

# Kurt S. Pregitzer, Dean

College of Natural Resources  
University of Idaho

## Contact Information

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## **ACADEMIC APPOINTMENTS AND ADMINISTRATIVE EXPERIENCE**

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2010-present Thomas Reveley Professor and Dean, College of Natural Resources, University of Idaho  
2007-2010 Professor and Chair, Department of Natural Resources and Environmental Science, University of Nevada, Reno  
2005-2007 Director, Midwestern Regional Center of the DOE National Institute for Climatic Change Research  
2004-2007 Director, Ecosystem Science Center, Michigan Technological University  
1994-2007 Professor, School of Forestry and Wood Products, Michigan Technological University [Academic (9-month) appointment]  
2001-2002 Project Leader, USDA Research Work Unit 4159: Belowground Processes that Sustain Productivity and Ecosystem Function in Northern Forests, USFS North Central Research Station, Houghton, Michigan  
1991-1994 Professor, Department of Forestry, Michigan State University  
1986-1991 Associate Professor, Department of Forestry, Michigan State University  
1983-1986 Assistant Professor, Department of Forestry, Michigan State University  
1981-1983 Assistant Professor, Department of Forest Resources, University of Idaho  
  
1989-1990 Sabbatical, University of Michigan  
2002-2003 Sabbatical, Colorado State University

## **EDUCATION**

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1981 Ph.D., Natural Resources (Ecology), University of Michigan  
1978 M.S., Forestry, University of Michigan  
1976 Research Fellow, Hessen Forestry Research Institute, Germany  
1975 B.S., Forestry, University of Michigan

GRADUATE ADVISOR: BURTON V. BARNES (M.S., PH.D.)

**PROFESSIONAL SERVICE, HONORS, & AWARDS**

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- 2012 Panel Member, National Science Foundation (Long-Term Ecological Research)
- 2011 – present Board of Directors, Forest History Society
- 2011 Distinguished International Scientist, Chinese Academy of Sciences
- 2008 Executive Committee, Wildfires and Invasive Plants in American Deserts
- 2008 Great Basin Management Program Coordinating Committee
- 2006-2007 Panel Member, National Science Foundation (Coupled Human – Natural Systems)
- 2005 Panel Member, Department of Energy, Populus Carbon Sequestration
- 2004 Panel Member, Department of Energy, Program for Ecosystem Research (PER)
- 2004 Panel Member, National Science Foundation (Long-Term Ecological Research)
- 2004 Identified by Thomson-ISI (Current Contents) as one of the world’s most highly cited scientists
- 2004-2005 National Institute for Global Environmental Change (NIGEC) Board of Trustees
- 2002-2003 Program Manager, USDA NRI Competitive Grants Program (Soils and Soil Biology)
- 2002 Barrington Moore Memorial Award for Outstanding Accomplishments in the Advancement of Forest Biology, Society of American Foresters
- 2002 Panel Member, National Science Foundation (Long-Term Ecological Research)
- 2000 Panel Member, USDA NRI Competitive Grants Program (Soils and Soil Biology)
- 2000 Michigan Association of Governing Boards Distinguished Faculty Award
- 1999-2000 Panel Member, National Science Foundation (Integrated Challenges in Environmental Biology)
- 1999 Michigan Technological University All-University Research Award
- 1998-2000 Associate Editor, Ecology and Ecological Monographs
- 1997-1999 Associate Editor, Tree Physiology
- 1995 Certificate of Appreciation to Acknowledge the Contributions to Excellence in Forest Science, National Research Council of Canada
- 1995 Certificate of Appreciation in Recognition of Contributions to the Development of the first Ecological Classification and Inventory Field Guide, USDA Huron-Manistee National Forest
- 1994-1998 Associate Editor, Journal of Ecology
- 1994 Certificate of Merit, Michigan Chapter, Society of American Foresters
- 1993-1996 Panel Member, National Science Foundation (Ecosystems Program)
- 1993 Chairman, Michigan Chapter, Society of American Foresters
- 1991-1994 Associate Editor, Canadian Journal of Forest Research (Forest Ecology)
- 1991-2001 Science Advisory Committee of the Nature Conservancy, Michigan Chapter
- 1990-1994 Panel Member, Minnesota Legislative Commission on Natural Resources
- 1990 Panel Member, USDA Competitive Grants Program (Forest Biology)
- 1990 Chairman, Lower Michigan Chapter, Society of American Foresters
- 1986-87 Secretary/Treasurer, Lower Michigan Chapter, Society of American Foresters
- Member: American Association for the Advancement of Science, Ecological Society of America, Society of American Foresters, Xi Sigma Pi

## **SUMMARY OF PROFESSIONAL ACCOMPLISHMENTS**

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As Dean of the College of Natural Resources at the University of Idaho, the Dean established a new Student Services Center, founded a student ambassador program and a new veteran's program. Research under the Dean's leadership research expenditures grew 28% and indirect cost recovery grew 41% following a new program to incentivize recovery of both direct and indirect costs. Dean Pregitzer successfully completed the College's current 23 million dollar capital campaign and garnered the first fully endowed professorship at the University of Idaho. A new sustainable wood building was completed, funded completely by donors. Dr. Pregitzer has published more than 225 refereed papers and 16 book chapters and has trained 41 graduate students. In 2004, Thomson-ISI ("Current Contents") identified the world's most cited authors and placed Dr. Pregitzer on their list of Highly Cited Researchers (Ecology and Environment). The Highly Cited list represented less than one half of one percent of all publishing researchers across all fields of science. Publishing with 250 different co-authors, Dr. Pregitzer is highly collaborative and interdisciplinary. Google Scholar reports the Dean has been cited 19,752 times, with an h-index of 77, and an i-10 index of 202, making him the most highly-cited scholar at the University of Idaho across all disciplines. Dr. Pregitzer has served as an Associate Editor for the *Canadian Journal of Forest Research*, *Tree Physiology*, the *Journal of Ecology* (British Ecological Society), and *Ecology and Ecological Monographs*, the official outlet for the Ecological Society of America. Dr. Pregitzer was elected Chairperson of the Michigan Chapter of the Society of American Foresters (SAF) in 1993; at that time, SAF represented the more than 650 professional foresters in Michigan. Through an interagency personnel agreement (IPA) during the 2000-2001 fiscal years, Dr. Pregitzer served as a USDA Project Leader, and established a new USDA Forest Service Research Work Unit in Houghton. He was responsible for hiring all personnel and remodeling the federal laboratory on the Michigan Tech campus. This was a capacity building mission, and was successfully completed in two years. In 2005, Dr. Pregitzer established a new summer Global Change Institute for High School teachers with the help of the Department of Education at Michigan Tech. He also established the Ecosystem Science Center (ESC) in 2004 and served as its Director. ESC expenditures rose from 2 to over 6 million dollars in the first three years. ESC supports mini-grants and travel grants for graduate students, and facilitates younger faculty in terms of applying for competitive grants. In 2005, Dr. Pregitzer was awarded responsibility for the Midwestern Regional Center of the DOE National Institute for Climatic Change (NICCR) through a competitive, peer-reviewed process. He served as Director of the Midwestern NICCR Center (13 Midwestern States) for two years and supervised a competitive extramural grants program of 2 million dollars each year, including all aspects of pre- and post-award grant administration. Dr. Pregitzer has been a panel member for the National Science Foundation (>10 separate panels), USDA Competitive Grants (3 separate panels) and the Minnesota Legislative Commission on Natural Resources. For two years, he was the program manager for the USDA NRI Soils and Soil Biology Panel. Dr. Pregitzer has garnered more than 25 million dollars in competitive extramural support over the past 15 years. Dr. Pregitzer completed the LEAD21 – Leadership for the 21<sup>st</sup> Century – Land Grant Leadership program.

