



CURRICULUM VITAE

Joseph Peter Roise

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Curriculum Vitae

Joseph Peter Roise
 Professor
 Department of Forestry and Environmental Resources
 North Carolina State University, Box 8008
 Raleigh, North Carolina, 27695
 Office: (919) 515-7783
 Cell: (919) 624-6109
 Email: joe_roise@ncsu.edu

Areas of Expertise

Forestry and Operations Research

Include: Forest Management and Planning, Logistics, Systems analysis and Wildland Fire Science

Education

Ph.D. Forestry and Operations Research, College of Forest Resources, University of Washington, 1984

M.S. Forest Management, College of Natural Resources, Colorado State University, 1980

B.S. Physics/Math, Physics Department, Southern Connecticut State University, 1973

Position History

2012 – 2016 Director of Graduate Programs, Department of Forestry and Environmental Resources, NCSU, Raleigh, North Carolina

2010 - Present Southern Fire Exchange, PI and Senior Leadership Team

2000 - Present Professor of Forestry and Operations Research, NCSU, Raleigh, North Carolina

2000 - 2005 Director of Undergraduate Programs, Department of Forestry and Environmental Resources, NCSU, Raleigh, North Carolina

1992 - 1999 Associate Professor, Forestry and Environmental Resources, NCSU

1985 - 1991 Assistant Professor, Forestry, NCSU

1980 - 1984 Assistant Forest Manager, Milwaukee Land Co., Forks Washington

Courses and Teaching Experience*

CNR 134 Computer Programming (Pascal, C+, Visual Basic) 1985 - 1996

FOR 265 Fire Management (NCSU Summer Camp) 2012-present

FOR 374 Forest Measurements 1996 -1999

FOR 405/505 Forest Management 1994 - present

FOR 434/534 Forest Operations and Analysis 1986-present

FOR 531 Introduction to Wildland Fire Science 2011-present (distance education)

FOR 532 Firefighter II 2012 – present

FOR 595 Firefighter I 2013 – present

FOR 595 Fire Ecology 2016 - present (distance education)

GIS 540 Geospatial Programming Fundamentals 2000 – 2004

FOR 733 Forest Ecosystem Analysis 2002 - 2008

FOR 734 Advanced Forest Management Planning 1994-present (Member of Remsoft's educational partners 2008-present)

* NCSU course numbering system: 1** – freshmen, 2** – sophomore, 3** – junior, 4** – senior, 5** – grad & advanced Undergrad, 6** – MS and Phd, 7** PhD

