

Asko Noormets

Dept. Forestry and Environmental Resources
and Southern Global Change Program
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INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Michigan Technological University, Houghton, MI <i>Advisor: David F. Karnosky</i>	PhD	2001	Forest Science
Michigan Technological University, Houghton, MI <i>Advisor: David F. Karnosky</i>	MS	1997	Forest Science
Tartu University, Estonia, <i>summa cum laude</i> <i>Advisors: Olevi Kull, Andres Koppel</i>	BS	1995	Biology

PROFESSIONAL EXPERIENCE

- 12.06 – current Research Assistant Professor, Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC
- 12.06 – current Adjunct Assistant Professor of Ecology, Department of Environmental Sciences, University of Toledo
- 05.02 – 11.06 Research Assistant Professor, and Special Graduate Faculty, Department of Earth, Ecological and Environmental Sciences (EEES), University of Toledo (UT), Toledo, OH
- 10.01 – 05.02 Postdoctoral Research Associate, Laboratory of landscape Ecology and Ecosystem Sciences, EEES, UT. *Supervisor: Jiquan Chen*
- 05.01 – 08.01 Postdoctoral Research Associate, School of Forestry, Michigan Technological University (MTU), Houghton, MI
- 06.96 – 04.01 Graduate Research Assistant, School of Forestry and Wood Products, MTU
- 10.92 – 05.96 Laboratory Assistant, Institute of Zoology and Botany, Tartu, Estonia

RESEARCH SUPPORT (Total received: \$2,118,752)

- “Partitioning ecosystem respiration in lower coastal plain forests: Quantifying sensitivity of soil C and N cycling to variation in the water table” 06.2008-05.2011 (King, Noormets), DOE-NICCR, \$374,968.
- “Coupling the effects of management and climate on carbon and water fluxes in forests of Eastern U.S. and P.R.C.” 07.2006-06.2007 (Chen, Noormets, DeForest, Sun), USDA FS Southern Global Climate Change Program, \$159,800.
- “Coupling the effects of management and climate on carbon and water fluxes in forests of Eastern U.S. and P.R.C.” 08.2005-07.2006 (Chen, Noormets, Sun), USDA FS Southern Global Climate Change Program, \$165,252.
- “Effects of Land Use Change on the Energy and Water Balance of the Semi-Arid Region of Inner Mongolia, China” 07.2005-07.2008. (Chen, Noormets, McNulty, Sun, Xiao, Lin, Wang) NASA Energy and water-cycle sponsored research, \$600,870.
- “Coupling the effects of management and climate on carbon and water fluxes in forests of Eastern U.S. and P.R.C.” 08.2004-07.2005 (Chen, Noormets, Sun) (1) USDA FS Southern Global Climate Change Program, \$251,610. (2) Ohio Board of Regents Action Fund, \$60,000. (3) The University of Toledo, \$241,075.
- “Coupling the effects of management and climate on carbon and water fluxes in forests of Eastern U.S. and P.R.C.” 08.2003-05.2004. (Chen, Noormets, Sun, Mickler, Wang). USDA FS Southern Global Climate Change Program, \$225,177.

“Cumulative carbon flux at managed landscapes in northern Wisconsin” 08.2003-12.2003. (Chen & Noormets) USDA FS Northern Global Climate Change Program, \$40,000.

TEACHING

EEES 4980/6980 (2003) – Environmental Stress Physiology, primary instructor

EEES 4660/6660 (2002, 2005) – Environmental Biophysics, Sections: (i) Water vapor and other gases, (ii) Liquid water in organisms and their environment, and (iii) Atmospheric turbulence (instructor J. Chen, UT)

EEES 6980 (2002) - Current Issues In Eco- & Geo-Sciences, Section: FACE and elevated CO₂ research (instructor J. Chen, UT)

FW560 (2000) – Tree Physiology, Section: Photosynthesis (instructor D.F. Karnosky, MTU)

GRADUATE STUDENTS ADVISED (* co-adviser, + committee member)

⁺Dan Wang (PhD, UT), ⁺Ranjeet John (PhD, UT), *Nan Lu (PhD, UT), ⁺Gwendolyn Tenney (MS, UT),

*Ilona Ilniczki (PhD, UT), ⁺John Rademacher (MS, UT), ⁺Stephen Mather (MS, UT), ⁺Li Wu (PhD, UT)

