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#### A. Education and Employment Information

#### 1. Education

- 1984 Ph.D., Washington State University; Botany
- 1978 M.A., University of Colorado, Boulder; Biology
- 1975 B.A., University of Colorado, Denver; Biology

# 2. Fields of Specialization

Application of remote sensing and modeling to monitoring of land surface processes Development of carbon budgets at landscape to regional scales Biogeochemical modeling of the carbon, nitrogen and hydrologic cycles Climate change assessment

#### 3. Professional Experience

2010	Professor, Senior Research. Forest Ecosystems and Society Department. Oregon State University. Member of the Graduate Faculty.
2007 - 2008	Visiting Fellow. Cooperative Institute for Research in Environmental Sciences (CIRES). University of Colorado.
2003 - 2009	Associate Professor, Senior Research. Forest Science Department, Oregon State University. Member of the Graduate Faculty.
1998 - 2003	Assistant Professor, Senior Research. Forest Science Department, Oregon State University.
1996 - 1998	Research Associate. Forest Science Department, OSU.
1988 - 1996	Senior Research Ecologist. Mantech Environmental Technology, Inc., U.S. EPA Environmental Research Laboratory, Corvallis, OR

1986 - 1988	Research Associate. U.S. EPA Environmental Research Laboratory, Corvallis, OR
1985 - 1986	Research Associate. Department of Forest Science, OSU
1980 - 1984	Teaching Assistant. Botany Department, Washington State University
1976 - 1978	Teaching Assistant. Department of Environmental, Population, and Organismic Biology, University of Colorado
1975	Research Assistant. University of Colorado

#### **B.** Honors and Awards

2007	Cooperative Institute for Research in Environmental Sciences (CIRES) Fellowship, University of Colorado
1986 -1988	National Research Council, Postdoctoral Fellowship
1982 - 1984	National Science Foundation, Doctoral Improvement Grant
1976 - 1978	Francis Ramaley Award (University of Colorado), support for graduate research

#### C. Documentation of Accomplishments

#### 1. Refereed Publications

- Turner, D.P., Ritts, D., Yang, Z., Kennedy, R.E., Cohen, W.B., Duane, M.V., Law, B.E. 2011. Decadal Trends in Net Ecosystem Production and Net Ecosystem Carbon Balance for a regional socioecological system. Forest Ecology and Management (In Press).
- 2. Meigs, G.W., Turner, S.P., Ritts, W.D., Yang Z., Law, B.E. 2011. Detection and simulation of heterogeneous fire effects on pyrogenic carbon emissions, tree mortality, and net ecosystem production. Ecosystems (In Press).
- 3. King, D.A., Turner, D.P., Ritts, W.D. 2011. Parameterization of a diagnostic carbon cycle model for continental scale application. Remote Sensing of Environment 115:1653-1664.

- Turner, D.P., Göckede, M., Law, B.E., Ritts, W.D., Cohen, W.B., Yang, Z., Hudiburg, T., Kennedy, R., Duane, M. 2011. Multiple constraint analysis of regional land surface carbon flux. TellusB 63:207-221.
- 5. Turner, D.P. 2011. Global Vegetation Monitoring: Towards a Sustainable Technobiosphere. Frontiers in Ecology and the Environment 9:111-116.
- Göckede, M., Turner, D.P., Michalak, A.M., Vickers, D. and Law, B.E. 2010. Sensitivity of a subregional scale atmospheric inverse CO<sub>2</sub> modeling framework to boundary conditions, Journal of Geophysical Research - Atmosphere 115, D24112, doi: 10.1029/2010JD014443.
- Duane, M.V., Cohen, W.B., Campbell, J.L., Hudiburg, T., Turner, D.P., Weyermann, D. 2010. Implications of alternative field-sampling designs on Landsat-based mapping of stand age and carbon stocks in Oregon forests. Forest Science 56: 405-416.
- Göckede, M., Michalak, A., Vickers, D., Turner, D., Law, B. 2010. Atmospheric inverse modeling to constrain regional scale CO<sub>2</sub> budgets at high spatial and temporal resolution. Journal of Geophysical Research – Atmosphere 115, D15113.
- Turner, D.P., Ritts, W.D., Wharton, S., Thomas, C., Monson. R., Black, T.A., Falk, M. 2009. Assessing FPAR source and parameter optimization scheme in application of a diagnostic carbon flux model. Remote Sensing of Environment 113:1529-1539.
- Nightengale, J., Morisette, J., Wolfe, R., Tan, B., Gao, F., Ederer, G., Collatz, J., Turner, D. 2009. Temporally smoothed and gap-filled MODIS land products for carbon modeling: Application of the FPAR product. International Journal of Remote Sensing 30:1083 – 1090.
- Hudiberg, T., Law, B., Turner, D.P., Campbell, J., Donato, D., Duane, M. 2009. Carbon dynamics of Oregon and Northern California forests and potential land-based carbon storage. Ecological Applications 19:163-180.
- Goward, S.N., Masek, J.G., Cohen, W., Moisen, G., Collatz, G.J., Healey, S., Houghton, R.A., Huang, C., Kennedy, R., Law, B., Powell, S., Turner, D., Wulder, M.A. 2008. Forest distrubance and North American carbon flux. EOS 89:105-116.
- Turner, D.P., Ritts, W.D., Law, B.E., Cohen, W.B., Yang, Z., Hudiburg, T., Campbell, J.L., Duane, M. 2007. Scaling net ecosystem production and net biome production over a heterogeneous region in the western United States. Biogeosciences 4:597-612.

- Turner, D.P., W.D. Ritts, J.M. Styles, Z. Yang, W.B. Cohen, B.E. Law, and P. Thornton. 2006. A diagnostic carbon flux model to monitor the effects of disturbance and interannual variation in climate on regional NEP. Tellus 58B:476-490.
- 15. Turner, D.P. 2006. On "Estimating carbon budgets for U.S. ecosystems". Eos 87:200.
- 16. Gobron, N., Pinty, B., Aussedat, O., Chen, J.M., Cohen, W.B., Fensholt, R., Gond, V., Hummerich, K.F., Lavergne, T., Melin, F., Privette, J.L., Sandholt, I., Taberner, M., Turner, D.P., Verstraete, M.M., Widlowski, J. 2006. Evaluation of FAPAR products for different canopy radiation transfer regimes: methodology and results using JRC products derived from SeaWIFS against ground-based estimations. Journal of Geophysical Research 111, D13110, doi:10.1029/2005JD006511.
- Turner, D.P., Ritts, W.D., Cohen, W.B., Gower, S.T., Running, S.W., Zhao, M., Costa, M.H., Kirschbaum, A., Ham, J., Saleska, S., Ahl, D.E. 2006. Evaluation of MODIS NPP and GPP products across multiple biomes. Remote Sensing of Environment 102:282-292.
- Morisette, J., et al. 2006. Validation of global moderate-resolution LAI Products: a framework proposed within the CEOS Land Product Validation subgroup. IEEE Transactions in Geosciences and Remote Sensing 44:1804-1817.
- Turner, D.P., Ritts, W.D., Zhao, M., Kurc, S.A., Dunn, A.L., Wofsy, S.C., Small, E.E., Running, S.W. 2006. Assessing interannual variation in MODIS-based estimates of gross primary production. IEEE Transactions in Geosciences and Remote Sensing 44:1899-1907.
- 20. Cohen, W.B., Maiersperger, T.K., Turner, D.P., Ritts, W.D., Pflugmacher, D., Kennedy, R.E., Kirschbaum, A., Running, S.W., Costa, M., Gower, S.T. 2006. MODIS land cover and LAI Collection 4 product quality across nine sites in the western hemisphere. IEEE Transactions in Geosciences and Remote Sensing 44:1843-1857.
- 21. Kennedy, R.E., Turner, D.P., Cohen, W.B., Guzy, M. 2006. A method to efficiently apply a biogeochemical model to a landscape. Landscape Ecology 21:213-224.
- 22. Law, B.E., Turner, D.P., Lefsky, M., Campbell, J., Guzy, M., Sun, O., Van Tuyl, S., Cohen, W.B. 2006. Carbon fluxes across regions: observational constraints at multiple scales. In J.Wu, B. Jones, H. Li, O. Loucks, eds. Scaling and Uncertainty Analysis in Ecology: Methods and Applications. Columbia University Press. New York, USA.
- 23. Turner, D.P. 2005. Thinking at the global scale. Global Ecology and Biogeography 14:505-508.

