

# **BRIAN J. PALIK**

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## **Education**

Ph.D., Department of Forestry, Michigan State University, 1992, Forest Ecology.  
M.S., Department of Botany, Michigan State University, 1988, Plant Ecology.  
B.S., Alma College, 1983, Biology.  
Organization for Tropical Studies, Costa Rica, 1987, Tropical Ecology.

## **Professional experience**

2003-present Project Leader, USDA Forest Service, Grand Rapids, Minnesota  
1996-2003 Research Ecologist, USDA Forest Service, Grand Rapids, Minnesota.  
1993-1996 Assistant Scientist, Joseph W. Jones Ecological Research Center, Newton, Georgia.  
1988-1993 Graduate Research Assistant, Department of Forestry, Michigan State University, East Lansing, Michigan.  
1985-1988 Graduate Research Assistant, Department of Botany, Michigan State University, East Lansing, Michigan.

## **Research Interests**

Ecological and natural disturbance-based silviculture; riparian and seasonal wetland ecology

## **Professional service and recognition**

- 2003-present: NCRS representative to National Experimental Forest Working Group, USDA Forest Service.
- 2000-01: Organizing committee 3<sup>rd</sup> North American Forest Ecology Workshop
- 2001: Land-water interaction. Symposium at the 3<sup>rd</sup> North American Forest Ecology Workshop. Co-chair of session.
- 2000: Panel Member, National Science Foundation, Biocomplexity Program
- 1999: Best Poster, 2<sup>nd</sup> North American Forest Ecology Workshop
- 1998: Presidential Award for Early Career Scientists and Engineers
- 1998-present: Associate Editor, Journal of the Torrey Botanical Society
- 1997: Chief's Early Career Scientist Award, USDA Forest Service
- 1987: Teaching Award, Dept. of Botany and Plant Pathology, Michigan State University

- 1987: Tropical Biology Training Fellowship, Organization for Tropical Studies.
- Member, Ecological Society of America, Society of American Foresters
- Peer Reviewer: Ecology, Canadian Journal of Forest Research, Journal of Ecology, American Midland Naturalist, Journal of Vegetation Science, Biotropica, Forest Ecology and Management, Journal of Forest Research, Plant Ecology, Forest Science, Conservation Ecology, USDA Competitive Grants

## University involvement and teaching

- 1998-present. Adjunct Faculty, School of Forestry and Wood Products, Michigan Technological University.
- 2000-present. Adjunct Faculty, Department of Forest Resources, University of Minnesota.
- 1993-1996
- 1993-1996. Adjunct Assistant Professor, School of Forestry, Auburn University.
- 2002. Guest lecturer, Silviculture, University of Minnesota.
- 2001. Guest lecturer, Advanced Forest Ecology, University of Michigan.
- 1996-2000. Guest instructor, Riparian and Wetland ecology, University of MN forestry camp.
- 1999. Search committee, University of Minnesota, silviculture faculty position.
- 1999-2001. Curriculum Advisory Committee, Forestry Program, Itasca Community College.
- *Courses Taught:* Forest Stand Development (Auburn University); Systematic Botany; Plants and Their Environment; Plants, People and the Environment (Michigan State University).
- *Graduate Student Involvement:*

Daniel Tersteeg, MS 2006 (expected), University of Minnesota, (committee member)  
 Rachel Tarpey MS 2006 (expected), Michigan Technological University (committee member)  
 Tara Solem MS 2004 (expected), Bemidji State University (committee member)  
 Doug Kastendick MS. 2005 (expected), University of Minnesota (co-advisor)  
 Charles Goebel Ph.D. 2001, Michigan Technological University (co-advisor)  
 Anita Risch M.S. 2001, Michigan Technological University (committee member)  
 Mark Hains M.S. 1995, Auburn University (committee member)

## Selected extension and outreach activities

- 2003: Science reviewer of revised riparian forest management guidelines, Minnesota Forest Resources Council.
- 2003: MN SAF and Wildlife Society Winter meeting. Member of organizing committee.
- 2003. Great Lakes Silviculture Summit. Chair of organizing committee.
- 2002: Waterfowl in Minnesota Seasonal Forest Wetlands. Workshop Organizer.
- 2001: Minnesota Riparian Guideline Training Workshop. 2001. Member of organizing committee.
- 2001: FIA/FHM National Riparian Focus Group. 2001. Riparian delineation and seasonal wetland identification.
- 1999-00: Science reviewer of forest management guidelines for wildlife, riparian areas, and seasonal ponds, Minnesota Forest Resources Council.
- 1999. Forest ponds: Minnesota's unappreciated wetlands. Workshop sponsored by Natural Resources Education Cooperative. Organizer and presenter.

