# CURRICULUM VITAE for DR. MARC E. MCDILL

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## **PROFESSIONAL INTERESTS:**

Forest management planning and economics; operations research; climate change impacts on forests; private forest management, property taxes; forest values and valuation; forest growth, yield and regeneration modeling; oak regeneration, biomass supply from natural forests; timber supply; natural resources information management and geographic information systems; forest management under uncertainty; regional development.

## **EDUCATION**

- Ph.D. in Forest Economics, Virginia Polytechnic Institute and State University, 1989.
- M.S. in Forest Economics, North Carolina State University, 1986.
- B.S. in Forest Management, University of Minnesota, 1984.

## **PROFESSIONAL EXPERIENCE**

- 2012 to present: Associate Professor of Forest Management, Department of Ecosystem Science and Management, Penn State University.
- 2003 to 2012: Associate Professor of Forest Management, School of Forest Resources, Penn State University. Forest Science Program Chair from 2004-2012.
- 1997-2003: Assistant Professor of Forest Management, School of Forest Resources, Penn State University.
- 1994-1997: Assistant Professor of Forest Management, School of Forestry, Wildlife and Fisheries, Louisiana State University.
- 1993-1994: Assistant Professor of Forest Management, School of Forest Resources, Penn State University.
- 1989-1993: Post-doctoral Research Associate, Dept. of Forest Resources, University of Minnesota.

## **CONSULTING ACTIVITIES:**

- Worked for several forest products companies to evaluate the timber supply situation for wood products facilities building and expansion projects.
- Worked with several forest landowners in Pennsylvania to develop forest management plans.
- Worked with the government of Morocco to help them build forest management and planning expertise and capacity in their forest management agency.

#### **EXPERT WITNESS ACTIVITIES:**

- 2008. Expert witness in a court case appealing property tax assessment procedure for forest land in McKean County, PA. We won the case; the judge upheld the procedure used to assess forest land in the county.
- 1998. Expert witness in a court case appealing property tax assessments on forest land in McKean County, PA. We won the case based on legal procedural issues. The ruling was appealed and upheld. The following technical report was produced and presented as background evidence in the case.

McDill, Marc. 1998. *Review of Timberland Property Tax Assessment in McKean County, PA*. Produced for: Keith M. Pemrick, Dale, Woodard, Montgomery, Greenfield & Pemrick, Attorneys at Law, 1030 Liberty Street, Franklin, PA 16323. 21 pp + Appendices.

## **PEER-REVIEWED PUBLICATIONS**

- Jordi Garcia-Gonzalo, Vladimir Bushenkov, Marc E McDill, Jose G Borges. 2015. A Decision Support System for Assessing Trade-Offs between Ecosystem Management Goals: An Application in Portugal. *Forests* 6:65-87.
- Könnyű, Nóra, Sándor F. Tóth and Marc E. McDil. 2014. Temporal connectivity of mature patches in forest planning models. *Forest Science* 60(6): 1089-1099
- Borges, Jose, Jordi Garcia, Vladimir Bushenkov, Marc McDill, Susete Marques, and Manuela Olivera. 2014. Addressing multi-criteria forest management with Pareto Frontier methods: an application in Portugal. *Forest Science*. 60(1):63-72.
- Wilck, Joseph H., Steven D Mills, and Marc E. McDill. 2014. Computational Comparison of Stand-Centered Versus Cover-Constraint Formulations. *Journal of Sustainable Forestry* 33(1): 33-45.
- Tóth, Sándor F., Marc E. McDill, Nóra Könnyű, and Sonney George. 2013. Testing the use of lazy constraints in solving area-based adjacency formulations of harvest scheduling models. *Forest Science* 59(2): 157-176.
- Manning, Phillip J., and Marc McDill. 2012. Optimal parameter settings for solving harvest scheduling models with adjacency constraints. *Mathematical and Computational Forestry and Natural Resources* 4(1): 16-26.
- Sándor F. Tóth, Marc E. McDill, Nora Konnyu, Sonney George. 2012. A strengthening procedure for the path formulation of the area-based adjacency problem in harvest scheduling models. *Mathematical and Computational Forestry and Natural Resources* 4(1): 27-49.
- Gilabert, Horacio, and Marc McDill. 2010. Optimizing inventory and yield data collection for forest management planning. *Forest Science* 56(6):578-591.
- Gilabert, Horacio, Phillip Manning, Marc McDill and Stephen Sterner. 2010. Sawtimber yield tables for Pennsylvania forest management planning. *Northern Journal of Applied Forestry* 27(4):140-150.
- McDill, Marc. 2010. The second special section of articles from the 2009 Symposium on Systems Analysis in Forest Resources. *Mathematical and Computational Forestry and Natural Resources* 2(2):97-98.
- McDill, Marc. 2010. 2009 Symposium on Systems Analysis in Forest Resources. *Mathematical and Computational Forestry and Natural Resources* 2(1):41-42.
- Tóth, Sándor F., and Marc E. McDill. 2009. Finding efficient harvest schedules under three conflicting objectives. *Forest Science* 55(2):117-131.
- Kaeser, Melanie, Peter Gould, Marc McDill, Kim Steiner, and James Finley. 2008. Classifying patterns of vegetation and regeneration in mixed-oak stands across the Allegheny Plateau and Ridge and Valley Ecoregions of Pennsylvania. *Northern Journal of Applied Forestry* 25(1):38-44.
- Steiner, Kim C., James C. Finley, Peter J. Gould, Songlin Fei, and Marc McDill. 2008. Oak regeneration guidelines for the Central Appalachians. *Northern Journal of Applied Forestry* 25(1):5-16.
- Tóth, Sándor F., and Marc E. McDill. 2008. Promoting large, compact mature forest patches in harvest scheduling models. *Environmental Modeling and Assessment* 13(1):1-15.

- Brubaker, Roy, James Finley, and Marc McDill. 2006. The effect of timber value information on Pennsylvania's private forest landowner: a case study. *Northern Journal of Applied Forestry* 23(4):234-240.
- Gould, Peter, Kim Steiner, Marc McDill, and James Finley. 2006. Modeling seed-origin oak regeneration in the central Appalachians. *Canadian Journal of Forest Research* 36(4):833-844.
- Tóth, Sándor F., Marc E. McDill, and Stephanie Rebain. 2006. Finding the efficient frontier of a bicriteria, spatially-explicit, harvest scheduling problem. *Forest Science* 52(1):93-107.
- Tóth, Sándor, Tatsuhito Ueki and Marc McDill. 2006. Monitoring the forest resources and management of private landowners in *Nagano*, Japan. *Japanese Journal of Forest Planning* 12:59-64.
- Fei, Songlin, Peter Gould, Kim Steiner, James Finley, and Marc McDill. 2005. Forest regeneration composition and development in upland, mixed-oak forests. *Tree Physiology* 25: 1495-1500.
- Gould, Peter J., Kim C. Steiner, James C. Finley and Marc McDill. 2005. Developmental pathways following the harvest of oak-dominated stands. *Forest Science* 51(1):76-90.
- Jacobson, Michael, and Marc McDill. 2004. Forest tax incentives in Pennsylvania: A public official's perspective. *Journal of Multistate Taxation and Incentives* 14(8):18-27.
- Silva, Gabriela, and Marc McDill. 2004. Barriers to ecotourism supplier success. *Journal of Sustainable Tourism* 12(4):289-305.
- Jacobson, Michael, and Marc McDill. 2003. An historical review of forest property taxes in Pennsylvania: implications for special forestland tax programs. *Northern Journal of Applied Forestry* 49(4):608-618.
- Keefer, Matthew, James Finley, A.E. Luloff, and Marc McDill. 2003. Understanding loggers' perceptions. *Journal of Sustainable Forestry* 17(3):81-102.
- Linehan, Peter, Michael Jacobson, and Marc McDill. 2003. Hardwood stumpage price trends and regional market differences in Pennsylvania. *Northern Journal of Applied Forestry* 20(3):124-130.
- Rebain, Stephanie, and Marc McDill. 2003. A mixed-integer formulation of the minimum patch size problem. *Forest Science* 49(4):608-618.
- Rebain, Stephanie, and Marc McDill. 2003. Can mature patch constraints mitigate the fragmenting effect of harvest opening size restrictions? *International Transactions of Operations Research* 10(5):499-513.
- Cao, Quang, Shiansong Li, and Marc McDill. 2002. Developing a system of annual tree growth equations for the loblolly-shortleaf pine type in Louisiana. *Canadian Journal of Forest Research* 32(11): 2051-2059.
- McDill, Marc, Stephanie Rebain, and Janis Braze. 2002. Harvest scheduling with area-based adjacency constraints. *Forest Science* 48(4):631-642.
- Keefer, Matthew, James Finley, A.E. Luloff, and Marc McDill. 2002. Characterizing loggers' forest management decisions. *Journal of Forestry* 100(6):8-15.
- McDill, Marc, and Janis Braze. 2001. Using the branch and bound algorithm to solve forest planning problems with adjacency constraints. *Forest Science* 47(3):403-418.
- McDill, Marc, and Janis Braze. 2000. Comparing adjacency constraint formulations for randomly generated forest planning problems with four age-class distributions. *Forest Science* 46(3):423-436.
- McDill, Marc, and Ralph Amateis. 1993. Fitting discrete-time dynamic models having any time interval. *Forest Science* 39(3):499-519.
- Hoganson, Howard, and Marc McDill. 1992. More on forest regulation: An LP perspective. *Forest Science* 39(2):321-347.
- McDill, Marc, and Ralph Amateis. 1992. Measuring forest site quality using the parameters of a dimensionally compatible height growth function. *Forest Science* 38(2):409-429.
- Amateis, Ralph, and Marc McDill. 1989. Developing growth and yield models using dimensional analysis. *Forest Science* 35:329-337.