- 24. Van Tuyl, S., Law, B.E., Turner, D.P., Gitelman, A.I. 2005. Variability in net primary production and carbon storage in biomass across Oregon forests – an assessment integrating data from forest inventories, intensive sites, and remote sensing. Forest Ecology and Management 209:273-291.
- 25. Turner, D.P., Ritts, W.D., Cohen, W.B., Maeirsperger, T.K., Gower, S.T., Kirschbaum, A., Running, S.W., Zhao, M., Wofsy, S.C., Dunn, A.L., Law, B.E., Campbell, J.C., Oechel, W.C., Kwon, H.J., Meyers, T.P., Small, E.E., Kurc, S.A., Gamon, J.A. 2005. Site-level evaluation of satellite-based global terrestrial gross primary production and net primary production monitoring. Global Change Biology 11:666-684.
- Lefsky, M.A., Turner, D.P., Guzy, M., Cohen, W.B. 2005. Combining lidar estimates of biomass and Landsat estimates of stand age for spatially extensive validation of modeled forest productivity. Remote Sensing of Environment 95:549-558.
- Turner, D.P., Ollinger, S.V., Kimball, J.S. 2004. Integrating remote sensing and ecosystem process models for landscape to regional scale analysis of the carbon cycle. BioScience 54:573-584.
- Turner, D.P., Guzy, M., Lefsky, M., Ritts, W., VanTuyl, S., Law, B.E. 2004. Monitoring forest carbon sequestration with remote sensing and carbon cycle modeling. Environmental Management 33:457-466.
- Law, B.E., Turner, D., Campbell, J., Sun, O., Van Tuyl, S., Ritts, W.D., Cohen, W. 2004. Disturbance and climate effects on carbon stocks and fluxes across western Oregon USA. Global Change Biology 10:1-16.
- Turner, D.P., Ollinger, S., Smith, M.L., Krankina, O., Gregory, M. 2004. Scaling net primary production to a MODIS footprint in support of Earth Observing System product validation. International Journal of Remote Sensing 25:1961-1979
- 31. Wythers, K.R., Reich, P.B., Turner, D.P. 2003. Predicting leaf area index from scaling principles: corroboration and consequences. Tree Physiology 23:1171-1179.
- 32. Turner, D.P., Ritts, W.D., Cohen, W.B., Gower, S.T., Zhao, M., Running, S.W., Wofsy, S.C., Urbanski, S., Dunn, A., Munger, J.W. 2003. Scaling gross primary production (GPP) over boreal and deciduous forest landscapes in support of MODIS GPP product validation. Remote Sensing of Environment 88:256-270.
- 33. Cohen, W.B., Maiersperger, T.K., Yang, Z., Gower, S.T., Turner, D.P., Ritts, W.D., Berterretche, M., Running, S.W. 2003. Comparisons of land cover and LAI estimates derived from ETM+ and MODIS for four sites in North America: a quality assessment of 2000/2001 provisional MODIS products. Remote Sensing of Environment 88:233-255.

- Cohen, W.B., T.K. Maiersperger, S.T. Gower, and D.P. Turner. 2003. An improved strategy for regression of biophysical variables and Landsat ETM+ data, Remote Sensing of Environment 84:561-571.
- Turner, D.P., Urbanski, S., Bremer, D., Wofsy, S.C., Meyers, T., Gower, S.T., Gregory, M. 2003. A Cross-biome comparison of light use efficiency for gross primary production. Global Change Biology 9:383-395.
- Turner, D.P., Guzy, M., Lefsky, M.A., VanTuyl, S., Sun, O., Daly, C., and Law, B.E.
   2003. Effects of land use and fine scale environmental heterogeneity on net ecosystem production over a temperate coniferous forest landscape. Tellus 55B:657-668.
- McDowell, S.C., and Turner, D.P. 2002. Reproductive effort in invasive and noninvasive *Rubus*. Oecologia 133:102-111.
- Turner, D.P., Gower, S.T., Cohen, W.B., Gregory, M., Maiersperger, T.K. 2002. Effects of spatial variability in light use efficiency on satellite-based NPP monitoring. Remote Sensing of Environment 80:397-405.
- 39. Turner, D.P., Cohen, W.B., and Kennedy, R.E. 2000. Alternative spatial resolutions and estimation of carbon flux over a managed forest landscape in western Oregon. Landscape Ecology 15:441-452.
- 40. Turner, D. P., Acker, S. A., Means, J.E. and Garman, S. L. 2000. Assessing alternative algorithms for estimating leaf area index in Douglas-fir trees and stands. Forest Ecology and Management 126:61-76.
- 41. Running, S.R., Baldocchi, D.D., Turner, D.P., Gower, S.T., Bakwin, P. S. and Hibbard, K.A. 1999. A global terrestrial monitoring network integrating tower fluxes, flask sampling, ecosystem modeling and EOS satellite data. Remote Sensing of Environment 70:108-128.
- 42. Turner, D.P., Cohen, W.B., Kennedy, R. E., Fassnacht, K.S. and Briggs, J.M. 1999. Relationships between leaf area index and TM spectral vegetation indices across three temperate zone sites. Remote Sensing of Environment 70:52-68.
- 43. Reich, P.B., Turner, D.P. and P. Bolstad. 1999. An approach to spatially-distributed modeling of net primary production (NPP) at the landscape scale and its application in validation of EOS NPP products. Remote Sensing of Environment 70:69-81.

- 44. Turner, D.P., Winjum, J.K., Kolchugina, T.P., Vinson, T.S., Schroeder, P.E., Phillips, D.L. and Cairns, M.A.1998. Estimating the terrestrial carbon pools of the former Soviet Union, conterminous U.S., and Brazil. Climate Research 9:183-196.
- 45. Turner, D.P., Winjum, J.K., Kolchugina, T.P. and Cairns, M.A. 1997. Accounting for biological and anthropogenic factors in national land-base carbon budgets. Ambio 26:220-226.
- 46. Turner, D.P., Dodson, R. and Marks, D. 1996. Comparison of alternative spatial resolutions in the application of a spatially distributed biogeochemistry model over complex terrain. Ecological Modeling 90:53-67.
- 47. Lewis, D.K., Turner, D.P. and Winjum, J.K. 1996. An inventorybased procedure to estimate economic costs of forest management on a regional scale to conserve and sequester atmospheric carbon on the global scale. Ecological Economics 16:35-49.
- 48. Barker, J.R., Baumgardner, G.A., Turner, D.P. and Lee, J.J. 1996. Carbon dynamics of the Conservation and Wetland Reserve Programs. Journal of Soil and Water Conservation 51:340-346.
- 49. Barker, J.R., Baumgardner, G.A., Turner, D.P. and Lee J.J. 1995. Potential carbon benefits of the Conservation Reserve Program in the United States. Journal of Biogeography 22:743-751.
- 50. Turner, D.P., Koerper, G.J., Harmon, M.E. and Lee, J.J. 1995. A carbon budget for forests of the conterminous United States. Ecological Applications 5:421436.
- 51. Turner, D.P., Koerper, G.J., Harmon, M.E. and Lee, J.J. 1995. A forest carbon budget for the United States: Current flux and projections to the year 2040. Tellus 47B:232239.
- 52. Turner, D.P. and Koerper, G.K., Gucinski, Peterson, C. and Dixon, R.K. 1993. Monitoring global change: comparison of forest cover estimates using remote sensing and inventory approaches. Environmental Monitoring and Assessment 26:295305.
- 53. Knoepp, J.D., Turner, D.P. and Tingey, D.T. 1993. Effects of ammonium and nitrate on nutrient uptake and activity of nitrogen assimilating enzymes in western hemlock. Forest Ecology and Management 59:179191.
- 54. Turner, D.P., Sollins, P., Leuking, M. and Rudd, N. 1993. Availability and uptake of inorganic nitrogen in a mixed oldgrowth coniferous forest. Plant and Soil 148:163173.
- 55. Turner, D.P. and van Broekhuizen, H. 1992. Nutrient leaching from conifer needles in relation to foliar apoplast cation exchange capacity. Environmental Pollution 75:259263.

