

# Curriculum Vitae

## Daniel “Paul” Jackson

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## EDUCATION

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Ph.D. Horticulture, Auburn University, Auburn, AL; Aug 2007-Aug 2010

Dissertation title-“Effects of *Pythium* and Cold Storage on the Survival of Southern Pine Seedlings”

M.S. Environmental Biology, Louisiana Tech University, Ruston, LA; Dec 2003-May 2006

Thesis title-“Relating Morphology, Nutrition, and Bud Development to Liquid Fertilizer Application of Containerized Longleaf Pine Seedlings”

B.S. Biology, Northwestern State University, Natchitoches, LA; Aug 1996-Dec 2000

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## EMPLOYMENT EXPERIENCE

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**Research Fellow**, School of Forestry and Wildlife Sciences, Southern Forest Nursery Management Cooperative (SFNMC), Auburn University, Auburn, AL, Aug 2010-Present

- Leads the herbicide/weed control and Areawide Methyl Bromide Alternatives research programs for the SFNMC.
- Plant health diagnostician.
- SFNMC greenhouse and laboratory manager.

**Ph.D. Graduate Research Assistant**, College of Agriculture, Department of Horticulture, Auburn University, Auburn, AL, Aug 2007-Aug 2010

- Designed and conducted experiments to investigate: 1) southern pine seedling physiology and survival after cold storage, pathogen inoculations, and herbicide applications and 2) yellow nutsedge control with selective herbicides.
- Instructor of Forest Health Laboratory: FORY 5151/6151

**Biological Research Technician**, USDA Forest Service, Southern Research Station, Restoring and Managing Longleaf Pine Ecosystems Unit, Pineville, LA, Feb 2001-Aug 2007

- Provided technical expertise for greenhouse, laboratory, and field research trials; specifically measured longleaf pine seedling morphology, photosynthesis, root architecture, and chlorophyll, starch, and nitrogen levels.
- Independently conducted two longleaf pine seedling nutrition trials in 2004 and 2005 that led to the revision of the guidelines for growing longleaf pine seedlings in containers.
- Performed seed germination trials.
- Propagated approximately 20,000 pine seedlings for research trials.

## RESEARCH

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### Grants Funded

Enebak, S.A. and **D.P. Jackson**. (2011-2013). Evaluation of herbicides for the propagation and establishment of herbaceous plants indigenous to the ground-layer community of the longleaf pine ecosystem. USDA Forest Service. Funded amount: \$80,000

### Manuscripts Submitted or In-preparation

**Jackson, D.P.**, S.A. Enebak, and D.B. South. (*Submitted*). Effects of *Pythium* species and time in cold storage on the survival of bareroot and container-grown southern pine seedlings. ISRN Ecology; Submitted January 20, 2012.

**Jackson, D.P.**, S.A. Enebak, and D.B. South. (*Submitted*). *Pythium* species and cold storage affect the root growth potential and survival of loblolly (*Pinus taeda* L.) and slash pine (*Pinus elliottii* Engelm.) seedlings. Journal of Horticulture and Forestry; Submitted January 5, 2012.

### Refereed Publications

**Jackson, D.P.**, R.K. Dumroese, and J.P. Barnett. 2012. Nursery response of container *Pinus palustris* seedlings to nitrogen supply and subsequent effects on outplanting performance. Forest Ecology and Management 265: 1-12.

**Jackson, D.P.**, S.A. Enebak, and D.B. South. 2012. Survival of southern pine seedlings after inoculations with *Pythium* and cold storage in the presence of peat moss. Forest Pathology. 42(1): 44-51.

**Jackson, D.P.**, C.H. Gilliam, and D.B. South. 2011. Evaluation of selective postemergence herbicides for yellow nutsedge control and loblolly and slash pine seedling tolerance. Journal of Environmental Horticulture 29(3): 125-131.

South, D.B., T.E. Starkey, and **D.P. Jackson**. 2011. Needle-clipping of longleaf pine (*Pinus palustris* Mill.) can increase seedling survival while reducing transpiration and root growth potential. Journal of Horticulture and Forestry 3(5): 159-162.

### Conference Proceedings Publications

Dumroese, R.K., J.P. Barnett, **D.P. Jackson**, and M.J. Hains. (*In press*). Interim guidelines for growing longleaf pine seedlings in container nurseries. In: Proceedings of the 15<sup>th</sup> Biennial Southern Silvicultural Research Conference. Gen. Tech. Rep. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Jackson, D.P.**, T.E. Starkey, and S.E. Enebak. 2011. Five years of methyl bromide alternatives research in forest tree nurseries. In: Proceedings of the Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions. 33: 1-4.