#### **EDITORSHIPS:**

Associate Editor for *Forest Science* in the area of Operations Research (2003-2006)

Associate Editor for *Operations Research* in the area of Natural Resources and Environment (2003-2005) Guest Associate Editor for *Mathematical and Computational Forestry & Natural-Resource Sciences* (MCFNS: 2009-2010)

## **RESEARCH REPORTS:**

- Andrew Ross, David Abler, Denice Wardrop, James Shortle, Marc McDill, Matthew Rydzik, Raymond Najjar, Richard Ready, Seth Blumsack, and Thorsten Wagener. 2012. *Pennsylvania Climate Impacts Assessment Update*. Environmental and Natural Resources Institute, The Pennsylvania State University. Report submitted to the Pennsylvania Department of Environmental Protection. February 1, 2012.
- Marc McDill. 2011. *Woody Biomass as a Renewable Energy Feedstock in the US A Literature Review*. Report produced for the National Renewable Energy Laboratory, Lakewood, CO.
- James Shortle, David Abler, Seth Blumsack, Robert Crane, Zachary Kaufman, Marc McDill, Raymond Najjar, Richard Ready, Thorsten Wagener, and Denice Wardrop 2009. *Pennsylvania Climate Impact Assessment*. Environmental and Natural Resources Institute, The Pennsylvania State University. Report to the Pennsylvania Department of Environmental Protection. June 29, 2009.
- Jacobson, Michael, Bruce Lord, Marc McDill, Andrew Kleit, Terry Engelder and Audrey Broucek. 2009. *Examination of Current and Future Costs and Revenues from Forest Products, Oil and Gas* Extraction *on Pennsylvania Game Commission Lands* (PGC). Penn State School of Forest Resources, University Park, PA. Report submitted to the Pennsylvania Legislative Budget and Finance Committee. 213 p.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei, Timothy Phelps, Peter Gould. 2005. Report of Regeneration Assessment Project, 2005. Report to the Pennsylvania Department of Conservation and Natural Resources. December 18, 2005. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 100 pp. + CD-ROM.
- Gould, Peter J., Melanie J. Northrup, and Marc McDill. 2004. Understory Vegetation Classification for Pennsylvania Forests. Report to the USDA Forest Service Forest and Analysis program. Northeastern Research Station. 59 p.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei, Timothy Phelps, Peter Gould. 2004. Report of Regeneration Assessment Project, 2004. Report to the Pennsylvania Department of Conservation and Natural Resources. December 18, 2004. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 100 pp. + CD-ROM.
- Jacobson, Michael, Marc McDill, and Anna Kelso. 2004. Analysis of forest property taxes in the United States. Submitted to USDA Forest Service, Southern Research Station, New Orleans, LA. 79 pp.
- McKinstry, Robert B., Jr., Michael Jacobson, Marc McDill, Carrie Gilbert and Louis DeMais. 2004. Analysis of the Pennsylvania Payment in Lieu of Taxes Program: the Costs and Benefits of Stateowned Forestland. Report to the Pennsylvania Department of Conservation and Natural Resources. March, 2004. School of Forest Resources, The Pennsylvania State University. 148 p.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei, Timothy Phelps, Peter Gould, and Melanie Northrup. 2003. *Report of Regeneration Assessment Project, 2003*. Report to the Pennsylvania Department of Conservation and Natural Resources. December 18, 2003. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.
- Gould, Peter, Kim Steiner, James Finley, and Marc McDill. 2003. A Quarter-Century Retrospective of Regeneration Success and Failure in Mixed-Oak Stands in Pennsylvania. Report to the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry. August, 2003. School of Forest Resources, The Pennsylvania State University. 28 p.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei, Timothy Phelps, Peter Gould, and Melanie Northrup. 2002. *Report of Regeneration Assessment Project, 2002.* Report to the Pennsylvania

Department of Conservation and Natural Resources. December 10, 2002. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.

- Marc McDill, Michael Jacobson, Jonathan Kays, Kara Unger, Don Morris, Gabriela Silva. 2002. *Final Report: A Community-based Forestry Cooperative for Certified Wood*. Northeast Regional Center for Rural Development. University Park, PA. 44 p.
- Apgar, James, Billy Moriarity, Wendell Wallace, Brad Nelson, Gary Kell, David DeCalesta, Marc McDill, Grace Wang, Michael Jacobson, Kathe Frank, and Charles Strauss. *Local Unit Criteria & Indicator Development Allegheny National Forest Pilot Report Volume 1*. Allegheny National Forest, Warren, PA. 76 pp. + appendices.
- Apgar, James, Billy Moriarity, Wendell Wallace, Brad Nelson, Gary Kell, David DeCalesta, Marc McDill, Grace Wang, Michael Jacobson, Kathe Frank, and Charles Strauss. *Local Unit Criteria & Indicator Development Allegheny National Forest Pilot Report Volume 2.* Allegheny National Forest, Warren, PA. 35 pp. + appendices.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei, Timothy Phelps, Peter Gould, and Amy Beumer. 2001. Report of Regeneration Assessment Project, 2001. Report to the Pennsylvania Department of Conservation and Natural Resources. December 11, 2001. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.
- Jacobson, Michael, Marc McDill, David Fournier, Cathy Seyler, Melanie Northrup and Matthew Keefer. 2001. Assessment of Pennsylvania's Forest Property Tax. Report to the Pennsylvania Hardwood Development Council. October 12, 2001. School of Forest Resources, The Pennsylvania State University. 124 pp. + appendices.
- Steiner, Kim, James Finley, Marc McDill, Songlin Fei and Timothy Phelps. 2000. Report of 2000 Regeneration Assessments. Report to the Pennsylvania Department of Conservation and Natural Resources. December 15, 2000. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.
- McDill, Marc, Shawn Lehman, Sonney George, Horacio Gilabert, and Stephanie Rebain. *Forest Management Planning for the PA DCNR Bureau of Forestry Status and* Expectations. Report to the Pennsylvania Department of Conservation and Natural Resources. September 14, 2000. School of Forest Resources, The Pennsylvania State University. 15 pp.
- Steiner, Kim, James Finley, Marc McDill, Ian Dickie and Janis Braze. 1999. Report of Regeneration Assessment Project – 1999. Report to the Pennsylvania Department of Conservation and Natural Resources. December 13, 1999. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.
- McDill, Marc, James Finley, Jonathan Kays, and Gabriela Silva. 1998. Final Report: Promoting Ecotourism on Private Lands. Report to the Northeastern Regional Center for Rural Development. July 31, 1999. School of Forest Resources, The Pennsylvania State University. 40 p.
- Steiner, Kim, James Finley, Marc McDill, Ian Dickie and Janis Braze. 1998. Report of 1998 Regeneration Assessments. Report to the Pennsylvania Department of Conservation and Natural Resources. December 10, 1998. School of Forest Resources, The Pennsylvania State University. Not paginated, approx. 120 pp. + CD-ROM.
- Marc McDill. 1998. Final Report: Development of a Modeling Framework for Regional Analysis of Southern Forest Economies. Report to the Southern Forest Assessment Consortium. March 3, 1998. School of Forest Resources, The Pennsylvania State University. 42 pp + appendices.
- Vlosky, Richard, Paul Chance, Nicolas Koudou, Marc McDill and JoAnn Doucet. 1997. The Solid Wood Products Industry in the Macon Ridge Economic Development Region: Resource Assessment, Industry Structure and Potential Market Opportunities. Report to the State of Louisiana Governor's Office of Rural Development and the Macon Ridge Economic Development Region, Inc. April 25, 1997. Louisiana Forest Products Laboratory, Louisiana State University Agricultural Center, Baton Rouge, LA.
- Vlosky, Richard, Nicolas Koudou, Paul Chance, Marc McDill and JoAnn Doucet. 1997. The Louisiana Solid Wood Products Industry: Resource Assessment, Industry Structure and Value-Added Market

*Opportunities.* Report to the U.S. Dept. of Agriculture, Forest Service, Southern Research Station, New Orleans, LA. March 4, 1997. Louisiana Forest Products Laboratory, Louisiana State University Agricultural Center, Baton Rouge, LA.