- 1998. Riparian Management in forests of the continental eastern United States. Workshop sponsored by North Central Research Station, USDA Forest Service. Presenter and co-author of associated book.
- 1997, 1999. Silviculture Certification Training, USDA Forest Service. Instructor: Riparian Ecology.
- 1997-99: Itasca Continuing Education Cooperative. Co-founder and charter member.
- 1997. Managing riparian areas for multiple values. Workshop sponsored by the Minnesota Center for Continuing Education. Presenter and member of organizing committee.
- 1997. Ecological issues in riparian forestry. Training session: Blandin Paper Company.
- 1997. Silvicultural approaches for riparian areas. Training session: MN Department of Natural Resources Two Harbors Integrated Management Team.

## Presentations

### *Invited papers*

1. Palik, B. J. Presettlement and Present-Day Forests of Michigan. Paper presented to the Red Cedar Chapter, Michigan Botanical Club, East Lansing, MI. 1990.
2. Palik, B. J. The Ecology of Aspen in Michigan. Paper presented to the Michigan Chapter, Society of American Foresters Annual Meeting, Gaylord, MI. 1990.
3. Palik, B. J. History and ecology of the longleaf pine ecosystem. Paper presented at the Continuing Forestry Education Workshop, Longleaf Pine Alliance, Brewton, AL. 1995.
4. Palik, B. J. Canopy dynamics and regeneration processes in longleaf pine ecosystems. Presentation to the Forestry Sciences Lab, USDA Forest Service, Grand Rapids, MN. 1995.
5. Palik, B. J. Controls on riparian vegetation development. Presentation at the R-9 Aquatic Ecology Workshop, USDA Forest Service, Grand Rapids, MN. 1996.
6. Palik, B. J. Functional delineation of riparian ecosystems. Presentation to the riparian silvicultural discussion workshop hosted by USDA Forest Service, Forestry Sciences Lab, Grand Rapids, MN. 1996.
7. Palik, B. J. Riparian functions and values. Presentation to the Sustaining Riparian Landscapes workshop hosted by USDA Forest Service, Forestry Sciences Lab, Bloomington, MN. 1997.
8. Michener, W. K., E. R. Blood, J. M. Brim Box, C. A. Couch, S. W. Golladay, D. J. Hippe, L. K. Kirkman, R. J. Mitchell, and B. J. Palik. Flood disturbance in a southeastern U. S. Coastal Plain landscape. Symposium presentation by Michener at Annual Meeting of the Ecological Society of America. 1997.
9. Palik, B. J. Functional approaches to riparian definition and delineation. Presentation at the Ecology and Management of Riparian Areas Workshop, Minnesota Center for Continuing Education. Grand Rapids, MN. 1997.
10. Palik, B. J. Riparian Areas and Forest Fragmentation. Presentation at the Lake States Forestry Alliance Forum. Bloomington, MN. 1997.
11. Palik, B. J., J. Zasada, and C. Hedman. Silvicultural approaches for managing riparian forests. Presentation to conference on Managing Riparian Forests in the Eastern United States. Columbus, OH. 1998.

