Anthony W. King
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Oak Ridge National Laboratory
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***Education and Training*:**

Ph.D.	University of Tennessee, Knoxville	Ecology	1986
M.S.	Arkansas State University, Jonesboro	Biology	1981
B.S.	Arkansas State University, Jonesboro	Zoology	1978

***Professional Positions*:**

Research Staff Member (1992-present), Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN.

Research Associate (1987-1992), Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN.

***Awards and Honors*:**

2008: Oak Ridge National Laboratory Significant Event Award for publication of U.S. Climate Change Science Program Synthesis and Assessment Product 2.2, *The First State of the Carbon Cycle Report (SOCCR): The North American Carbon Budget and Implications for the Global Carbon Cycle*.

2008: Oak Ridge National Laboratory Outstanding Mentor Award

2002: Outstanding Paper in the Field of Landscape Ecology (with K.A. With, Analysis of landscape sources and sinks: the effect of spatial pattern on avian demography. *Biological Conservation* 100:75-88), U.S. Chapter of the International Society for Landscape Ecology

2001: Scholarly/Professional Articles Award, East Tennessee Chapter of the Society for Technical Communication.

1999: Lockheed Martin Energy Research Corporation, Research Accomplishment Award, Technical Publication.

1999: Technical Communication Award, Merit in Scholarly and Professional Articles, East Tennessee Chapter of the Society for Technical Communication.

1991: Technical Communication Award, Distinguished in Scholarly and Professional Articles East Tennessee Chapter of the Society for Technical Communication.

1991: Martin Marietta Energy Systems Team Technical Achievement Award,.

1986: University of Tennessee Chancellor's Citation for Extraordinary Professional Promise.

1986: University of Tennessee Science Alliance Fellowship.

1985: University of Tennessee Graduate Program in Ecology Fellowship.

1981: Arkansas State University Outstanding Achievement in Biology --- M.S.

1978: Arkansas State University Outstanding Achievement in Zoology---B.S.

***Research Interests*:**

Impact of climate change on ecological and social systems, terrestrial carbon cycle/ecosystem modeling, terrestrial ecosystems as part of the global Earth system, theory of scale and system organization in ecology, landscape ecology and spatial demography, land-use change, model sensitivity and uncertainty analysis, model evaluation, urban information systems.

Selected Publications

Surendran Nair, S, B.L. Preston, A.W. King, R. Mei. 2016. Use of spatial typologies for detection and attribution of socioeconomic influences on agricultural production. *Environmental Modelling and Software* In Press

Mao, J., D.M. Ricciuto, P.E. Thornton, J.M. Warren, A.W. King, X. Shi, C.M. Iversen and R.J. Norby. 2016. Evaluating the Community Land Model in a pine stand with $^{13}CO_2$ and shading manipulations. *Biogeosciences* In Press.

Xu, X., D. Hui, A. W. King, X. Song, P. E. Thornton and L. Zhang. 2015. Convergence of microbial assimilations of soil carbon, nitrogen, phosphorus, and sulfur in terrestrial ecosystems. *Scientific Reports* 5: 17445.

King, A. W., Andres, R. J., Davis, K. J., Hafer, M., Hayes, D. J., Huntzinger, D. N., de Jong, B., Kurz, W. A., McGuire, A. D., Vargas, R., Wei, Y., West, T. O., and Woodall, C. W. 2015. North America's net terrestrial carbon exchange with the atmosphere 1990–2009. *Biogeosciences* 12, 399–414.

Schwalm, C. R., D. N. Huntzinger, J. B. Fisher, A. M. Michalak, K. Bowman, P. Ciais, R. Cook, B. El-Masri, D. Hayes, M. Huang, A. Ito, A. Jain, A. W. King, H. Lei, J. Liu, C. Lu, J. Mao, S. Peng, B. Poulter, D. Ricciuto, K. Schaefer, X. Shi, B. Tao, H. Tian, W. Wang, Y. Wei, J. Yang, and N. Zeng (2015), Toward "optimal" integration of terrestrial biosphere models. *Geophys. Res. Lett*., 42, 4418–4428. doi:10.1002/2015GL064002.