- Hoganson, Howard, and Marc McDill. 1993. *Reforestation Needs to Sustain Forest Industry*. Final Report to the Blandin Foundation. University of Minnesota School of Forest Resources, St. Paul, MN. 45 pp. + appendices.
- Hoganson, Howard, and Marc McDill. 1993. Relating Reforestation With Nontimber Values and Mitigation Strategies. Final Report to the Blandin Foundation. University of Minnesota School of Forest Resources, St. Paul, MN. 36 pp. + appendices.
- MacKay, Donald, Marc McDill and Melvin Baughman. 1993. *Trends in Financing Minnesota's Public Forestland Management Agencies: 1987-1992.* Final Report to the Blandin Foundation. University of Minnesota School of Forest Resources, St. Paul, MN. 42 pp. + appendices.
- McDill, Marc, and Howard Hoganson. 1993. *Modeling Spatial Price Relationships in* Minnesota *Stumpage Markets*. Final Report to the Blandin Foundation. University of Minnesota School of Forest Resources, St. Paul, MN. 12 pp.
- McDill, Marc, Laurence Reeves, and Howard Hoganson. 1993. A Yield Projection Comparison and Economic Analysis for Minnesota's Forest Covertypes. Final Report to the Blandin Foundation. University of Minnesota School of Forest Resources, St. Paul, MN. 65 pp + appendices.
- McDill, Marc. 1993. *Tree Planting for Energy Efficiency: Economic Analysis*. A report to the Legislative Commission on Minnesota Resources for the project entitled "Tree and Shrub Planting for Energy in Minnesota Communities—Energy 3". 22 p.
- Jaakko Pöyry Consulting, Inc. 1992. A Technical Paper on Economics and Management Issues of the Minnesota Generic Environmental Impact Study of Timber Harvesting and Management in Minnesota. Document presented to the Minnesota Environmental Quality Board. Prepared by Allen Lundgren, Marc McDill, Donald MacKay, and Benedict Airas. 257 pp. + appendices.
- Jaakko Pöyry Consulting, Inc. 1992. Forest Productivity and the Forest Resource Base: A Technical Paper for a Minnesota Generic Environmental Impact Study of Timber Harvesting and Management in Minnesota. Document presented to the Minnesota Environmental Quality Board. Prepared by Dietmar Rose, Howard Hoganson, Alan Ek, David Walters, Marc McDill, and Thomas Burk. 305 pp. + appendices.
- McDill, Marc. 1992. Using DTRAN and IMPLAN to Assess the Relationship Between Forest Management and the Economy. Final Report to the USDA Forest Service for the project: "Feasibility of Linking DUALPLAN and IMPLAN in an Ecologic-Economic Model." 51 pp.

## **OTHER PUBLICATIONS:**

- Gould, Peter, Kim Steiner, James Finley, Marc McDill, and Songlin Fei. 2004. The post-harvest competitive environment in 13 mixed-oak stands in Pennsylvania. Pp. 427-433 in *Proceedings of the 14<sup>th</sup> Central Hardwood Forest Conference*. Yaussy, D. Et al. (Eds) USDA For. Serv. Gen. Tech. Rep. NE-316.
- Fei, Songlin, Kim Steiner, James Finley, Marc McDill, and Peter Gould. 2004. Composition and development of non-tree vegetation and its relationship with tree regeneration in mixed-oak forest stands. Pp. 297-303 in *Proceedings of the 14<sup>th</sup> Central Hardwood Forest Conference*. Yaussy, D. Et al. (Eds) USDA For. Serv. Gen. Tech. Rep. NE-316.
- Tóth, Sándor, Tatsuhito Ueki and Marc McDill. 2003. Monitoring the Forest Resources and Management of Private Landowners in *Nagano*, Japan. *Proceedings of the XII World Forestry Congress* September 21-28, 2003. Québec City, Canada. ISBN 2-923174-01-1.
- Fei, Songlin, Kim Steiner, James Finley, and Marc McDill. 2003. Relationships between biotic and abiotic factors and regeneration of chestnut oak, white oak, and northern red oak. In Van Sambeek, J. W.; Dawson, Jeffrey O.; Ponder, Felix, Jr.; Loewenstein, Edward F.; Fralish, James S., eds. *Proceedings, Thirteenth Central Hardwood Forest Conference*; April 1-3; Urbana, Illinois. Gen.

Tech. Rep. NC-234. St. Paul, MN: U.S. Dept. of Agriculture, Forest Service, North Central Research Station.

- Gould, Peter, Kim Steiner, James Finley, and Marc McDill. 2003. Regenerating mixed oak stands in Pennsylvania: A quarter-century retrospective. In Van Sambeek, J. W.; Dawson, Jeffrey O.; Ponder, Felix, Jr.; Loewenstein, Edward F.; Fralish, James S., eds. *Proceedings, Thirteenth Central Hardwood Forest* Conference; April 1-3; Urbana, Illinois. Gen. Tech. Rep. NC-234. St. Paul, MN: U.S. Dept. of Agriculture, Forest Service, North Central Research Station.
- Jacobson, Michael, and Marc McDill. 2002. Understanding Forest Property Tax Assessment In Pennsylvania. The Pennsylvania State University College of Agricultural Sciences. 8p.
- Jacobson, Michael, and Marc McDill. 2002. Forest property taxation: role and impact on rural development and forest protection. *Proceedings of the* International *Symposium in the Black Forest 2002 on Contributions of Family-farm-enterprises to Sustainable Rural Development*. Gengenbach, Germany. July 28 to August 1, 2002. Sponsored by the IUFRO Working-Unit 3.08.00 "Small-scale forestry" and IUFRO Working-Unit 6.11.02: "Forestry and rural development in industrialized countries."
- Lehman, Shawn, and Marc McDill. 2001. The effect of planning period length on harvest scheduling. The 2001 SAF National Convention Proceedings. *Forestry at the Great Divide*. Denver, CO. September 13-17, 2001. Society of American Foresters, Bethesda, MD. pp. 213-222.
- *McDill, Marc. 2000.* Why Pennsylvania needs to reform the property tax on forest land. *The Allegheny News* Summer 2000. Allegheny Society of American Foresters. Pp. 12-14, 16.
- McDill, Marc, and Michael Jacobson. 2000. Pennsylvania's timber supply: What we don't know can hurt us. *Pennsylvania Forests* 91(3):10-12.
- McDill, Marc. 1997. Southern timber supply trends. *Forest Landowner* 31<sup>st</sup> Manual *Edition* 56(2):16-21. March/April 1997. Forest Landowners Association, Atlanta, GA.
- McDill, Marc. 1997. Timber supply research: how much harvesting can regional forest resources sustain? *Louisiana Agriculture* 40(2):6-7.
- McDill, Marc. 1997. A comparison of two growth models developed for regional timber inventory projection. *Proceedings of the 7th Symposium on Systems Analysis in Forest Resources*, Bellaire, Michigan. May 28-30, 1997. Vasievich, J.M., J.S. Fried, and L.A. Leefers (eds.). USDA Forest Service North Central Research Station General Technical Report NC-208.
- McDill, Marc, and Denis Tucker. 1997. Projecting the industrial and nonindustrial timber resources of Louisiana with STRIPS. Valuing Non-timber Forest Resources: Timber Primacy is Passé – Proceedings of the 1997 Annual Southern Forest Economics Workers (SOFEW) Annual Meeting. Little Rock, AR. March 19-21, 1997. R.A. Kluender, M.M. Corrigan and N.B. Smith. (Eds.) School of Forest Resources, University of Arkansas at Monticello, AR. pp. 114-120.
- McDill, Marc, and Denis Tucker. 1997. Louisiana timber price trends. Southern Forests: Growing in Positive Directions: Proceedings for the 13th Ark-La-Tex Forestry Forum. Shreveport, LA. January 30, 1997.
- Condit, Gordon, Marc McDill and Ray Newbold. 1996. Current resource conditions and future projections. In: *Louisiana's Fourth Forest: An Update*. The Louisiana Department of Agriculture and Forestry, Office of Forestry. Baton Rouge, LA. 19 pp.
- McDill, Marc, Kalyan Davuluri, and Jared André. 1996. Simulating timber supply by optimizing forest management and product transportation with DTRAN and GISTRAN. *Proceedings of SOFOR GIS: Southern Forestry GIS Conference*. December 11-13, 1996. The Georgia Center for Continuing Education, Athens, GA. pp. 51-60.
- McDill, Marc, Denis Tucker, and Janis Braze. 1996. Forest products supply in the Western Gulf: Louisiana and Mississippi. In: Proceedings of the 35th LSU Forestry Symposium— Growing Trees in a Greener World: Industrial Forestry in the 21st Century. Baton Rouge, LA. January 10, 1996. Edited by Mason C. Carter. Louisiana State University School of Forestry, Wildlife and Fisheries. Baton Rouge, LA. pp. 73-87.