12. Ilhardt, B., B. J. Palik, and E. Verry. Defining riparian areas. Presentation by Ilhardt to conference on Managing Riparian Forests in the Eastern United States. Columbus, OH. 1998.
13. Palik, B. J., and D. Batzer. Landscape and stand level influences on embedded wetlands. Annual meeting of the Ecological Society of America. Baltimore, MD. 1998.
14. Palik, B. J. Structural legacies of catastrophic windstorm in a mature aspen forest. Natural Resources Continuing Education Cooperative, Itasca Community College, Grand Rapids, MN. 1998.
15. Palik, Riparian Areas: what's water got to do with them? Grand Rapids, MN Rotary Club. 1998.
16. Palik, B. J., and D. Batzer. Functional connections of depressional wetlands to upland landscapes. Annual Meeting of the North American Benthological Society. Duluth, MN. 1999.
17. Buech, R., D. Batzer, D. Nichols, and B. Palik. Characteristics of aquatic animal communities in 80 woodland ponds. Annual Meeting of the North American Benthological Society. Duluth, MN. 1999.
18. Palik, B. J. Probabilistic management of riparian ecotones. Department of Natural Resources and the Environment, University of Illinois. 1999.
19. Palik, B. J., and R. Mitchell. Mimicking natural disturbance with silviculture: balancing complexity with adoption. 2<sup>nd</sup> North American Forest Ecology Workshop, Orono, ME. 1999.
20. Mitchell, R., B. J. Palik, and M. Hunter, Jr. Natural disturbance regimes as models for silviculture. 2<sup>nd</sup> North American Forest Ecology Workshop, Orono, ME. 1999.
21. Palik, B. J. Ecological Importance of depressional wetlands in a northern Minnesota landscape. Minnesota Department of Natural Resources, Regional Ecologist Meeting, Grand Rapids, MN. 1999.
22. Palik, B. J. Probabilistic delineation of riparian areas. Northeastern Association of State Forest Planners, Columbus, OH. 1999.
23. Palik, B. J. Balancing ecological protection and timber management in forested riparian areas. Midwest Fish and Wildlife Annual Meeting, Chicago, ILL. 1999.
24. Palik, B. J. Biodiversity and riparian areas. Natural Resources Continuing Education Cooperative, Itasca Community College, Grand Rapids, MN. 2000.
25. Palik, B. J. Thinking spatially when leaving trees behind: examples of overstory retention approaches from pine ecosystems and riparian areas. Innovative silvicultural systems: new approaches to even-aged silviculture. Michigan Department of Natural Resources, Boyne MI. 2000.
26. Palik, B. J., R. Buech, D. Batzer, and D. Nichols. Landscape influences on seasonal ponds. Midwest Fish and Wildlife Annual Meeting. 2000. (Pub. #40)
27. Palik, B. and M. Hanson. Seasonal forest ponds. Minnesota Waterfowl Association Annual Meeting. 2001.
28. Palik, B. Developmental and functional relationships between upland forests and seasonal wetlands: an example of hierarchical ecosystem interaction. Seminar series: Department of Forest Resources, University of Minnesota. 2001.
29. Palik, B. Silvicultural options for ecosystem management: how operational-scale ecological experiments contribute to their development. University of Maine, Department of Forest Management. 2001.

30. Palik, B. J., Mitchell, R. J., Pecot, S., Battaglia, M., Mou, P. How spatial distribution of overstory trees determines stand-scale resource availability and seedling growth: an experiment in longleaf pine woodlands. 3<sup>rd</sup> North American Forest Ecology Workshop. 2001.
31. Palik, B. Using landscape hierarchies to guide ecosystem restoration in the lower Gulf Coastal plain. University of Michigan, School of the Environment, Advanced Forest Ecology. 2001.
32. Palik, B. Developmental and functional relationships between upland forests and seasonal ponds. University of Michigan, School of the Environment, Advanced Forest Ecology. 2001.
33. Palik, B. Ecological considerations for riparian silviculture. Minnesota Riparian Guidelines Training Workshop. 2001.
34. Palik, B. Ecological considerations for riparian silviculture: learning from experiments in Minnesota forests. Presentation. Annual Minnesota Forest Research Review, Cloquet, MN. 2002.
35. Palik, B., and Zasada J. Ecological Reasons and silvicultural approaches for regenerating multi-cohort, mixed-species red pine stands. Lake States SAF Technical Conference. 2002.
36. Palik, B. Silvicultural Approaches for Restoring Biocomplexity in Managed Forests. Presentation. School of Natural Resources, Ohio State University, Columbus, OH. 2002.
37. Zasada, J., Gilmore, D. Crow, T., Palik, B., Cleland, D. Natural disturbance as a guide for silviculture in the Lakes States. Natural disturbance and silviculture symposium, Sault Saint Marie, Ont. 2002.
38. Palik, B. Silvicultural options for goshawk management. MN Society of American Foresters annual meeting. 2002.
39. Palik, B. Silvicultural alternatives for aspen management. Chippewa National Forest, Natural Resources Staff. 2002.
40. Palik, B. Overview of silviculture research at NCRS. Annual Minnesota Forest Research Review, Duluth, MN. 2003.
41. Palik, B. Alternative approaches to traditional red pine and aspen silviculture. Bemidji Area Natural Resource Education Cooperative. 2003.
42. Palik, B. Red pine research at NRCS. Itasca Private Woodlands Association. 2003..
43. Palik, B. Natural variation of seasonal forest wetlands. Conference on Forested Wetlands in Minnesota. 2003.
44. Palik, B. Managing forests for ecological complexity and wood productivity. Itasca Forest Resource Network. 2003.
45. Palik, B. Alternative approaches to traditional red pine and aspen silviculture. Itasca Natural Resource Education Cooperative. 2003.
46. Palik, B. Managing forests for ecological complexity and wood productivity. Great Lakes Silviculture Summit. 2003.
47. Palik, B. Overview of silviculture research at NCRS. Great Lakes Silviculture Summit. 2003.
48. Palik, B. Managing forests for ecological complexity and wood productivity. Minnesota Forest Resource Council, Landscape Analysis Program. 2003.
49. Palik, B. Seasonal wetlands in the northern forest. Chippewa National Forest. 2003.

