

*Dr. Lara Prihodko*

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**EDUCATION**

- Ph.D. Ecology, 2004, Colorado State University, Fort Collins, CO  
Dissertation title: Characterizing Uncertainty for Regional Carbon Cycle Modeling  
Advisor: Dr. A. Scott Denning
- M.A. Geography, 1992, University of Maryland, College Park, MD  
Thesis title: The Estimation of Air Temperature from NDVI and Remotely Sensed  
Thermal Observations  
Advisor: Dr. Samuel N. Goward
- B.A. Archaeology, Cum Laude, 1990, Boston University, Boston, MA

**RESEARCH INTERESTS**

Coupled human and natural systems in rangelands, land surface-atmosphere interactions, carbon cycle, biophysical remote sensing, human dimensions of environmental change, geospatial analysis, modeling, historical ecology

**PROFESSIONAL EXPERIENCE**

- **College Associate Professor**, (February, 2017 – Present) Department of Animal and Range Sciences, New Mexico State University, Las Cruces, NM.
- **Assistant Research Professor**, (August 2011 – September 2016) Geospatial Sciences Center of Excellence, South Dakota State University, Brookings, SD.
- **Research Scientist II**, (July 2010 – June 2011) Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO.
- **Research Scientist I**, (September 2006 – July 2010) Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO.
- **Consultant** (2008) Peace Corps-Mali – Assisted with development of a Shea tree conservation project and training of volunteers
- **Research Scientist I**, (June 2004 – June 2006) Department of Atmospheric Science, Colorado State University, Fort Collins, CO.
- **Graduate Research Assistant**, (August 1998 – June 2004), Graduate Degree Program in Ecology, Colorado State University, Fort Collins, CO.
- **Graduate Research Assistant**, (September 1997 – July 1998), Donald Bren School of Environmental Science and Management, University of California, Santa Barbara, CA.
- **Research Assistant**, (October 1995 - June 1997), Department of Agrohydrology, DLO-Winand Staring Center (now Wageningen University Research), Wageningen, The Netherlands.

- **Programmer Analyst**, (October 1992 - February 1995), Hughes STX Corporation, Lanham, MD Technical, research and field support to the Forest Ecosystem Dynamics (FED) project in the Biospheric Sciences Branch of NASA/Goddard Space Flight Center.
- **Research Assistant**, (June 1990 - October 1992), Department of Geography, University of Maryland, College Park, MD.

## REFEREED PUBLICATIONS

- Ji, W., Hanan, N. P., Browning, D. M., Monger, H. C., Peters, D. P. C., Bestelmeyer, B. T., Archer, S. R., Ross, C. W., Lind, B. M., Anchang, J., Kumar, S. S., **Prihodko L.**, 2018, Constraints on shrub cover and shrub-shrub competition in a U.S. southwestern desert, *Ecosphere* (in review).
- Ross, C.W., **L. Prihodko**, J. Anchang, S. Kumar, W. Ji, and N. P. Hanan. 2018. Global Hydrologic Soil Groups (HYSOGs250m) for Curve Number-Based Runoff Modeling, *Scientific Data*, **5**, 180091 (DOI: 10.1038/sdata.2018.91).
- Kaptué, A. T., **L. Prihodko**, and N. P. Hanan, 2015, On re-greening and degradation in Sahelian watersheds, *Proceedings of the National Academy of Science*, 112: DOI: 10.1073/pnas.1509645112.
- Kaptue, A. T., N.P. Hanan, **L. Prihodko**, J.A. Ramirez, 2015, Spatial and temporal characteristics of rainfall in Africa: summary statistics for temporal down-scaling, *Water Resources Research* 51(4): 2668-2679.
- Hanan, N.P., A. Tredennick, **L. Prihodko**, G. Bucini, J. Dohn, 2014, *Analysis of Stable States in Global Savannas: Is the CART pulling the horse?*, *Global Ecology and Biogeography*, 23(3) 259-263.
- Kaptue, A., N.P. Hanan, **L. Prihodko**, 2013, *Characterization of the spatial and temporal variability of surface water in the Soudan-Sahel region of Africa*, *Journal of Geophysical Research – Biogeosciences*, 118(4): 1472-1483.
- Parton, W., J. Morgan, D. Smith, S. Del Grosso, **L. Prihodko**, D. LeCain, R. Kelly, S. Lutz, 2012, Impact of Precipitation Dynamics on Net Ecosystem Exchange, *Global Change Biology*, DOI:10.1111/j.1365-2486.2011.02611.x.
- Sutton, A.E., J. Dohn, K. Loyd, A. Tredennick, G. Bucini, A. Solorzano, **L. Prihodko**, N.P. Hanan, 2010, Does Warming Increase the Risk of Civil War in Africa? *Proceedings of the National Academy of Sciences*, 107(25):E102-E102.
- Harper, A., A.S. Denning, I.T. Baker, M.D. Branson, D.A. Randall, and **L. Prihodko**, 2010 The effect of root-zone dynamics on climate in the Amazon rainforest. *Geophysical Research. Letters*, 37, L05802, doi: 10.1029/2009GL042302
- Baker, I.T., **L. Prihodko**, A.S. Denning, M. Goulden, S. Miller, H.R. da Rocha, 2008, Seasonal drought stress in the Amazon: Reconciling models and observations, *Journal of Geophysical Research: Biogeosciences*, 113, G00B01.
- Prihodko, L.**, A.S. Denning, N. P. Hanan, I. Baker, K. Davis, 2008, Sensitivity, uncertainty and time dependence of parameters in a complex land surface model, *Agricultural and Forest Meteorology*, 148 (2), 268-287.
- Schaefer K., G. J. Collatz, P. Tans, A. S. Denning, I. Baker, J. Berry, **L. Prihodko**, N. Suits, A. Philpott 2008, The combined Simple Biosphere/Carnegie-Ames-Stanford Approach (SiBCASA)