Barnett, J.P., **D.P. Jackson**, and R.K. Dumroese. 2010. Longleaf pine bud development: Influence of seedling nutrition. In: Stanturf, J.A., ed. Proceedings of the 14<sup>th</sup> biennial southern silvicultural research conference. Gen. Tech. Rep. SRS-121. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 235-240.

**Jackson, D.P.**, R.K. Dumroese, J.P. Barnett, and W.B. Patterson. 2010. Effects of liquid fertilizer application on the morphology and outplanting success of container longleaf pine seedlings. In: Stanturf, J.A., ed. Proceedings of the 14<sup>th</sup> biennial southern silvicultural research conference. Gen. Tech. Rep. SRS-121. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 229-234.

Dumroese, R.K., J.P. Barnett, **D.P. Jackson**, and M.J. Hains. 2009. Interim guidelines for growing longleaf pine seedlings in containers. In: Riley L.E., Dumroese R.K., Landis T.D., Tech. Coords. National Proceedings, Forest and Conservation Nursery Associations—2008. Proc. RMRS-P-58. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station: 101-107.

**Jackson, D.P.**, C. Gilliam, D. South, S. Enebak, and D.J. Eakes. 2009. Evaluation of four herbicides to control yellow nutsedge and assess seedling tolerance in loblolly and slash pine seedlings. Proceedings, Southern Nursery Association Research Conference. 54: 129-133.

**Jackson, D.P.**, S. Enebak, D. South, C. Gilliam, and D.J. Eakes. 2008. The effect of *Pythium* and cold storage on the root growth potential and root collar diameter of longleaf pine (*Pinus palustris*) seedlings. Proceedings, Southern Nursery Association Research Conference. 53: 374-378.

**Jackson D.P.**, R.K. Dumroese, J.P. Barnett, and W.B. Patterson. 2007. Container longleaf pine seedling morphology in response to varying rates of nitrogen fertilization in the nursery and subsequent growth after outplanting. In: Riley L.E., Dumroese R.K., Landis T.D., Tech. Coords. National Proceedings, Forest and Conservation Nursery Associations—2006. Proc. RMRS-P-50. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station: 114-119.

### Other Professionally Reviewed Research Papers

**Jackson, D.P.** and D.B. South. 2011. Pine bark mulch increases seed efficiency of loblolly pine in a pendimethalin trial. Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University. Research Report 11-05: 8 p.

**Jackson, .P.**, T. Starkey, and S. Enebak. 2011. Evaluation of methyl bromide alternatives using a low disturbance fumigation rig in the production of loblolly pine seedlings in a Georgia forest

tree nursery. Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University. Research Report 11-02: 9 p.

**Jackson, P.,** M. Quicke, T. Starkey, and S. Enebak. 2011. Effect of methyl bromide alternatives on seedling quality at the Joshua Timberlands forest tree nursery in Elberta, Alabama: 2009-2010. Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University. Research Report 11-01: 9 p.

**Jackson, P.** and S. Enebak. 2010. *Pythium* populations in bareroot nursery soils. Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University. Research Report 10-12: 7 p.

**Jackson, P.** and S. Enebak. 2010. The use of Proline<sup>®</sup> for the control of *Pythium* and *Botrytis* spp. Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University. Research Report 10-10: 11 p.

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## ORAL PRESENTATIONS

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### At Professional Meetings

“Five Years of Methyl Bromide Alternatives Research in Forest Tree Nurseries”. International Research Conference on Methyl Bromide Alternatives and Emissions Reductions, Nov 1, 2011, San Diego, CA. (Proc. Paper)

“*Pythium* reduces survival and diameter growth of cold stored longleaf pine seedlings”. Southwide Forest Disease Workshop, February 8, 2011, Quincy, FL. (Abstract)

“The effects of *Pythium* and peat moss on loblolly pine seedling survival after cold storage”. Southwide Forest Disease Workshop, June 30, 2009, Greenville, SC. (Abstract)

“Evaluation of post-emergent herbicides for yellow nutsedge control and loblolly and slash pine seedling tolerance”. Southern Nursery Association Research Conference, February 12, 2009, Atlanta, GA.

“The effect of *Pythium* spp. and cold storage on the survival of longleaf pine seedlings after outplanting”. American Phytopathological Society, Southern Division Meeting. February 1, 2009, Atlanta, GA. (Abstract)

“The effect of *Pythium* and cold storage on the root growth potential and root collar diameter of longleaf pine (*Pinus palustris*) seedlings”. Southern Nursery Association Research Conference. August 6, 2008, Atlanta, GA.