50. Palik, B. Silviculture for restoration and maintenance of ecological complexity. MN DNR Silviculture Workshop. 2004.
51. Palik, B. Why red pine forests do not have to be even-aged plantations. Annual Minnesota Research Review. 2004.

*Offered papers and posters*

1. Palik, B. J. and P. G. Murphy. 1988. Edge and aspect effects on woody vegetation in an old-growth beech-sugar maple forest fragment. Paper presented by Palik at Midwest Ecology and Evolutionary Biology Conf., Battle Creek, MI.
2. Palik, B. J. and K. S. Pregitzer. 1989. Long-term soil changes and carbon accrual in a red pine plantation growing on abandoned agricultural land. Paper presented by Palik at the Annual Meeting of the Ecological Society of America, Toronto, Ontario.
3. Palik, B. J. and K. S. Pregitzer. 1993. White pine legacies in an aspen landscape: the influence of remnant seed trees on even-aged forest development. Poster presentation by Palik at the Annual Meeting of the Ecological Society of America, Madison, WI.
4. Palik, B. J. and N. Pederson. 1994. Characteristics of mortality in longleaf pine ecosystems. Poster presentation by Palik at the Annual Meeting of the Ecological Society of America, Knoxville, TN.
5. Hains, M., Mitchell, R., Boring, L. R., and Palik, B. P. 1994. Legume abundance and diversity in a longleaf pine landscape. Paper presented by Hains at the Annual Meeting of the Association of Southeastern Biologist, Gainseville, FL.
6. Hains, M., Mitchell, R., Boring, L. R., and Palik, B. J. 1994. Temporal and spatial variation of legume populations in a longleaf pine/wiregrass fire maintained ecosystem. Poster presented by Mitchell at the Annual Meeting of the Ecological Society of America, Knoxville, TN.
7. Palik, B. J., Mitchell, R. M., and Houseal, G. 1995. Resource and plant response to canopy disturbance in a longleaf pine ecosystem. Poster presentation by Palik at Annual Meeting of the Ecological Society of America, Snowbird, UT.
8. Michener, W. K., E. R. Blood, S. W. Golladay, L. K. Kirkman, R. J. Mitchell, and B. J. Palik. 1995. Effects of flooding on the longleaf pine-wiregrass ecosystem. Paper presented by Michener at the Georgia Water Resources Conference, Carl Vinson Institute of Government, The University of Georgia, Athens and as a poster presentation at the Annual Meeting of the Ecological Society of America, Snowbird, UT.
9. Pederson, N., and Palik, B. J. 1995. Post-settlement disturbance history of a longleaf pine landscape. Poster presentation by Pederson at the Annual Meeting of the Ecological Society of America, Snowbird, UT.
10. Taylor, B. W., Golladay, S. W., and Palik, B. J. 1995. Temporal invertebrate community composition in forested and herbaceous limesink wetlands. Paper presented by Taylor at the North American Benthological Society's 43rd Annual Meeting.
11. Golladay, S. W., B. W. Taylor, and B. J. Palik. 1996. Effects of extended inundation on invertebrate communities of palustrine wetlands in southwest Georgia. Paper presented by Golladay at North American Benthological Society's 44th Annual Meeting.
12. Taylor, B. W., B. J. Palik, S. W. Golladay, and N. Pederson. 1996. Influence of riparian geomorphology on large woody debris input and movement in a Coastal Plain stream.