- 56. Dixon, R. and Turner, D.P. 1991. The global carbon cycle and climate change: responses and feedbacks from belowground systems. Environmental Pollution 73:245262.
- 57. Perry, D.A., Borchers, J.G, Turner, D.P., Gregory, S.V., Perry, C.R., Dixon, R.K., Hart, S.C., Kaufmann, B., Neilson, R.P. and Sollins, P. 1991. Biological feedbacks to climate change: terrestrial ecosystems as sinks and sources of carbon and nitrogen. Northwest Environmental Journal 7:203232.
- 58. Turner, D.P., Baglio, J.V., Wones, A.G., Pross, D., Vong, R. and Phillips, D.L. 1991. Global climate change and isoprene emissions from vegetation. Chemosphere 23:3756.
- 59. Turner, D.P. and Tingey, D.T. 1990. Foliar leaching and root uptake of Ca, Mg and K in relation to acid fog effects on conifers. Water, Air and Soil Pollution 49:205214.
- 60. Turner, D.P. and Franz, E.H. 1986. The influence of canopy dominants on understory vegetation patterns in an oldgrowth cedarhemlock forest. American Midland Naturalist 116:387393.
- 61. Turner, D.P. and Franz, E.H. 1985. Size class structure and tree dispersion patterns in oldgrowth cedarhemlock forests of the northern Rocky Mountains (USA). Oecologia 68:5256.
- 62. Turner, D.P. 1985. Successional relationships and a comparison of biological characteristics among six northwestern conifers. Bulletin Torrey Botanical Club 112:430437.
- 63. Turner, D.P. and Franz, E.H. 1985. The influence of western hemlock and western redcedar on microbial numbers, nitrogen mineralization and nitrification. Plant and Soil 88:259267.
- 2. Non-refereed Scientific Publications
  - 1. Turner, D.P. 2003. Conference review of "MODIS Land Products". Bulletin of the Ecological Society of America 84:38-39.
  - 2. Turner, D.P. 2000. Conference review of "AmeriFlux 1999 Science Meeting". Bulletin of the Ecological Society of America 81:99-100.
  - Kern, J.S., Turner, D.P. and Dodson, R.F. 1998. Spatial patterns in soil organic carbon pool size in the Northwestern United States. In: *Soil Processes and the Carbon Cycle* (R. Lal, J.M. Kimbal, R. Follett, B.A. Stewart, eds.). CRC Press, Boca Raton FL. pp 29-43.

- 4. Turner, D.P., Ferrel, W.K., Harmon, M.E. 1997. The Carbon Crop: Continued. Science 277 (5332):1589. Letters Section.
- 5. Turner, D.P. 1996. Conference review of "Planted Forests: Contributions to Sustainable Societies". Bulletin of the Ecological Society of America 77:33-34.
- Cieszewski, C.J., Turner, D.P. and Phillips, D.L. 1996. Statistical analysis of error propagation in national level carbon budgets. In: *Spatial Accuracy Assessment in Natural Resources and Environmental Sciences: Second International Symposium* (H. Mower, R.L. Czaplewski, E.H. Hamre, eds.). General Technical Report RM-GTR-277. U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experimental Station. Fort Collins, CO. pp 649-658.
- Dodson, R. and Turner, D.P. 1996. Using GIS to enable diagnostic interaction with a spatially distributed biogeochemistry model. Third International GIS and Environmental Modeling Conference, Santa Fe, NM. January 2125, 1996. Web site to view document is http://www.ncgia.ucsb.edu/conf/SANTA\_FE\_CD-ROM/sf\_papers/dodson\_rusty/ sfdoc.html
- Turner, D.P. and Marks, D.G. 1996. Application of togographically distributed models of energy, water, and carbon balance over the Columbia River Basin: A framework for simulating potential climate change effects at the regional scale. In: *Regional Impacts of Global Climate Change: Assessing Change and Response at the Scales that Matter\_*(S.J. Ghan, W.T. Pennell, K.L. Peterson, E. Rykiel, M.J. Scott and L.W. Vail, eds.), Battelle Press. Columbus, Ohio. pp 215-233.
- Turner, D.P. and Baumgardner, G. 1995. United States Case Study. In: The contribution of forest land use to total national carbon flux: case studies in the Former Soviet Union, United States, Mexico, and Brazil (M.A. Cairns, T. Kolchugina, D.P. Turner, and J. Winjum, eds.), EPA/600/R95/044. U.S. Environmental Protection Agency. Environmental Research Laboratory, Corvallis, OR. pp 61-84.
- Cairns, M., Kolchugina, T., Turner, D. and Winjum J. (eds.). 1995. The contribution of forest land use to total national carbon flux: case studies in the Former Soviet Union, United States, Mexico, and Brazil. U.S. Environmental Protection Agency. EPA/600/ R95/044.
- Peterson, C.E. and Turner, D.P. 1993. Uncertainty in countrywide forest biomass estimates. In: *The Carbon Balance of the World's Forest Ecosystems: Towards a Global Assessment* (M. Kanninen, ed.), Publications of the Academy of Finland. Helsinki, Finland. pp 98104.

- Turner, D.P. and Leemans, R. 1993. An equilibrium analysis of projected climate change effects on the global soil organic matter pool. In: *Carbon Cycling in Boreal Forests and Subarctic Ecosystems: Biospheric Responses and Feedbacks to Global Climate Change* (T.S. Vinson and T.P. Kolchugina, eds.) U.S. Environmental Protection Agency. EPA/ 600R93/084. pp 59-63.
- Gucinski, H., Turner, D.P., Peterson, C. and Koerper, G. 1993. Carbon pools and flux on forested lands of the United States. In: *Carbon Cycling in Boreal Forests and Subarctic Ecosystems: Biospheric Responses and Feedbacks to Global Climate Change* (T.S. Vinson and T.P. Kolchugina, eds.) U.S. Environmental Protection Agency. EPA/ 600R93/084. pp 235-242.
- Turner, D.P., Lee, J.J., Koerper, G.J. and Barker J.R. (eds.) 1993. The forest sector carbon budget of the United States: Carbon pools and flux under alternative policy options. U.S. Environmental Protection Agency. EPA/600/393/093.
- Lee, J., Turner, D., Gucinski, H., Dixon, R. and Winnett, S. 1993. Assessing the effects of management practices and potential climate change on the carbon balance of U.S. forests. In: *The Carbon Balance of the World's Forest Ecosystems: Towards a Global Assessment* (M. Kanninen, ed.), Publications of the Academy of Finland, Helsinki, Finland. pp 252255.
- 16. Gucinski, H., Peterson, C., Kern, J., Turner, D, Pross, D. and King, G. 1992. Elements of the U.S. carbon budget: Progress and preliminary results. Proceedings of the 8th Annual Pacific Climate (PACLIM) Workshop, California Department of Water Resources, Interagency Ecological Studies Program Technical Report 31. pp 151162.
- 17. Turner, D.P., Wones, A.G., Pross, D. and Phillips, D. 1991. Climate change and global isoprene emissions. Paper 91126.3, Air and Waste Management Association. Vancouver, Canada. June 1991.
- Tingey, D.T., Turner, D.P. and Weber, J.A. 1991. Factors controlling the emissions of monoterpenes and other volatile organic compounds. In: *Trace Gas Emissions by Plants* (T.D. Sharkey, E.A. Holland and H.A. Mooney, eds.). Academic Press, Inc. San Diego, CA. pp 93120.
- Gucinski, H., Marks, D. and Turner, D.P. (eds.) 1990. Biospheric feedbacks to climate change: the sensitivity of regional trace gas emissions, evapotranspiration, and energy balance to vegetation redistribution: Status of ongoing research. U.S. Environmental Protection Agency. EPA/600/390/078.