## **SUMMARY OF TEACHING EXPERIENCE**

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Dr. Pregitzer taught undergraduate and graduate courses continuously at the university level for more than 25 years. Over the years, courses included: Wildland Ecology, Wildland Resource Conservation, Plants and their Environment, Forest Ecology, Vegetation of North America, Biology of Woody Plants, Advanced Terrestrial Ecology, Range and Forest Plants, Advanced Ecosystem Science, and Research Methods and Ethics. A significant component of this experience involved field instruction, which has ranged from the mountains of central Idaho where students from the University of Idaho College of Natural Resources attended the field station in McCall, Idaho, to the woodlots surrounding the campus of Michigan State

University, to the forests of the western Upper Peninsula of Michigan, to the mountains and deserts of the Great Basin and Sierra Nevada.

### STUDENTS & SCIENTISTS TRAINED BY K.S. PREGITZER

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#### GRADUATE STUDENTS

|                           |                           |                          |
|---------------------------|---------------------------|--------------------------|
| Brian Anderson, M.S.      | Noah Karberg, M.S.        | Jessica Hancock, Ph.D.   |
| Diane Burbank, M.S.       | Kyle Keller, M.S.         | Eric Heitzman, Ph.D.     |
| Duen-Huey Chiang, M.S.    | Michael Leahy, M.S.       | Ronald Hendrick, Ph.D.   |
| William Cole, M.S.        | Kathy Mass, M.S.          | William Horwath, Ph.D.   |
| Mary Collins, M.S.        | Jennifer Maziasz, M.S.    | George Host, Ph.D.       |
| Jeffrey Crawford, M.S.    | David Price, M.S.         | Rose-Marie Muzika, Ph.D. |
| Jared DeForest, M.S.      | Raysa Roque-Riviera, M.S. | Brian Palik, Ph.D.       |
| Jennifer Eikenberry, M.S. | Anita Reisch, M.S.        | Matt Powers, Ph.D.       |
| Jill Fisher, M.S.         | Katrin Schmidt, M.S.      | Alan Talhelm, Ph.D.      |
| Daniel Goldfarb, M.S.     | Richard Smith, M.S.       | Linda Van Diepen, Ph.D.  |
| Peter Greaney, M.S.       | Shannon Brown, Ph.D.      | Mengxue Xia, Ph.D.       |
| Jessica Hancock, M.S.     | Andrew Burton, Ph.D.      | Donald Zak, Ph.D.        |
| Leslie Jagger, M.S.       | Omar Essady, Ph.D.        | Quanfa Zhang, Ph.D.      |
| Robin Johnson, M.S.       | Eugenie Euskirchen, Ph.D. |                          |
| Evan Kane, M.S.           | Charles Goebel, Ph.D.     |                          |

#### POST-DOC

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|-------------------------------|----------------------------|
| Dr. Kate Bradley, Post-Doc    | Dr. Wendy Loya, Post-Doc   |
| Dr. John King, Post-Doc       | Dr. Phu Nuygen, Post-Doc   |
| Dr. Mark Kubiske, Post-Doc    | Dr. Alan Talhelm, Post-Doc |
| Dr. Gladys Loranger, Post-Doc |                            |

### RESEARCH EXPERIENCE FOR UNDERGRADUATES

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Normal grants and NSF REU supplemental grants have supported a rich and varied research experience for undergraduates over the past 15 years. Dr. Pregitzer has employed more than 170 undergraduate student assistants in his laboratory since 1994 (>50% women and minorities), and they have worked more than 30,000 hours in the field and laboratory. These have included NSF REU supplement students (9 female, 4 male); approximately 50% of these students have gone on to pursue graduate degrees. Seven of Dr. Pregitzer's peer-reviewed journal publications and four of his presentations at ESA annual meetings include co-authors who were undergraduate students when the research was performed. In 2004-2005, MTU hosted a NSF REU Site entitled *Ecosystems in Transition: The Role of Research in Assessing Ecosystem Responses to a Changing Environment*. The Site REU grant supported 20 REU students from around the country during the summers of 2004 and 2005.

## UNIVERSITY SERVICE

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### *University of Idaho, Moscow*

On July 30, 2010, Dr. Pregitzer became dean of the College of Natural Resources and Thomas L. Reveley Professor of Forest Ecology at the University of Idaho. As Dean, he administers both the academic program (instruction, research and outreach) and University services in support of the academic program (student affairs, information technology, and strategic planning). Dr. Pregitzer is responsible for all aspects of curriculum planning and development, faculty and staff evaluation and development, budget and facilities. He plays a leadership role in fund raising, recruiting and retaining a diverse body of students and faculty, representing the college to the external community, and facilitating interdisciplinary collaborations with other colleges, universities, Native American Tribes, industry, and state and federal agencies.

Dean Pregitzer is actively involved with the Idaho state legislature, the joint finance committee of the Idaho legislature, the Idaho Governor's office, federal agencies and industries on numerous issues important to the state. He is involved with the Chinese Academy of Sciences and has increased U-Idaho's presence at CAS institutes in Beijing, Shanghai, Guangzhou and Wuhan. He is active as a reviewer for both Science and Nature.

Since his arrival at the University of Idaho, Dr. Pregitzer has served on the U-Idaho President's cabinet as one of two Deans, the Provost's Council, Faculty Senate, the Arboretum Executive Committee, the newly formed Board of Deans to oversee interdisciplinary academic programs, and the "20-20 committee" to forecast the enrollment and financial position of the university in 2020. He has also worked to enhance the experience of everyone involved with the university in numerous ways. For example, he has collaborated with the campus sustainability center to study ways to lower the campus carbon footprint, established an internal electronic newsletter to promote communication within the college, initiated bottom-up (faculty-driven) curriculum reform to promote more efficient use of faculty time, launched a capital campaign to promote experiential learning, and promoted an active program of STEM K-12 experiential learning at the college field campus in McCall, Idaho. He partnered with the Dean of Engineering to compile University-wide data to fulfill the Focus for the Future program prioritization mandate of the Idaho State Board of Education. He has also established a new student services center to better serve students and a new student ambassador program to promote recruitment and the quality of student life in the college, established transfer agreements with community colleges, remodeled the student lounge and student services center using donor funds, sponsored spring-break service learning experiences for Native American students in Hawaii and fire ecology students in Nebraska, and promoted the establishment of interdisciplinary research centers across campus. He spearheaded collaboration leading to the construction of a new building at the plant nursery funded entirely by private dollars and donated building materials and built solely of Idaho forest products.

### *University of Nevada-Reno*

At the University of Nevada-Reno, Dr. Pregitzer became the Chair of the Department of Natural Resources and Environmental Science (2007- 2010) in the College of Agriculture, Biotechnology and Natural Resources (CABNR), where he was responsible for all aspects of department administration, including all academic, personnel and fiscal management activities. He implemented new undergraduate outreach and

recruitment activities, which were very successful, and he successfully completed a 10-year CSREES Program Review of the Department. Soon after arriving, he became a member of the University of Nevada-Reno's President's *ad hoc* committee to Review Cooperative Extension and Extended Studies (2007). Departmental changes included the re-instatement of the Department Executive Committee and external reviews of the Department's undergraduate degree program with representatives from the BLM, NRCS, Fish and Wildlife Service, USFS, NDOW, and NDEQ. In 2008, Dr. Pregitzer was elected by the UNR-CABNR faculty to serve on the Provost's campus-wide strategic planning committee, composed of Deans and Elected Faculty Members from each College. The committee was designed to create a strategic long-term plan for every section of the University, which was consistent with the land-grant mission of balance between instruction, research, and public outreach.