- Poster presentation by Golladay at the North American Benthological Society's 44th Annual Meeting.
13. Goebel, P. C., B. J. Palik, L. K. Kirkman, and L. West. 1996. Geomorphic influences on riparian forest composition and structure in a karst landscape of southwestern Georgia. Paper presented by Goebel at the Southern Forested Wetlands Conference, Clemson University.
  14. Mitchell, R., B. Palik, K. Kirkman, J. Hendricks, G. Houseal, C. Wilson, and L. Boring. 1996. Controls on productivity in longleaf pine ecosystems. Paper presented by Mitchell at the North American Forest Biology Workshop.
  15. Mitchell, R., and B. Palik. 1996. Competitive effects of overstory trees and regeneration responses in a longleaf pine ecosystem. Paper presented by Mitchell at the North American Forest Biology Workshop.
  16. Goebel, P. C., B. J. Palik, L. K. Kirkman, and L. West, D. Cabaniss, M. Drew, and N. Pederson. 1996. Ecosystem development in response to soils and physiography in a karst landscape in southwestern Georgia. Poster presentation by Goebel and Palik at Annual Meeting of the Ecological Society of America.
  17. Mitchell, R. J., L. K. Kirkman, B. J. Palik, J. Hendricks, L. R. Boring, M. K. Drew, C. Wilson, N. Pederson. 1996. Complex ecological gradients in longleaf pine ecosystems I: Conceptual model and experimental approaches. Poster presentation by Mitchell at the Annual Meeting, Ecological Society of America.
  18. Houseal, G. A., R. J. Mitchell, B. J. Palik, L. K. Kirkman, and N. Pederson. 1996. Complex ecological gradients in longleaf pine ecosystems II: above-ground net primary productivity patterns. Poster presentation by Houseal at the Annual Meeting of the Ecological Society of America.
  19. Palik, B. J., N. Pederson, and R. J. Mitchell. 1996. Complex ecological gradients in longleaf pine ecosystems III: geomorphic and climatic controls on diameter growth. Poster presentation by Palik at Ann.Meeting of the Ecological Society of America.
  20. Golladay, S. W., Palik, B. J., Goebel, P. C., and Taylor, B. W. 1997. Influence of riparian geomorphology on large woody debris input and movement in a blackwater Coastal Plain stream. Paper presented by Golladay at the Georgia Water Resources Conference, Carl Vinson Institute of Government, The University of Georgia, Athens.
  21. Golladay, S. W., Palik, B. J., Goebel, P. C., and Taylor, B. W. 1997. Geomorphic controls on wood input and orientation in a blackwater Coastal Plain stream. Paper presented by Golladay at the North American Benthological Society 45th Annual Meeting.
  22. Mitchell, R. J., S. Pecot, C. Wilson, K. Kirkman, J. Hendricks, R. Hindrick, B. Palik, L. Boring, and M. Drew. 1997. Controls on productivity of longleaf pine- wiregrass ecosystems across wide environmental gradients. Poster presented by Mitchell at the North American Forest Ecology Workshop.
  23. Mitchell, R. J., C. Hedman, K. Kirkman, S. Horsley, S. Pecot, J. McGuire, B. Palik, R. Hendirck, and D. Gjerstad. 1997. Functional role of gaps in longleaf pine-wiregrass ecosystems. Poster presented by Mitchell at the North American Forest Ecology Workshop.
  24. Hiers, K., J. Hendricks, M. Hains, R. J. Mitchell, L. R. Boring, B. J. Palik, D. J. Gjerstad, and R. Wyatt. 1997. Role of legumes in frequently burned longleaf pine-