- Turner, D.P., Myrold, D. and Bailey, J.D. 1990. Climate change and patterns of denitrification in the Willamette Basin in western Oregon, USA. In: *Soils and the Greenhouse Effect* (L. Bouwman, ed.), John Wiley and Sons, New York. pp 511-517.
- Barnes, P.W., Gucinski, H. and Turner, D.P. 1989. Ecosystem responses to increases in solar ultravioletB radiation. Paper 895.6, Air and Waste Management Association. Anaheim, CA. June 2530, 1989.
- 22. Turner, D.P., Tingey, D.T. and Hogsett, W. 1989. Acid fog effects on conifer seedlings. In: *Air Pollution and Forest Decline* (J.B. Bucher and I. BucherWallin, eds.). Proc. 14th International Meeting for Specialists in Air Pollution Effects on Forest Ecosystems, IUFRO P2.05, Interlaken, Switzerland, Oct. 28 1988. Birmensdorf, 1989, pp. 125129.
- 23. Turner, D.P. and Bailey, J.D. 1988. Effects of ultravioletB radiation on tree seedlings. Environmental Protection Agency Report ERLCOR530.
- 3. Invited Presentations (Presented by D.P. Turner)
  - 1. Monitoring for Climate Change Assessment. Western Conifers Climate Change Consortium. Portland OR. February 16-18, 2011.
  - 2. Investigating the Carbon Cycle at Regional, Continental, and Global Scales. Department of Forest Ecosystems and Society. Oregon State University. Corvallis OR. October 14, 2009.
  - 3. Accounting for the effects of forest disturbance and interannual variation in climate on regional carbon flux. Forestry University. Beijing China. November 10, 2008.
  - 4. Modeling Regional and Global Gross Primary Production. Niwot Summer Flux Course. Colorado Mountain Research Station. Nederland CO. July 25, 2008.
  - Scaling net ecosystem production and net biome production over a heterogeneous region in the western United States. "Ecology from Afar" Distinguished Lecturer Series. University of Idaho, Moscow ID. February 9, 2007.
  - 6. Modifications to Biome-BGC made at Oregon State University. Biome-BGC Workshop. University of Montana. Missoula MT. April 25-26, 2006.
  - 7. Climatic effects on carbon flux in Oregon. Oregon State University. Department of Forest Science. February 24, 2006.

- Monitoring terrestrial carbon fluxes at regional to global scales with remote sensing and modeling. Department of Geography. McGill University, Montreal Canada. December 16, 2005.
- 9. Integration of process modeling and remote sensing for analysis of the carbon cycle. Oregon State University. Department of Forest Science. Corvallis OR. February 22, 2005.
- 10. Evaluation of the MODIS LAI Product. Committee on Earth Observing Systems LAI Intercomparison Workshop. Missoula Montana. August 16, 2004.
- 11. Validation of MODIS Land Products. MODIS Land Products Workshop. Missoula Montana. August 17-19, 2004
- 12. Modeling net ecosystem production in western Oregon. CARBIUS Workshop. Viterbo Italy. June 6, 2004.
- 13. Validation of MODIS Land Products. NASA Goddard Space Flight Center. Greenbelt, MD, February 3, 2004.
- 14. Scaling Biogeochemical Fluxes: The Relationship of Process Aggregation to Spatial and Temporal Resolution. Oregon Graduate Institute, Portland OR. October 21, 2003.
- 15. Assessing interannual variation in net ecosystem production over a coniferous forest landscape. American Geophysical Union, San Francisco CA, December 15, 2001.
- 16. Accounting for effects of land use and environmental gradients on NPP and NEP over a temperate coniferous forest landscape. Wind River Crane Site Science Meeting. Wind River, WA, June 21-22, 2001.
- 17. Validating MODIS GPP and NPP products. Arctic Modeling Conference. LaPaz, Mexico. June 7-8, 2001.
- 18. Validating MODIS GPP and NPP products. LTER/GTOS Carbon Flux Scaling Workshop. H.J. Andrews LTER site. May 20-21, 2001.
- 19. Validating MODIS GPP and NPP products. MODIS Land Science Team annual meeting. Columbia MD. January 22-23, 2001.
- Scaling and validation of net primary production for EOS product validation. Committee on Earth Observation Satellites, Calibration and Validation Working Group. Ispra, Italy. May 23, 2000.

- 21. Modeling carbon flux in the flux tower footprint. The Forestry and Forest Products Research Institute. Kyoto, Japan. March 12, 1999.
- 22. The U.S. carbon budget. The Forestry and Forest Products Research Institute. Tsukuba, Japan. March 10, 1999.
- 23. The global carbon cycle. NSF/OSU Sea Grant Global Environmental Change Workshop. Marine Hatfield Science Center. Newport, OR. July 11, 1996.
- Regional modeling of the carbon, nitrogen and hydrologic cycles for climate change assessment. Forest Science Department. Oregon State University. Corvallis, OR. February 29, 1996.
- 25. US carbon pools and flux. IUFRO XX World Congress. Tampere, Finland. August 6-12, 1995.
- 26. National level carbon budgets in the temperate zone. Carbon Flux Tracking Workshop. US EPA Environmental Research Laboratory. Corvallis, OR. March 28, 1995.
- 27. Application of topographically distributed models of energy, water and carbon balance over the Columbia River Basin. Forest Science Department. Oregon State University. Corvallis, OR. January 13, 1994.
- 28. Climate change and forests of the Pacific Northwest. Global Change for Educators Workshop. Seattle, WA. February 27-28, 1992.
- 29. Global climate change. World Food Day Observance. Oregon State University. October 16, 1989.
- 4. Volunteered Presentations
- McGuire, A.D., Hayes, D.J., Stinson, G., Turner, D.P., Wei, Y., Heath, L.S., Kurz, W.A., West, T.O., McConkey, B.G., deJong, B., Huntzinger, D.N., Post, W.M., Cook, R.B., and NACP Regional Synthesis Participants. 2011. Towards better-constrained assessments of the carbon balance of North America in the 21st Century: a comparison of recent model and inventory-based estimates. North American Carbon Program Meeting. New Orleans LA, January 30 - February 2. Talk.
- Turner, D., Ritts, W.D., Nemani, R., Wang, W. 2011. Accounting for Effects of Forest Stand Age and Irrigated Agriculture in Remote Sensing Based Simulation of Land Surface Carbon Flux. North American Carbon Program Meeting. New Orleans LA. January 30-Feb. 2. Poster.