Preston, Benjamin L., Anthony W King; Syeda M Absar; Kathleen M Ernst; Sujithkumar S Nair; Esther S Parish. 2015. Scale and the Representation of Human Agency in the Modeling of Agricultural Systems. *Current Opinion in Environmental Sustainability*. doi:10.1016/j.cosust.2015.05.010. Available online http://www.sciencedirect.com/science/article/pii/S1877343515000524

Mao, J., W. Fu, X. Shi, D. M. Ricciuto, J. B. Fisher, R. E. Dickinson, Y. Wei, W. Shem, S. Piao, K. Wang, C. R. Schwalm, H. Tian, M. Mu, A. Arain, P. Ciais, R. Cook, Y. Dai, D. Hayes, F. M. Hoffman, M. Huang, S. Huang, D. N. Huntzinger, A. Ito, A. Jain, A. W. King, H. Lei, C. Lu, A. M. Michalak, N. Parazoo, C. Peng, S. Peng, B. Poulter, K. Schaefer, E. Jafarov, P. E. Thornton, W. Wang, N. Zeng, Z. Zeng, F. Zhao, Q. Zhu and Z. Zhu (2015). "Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends." *Environmental Research Letters* 10(9): 094008.

Jiafu Mao, Daniel M. Ricciuto, Peter E. Thornton, Jeffrey M. Warren, Anthony W. King, Xiaoying Shi, Colleen M. Iversen and Richard J. Norby. 2015. Evaluating the Community Land Model in a pine stand with $^{13}CO_2$ and shading manipulations. *Biogeosciences Discuss.*, 12, 6971–7015.

King, A. W., Andres, R. J., Davis, K. J., Hafer, M., Hayes, D. J., Huntzinger, D. N., de Jong, B., Kurz, W. A., McGuire, A. D., Vargas, R., Wei, Y., West, T. O., and Woodall, C. W. 2014: North America's net terrestrial carbon exchange with the atmosphere 1990–2009, *Biogeosciences Discuss*., 11, 11027-11059, doi:10.5194/bgd-11-11027-2014, 2014.

Langholtz, M., E. Webb, B. L. Preston, A. Turhollow, N. Breuer, L. Eaton, A. W. King, S. Sokhansanj, S. S. Nair and M. Downing. 2014. Climate risk management for the U.S. cellulosic biofuels supply chain. *Climate Risk Management* 3(0): 96-115.

Wang, D., Y. Xu, P. Thornton, A. King, C. Steed, L. Gu, J. Schuchart. 2014. A Functional Testing Platform for the Community Land Model. *Environmental Modelling and Software*. 55:25-31.

Zscheischler, J., A. M. Michalak, C. Schwalm, M. D. Mahecha, D. N. Huntzinger, M. Reichstein, G. Berthier, P. Ciais, R. B. Cook, B. El-Masri, M. Huang, A. Ito, A. Jain, A. King, H. Lei, C. Lu, J. Mao, S. Peng, B. Poulter, D. Ricciuto, X. Shi, B. Tao, H. Tian, N. Viovy, W. Wang, Y. Wei, J. Yang and N. Zeng. 2014. Impact of large-scale climate extremes on biospheric carbon fluxes: An intercomparison based on MsTMIP data. *Global Biogeochemical Cycles* 28(6): 585-600.

D. N. Huntzinger, C. Schwalm, A. M. Michalak, K. Schaefer, A. W. King, Y. Wei, A. Jacobson, S. Liu, R. B. Cook, W. M. Post, G. Berthier, D. Hayes, M. Huang, A. Ito, H. Lei, C. Lu, J. Mao, C. H. Peng, S. Peng, B. Poulter, D. Riccuito, X. Shi, H. Tian, W. Wang, N. Zeng, F. Zhao, and Q. Zhu. 2013. The North American Carbon Program Multi-scale synthesis and Terrestrial Model Intercomparison Project – Part 1: Overview and experimental design. Geosci. Model Dev. Discuss. 6:3977-4008. www.geosci-model-dev-discuss.net/6/3977/2013/ doi:10.5194/gmdd-6-3977-2013.

Zeng, N., A.W. King, B. Zaitchik, S.D. Wullschleger, J. Gregg, S. Wang, D. Kirk-Davidoff. 2013. Carbon sequestration via wood harvest and storage: An assessment of its practical harvest potential. *Climatic Change* 118(2):245-257, DOI: 10.1007/s10584-012-0624-0

King, A.W., D.J. Hayes, D.N. Huntzinger, T.O. West, W.M. Post. 2012. North America carbon dioxide sources and sinks: magnitude, attribution, and uncertainty. *Frontiers in Ecology and Environment* 10:512-519.