- wiregrass ecosystems. Poster presented by Hiers at the North American Forest Ecology Workshop.
25. Palik, B., P. C. Goebel, L. K. Kirkman, and L. West. 1997. Using concepts of ecosystem classification as a framework for restoration of a disturbed lower Gulf Coastal Plain landscape. Poster presented by Palik at the North American Forest Ecology Workshop.
  26. Kirkman, L. K., P. C. Goebel, M. B. Drew, B. Palik, and L. West. 1997. Species diversity among ecosystem types of a lower Gulf Coastal Plain landscape. Paper presented by Kirkman at the 1<sup>st</sup> North American Forest Ecology Workshop.
  27. Mitchell, R. J., C. Hedman, S. Horsley, B. Palik, K. Kirkman, S. Pecot, J. McGuire, R. Hendrick, and D. Gjerstad. 1997. Functional role of gaps in longleaf pine-wiregrass ecosystems. Poster presented by Mitchell at the Annual Meeting of the Ecological Society of America.
  28. Kirkman, L. K., P. C. Goebel, M. B. Drew, B. Palik, and L. West. 1997. Wetland ecosystem types of a karst landscape of the lower Gulf Coastal Plain: multifactor classification and analysis. Paper presented by Kirkman at the Annual Meeting of the Ecological Society of America.
  29. Chapal, S. E., P. C. Goebel, and B.J. Palik. 1997. Using an ecological classification system as a framework for a dynamic ecological data management system to aid in decision-making. Poster presented by Chapal at the Annual Meeting of the Ecological Society of America.
  30. Palik, B. J., J. Robl., and E. S. Verry. 1998. A functional approach to delineation of riparian areas. Poster presented by Palik at the Conference on Managing Riparian Forests in the Eastern United States.
  31. Palik, B. J., J. Robl., and E. S. Verry. 1998. Functional delineation of riparian areas. Poster presented by Palik at the Annual Meeting of the Ecological Society of America.
  32. Mitchell, R. J., Palik, B. J., Jones, R. H., Mou P., Hurst, S. Pecot, S. D., and Battaglia, M. A. 1998. Overstory Structure and Regeneration Processes in Longleaf Pine-Wiregrass Forests. Poster presented by Mitchell at the Second Biennial Longleaf Pine Alliance Conference.
  33. Palik, P. C. Goebel, L. K. Kirkman, and L. West. 1998. Using landscape hierarchies to guide restoration of disturbed ecosystems. Poster presented by Palik at the Annual Meeting of the Ecological Society of America.
  34. Palik, B. J., and J. Robl. 1998. Regeneration of aspen under a residual overstory in riparian management buffers. Poster presented by Palik at the University of Minnesota Forest Productivity Workshop.
  35. Palik, B. J. 1998. A spatial approach for maximizing survival and growth of regeneration with green-tree retention. Paper presented by Palik at the University of Minnesota Forest Productivity Workshop.
  36. Battle, J. M, S.W. Golladay, B. Palik, and P.C. Goebel. 1999. Tree mortality on riparian landforms along a coastal plain stream, a comparison of 1994 and 1998 floods. Poster presented by Battle at the Annual Meeting of the North American Benthological Society.
  37. Gerdes, D. L., M. R. Gale, J. Chen, D. Pilant, and B. J. Palik. 1999. Application of spaceborne optical and synthetic aperture radar imagery to quantify biophysical characteristics of small, isolated wetlands and investigate landscape level wetland

- functions. Paper presented by Gerdes at the Ecological Society of America Annual Meeting.
38. Palik, B. J., and J. Robl. 1999. Do headwater riparian areas contribute uniquely to plant diversity in a northern Minnesota watershed? Poster presented by Palik at the 2<sup>nd</sup> North American Forest Ecology Workshop.
  39. Palik, B. J., and K. Cease. 1999. Do upland forests subsidize small depressional wetlands through particulate carbon contributions? Poster presented by Palik at the 2<sup>nd</sup> North American Forest Ecology Workshop.
  40. Collins, M. E., Pregitzer, K. S., Zasada, J., Palik, B. 1999. The age structure, regeneration conditions, and radial growth patterns of black ash, *Fraxinus nigra*, in the northern Lakes States. Presentation by Zasada at the 2<sup>nd</sup> North American Forest Ecology Workshop.
  41. Goebel, C., B. J. Palik, and K. S. Pregitzer. 1999. Functional approaches to riparian area delineation. Poster presented by Goebel at the 2<sup>nd</sup> North American Forest Ecology Workshop.
  42. Goebel, C., B. J. Palik, and K. S. Pregitzer. 2000. Stream DOC and DON concentrations in relation to geomorphic setting and storm events in an old-growth forest watershed. Poster presented by Goebel at the Annual Meeting of the North American Benthological Society.
  43. Palik, B. J., C. Goebel, and K. S. Pregitzer. 2000. Coarse woody debris recruitment in relation to geomorphic setting in an old-growth forest watershed. Poster presented by Goebel at the Annual Meeting of the North American Benthological Society.
  44. Goebel, P. C., B. Palik, and K. Pregitzer. 2001. Contributions of riparian areas to overall plant diversity in forested watersheds. Presentation by Goebel at the 3<sup>rd</sup> North American Forest Ecology Workshop.
  45. Palik, B., Batzer, D. P., Buech, R., Nichols, D., Cease, K., Egeland, L., and Streblow, D. 2001. Temporal relationships between seasonal ponds and surrounding upland forests: an example of hierarchical ecosystem interactions. Poster presented by Palik at the 3<sup>rd</sup> North American Forest Ecology Workshop.
  46. Goebel, P. C., and B. Palik. 2001. Riparian Areas of Headwater and Low-Order Streams of the Northern Lake States. Poster presented by Goebel at the 1<sup>st</sup> Headwater Riparian Area Conference.
  47. Palik, B. 2002. Spatially variable overstory retention in red pine ecosystems. Poster presented by Palik at the Annual Minnesota Forest Research Review.
  48. Palik B., Batzer D., Buech, R., Egeland L., and Streblow, D. 2002. Landscape variation in Seasonal forest pond characteristics in northern forests. Presentation by Palik at the USEPA Midwestern ephemeral wetlands conference.
  49. Batzer, D., and B. Palik. 2002. Unexpected responses of woodland pond invertebrates to manipulations of leaf litter input. Presentation by Batzer at the Annual Meeting of the North American Benthological Society.
  50. Palik, B. 2003. Forest regeneration following blowdown and salvage treatments. Poster presented at the Annual Minnesota Forest Research Review.
  51. Palik, B., and Kern, C. 2003. Life beyond culmination of mean annual increment: extended rotation red pine stands. Paper presented by Palik at the 4<sup>th</sup> North American Forest Ecology Workshop.