REFEREED PUBLICATIONS

1. **Noormets A**, McNulty SG, DeForest JL, Sun G, Li Q and Chen J, 2008. Drought during canopy development has lasting effect on annual carbon balance in a deciduous temperate forest. *New Phytologist* (In press).
2. Desai AR, Richardson AD, Moffat AM, Kattge J, Hollinger DY, Barr A, Falge E, **Noormets A**, Papale D, Reichstein M, Stauch VJ, 2008. Cross site evaluation of eddy covariance GPP and RE decomposition techniques. *Agricultural and Forest Meteorology* 148: 821-838.
3. John R, Chen J, Lu N, Guo K, Liang C, Wei Y, **Noormets A**, Ma K, Han X. 2008. Predicting plant diversity based on remote sensing products in the semi-arid region of Inner Mongolia. *Remote Sensing of Environment* 112: 2018-2032.
4. **Noormets A**, Desai A, Cook BD, Euskirchen E, Ricciuto D, Davis KJ, Bolstad PV, Schmid HP, Vogel CV, Carey EV, Su HB, Chen J, 2008. Moisture sensitivity of ecosystem respiration. Comparison of 14 forest ecosystems in northern Wisconsin, USA. *Agricultural and Forest Meteorology* 148: 216-230.
5. Ryu S-R, Chen J, **Noormets A**, Bresee MK, Ollinger SV, 2008. Comparisons and insights of predicted (PnET-Day) and measured gross carbon exchange in northern Wisconsin forests. *Agricultural and Forest Meteorology* 148: 247-256.
6. Sun G, **Noormets A**, Chen J, McNulty SG, 2008. Forest energy and water balances across a management gradient in northern Wisconsin, USA. *Agricultural and Forest Meteorology* 148: 257-267.
7. Desai AR, **Noormets A**, Bolstad PV, Chen J, Cook BD, Curtis PV, Davis KJ, Euskirchen ES, Gough C, Martin JM, Ricciuto DM, Schmid HP, Su HB, Tang J, Vogel C, Wang W, 2008. Influence of vegetation type, stand age and climate on carbon dioxide fluxes across the Upper Midwest, USA: Implications for regional scaling of carbon flux. *Agricultural and Forest Meteorology* 148: 288-308.
8. Oren R, Kull K, **Noormets A**, 2008. Olevi Kull's lifetime contribution to ecology. *Tree Physiology* 28: 483-490.
9. Moffat AM, Papale D, Reichstein M, Barr AG, Beckstein C, Braswell BH, Churkina G, Desai AR, Falge E, Gove JH, Heimann M, Hollinger DY, Hui D, Jarvis AJ, Kattge J, **Noormets A**, Richardson AD, Stauch VJ. 2007. Comprehensive comparison of gap filling techniques for eddy covariance net carbon fluxes. *Agricultural and Forest Meteorology* 147: 209-232.
10. **Noormets A**, Chen J, Crow T, 2007. Age-dependent changes in ecosystem carbon fluxes in managed forests in northern Wisconsin, USA. *Ecosystems* 10: 187-203.
11. DeForest JL, **Noormets A**, McNulty SG, Tenney G, Sun G, Chen J, 2006. Phenophases alter the soil respiration-temperature relationship in an oak-dominated forest. *International Journal of Biometeorology*, 51: 135-144.