Pan, F. and A.W. King. 2012. Downscaling 1-km Topographic Index Distributions to a Finer Resolution for the TOPMODEL-Based GCM Hydrological Modeling. *Journal of Hydrologic Engineering* 17(2):243-251. DOI: 10.1061/(ASCE)HE.1943-5584.0000438.

Post, W.M., R.C. Izaurralde, T.O. West, M.A. Liebig, A.W. King. 2012. Management opportunities to enhance terrestrial carbon dioxide sinks. *Frontiers in Ecology and Environment*. 10:554-561.

Zeng, N., A.W. King, B. Zaitchik, S. Wullschleger, J. Gregg. S. Wang, D. Kirk-Davidoff. 2012**.** Carbon sequestration via wood harvest and storage: an assessment of its harvest potential. *Climatic Change*. *Online First* *http://link.springer.com/article/10.1007%2Fs10584-012-0624-0* DOI 10.1007/s10584-012-0624-0

Wullschleger, S.D., K.W. Childs, A.W. King and P.J. Hanson. 2011. A model of heat transfer in sapwood and implications for sap flux density measurements using thermal dissipation probes. *Tree Physiology* 31:669–679 DOI: 10.1093/treephys/tpr051.

Ricciuto, D., A.W. King, D. Dragoni and W.M. Post. 2011. Parameter and prediction uncertainty in an optimized terrestrial carbon cycle model: Effects of constraining variables and data record length. *Journal of Geophysical Research, Biogeosciences*: 116, G01033, doi:10.1029/2010JG001400.

Ciais, P., J.G. Canadell, S. Luyssaert, F. Chevallier, A. Shvidenko, Z. Poussi, Matthias Jonas, P. Peylin, A.W. King, E.D.Schulze, S. Piao, C. Rödenbeck, W. Peters and F-M Bréon. 2010. Can we reconcile atmospheric estimates of the Northern terrestrial carbon sink with land-based accounting? *Current Opinion in Environmental Sustainability* doi:10.1016/j.cosust.2010.06.008

Pan, F., C.D. Peters-Lidard and A.W. King. 2010. Inverse method for estimating the spatial variability of soil particle size distribution from observed soil moisture. *Journal of Hydrologic Engineering* 15:931-938 DOI: 10.1061/(ASCE)HE.1943-5584.0000274.

With, K.A., A.W. King and W.E. Jensen. 2008. Remaining large grasslands may not be sufficient to prevent grassland bird declines. *Biological Conservation* 141:3152-3167.

CCSP. 2007**.** *The First State of the Carbon Cycle Report (SOCCR): The North American Carbon Budget and Implications for the Global Carbon Cycle*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research [King, A.W., L. Dilling, G.P. Zimmerman, D.M. Fairman, R.A. Houghton, G. Marland, A.Z. Rose and T.J. Wilbanks (eds.)]. National Oceanic and Atmospheric Administration, National Climatic Data Center, Asheville, NC, USA, 242 pp.

King, A.W. and A. Perera. 2007. Transfer and extension of forest landscape ecology: a matter of models and scale. Pp. 19-41. In *Forest Landscape Ecology: Transferring Knowledge to Practice*, A.H. Perera, L.J. Buse and T.R. Crowe, eds. Springer-Verlag, New York.

Girod, C. M., G. C. Hurtt, S. Frolking, J. D. Aber, and A. W. King. 2007. The tension between fire risk and carbon storage: Evaluating U.S. carbon and fire management strategies through ecosystem models. *Earth Interactions* 11(2):1-33. doi: 10.1175/EI188.1.

King, A.W., C.A. Gunderson, W.M. Post, D.J. Weston and S.D. Wullschleger. 2006. Plant respiration in a warmer world. *Science* 312:536-537.

With, K. A., G. R. Schrott, and A. W. King. 2006. The implications of metalandscape connectivity for population viability in migratory songbirds. *Landscape Ecology* 21:157-167.

King, A.W. 2005. Hierarchy theory and the landscape...level? or, Words do matter. Pp. 29-35. IN *Issues and Perspectives in Landscape Ecology*, J.A. Wiens and M.R. Moss (eds.). Cambridge University Press, Cambridge, UK.

