Curriculum Vitae

PAUL R. GAGNON

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EDUCATION

2006 Ph.D. in Biological Sciences with minor in Applied Statistics, Department of Biological Sciences, Louisiana State University. Dissertation: *Population biology and disturbance ecology of a native North American bamboo* (Arundinaria gigantea)

1998 Master of Forest Science, School of Forestry and Environmental Studies at Yale University. Thesis: Ethnobotanical lore among the Esmeraldeños of the Cayapas-Mataje National Mangrove Reserve of northwest Ecuador

1990 B.A. in Economics and Business (double major), Baylor University

ACADEMIC AND PROFESSIONAL APPOINTMENTS

- 2011-present: Assistant Professor, Department of Biological Sciences and Watershed Studies Institute (joint appointed), Murray State University
- 2008-2011: Post-Doctoral Researcher, Department of Wildlife Ecology & Conservation, University of Florida in the laboratory of Emilio M. Bruna
- 2007-2008: Post Doctoral Researcher, Department of Biological Sciences, Louisiana State University in the laboratory of Kyle E. Harms
- 1994-1996: Recruiter, Peace Corps of the US, Southwest Regional Office in Dallas, Texas
- 1991-1993: Volunteer in Freshwater Aquaculture, Peace Corps of the US, Togo, West Africa

AWARDS AND GRANTS

- 2012-2015 National Science Foundation: *Collaborative Research: Diversity, Dominance & Disturbance in Species-Rich Pine Savanna Groundcover.* DEB-1144079 to P. Gagnon, Murray State University (\$200,000); DEB-1144084 to K. Harms, Louisiana State University (\$330,000) and J. Myers, Washington University (Co-PI)
- 2003-2006: US EPA STAR Fellowship # U916181: Population structure and process in a woody bamboo: genet-based life table response experiments in Arundinaria gigantea (Fam. Poaceae, Tribe Bambusoideae). \$108,000
- 2002-2003: J. Bennett Johnston Science Foundation: *Exploring clonal biology in Louisiana cane stands using life table response experiments.* \$5000

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- 2001-2002: American Bamboo Society: Genetic analysis of populations of two new world woody bamboos. \$3300
- 2000: Sigma Xi Grant in Aid: Patch structure and natural biological invasions in southwestern Amazonian bamboo stands. \$600
- 1999-2003: Louisiana State Board of Regents Fellowship, \$106,000
- 1997: Tropical Resources Institute Grant: *Non-timber resources in the world's tallest mangrove forest.* \$2500
- 1997: Yale Program in Agrarian Studies Grant: *Ethnobotanical lore and cultural identity of Afro-Ecuadorians of the Cayapes-Mataje Mangrove Reserve*. \$2500
- 1996-1998: Yale School of Forestry and Environmental Studies Scholarship, \$16,000
- 1986-1990: Baylor University Presidential Scholarship, \$20,000

PEER-REVIEWED JOURNAL ARTICLES

- **Gagnon, P.R.**, Harms, K.E., Platt, W.J., Passmore, H.A. and Myers, J.A. 2012. Small-scale variation in fuel loads differentially affects two co-dominant bunchgrasses in a speciesrich pine savanna. *PLoS ONE* 7(e29674):1-7. (doi:10.1371/journal.pone.0029674)
- **Gagnon, P.R.**, Bruna, E.M., Rubim P., Darrigo, M.R., Littel, R.C., Uriarte, M., Kress, W.J. 2011. Growth of an understory herb is chronically reduced in Amazonian forest fragments. *Biological Conservation* 144: 830-835 (doi:10.1016/j.biocon.2010.11.015).
- **Gagnon, P.R.**, Passmore, H.A., Platt, W.J., Paine, C.E.T., Myers, J.A. and Harms, K.E. 2010. Does pyrogenicity protect burning plants? *Ecology* 91: 3481-3486 (Cover Article).
- **Gagnon**, **P.R.** 2009a. Fire in floodplain forests in the southeastern USA: Insights from disturbance ecology of native bamboo. *Wetlands* 29: 520–526.
- **Gagnon, P.R.** and Platt, W.J. 2008a. Multiple disturbances accelerate clonal growth in a potentially monodominant bamboo. *Ecology* 89:612-618. (Report)
- **Gagnon, P.R.** and Platt, W.J. 2008b. Reproductive and seedling ecology of a semelparous native bamboo (*Arundinaria gigantea* [Walt.] Muhl., Poaceae). *Journal of the Torrey Botanical Society* 135:309-316.
- **Gagnon, P.R.**, Platt, W.J. and Moser, E.B. 2007. Response of a native bamboo [*Arundinaria gigantea* (Walt.) Muhl.] in a wind-disturbed forest. *Forest Ecology and Management* 241:288-294.