#### *Michigan Technological University*

At Michigan Technological University, Dr. Pregitzer served as a Chair on the Curriculum Committee; Chair, Semester Transition Committee; Chair, University-Wide Research Task Force (appointed by MTU President Curt Tompkins); Chair, Committee to Establish a (degree-granting) Program in Ecology and Environmental Science (approved by MTU Board of Control and State Board of Higher Education, 1996 & 1997, respectively); and a Member, School of Forest Resources and Environmental Science Academic Council. Dr. Pregitzer led a new initiative to improve the Nordic ski trails on campus, which involved the Athletic Director, Dean of Forestry, and Provost, among others. In 2003, he authored a successful bid proposal to bring the 2006 USSA Junior Olympic Ski Races to the MTU campus, followed by a successful bid proposal to host the 2007 and 2008 USSA Senior National Nordic Ski Races. In 2004, he was appointed by MTU President Glenn Mroz to serve on a university-wide task force to evaluate the cost of graduate education, and he was also appointed by the Provost to serve on the university-wide strategic planning working group, a committee comprised of Deans, Senior Executive Officers and two faculty members. He was appointed (2004) by the Vice President of Research to the University-Wide Research Advisory Committee. He was elected in 2004 by the Faculty Senate to serve on the campus-wide faculty budget reduction committee and also elected as President of the Graduate Faculty Council (GFC). The GFC has representatives from all academic units and it oversees and develops policy for graduate education across campus (e.g. graduate student health care, new degree programs, etc.). He served on the Society of American Foresters reaccreditation committee that successfully wrote a report to reaccredit the undergraduate forestry curriculum. He was appointed (2005) by President Glenn Mroz to a Blue Ribbon Panel to understand the factors used to determine how national university rankings are established. He established a new USDA Research Work Unit (RWU 4159) at the USDA Forestry Sciences Laboratory on campus, authored a research plan, held Washington Office site review (5-year plan officially approved by Washington Office in 2001), hired three permanent Ph.D. scientists (all top candidates successfully recruited), and authored and established an official 5-year MOU to promote research collaboration between the Federal lab and MTU. Dr. Pregitzer led the campus-wide effort to develop an automated, web-based, system to update research accounts nightly, a system now used by all academic units.

#### *Michigan State University*

At Michigan State University, Dr. Pregitzer was one of a small number of faculty from several different departments that worked together to establish a new inter-departmental graduate program in Ecology and Evolutionary Biology. He also served on the Provost's Natural Areas Committee; Ecology and Evolutionary Biology Executive Committee; Chair, Ecology and Evolutionary Biology Curriculum Committee; Chair,

Graduate Committee; Chair, University Library Committee; Chair, Curriculum Committee; Chair, Semester Transition Committee; and Chair, Promotion and Tenure Committee.

## **SELECTED INVITED PRESENTATIONS AND SEMINARS**

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*Note:* Many invited presentations and professional activities are not listed for the sake of brevity. None of more than 200 published abstracts are listed. No promotion and tenure reviews for other institutions are listed, nor are reviews for journals or scientific panels, which are numerous and range across many different journals and peer-review panels. Extension/outreach workshops are also not listed, though they have been numerous over the years. Many presentations, editorial boards, and opportunities to review are now routinely declined simply for lack of time or due to pending commitments.

Invited Speaker: “Uncertainties in the Global Forest Carbon Cycle.” Finnish Forest Research Institute, Helsinki, Finland. September 7 – 18, 2013.

Distinguished International Scientist: Invited by the Chinese Academy of Sciences (CAS) to tour and lecture at CAS institutes, Beijing, Shanghai, Guangzhou and Wuhan. May 19 – May 31, 2011.

Invited Speaker: “Ecosystem Assembly and Terrestrial Carbon Balance Under Elevated Atmospheric Carbon Dioxide and Tropospheric Ozone.” Peking University, Beijing, China. August 17-23, 2009.

Invited Speaker: Briefing to the Deputy Undersecretary of Agriculture, Joseph Dunn. September 12, 2008.

Invited Speaker: “Ecosystem Assembly and Terrestrial Carbon Balance Under Elevated Atmospheric Carbon Dioxide.” Seminar at Washington State University, Department of Biological Sciences, Pullman, WA. October 6, 2008.

Invited: White House Conference on Wildlife Policy. Washington D.C. October 1, 2008.

Invited Speaker: “A bridge from atmosphere to rhizosphere: Plant physiology actuates change in soil biogeochemical cycles.” BIOGEMON: 5<sup>th</sup> International Symposium on Ecosystem Behavior in Santa Cruz, CA. June 25-30, 2006.

Invited Speaker: “The contribution of plant – soil interactions to biogeochemical cycles in a changing world.” American Geophysical Union (AGU) annual meeting, San Francisco, CA. December 5-9, 2005.

Invited Speaker: “The contribution of plant – soil interactions to biogeochemical cycles in a changing world.” NSF Sponsored Workshop “Frontiers in Exploration of the Critical Zone.” University of Delaware. October 24-26, 2005.

Invited Speaker: “Plant-Microbe Interactions in Soil Regulate Ecosystem Responses to Atmospheric Carbon Dioxide.” XVII International Botanical Congress, Vienna, Austria. July 17-23, 2005.

Invited Speaker: “Atmospheric ozone and carbon dioxide fundamentally alter ecosystem carbon cycling.” Kellogg Biological Station, Michigan State University, Hickory Corners, MI. December 3, 2004.

Invited Speaker: “The role of fine root production and mortality in biogeochemical cycles.” COST E38 European Union Working Group Workshop “Woody Root Processes under a Changing Environment,” Thessaloniki, Greece. October 27-30, 2004.

Keynote Speaker: Fine Root Turnover Workshop, Uppsala, Sweden. Also headed a discussion group designed to produce the workshop synthesis, which was published in *Plant and Soil* (276:1-8). September 7-11, 2004.

Invited Speaker: “Exploiting the Pre-European Settlement Forest, Michigan’s Enduring Ecological Legacy.” North American Forest Biology Workshop, Houghton, Michigan. July 11-14, 2004.

Invited seminar at Northern Arizona University in their distinguished ecologist seminar series. April 14, 2004.

Attended the CCSP-Ecosystems Workshop (by invitation only) in Washington, DC. This workshop was sponsored by the interagency global change working group (DOE, NSF, NASA, USDA) and was designed to set national research priorities in the area of global change. February 23-25, 2004.

Invited to give opening presentation on root respiration and lead a working group at the CaRTE Workshop hosted by the University of California Irvine and sponsored by NSF. The workshop was attended by three NSF Program Officers and 30 of the world’s top scientists in the area of global change. The purpose was to develop a white paper for NSF to guide research priorities over the next 5 years. January 22-24, 2004.

Invited Seminar at the University of California Riverside in their distinguished ecologist seminar series (FACE results). January 20, 2004.

Keynote Speaker: “Great Lakes Forests of the Future: The View from the Ground UP.” Forest and Wildlife Research Review, Duluth, MN. Presentation to 245 foresters and wildlife biologist. January 15, 2004.

Invited Speaker: “The Influence of Physiology & Phenology on Soil Respiration.” DOE-NIGEC Workshop on Soil Respiration, Boulder, CO. October 13, 2003.

Invited Speaker: “Factors Controlling Carbon Cycling in Forests.” NIGEC all-investigator meeting, New Orleans, LA. April 4, 2003.