Miller, N. L., A.W. King, M.A. Miller, and Coauthors. 2005. The Doe Water Cycle Pilot Study. *Bull. Amer. Meteor. Soc*., 86, 359–374. doi: http://dx.doi.org/10.1175/BAMS-86-3-359

Post, W.M. and A.W. King. 2005. Climate change and terrestrial ecosystem production. Pp 165-170. In Climate Change and Global Food Security, CRC Press, Boca Raton, Florida.

Jager, H.I., A.W. King, N.H. Schumaker, T.L. Ashwood and B.L. Jackson. 2005. Spatial uncertainty analysis of population models. *Ecological Modelling* 185:13-27.

Schrott, G.R., K.A. With and A.W. King. 2005. Demographic Limitations of the Ability of Habitat Restoration to Rescue Declining Populations. *Conservation Biology* 19(4): 1181-1193.

Schrott, G.R., K.A. With and A.W. King. 2005. On the importance of landscape history for assessing extinction risk. *Ecological Applications* 15(2): 493-506.

Pan, F., C.D. Peters-Lidard, M.J. Sale, and A.W. King. 2004. A comparison of geographical information systems-based algorithms for computing the TOPMODEL topographic index. *Water Resources Research* 40, W06303, doi:10.1029/2004WR003069.

With, K.A. and A.W. King. 2004. The effect of landscape structure on community self-organization and critical biodiversity. *Ecological Modelling* 179:349-366.

Jager, H.I. and A.W. King. 2004. Spatial uncertainty and ecological models. *Ecosystems* 8:181-184.

Hanson, P.J., J.S. Amthor, S.D. Wullschleger, K.B. Wilson, R.F. Grant, A. Hartley, D. Hui, E.R. Hunt, Jr., D.W. Johnson, J.S. Kimball, A.W. King, Y. Luo, S.G. McNulty, G. Sun, P.E. Thornton, S.S. Wang, M. Williams and R.M. Cushman. 2004. Oak forest carbon and water simulations: model intercomparisons and evaluations against independent data. *Ecological Monographs* 74:443–489.

West, T.O., G. Marland, A.W. King, W.M. Post, A.K. Jain and K. Andrasko. 2004. Carbon management response curves: estimates of temporal soil carbon dynamics. *Environmental Management* 33:507-518.

Kittel1,T.G.F, N. A. Rosenbloom, J. A. Royle, C. Daly, W. P. Gibson, H. H. Fisher, P. Thornton, D. N. Yates, S. Aulenbach, C. Kaufman, R. McKeown, D. Bachelet, D. S. Schimel, VEMAP2 Participants (…A.W. King…). 2004. VEMAP Phase 2 bioclimatic database. I. Gridded historical (20th century) climate for modeling ecosystem dynamics across the conterminous USA. *Climate Research* 27:151-170. doi:10.3354/cr027151

King, A.W. and K.A. With. 2002. Dispersal success on spatially structured landscapes: when do spatial pattern and dispersal behavior really matter. *Ecological Modelling* 147:23-39.

Rykiel, E.J., Jr., J. Berkson, V.A. Brown, W. Krewitt, I. Peters, M. Schwartz, J. Shogren, D. Van der Molen, R. Blok, M. Borsuk, R. Bruins, K. Cover, V. Dale, J. Dew, C. Etnier, L. Fanning, F. Felix, M. Nordin Hasan, H. Hong, A.W. King, N. Krauchi, et al. 2002. Science and Decisionmaking. Pp 153-166 In *Understanding and Solving Environmental Problems in the 21st Century: Toward a new, integrated hard problem science*, R Costanza and S.E. Jørgensen, Eds. Elsevier, Amsterdam.

With, K.A. and A.W. King. 2001. Analysis of landscape sources and sinks: the effect of spatial pattern on avian demography. *Biological Conservation* 100:75-88.

Amthor, J.S., J.M. Chen, J.S. Clein, S.E. Frolking, M.L. Goulden, R.F. Grant, J.S.Kimball, A.W. King, A.D. McGuire, N.T. Nikolov, C.S. Potter, S. Wang and S.C. Wofsy. 2001. Boreal forest CO_2 and evapotranspiration predicted by nine ecosystem process models: inter-model comparisons and relationships to field measurements. *Journal of Geophysical Research* 106:33,623-33,648.