OTHER PEER-REVIEWED PUBLICATIONS

Gagnon, P.R. 2009b. Did River Bottoms Burn? Bamboo, Wind & Fire in Bottomland Hardwood Forests. *Society of Wetland Scientists Research Brief* no. 2009-0008.

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- **Gagnon, P.R.** 2007. Overview of cane ecology and management. Appendix 2 *in* Restoration, Management, and Monitoring of Forest Resources in the Mississippi Alluvial Valley: Recommendations for Enhancing Wildlife Habitat. Lower Mississippi Valley Joint Venture, Forest Resource Conservation Working Group. edited by R. Wilson, K. Ribbeck, S. King, and D. Twedt.
- **Gagnon, P.R.** 1998a. Local knowledge and degrees of indigenousness: Ethnobotanical lore among the Esmeraldeños of the Cayapas-Mataje National Mangrove Reserve of northwestern Ecuador. Tropical Resources Institute Working Paper No. 104.
- **Gagnon, P.R.** 1998b. Ethical considerations of local compensation. Tropical Resources Institute News 17:33-34.

MANUSCRIPTS IN REVIEW OR IN PREPARATION

- **Gagnon, P.R.** and Passmore, H.A. Beneficial effects of fire four years after burning for a potentially monodominant bamboo (*Arundinaria gigantea* [Walt.] Muhl. Poaceae). In preparation for *Fire Ecology*.
- **Gagnon, P.R.**, Bruna, E.M., Rubim P., and Darrigo, M.R., Uriarte, M., and Kress, J.W. Stochastic demography of an Amazonian understory herb. In preparation for *Ecosphere*.
- Lucas, C.M., Sheikh, P. and **Gagnon, P.R.**, The effects of cattle disturbance and flooding on regeneration, recruitment and rates of change in Amazonian floodplain forests. In preparation for *Journal of Applied Ecology* (completed dissertation chapter).

COURSES TAUGHT AS INSTRUCTOR OF RECORD

- Biological Inquiry and Analysis (BIO 216), Spring 2012. 4 credits, all inquiry-based. Required for all biology majors at Murray State University.
- Hurricane Ecology, Fall 2010. upper-level undergraduate course at the University of Florida. Mean student evaluations: instructor overall = 4.75; departmental avg. = 4.17 out of 5.0.

INVITED PRESENTATIONS

Gagnon, P.R. and Passmore, H.A. 2012. Fire, flammability and bunchgrass co-dominance in a longleaf pine savanna. Invited speaker, Summer Seminar Series in Ecology and Evolution, Tyson Research Center, Washington University, St. Louis.

Gagnon, P.R. 2011. Variation among populations of a tropical forest herb using vital rate-based stochastic matrix modeling. Invited speaker, BioMaPS Fall Seminar Series, Murray State University.

Gagnon, P.R. 2011. Bamboo, wind and fire in a southeastern riparian forest. Invited speaker, Department of Biological Sciences, Murray State University.

Gagnon, P.R. 2010. Bamboo, wind and fire in a southeastern riparian forest. Invited speaker, Department of Biological Sciences, East Carolina University.

Gagnon, P.R. 2009. Bamboo, wind and fire in bottomland hardwood forests. Invited speaker, Ecology and Evolution Fall Seminar Series. Department of Biological Science, Florida State University.

Gagnon, P.R. 2009. Bamboo, wind and fire in bottomland hardwood forests. Invited speaker, Spring Seminar Series. Department of Wildlife Ecology & Conservation, Univ. of Florida.

Gagnon, P.R. 2007. Fire in the bottomlands and the disturbance ecology of cane (*Arundinaria gigantea*). Invited speaker, Fall Seminar Series at the LSU Museum of Natural Science.

SYMPOSIUM PRESENTATIONS

Gagnon, P.R. and Passmore, H.A. 2012. Fire effects on river cane (*Arundinaria gigantea*) in a bottomland hardwood forest four years after burning *in* Symposium: Fire - Shaping Wetlands from Nutrients to Wildlife. 9th INTECOL International Wetlands Conference, Orlando Florida.

Gagnon, P.R. 2009. Flammability for plant self-protection *in* Special Session: Advancing Flammability Research. 4th International Fire Ecology and Management Congress: Fire as a global process in Savannah, GA.