Recent Graduate Degree Programs Directed

Student Type ¹	Student Name	Degree Type ²	Curriculum ³	Student Concentration	Advisor Role ⁴	Semester Graduate
Current	Goeke Dee	MF	Forestry	Forestry	Chair	Fall 2019
Current	Chirico	MF	Forestry	Forestry	Chair	Spring 2019
Current	Maxwell	PhD	Forestry	GIS	Member	Fall 2018
Current	Nagavalli	PhD	Textiles	Fiber&Polymer	Member	Spring 2019
Graduated	Alharbi	PhD	Engineering	Power Systems	Member	Spring 2018
Graduated	Gautam	MS	Textiles	Fiber&Polymer	Member	Summer 2018
Graduated	Scolforo	PhD	Forestry	Statistics	Chair	Spring 2018
Current	Chung	PhD	Forestry	OR/Statistics	Chair	Fall 2018
Graduated	Howell	MS	Forestry	GIS/Remote	Member	Spring 2017
Graduated	Olanin	MNR	NR	Eco. Restore	Chair	Spring 2017
Graduated	Hey	MS	Wildlife	Fire Ecology	Member	Spring 2017
Graduated	Williams	MS	Forestry	Fire Science	Chair	Fall 2017
Current	Gershman	MF	Forestry	Forestry	Member	Fall 2018
Current	Haunsperger	MS	Forestry	Fire Sci/Hydro	Chair	Spring 2019
Graduated	Busam	MS	NR	Fire Sci./GIS	Chair	Spring 2017
Graduated	Mohan	MS	Operations Research		Chair	Fall 2016
Graduated	Mohan	MS	Forestry	OR	Member	Fall 2016
Graduated	Roll	MS	Forestry	Forestry	Member	Spring 2016
Graduated	Thomas	MS	Forestry	Silviculture	Member	Spring 2016
Graduated	Jaworski	MNR	NR	Eco restoration	Member	Spring 2016
SLU Sweden	Sahlen	PhD	Wildlife	Wildlife	Member	Fall 2016
Graduated	Shen	MS	Forestry	Management	Chair	Fall 2016
Graduated	Hahn	MS	Forestry	Economics	Member	Spring 2015
Graduated	Quintanilla	MS	Forestry	Fire Science	Chair	Fall 2014
Graduated	Roper	MNR	NR	Fire Science	Member	Spring 2014
Graduated	Yang	MNR	NR	GIS	Chair	August 2013
Graduated	Han	MNR	NR	GIS	Chair	August 2013
Graduated	Jaeschke	MS	Forestry	Hydrology	Chair	August 2013
Graduated	Albrecht	MS	Forestry	OR	Chair	Spring 2013
Graduated	Diaz	MS	NR	Policy	Chair	August 2013
Graduated	Gharis	PhD	Forestry	OR/Statistics	Chair	Spring 2012
Graduated	Heiderman	MS	Forestry	Silviculture	Chair	Spring 2012
Graduated	Jackson	MNR	NR	GIS	Member	Spring 2012
Graduated	Bencze	PhD	WPS	Marketing	Member	Fall 2011
Graduated	Carrero	PhD	Forestry	OR	Co-Chair	Spring 2011
Graduated	Briefel	MNR	NR	Policy	Member	Spring 2011
Graduated	Vaughan	MF	Forestry	OR	Chair	Spring 2010
Graduated	Macialek	MS	BAE	Forestry	Member	Fall 2010
Graduated	Hannum	MS	Forestry	Statistics	Chair	Fall 2009
SLU Sweden	Limaei	Ph.D.	Forestry	Economics	Member	Spring 2007
SLU Sweden	Fadian Lu	Ph.D.	Forestry	Economics	Member	Spring 2005
Graduated	Metzger	MF	Forestry	Forestry	Member	Fall 2005
Graduated	Burns	MF	Forestry	Forestry	Member	Sum 2005
Graduated	Browner	MF	Forestry	Forestry	Member	Sum2005
Graduated	Aaroe	MS	NR	GIS	Member	Fall 200

Honors and Special Recognitions

Invited Speaker, International Wildland Fire Conference, Pyongchang, Republic of Korea, October 12-16, 2015
 Keynote Speaker, International Symposium on Sustainable Forest Ecosystem Management. Seoul, Republic of Korea, May 28 – 30, 2014.
 Distinguished Service to Forestry Award, Appalachian Society of American Foresters, 2010
 Distinguished Service to Forestry Award, North Carolina Division, Society of American Foresters, 2009
 Fulbright Chair in Sustainability, Simon Fraser University, British Columbia, 2005
 Hewlett Fellow, 1997-1999
 Teaching Excellence Award, NCSU 1996
 Weyerhaeuser Fellowship 1983

Leadership and Memberships in Professional Organizations

Board of Directors, Wildfire Educational Technology Cooperative (WETC) (2015 - Present)
 Board of Directors, North Carolina Prescribed Fire Council (2012-present)
 President, North Carolina Prescribed Fire Council (2017-2019)
 Director of the Wildland Fire Program at North Carolina State University (2011-present)
 Technical Advisory Committee for Forest Practices, Member, State of North Carolina (2010-present)
 Senior Management Team, [Southern Fire Exchange](#), JFSP Knowledge Exchange Consortium (2009-present)
 Member, North Carolina Prescribed Fire Council (2009-present)
 Member, Society of American Foresters (1977 – present)
 Operations Chair, SAF Management Science and Operations Research Working Group (2002 – 2009)
 Chair, SAF Management Science and Operations Research Working Group, 1987-1991 and 2008-2009
 Council on Forest Engineering (2005 – 2015), Chair in 2012
 Member, INFORMS (Institute for Operations Research and the Management Sciences) (1984-2008), frequent session chair and contributor in the Energy and Natural Resources Group.