“Effects of liquid fertilizer application on the morphology and outplanting success of container longleaf pine seedlings”. 14<sup>th</sup> Biennial Southern Silvicultural Research Conference, February 26-March 1, 2007, Athens, GA.

“Container longleaf pine seedling morphology in response to varying rates of nitrogen fertilization in the nursery and subsequent growth after outplanting”. Southern Forest Tree Nursery Association Biennial Conference, July 10-13, 2006, Tyler, TX.

### At Non-Professional Meetings

“Evaluation of clopyralid and diphenyl ether herbicides to control eclipta”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 10, 2011, Auburn University, Auburn, AL.

“Pendimethalin herbicide galls on pine and hardwood seedlings”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 10, 2011, Auburn University, Auburn, AL.

“Take home message for the five-year USDA Areawide Methyl Bromide Alternatives Research Program”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 10, 2011, Auburn University, Auburn, AL.

“Areawide demonstration of methyl bromide alternatives: Loblolly pine production in southern forest tree nurseries”. Auburn University Southern Forest Nursery Management Cooperative, Contact Meeting, June 28, 2011, Augusta, GA.

“Pendulum AquaCap trials at sowing”. Auburn University Southern Forest Nursery Management Cooperative, Contact Meeting, June 28, 2011, Augusta, GA.

“Areawide demonstration of methyl bromide alternatives: Forest nurseries in the southern US”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 4, 2010, Auburn University, Auburn, AL.

“Pendimethalin herbicide trials”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 3, 2010, Auburn University, Auburn, AL.

“Effects of *Pythium* and cold storage on the survival of southern pine seedlings”. Auburn University Southern Forest Nursery Management Cooperative Contact Meeting, July 26, 2010, Little Rock, AR.

“Relating seedling quality and survival to cold storage of southern pine seedlings in the presence of *Pythium*”. School of Forestry and Wildlife Sciences Seminar Series, April 28, 2010, Auburn University.

“*Pythium* and cold storage: an update on soil surveys and seedling survival”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting, November 5, 2009, Auburn University, Auburn, AL.

“*Pythium* and cold storage: an update on seedling survival”. Auburn University Southern Forest Nursery Management Cooperative, Contact Meeting, June 23, 2009, Daphne, AL.

“*Pythium* reduces survival and diameter growth of cold stored longleaf pine seedlings”. Auburn University’s Graduate Scholars Forum, March 10, 2009, Auburn University. (Abstract)

“Cold storage of southern pine seedlings in the presence of *Pythium*”. Auburn University Forest Health Cooperative, Advisory Meeting. December 16, 2008, Auburn University.

“Seedling survival after exposure to *Pythium* and cold storage”. Auburn University Southern Forest Nursery Management Cooperative, Advisory Meeting. November 7, 2008, Auburn University.

“Relating seedling quality and survival to cold storage of southern pine seedlings in the presence of *Pythium*”. Auburn University Southern Forest Nursery Management Cooperative, Contact Meeting, July 21, 2008, Asheville, NC.

“Relating morphology, nutrition, and bud development to liquid fertilizer application of containerized longleaf pine”. Applied & Natural Science Research Symposium, April 2006, Louisiana Tech University, Ruston, LA. (Abstract)

#### Other Invited Presentations

“Recovery of the space shuttle Columbia”. Department of Horticulture, Auburn University, February 5, 2010, Auburn, AL

“Recovery of the space shuttle Columbia”. Kiwanis Club, Pineville, LA Chapter, April 2003

“Recovery of the space shuttle Columbia”. Dry Prong Junior High School (> 100 students), March 2003, Dry Prong, LA.

### POSTER PRESENTATIONS

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**Jackson, D.P.**, S. Enebak, and D. South. “The effects of *Pythium* spp. and cold storage on the root growth potential of loblolly and slash pine seedlings”. Southeastern Society of American Foresters Annual Meeting, February 8, 2010, Auburn, AL.

**Jackson, D.P.**, S. Enebak, D. South, and L. Eckhardt. “*Pythium* spp. affect longleaf pine seedling survival after cold storage”. Society of American Foresters National Convention, September 30-October 4, 2009, Orlando, FL. (Abstract)

**Jackson, D.P.**, S. Enebak, and D. South. “The effects of *Pythium* spp. and cold storage on the root growth potential of loblolly and slash pine seedlings”. Southwide Forest Disease Workshop, June 29-July 2, 2009, Greenville, SC. (Abstract)

**Jackson, D.P.**, S. Enebak, and D. South. “Does *Pythium* species reduce the quality and survival of southern pine seedlings after cold storage?” The Biological and Environmental Summer Research Symposium. August 8, 2008, Auburn University.