52. Kern, C., Palik, B., and Strong, T. 2003. Responses of groundflora plant communities to contrasting silvicultural approaches in northern hardwood ecosystems. Poster presented by Kern at the 4<sup>th</sup> North American Forest Ecology Workshop.
53. Goebel, C., Palik, B., and Pregitzer, K. 2003. Influence of landscape properties on the geochemistry of surface waters in a benchmark old-growth northern hardwood watershed. Poster presented by Goebel at the 4<sup>th</sup> North American Forest Ecology Workshop.
54. Morris, A., Goebel, C. Palik, B. 2003. Current Perspectives on Large Wood in Stream Restoration: Literature, Legislation, and the Practitioner. Poster presented by Morris at the 4<sup>th</sup> North American Forest Ecology Workshop.
55. Kern, C., Palik, B., Strong T. 2004. comparing understory plant communities after 40 years of management in northern hardwoods ecosystems Poster presented by Kern at the Annual Minnesota Forest Research Review.

## Publications

### *Refereed*

1. Roeper, R. A., D. V. Zestos, B. J. Palik, and L. R. Kirkendall. 1987. Distribution and host plants of *Corthylyus punctatissimus* (Coleoptera: Scolytidae) in the lower peninsula of Michigan. *Great Lakes Entomologist* 20: 69-70.
2. Roeper, R. A., B. J. Palik, D. V. Zestos, P. G. Hesch, and C. D. Larsen. 1987. Observations of the habits of *Corthylyus punctatissimus* (Coleoptera: Scolytidae) infesting maple saplings in Central Michigan. *Great Lakes Entomologist* 20: 173-176.
3. Palik, B. J. and P. G. Murphy. 1990. Edge versus disturbance effects in beech-sugar maple forest fragments. *Forest Ecology and Management* 32: 187-202.
4. Palik, B. J. and K. S. Pregitzer. 1991. The relative influence of establishment time and height growth on species vertical stratification during secondary forest succession. *Canadian Journal of Forest Research* 21: 1760-1767.
5. Palik, B. J. and K. S. Pregitzer. 1992. A Comparison of Presettlement and present-day forests on two bigtooth aspen- dominated landscapes in northern Lower Michigan. *The American Midland Naturalist* 127: 327-338.
6. Palik, B. J. and K. S. Pregitzer. 1992. The age and height structure of red maple (*Acer rubrum* L.) populations in northern Michigan bigtooth aspen (*Populus grandidentata* Michx.) forests. *Canadian Journal of Forest Research* 22: 1149-1462.
7. Palik, B. J. and K. S. Pregitzer. 1993. The vertical development of early successional forests in northern Lower Michigan, USA. *Journal of Ecology* 81: 271-285.
8. Palik, B. J. and K. S. Pregitzer. 1993. The repeatability of stem exclusion during even-aged development of bigtooth aspen-dominated forests. *Canadian Journal of Forest Research* 23: 1156-1168.
9. Palik, B. J. and K. S. Pregitzer. 1994. White pine seed tree legacies in an aspen landscape: influences on post-disturbance white pine population structure. *Forest Ecology and Management* 67: 191-202.