- Tucker, Denis and Marc McDill. 1996. Current and future conditions of the timber resources of the Gulf South (Louisiana, Mississippi, Texas). Proceedings of the 1996 Annual Southern Forest Economics Workers (SOFEW) Annual Meeting. Gatlinburg, TN. March 28, 1996. Edited by John Greene. USDA Forest Service, Southern Research Station. pp 159-174.
- Rose, Dietmar, and Marc McDill. 1995. Incorporating non-commodity considerations in strategic planning of natural resources. *Proceedings of the IUFRO XX World Congress, August 7, 1995.* Tampere, Finland.
- MacKay, Donald, Marc McDill, and Melvin Baughman. 1993. Trends in Minnesota public forest management finance. *Proceedings: Investing in Minnesota's Public Forests*. October 6, 1993. Cloquet Forestry Center, University of Minnesota, Cloquet, MN. pp. 8-24.
- McDill, Marc. 1993. RxWRITE: an information management tool for Minnesota's Generic Environmental Impact Statement on Timber Harvesting. Proceedings of the 1993 SAF National Convention: Foresters Together: Meeting Tomorrow's Challenges. Indianapolis, Indiana, November 7-9, 1993. Society o American Foresters. Bethesda, MD. pp. 351-356.
- McDill, Marc, and Howard Hoganson. 1993. Modeling Spatial price discrimination in Minnesota stumpage markets. *Proceedings: Investing in Minnesota's Public Forests*. October 6, 1993. Cloquet Forestry Center, University of Minnesota, Cloquet, MN. pp. 45-55.
- Hoganson, Howard, and Marc McDill. 1993. Statewide forest investment analysis. Proceedings: Investing in Minnesota's Public Forests. October 6, 1993. Cloquet Forestry Center, University of Minnesota, Cloquet, MN. pp. 33-44.
- McDill, Marc. 1992. Linking strategic, tactical, and operational forest planning approaches: problems and opportunities in Minnesota. *Proceedings of the 1992 SAF National Convention: An Evolving Tradition.* Richmond, Virginia. October 26-28, 1992. Society of American Foresters. Bethesda, MD. pp. 376-381.
- Rose, Dietmar, Marc McDill, and Howard Hoganson. 1992. Development of an Environmental Impact Statement of statewide forestry programs: A Minnesota case study. FORS *Compiler* 10(4):18-27.
- McDill, Marc. 1991. Time, space, and uncertainty in forest economics. In, Proceedings of a Workshop: Ecological Economics: Its Implications for Forest Management and Research. Dennis Bradley and Per-Olav Nilsson (Eds.). Swedish University of Agricultural Sciences. Workshop held in St. Paul, Minnesota, April 2 - 6, 1990. pp. 124-136.

#### **GRANTS AND CONTRACTS:**

- Landscape-level Adaptive Management of Deer-Forest Interactions. Investigators: Marc McDill, Duane Diefenbach. Pennsylvania Dept. of Conservation and Natural Resources. Harrisburg, PA. Apr. 30, 2013-June 30, 2016. \$287,996.
- Predicting Cumulative Ecological Impacts of Pests and Pathogens in the Forests of the Eastern United States. Investigators: Michael Jacobson, Richard Ready, Marc McDill, Charles Canham. U.S. Dept. of Agriculture, Animal Plant Health Inspection Service (APHIS). Washington, DC. Sept. 1, 2012-Aug 31, 2015. \$522,298.
- Developing an Advance Regeneration Model for Pennsylvania Hardwood Forest Ecosystems. Investigators: Marc McDill and Laura Leites. USDA Forest Service, Forestry Sciences Laboratory. Irvine, PA. July 1, 2011-December 31, 2013. \$30,000.
- Pennsylvania Climate Impacts Assessment: Update. Investigators: James Shortle, David Abler, Seth Blumsack, Marc McDill, Raymond Najjar, Richard Ready, Thorsten Wagener, Denice Wardrop. Pennsylvania Dept. of Environmental Protection. Harrisburg, PA. June 1, 2011-March 31, 2012. \$100,000.
- *Forest Stewardship-Continuing Awareness and Knowledge Program Support Year 20.* Investigators: James Finley, Gary San Julian, Michael Jacobson, Sanford Smith, and Marc McDill. USDA Forest Service, Newtown Square, PA. Oct 2010-Sept 2011. \$148,460.

- Conceptualizing Forestry Biomass Feedstock Supply Chain and Macro-Level Scenario Models. Investigators: Kusumaul Ruamsook, Evelyn Thomchick, Susan Purdum, Gregory Roth, Marc McDill, Jude Liu, Martin Pietrucha, Robert Wallace, Yaru Grace Liu. Penn State Institutes for Energy and the Environment. June 1, 2010 – March 31, 2012. \$41,500.
- *Biomass Supply Model Review and Analysis 2.* Investigators: Robert Wallace and Marc McDill. U.S. Department of Energy. December 2009-June 2010. \$39,300.
- Determining Costs, Product Recovery Factors, and Environmental Impacts for Biomass Harvest Treatments in Northeastern US Forests. Investigators: Marc McDill, Charles Ray, Eric Zenner, Michael Jacobson, Bruce Lord, Andrew Bartholomay. Sun Grant Initiative. July 2008-June 2010. \$99,825.
- Examine Current and Future Costs and Revenues from Forest Products, Oil and Gas Extraction on Pennsylvania Game Commission lands (PGC). Investigators: Michael Jacobson, Bruce Lord, Marc McDill, Andrew Kleit and Terry Engelder. Pennsylvania Legislative Budget and Finance Committee, Harrisburg, PA. March 2009-Feb 2010. \$95,699.
- Pennsylvania Climate Impact Assessment. Investigators: James Shortle, David Abler, Kareen Fisher-Vanden, Richard Ready, Marc McDill, Raymond Najjar, Robert Crane, and Seth Blumsack. Pennsylvania Department of Environmental Protections, Harrisburg, PA. Jan 2009-Dec 2009. \$193,954.
- Assessing the Economic Values from Pennsylvania's State Forests. Investigators: Marc McDill and Kim Steiner. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. Jan 2009 to June 2010. \$75,578.
- Understanding *Pennsylvania Biomass and "Energy Wood" Wood Flow and Availability for Energy Utilization in Pennsylvania*. Investigators: Judd Michael, Charles Ray, Marc McDill, and Bruce Lord. Pennsylvania Department of Agriculture, Hardwood Development Council, Harrisburg, PA. Oct 2008-Aug 2009. \$35,000.
- *Forest Management Planning for the Pennsylvania DCNR Bureau of Forestry 2006 to 2009.* Investigator: Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. August 14, 2006 to June 30, 2009. \$480,627.
- Examine Current and Future Costs and Revenues from Forest Products, Oil and Gas Extraction on Pennsylvania Game Commission lands (PGC). Investigators: Michael Jacobson, Bruce Lord, Marc McDill, Andrew Kleit and Terry Engelder. Pennsylvania Legislative Budget and Finance Committee, Harrisburg, PA. March 2009-Feb 2010. \$95,699.
- *Pennsylvania Highlands Assessment.* Investigators: James Finley, Albert Luloff, Wayne Myers, William Elmendorf, Marc McDill. USDA Forest Service. June 1, 2005 to May 31, 2006. \$93,000.
- NE/NC Softwood *and Hardwood Forest Resources*. Investigators: James Finley, Marc McDill and Charles Ray. Consortium for Research on Renewable Industrial Matrials (CORRIM), Seattle, WA. July 7, 2004 to June 15, 2006. \$36,044.
- *Forest Management Planning for the Pennsylvania DCNR Bureau of Forestry 2003 to 2006.* Investigator: Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. February 2, 2004 to June 30, 2006. \$463,320.
- *Classifying* Understory *Communities for Pennsylvania Forests*. Investigators: Marc McDill, Kim Steiner, and Katriona Shea. USDA Forest Service Forest Inventory and Analysis, Newtown Square, PA. July 1, 2003 to June 30, 2004. \$10,000.
- *Developing Silvicultural Guidelines for Oak Regeneration*. Investigators: Kim Steiner, Marc McDill, and James Finley. Pennsylvania Hardwood Development Council, Harrisburg, PA. September 1, 2002 to August 31, 2003. \$39,205.
- Assessing Impacts of Public Ownership of Land Upon Local Governments and Communities in Pennsylvania. Investigators: Robert McKinstry, Marc McDill, and Michael Jacobson.
   Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. August 1, 2002 to September 30,2003 – extended to December 31, 2003. \$34,836.