Service to Department of Forestry and Environmental Resources at NCSU

Director of Graduate Programs 2012 - 2016
 Director of Undergraduate Programs 1999 – 2004
 Chairman Promotion and Tenure Committee
 Post Tenure Review Committee
 Search Committee for (7) faculty positions
 Peer Review Committee
 Environmental Program Planning Committee
 Undergraduate Program Committee
 SAF Masters of Forestry Accreditation Committee
 Member Departmental Advisory Committee
 Natural Resources Curriculum Committee
 SAF Review and Accreditation Committee
 Graduate Program Assessment Committee

Summer Camp Curriculum Committee

Advisor (Student Chapter of SAF, Association of Southern Forestry Clubs (ASFC) Chapter at NCSU, NCSU Student Chapter of Association of Fire Ecology)

NCSU ASFC Student Chapter (Forestry Club) Activities

- 2018 – ASFC Conclave, ABAC, Georgia
- 2017 – Rolleo, Schenck Forest, Raleigh
- 2016 – ASFC Conclave, Clemson, South Carolina
Forestry Festival, Cradle of Forestry
Rolleo, Schenck Forest, Raleigh
- 2015 - ASFC Conclave, MSU, Mississippi
Forestry Festival, Cradle of Forestry
Rolleo, Schenck Forest, Raleigh
- 2014 - ASFC Conclave, VTech, Virginia
Forestry Festival, Cradle of Forestry
Rolleo, Schenck Forest, Raleigh
- 2013 – ASFC Conclave, Auburn, Alabama
Forestry Festival, Cradle of Forestry
Rolleo, Schenck Forest, Raleigh
- 2012 - Host of ASFC Conclave, NCSU Campus, North Carolina
Forestry Festival, Cradle of Forestry
- 2011 - ASFC Conclave, UGA, Georgia
Forestry Festival, Cradle of Forestry
Rolleo, Schenck Forest, Raleigh
- 2009 – ASFC Conclave, Alabama A&M, Alabama
Rolleo, Schenck Forest, Raleigh
- 2008 – ASFC Conclave, UF, Florida
Rolleo, Hill Forest, Durham County
- 2007 – ASFC Conclave, UT, Tennessee
Rolleo, Hill Forest, Durham County
- 2003 - ASFC Conclave, Clemson, South Carolina
- 2002 – ASFC Conclave, Texas A&M, Texas
- 2001 – ASFC Conclave, Alabama
- 2000 – ASFC Conclave, LSU, Louisiana
- 1999 – Host of ASFC Conclave, Camp Millstone North Carolina
- 1998 – ASFC Conclave, VT, Virginia
- 1997 – ASFC Conclave, UGA, Georgia
- 1996 – ASFC Conclave, UA, Arkansas
- 1995 – ASFC Conclave, UF, Florida

NCSU SAF Student Chapter Activities

- 2018 – SAF Student Chapter to National Convention, Portland, OR
Wilderness Experience in Hoh River Rain Forest, WA
- 2017 – SAF Student Chapter to National Convention, Albuquerque, NM
Wilderness Experience in Gila Wilderness, NM.
- 2016 - SAF Student Chapter to National Convention, Madison WI,