- Turner, D.P., King, D.A., Ritts, W.D. 2010. Parameterization of a Diagnostic Carbon Cycle Model for Continental Scale Application. American Geophysical Union meeting. San Francisco CA, December 14-19. Talk.
- 4. Turner, D.P., King, D., Ritts, D. 2010. Influences of FPAR source, number of reference sites, ecoregion configuration, and meteorological data source on parameter optimization of a diagnostic carbon cycle model. NASA Terrestrial Ecology Science Team meeting. LaJolla CA. March 15-17. Poster.
- Turner, D.P., Ritts, W.D., Kennedy, R.E., Yang, Z., Law, B.E. 2009. Accounting for forest harvest and wildfire in a spatially-distributed carbon cycle process model. American Geophysical Union General Meeting. San Francisco, CA. December 14 - 18. Poster.
- Law, B.E., Turner, D., Goeckede, M. 2009. Integrating remote sensing data, inventories and modeling to estimate terrestrial carbon uptake for the West Coast United States. American Geophysical Union General Meeting. San Francisco, CA. December 14-18. Talk.
- Goeckede, M., Turner, D., Michalak, A. Vickers, D., Law, B. 2009. A fusion of top-down and bottom-up modeling techniques to constrain regional scale carbon budgets. American Geophysical Union General Meeting. San Francisco, CA. December 14-18. Talk.
- Turner, D.P., Goeckede, M., Law, B.E., Ritts, W.D., Cohen, W.B., Yang, Z., Hudiburg, T., Kennedy, R., Duane, M. 2009. Integrated analysis of land surface carbon flux in the western U.S. 8<sup>th</sup> International Carbon Dioxide Conference. Jena, Germany. September 13-19. Poster.
- 9. Goeckede, M., Michalak, A., Vickers, D., Turner, D., Law, B. 2009. High resolution inverse modeling to constrain regional carbon budgets. European Geophysical Union Meeting. Vienna, Austria. April 21-24. Talk.
- Law, B.E., Turner, D.P., Cohen, W., Goeckede, M., Duane, M., Hudiburg, T., Ritts, D., Yang, Z. 2009. The ORCA West Coast Regional Project – Diagnosis and Attribution. North American Carbon Progam meeting. SanDiego CA. February 17-20. Talk.
- Turner, D.P., Law, B., Cohen, W., Ritts, D., Yang, Z., Hudiburg, T., Duane, M., Kennedy, R. 2009. Bottom-up scaling of net ecosystem production and net biome production over Oregon and California. North American Carbon Progam meeting. SanDiego CA. February 17-20. Poster.
- 12. Law, B.E., Turner, D., Goeckede, M. 2009. Can Flux Tower Measurements Constrain Terrestrial Uptake of CO2? AAAS annual meeting. Chicago IL. February 11-16. Talk.

- Goeckede, M., Michalak, A., Vickers, D., Turner, D., Law, B. 2008. The ORCA West Coast Regional Project - Atmospheric Top-Down Modeling to constrain Regional Carbon Budgets at high Temporal and Spatial Resolution. American Geophysical Union General Meeting. San Francisco, CA. December 14. Talk.
- Govind, A., Law, B., Chen, J., Turner, D. 2008. Long-term Carbon Balance of Oregon's Landmass under Disturbances, Changes in Atmospheric Chemistry and Climate. AmeriFlux Meeting. October 14-17. Boulder CO. Poster.
- 15. Turner, D.P., Ritts, D., Wharton, S., Vickers, D., Monson, R., Nightingale, J. 2008. Evaluation of a Diagnostic Carbon Flux Model with Observations at Eddy Covariance Flux Towers. Science Symposium for the Cooperative Institute for Environmental Sciences. Boulder CO. April 3, 2008. Poster.
- 16. Göckede, M., Turner, D.P., Law, B.E. 2007. The ORCA West Coast Regional Project Use of top-down modeling in a regional carbon budget approach to estimate gross carbon fluxes for Oregon-California. American Geophysical Union General Meeting. San Francisco, CA. December 10-14. Talk.
- Turner, D.P., Ritts, W.D., Nightingale, J., Wharton, S., Vickers, D. 2007. A cross-site evaluation of alternative FPAR products for use in diagnostic carbon flux models. American Geophysical Union General Meeting. San Francisco, CA. December 10-14. Talk.
- Law, B.E., Turner, D.P., Cohen, W.E., Göeckede, M., Campbell, J., Duane, M., Hudiburg, T., Ritts, D., Yang, Z. 2007. The ORCA West Coast Regional Project. North American Carbon Program Meeting. January 22-24, 2007. Colorado Springs CO.
- 19. Göeckede, M., Turner, D.P., Law, B.E. 2007. The ORCA2 West Coast Regional Project

  Use of Top-Down Modeling to Estimate Regional Carbon Fluxes. AmeriFlux Meeting.
  Boulder, CO. October 17-19.
- 20. Lefsky, M., Hunter, M., Keller, M., Turner, D., de Camargo, P. 2006. Regionally applicable equations for estimating aboveground biomass in the Amazon Basin from Geoscience Laser Altimeter System waveform metrics. Large Scale Biosphere-Atmosphere Interactions Science Meeting. Brazilia, Brazil. October 4-6.
- Duane, M., Hudiburg, T., Cohen, W., Campbell, J., Turner, D.P., Ritts, W.D., Weyermann, D. and Law, B. 2006. Integration of FIA plot data and Landsat imagery to model stand age in Oregon. 8th Annual Forest Inventory and Analysis Symposium. Monterey, CA. October 16-19.

- Law, B.E., D. Turner, W. Cohen, D. Ritts, Z. Yang, T. Hudiburg, J. Campbell, M. Duane.
   2006. Scaling NEP and NBP over a heterogeneous region in the Western United States. International Greenhouse Gas Conference in the Northern Hemisphere. November 13 – 17, 2006. Sissi-Lassithi, Crete, Greece. (\*keynote speech).
- 23. Hudiburg, T., Duane, M., Turner, D.P., Yang, Z., Campbell, J.L. Cohen, W. and Law, B. 2006. Parameterization and validation of Biome-BGC model estimates of carbon stores and fluxes across Oregon and Northern California using FIA plot data. 8th Annual Forest Inventory and Analysis Symposium. Monterey, CA. October 16-19.
- Turner, D.P., Styles, J., Cohen, W.B., Law, B.E., Ritts, W.D., Thornton, P. 2006. Application of MODIS FPAR to Diagnostic Modeling of NEP. Global Vegetation Workshop. Missoula, MT. August 7-10.
- 25. Gobron, N. and JRC-FAPAR Team. 2006. Validation of FAPAR products derived from optical sensors: methods and results. COSPAR meeting. Beijing.
- 26. Law, B.E., Turner, D.P., Cohen, W.B., Styles, J. 2005. Regional carbon budget approach and progress in support of the North American Carbon Program: ORCA overview. American Geophysical Union General Meeting. San Francisco CA. December 4-9.
- Styles, J., Goeckede, M., Law, B., Turner, D., Cohen, W. 2005. Oregon-California regional budget approach using model-data fusion to estimates gross carbon fluxes. American Geophysical Union General Meeting, San Francisco, CA., December 4-9.
- 28. Lefsky, M.A., Carneiro-Filho, A., Turner, D.P., Harding, D.J., Keller, M., Cohen, W.B., Carabajal, C.C., Del Bom Espirito-Santo, F., Hunter, M.O., de Camargo, P.B. 2005. Estimates of Forest Canopy Height and Aboveground Biomass for the Amazon basin using ICESAT. Large Scale Atmosphere Biosphere meeting. Brazil. November 2005.
- Turner, D.P., Styles, J., Cohen, W.B., Law, B.E., Ritts, W.D., Thornton, P. 2005. Monitoring effects of interannual variation in climate and fire regime on regional net ecosystem production with remote sensing and modeling. AmeriFlux Science meeting. Boulder, CO. October 18-20.
- Turner, D.P., Styles, J., Cohen, W.B., Law, B.E., Ritts, W.D., Thornton, P., Falk, M.. 2005. Monitoring effects of interannual variation in climate and fire regime on regional net ecosystem production with remote sensing and modeling. 7<sup>th</sup> International Carbon Dioxide Conference. Broomfield, CO. September 26-30.
- Turner, D.P., Ritts, W.D., Cohen, W.B., Maeirsperger, T., Gower, S.T., Kirschbaum A., Running, S.W., Zhao, M., Wofsy, S., Dunn, A., Law, B., Campbell, J., Oechel, W. Kwon,

H.J., Meyers, T., Small, E., Kurc, S., Gamon, J., 2004. Site-level Evaluation of MODIS GPP and NPP Products. FLUXNET Workshop. Florence, Italy. December 12-15.