Potter, C.S., S.Wang, N.T. Nikolov, A.D. McGuire, J. Liu, A.W. King, J.S. Kimball, R.F. Grant, S.E. Frolking, J. Clein, J.M.Chen and J.S. Amthor. 2001. Comparison of boreal ecosystem model sensitivity to variability in climate and forest site parameters. *Journal of Geophysical Research* 106:33,671-33,688.

King, A.W., R.H. Gardner, C.A. Hatfield, S.Naeem, J.E. Petersen and J.Wiens. 2001. Terrestrial perspectives on issues of scale in experimental ecology. Pp. 281-298. In *Scaling Relations in Experimental Ecology*, R.H. Gardner, W.M. Kemp, V.S. Kennedy and J.E. Peterson (eds). Columbia University Press, New York.

Jager, H.I., W.W. Hargrove, C.C. Brandt, A.W. King, R.J. Olson, J.M.O. Scurlock and K.A. Rose. 2000. Constructive contrasts between modeled and measured climate responses over a regional scale. *Ecosystems* 3:396-411.

With, K.A. and A.W. King. 1999. Dispersal success in fractal landscapes: a consequence of lacunarity thresholds. *Landscape Ecology* 14:73-82.

Mann, L. K., A. W. King, V. H. Dale, W. W. Hargrove, R. Washington-Allen, L. R. Pounds and T. L. Ashwood. 1999. The Role of Soil Classification in Geographic Information System Modeling of Habitat Pattern: Threatened Calcareous Ecosystems. *Ecosystems* 2(6): 524-538.

O'Neill, R.V. and A.W. King. 1998. Homage to St. Michael: Or why are there so many books on scale. Pp. 3-15. IN D L. Peterson and V. T. Parker (eds.), *Ecological Scale*. Columbia University Press, New York, New York.

King, A.W., W.M. Post and S.D. Wullschleger. 1997. The potential response of terrestrial carbon storage to changes in climate and atmospheric CO_2. *Climatic Change* 35:199-227.

Post, W.M., A. W. King and S.D. Wullschleger. 1997. Historical variations in terrestrial biospheric carbon storage. *Global Biogeochemical Cycles* 11:99-109.

With, K.A. and A.W. King. 1997. The use and misuse of neutral landscape models in ecology. *Oikos* 79:219-229.

King, A.W. 1997. Hierarchy theory: A guide to system structure for wildlife biologists. Pp. 185-212. In J.A. Bissonette (ed.), *Wildlife and Landscape Ecology: Effects and Patterns of Scale*. Springer-Verlag, New York.

Dale, V.H. and A.W. King. 1996. Implications of uncertainty in land-use change for global terrestrial CO_2 flux. Pages 284-293. IN E. Korpilahti, H. Mikkelä and T. Salonen (eds.), *Caring for the Forest: Research in a Changing World*. Congress Report, Volume 11, International Union of Forestry Research Organizations. The Finnish IUFRO World Congress Organizing Committee, Gummerus Printing, Jyväskylä, Finland.

Post, W. M., A. W. King and S. D. Wullschleger (1996). Soil Organic Matter Models and Global Estimates of Soil Organic Carbon. In Evaluation of Soil Organic Matter Models. D. Powlson, P. Smith and J. Smith, Springer Berlin Heidelberg. 38: 201-222.

King, A.W., W.R. Emanuel, S.D. Wullschleger and W.M. Post. 1995. In search of the missing carbon sink: a model of terrestrial biospheric response to land-use change and atmospheric CO_2. *Tellus* 47B:501-519.

Wullschleger, S.D., W.M. Post, A.W. King. 1995. On the potential for a CO2 fertilization effect in forests: Estimates of the biotic growth factor based on 58 controlled-exposure studies. Pp 85-107. In Biotic Feedbacks in the Global Climatic System: Will the Warming Feed the Warming. G.M. Woodwell and F.T. Mackenzie, Eds. Oxford University Press, New York.

Allen, T.F.H., B.L. Bandurski and A.W. King. 1994. *The Ecosystem Approach: Theory and Ecosystem Integrity*. A Report to the Great Lakes Science Advisory Board. International Joint Commission, United States and Canada.

King, A.W. 1993. Considerations of scale and hierarchy. pp. 19-45. IN S. Woodley, G. Francis, J. Key (eds.), *Ecological Integrity and the Management of Ecosystems*. Lewis Publishers Inc., Chelsea, Michigan.