10. Michener, W. K., E. R. Blood, S. W. Golladay, L. K. Kirkman, R. J. Mitchell, and B. J. Palik. 1995. Effects of flooding on the longleaf pine-wiregrass ecosystem. Pages 190-193 *in* Proceeding of the 1995 Georgia Water Resources Conference. K. J. Hatcher, ed. Carl Vinson Institute of Government, The University of Georgia, Athens
11. Palik, B. J. and K. S. Pregitzer. 1995. Variability of early height growth in forest trees: implications for stand development studies. *Canadian Journal of Forest Research* 25: 767-776.
12. Palik, B. J. and K. S. Pregitzer. 1995. Height growth of advance regeneration under an even-aged bigtooth aspen overstory. *American Midland Naturalist* 134: 166-175.
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## **Research projects and funding**

### *Current research and funding*

1. Revising North Central's Manager's Handbooks. 2004-2006. B. Palik, A. Ek, M. Kilgore, S. Katovich, M. Prouty. *Funding*: NCRS Integrated Programs, \$131,000 and NE Area State and Private Forestry, \$25,000.
2. Invasibility and Restoration of Oak Ecosystems in the Midwest Driftless Area. 2004-2007. B. Palik, L. Schulte, J. Miller. *Funding*: NCRS.
3. Testing the efficacy of buffers and residual trees at protecting seasonal ponds and breeding songbirds. 1999-06. B. Palik, M. Hanson, J. Hanowski, R. Kolka, J. Bell. *Funding*: USDA Forest Service, Washington Office, \$125,000; NCRS Integrated Programs, \$52,500.
4. Silvicultural approaches for regenerating multi-cohort, mixed-species conifer stands. 2000-07. B. Palik, P. Reich, R. Montgomery, K. Cable. *Funding*: Chippewa National Forest, \$755,000 and NCRS.
5. Evaluating the Sustainability of Minnesota's Riparian Forest Management Practices. 2001-2007. C. Blinn, B. Palik, R. Newman, J. Hanowski, R. Kolka, E. Zenner. *Funding*: Legislative Committee on Minnesota Resources, \$200,000; NCRS Integrated Programs, \$80,000.
6. Effects of stream valley geomorphology on large wood dams, stream organic matter processing, and aquatic food webs. 2002-06. B. Palik, C. Goebel, R. Koch. *Funding*: USDA NRI, \$390,000.
7. Applying conservation theory to landscape management. 2003-04. R. Mitchell, J. Franklin, M. Hunter, L. Schulte, B. Palik. *Funding*: National Commission on Science for Sustainable Forestry, \$100,000.
8. Linking Fiber Production and Soil Productivity to Intensity of Silviculture. 2003-06. B. Palik, M. Jurgenson, S. Verry, R. Kolka, D. Dey, and F. Ponder. *Funding*: American Forest and Paper Association Agenda 2020, \$123,500.

### *Past research*

1. Use of Natural Disturbances to Guide Restoration Silviculture. 2003. R. Mitchell, B. Palik, J. Franklin, K. Kirkman, T. Engstrom, M. Hunter, and L. Smith. *Funding*: National Commission on Science for Sustainable Forestry, \$200,000.
2. Evaluating riparian area dynamics, management alternatives and impacts of harvest practices. 1996-01. J. Perry, C. Blinn, B. Palik, S. Verry, C. Richards, L. Johnson, R. Newman, and R. Dahlman. *Funding*: Minnesota Forest Resource Council, \$190,000; NACSI, \$40,000.
3. Overstory structure and regeneration processes in longleaf pine ecosystems. 1997-01. R. Mitchell, B. Palik, R. Jones, and P. Mou. *Funding*: USDA National Research Initiative Competitive Grants, \$450,000.

4. Ecological characteristics of seasonal ponds in northern forest landscapes. 1997-01. B. Palik, D. Batzer, R. Buech. *Funding*: North Central Research Station, USDA Forest Service.
5. Using hydrogeomorphic processes to ecologically identify riparian areas. 1997-01. C. Goebel, K. Pregitzer, B. Palik, A Risch. *Funding*: North Central Research Station, USDA Forest Service.
6. Effects of flooding on the longleaf pine ecosystem. 1994-97. W. Michener, E. Blood, S. Golladay, K. Kirkman, R. Mitchell, and B. Palik. *Funding*: National Science Foundation, \$32,000.
7. The Influence of Height Growth Rates and Time of Establishment on Crown Stratification During Secondary Forest Succession. 1990-92. B. Palik and K. Pregitzer. *Funding*: Dept. of Forestry, Michigan State University (Macentire-Stenis Program), \$40,000.