- 32. Turner, D.P., Ritts, W.D., Cohen, W.B., Maeirsperger, T., Gower, S.T., Kirschbaum A., Running, S.W., Zhao, M., Wofsy, S., Dunn, A., Law, B., Campbell, J., Oechel, W. Kwon, H.J., Meyers, T., Small, E., Kurc, S., Gamon, J., 2004. Site-level Evaluation of MODIS GPP and NPP Products. MODIS Land Products Workshop. Missoula, MT. August 17-19.
- 33. Turner, D.P., Ritts, W.D., Cohen, W.B., Gower, S.T., Zhao, M., Running, S.W. 2003. A Model-based Approach to Scaling GPP and NPP in Support of MODIS Land Product Validation. American Geophysical Union General Meeting, San Francisco, CA. December 8-12.
- 34. Turner, D.P., Cohen, W.B., Gower, S.T., Costa, M., Ritts, D., Maiersperger, T. 2003. Validating MODIS land cover, LAI, GPP, and NPP at a tropical moist forest site. Presented at the 2003 LBA Science Conference. Fortaleza, Brazil. November 5-8.
- 35. Kennedy, R.E., Turner, D.P. 2003. Variations in key leaf traits across an ecotonal climate gradient may alter strategies for modeling forest biogeochemical cycles. Poster presented at North American Forest Ecosystem Workshop. Corvallis, OR, June 10.
- Law, B.E., J.L. Campbell, D. Turner, O. Sun, M. Guzy, M. Lefsky. 2003. Scaling carbon storage and fluxes to region: A case study in the Pacific Northwest US. CarboEurope, Lisbon, Portugal. March 18-21.
- Turner, D.P., Cohen, W., Gower, S.T., Ritts, W. 2002. Scaling Issues in the Evaluation of MODIS Gross Primary Production Estimates. American Geophysical Union Fall Meeting, San Francisco CA., December 6-10.
- 38. Turner, D.P., Guzy, M., Lefsky, M., Ritts, W., VanTuyl, S., Law, B.E. 2002. Monitoring Forest Carbon Sequestration with Remote Sensing and Carbon Cycle Modeling. USDA Symposium on Natural Resource Management to Offset Greenhouse Gas Emissions. Raleigh, N.C. November 19-21.
- Turner, D. P., Ollinger, S., Smith, M.L., Krankina, O., Gregory, M. 2002. Scaling Net Primary Production to a MODIS Footprint in Support of Earth Observing System Product Validation. 2002. Ecological Society of American meeting, Tucson Arizona. August 4-9.
- 40. Kennedy, R., Turner, D., Guzy, R. Matching scale of modeling with scales of variability in a forested region of Oregon, USA. 2002. Ecological Society of American meeting, Tucson, Arizona. August 4-9.

- 41. Turner, D.P., Cohen, W.B., Gower, S.T., Ritts, W. 2002. Evaluating MODIS Gross Primary Production Estimates with Ground-based Measurements and Modeling. MODIS Land Products workshop. Missoula, MT. July 16-18.
- 42. Cohen, W.B., Turner, D.P., Gower, S.T., Running, S.W. 2002. Assessment of Provisional MODIS-derived Surfaces Related to the Global Carbon Cycle: Land Cover, LAI, GPP/ NPP. MODIS Land Products workshop. Missoula, MT, July 16-18.
- 43. Cohen, W.B., Gower, S.T., Turner, D. P., Running, S.W. 2002. Initial BigFoot Project Assessment of MODIS-derived Surfaces Related to the Global Carbon Cycle. 29th International Symposium on Remote Sensing of Environment. Buenos Aires, Brazil. April 16.
- 44. Turner, D.P., Guzy, M., Lefsky, M., VanTyle, S., Daly, C. 2001. Effects of land use, environmental gradients, and interannual climatic variation on net ecosystem production over a temperate coniferous forest landscape. Sixth International Carbon Dioxide Conference. Sendai, Japan. October 1-5.
- 45. Turner, D.P., Gower, S.T., Wofsy, S.C., Knapp, A.K., Meyers, T. 2001. A Cross-biome Comparison of Light Use Efficiencies for Gross Primary Production and Net Primary Production. Poster presentation at the Global Change Open Science Conference. Amsterdam, Netherlands. July 10-13.
- 46. Law, B.E., Turner, D.P., Lefsky, M., Thornton, P., Daly, C., Harmon, M. 2001. Net Ecosystem Productivity of Pacific Northwest Forests: Scaling and Validation. IUFRO Canopy Process Workshop. Corvallis, OR July 11-15.
- 47. Turner, D.P. Scaling GPP at eddy covariance flux tower sites in the context of EOS/ MODIS validation. 2000. AmeriFlux Science Meeting. Atlanta, GA. October 24-25.
- 48. Turner, D.P. 2000. Toward a global network of carbon flux validation sites. LTER All Scientists Meeting. Snowbird, UT. August 3-4.
- 49. Cohen, W.B., Gower, S.T., Turner, D.P., Reich, P., and Running, S.W. 2000. BigFoot: A project linking *in-situ* and satellite measurements to validate MODIS terrestrial ecology products. 28<sup>th</sup> International Symposium on Remote Sensing of Environment. Cape Town, South Africa. June 21.
- 50. Turner, D.P., Law, B.E., Anthoni, P.M., and Thornton, P.E. 1999. Validating modeled evapotranspiration and gross primary production using eddy covariance flux measurements. Ecological Society of America. Spokane, WA. August 8.

- 51. Turner, D.P., Law, B.E., and Anthoni, P.M. 1998. Validating modeled evapotranspiration and gross primary production using eddy co-variance flux measurements in a ponderosa pine ecosystem. American Geophysical Union. San Francisco, CA. December 9.
- 52. Turner, D.P. and Acker, S.A. 1997. Estimating leaf area index from sapwood area in young, mature and old-growth Douglas-fir forests. Ecological Society of America. Albuquerque, NM. August 6.
- 53. Turner, D.P., Cohen, W. and Kennedy, R. 1997. Proportional estimation error in aggregation to the 1 km resolution: Effects on estimated NPP and NEP over a managed forest landscape in western Oregon. International Association for Landscape Ecology. Research Triangle Park, NC. March 16-19.
- 54. Marks, D. and Turner, D.P. 1995. Application of spatially distributed water and carbon flux models over the Columbia River Basin. Ecological Society of America. Snowbird, UT. August 9.
- 55. Kern, J.S. and Turner, D.P. 1995. Soil carbon to nitrogen relationships and spatial patterns in the contiguous United States. American Society of Agronomy. Madison, WI. October 10-13.
- Turner, D.P. 1995. The contribution of forests to national level carbon budgets. Symposium on "Planted Forests: Contributions to Sustainable Societies". Portland, OR. June 28July 1.
- 57. Barker, J.R., Turner, D.P. and Lee, J.J. 1995. Carbon sequestration potential of the Conservation Reserve Program. Symposium on "Planted Forests: Contributions to Sustainable Societies". Portland, OR. June 28July 1.
- Turner, D.P. 1994. How important is spatial resolution in the application of spatially distributed ecosystem models? First Global Change and Terrestrial Ecology Science Conference. Woods Hole, MA. May 2327.
- 59. Barker, J.R., Baumgardner, G.A., Turner, D.P. and Lee, J.J. 1994. Carbon sequestration potential of the Conservation (CRP) and Wetlands (WRP) Reserve Programs. First Global Change and Terrestrial Ecology Science Conference. Woods Hole, MA. May 2327.
- 60. Turner, D.P. 1994. The spatial distribution of potential leaf area index for Pacific Northwest coniferous forests. Ecological Society of America. Knoxville, TN. August 11.
- 61. Turner, D.P. 1994. Comparisons among national forest carbon budgets. VI International Congress of Ecology. Manchester, England. August 2026.