## **PUBLICATIONS (>225 REFEREED PUBLICATIONS; 16 BOOK CHAPTERS)**

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### ***REFEREED (PEER REVIEWED) ARTICLES IN JOURNALS***

**(GOOGLE SCHOLAR: CITATIONS 19706, H-INDEX 77, I10-INDEX 202)**

- Voelker, S.L., J.R. Brooks, F.C. Meinzer, R. Anderson, M.K.-F. Bader, G. Battipaglia, K.M. Becklin, D. Beerling, D. Bert, J.L. Betancourt, T.E. Dawson, J.-C. Domec, R. P. Guyette, C. Körner, S.W. Leavitt, S. Linder, J.D. Marshall, M. Mildner, J. Ogée, I. Panyushkina, H.J. Plimpton, K.S. Pregitzer, M. Saurer, A.R. Smith, R.T.W. Siegwolf, M.C. Stambaugh, A.F. Talhelm, J.C. Tardif, P.K. Van de Water, J.K. Ward, L. Wingate. 2015 (in review). A dynamic leaf gas-exchange strategy is conserved in woody plants under changing ambient CO<sub>2</sub>: evidence from carbon isotope discrimination in paleo and CO<sub>2</sub> enrichment studies. *Global Change Biology*
- Ibáñez, I., D.R. Zak, A.J. Burton and K.S. Pregitzer. 2015 (in press). Chronic nitrogen deposition alters allometric relationships: Implications for biomass production and carbon storage. *Ecological Applications*.
- Gahagan, A. C.P. Giardina, J.S. King, D. Binkley, K.S. Pregitzer, and A.J. Burton. 2015. Carbon fluxes, storage and harvest removals through 60 years of stand development in red pine plantations and mixed hardwood stands in Northern Michigan, USA. *Forest Ecology and Management* 337: 88-97.
- McCormick, M.L., I.A. Dickie, D.M. Eissenstat, T.J. Fahey, C.W. Fernandez, D. Guo, H-S. Helmisarri, E.A. Hobbie, C.M. Iversen, R.B. Jackson, J. Leppalammi-Kujansuu, R.J. Norby, R.J. Phillips, K.S. Pregitzer, S.G. Pritchard, B. Rewald, and M. Zadworny. 2015. Redefining fine roots improves understanding of belowground contributions to terrestrial biosphere processes. *New Phytologist* 207: 505-518.



- Xia, M., A.F. Talhelm and K.S. Pregitzer. 2015. Fine roots are the dominant source of recalcitrant plant litter in northern hardwood forests. *New Phytologist* DOI: 10.1111/nph.13494
- Talhelm, A.F., K.S. Pregitzer, M.E. Kubiske, D.R. Zak, C.E. Company, A.J. Burton, R.E. Dickson, G.R. Hendrey, J.G. Isebrands, K.F. Lewin, J. Nagy and D.F. Karnosky. 2014. Elevated carbon dioxide and ozone alter productivity and ecosystem carbon content in northern temperate forests. *Global Change Biology* 20: 2492–2504.
- Talhelm, A.F., A.J. Burton, K.S. Pregitzer, M.A. Campione. 2013. Chronic nitrogen deposition reduces the abundance of dominant forest understory and groundcover species. *Forest Ecology and Management* 293: 39-48.
- Burton, A.J., J.C. Jarvey, M.P. Jarvi, D.R. Zak, and K.S. Pregitzer. 2012. Chronic N deposition alters root respiration-tissue N relationship in northern hardwood forests. *Global Change Biology* 18: 258-266.
- Goebel, P.C., K.S. Pregitzer and B.J. Palik. 2012. Influence of flooding and landform properties on riparian plant communities in an old-growth northern hardwood watershed. *Wetlands* 32: 679-691.
- Goebel, P.C., B.J. Palik and K.S. Pregitzer. 2012. Structure and composition of riparian forests in an old-growth northern hardwood–hemlock watershed. *Forest Ecology and Management* 280: 52-61.
- Patterson, S.L., D.R. Zak, A.J. Burton, A.F. Talhelm, and K.S. Pregitzer. 2012. Simulated N deposition negatively impacts sugar maple regeneration in a northern Hardwood ecosystem. *Journal of Applied Ecology* 49: 155-163.
- Whittinghill, K.A., W.S. Curie, D.R. Zak, A.J. Burton, and K.S. Pregitzer. 2012. Anthropogenic N deposition increases soil C storage by decreasing the extent of litter decay: analysis of field observations with a biogeochemical model. *Ecosystems* 15: 450-461.
- Talhelm, A.F., K.S. Pregitzer, A.J. Burton, and D.R. Zak. 2012. Air pollution and the changing biogeochemistry of northern forests. *Frontiers in Ecology and the Environment* 10: 181–185.
- Talhelm A.F., K.S. Pregitzer, and C.P. Giardina. 2012. Long-term leaf production response to elevated atmospheric carbon dioxide and tropospheric ozone. *Ecosystems* 2012 15: 71-82.
- Zak, D. R., M.E. Kubiske, K.S. Pregitzer, and A.J. Burton. 2012. Atmospheric CO<sub>2</sub> and O<sub>3</sub> alter competition for soil nitrogen in developing forests. *Global Change Biology* 18: 1480–1488.
- Brantley, S.L., J.P. Megonigal, F.N. Scatena, Z. Balogh-Brunstad, R.T. Barnes, M.A. Bruns, P. Van Cappellen, K. Dontsova, H.E. Hartnett, A.S. Hartshorn, A. Heimsath, E. Herndon, L. Jin, C.K. Keller, J.R. Leake, W.H. McDowell, F.C. Meinzer, T.J. Mozdzer, S. Petsch, J. Pett-Ridge, K.S. Pregitzer, P.A. Raymond, C.S., Riebe, K., Shumaker, A. Sutton-Grier, R. Walter, and K. Yoo. Twelve testable hypotheses on the geobiology of weathering. 2011. *Geobiology*: 9:140-165.
- Burton A.J., J.C. Jarvey, M.P. Jarvi., D.R. Zak., and K.S. Pregitzer. 2011. Chronic N deposition alters root respiration-tissue N relationship in northern hardwood forests. *Global Change Biology* 18(1):258-266.
- Edwards I.P., D.R. Zak, H. Kellner, S.D. Eisenlord, K.S. Pregitzer. 2011. Simulated Atmospheric N Deposition Alters Fungal Community Composition and Suppresses Ligninolytic Gene Expression in a Northern Hardwood Forest. *PLoS ONE* 6(6): e20421.
- Obrist D., D.W. Johnson, S.E. Lindberg, Y. Luo, O. Hararuk, R. Bracho, J.J. Battles, D.B. Dail, R.L. Edmonds, R.K. Monson, S.V. Ollinger, S.G. Pallardy, K.S. Pregitzer, D.E. and Todd. 2011. Mercury Distribution Across 14 U.S. Forests. Part I: Spatial Patterns of Concentrations in Biomass, Litter, and Soils. *Environmental Science & Technology* 45: 3974–3981.
- Patterson S.L., D.R. Zak, A.J. Burton, A.F. Talhelm, and K.S. Pregitzer. 2011. Simulated N deposition negatively impacts sugar maple regeneration in a northern hardwood ecosystem. *Journal of Applied Ecology* 49: 155-163.