12. Zheng D, Chen J, **Noormets A**, Euskirchen ES, Le Moine J, 2005. Effects of climate and land use on landscape soil respiration in northern Wisconsin, USA: 1972 to 2001. *Climate Research* **28**: 163-173.
13. **Noormets A**, Chen J, Bridgham SD, Weltzin JF, Pastor J, Dewey B, LeMoine J, 2004. The effects of infrared loading and water table on soil energy fluxes in northern peatlands. *Ecosystems* **7**: 573-582.
14. Chen J, Brosofske KD, **Noormets A**, Crow TR, Bresee MK, LeMoine JM, Euskirchen ES, Mather SV, Zheng D, 2003. A Working framework for quantifying carbon sequestration in disturbed land mosaics. *Environmental Management* **33**: S210-S221. art. no. 10.1007/s00267-003-9131-4.
15. Karnosky DF, Zak DR, Pregitzer KS, Awmack CS, Bockheim JG, Dickson RE, Hendrey G, Host GE, King JS, Kopper BJ, Kruger EL, Kubiske ME, Lindroth RL, Mattson WJ, McDonald EP, **Noormets A**, Oksanen E, Parsons WFJ, Percy KE, Podila GK, Riemenschneider DE, Sharma P, Thakur R, Sôber A, Sôber J, Jones WS, Anttonen S, Vapaavuori E, Isebrands JG, 2002. Tropospheric O₃ moderate responses of temperate hardwood forests to elevated CO₂: A synthesis of molecular to ecosystem results from the Aspen FACE project. *Functional Ecology* **17**: 289-304.
16. Karnosky DF, Percy KE, Xiang B, Callan B, **Noormets A**, Mankovska B, Hopkin A, Sôber J, Jones W, Dickson RE, Isebrands JG, 2001. Interacting elevated CO₂ and tropospheric O₃ predispose aspen (*Populus tremuloides* Michx.) to infection by rust (*Melampsora medusae* f. sp. *tremuloidae*). *Global Change Biology* **8**: 329-338.
17. Wustman BA, Oksanen E, Karnosky DF, **Noormets A**, Isebrands JG, Pregitzer KS, Hendrey GR, Sober J, Podila GK, 2001. Effects of elevated CO₂ and O₃ on aspen clones varying in O₃ sensitivity: can CO₂ ameliorate the harmful effects of O₃? *Environmental Pollution* **115**: 473-481.
18. **Noormets A**, McDonald EP, Dickson RE, Kruger EL, Sôber A, Isebrands JG, Karnosky DF, 2001. The effect of elevated CO₂ and O₃ on leaf and branch level photosynthesis and potential plant level carbon gain in aspen. *Trees – Structure and Function* **15**: 262-270.
19. **Noormets A**, Sôber A, Pell EJ, Dickson RE, Podila GK, Sôber J, Isebrands JG, Karnosky DF, 2001. Stomatal and non-stomatal limitation to photosynthesis in two trembling aspen (*Populus tremuloides* Michx.) clones exposed to elevated CO₂ and/or O₃. *Plant, Cell & Environment* **24**: 327-336.
20. **Noormets A**, Podila GK, Karnosky DF, 2000. Rapid response of antioxidant enzymes to O₃-induced oxidative stress in *Populus tremuloides* clones varying in O₃ tolerance. *Forest Genetics* **7**: 339-342.
21. Akkapeddi AS, **Noormets A**, Deo BK, Karnosky DF, Podila GK, 1999. Gene structure and expression of the aspen cytosolic copper/zinc-superoxide dismutase (PtSodCc1). *Plant Science* **143**: 151-162.
22. Karnosky DF, Mankovska B, Percy K, Dickson RE, Podila GK, Sôber J, **Noormets A**, Hendrey G, Coleman MD, Kubiske M, Pregitzer KS, Isebrands JG, 1999. Effects of tropospheric O₃ on trembling aspen and interaction with CO₂: Results from an O₃-gradient and a FACE experiment. *Water, Air and Soil Pollution* **116**: 311-322.
23. Kull O, Koppel A, **Noormets A**, 1998. Seasonal changes in leaf nitrogen pools in two *Salix* species. *Tree Physiology* **18**: 45-51.

BOOKS

1. **Noormets A** (Ed.). Phenology of ecosystem processes. Under contract with Springer, NY (02.05.07).

BOOK CHAPTERS

1. **Noormets A**, Chen J, Gu L, Desai A, 2009. The phenology of gross ecosystem productivity and ecosystem respiration in temperate hardwood and conifer chronosequences In: Phenology of ecosystem processes (Ed. Asko Noormets), Springer, New York (In review).
2. Silbernagel J, Chen J, **Noormets A**, Song B, 2006. Conducting sound ecological studies at the landscape scale: hypotheses, experiments and challenges. In: Ecology of Hierarchical Landscapes: From Theory to Application (Eds. Jiquan Chen, Sari C. Saunders, Kimberly D. Brosofske, and Thomas R. Crow), Nova Publishing, Carbondale, IL, USA, pp. 283-297.
3. **Noormets A**, Ewers B, Sun G, Mackay S, Zheng D, McNulty S, Chen J, 2006. Water and carbon cycles in heterogeneous landscapes: an ecosystem perspective. In: Ecology of Hierarchical

Landscapes: From Theory to Application (Eds. Jiquan Chen, Sari C. Saunders, Kimberly D. Brosofske, and Thomas R. Crow), Nova Publishing, Carbondale, IL, USA, pp. 89-123.