- 62. Kern, J.S., D. Marks, and D.P. Turner. 1994. Simulating soil water dynamics with climate change in the Columbia River Basin using a spatially distributed water balance model. American Society of Agronomy. Madison, WI. October 16.
- 63. Turner, D.P., Marks, D. and Dodson, R. 1994. Sensitivity of a topographically distributed model of water and carbon balance to spatial resolution. American Geophysical Union. San Francisco, CA. December 8.
- 64. Turner, D.P. and Marks, D. 1993. Application of topographically distributed models of energy, water and carbon balance over the Columbia River Basin: Simulation of potential climate change effects at the regional scale. 32nd Hanford Symposium on Health and the Environment. Battelle Pacific Northwest Laboratory, Richland, WA. October 1821.
- 65. Turner, D.P., Koerper, G., Harmon, M. and Lee, J. 1993. A carbon budget for the forests of the US with projections to the year 2040. 4<sup>th</sup> International CO<sub>2</sub> Conference. Carqueiranne, France. September 1317.
- 66. Turner, D.P., and Kern, J. 193. Soil carbon storage in forest ecosystems of the United States. 8<sup>th</sup> North American Forest Soils Conference. Gainsville, FL. May 913.
- 67. Turner, D.P. and Koerper, G. 1993. Comparison of forest cover estimates using inventory and remote sensing approaches. International Association for Landscape Ecology. Corvallis OR. April 811.
- 68. Turner, D.P., Koerper, G., Harmon, M. and Lee, J.J. 1993. The role of biological processes in the U.S. carbon budget. Ecological Society of America. Madison WI. August.
- 69. Marks, D., King, G.A., Phillips, D. and Turner, D.P. 1992. The implications of climate change on the water balance of the Columbia River basin. Ecological Society of America. Honolulu, HI. August.
- 70. Turner, D.P. and Koerper, G. 1992. Comparison of forest cover estimates using inventory and remote sensing approaches. Ecological Society of America. Honolulu, HI. August.
- Gucinski, H., Peterson, C., Turner, D., Lee, J. and Dixon, R. Elements of the carbon budget of the USA. 1992. IUFRO Centennial Meeting. Eberswalde, Germany. August 39.
- 72. Turner, D.P. and Leemans, R. 1991. Potential changes in belowground carbon storage in response to global climate change. Ecological Society of America. SanAntonio, TX. August.

- 73. Turner, D.P. and Baglio, J. 1991. Climate change and emissions of isoprene from vegetation. CHEMRAWN VII: World Conference on the Chemistry of the Atmosphere and its Impact on Global Change. Baltimore, MD. December 26, 1991.
- 74. Turner, D.P., Pross, D. and Phillips, D.L. Application of the satellitederived Global Vegetation Index to analysis of spatial and temporal patterns in foliar biomass. First International Conference/Workshop on Integrating Geographic Information Systems and Environmental Modeling. Boulder, CO. September 1519.
- 75. Gucinski, H., Turner, D.P., Kern, J. and Peterson, C. 1991. Pools and flux of carbon in Pacific Northwest forest systems of the U.S. 1991. US/Canada Symposium on implications of climate change for Pacific Northwest forest Management. Seattle, WA. October 5.
- 76. Turner, D.P. and Baily, J. 1990. Climate change and patterns of denitrification in the Willamette Basin in western Oregon, USA. International Conference on Soils and the Greenhouse Effect. The Netherlands. September 4-9.
- Pross, D., Phillips, D.L., Turner, D.P. and Marks, D. 1990. Global scale analysis of spatial and temporal patterns in foliar biomass. American Geophysical Union. Baltimore, MD. May.
- Turner, D.P., Lueking, M. and Sollins, P. 1990. Availability and uptake of inorganic nitrogen in a mixed oldgrowth coniferous forest. Ecological Society of America. Snowbird, UT. August.
- 79. Turner, D.P., Lueking, M. and Sollins, P. 1989. Speciesspecific effects of three western conifers on nitrogen transformations in the litter. Ecological Society of America. Toronto, Ontario. August.
- Turner, D.P. and Tingey, D.T. 1988. Foliar leaching and root uptake of Ca, Mg and K in relation to acid fog effects on conifers. Ecological Society of America. Davis, CA. August.
- Turner, D.P. and Franz, E.H. 1984. Understory vegetation in relation to soil differentiation in a western redcedar/western hemlock community. Ecological Society of America. August.
- 82. Turner, D.P. and Franz, E.H. 1983. Soil differentiation and microbial populations in a *Tsuga heterophylla/Thuja plicata* community. Ecological Society of America. August.

- Turner, D.P. 1981. The relation of life history characteristics to successional status for six northwestern conifers. American Association for the Advancement of Science (Pacific Division). Eugene, OR. June.
- 84. Turner, D.P. 1978. Variation in germination and development in populations of *Oryzopsis hymenoides*. ColoradoWyoming Academy of Science. Colorado Springs, CO. June.

## 5. Research Support Received

Competitive Grants and Contracts

- Mote, P., Lach, D., Adell, A., Bolte, J., Bond, B., Hulse, D., Sridhar, V., Turner, D. Pacific Northwest Climate Decision Support Consortium. NOAA Regional Integrated Science and Assessment Program. \$3,500,000 (2010-2015).
- 2. Turner, D.P., Nemani, R., Jacobson, A. Assessing the Sensitivity of Net Ecosystem Exchange over North America to Climate and Disturbance with Prognostic and Diagnostic Models. NASA Terrestrial Ecology Program. \$731,770 (2009-2012).
- 3. Law, B.E., Turner, D.P. Integrating Remote Sensing, Field Observations, and Models to Understand Disturbance and Climate Effects on the Carbon Balance of the West Coast. U.S. Department of Energy. \$1,700,000 (2007-2010).
- Turner, D.P. Spatially-explicit estimates of forest biomass in the Amazon Basin using MODIS and the Geoscience Laser Altimeter System. Subcontract from Colorado State University/NASA (M. Lefsky, PI). \$167,555 (2006-2009).
- 5. Law, B.E., Turner, D.P., Cohen, W., Styles, J. Synthesis of remote sensing and field observations to model and understand disturbance and climate effects on the carbon balance of Oregon and N California. Department of Energy. \$1,021,123 (2004-2007).
- 6. Turner, D.P. BigFoot Extension Proposal. NASA Terrestrial Ecology Program. \$218,203 (2004).
- 7. Turner, D.P., Kennedy. Dissertation Research: Relating Biogeochemical Model Parameters to Climatic Gradients. National Science Foundation. \$8,037 (2002).
- 8. Turner, D.P. Linking *In-situ* Measurements, Remote Sensing, and Models to Validate MODIS Products Related to the Terrestrial Carbon Cycle (BigFoot II). NASA Terrestrial Ecology Program. \$471,657 (2001-2004).
- Law, B.E., Turner, D.P., Harmon, M. Acker, S., Daly, C. Unsworth, M. Regional Analysis of Net Ecosystem Productivity of Pacific Northwest Forests: Scaling Methods, Validation and Results Across Major Forest Types and Age Classes. US Environmental Protection Agency. \$1,715,416 (2000-2003).
- Cohen, W., Turner, D.P. BigFoot--Characterizing land cover, LAI and NPP at the landscape scale for EOS/MODIS validation. NASA Terrestrial Ecology Program. \$704,705 (1998-2001).

- Radosevich, S., Sollins, P., Cohen, W., Harmon, M., Grant, G., Turner, D. Jones, J., Cordray, S., Roush, M., and C. Smith. Land use patterns and ecosystem behavior in the upper Willamette River drainage. OSU Center for the Analysis of Environmental Change, Corvallis OR. \$20,000 (1992).
- 12. Sollins, P. and Turner, D. Speciesspecific effects of western hemlock, Douglasfir and western redcedar on the nitrogen cycle. NSF and USDA. \$200,000 (1986-1988).

Non-competitive Grants and Contracts

- Turner, D.P. Application of eddy covariance tower data to calibration and validation of diagnostic carbon flux models. CIRES Sabbatical Fellowship. University of Colorado. (2007-2008).
- 2. Turner, D.P. JVA Characterizing disturbance and succession in relation to forest carbon dynamics supplement. USDA Forest Service PNW Station. \$393,148 (2008-2010).
- 3. Turner, D.P. JVA Characterizing disturbance and succession in relation to forest carbon dynamics supplement. USDA Forest Service PNW Station. \$199,887 (2006-2008).
- 4. Turner, D.P. JVA Characterizing disturbance and succession in relation to forest carbon dynamics. USDA Forest Service PNW Station. \$177,654 (2005-2007).
- 5. Turner, D.P. JVA -- Linking *In-situ* Measurements, Remote Sensing, and Models to Validate MODIS Products Related to the Terrestrial Carbon Cycle (BigFoot II). USDA Forest Service PNW Research Station. \$240,703 (2002-2004).
- Lefsky, M., Cohen, W., Turner, D.P. Using FIA plot data to parameterize and assess errors in remote sensing models of forest cover type, successional state, and biomass. PNW 02-JV-11261952251. USDA Forest Service PNW Research Station. \$168,969. (2000-2003).
- 7. Kennedy, R.K., Turner, D.P. Faculty support for Turner (0.1 FTE) from OSU Space Grant to Kennedy. 2000.