- Powers, M.D., K.S. Pregitzer, B.J. Palik, and C.R. Webster. 2011. The physiological basis for regeneration response to variable retention harvest treatments in three pine species. *Forestry* 84: 13-22.
- Roque-Rivera R., A.F. Talhelm, D.W. Johnson, V.L. Chiang, and K.S. Pregitzer. 2011. Effects of lignin-modified *Populus tremuloides* on soil organic carbon. *Journal of Plant Nutrition and Soil Science* 174(5):818-826.
- Talhelm A.F., K.S. Pregitzer, and A.J. Burton. 2011. No evidence that chronic nitrogen additions increase photosynthesis in mature sugar maple forests. *Ecological Applications* 21: 2413-2424.
- van Diepen, L.T.A., E.A. Lilleskov, and K.A. Pregitzer. 2011. Simulated nitrogen deposition affects community structure of arbuscular mycorrhizal fungi in northern hardwood forests. *Molecular Ecology* 20: 799-811.
- Zak D.R., K.S. Pregitzer, A.J. Burton, I.P. Edwards, and H. Kellner. 2011. Microbial responses to a changing environment: implications for the future functioning of terrestrial ecosystems. *Fungal Ecology* 4: 386-395.
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## AWARD HISTORY

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- Title: Collaborative LTREB Renewal: Long-Term Ecosystem Response to Chronic Atmospheric Nitrate Deposition  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$35,945  
Duration: 09/01/2013 – 08/31/2018
- Title: McIntire-Stennis Cooperative Forestry Research FY 12 FGO  
U.S. Department of Agriculture NIFA  
PI: K.S. Pregitzer  
Award Amount: \$642,342  
Duration: 10/01/2012 – 08/31/2013
- Title: REU Supplement for Collaborative LTREB: Long-Term Ecosystem Response to Chronic Atmospheric Nitrate Deposition  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$1,086  
Duration: 01/05/2011 – 08/31/2013



- Title: McIntire-Stennis Cooperative Forestry Research FY '11 FGO  
U.S. Department of Agriculture NIFA  
PI: K.S. Pregitzer  
Award Amount: \$668,031  
Duration: 10/01/2011 – 08/31/2012
- Title: REU Supplement for Collaborative LTRED: Long-Term Ecosystem Response to Chronic Atmospheric Nitrate Deposition  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$7,499  
Duration: 01/05/2011 – 08/31/2013
- Title: REU Supplement: Collaborative LTREB  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$7,499  
Duration: 01/01/2011 – 08/31/2013
- Title: Collaborative LTREB: Long-Term Ecosystem Response to Chronic Atmospheric Nitrate Deposition  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$93,048  
Duration: 09/01/2010 – 08/31/2013
- Title: Ecosystem Response to Elevated Tropospheric CO<sub>2</sub> and O<sub>3</sub> is Regulated by Plant-Microbe Interactions in Soil  
U.S. Department of Energy  
PI: K.S. Pregitzer  
Award Amount: \$182,268  
Duration: 08/09/2010 – 08/14/2011
- Title: Impacts of Interacting Elevated Atmospheric CO<sub>2</sub> & O<sub>3</sub> on the Structure & Functioning of a Northern Forest Ecosystem: Operating and Decommissioning the ASPEN FACE Experiment  
U.S. Department of Energy  
PI: K.S. Pregitzer  
Award Amount: \$440,293  
Duration: 08/01/2010 – 03/31/2014
- Title: Elevated Atmospheric CO<sub>2</sub> and O<sub>3</sub>  
Michigan Technical University  
PI: K.S. Pregitzer  
Award Amount: \$640,293  
Duration: 08/01/2010 – 02/28/2013
- Title: Atmospheric Nitrogen Deposition and Microbial Mechanisms Enhancing Soil Carbon Storage  
U.S. Department of Energy  
PI: K.S. Pregitzer  
Award Amount: \$524,499  
Duration: 07/01/2010 – 06/30/2015

- Title: Rangeland Ecosystems Dynamics  
National Institute of Food and Agriculture  
PI: K.S. Pregitzer  
Award Amount: \$279,200  
Duration: 07/01/2010 – 06/30/2013
- Title: Atmospheric Nitrogen Deposition and Microbial Mechanisms Enhancing Soil Carbon Storage  
The Regence of University of Michigan  
PI: K.S. Pregitzer  
Award Amount: \$279,200  
Duration: 07/01/2010 – 06/30/2013
- Title: Great Basin CESU Program Support for National Park Service  
Great Basin CESU  
PI: K.S. Pregitzer  
Award Amount: \$353,374  
Duration: 07/01/2010 – 06/30/2011
- Title: LTREB: Long-term Ecosystem Response to Chronic Atmospheric Nitrate Deposition  
National Science Foundation  
PI: K.S. Pregitzer  
Award Amount: \$96,439  
Duration: 09/01/2008 – 08/31/2013
- Title: Interacting Elevated Atmospheric CO<sub>2</sub> and O<sub>3</sub>  
Grant Contract #950413Z2 DOE  
PI: K.S. Pregitzer  
Award Amount: \$395,732  
Duration: 04/04/2008 – 03/30/2010
- Title: Impacts of Interacting Atmospheric CO<sub>2</sub> and O<sub>3</sub> on the Structure and Functioning of a  
Northern Forest Ecosystem: Operating and Decommissioning the Aspen FACE Project  
Grant Contract #DE-FG02-95ER62125 DOE PER  
PI: K.S. Pregitzer  
Award Amount: \$3,982,911  
Duration: 04/01/2008 – 03/31/2012
- Title: Altered Lignin Biosynthesis Leading to Increased Syringyl: Guaiacyl Monolignols in *Populus tremuloides*: Effects on Plant Growth and Soil Carbon Formation  
Grant Contract #2003-11Z5-02 DOE  
PI: K.S. Pregitzer  
Award Amount: \$355,781  
Duration: 07/01/2007 – 01/31/2010
- Title: Agricultural Research of Mutual Interest  
Grant Contract #58-5325-8-353 DOA-ARS  
PI: K.S. Pregitzer  
Award Amount: \$55,055  
Duration: 07/01/2007 – 06/30/2009
- Title: Agricultural Research of Mutual Interest  
Grant Contract #58-5325-9-319 DOA

PI: K.S. Pregitzer  
Award Amount: \$40,695.97  
Duration: 07/01/2007 – 06/31/2008

Title: Effects on Plant Growth and Solid Carbon Formation  
PI: K.S. Pregitzer  
Award Amount: \$195,096  
Duration: 07/01/2007 – 01/31/2008

Title: From Genes to Ecosystems: Mechanisms Controlling Long-Term Ecosystem Response to Nitrogen Deposition  
Grant Contract #DEB-0735116 NSF  
PI: K.S. Pregitzer  
Award Amount: \$758,671  
Duration: 06/01/2007 – 08/31/2009

Title: USDA NIFA Rangeland Ecosystems  
Grant Contract #CESU-J8R07060016  
PI: K.S. Pregitzer  
Award Amount: \$17,790  
Duration: 09/01/2006 – 09/30/2010

Title: From Genes to Ecosystems: Mechanisms Controlling Long-Term Ecosystem Response to Nitrogen Deposition  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, E.A. Lilleskov  
Award Amount: \$815,000  
Duration: 09/01/2006 – 08/31/2009

Title: Midwestern Regional Center of the National Institute of Climate Change Research  
Grant Contract #DE-FC02-06ER64158 A001 DOE NICCR  
PI: K.S. Pregitzer  
Award Amount: \$3,791,864  
Duration: 12/01/2005 – 11/30/2007

Title: Ecosystem Response to Elevated Tropospheric CO<sub>2</sub> and O<sub>3</sub> is Regulated by Plant-Microbe Interactions in Soil  
Grant Contract #DE-FG02-93ER61666 DOE-PER  
PI: K.S. Pregitzer  
Award Amount: \$833,647  
Duration: 08/15/2005 – 08/14/2009

Title: Stable Isotope Analysis of the Red Pine Stand Dynamics  
Grant Contract #RJVA #05-JV-11231300-043 MOD 1 USDA  
PI: K.S. Pregitzer  
Award Amount: \$65,000  
Duration: 08/02/2005 – 09/30/2009