4. Karnosky DF, Percy K, Mankovska B, Prichard T, **Noormets A**, Dickson RE, Jepsen E, Isebrands JG, 2003. Ozone affects the fitness of trembling aspen. In: Air Pollution, Global Change and Forests in the New Millennium (Eds. David F. Karnosky, Kevin E. Percy, Art H. Chappelka, C. Simpson and Janet Pikkariainen), Elsevier, Amsterdam, pp. 199-209.
5. Wustman BA, Oksanen E, Karnosky DF, **Noormets A**, Isebrands JG, Pregitzer KS, Hendrey GR, Sôber J, Podila GK, 2003. Effects of elevated CO₂ and O₃ on aspen clones of varying O₃ sensitivity: Can CO₂ ameliorate the harmful effects of O₃? In: Air Pollution, Global Change and Forests in the New Millennium (Eds. David F. Karnosky, Kevin E. Percy, Art H. Chappelka, C. Simpson and Janet Pikkariainen), Elsevier, Amsterdam, pp. 391-409.
6. Karnosky DF, Mankovska B, Percy K, Dickson RE, Podila GK, Sôber J, **Noormets A**, Hendrey G, Coleman MD, Kubiske M, Pregitzer KS, Isebrands JG, 1999. Effects of tropospheric O₃ on trembling aspen and interaction with CO₂: Results from an O₃-gradient and a FACE experiment. In: Forest Growth Responses to the Pollution Climate of the 21st Century (Eds. Lucy J. Sheppard and J. Neil Cape), Kluwer Academic Publishers, London, 116:311-322.

COMPUTER PROGRAMS

1. Noormets A, Zhou R, Chen J, 2004. EC_Processor (<http://research.eeescience.utoledo.edu/lees/ECP/ECP.html>).

CONFERENCE PRESENTATIONS (Where presented by self)

1. **Noormets A**, Gavazzi M, Sun G, Chen J, McNulty SG, 2007. Changes in temperature-moisture covariance could increase soil carbon loss. Ecological Society of America, San Jose, CA, August 7.
2. **Noormets A**, 2005. Regulation of ecosystem respiration. ChEAS VIII Annual Meeting, Kemp Natural Resources Station, Woodruff, WI, June 1-2.
3. **Noormets A**, Chen J, 2004. Environmental regulation of ecosystem carbon fluxes in a managed landscape in northern Wisconsin. Ecological Society of America, Portland OR, August 5.
4. **Noormets A**, Chen J, 2004. Landscape level variation in ecosystem carbon fluxes. ChEAS VII Annual Meeting, University of Minnesota, St. Paul, MN, June 23-25.
5. **Noormets A**, Chen J, Crow T, Gustafson E, 2003. Carbon exchange in managed forest ecosystems: Seasonal dynamics. Annual Ameriflux Meeting, October 14-16, 2003, Boulder, CO.
6. **Noormets A**, Chen J, Crow T, 2003. Carbon exchange in managed forest ecosystems: Environmental regulation. Annual Ameriflux Meeting, October 14-16, 2003, Boulder, CO.
7. Ryu S, **Noormets A**, Chen J, Crow T, 2003. Comparisons of modeled (PnET-Day) and measured carbon exchange in managed forest ecosystems in Northern Wisconsin. Annual Ameriflux Meeting, October 14-16, 2003, Boulder, CO.
8. **Noormets A**, Chen J, 2003. Eddy covariance - estimating ecosystem fluxes of carbon and water. BAE-NCSU Meeting, Sept. 10, 2003. Raleigh, North Carolina.
9. **Noormets A**, Chen J, 2003. Carbon fluxes in a managed Northern Wisconsin landscape. Chequamegon Ecosystem-Atmosphere Study (ChEAS) 2003 Meeting. Kemp Natural Resources Station, Woodruff, WI. June 29 - July 2, 2003.
10. **Noormets A**, Chen J, Crow TR, Brosofske K, 2003. Water use efficiency in a managed Northern Wisconsin landscape: variation among ecosystems. Western Great Lakes Research Conference and Chequamegon Bay Area Natural Resources Conference. April 9-11, 2003. Western Great Lakes Visitor Center, Ashland, WI.
11. **Noormets A**, Chen J, Bridgham S, Pastor J, Weltzin JF, Harth C, Dewey B, LeMoine J, 2002. The effect of infrared loading and soil water table on soil energy fluxes in northern peatlands. The Ecological Society of America. 87th Annual Meeting. Understanding and restoring ecosystems. A Convention.