**Jackson, D.P.**, S. Enebak, and D. South. “Does *Pythium* species reduce the quality and survival of southern pine seedlings after cold storage?” Graduate Student Research Forum, March 10-12, 2008, Auburn University. (Abstract)

**Jackson, D.P.** and J.P. Barnett. “Germination of longleaf pine (*Pinus palustris*) seed treated with Thiram and oleoresin capsicum”. Southwide Forest Disease Workshop. January 15-17, 2008, Savannah, GA. (Abstract)

### TEACHING

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**Forest Health Laboratory** (FOR5151/6151) Auburn University, School of Forestry and Wildlife Sciences, Fall 2009 semester. Plant insect and disease identification, plant pathogen infection processes and symptomology. Results from student evaluations of instruction ranged from an average of 4.4 to 4.9 (5 = excellent & 4 = very good) for 22 questions.

## PROFESSIONAL SERVICE

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### Reviewer: Journals

Restoration Ecology (2011)

### Auburn University

Ad hoc contributions to the revision and amendment of Auburn University's *Statement of Principal Investigator Eligibility* (2012)

Presentation on the Importance of Trees, Earth Day, Auburn Elementary School Students (2010 & 2011)

### USDA Forest Service

Science Fair Judge, Country Day Middle School, Alexandria, LA (2006 & 2007)

Southern Research Station Representative, Multi-cultural Advisory Committee, USDA Forest Service, Kisatchie National Forest, Pineville, LA (2005-2007)

Hispanic Special Emphasis Program Manager, Multi-cultural Advisory Committee, USDA Forest Service, Kisatchie National Forest, Pineville, LA (2002-2006)

Zone Representative, Civil Rights Committee, USDA Forest Service, Southern Research Station, Representing-Pineville LA, New Orleans, LA, Nacogdoches, TX, and Monticello, AR (2003-2006)

Local Representative, Civil Rights Committee, USDA Forest Service, Southern Research Station, Representing-Pineville, LA (2003-2006)

Contributions to the Hardwood Seedling Quality & Nursery Practices Workshop, Flint River Nursery, Byromville, GA (2006)

USDA Forest Service Exhibitor, Minorities in Agriculture, Natural Resources, & Related Sciences Conference, Career Fair: Des Moines, IA (2004); Pittsburgh, PA (2005)

Member of the space shuttle Columbia recovery team (2003)

Presentation on the Importance of Trees, Ducks Unlimited Annual Kids Day, Grant Parish Chapter, Colfax, LA (2002)

## AWARDS

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Student Poster Presentation Award-Southeastern Society of American Foresters Annual Meeting-Auburn, AL (2010)

Outstanding Graduate Student Presentation Award-Southwide Forest Disease Workshop-Greenville, SC (2009)

Superior Oral Presentation-Graduate Scholars Forum-Auburn University (2009)

Bryson L. James Ph.D. Student Research Competition Award-Southern Nursery Association Conference-Atlanta, GA (2009)

Recognition for over 6 years of dedication to longleaf pine research-USDA Forest Service, Southern Research Station, Pineville, LA (2007)

Appreciation for serving 3 years as Zone 6 Representative on the USDA Forest Service, Southern Research Station's Civil Rights Committee (2006)

Recognition of five years of service in the government of the USA (2006)

Appreciation for excellent support to the research program of SRS- 4111, USDA Forest Service, Southern Research Station, Pineville, LA (2004)

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### MEETINGS ATTENDED

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International Research Conference on Methyl Bromide Alternatives and Emissions Reductions (2011)

Southern Forest Tree Nursery Association Conference (2006, 2008, 2010)

Southwide Forest Disease Workshop (2008, 2009, 2011)

Southern Nursery Association Research Conference (2008, 2009)

American Phytopathological Society Southern Division Meeting (2009)

Biennial Southern Silviculture Research Conference (2007)

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### PROFESSIONAL MEMBERSHIPS

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Weed Science Society of America (2010-Present)

Society of American Foresters (2008-Present)

American Phytopathological Society (2008-2011)

*Beta Beta Beta* Biological Honor Society (Inducted-2000)

*Phi Eta Sigma* Honor Society (Inducted-1997)