Title: Soil Carbon Cycling and Storage in Response to Elevated Tropospheric CO<sub>2</sub> and O<sub>3</sub> at the Aspen Face Experiment  
Grant Contract #05-CA-11242343-043 MOD #1 USAGR  
PI: K.S. Pregitzer  
Award Amount: \$39,000

Duration: 07/01/2005 – 06/30/2010

Title: Impacts of Elevated CO<sub>2</sub> and O<sub>3</sub> Alone and in Combination, on the Structure and Functioning of a Northern Forest Ecosystem: Operating the Aspen FACE User Facility  
Grant Contract #DE-FG02-95ER62125-AMD A019 USENE  
PI/Co-PIs: D.F. Karnosky, K.S. Pregitzer  
Award Amount: \$3,605,062  
Duration: 04/01/2005 – 03/31/2008

Title: Effects of Down- and Up-regulated Lignin Biosynthesis of Populus on Soil Carbon Transformation and Storage  
Grant Contract #03-1125-01 Sub award North Carolina State University  
PI/Co-PIs: K.S. Pregitzer, W.M. Loya  
Award Amount: \$481,975  
Duration: 03/01/2004 – 02/28/2007

Title: NSF REU Site Award: Ecosystems in Transition: The Role of Research in Assessing Ecosystem Responses to a Changing Environment  
Grant Contract #DBI-0353973 NSF  
PI/Co-PIs: A.J. Burton, K.S. Pregitzer  
Award Amount: \$155,463  
Duration: 03/01/2004 – 02/28/2006

Title: Nitrogen Saturation: Mechanisms and Consequences of Altered Ecosystem Metabolism  
Grant Contract #DEB-0315138 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.R. Zak  
Award Amount: \$816,001  
Duration: 09/01/2003 – 08/31/2006

Title: Nitrogen Saturation: Mechanisms and Consequences of Altered Ecosystem Metabolism REU Supplement  
Grant Contract #DEB-0315138-AMD003 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.R. Zak  
Award Amount: \$6,000  
Duration: 09/01/2003 – 08/31/2006

Title: Measuring Belowground Processes  
Grant Contract #03-CS-11231300-098 USDA Forest Service NCRS  
PI: K.S. Pregitzer  
Award Amount: \$30,000  
Duration: 08/11/2003 – 06/30/2006

Title: Effect of Increased Atmospheric CO<sub>2</sub> and O<sub>3</sub> on Mycorrhizal Fungal Communities  
Grant Contract #03-JV-112313000-053 USDA Forest Service NCRS  
PI: K.S. Pregitzer  
Award Amount: \$34,345  
Duration: 05/08/2003 – 05/15/2008

Title: Using Stable Isotopes to Determine the Rate and Fate of Canopy CO<sub>2</sub> Flux in the Aspen Face Experiment  
Grant Contract #02-JV-112313000-052 USDA Forest Service NCRS  
PI: K.S. Pregitzer

Award Amount: \$70,000  
Duration: 09/12/2002 – 07/31/2007

Title: Woody Plants, Carbon Allocation and Fine Roots  
Grant Contract #03-JV-11231300-073 USDA Forest Service  
PI/Co-PIs: K.S. Pregitzer  
Award Amount: \$48,004  
Duration: 07/02/2002 – 06/18/2008

Title: Genetic Differences and Resulting Like Histories Interact with Atmospheric CO<sub>2</sub> and O<sub>3</sub> to Control the Rate and Face of Photosynthate Accumulation and the Cycling of C and N in Northern Forests  
PI/Co-PIs: D.F. Karnosky, K.S. Pregitzer, J.G. Isebrands  
Award Amount: \$8,363,447  
Duration: 04/1/2002 – 03/31/2008

Title: Impacts of Greenhouse Gases (CO<sub>2</sub>, O<sub>3</sub>) on Carbon Sequestration and Storage in Regenerating Northern Hardwood Forest: The FACTS II (Aspen FACE) Study  
Agreement No. DE-FG02-95ER62125 DOE  
Co-PIs: D.F. Karnosky, K.S. Pregitzer  
Award Amount: \$2,976,039  
Duration: 01/28/2002 – 01/28/2005

Title: Response of Fine Root Chemistry to Elevated CO<sub>2</sub> and O<sub>3</sub>: Implications for Soil Carbon Cycling and Storage  
Agreement No. 2001-35107-11262 USDA  
PI/Co-PIs: J.S. King, K.S. Pregitzer, D.R. Zak  
Award Amount: \$265,000  
Duration: 09/15/2001 – 09/30/2005

Title: Carbon and Nitrogen Cycling in Aspen Forests  
Grant Contract #04-CA-11242343-069 USDA Forest Service  
PI: K.S. Pregitzer  
Award Amount: \$118,000  
Duration: 07/01/2001 – 06/30/2006

Title: The Movement of Elements Through Ecosystems: Major Research Instrumentation for the Integration of Research and Education  
Grant Contract #DBI-79566 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.J. Flaspohler, S.A. Green, W.C. Kerfoot  
Award Amount: \$894,130  
Duration: 10/01/2000 – 09/30/2004

Title: Director of Northern Ecosystem Processes  
Grant Contract #00-JV-11231300-086 USAGR USDA Forest Service  
PI: K.S. Pregitzer  
Award Amount: \$240,000  
Duration: 10/01/2000 – 09/30/2002

Title: Analyzing FIA Data in a GIS Context  
PI/Co-PIs: D.D. Reed, K.S. Pregitzer  
Award Amount: \$30,000  
Duration: 09/12/2000 – 07/11/2001

- Title: Plant-Microbe Interactions and the Production of Dissolved Organic Carbon and Nitrogen  
Grant Contract #DEB-0075397 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.R. Zak  
Award Amount: \$883,480  
Duration: 09/01/2000 – 08/31/2004
- Title: Ecological Circuitry Collaboratory  
Grant Contract #DEB-0075397 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.R. Zak  
Award Amount: \$50,755  
Duration: 09/01/2000 – 08/31/2002
- Title: Remote Sensing and Environmental Monitoring Institute: Second Year Funding  
PI/Co-PIs: W.C. Kerfoot, K.S. Pregitzer, S.A. Green, G. Bluth, B. Rose, B. Rafert, A. Pilant, A. Maclean, T. Drummer, J. Wells-Budd, A. Agarwal, D.J. Flaspohler, C. Young  
Award Amount: \$136,157  
Duration: 12/01/1998 – 12/31/2001
- Title: Collaborative Research on Below-Ground Ecosystem Function: Merging Long-Term Climate Monitoring with Soil, Root, and Food-Web Dynamics  
EPA Cooperative Agreement: C R 826541-01-0  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, J. Chen, S.A. Green  
Award Amount: \$387,595  
Duration: 06/15/1998 – 06/14/2002
- Title: Impacts of Greenhouse Gases (CO<sub>2</sub>, O<sub>3</sub>) on Carbon Sequestration and Storage in a Regenerating Northern Hardwood Forest: The FACTS II (Aspen FACE) Study  
Grant Contract #DE-FG02-95ER62125  
PI/Co-PIs: D.F. Karnosky, K.S. Pregitzer, D.D. Reed, G. Podila, G. Hendrey, G. Host, J.G. Isebrands, R. Lindroth, M.E. Kubiske, D.R. Zak  
Award Amount: \$1,922,686  
Duration: 09/01/1998 – 08/31/2001
- Title: Landscape Analysis of Michigan Resources  
PI/Co-PIs: D.D. Reed, K.S. Pregitzer  
Award Amount: \$28,021  
Duration: 07/01/1998 – 06/30/2000
- Title: Differences in C-allocation and N-cycling in Northern Hardwood Stands Located Along a 650 km Geographical Gradient  
Grant Contract #USDA McIntire Stennis  
PI: K.S. Pregitzer  
Award Amount: \$45,710  
Duration: 10/01/1997 – 09/30/2000
- Title: Study of the Distribution and Regeneration and Ethnobotany of Black Ash in the Northern Lake States  
Grant Contract #23-97-41-RJVA USDA  
PI: K.S. Pregitzer  
Award Amount: \$38,900  
Duration: 09/10/1997 – 06/09/2000

