornwall Press, Cornwall, NY. 2 pp.
- Tryon, H.H. and R.F. Finn. 1937b. Notes on the terminal growth of coniferous plantations in the Hudson Highlands. Black Rock Forest Paper No. 9. Cornwall Press, Cornwall, NY. 3 pp.

1936

- Mitchell H.L. 1936a. The effect of varied solar radiation upon the growth, development and nutrient content of white pine seedlings grown under nursery conditions. Black Rock Forest Paper No. 4. Cornwall Press, Cornwall, NY. 7 pp.
- Mitchell, H.L. 1936b. Trends in the nitrogen, phosphorus, potassium and calcium content of the leaves of some forest trees during the growing season. Black Rock Forest Paper No. 6. Cornwall Press, Cornwall, NY. 17 pp.
- Mitchell, H.L. and N.W. Hosley. 1936. Differential browsing by deer on plots variously fertilized. Black Rock Forest Paper No. 5. Cornwall Press, Cornwall, NY. 5 pp.

1935

- Mitchell, H.L. 1935. A method for determining the nutrient needs of shade trees with special reference to phosphorus. Black Rock Forest Paper No. 1. Cornwall Press, Cornwall, NY. 3 pp.
- Mitchell, H.L. and R.F. Finn. 1935. The relative feeding power of oaks and maples for soil phosphorus. Black Rock Forest Paper No. 2. Cornwall Press, Cornwall, NY. 4 pp.
- Tryon, H.H. and R.F. Finn. 1935. A chestnut oak volume table for the Hudson Highland region. Black Rock Forest Paper No. 3. Cornwall Press, Cornwall, NY. 1 p.

1934

- Mitchell, H.L. 1934. Pot culture tests of forest soil fertility. Black Rock Forest Bulletin No. 5. Cornwall Press, Cornwall, NY. 138 pp.

1933

- Tryon, H.H. 1933. A portable charcoal kiln. Black Rock Forest Bulletin No. 4. Cornwall Press, Cornwall, NY. 34 pp.
- Tryon, H.H. 1932. A study of certain coniferous underplantings in the upper Hudson Highlands. Black Rock Forest Bulletin No. 3. Cornwall Press, Cornwall, NY. 27 pp.

1931

- Scholz, H.F. 1931. Physical properties of the cove soils on the Black Rock Forest. Black Rock Forest Bulletin No. 2. Cornwall Press, Cornwall, NY. 59 pp.

1930

- Tryon, H.H. 1930. The Black Rock Forest. Black Rock Forest Bulletin No. 1. Cornwall Press, Cornwall, NY. 42 pp.