- Wilderness Experience in Sylvania Wilderness MI
 APSAF Meeting, and spring Banquet with Triangle Chapter
- 2015 - SAF Student Chapter to National Convention, Baton Rouge, LA,
 Wilderness Experience in Gulf Islands National Seashore, MS
 APSAF Meeting and spring Banquet with Triangle Chapter
- 2014 - SAF Student Chapter to National Convention, Salt Lake City, UT,
 Wilderness Experience High Uinta Wilderness,
 APSAF Meeting and spring Banquet with Triangle Chapter
- 2013 - SAF Student Chapter to National Convention, Charleston SC,
 Wilderness Experience Congaree NP,
 APSAF Meeting and spring Banquet with Triangle Chapter
- 2012 – SAF Student Chapter to National Convention, Spokane WA,
 Wilderness Experience Glacier NP,
 Spring Banquet with Triangle Chapter
- 2011 - SAF Student Chapter to National Convention, Albuquerque NM,
 Wilderness Experience in Pecos Wilderness,
 APSAF Meeting and spring Banquet with Triangle Chapter
- 2010 – SAF Student Chapter to National Convention, Honolulu HI,
 Wilderness Experience in Na Pali Wilderness, Kauai, HI,
 Spring Banquet with Triangle Chapter
- 2009 – SAF Student Chapter to National Convention, Orlando FL,
 Wilderness Experience on Suwannee River
- 2008 – SAF Student Chapter to National Convention, Reno NV
 Wilderness Experience in Yosemite NP (Hetch Hetchy)
- 2007 – SAF Student Chapter to National Convention, Portland OR
 Wilderness Experience in Olympic NP
- 2006 – SAF Student Chapter to National Convention, Pittsburg, PA
- 2004 - SAF Student Chapter to National Convention, Edmonton Canada
 Wilderness Experience in Mt. Robinson, Provincial Park
- 2002 - SAF Student Chapter Host to National Convention, Winston Salem, NC
- 2001 - SAF Student Chapter to National Convention, Denver Co.
 Wilderness Experience in Rocky Mountain NP (*when we left the
 Wilderness, SAF was cancelled and we stayed in Colorado until the airport opened*)
- 2000 - SAF Student Chapter to National Convention, Washington, D.C.
- 1999 – SAF Student Chapter to National Convention, Oregon
 NCSU Student Chapter tour of Olympic Peninsula Forest Operations
- 1998 - SAF Student Chapter to National Convention, Travers City, Michigan
- 1997 – SAF Student Chapter to National Convention, Memphis, Tennessee

NCSU Student Chapter of Association of Fire Ecology

- 2017 – Fire Crew organization and equipment
- 2016 - NC Prescribed Fire Council Meeting and Planning to Attend 7th AFE
 International Fire Congress, Florida
- 2015 – Creation of SAFE Chapter

Service to College of Natural Resources

Chairman Academic Affairs Committee
 Member Promotion and Tenure Committee
 College Forest Management Committee
 Educational Technology Fund
 Academic Affairs Committee

Service to North Carolina State University

Faculty Senator
 Administrative Board of the Graduate School (ABGS)
 Council on Undergraduate Education
 University Courses and Curricula Committee (two terms)
 University Environmental Program Planning Committee
 University Admissions Committee
 University Grievances Committee

Service outside the University

President NC Prescribed Fire Council
 Chairman Symposium on Systems Analysis in Forest Resources
 Council of Forest Engineers
 Member North Carolina Logging Demo organizing team
 Mid-Atlantic Biomass and Logging Demo organizing team
 Spectrum Workshop, for Region 8 USDA Forest Service, 1999
 INFORMS, Session Organizer
 SAF National Convention, Session Organizer
 Educational Committee, NC PFC
 Technical Advisory Committee, NF Forest Service

Professional Services

Forest and Wildlife Hazard Management, RDU, NC
 Optimal Trim Decisions, Barr-Mullin, Raleigh, NC
 Manufacturing Efficiency Analysis, Lea Lumber Co., NC
 Cost of Wood Program (COW), Design, Programming and Support,
 Winrock International, Arkansas
 Yellow Poplar and Oak Yield Tables, Columbia Forest Products, NC
 Croatan National Forest Planning and Analysis, USDA FS
 Timber Land Valuation, Coldwell Banker
 Computer Aided Manufacturing, Omega Industries, Indiana
 Optimal Wood Product Mix, Primewood, Youngsville NC
 Computer Aided Sawing Pattern (CASP), Application Support
 Pisgah/Nantahala National Forest Planning and Analysis, USDA FS
 Croatan National Forest Planning and Analysis, USDA FS
 Daniel Boone National Forest Planning and Analysis, USDA FS
 Plywood Manufacturing Analytical Model, Columbia Forest Product, NC

Recent Grants and Contracts

Roise, Moorman and Costanza. 2015-2016. Development of online course "Fire Ecology".