Consulting

- 1. Turner, D.P. and Winjum, J. Carbon budgets and the U.S. forest sector -- a current perspective. The National Council for Air and Stream Improvement. \$4000 (1996).
- Turner, D.P. Review of carbon sequestration plan. United State Generating Company. \$2000 (1996).

Workshops

1. Turner, D.P., Cohen, W., Running, S., VandeCastle, J. Scaling Carbon Flux to the Site Level in the Context of Validating Products from Earth

Observing Satellites. Supported by NSF through the LTER Network Office. \$10,000 (2001).

Training

- 1. Turner, D.P. Carbon sequestration and climate change. One week study tour for senior scientists from the India Council for Forestry Research and Education. \$4,000 (2001).
- 2. Turner, D.P. Carbon sequestration and climate change. Twelve week training for scientists from the India Council for Forestry Research and Education. \$21,000 (2001).

# 6. Research Panels/Advisory Committees

- 1. Member of the NASA Land Processes Distributed Active Archive Center Working Group. 2007-present.
- 2. Panel Member, NASA Terrestrial Ecology Panel, September 28-30, 2009.
- 3. Panel Member, NASA "Carbon and Climate Science" Panel. November 7-8, 2005.
- 4. Committee on Earth Observation Satellites, Calibration and Validation Working Group. 2000.

# D. Teaching, Advising, and Other Assignments

- 1. Resident instruction
  - a. Courses Taught.
  - 2011. Global Environmental Change (SNR 540) 3 credit hour Ecampus course.
  - 2005. Forest Ecosystem Analysis (Forest Science 646) 4 credit hour course (cotaught with Mark Harmon and Olga Krankina)
  - 2003. Simulation Modeling (Forest Science 599) 1-credit hour laboratory course.
  - 2002. Ecological Modeling (Forest Science 605) 1 credit-hour Reading and Conference.
  - 1997-2000. Systems Theory Seminar (Forest Science 507) 1-credit hour Reading and

Conference

1991,	1992.	'Global Ecology' (Bioresource Engineering 551) – 3-credit hour graduate
	course	e (co-taught with Hermann Gucinski and Dominique Bachelette).

# b. Advising

Major Professor

	Robert Kennedy (co-chair), Ph.D., Forest Science (1999 - 2004)		
	Graduate Committee member		
2006)	Liang Wei, Ph.D., Dept. of Forest Resources (UI) (2007 - ) Tom Giesen, Ph.D., Forest Ecosystems and Society (2009 -2010 ) David Conklin, Ph.D., Bioresources Engineering (OSU) (2006 - 2009) Garrett Meigs, M.S., Forest Science Department (2007 - 2009) Tara Hudiburg, M.S., Forest Science Department (2005 - 2008) Dirk Pflugmacher, M.S., Forest Science Department (2006 - 2008) Al Kirshbaum, M.S., Forest Science Department (2006 - 2008) Carlos Sierra, M.S., Forest Science Department (2004 -		
2000)	Dan Hayes, Ph.D., Forest Science Department (2002 - 2006) Steve Van Tyle, M.S, Forest Science Department (2000 - 2003) John Campbell, Ph.D., Forest Science Department (2001 - 2003) Erica Smithwick, Ph.D., Forest Science Department (2002) Derek Pross, M.S., Geography Department (1990)		
	Opponent		
	Pontus Olofsson, Ph.D., Uppsala University (2007)		
	Postdoctoral Research Associates Supervised		
	David King (2009 - 2010) Zhiqiang Yang (2008 - present)		
Faculty Research Assistants Supervised			
	Maureen Duane (2005 - present) David Ritts (2001 - present) Michael Guzy (2001 - 2005)		

Tom Maiersperger (2001 - 2005) Matthew Gregory (1998 - 2001)

#### 2. Extension

a. OSU Extension

Co-Instructor for "Carbon and the Environment" course at the OSU Extension Service Tree School 2007. Clackamas College, Portland OR.

Panel member, Forest Science Department Extension Workshop on Carbon Sequestration, October 17, 2001, Corvallis OR.

b. Public education

News Stories

Focus on Forestry, OSU College of Forestry, Fall 2005

The Forestry Source (Society of American Foresters), March 1996, U.S. carbon budget

OSU News, October 1995, U.S. carbon budget

Associated Press, October 1995, U.S. carbon budget (appeared in Corvallis, Salem, Eugene, Coos Bay, and elsewhere)

Radio/TV Interviews

Eugene radio, October 1995, U.S. carbon budget

Salem radio, October 1995, U.S. carbon budget

Eugene TV station, October 1989, Global climate change

Invited Talks

Mazamas, Portland Oregon, April 3, 2009, Forests and Climate: the Carbon Connection.

c. Internet

Web site for BigFoot Project. http://www.fsl.orst.edu/larse/bigfoot/index.html Web site for ORCA Project. http://terraweb.forestry.oregonstate.edu/orca.htm

#### E. Service

- 1. Professional Organizations
  - a. Associate Editor, *Frontiers in Ecology and the Environment*, January 2006 to January 2010.
  - b. Editorial Review Board, Tree Physiology, 2007 2010.
  - c. Proposal Reviewer

USDA National Research Initiative Competitive Grants Program Soil and Soil Biology Program Managed Ecosystem Research Program NASA, Land Use and Land Cover Change Program Terrestrial Ecology Program Postdoc Program National Science Foundation Ecosystem Studies Program Division of Earth Sciences Canadian Sustainable Forest Management Network British National Environmental Research Council Israeli National Science Foundation Belgian Remote Sensing Research Program Danish Agency for Science, Technology and Innovation

d. Manuscript Reviewer

Agricultural and Forest Meteorology BioScience Canadian Journal of Forest Research Ecological Applications Environmental Pollution Forest Science Forest Ecology and Management IEEE Transactions on Geosciences and Remote Sensing International Journal of Remote Sensing Journal of Environmental Quality Journal of Geophysical Research - Biogeosciences Journal of Tropical Forest Science Nature Photogrammetric Engineering and Remote Sensing Plant and Soil Remote Sensing of Environment Tellus B Tree Physiology Water, Air, and Soil Pollution

e. Workshop Organizer

Long Term Ecological Research Network. "Carbon Flux Scaling Workshop" held at the H.J. Andrews site, May 20-22, 2001.

Long Term Ecological Research Network. "Scaling Carbon Flux to the Site Level in the Context of EOS/MODIS Product Validation". 2000 All Scientists Meeting.

f. Symposium/Session Organizer

Co-chaired a session at the 2000 American Geophysical Union General Meeting on "Application and Validation of MODIS Vegetation Products".

Co-chaired a symposium at the 1995 ESA General Meeting on "Modeling Biophysical Processes over Complex Topography".

Co-chaired a session at the 1991 AAAS General Meeting on "The Role of Terrestrial Ecosystems in the Global Carbon Cycle".

#### 2. University, College and Department

a. University

Sustainable Systems Dual Major Program Development Committee, 2009

b. College of Forestry

Starker Lecture Series Committee, 2003-2004

c. Department of Forest Ecosystems and Society

Search Committee (Biophyisical/biogeochemicstry Modeler), 2011

Graduate Student Committee, 2005-2006

Awards Committee, 2003-2005 (Co-chair, 2004)

Co-organizer of 2002 Winter Seminar Series

Member of a Promotion and Tenure Subcommittee 1999, 2001, 2009

Space Committee (2001-2002)

## 3. Public

a. 1988-1994: Participated in regular meetings of the Corvallis Watershed Advisory Commission