terrestrial carbon cycle model, *Journal of Geophysical Research: Atmospheres*, G03034, doi:10.1029/2007JG000603.

Nicholls, M.E., A.S. Denning, **L. Prihodko**, P.-L. Vidale, K. Davis, P. Bakwin, 2004, A multiple-scale simulation of variations in atmospheric carbon dioxide using a coupled biosphere-atmospheric model. *Journal of Geophysical Research*, 109, D18117, doi:10.1029/2003JD004482.

Denning, A.S., M. Nicholls, **L. Prihodko**, I. Baker, P.-L. Vidale, K. Davis, and P. Bakwin, 2003, Simulated and observed variations in atmospheric CO<sub>2</sub> over a Wisconsin forest. *Global Change Biology*, 9, 1241-1250.

Baker, I.T., A.S. Denning, N. Hanan, **L. Prihodko**, P.-L. Vidale, K. Davis and P. Bakwin, 2003, Simulated and observed fluxes of sensible and latent heat and CO<sub>2</sub> at the WLEF-TV Tower using SiB2.5. *Global Change Biology*, 9, 1262-1277.

Schaefer, K., A.S. Denning, N. Suits, Jorg Kaduc, I. Baker, S. Los, and **L. Prihodko**, 2002, The effect of climate on inter-annual variability of terrestrial CO<sub>2</sub> fluxes. *Global Biogeochemical Cycles*, 16, 1102, doi:10.1029/2002GB001928.

**Prihodko, L.** and S. N. Goward, 1997, Estimation of Air Temperature from Remotely Sensed Surface Observations, *Remote Sensing of the Environment*, 60:335-346.

#### BOOKS and CHAPTERS

Kabat, P., S.D. Prince, S.D. and **L. Prihodko** (Eds.), 1997, *HAPEX-Sahel West Central Supersite: Methods, Measurements and Selected Results*, Report 130, DLO Winand Staring Center, Wageningen, The Netherlands.

Hanan, N.P., Kabat, P., Prince, S.D., **Prihodko, L.**, 1997, Vegetation production and water relations. In: *HAPEX-Sahel West Central Supersite: Methods, Measurements and Selected Results*, Report 130, DLO Winand Staring Center, Wageningen, The Netherlands, pp. 88-105.

#### DATA

Ross, C.W., **L. Prihodko**, J. Anchang, S. Kumar, W. Ji, and N.P. Hanan. 2018. Global Hydrologic Soil Groups (HYSOGs250m) for Curve Number-Based Runoff Modeling. ORNL DAAC, Oak Ridge, Tennessee, USA. <https://doi.org/10.3334/ORNLDAAC/1566>

Kaptue, A. T., Hanan, N. P., and **Prihodko, L.**, 2015, Location and permanency of water bodies in the African Sahel region from 2003-2011. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. <http://dx.doi.org/10.3334/ORNLDAAC/1269>.