- Analysis of Forest Property Taxes on Long-Term Forest Management. Investigators: Michael Jacobson and Marc McDill. USDA Forest Service Southern Research Station, New Orleans, LA. September 1, 2000 to August 31, 2002 – Extended to August 31, 2003. \$38,031.
- *Forest Management Planning for the Pennsylvania DCNR Bureau of Forestry 2001 to 2003.* Investigator: Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. July 1, 2001 to June 30, 2003. \$229,932.
- Assessment of Regeneration Treatments on Pennsylvania Bureau of Forestry Lands 2000 2003 Investigators: Kim Steiner, James Finley, and Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. June 30, 2000 to April 30, 2003. \$412,738.
- *Impact of Forest Property Taxes in Pennsylvania.* Investigators: Michael Jacobson and Marc McDill. USDA Forest Service Northeastern Area State and Private Forestry, Newtown Square, PA. August 15, 2000 to August 14, 2001. \$30,000.
- *Community-based Forestry Cooperative for Certified Wood.* Investigators: Marc McDill. Michael Jacobson, Jonathan Kays, Kara Unger, Don Morris, Gabriela Silva. Northeast Regional Center for Rural Development, The Pennsylvania State University, University Park, PA. July 1, 2000 to June 30, 2001. \$25,000.
- Developing a Forest Management Planning System for the Pennsylvania DCNR Bureau of Forestry. Investigator: Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. July 1, 1999 to June 30, 2001. \$146,000.
- Assessment of Pennsylvania's Forest Property Tax. Investigators: Michael Jacobson and Marc McDill. Pennsylvania Hardwood Development Council, Harrisburg, PA. July 1, 2000 to June 30, 2001. \$33,915.
- Social Assessment of the Allegheny Forest Region. Investigators: Grace Wang, Marc McDill, Charles Strauss, and Michael Jacobson. USDA Forest Service, Allegheny National Forest, Warren, PA. October 1, 1999 to March 31, 2001. \$26,758.
- Assessment of Regeneration Treatments on Pennsylvania Bureau of Forestry Lands 1997-2000. Investigators: Kim Steiner, James Finley, and Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. July 13, 1998 to December 31, 2000. \$133,669.
- Assessment of Regeneration Treatments on Pennsylvania Bureau of Forestry Lands 1997-2000 (Amendment). Investigators: Kim Steiner, James Finley, and Marc McDill. Pennsylvania Department of Conservation and Natural Resources, Harrisburg, PA. May 1, 1999 to April 30, 2000. \$30,169.
- Promoting Ecotourism on Private Lands. Investigators: Marc McDill, James C. Finley, Jonathan Kays, Gabriela Silva. Northeastern Regional Center for Rural Development. The Pennsylvania State University, University Park, PA. January 1, 1999 to May 31, 1999. \$14,673. (This project was terminated prematurely by the Center due to a lack of funds.)
- Development of a Modeling Framework for Regional Analysis of Southern Forest Economies. Investigators: Marc McDill, Quang V. Cao, and W. R. Smith. USDA Forest Service Southeastern orest Experiment Station and the Southern Forest Assessment Consortium. Raleigh, NC. January 1, 1996 to December 31, 1996 – Extended through 1997. \$31,234.
- Initial Development of a Modeling Framework for Regional Analysis of Southern Forest Economies. Investigators: Marc McDill and S. Joseph Chang. USDA Forest Service Southeastern Forest Experiment Station and the Southern Forest Assessment Consortium. Raleigh, NC. August 15, 1994 to December 31, 1995. \$34,000.
- Relating Timber Prices to Timber Values and Public Forest Investment in Minnesota. Investigators: M. E. McDill, H. M. Hoganson, M. J. Baughman, and C. A. Blinn. Charles K. Blandin Foundation. Grand Rapids, MN. July 1, 1991 to November 30, 1993. \$193,000.
- Feasibility of Linking DualPlan and IMPLAN in an Ecological Economic Model. Investigator: M. E. McDill. USDA Forest Service NC Forest Exp. Sta. St. Paul, MN. October 1, 1990 to September 30, 1992. \$5,000.

Simulating Minnesota's Future Forests. Investigators: H. M. Hoganson and M. E. McDill. Legislative Commission on Minnesota Resources, St. Paul, MN. July 1, 1989 to June 30 1991. \$100,000.

#### **CONFERENCE AND INVITED PRESENTATIONS:**

- Marques, Susete, Marc McDill, and José Borges. 2013. A stochastic, cellular forest harvesting model integrating wildfire risk and dispersion. 14<sup>th</sup> Symposium on Systems Analysis in Forest Resources. August 19-21. Quebec City, CA.
- McDill, Marc, Laura Leites, and Michael DiCarlo. 2012. Developing a predictive model of advance regeneration in Pennsylvania forests. Moving from status to trends: Forest Inventory and Analysis (FIA) Symposium 2012. December 4-6, 2012. Baltimore, MD.
- McDill, Marc, Susete Marques, and José Borges. 2012. Preventing orphan stands in spatially explicit forest management planning. Informatics Rising INFORMS Annual Meeting 2012. October 14-17. Phoenix, AZ.
- Marques, Susete, Marc McDill, and José Borges. 2012. A stochastic, cellular forest harvesting model integrating wildfire risk and dispersion. Informatics Rising INFORMS Annual Meeting 2012. October 14-17. Phoenix, AZ.
- Garcia-Gonzalo, J, Bushenkov, V.A., McDill, M., and J.G. Borges. 2012. Finding the efficient frontier of a multiple criteria planning problem in cork and holm oak forest ecosystem in Portugal. Informatics Rising INFORMS Annual Meeting 2012. October 14-17. Phoenix, AZ.
- McDill, Marc, *Andrea* Arratia, and Joseph Petrosky. 2011. Is there an Optimal Management Unit Size?. 2011 INFORMS Annual Meeting TransfORmation. November 13-16, 2011. Charlotte, NC.
- McDill, Marc, Sándor Tóth and Rachel St. John. 2011. Lazy Constraints in Area-Based Adjacency Formulations of Harvest Scheduling Models. Penn State Operations Research Colloquium. October 18, 2011. University Park, PA.
- McDill, Marc. 2010. Forest Biomass Supply in the Chesapeake Bay Watershed. 2010 INFORMS Annual Meeting – Energizing the Future. November 7-10, 2010. Austin, TX.
- Marc McDill. 2010. Forest Biomass Supply in the Chesapeake Bay Watershed. *Northeast Agricultural and Resource Economics Association Annual Meeting*. June 4, 2010. Atlantic City, NJ.
- Arratia, *Andrea*, and Marc McDill, and Joe Petroski. 2009. Does the size of the management unit matter? 13<sup>th</sup> Symposium on Systems Analysis in Forest Resources. May 26-28, 2009. Charleston, SC.
- Manning, *Phillip*, and Marc McDill. 2009. Optimal parameter settings for solving harvest scheduling models with adjacency constraints. 13<sup>th</sup> Symposium on Systems Analysis in Forest Resources. May 26-28, 2009. Charleston, SC.
- Valdebenito, *Victor*, and Marc McDill. 2009. Alternative model formulations to incorporate road building decisions into spatially explicit harvest scheduling models. 13<sup>th</sup> Symposium on Systems Analysis in *Forest Resources*. May 26-28, 2009. Charleston, SC.
- Valdebenito, Victor, and Marc McDill. 2009. Incorporating road building decisions into spatially explicit *harvest* scheduling models. 13<sup>th</sup> Symposium on Systems Analysis in Forest Resources. May 26-28, 2009. Charleston, SC.
- Marc McDill. 2009. Forest Biomass Supply in the Chesapeake Bay Watershed. *Central Pennsylvania Biomass Workshop*. July 21, 2009. State College, PA.
- McDill, Marc, Andrea Arratia, and Joseph Petroski. 2008. Are Smaller Cutting Components Worth It? 2008 INFORMS Annual Meeting OR Goes to Washington. October 12-15, 2008. Washington, DC.
- McDill, Marc, Andrea Arratia, and Joseph Petroski. 2008. Invited Presentation: Trade-offs in Formulating *Spatially*-Explicit Forest Management Problems with Varying Management Unit Sizes. *The XIV Latin-Ibero American Congress on Operations Research (CLAIO 2008)*. September 9-12, 2008. Cartagena, Colombia.
- McDill, Marc. 2008. Wood Energy Opportunities and Pitfalls in Pennsylvania. 2008 Northeast Renewable Energy Conference. August 26-28, 2008. State College, PA.