Allen, T.F.H., A.W. King, B.T. Milne, A. Johnson and S. Turner. 1993. The problem of scaling in ecology. *Evolutionary Trends in Plants* 7:3-8.

King, A.W., W.R. Emanuel and W.M. Post. 1992. Projecting future concentrations of atmospheric CO_2 with global carbon cycle models: simulating historical changes in atmospheric CO_2. *Environmental Management* 16:91-108.

Post, W.M., J. Pastor, A.W. King and W.R. Emanuel. 1992. Aspects of the interaction between vegetation and soil under global change. Water, Air, and Soil Pollution 64: 345-363.

Post, W.M., J. Pastor, A.W. King and W.R. Emanuel. 1992. Aspects of the interaction between vegetation and soil under global change. pp. 345-363. IN J. Wisniewski and A. Lugo (eds.), *Natural Sinks of CO2: Palmas Del Mar, Puerto Rico, 24-27 February 1992*, Springer.

Rastetter, E.B., A.W. King, B.J. Crosby, G.M. Hornberger, R.V. O'Neill and J.E. Hobbie. 1992. Aggregating fine-scale ecological knowledge to model coarser-scale attributes of ecosystems. *Ecological Applications* 2:55-70.

Gardner, R. H., A. W. King and V. H. Dale. 1992. Interactions between forest harvesting, landscape heterogeneity, and species persistence. Conference: Workshop on modeling sustainable forest ecosystems,Washington, DC (United States),18 Nov 1992; CONF-9211323—1, 27 p.

King, A.W. 1991. Translating models across scales in the landscape. pp. 479-517. IN M.G. Turner and R.H. Gardner (eds.), *Quantitative Methods in Landscape Ecology*. Springer-Verlag, New York.

King, A.W., W.R. Emanuel and W.M. Post. 1991. The response of atmospheric CO_2 to changes in land use. pp. 326-338. IN J.S. Levine (ed.), *Global Biomass Burning*, MIT Press, Cambridge, Massachusetts.

King, A.W., A.R. Johnson and R.V. O'Neill. 1991. Transmutation and functional representation of heterogeneous landscapes. *Landscape Ecology* 5:239-253.

Luxmoore, R.J., A.W. King and M.L. Tharp. 1991. Approaches to scaling up models of soil-plant systems in space and time. *Tree Physiology* 9:281-292.

Post, W.M., T.-H. Peng, W.R. Emanuel, A.W. King, V.H. Dale and D.L. DeAngelis. 1990. The global carbon cycle. *American Scientist* 78:310-326.

King, A.W., W.R. Emanuel, and R.V. O'Neill. 1990. Linking mechanistic models of tree physiology with models of forest dynamics: problems of temporal scale. pp. 241--248. IN R.K. Dixon, R.S. Meldahl, G.A. Ruark, and W.G. Warren (eds.), Process Modeling of Forest Growth Responses to Environmental Stress. Timber Press, Portland, Oregon.

King, A.W., R.V. O'Neill and D.L. DeAngelis. 1989. Using ecosystem models to predict regional CO_2 exchange between the atmosphere and the terrestrial biosphere. *Global Biogeochemical Cycles* 3:337-361.

O'Neill, R.V., A.R. Johnson and A.W. King. 1989. A hierarchical framework for analysis of scale. *Landscape Ecology* 3:193-205.

Tumlison, C.R., A.W. King, and V.R. McDaniel. 1986. The river otter in Arkansas. IV. Winter food habits in eastern Arkansas. *Proceedings of the Arkansas Academy of Science* 40:76-77.

Tumlison, C.R., R. Smith, J. Hudspeth, P.J. Polechla, and A.W. King. 1984. Dracunculiasis in some Arkansas carnivores. *Journal of Parasitology* 70:440.

King, A.W. and A. Bohning. 1984. The incidence of *Dirofilaria imitis* (Filarioidea) in the wild canids of northeast Arkansas. *Southwestern Naturalist* 29:89-92.

King, A.W. and S.L. Pimm. 1983. Complexity, diversity, and stability: a reconciliation of theoretical and empirical results. *American Naturalist* 122:229-239.

Tumlison, C.R., M. Karnes, and A.W. King. 1982. The river otter in Arkansas: II. Indications of a beaver-facilitated commensal relationship. *Proceedings of the Arkansas Academy of Science* 36:73-75.