Kaptue, A.T., N.P. Hanan, **L. Prihodko**, and J.A. Ramirez. 2015. Spatio-temporal Characteristics of Rainfall in Africa, 0.25 degrees, from 1998-2012. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. <http://dx.doi.org/10.3334/ORNLDAAC/1263>

Baker, I. T., A. S. Denning, **L. Prihodko**, K. Schaefer, J.A. Berry, G. J. Collatz, N. S. Suits, R. Stockli, A. Philpott, and O. Leonard. 2009. SiB3 Modeled Global 1-degree Hourly Biosphere-Atmosphere Carbon Flux, 1998-2006. Data set. Available on-line [<http://daac.ornl.gov/>] from

Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/909.

## GRANTS AWARDED

Bistability and feedbacks in tropical woodlands and savannas: carbon cycle implication of changing climate and management, P.I. N.P. Hanan, Co-I **L. Prihodko**, NASA-Carbon Cycle Science, 2017-2019, (\$732,195).

Climate change, pastoral resources and livestock in the Sahel: developing a community-relevant pastoral prediction system, P.I. NP Hanan, Co-I's **L. Prihodko**, F. Dembélé, M. Karembé, G. Tappan, USAID Climate Change – Livestock CRSP, 2012-2015, (\$696,886)

Hydrology, Ecology and Pastoralism in the Sahel: ephemeral and perennial water resources in a dynamic coupled system, P.I. N.P. Hanan, Co-I's **L. Prihodko**, S. BurnSilver, J. Ramirez, R. Boone, M. Karembé, F. Dembélé, A. Temé, NSF CNH, 2010-2016, \$1,350,000.

ETBC: Teleconnections in the Earth System: Nutrient Subsidies and Fire Prone Ecosystems, **P.I. L. Prihodko**, Co-I's N.P. Hanan, Y. Desayterik, W. Parton, A. Ba, NSF-Emerging Trends in Biogeochemical Cycles, 2010-2012, \$135,000.

Scaling from Local to Global: Teacher Professional Development to Provide a Framework for Classroom Instruction on Climate Change and Associated Environmental Consequences, P.I. J. Moore, Co-PI's R. Boone, R. Conant, L. Pitot, **L. Prihodko**, R. Shaw, R. Tschillard, M. Wallenstein, A. Warnock, NASA-GCCE, 2010-2013, \$399,365.

Transhumance, natural resources and conflict in the Sahel: A Pilot Project, P.I. N.P. Hanan, Co-I's **L. Prihodko**, F. Dembele, M. Karembé, I. Barry, M. Diarra, B. Telly, G. Tappan, USAID-ALS-CC-CRSP, 2010-2011, \$79,964

Rising to the Challenge – African Dryland Development: A Regional Network for African-US University Collaboration and Capacity Building, P.I.'s R. S. Reed, J. Njoka, Co-I's D. Swift, N.P. Hanan, M. Coughenour, K. Galvin, G. Bowser, **L. Prihodko**, B. Bruyere, P. Evangelista, J. Worden, D. Nkedianye, P. Kristjanson, M. Said, M. Karembé, R. Ngugi, W. Ekaya, M. Ngugi, Higher Education for Development Africa-U.S. Higher Education Initiative Planning Grants, 2009, \$50,000.

African Carbon Exchange II: a systems approach for diagnosis and prediction of carbon, vegetation and disturbance dynamics in natural and anthropogenic grasslands, savannas and forests of Africa. P.I. N.P. Hanan, Co-I's N. Laporte, **L. Prihodko**, S. Saatchi, W. Parton. NASA Carbon Cycle. 2008-2011, \$900,373.

Vegetation and biological soil sampling and data analysis for the Wyoming Landscape Conservation Initiative (WLCI) and other vegetation research partners: Cooperative proposal US Geological Survey Northern Rocky Mountain Science Center, USGS P.I. G. Chong, **CSU P.I. L. Prihodko**, DOI-USGS, 2008-2010, \$124,000.

The Effects of Remotely Sensed Data on Modeled Land-Surface-Atmosphere Interactions: Consequences for Global Carbon Balance Research. **P.I. L. Prihodko**. NASA Earth System Science Fellow, 1997-2000, \$88,000.

**INVITED PRESENTATIONS:**

**Prihodko, L.**, 2018, *Exploring teleconnections in rangeland nutrient cycling: the role of fire and atmospheric transport in Africa's grazing lands*, Invited seminar for the Ecology and Evolutionary Biology Colloquium, February, University of Texas El Paso, El Paso, TX..

**Prihodko, L.**, 2018, *Transhumant Pastoralism in West Africa and Nepal*, Invited talk for the Las Cruces Native Plant Society, February, Las Cruces, NM.