- DELTA (Distance Education & Learning Technology Applications). \$8000 + 5 Support Personnel.
- Barker and Roise. 2014-2017. Advanced Fire Blocking Materials for Enhanced Performance in Wildland Fire Shelters. FEMA. \$1,401,886. Current
- Roise. 2011-2012. Development of online course, "Introduction to Wildland Fire Science". DELTA (Distance Education & Learning Technology Applications). \$8000 + 5 Support Personnel.
- Roise, Kobziar and Long. 2010-2020. The Southern Fire Exchange: A JFSP Knowledge Exchange Consortia. Joint Fire Science Program (JFSP), \$1,600,000. Current
- Roise and Hopkins. 2012-2017. Biomass In-Field Drying Techniques in Support of Biofuels Industry in Western North Carolina. NC Dept. of Agriculture. \$107,977. Current
- Roise, Catts, Hazel, Hobbs and Hopkins. 2010-2013. Balancing biomass harvesting and drying tactics with delivered payment practice. US Endowment for Communities and Forests. \$250,000.
- Roise and Warren. 2008 – 2013. National Needs Fellowships, USDA Forest Service. \$172,000.
- Roise and Steelman. 2009 -2013. Development of a Wildland Fire Science Consortium. Joint Fire Science Program (JFSP), \$59,000.
- Roise and Gharis. 2009-2011. How to Harvest Trees While Maximizing Carbon Sequestration. EPA. \$10,000.
- Roise and Catts. 2007 – 2010. Machine System for Harvesting Small Diameter Woody Biomass and Reducing Hazardous Fuels. USDA-FS. \$333,329.

Publications (* Graduate student)

- Scolforo*, J.P. McTauge, H. Burkhart, J. Roise, O. Campoe, J. Stape. 2019. Eucalyptus growth and yield system: linking individual-tree and stand-level growth models in clonal eucalypt plantations in Brazil. *Forest Ecology and Management* 432 pp 1-16
- Scolforo*, J.P. McTauge, H. Burkhart, J. Roise, O. Campoe, J. Stape. 2019. Yield pattern of eucalypt clones across tropical Brazil: An approach to clonal grouping. *Forest Ecology and Management* 432 pp 30-39
- Scolforo*, H, J. Stape, J. Roise, H. Burkhart, C. Alvares, J.P. McTauge. 2018. Stand-level growth and yield system for clonal eucalypt plantations in Brazil: a system that accounts for water availability. *Forest Ecology and Management*. In review.
- Scolforo*, H, J.P. McTauge, H. Burkhart, J. Roise, R. Carneiro, J. Stape. 2018. Modeling whole-stand survival in clonal eucalypt stands in Brazil as a function of water availability. *Forest Ecology and Management*. In review.
- Scolforo*, H, J.P. McTauge, H. Burkhart, J. Roise, C. Alvares, J. Stape. 2018. Generalized stem taper and tree volume equations applied to eucalyptus of varying genetics in Brazil. *Canadian Journal of Forest Resources*. Accepted.
- Scolforo*, H., J.R. Scolforo, C. Thiersch, M. Thiersch, H. Burkhart, J. Roise, J.P. McTauge. 2017. A model of tropical tree diameter growth and its application to identify fast-growing Native tree species. *Forest Ecology and Management*, Volume 400 pp 578-586
- Roise, J. P. 2017. Wood markets play a critical role in wildfire prevention. *Asheville Citizen Times*, North Carolina, ET Feb. 13, 2017
- Roise, Harnish*, Mohan*, Scolforo*, Chung*, Kanieski*, Catts, McCarter, Posse* and Shen. 2016. Valuation and Production Possibilities on a Working Forest Using Multi-Objective