- McDill, Marc and Sándor Tóth. 2007. Does the Size of the ARM Matter. 2007 INFORMS Annual Meeting –The Spirit of Technology. November 4-7, 2007. Seattle, WA.
- Wilck, Joseph, Marc McDill, Stephen Mills and Sándor Tóth. 2007. Computational Comparison of Stand-Centered Versus Cover-Constraint Formulations. 2007 INFORMS Annual Meeting – The Spirit of Technology. November 4-7, 2007. Seattle, WA.
- Valdebenito, Victor and Marc McDill. 2007. Integrating Road-Building Decisions in Harvest Scheduling Models. 2007 INFORMS Annual Meeting –The Spirit of Technology. November 4-7, 2007. Seattle, WA.
- Mills, Stephen and Marc McDill. 2007. An Adjacency Formulation Overcoming Modeling Limitations Imposed by Shelterwood Treatments. 2007 INFORMS Annual Meeting – The Spirit of Technology. November 4-7, 2007. Seattle, WA.
- McDill, Marc. 2007. Using Optimization to Improve Forest Management. *Invited Presentation: Stellenbosch University Department of Forestry and Wood Science*. June 15, 2007. Stellenbosch, South Africa.
- McDill, Marc. 2007. A Property Tax Primer. State Forestry Agencies' Conference on Forestland Property Taxes. April 16, 2007. Broomfield, CO.
- McDill, Marc. 2007. Can Property Tax Reform Help Preserve Forestland in Pennsylvania? Seventh Goddard Forum – Pennsylvania's Third Forest: Challenges and Opportunities for the Next Century. January 30-31, 2007. State College, PA.
- George, Sonney, and Marc McDill. 2006. Incorporating Salability Considerations in Spatially-Explicit *Forest* Planning Models with Shelterwood Treatments. 2006 INFORMS Annual Meeting OR *Renaissance*. November 5-8, 2006, Pittsburgh, PA.
- McDill, Marc and Babu Rajasekaran. 2006. Using Column Generation to Solve Spatially-Explicit Forest Management Problems. 2006 INFORMS Annual Meeting – OR Renaissance. November 5-8, 2007, Pittsburgh, PA.
- McDill, Marc and Babu Rajasekaran 2006. Using Column Generation to Solve Spatially-Explicit Forest Management Problems. 12<sup>th</sup> Symposium for Systems Analysis in Forest Resources. September 5-8, 2006, Burlington, VT.
- Mills, Steve, and Marc McDill. 2006. Incorporating Deer Exclusion Fence Considerations into Area *Restricted* Harvest Scheduling Models. 12<sup>th</sup> Symposium for Systems Analysis in Forest Resources. September 5-8, 2006, Burlington, VT.
- Petrosky, *Joseph*, and Marc McDill. 2006. A Simulated Annealing Approach for Treatment Unit Delineation. 12<sup>th</sup> Symposium for Systems Analysis in Forest Resources. September 5-8, 2006, Burlington, VT.
- Tóth, Sándor, and Marc McDill. 2006. Numerical Issues in Multiobjective Spatial Forest Planning. 12<sup>th</sup> Symposium for Systems Analysis in Forest Resources. September 5-8, 2006, Burlington, VT.
- George, Sonney, and Marc McDill. 2005. Effect of Adjacency Constraint Type on Spatial Forest Planning Models with Shelterwood Treatments. 2005 INFORMS Annual Meeting – Ecologies, Economies, and OR. November 13-16, 2005, San Francisco, CA.
- Marc McDill. 2005. The Computational Performance of Strengthened Cover Inequalities in Area-based Harvest Scheduling. Invited presentation to the Operations Research Dept. of the *University* of Lisbon. Lisbon, Portugal. November 4, 2005.
- Marc McDill. 2005. The Adjacency Problem in Spatially-explicit Harvest Scheduling an Overview *of* Integer Programming Approaches. Invited presentation to the School of Forestry, Sopron University. Sopron, Hungary. December 6, 2005.
- Tóth, Sándor, and Marc McDill. 2005. Finding the Efficient Frontier of a Tri-Criteria, Spatially-explicit, *Harvest* Scheduling Problem. 2005 INFORMS Annual Meeting Ecologies, Economies, and OR. November 13-16, 2005, San Francisco, CA.
- Tóth, Sándor, Marc McDill, and Sonney George. 2005. The Computational Performance of *Strengthened* Cover Inequalities in Area-based Harvest Scheduling. 2005 INFORMS Annual Meeting – *Ecologies, Economies, and OR*. November 13-16, 2005, San Francisco, CA.

- George, Sonney, and Marc McDill. 2004. Modeling Shelterwood Treatments in Spatially Explicit *Forest* Planning . 2004 INFORMS Annual Meeting – Back to OR Roots. October 24-27, Denver, Co.
- Marc McDill. 2004. Strengthening Cover Inequalities for Area-Based Adjacency Formulations of Harvest Scheduling Models. 2004 INFORMS Annual Meeting Back to OR Roots. October 24-27, Denver, Co.
- Rajasekaran, Babu, and Marc McDill. 2004. Temporal Connectivity of Mature Forest Patches. 2004 INFORMS Annual Meeting – Back to OR Roots. October 24-27, Denver, Co.
- Tóth, Sándor, and Marc McDill. 2004. Promoting large, compact mature forest patches through harvest scheduling models 2004 *INFORMS Annual Meeting Back to OR Roots*. October 24-27, Denver, Co.
- Marc McDill. 2004. Developing Forest Management Plans for the Pennsylvania Bureau of Forestry. Presentation to the Dept. of Forestry Engineering, Instituto Superior de Agronomia,, Lisbon. July 14, 2004.
- Marc McDill. 2004. Strengthening Cover Inequalities for Area-Based Adjacency Formulations of Harvest Scheduling Models. Presentation to the Dept. of Forestry Engineering, Instituto Superior de Agronomia,, Lisbon. July 16, 2004.
- Jacobson, Michael, Robert McKinstry, Marc McDill, Louis Demais and Derald Hay. 2004. *Payments* in Lieu of Taxes on Pennsylvania's Public Forestland. *PA Land Trust Association*. Lancaster, PA. April 3, 2004.
- George, Sonney, and Marc McDill. 2003. A new simulated annealing algorithm for solving arearestricted (ARM) forest management problems. 2003 Symposium on Systems Analysis in Forest Resources. October 7-9, Stevenson, WA.
- Tóth, Sándor, Marc McDill, and Stephanie Rebain. 2003. Exploring the efficient frontier of a bi-criteria, *spatially* explicit, harvest scheduling model. 2003 Symposium for Systems Analysis in Forest Resources. October 7-9. Stevenson, Washington.
- McDill, Marc and Shawn Lehman. 2003. Developing forest management plans for the *Pennsylvania* Bureau of Forestry. 2003 Symposium on Systems Analysis in Forest Resources. October 7-9, Stevenson, WA.
- Jacobson, Michael, Robert McKinstry, and Marc McDill. 2003. Seeing green in the forest through the trees. *PA State Association of Township Supervisors (PSATS)* 81<sup>st</sup> Annual Convention and Trade Show. Hershey, PA. April 6-8, 2003.
- McDill, Marc. 2003. Property tax impacts on forest conservation: does Clean & Green help conserve forests? *Forestland Conservation Conference Tools for the Forest Landowner: Easements, Taxes, Incentives, Estate Planning and More.* January 16, 2003. Central Pennsylvania Institute of Science and Technology, Pleasant Gap, PA.
- McDill, Marc. 2003. Poor Stewards or Rational Investors? Understanding the Devil in the Dollars. Forestry Economics and Stewardship Ethics: Facing Realities to Find Sustainability, Sixth Annual Forestry and Wildlife Conference, Woodland Owners of the Southern Alleghenies. Schellsburg, PA. February 22, 2003.
- McDill, Marc, and Shawn Lehman. 2002. Management planning for the Pennsylvania Bureau of Forestry using linear programming. *INFORMS (Institute for Operations Research and the Management Sciences) Fall 2002 Meeting*. San Jose, CA. Nov. 17-20, 2002.
- George, Sonney, and Marc McDill. 2002. A simulated annealing algorithm with probability proportional to desirability for solving spatially explicit harvest scheduling problems. *INFORMS (Institute for Operations Research and the Management Sciences) Fall 2002 Meeting*. San Jose, CA. Nov. 17-20, 2002.
- Kelsey, Timothy, and Marc McDill. 2002. Pennsylvania's Clean and Green Program: What it means for your township. *PA State Association of Township Supervisors (PSATS)* 80<sup>th</sup> Annual Convention and Trade Show. Hershey, PA. April 14-17, 2002.