12. **Noormets A**, Chen J, Brosofske K, Crow TR, Gustafson E, Euskirchen E, 2002. Carbon exchange and cumulative NEP of disturbed land mosaics. Conceptual model. IUFRO Landscape Ecology Section.
13. **Noormets A**, McDonald E, Kruger E, Isebrands JG, Dickson RE, Karnosky DF, 2000. Aboveground carbon budgets under elevated atmospheric CO₂ and/or O₃ for two aspen genotypes differing in O₃ tolerance. Proceedings: Air Pollution, Global Change and Forests in the New Millennium. The 19th International Meeting for Specialists in Air Pollution Effects on Forest Ecosystems, Houghton, Michigan USA (Abstract, p. 60).
14. **Noormets A**, Isebrands JG, Karnosky DF, 2000. The effect of elevated CO₂ and/or O₃ on the seasonal changes of leaf photosynthesis and respiration in aspen (*Populus tremuloides*). Plant Biology 2000. The Annual Meeting of the American Society of Plant Physiologists. American Society of Plant Physiologists.
15. **Noormets A**, Isebrands JG, Podila GK, Karnosky DF, 1999. Stomatal versus mesophyll control of instantaneous photosynthesis in trembling aspen exposed to elevated CO₂ and/or O₃. Plant Biology '99. The Annual Meeting of the American Society of Plant Physiologists. American Society of Plant Physiologists. pp. 119.
16. **Noormets A**, Karnosky DF, Podila GK, 1998. Antioxidant response of *Populus tremuloides* Michx. in early stages of oxidative stress. Plant Biology '98. The Annual Meeting of the American Society of Plant Physiologists. American Society of Plant Physiologists. pp. 91.
17. **Noormets A**, Kull O, Koppel A, 1995. Nitrogen dynamics in *Salix* leaves during the first production year. In: Perttu K, Koppel A (Eds). Short Rotation Willow Coppice for Renewable Energy and Improved Environment. Proceedings of a joint Swedish-Estonian seminar on Energy Forestry and Vegetation Filters held in Tartu 24-26 September 1995. Swedish University of Agricultural Sciences, Uppsala. pp. 51-60.

INVITED PRESENTATIONS

1. **Noormets A**, 2006. Gapfilling eddy covariance data with dynamic parameter mechanistic models. Gap Filling Comparison Workshop, Max Planck Institute for Biogeochemistry, Jena, Germany, September 18.
2. **Noormets A**, 2005. Ecosystem carbon balance in a managed forest landscape: respiration. Tartu University, Tartu, Estonia, May 2.
3. **Noormets A**, 2005. Sensitivity of ecosystem respiration to temperature and moisture in temperate forests. Chinese Academy of Forestry, Beijing, China, April 11.
4. **Noormets A**, Zhou R, Chen J, 2005. Forest-atmosphere carbon exchange of the Oak Openings oak savanna. Third Oak Openings Research Forum, Toledo Area Metroparks, Toledo, January 28.
5. **Noormets A**, 2004. The use of eddy covariance in integrative landscape carbon balance studies: an example. Workshop on carbon flux and stocks of terrestrial ecosystems in a changing climate. Institute of Atmospheric Environment, China Meteorological Administration, Shenyang, China, June 1.
6. **Noormets A**, 2004. Carbon fluxes in a managed forest landscape in Northern Wisconsin. Fudan University, Shanghai, China, May 31.
7. **Noormets A**, 2004. Eddy covariance. Methodological issues: Sources of error and flux corrections. Institute of Botany, Chinese Academy of Sciences, Beijing, China, May 25.
8. **Noormets A**, 2004. Carbon fluxes in a managed forest landscape in Northern Wisconsin. Beijing Forestry University, Beijing, China, May 24.
9. **Noormets A**, 2004. Carbon fluxes in a managed forest landscape in Northern Wisconsin. Chinese Academy of Forestry, Beijing, China, May 22.
10. **Noormets A**, Chen J, 2004. Eddy covariance - estimating ecosystem fluxes of carbon and water. Second Oak Openings Research Forum, Toledo Area Metroparks, Toledo, January 23.