- Title: Geomorphic and Hydrologic Controls on Riparian Ecosystem Development in Two Northern Lake States Catchment Basins  
Grant Contract #23-97-24-RJVA USDA  
PI: K.S. Pregitzer  
Award Amount: \$101,320  
Duration: 06/13/1997 – 05/31/2001
- Title: Factors Regulating Belowground Carbon Allocation in Terrestrial Ecosystem: A Cross-Site Experiment  
Grant Contract #DEB-9615509 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton (R. L. Hendrick, M. F. Allen, R. W. Ruess)  
Award Amount: \$272,586  
Duration: 03/01/1997 – 02/28/2001
- Title: Collaborative Research: Factors Regulating Belowground Carbon Allocation in Terrestrial Ecosystems: A Cross-Site Experiment – REU  
Grant Contract #DEB-9615509 NSF  
PI: K.S. Pregitzer  
Award Amount: \$5,000  
Duration: 03/01/1997 – 02/28/2001
- Title: Community and Ecosystem Dynamics of a Northern Temperate Forest Exposed to CO<sub>2</sub> and O<sub>3</sub> in a FACE System  
Grant Contract #IBN-9652675 NSF-TECO II  
PI/Co-PIs: D.F. Karnosky, K.S. Pregitzer, M. Kubiske, D.D. Reed, G. Podila, M. Gale, R. Lindroth, G. Hendrey, J.G. Isebrands, J. Hom, J. Nagy, R. Dickson, G. Host, D.R. Zak, M. Coleman, K. Leewin, J. Zasada  
Award Amount: \$588,406  
Duration: 09/15/1996 – 08/31/1999
- Title: GIS Services for Isle Royale National Park, Pictured Rocks National Lakeshore, and Keweenaw National Historical Park  
PI/Co-PIs: M. Hyslop, A. Maclean, K.S. Pregitzer  
Award Amount: \$154,990  
Duration: 09/06/1996 – 09/30/2001
- Title: Effects of N Availability on Root Respiration and Microbial Community Composition – REU  
PI: K.S. Pregitzer  
Award Amount: \$10,000  
Duration: 09/01/1996 – 08/31/2000
- Title: Cycling of NO<sub>3</sub>-N in Northern Hardwood Forests: Regulation and Consequences of N Saturation  
Grant Contract #DEB-9629842 NSF  
PI/Co-PIs: K.S. Pregitzer, A.J. Burton, D.R. Zak  
Award Amount: \$690,000  
Duration: 09/01/1996 – 08/31/2000
- Title: Cycling NO<sub>3</sub>-N in Northern Hardwood Forests: Regulation and Consequences of N Saturation – REU  
Grant Contract #DEB-9629842 NSF  
PI: K.S. Pregitzer

Award Amount: \$5,000  
Duration: 09/01/1996 – 08/31/2000

Title: Cycling NO<sub>3</sub>-N in Northern Hardwood Forests: Regulation and Consequences of N Saturation – REU

Grant Contract #DEB-9629842 NSF

PI: K.S. Pregitzer

Award Amount: \$5,000  
Duration: 09/01/1996 – 05/03/2003

Title: Acquisition of Essential Monitoring and Control Equipment for a Long-Term, Multi-Institutional Free-Air Carbon Dioxide and Ozone Enrichment Facility

Grant Contract #DBI-9601942 NSF (ARI program)

PI/Co-PIs: D.F. Karnosky, M. Gale, K.S. Pregitzer, M.E. Kubiske, D.D. Reed, G. Podila, R. Lindroth, G. Hendrey, J.G. Isebrands, J. Hom, J. Nagy, R. Dickson, G. Host, D.R. Zak

Award Amount: \$250,973  
Duration: 08/01/1996 – 07/31/1999

Title: Mead Contribution: Sustainable Forest Management

PI: K.S. Pregitzer

Grant Contract #3/7/96 Letter Mead Paper

Award Amount: \$5,000  
Duration: 04/01/1996 – 05/30/1997

Title: Carbon and Nitrogen Cycling in Aspen Forests Under Elevated CO<sub>2</sub> and O<sub>3</sub>  
Agreement #23-136 USDA Forest Service

PI: K.S. Pregitzer

Award Amount: \$200,000  
Duration: 03/01/1996 – 03/30/2001

Title: Temperature and CO<sub>2</sub> Interactions in Trees

Lockheed Martin Energy Systems, Inc. #19X-SU082V

PI: K.S. Pregitzer

Award Amount: \$172,225  
Duration: 09/11/1995 – 03/31/1999

Title: Forest-Atmosphere Carbon Transfer and Storage-II (Facts II): Interacting Effects of Elevated CO<sub>2</sub> and O<sub>3</sub> on Aspen Forest Ecosystems

Grant Contract #DE-FG02-95ER62125 NSF TECO I

PI-Co-PIs: D.F. Karnosky, J.G. Isebrands, G. Hendrey, K.S. Pregitzer, G. Host, R. Lindroth, G. Podila, D.D. Reed, D.R. Zak, M.E. Kubiske

Award Amount: \$489,655  
Duration: 09/01/1995 – 08/31/1998

Title: Sustainable Management of Forest Landscapes: The Two-Hearted Watershed

Nature Conservancy Grant #122062800

PI: K.S. Pregitzer

Award Amount: \$2,000  
Duration: 07/01/1995 – 12/31/1995

Title: LTA Analysis for the Eastern Upper Peninsula, MI

PI/Co-PIs: J. Chen, K.S. Pregitzer



Award Amount: \$2,500  
Duration: 05/09/1995 – 09/08/1995

Title: The Gribben Buried Forest: A Unique Opportunity for Exploratory Research  
Contract Grant #DEB-9521148 NSF  
PI: K.S. Pregitzer  
Award Amount: \$39,609  
Duration: 04/15/1995 – 04/14/1997

Title: Research on Sustainable Management of the Upland-Wetland Forest Mosaic in the Lake States  
Grant Contract #NCASI  
PI: K.S. Pregitzer  
Award Amount: \$145,000  
Duration: 03/01/1995 – 12/31/2000

Title: Sustainable Development in the Lake Superior Basin: A Program for Enhancing the Lake Superior Ecosystem Research Center  
Grant Contract #REF Funds Internal Support  
PI/Co-PIs: W. C. Kerfoot, K.S. Pregitzer  
Award Amount: \$108,153  
Duration: 12/01/1994 – 09/30/1999

Title: Acquisition of Instrumentation to Qualify the Effects of Global Change on Plant Roots and Ecosystem Processes  
Grant Contract #BIR-9413407 NSF  
PI: K.S. Pregitzer  
Award Amount: \$103,313  
Duration: 09/01/1994 – 02/28/1997

Title: An Ecological Description of the Landtype Associations of Michigan's Upper Peninsula MI-DNR  
Grant Contract # Letter 4/95, 5/96  
PI: K.S. Pregitzer  
Award Amount: \$29,874  
Duration: 08/01/1994 – 08/31/1996