- Rebain, Stephanie, and Marc McDill. 2002. Integrating ecosystem management goals in harvest *scheduling* models. Symposium *on Models and Systems in Forestry Chile Forest 2002*. March 4-7, 2002. Punta de Tralca, Chile.
- George, Sonney, and Marc McDill. 2002. Optimizing simulated annealing parameters for spatially *explicit* harvest scheduling problems. *Symposium on Models and Systems in Forestry Chile Forest 2002.* March 4-7, 2002. Punta de Tralca, Chile.
- Rebain, Stephanie, and Marc McDill. 2001. Integrating minimum patch size requirements with harvest scheduling models. *INFORMS (Institute for Operations Research and the Management Sciences) Fall 2001 Meeting*. Miami, FL. Nov. 4-7, 2001.
- George, Sonney, and Marc McDill. 2001. Simulated annealing prospects and problems when applied to spatially explicit harvest scheduling. *INFORMS (Institute for Operations Research and the Management Sciences) Fall 2001 Meeting*. Miami, FL. Nov. 4-7, 2001.
- Silva, Gabriela, and Marc McDill. 2000. Barriers to ecotourism supplier success. Society of American Foresters National Convention – Growing Forests for our Future. Washington, DC. Nov. 16-20, 2000McDill, Marc, Stephanie Rebain and Janis Braze. 2000. Harvest scheduling with area-based adjacency constraints. Symposium on Systems Analysis in Forestry, 2000 Meeting. Aspen, Colorado. September 27-30, 2000
- McDill, Marc, and Janis Braze. 2000. Optimizing dynamic wildlife corridors. *INFORMS (Institute for Operations Research and the Management Sciences) Spring, 2000 Meeting*, Salt Lake City, Utah. May 7-10, 2000.
- McDill, Marc 2000. Five ways I use the Internet in college teaching. 3<sup>rd</sup> Biennial Conference on University Education in Natural Resources. Columbia, MO. March 25-28, 2000.
- Silva, Gabriela, and Marc McDill 1999. Analyzing extraction of non-timber forest products in Pintao, *Venezuela. Pioneering New Trails – Proceedings of the 1999 Society of American Foresters Annual Convention.* Portland, Oregon. September 11-15, 1999.
- McDill, Marc, and Janis Braze. 1999. Testing area-based forest management planning constraints and solutions. *INFORMS (Institute for Operations Research and the Management Sciences) Spring, 1999 Meeting.* Cincinnati, Ohio. May 2-4, 1999. (This paper won the "Best Paper in Forestry Sponsored Sessions" award.)
- McDill, Marc. 1998. So-RxWrite An individual-tree growth model for projecting FIA plots. 1998 Annual Southern Forest Economics Workers (SOFEW) Annual Meeting. Williamsburg, VA. March 25-27, 1998.
- Braze, Janis, and Marc McDill. 1998. Southern oak timber inventory projections using STRIPS. 1998 Annual Southern Forest Economics Workers (SOFEW) Annual Meeting. Williamsburg, VA. March 25-27, 1998.
- McDill, Marc. 1998. Developing computer courseware for forest management. 2th Biennial Conference on University Education in Natural Resources, Logan, Utah. March 7-10, 1998.
- McDill, Marc. 1996 Modeling spatial price discrimination in Minnesota stumpage markets. 1996 Annual Southern Forest Economics Workers (SOFEW) Annual Meeting. Gatlinburg, TN. March 28, 1996.
- McDill, Marc. 1995. Initial timber supply analysis for Louisiana's fourth forest Update. Louisiana Society of Foresters Annual Meeting. Alexandria, LA. November 15-17, 1995.
- Rose, Dietmar, Marc McDill, and Howard Hoganson. 1992. Use of an integrated forest planning package for a Generic Environmental Impact Statement of statewide forestry programs: A Minnesota case study. *The 1992 Meeting of the Midwest Forest Economists*. Indianapolis, Indiana. September 30 - October 2, 1992.
- McDill, Marc. 1992. Modeling spatial price discrimination in Minnesota stumpage markets. *The 1992 Meeting of the Midwest Forest Economists.* Indianapolis, Indiana. September 30 - October 2, 1992.
- McDill, Marc. 1992. Modeling spatial price discrimination in Minnesota stumpage markets. 1992 Joint National Meeting of ORSA/TIMS. Orlando, Florida. April 27 30, 1992.

# **COURSES TAUGHT:**

<u>Year</u>	<u>Semester</u>	Course (Credits)	Enrollment	% Responsibility
<b>Penn S</b> 2013	Fall	EOD 255 CIS and CDS for Not Bas (2	12	60
		FOR 255 – GIS and GPS for Nat. Res. (3)		60 100
2013 2013	Spring	FOR 466W – Forest Resource Mgmt. (3)		90
	Spring Fall	FOR 366 – Forest Res. Measurements (4)	/	
2012		FOR 297A – GIS and GPS for Nat. Res.		60 100
2012 2012	Spring	FOR 466W – Forest Resource Mgmt. (3)		100 90
2012	Spring Fall	FOR 366 – Forest Res. Measurements (4)	/	90 60
		FOR 297A – GIS and GPS for Nat. Res.		
2011 2011	Spring	FOR 466W – Forest Resource Mgmt. (3)		100 90
	Spring Spring	FOR 366 – Forest Res. Measurements (4)	/	
2010	Spring Spring	FOR 466W – Forest Resource Mgmt. (3)	6	100
2010	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)		100
2009	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2009	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	13	100
2008	Spring	FOR 440 – Forest Economics & Finance	· /	50
2008	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2008	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	14	100
2007	Summer	AG 150S: Be a Master Student! (2)	24	50
2007	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2007	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	11	100
2006	Fall	FOR 597A – Int. Programming Nat Res (	· /	100
2006	Fall	AG 150S: Be a Master Student! (2)	28	33
2006	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2006	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	9	100
2005	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2005	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	11	100
2004	Fall	AG 150S: Be a Master Student! (2)	19	100
2004	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2004	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	18	100
2003	Fall	AG 150S: Be a Master Student! (2)	22	50
2003	Fall	FOR 597A – Int. Programming (3)	4	100
2003	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2003	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	15	100
2002	Fall	FOR 597B – For. Mgmt. Planning (3)	4	100
2002	Spring	FOR 466W – Forest Resource Mgmt. (3)		100
2002	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	21	100
2001	Spring	FOR 466W – Forest Resource Mgmt. (3)	36	100
2001	Spring	FOR 410 – Forest Ecosystem Mgmt. (3)	25	100
2000	Fall	FOR 597C – For. Fin. and Planning (3)	7	100
1999	Fall	FOR 466W – Forest Resource Mgmt. (3)	39	100
1999	Fall	FOR 410 – Forest Ecosystem Mgmt. (3)	28	100
1998	Fall	FOR 466W – Forest Resource Mgmt. (3)	31	100
1998	Fall	FOR 410 – Forest Ecosystem Mgmt. (3)	23	100
1997	Fall	FOR 466W – Forest Resource Mgmt. (3)	41	100
LSU				
1996	Fall	FOR 4036 – Forest Management (4)	23	100
1996	Fall	FOR 3004 – For. Photogrammetry(3)	21	100