- Programming, Woodstock, Timber NPV, and Carbon Storage and Sequestration. *Scandinavian Journal of Forest Research*. Volume 31, Issue 7.
- Gharis*, L., Roise and McCarter. 2014. A multiple objective model for including carbon in forests, in wood products, and through product substitution. *Annals of Operations Research* (2014): 1-19.
- Roise, Catts, Hazel, Hobbs and Hopkins*. 2013. Balancing biomass harvesting and drying tactics with delivered payment practice. U.S. Endowment for Forestry and Communities. http://www.usendowment.org/images/Final_Report_to_the_US_Endowment_on_Field_Drying_Biomass_v5.pdf
- McTague, O'Loughlin, Roise and Robison. 2008. The SOHARC Model System for Growth and Yield of Southern Hardwoods. *Southern Journal of Applied Forestry*. Vol. 32(4).
- Roise, J.P. 2005. Beating Competition and Maximizing Expected Value in B. C.'s Stumpage Market. Centre for Public Policy Research, Working Paper Series, June, 2005 http://www.sfu.ca/mpp/04research/papers_cpapr.html
- Roise, J.P. 2005. Observations on the new stumpage Market Pricing System in British Columbia. Centre for Public Policy Research, Working Paper Series, June, 2005 http://www.sfu.ca/mpp/04research/papers_cpapr.html
- Roise, J. P., J. V. Bianco and T. H. Shear. 2004. A multiple objective approach to location of transportation corridors in wetland areas. Scheduled for publication, *Wetlands Ecology and Management*, Vol.11:5
- Roise, J.P., K.W. Gainey and T.H. Shear. 2004. An approach to optimal wetland mitigation using mathematical programming and geographic information system based wetland function estimation. Scheduled for publication, *Wetlands Ecology and Management*, Vol.11:4
- Roise, J.P., P. Whittow and E. Deal. 1999. Equations for Predicting Weight Loss of Stored Pulpwood in the Upper Southeastern States. *Forest Products Journal*, Vol. 49(1):77-81
- Hassan, A.E. and J.P. Roise. 1998. Soil Bulk Density, Soil Strength, and Regeneration of a Bottomland Hardwood Site One Year after Harvest. *Transactions of the ASAE*, Vol. 4(5): 1501-1508
- Roise, J.P. and L. Hayden. 1997. The Pipeline Problem: Scheduling Project Plans. *Analysis Notes* Vol.7, No. 2 pp: 16-21.
- Chung* J.S. and J.P. Roise. 1995. Performance Analysis of Neural Network on Determining the Optimal Stand Management Regimes. *J. of Korean Forestry Society*. Vol. 84. No.1:63-
- Hassan, A.E., A.S. Thomaz and J.P. Roise. 1992. Evaluation of Manual Sorting in Three Pine Nurseries. *Transactions of the ASAE*, Vol. 35, No. 6.
- Roise, J. P., Chung*, J., and R. Lancia. 1991. Red Cockaded Woodpecker and Pine Straw Production: An Economic Analysis. *Southern Journal of Applied Forestry*, Vol. 15(2), pp 88-92.
- Siderelis, C. and J.P. Roise. 1991. An Optimal Apportionment Strategy for Park Operations. *J. of Park and Recreation Admin*. Vol. 9(2) pp. 48-58.
- Roise, J. P. 1990. Multicriteria Nonlinear Programming for Optimal Spatial Allocation of Stands. *Forest Science*, Vol. 36(3), pp 487-501.
- Mengel*, D. L., and J. P. Roise. 1990. A Diameter Class Matrix Model for Natural Coastal Plain Bottomland Hardwood Stands in the Southeast. *Southern Journal of Applied Forestry*, Vol. 14(4).
- Roise, J. P., Chung*, J., Lancia and Lennartz. 1990. Red Cockaded Woodpecker and Timber

Management: Production Possibilities. *Southern Journal of Applied Forestry*, Vol. 14(1), pp 6-12.