Title: Above and Belowground Ecosystem Responses to Elevated Atmospheric CO<sub>2</sub>  
Grant Contract #H85665 U of M subcontract (NIGEC)  
PI: K.S. Pregitzer  
Award Amount: \$150,643  
Duration: 07/01/1994 – 06/30/1998

Title: Northern White-Cedar Stand Distribution, Origins, and Development in Upper Michigan  
Grant Contract #61-4829A Michigan State University  
PI: K.S. Pregitzer  
Award Amount: \$29,500  
Duration: 06/01/1994 – 09/30/1997

Title: Climatic and Pollution Influences on Ecosystem Processes in Northern Hardwood Forests  
Grant Contract # Co-Op Agreement 23-918 USDA  
PI/Co-PIs: K.S. Pregitzer, D.D. Reed, G.D. Mroz  
Award Amount: \$165,000  
Duration: 05/01/1994 – 09/30/1998

- Title: Continuation: Climatic and Pollution Influences on Ecosystem Processes in Northern Hardwood Forests  
Grant Contract # Co-Op Agreement 23-918 USDA  
PI: K.S. Pregitzer  
Award Amount: \$60,000  
Duration: 05/01/1994 – 04/30/1999
- Title: The Effects of Soil Temperature and Nitrate on Fine Root Construction and Maintenance Costs in Northern Hardwood Forests  
Grant Contract #DEB-9496197 NSF  
PI: K.S. Pregitzer  
Award Amount: \$332,098  
Duration: 04/01/1994 – 08/31/1997
- Title: REU Supplement to NSF Grant DEB 92-21003: The Effects of Soil Temperature and Nitrate on Fine Root Construction and Maintenance Costs in Northern Hardwood Forests  
PI: K.S. Pregitzer  
Award Amount: \$5,000  
Duration: 04/01/1994 – 05/31/1996
- Title: Changes in the Flux of Carbon Between Plants and Soil Microorganisms at Elevated CO<sub>2</sub>: Physiological Processes with Ecosystem-Level Implications  
Grant Contract #V51573 US DOE  
PI: K.S. Pregitzer  
Award Amount: \$252,503  
Duration: 01/15/1994 – 08/14/1999
- Title: The Belowground Response of Plants and Soil Microorganisms to Elevated CO<sub>2</sub>: Physiological and Ecosystem Level Responses  
Grant Contract #V51573/F000354 US DOE  
PI: K.S. Pregitzer  
Award Amount: \$1,378,499.00  
Duration: 01/15/1994 – 08/14/2006
- Title: The Effects of Soil Temperature and Nitrate on Fine Root Construction and Maintenance Costs in Northern Hardwood Forests  
National Science Foundation  
Award Amount: \$491,998  
Duration: 01/30/1993 – 12/30/1996
- Title: Research Experience for Undergraduates: Fine Root and Soil Organic Matter Turnover  
National Science Foundation  
Award Amount: \$10,000  
Duration: 11/01/1992 – 04/30/1993
- Title: Annual Biofuels Energy Conference  
Department of Energy  
Award Amount: \$3,000  
Duration: 08/01/1992 – 01/30/1993
- Title: Above and Belowground Ecosystem Responses to Elevated Atmospheric CO<sub>2</sub>

Department of Energy  
Award Amount: \$36,766  
Duration: 07/01/1992 – 06/30/1993

Title: Climatic and Pollution Influences on Ecosystem Processes in Northern Hardwood Forests  
US Forest Service  
Award Amount: \$234,600  
Duration: 1991 – 1992

Title: Research Experience for Undergraduates: Fine Root and Soil Organic Matter Turnover  
National Science Foundation  
Award Amount: \$10,000  
Duration: 11/01/1991– 04/30/1992

Title: Mechanisms of Belowground Resource Acquisition in Plants: Linking Form and Function  
National Science Foundation  
Award Amount: \$320,000  
Duration: 07/01/1991 – 06/30/1994

Title: Effects of Climate, Pollutants, and Pests on Forests in the Great Lakes Region  
MERRA  
Award Amount: \$8,330  
Duration: 01/07/1991 – 12/31/1991

Title: Atmospheric CO<sub>2</sub> and Feedback in the Plant – Soil System  
USDA Competitive Grants (Forest Biology)  
Award Amount: \$188,000  
Duration: 09/15/1990 – 09/30/1992

Title: Video Analysis of Root Systems: A Move Toward Better Understanding of Terrestrial Carbon Budgets  
MERRA  
Award Amount: \$50,000  
Duration: 07/01/1990 – 06/30/1991

Title: Research Experience for Undergraduates: Mechanisms of Below-ground Competition in Plants  
National Science Foundation  
Award Amount: \$4,000  
Duration: 05/01/1990 – 11/01/1990

Title: Completion and Reporting of Chemical Properties of Foliage Samples for the Intermountain Forest Tree Nutrition Cooperative  
University of Idaho  
Award Amount: \$14,000  
Duration: 11/15/1989 – 07/01/1990

Title: Research Experience for Undergraduates: Fine Root and Soil Organic Matter Turnover  
National Science Foundation  
Award Amount: \$8,000  
Duration: 11/01/1989 – 04/30/1991

Title: Fine Root and Soil Organic Matter Turnover in C, N and P Cycling of Populus Plantations  
National Science Foundation

Award Amount: \$386,869

Duration: 1989 – 1992

Title: Case Study of Atmospheric Deposition for 1990 Assessment to Congress  
USDA Northeastern Forest Experiment Station and EPA

Award Amount: \$12,000

Duration: FY 1989

Title: Mechanisms of Belowground Competition in Plants: Linking Form and Function

National Science Foundation

Award Amount: \$70,000

Duration: FY 1989

Title: Organisms in the Agricultural Landscape: Long-term Ecological Research

National Science Foundation

Award Amount: \$68,100

Duration: 1987 – 1992

Title: Net Assimilation and Photosynthate Allocation of Populus Clones Grown under Short Rotation  
Intensive Culture: Physiological and Genetic Responses Regulating Yield

Department of Energy

Award Amount: \$558,918

Duration: 1986 – 1992

Title: Effects of an Air Pollution Gradient in Northern Hardwood Forests in the Northern Great Lakes  
Region

US Forest Service/EPA

Award Amount: \$332,538

Duration: 1986 – 1990

Title: Effects of Regional Air Pollution on Michigan Forests

Michigan Department of Natural Resources

Award Amount: \$165,726

Duration: FY 1986 – 1990

Title: Atmospheric Effects on Forests along the Pollution Gradient in the Great Lakes Region

Michigan Energy and Resources Research Association

Award Amount: \$10,000

Duration: FY 1986

Title: Net Assimilation and Photosynthate Allocation of Populus Clones Grown under Intensive Culture

Research Excellence and Economic Development

Award Amount: \$18,000

Duration: FY 1986

Title: Carbon Allocation and Chemical Defense in Grand Fir

National Science Foundation

Award Amount: \$13,500

Duration: 1986 – 1988

Title: Development of a Site Classification System for DNR Lands in Northern Lower Michigan

Michigan DNR, Forestry Management Division

Award Amount: \$76,000

Duration: 1985 – 1987

Title: Development of Ecosystem Classification, Inventory, and Interpretation Systems for the Huron-Manistee National Forest

USDA Forest Service Cooperative Agreement

Award Amount: \$72,000

Duration: 1984 – 1986

Title: Relating Predicted Fertilizer Response to Actual Growth and Site Conditions

USDA Forest Service, Intermountain Forest and Range Experiment Station

Award Amount: \$13,475

Title: Nutritional Status of Douglas-fir Fertilizer Installations

Intermountain Tree Nutrition Cooperative

Award Amount: \$18,000