Year	<u>Semester</u>	Course (Credits)	Enrollment	% Responsibility		
1996	Fall	FOR 7036 - Adv. Top. For. Biom Mgmt	(3) 6	33		
1995	Fall	FOR 4036 – Forest Management (4)	15	100		
1995	Fall	FOR 4061 – Spc. Tp. (For. Photogram (3	5)) 11	100		
1994	Fall	FOR 4036 – Forest Management (4)	9	100		
1994	Fall	FOR 7036 – Adv. Top. For. Biom Mgmt	(3) 5	33		
Penn State						
1994	Spring	FOR 350 – Forest Resource Biometrics (	3) 64	100		
1994	Spring	AG 200A – Int DOS-Based PCs in Ag (3	5) 16	100		
1993	Fall	FOR 466W – Forest Resource Mgmt (3)	33	100		
1993	Fall	AG 200A – Int DOS-Based PCs in Ag (3	) 16	100		

#### **PhD Students Advised:**

Norzanalia Saadun (Defended June 10, 2013)

Saadun, Norzanalia. 2013. Assessment of Woody Biomass Supply from Natural Forests: Biophysical, Social and Economic Availability. Ph.D. Dissertation. The Pennsylvania State University School of Forest Resources.

Horacio Gilabert (Defended January, 2007)

Gilabert, Horacio. 2007. *Optimizing Yield Data Collection Efforts for Forest Management Planning*. Ph.D. Dissertation. The Pennsylvania State University School of Forest Resources. Sándor Tóth (Defended May 2005)

Tóth, Sándor. 2005. *Modeling Timber and Non-Timber Trade-offs in Spatially*-Explicit *Forest Planning*. Ph.D. Dissertation. The Pennsylvania State University School of Forest Resources. Sonney George (Defended May, 2003)

George, Sonney. 2003. An Improved Simulated Annealing Algorithm for Solving Spatially Explicit Forest Management Problems. Ph.D. Dissertation. The Pennsylvania State University School of Forest Resources.

Gabriela Silva (Defended March, 2001)

Silva, Gabriela. 2001. *Factors Affecting Ecotourism Supplier Success*. Ph.D. Dissertation. The Pennsylvania State University School of Forest Resources.

#### **MS STUDENTS ADVISED:**

Kyle Kovachs (M.S. student in Forest Management. Started January, 2013. Co-advised with Dr. Michael Jacobson)
Chieh-Chung Yang (M.S. student in Forest Management. Started August, 2011.)
Andrea Arratia (M.S. student in Forest Management. Started August, 2008.)

Blaise Simmons (M.S. student in Forest Management. Started August, 2008.)

Michael DiCarlo (M.S. completed July 15, 2013.)

DiCarlo, Michael. 2013. Developing a Predictive Model of Advance Regeneration in Pennsylvania Forests. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.

Collin Shephard (M.S. completed August, 2010. Co-advised with Dr. Kim Steiner.)

Shephard, Collin. 2010. Comparison of Pennsylvania Residents' and Regional Scientists' Perceptions, Values, and Attitudes Regarding Management of Old-Growth Forests.

Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.

Victor Valdebenito (M.S. student in Forest Resources and Operations Research. Completed December, 2009)

Valdebenito, Victor. 2009. Integrating Road Building Decisions in Harvest Scheduling Models. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources. Phillip Manning (M.S. completed July, 2009.)

- Manning, *Phillip*. 2009. *Stand Level Models for Estimating Sawtimber Growth* and *Yield in Pennsylvania*. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.
- Krunal Atul Mehta (M.S. in Industrial Engineering, co-advised with Dr. Tom Cavalier. Completed August, 2008)

Mehta, Krunal Atu. 2008. Design and Implementation of Column Generation to Solve Large-Scale Profit Maximization Forest Management Problems. Unpublished Master's Thesis. Pennsylvania State University Department of Industrial and Manufacturing Engineering.

- Brent Carlson (M.S. completed August, 2007)
  - Carlson, Brent. 2007. Assessing the Value of Stand-Level Plot Data for PA DCNR Harvest Scheduling. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.
- Steven Mills (M.S. completed May, 2007)

Mills, Steven. 2007. Incorporating Deer Exclusion Fence Spatial and Temporal Considerations into Spatially Explicit Harvest Scheduling Models. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.

Joe Petroski (M.S. completed May, 2006)

- Petroski, Joseph. 2006. Treatment Unit Delineations for Spatial Planning on Pennsylvania State Forest Land. Unpublished Master's Thesis. Pennsylvania State University School of Forest Resources.
- Babu Rajasekaran (MFR with concurrent MS degree in Industrial Engineering and dual-title OR degree completed August, 2005)
  - Rajasekaran, Babu. Intertemporal Connectivity in Spatially Explicit Integer Programming Harvest Scheduling Models. Master of Forest Resources Paper. The Pennsylvania State University School of Forest Resources.
- Aleksandar Dozic (M.S. completed November, 2004)
  - Dozic, Aleksandar. 2004. *Delineation of Harvest Units for Spatially Explicit Forest* Planning. Master's Thesis. The Pennsylvania State University School of Forest Resources.
- Karl Tojic (M.S. with dual-title OR degree completed June, 2004)
  - Tojic, Karl. *Missing Title*. Master's Thesis. The Pennsylvania State University School of Forest Resources.
- Shawn Lehman (M.S. completed May, 2003)
  - Lehman, Shawn. 2003. Assessing Data Acquisition for Modeling Harvests on Pennsylvania's State Forests. Master's Thesis. The Pennsylvania State University School of Forest Resources.

Melanie Northrup (M.S. completed August, 2003); co-supervised with Dr. Steiner.

Northrup, Melanie. 2003. *Classifying Patterns of Vegetation and* Regeneration *in Mixed-Oak Forests of Pennsylvania*. Master's Thesis. The Pennsylvania State University School of Forest Resources.

- Stephanie Rebain (M.S. completed March 18, 2002)
  - Rebain, Stephanie. 2002. *Modeling Minimum Habitat Patch Size* Requirements. Master's Thesis. The Pennsylvania State University School of Forest Resources.

Yanguo Wang (M.S. completed August, 2000)

- Wang, Yanguo. 2000. A General Equilibrium Analysis of Forest Taxation. Master's Thesis. The Pennsylvania State University School of Forest Resources.
- Janis Braze (M.S. completed November, 1999)
  - Braze, Janis. 1999. A Comparison of Alternative Adjacency Constraint Formulations in Forest Planning Models. Master's Thesis. The Pennsylvania State University School of Forest Resources.

#### **ADVISORY COMMITTEES:**

Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry, Ecosystem Management Advisory Committee – 1998 to Present.

Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry, Ecosystem Management Advisory Committee – Bioreserve Subcommittee – 1999, 2002 to Present. Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry,

Ecosystem Management Advisory Committee – Energy Subcommittee – 2003 to Present.

Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry, Silviculture/Timber Advisory Committee – 1999 to Present.

Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry, Recreation Advisory Committee – 2003 to Present.

Borough of State College Tree Commissioner. March 2002 to Dec 2010 (Chair from 2007 to 2010).

## **PROFESSIONAL ASSOCIATIONS:**

Society of American Foresters

Chair of National E-4 (Operations Research and Management Planning) Working Group (2008-2010) Executive Committee member (1999-2005) and chair (003-2005) for the Rothrock Chapter of the Allegheny SAF

Xi Sigma Pi – Eta Chapter (Penn State) faculty advisor (1998-present)

INFORMS (Institute for Operations Research and the Management Sciences) Chair (2001-2002) of the Energy and Natural Resources (ENRE) Section Chair-elect (2013-present) of the Energy and Natural Resources (ENRE) Section