Gagnon, P.R. 2008. Disturbance ecology and population biology of giant cane (*Arundinaria gigantea*) in Symposium: Them's the brakes: The past and future of North American bamboo. 69th Annual Meeting of Association of Southeastern Biologists in Spartanburg, SC.

Gagnon, P.R. and W.J. Platt. 2008. Fire in bottomland forests: Insights from disturbance ecology of *Arundinaria*. Floodplain Ecosystem Symposium, March 4-6 in Little Rock, AR.

Gagnon, P.R.* and W.J. Platt. 2006. Razing cane: multiple disturbances and bamboo ramet demography *in* Symposium: Plant clonal growth - ecological implications. 91st Annual Meeting of the Ecological Society of America. Memphis, TN. *Co-organized symposium.

CONTRIBUTED SCIENTIFIC PRESENTATIONS

Gagnon, P.R., Bruna, E.M., Rubim P., Darrigo, M.R., Littel, R.C., Uriarte, M., Kress, W.J. 2010. The growth of an understory herb is chronically reduced in Amazonian forest fragments *in* Contributed oral session at the 95th Annual Meeting of the Ecological Society of America. Pittsburgh, PA.

Gagnon, P.R.and W.J. Platt. 2007. Reproductive and seedling ecology of cane (*Arundinaria gigantea*), a native North American bamboo *in* Poster session at the 92nd Annual Meeting of the Ecological Society of America, San Jose, CA.

Gagnon, P.R. and W.J. Platt. 2005. Razing cane: The effect of fire on a native North American bamboo *in* Poster session at the 90th Annual Meeting of the Ecological Society of America. Montreal, Quebec.

Gagnon, P.R. and W.J. Platt. 2004. Bamboo demography and wind disturbance in an alluvial forest *in* Contributed oral session at the 89th Annual Meeting of the Ecological Society of America. Portland, OR.

Gagnon, P.R. and W.J. Platt. 2003. Clonal demography & multiple disturbances in Louisiana cane stands *in* Poster session at the 88th Annual Meeting of the Ecological Society of America. Savannah, GA.

MANUSCRIPT AND PROPOSAL REVIEWS FOR

Basic and Applied Ecology, Biological Conservation, Biotropica, Castanea, Ecological Restoration, Ecology, Forest Ecology and Management, Journal of Ecology, Journal of Tropical Ecology, Journal of the Torrey Botanical Society, Journal of Vegetation Science, National Science Foundation, Plant Ecology, Population Ecology

MEMBERSHIPS AND AFFILIATIONS

Ecological Society of America, Sigma Xi, Society of Wetland Scientists

RECENT COLLABORATORS

Emilio Bruna, Jane E. Carlson, Michael Flinn, Kyle Harms, Ramon Littell, Christine Lucas, Jonathan A. Myers, C. E. Timothy Paine, Heather Passmore, Bill Platt, Paulo Rubim, Maria Uriarte, Howard Whiteman

SELECTED TEMPORARY APPOINTMENTS

Forest Trust, *Research Associate,* Santa Fe, NM – 1999 Compiled extensive annotated bibliography on ecology of ponderosa pine (*Pinus ponderosa*).

Pioneer Forest / Forest Trust, *Alternative Forestry Intern*, Salem, MO – 1998 Assisted in forest regeneration census, learned tree-marking under single-tree selection forestry.

Vogt Soils Laboratory, *Field and Laboratory Technician*, Yale Forestry & E.S. – 1996-1998 Collected, prepared and analyzed root-core, soil-core, leaf-litter and twig samples.

ADDITIONAL SKILLS AND EXPERIENCE

Experimental design of natural and manipulated experiments, including variations of split-plot, split-block and repeated measures designs among others.

Statistical analysis using general and generalized linear mixed model frameworks in the SAS environment with GLIMMIX, LOGISTIC, MIXED, and REG procedures.

Statistical and analytical programming in the R environment for demographic matrix-modeling, randomization tests, bootstrapping, data curation, figure generation, etc.

Wetlands and Waters of the US Delineation following guidelines of the US Army Corps of Engineers using their 1987 manual and 2010 regional supplements, as taught by Richard Chinn, Professional Wetland Scientist.

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Proficient in Spanish and French. Three years of international experience working and studying in West and East Africa, Central and South America, South and Southeast Asia.

Garden District Community Garden, *President,* Baton Rouge, LA (2001-2006). Managed memberships and plot assignments, organized and oversaw regular garden workdays.

Advanced Openwater SCUBA Certification from P.A.D.I.

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