Tumlison, C.R., A.W. King, and L. Johnston. 1981. The river otter in Arkansas: I. Distribution and harvest trends. Proceedings of the Arkansas Academy of Science 35:74-77.

McAllister, C.T., and A.W. King. 1980. Hemogregarines in the red-eared slider, *Chrysemys scripta elegans* (Weid), from Arkansas. *Proceedings of the Arkansas Academy of Science* 34:124.

Baumgardner, G.D., J.K. Braun, and A.W. King. 1979. Mammals of potential natural areas within the Cumberland River drainage basin of Tennessee. A report to the Tennessee Heritage Program (M.L. Kennedy and M.J. Harvey, eds.).

<u>In review/submitted</u>

Surendran Nair, S, Benjamin L. Preston, Anthony W. King, Rui Mei. Using landscape typologies to model socioecological systems: application to agriculture of the United States Gulf Coast. (in review with Environmental Modeling and Software)

Preston, BL, AW King, SM Absar, KM Ernst, SS Nair, ES Parish. Scale and representation of human agency in the modeling of agricultural systems. (in review with Current Opinion in Environmental Sustainability)

World Wide Web

DOD Climate Science Support: SOUTHCOM Updates and revisions.
http://www.ornl.gov/sci/knowledgediscovery/QDR/southcom.html

Current Professional Activities/Research Projects:

Senior Investigator, Department of Energy, Office of Science project, *Developing a Regional Integrated Assessment Model Framework,* (B. Preston, Co-PI).

Senior Investigator, Department of Energy, Office of Science project, Terrestrial Ecosystem Science Scientific Focus Area: *Carbon Cycle Modeling,* (P. Thornton, Co-PI).

Recent Professional Activities/Projects:

Member, Carbon Cycle Program Scientific Steering Group (2010-2014)

Member, North American Carbon Program Scientific Steering Group (2010-2014).

Technical Input to National Climate Assessment: *North America carbon dioxide sources and sinks: magnitude, attribution, and uncertainty***,** King, AW, DJ Hayes, DN Huntzinger, TO West, WM Post.

Technical Input to National Climate Assessment: *Management opportunities to enhance terrestrial CO_2 sinks.* Post, WM, RC Izaurralde, TO West, MA Liebig, AW King.

Defense Environmental International Cooperation (DEIC) Concept Paper: *Multiple Stressor Scenarios for Regional Security Planning.* Goran, WD, *et al.* March 2012

PI, Department of Defense, OUSD(P) Project, *Projection and Analysis of Climate Change Impact on Defense Interests.*

Investigator, ORNL LDRD Project, *Modeling Long-term Population Resettlement under Climate Change Scenarios,* (B. Bahduri, PI).

Senior Investigator, Department of Energy, Office of Science project, *Investigation of the Magnitudes and Probabilities of Abrupt Climate TransitionS (IMPACTS) Project,* (W.M. Post, Co-PI).

PI, Department of Energy, Office of Science Project, *Multi-agent simulation of Hierarchical Organization.*

Senior Investigator, contracted project with Parson Brinckerhoff America, Inc., *Assessment of the Vulnerability of New York City to Sea-Level Rise,* (B. Preston, PI).

Co-Chair, North American Carbon Program Scientific Steering Group (2008-2010).

Co-PI, B. Ross (Lead) (2008-2009), *Projection and Analysis of Climate Change Impact on Defense Interests,* scientific assessment in support of US Dept of Defense 2010 Quadrennial Defense Review.

Primary Contributor, *QDR Climate Change Support*
http://www.ornl.gov/sci/knowledgediscovery/QDR/

PI, ORNL LDRD Project (2009-2010). *Mitigation of Atmospheric CO_2 through Management of Woody Biomass*

PI, ORNL LDRD Project (2010). *Scale Dependency in Dynamical Downscaling of Extreme Climate Events over Complex Topography*

PI, ORNL Program Development (2010). *Translating Climate Science to Sponsor Needs: A Program Development Plan of Action*

Co-PI, ORNL LDRD Project, W.C. Lenhardt (PI) (2009-2010) *Enhancing Climate Impact Integrated Assessment for Water through Climate Informatics*

Co-PI, ORNL LDRD Project, T. Wilbanks PI (2008-2009), *Possible Impacts of Relatively Severe Climate Change.* Lead for collaboration on North India with colleagues at TERI, New Delhi