Lancia, R., J. P. Roise, and D. Adams. 1989. Opportunity cost of Red Cockaded Woodpecker Habitat. *Southern Journal of Applied Forestry*, Vol. 13(2) pp. 81-85.

Roise, Joseph P. 1986. An Approach for Optimizing Residual Diameter Class Distributions When Thinning Even-aged Stands. *Forest Sci.* Vol. 32, No. 4.

Roise, Joseph P. 1986. A nonlinear Programming Approach to Stand Level Optimization. *Forest Sci.* Vol. 32, No. 3. pp 735-748.

Bare, B. B., D. G. Briggs, J. P. Roise and G. F. Schreuder, 1984. A Survey of Systems Analysis Models in Forestry and the Forest Products Industry. *European Journal of Operational Research.* Vol. 18, No. 1. pp 1-18.

Roise, J. P., D. R. Betters, and B. M. Kent. 1981. An Approach to Functionalizing Key Environmental Factors: Forage Production in Rocky Mountain Aspen Stands. *Ecological Modeling*, 14(1981), pp. 133-146.

Roise, J. P., and D. R. Betters. 1981. An Aspect Transformation with Regard to Elevation for Site Productivity Models. *Forest Science* Vol. 27, No. 3, pp. 483-486.

Thesis

Roise, J.P. 1984. A nonlinear programming approach to stand level optimization. Ph.D. dissertation, University of Washington, Seattle, Washington.

Roise, J. P. 1980. Aspen Timber and Forage Production. M.S. Thesis, Colorado State University.

Software

Roise, J.P. 1996. COW - Cost of Wood Products, A software program for use in Secondary Wood Products Manufacturing, Copyright 1996 held by J.P. Roise, E. Jerger and Winrock International.

Roise, J.P. 1995. Computer Aided Sawing Pattern Design Program. – CASP. Copyright 1995, held by J.P. Roise and Coastal Lumber Company.

Book Chapters

Roise, J.P., F.W. Cabbage, R.C. Abt, and J.P. Siry. 2000. Regulation of Timber Yields For Sustainable Management of Industrial Forest Plantations – Theory and practice. Chapter in, *Sustainable Forest Management*, Ed. Gadow, Pukkala and Tomé, Kluwer Academic Publishers, pp:217-256.

Schreuder, G., and J. P. Roise. 1983. Economic Optimization of Sludge Application in Douglas-fir with Dynamic Programming. Chapter 8, *Use of Dewatered Sludge as an Amendment for Forest Growth*. C. Henry and D. Cole, eds., Institute of Forest Resources, University of Washington.

Schreuder, G., J. P. Roise, and D. Tillman. 1981. Economics of Sludge Disposal in Forests. Chapter 18, *Municipal Sludge Application to Pacific Northwest Forest Lands*. C. S. Bledsoe, ed., Institute for Resources, No. 41. University of Washington,

Technical Reports

Roise, J.P., M. Browne and P. Hertl. 2012. Raleigh Durham International Airport Wildlife Hazard Management Plan. Approved by FAA, March 2012. Commissioned by RDU.

Roise, JP, M. Browne, P. Hertl and A. Berner. 2009. Raleigh Durham Airport Wildlife Hazard Assessment. Approved by FAA, 2009. Study commissioned by RDU.

Deal, E. and J.P. Roise. 1999. North Carolina Wood Based Residue Inventory. Technical Report, Energy Division, N.C. Department of Commerce.

National Forest Plans

- Roise, Joseph P. 2003. Appendix B: Daniel Boone National Forest – Land and Resource Management Plan. USDA Forest Service Southern Region.
- Roise, Joseph P. 2002. Appendix B: Croatan National Forest - Land and Resource Management Plan. USDA Forest Service Southern Region 1994. Land and Resource Management Plan Amendment 5. Nantahala and Pisgah National Forests. U.S.D.A. Forest Service Southern Region.
- Roise, Joseph P. 1994. Appendix B: Logging cost estimates for evenage and unevenage management prescriptions. In the, Land and Resource Management Plan Amendment 5. Nantahala and Pisgah National Forests. U.S.D.A. Forest Service Southern Region.