**Prihodko, L.**, 2017, *Exploring teleconnections in rangeland nutrient cycling: the role of fire and atmospheric transport in Africa's grazing lands*, Invited seminar for the Department of Geography Colloquium, September, New Mexico State University, Las Cruces, NM.

**Hanan, N. P.**, Kaptué, A., Karembé, M., Dembélé, F., and **Prihodko, L.**, 2015, *Grasslands, savannas and pastoral systems: drought, resilience and feedbacks*, Invited seminar for the National Centre for Biological Science (NCBS), November, Bangalore, India.

**Prihodko, L.**, 2014, *Sahelian Pastoralism: Challenges facing an adaptive social ecological system*, Invited Presentation for the 45<sup>th</sup> Annual South Dakota State Geography Convention, March, Brookings, SD.

**Hanan, N.P.**, A. Kaptue, M. Karembé, F. Dembele, **L. Prihodko**, 2014, *Grazing and ecohydrological interactions in African savannas: A sahelian case study*, Invited talk for the Global Land Project Open Science Meeting, March, Berlin, Germany.

**Prihodko, L.**, A. Ba, Y. Desyaterik and N.P. Hanan, 2011, *Transport and Deposition of Pyrogenic Nutrients in Africa: Role in Regional Biogeochemistry and Fertility*, Invited seminar for the Geographic Information Science Center of Excellence, South Dakota State University, November, Brookings, SD.

**Prihodko, L.**, A. Ba, Y. Desyaterik and N.P. Hanan, 2011, *Transport and Deposition of Pyrogenic Nutrients in Africa: Role in Regional Biogeochemistry and Fertility*, Invited seminar for the Department of Physics at the University of Bamako, February, Bamako, Mali.

**Hanan, N. P.** and **L. Prihodko**, 2009, *Developing Climates: how will Africa fare?* Invited address, Changing Climates Symposium, February, Colorado State University, Fort Collins, CO.

**CONFERENCE PRESENTATIONS:**

**Ross, C. W.**, Hanan, N. P., **Prihodko, L.**, Anchang, J., Ji, W., Kumar, S. S. and Lind, B. M., 2018, *Development of predictive relationships for empirical projections of sub-Saharan woody cover in response to global change*. American Geophysical Union Annual Meeting, December, Washington, DC.

Kumar, S. S., **Prihodko, L.**, Hanan, N. P., Lind, B. M., Ross, C. W., Ji, W., Anchang, J., 2018, *Remotely sensed thermal decay constant as a quantitative biophysical measure of vegetation status*. American Geophysical Union Annual Meeting, December, Washington, DC.

**Ji, W.**, Hanan, N. P., Browning, D. M., Monger, H. C., Peters, D. C., Bestelmeyer, B., Ross, C. W., Lind, B. M., Anchang, J. Kumar, S. S., **Prihodko, L.**, and Archer, S. R., 2018, *Relationship between shrub cover and plant available water in a U.S. Southwest desert*, American Geophysical Union Annual Meeting, December, Washington, DC.

**Fuentes-Soriano, S.**, **Prihodko, L.**, Manford, M., Rogers, Z., 2018, *Shining a New Light on Elmer*

*Ottis Wooton's Legacy Herbarium and Historical Archive: an Exercise to Increase Student Participation while Promoting Public Engagement*, Society for the Preservation of Natural History Collections, September, Dunedin, New Zealand.

**Prihodko, L.**, N. P. Hanan, G. Bucini, A. T. Tredennick, S. S. Kumar and C. W. Ross, 2018, *Shrub and tree canopy cover and above-ground woody biomass patterns in Sub-Saharan Africa*, Ecological Society of America Annual Meeting, August, New Orleans, LA.

**Hanan, N. P.** and **Prihodko, L.**, 2018, Invited presentation: *Energy-nutrition tradeoffs and mobility in subsistence pastoral systems of West Africa* (Abstract #70146), Ecological Society of America, Annual Meeting, August, New Orleans, LA.

**Prihodko, L.**, Baker, I., Denning, S., Sellers, P., 2018, *GCM-Scale Surface Flux and the BINS: An application at the Jornada LTER Site*, NASA-IDS Reunion, June, Fort Collins, CO.

**Manford, M.**, Fuentes-Soriano, S., **Prihodko, L.**, 2018, *An historical-ecological framework for evaluating environmental change: Retracing the steps of pioneering Botanist Elmer Wooton and his botanical journey through the biomes of the Organ Mountains*, Undergraduate Research and Creative Arts Symposium, April, New Mexico State University.