PROFESSIONAL MEMBERSHIPS

2007-current – Research Triangle SAS Users' Group
2006-current – American Geophysical Union (AGU)
2000-current – Ecological Society of America (ESA)
 a) Physiological Ecology Section, b) Biogeosciences Section
2005-2006 – Midwest SAS Users Group (MWSUG), Michigan SAS Users Group (MSUG)
2003-2006 – International Union of Forestry Research Organizations (IUFRO), Ecosystems and
 Landscape Ecology (Sections 8.01.00 and 8.01.03)
1998-2003 – American Society of Plant Biologists (ASPB)

PROFESSIONAL ACTIVITIES

FUNDRAISING:

Prof. Olevi Kull's Memorial Fund. Managed by Tartu University Foundation. Total assets 269,300
EEK (\$26,380 USD). <http://www.ut.ee/sihtasutus/index.php?lk=13&stipendium=61>

REVIEWER FOR JOURNALS:

Agricultural and Forest Meteorology (3), Ecological Modelling (2), Ecosystems (2), Environmental
Monitoring and Assessment (1), Forest Ecology and Management (4), Forest Science (1), Functional
Ecology (1), Global Change Biology (6), Journal of Integrative Plant Biology (1), New Phytologist
(2), Plant Biology (1), Plant, Cell and Environment (5), Trees – Structure and Function (1)

GRANT REVIEWS:

DOE-NICCR. Department of Energy, National Institute for Climate Change Research
DOD-SERDP. Department of Defense, Strategic Environmental Research and Development Program
USDA-CSREES. Department of Agriculture, Cooperative State Research, Education, and Extension
Service

ORGANIZED CONFERENCE SECTIONS:

“Phenology and ecosystem processes”, Organized Oral Session at the ESA 2006 Annual Meeting,
Memphis, TN (Session Chair)

COORDINATED RESEARCH PROGRAMS:

Prof. Olevi Kull's Memorial Fund (Secretary and Committee Member)
US-China Carbon Consortium (USCCC, Panel Member)
University of Toledo NEON-GLACEO Team (Member)

AWARDS AND HONORS

2007 – FLUXNET Travel Award, FLUXNET-TCO synthesis workshop, LaThuile, Italy
2006 – Travel Award, Gap filling comparison workshop, Max Planck Institute for Biogeochemistry, Jena,
Germany
2006 – Scholarship, Uncertainty and variability in ecological Inference, forecasting, and decision making.
Summer Institute at Duke University's Center on Global Change
2006, 2007, 2008 – Who's Who in America, Marquis' Who's Who
2005 – Scholarship, SEEK Early Career Faculty and Post-Doctoral Training in EcoInformatics
2004 – Who's Who in Sciences Higher Education (WWSHE), AcademicKeys
2001 – Doctoral Finishing Fellowship, Michigan Technological University
2000 – Travel Grant, Graduate Student Council, Michigan Technological University
2000-1999 – Challenge Fellowship, Michigan Technological University
2000-1998 – Invited member to Xi Sigma Pi, National Forestry Honors Society, Alpha Eta Chapter
2001-1996 – Graduate Research Assistantship, Michigan Technological University
1999 – Travel Grant, American Society of Plant Physiologists

1998 – Visiting Scholarship, Pennsylvania State University

1995-1994 – Visiting Scholarship, Swedish Agricultural University

1994 – Visiting Scholarship to University of Joensuu, Finland, Open Estonia Foundation

OUTREACH

1. Buell-Braun Student Awards Judge. Ecological Society of America, San Jose, CA, August 5-10, 2007.
2. Billings & Student Poster Awards Judge. Physiological Ecology Section, Ecological Society of America, San Jose, CA, August 5-10, 2007.
3. Buell-Braun Student Awards Judge. Ecological Society of America, Memphis, TN, August 7-11, 2006.
4. Billings & Student Poster Awards Judge. Physiological Ecology Section, Ecological Society of America, Memphis, TN, August 7-11, 2006.
5. Sigma Xi, The Scientific Research Society, University of Toledo chapter. Judge, 2003, 2006.
6. University of Toledo Community Charitable Campaign, coordinator for EEES Department, 2003, 2004, 2005.
7. Billings & Student Poster Awards Judge. Physiological Ecology Section, Ecological Society of America, Portland, OR, August 3-6, 2004.
8. Buell-Braun Student Awards Judge. Ecological Society of America, Portland, OR, August 2-5, 2004.
9. Eddy covariance workshop for US-China Carbon Consortium (USCCC), coordinator & presenter, LEES, The University of Toledo, Toledo, OH, March 27-May 18, 2004.
10. Northwest Ohio District 2 Science Day Invited Judge, The University of Toledo, Toledo, OH, March 20, 2004.
11. US-China Carbon Consortium (USCCC) Training Workshop. Introduction to eddy covariance technique. Prerequisites for measurement and issues of practical importance. Data processing and corrections. University of Toledo, Toledo, OH, April 8-9, 2004.