Users Manuals

- Roise, J.P. and G.D. Hunt. 1995. CASP Users Manual, Copyright 1995, Published by Strategic Management Resources, Raleigh, North Carolina.
- Roise, J.P. and E. Jerger. 1996. COW Users Manual, Copyright 1996, Published by Winrock International, Arkansas.

Presentations

- Roise, J.P. 2017. Advanced Material Fire Shelter Testing. SAF National Convention. Oct. 15-19, 2017. Albuquerque, NM.
- Roise, J.P. 2017. Field Testing Advanced Material Fire Shelters. 7th AFE International Fire Congress, Nov. 28th -Dec. 1st. Orlando, Florida.
- Roise, J.P. 2017. Preliminary Report on Field and Lab testing of Advanced Material Fire Shelters. NC Annual Cooperators Meeting, Clemmons, NC. Sept. 2017.
- Roise, J.P. 2015. Implementation of Wildland Fire Science in the United States. 6th IAWF Conference. October 12-16, 2016. Pyongchang, Republic of Korea.
- Roise, Harnish, Mohan, Scolforo, Chung, Kanieski, Catts, McCarter, Posse and Shen. 2015. Multiple Objective Tradeoff Analysis between Timber NPV and Carbon Storage and Sequestration. 2015. Symposium on Systems Analysis in Forest Resources, Uppsala Sweden, Aug. 19-21, 2015
- Hopkins and Roise. 2015. Optimization of Logging Residue Drying for Energy Products. 2015. Symposium on Systems Analysis in Forest Resources, Uppsala Sweden, Aug. 19-21, 2015
- Roise. 2014. Sustainable Forest Ecosystems: The Theory of Forest-Human Interactions or Socio-Ecology. International Symposium on Sustainable Forest Ecosystem Management. Seoul, Republic of Korea, May 28 – 30, 2014.
- Catts, G., Roise and Hannum. 2011. Toward the development of a commercial system to effectively harvest small- diameter woody biomass for energy production, habitat management and wildfire risk reduction. TAPPI, International Bioenergy & Bioproducts Conference. March 14-16, Atlanta GA, USA
- Roise, J.P., L. Hannum and G. Catts. 2009. Machine System for Harvesting Small Diameter Woody Biomass and Reducing Hazardous Fuels: A Developmental Report. ASABE Bioenergy Engineering Conference, Paper Number: Bio090001, Seattle, Washington, October 11-14, 2009
- Roise, J.P. and L. Hannun. 2008. Machine Trials for Harvesting Small Diameter Woody Biomass. ASABE meeting, Frankfort KY, Feb. 2008.
- Roise, J.P. and G. Catts. 2008. Converting forest understory biomass into a valuable renewable energy resource. INFORMS National Meeting, Oct. 13-15, Washington D.C.
- Roise, J.P. and J.V. Bianco. 2000. Generation of optimal transportation corridors through

- wetlands. Presented at INFORMS National Conference, Salt Lake City, Utah, May, 2000.
- Roise, J.P. 1998. A Tactical Level Approach to Lumber Manufacturing Decisions: use of a Computer-Aided Sawing Pattern Design Program. Presented at INFORMS National Conference, Seattle Washington, Oct.25-28, 1998.
- Gainey, K.W. and J.P. Roise. 1998. Wetlands Mitigation Optimization Model Using NC Crews. Presented at Connections 98: National Conference on Transportation, Wetlands and the Natural Environment, Sept. 1998.
- Roise, J.P. and Gainey, K. 1997. Analysis of Road Locations in Wetlands and Mitigation Bank Development. In the, Seventh Symposium on Systems Analysis in Forest Resources. USDA Forest Service, Gen. Tech. Report NC-205.
- Hughell, D. and J.P. Roise. 1997. Simulated Adaptive Management for Timber and Wildlife Under Uncertainty. In the, Seventh Symposium on Systems Analysis in Forest Resources. USDA Forest Service, Gen. Tech. Report NC-205.
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