**Prihodko, L.**, **Fuentes-Soriano, S.**, **Manford, M.**, 2018, *Retracing the steps of Elmer Wooton and his botanical journey through the biomes of the Organ Mountains: An historical-ecological framework for evaluating environmental change*, 17th Annual University Research Council Faculty Research & Creative Fair NMSU, April, Las Cruces, NM.

**Ross, C.W.**, **L. Prihodko**, J. Anchang, W. Ji, and N. P. Hanan. 2018, *HYSOGs250m: A globally consistent, gridded dataset for curve-number-based runoff modeling with hydrological soil groups*, American Association of Geographers Annual Meeting, April, New Orleans, LA.

**Baker, I. T.**, **Prihodko, L.**, Vivoni, E. R., Denning, A. S., 2018, *Landscape-scale soil moisture heterogeneity and its influence on surface fluxes at the Jornada LTER site: Evaluating a new model parameterization for subgrid-scale soil moisture variability*, American Meteorological Society, January, Austin, TX.

**Prihodko, L.**, Jornada LTER Annual Meeting, 2017, *Regional scale measurement and modeling of land surface-atmosphere interactions: integrating landscape heterogeneity from plots to regions*, July, Las Cruces, NM.

**Sathyachandran, S. K.**, Hanan, N. P., **Prihodko, L.**, Anchang, J., Ji, W., Ross, C. W., 2017, *B51G-1883 Alternative Vegetation States in Tropical Africa: the Search for Consistent Signals in Diverse Remote Sensing Datasets*, American Geophysical Union Annual Meeting, December, New Orleans, LA.

**Baker, I. T.**, **Prihodko, L.**, Vivoni, E. R., Denning, A. S., 2017, *B51G-1895 Landscape-scale soil moisture heterogeneity and its influence on surface fluxes at the Jornada LTER site: Evaluating a new model parameterization for subgrid-scale soil moisture variability*, American Geophysical Union, December, New Orleans, LA.

**Anchang, J.**, Hanan, N. P., **Prihodko, L.**, Sathyachandaran, S. K., Ji, W., Ross, C. W., 2017, *GC131-0854 Diagnosis of vegetation recovery within herbaceous sub-systems in the West African Sahel Region*, American Geophysical Union Annual Meeting, December, New Orleans, LA.

Hanan, N. P., Kaptué, A., Karembé, M., Dembélé, F., Prihodko, L., and Shapland, P., 2015, Invited presentation: *Grasslands and pastoral systems: resilient or fragile?* Conference on People, Pastoralism & Biodiversity Conservation in Arid Grasslands, November, Gujarat, India.

Hanan, N. P., Kaptue, A., Karembé, M., Dembele, F. and Prihodko, L., 2014, Invited presentation: *Trends and Variability in Pastoral Resources in the West African Sahel* (GC51F-02), American Geophysical Union Fall Meeting, December, San Francisco, CA.

Prihodko, L., N.P. Hanan, A. Kaptue, 2014, *Using GPS collars and remotely sensed data to evaluate cattle foraging in heterogeneous landscapes: examples from West Africa*, South Dakota Statewide Geospatial Conference, October, Mitchell, SD.

A. Kaptue, L. Prihodko, N. P. Hanan, 2013, *Ecohydrological relationships in dryland grazing systems of the Sahel*. American Geophysical Union (AGU) Fall Meeting, December, San Francisco, CA.

Prihodko, L., Y. Desyaterik, A. Ba, O. Maiga, 2013, *Nutrient subsidies in a West African Savanna: Assessing teleconnections through fire and dust contributions*, Ecological Society of America Annual Meeting, August, Minneapolis, MN.

Kaptue, A., N.P. Hanan, L. Prihodko, N. Giree, and M. Sigdel-Phuyal, 2013, *Socio-ecohydrological interactions in Sahelian watersheds*, Ecological Society of America Annual Meeting, August, Minneapolis, MN.

Hanan, N.P., A. T. Tredennick, L. Prihodko, G. Bucini, J. Dohn, 2013, *Detecting bifurcations and alternate stable states in vegetation with remote sensing: when hypotheses and errors align*, Ecological Society of America Annual Meeting, August, Minneapolis, MN.

Prihodko, L., N.P. Hanan, A. Kaptue, R. McKeown, M. Karembé, F. Dembele, D. Boubacar, F. Traore, F. Diarra, 2012, *Ecology, hydrology and alternate stable states in Sahelian grazing systems*, Ecological Society of America Annual Meeting, August, Portland, OR.

Kaptue, A., J.L. Roujean, A. Begue, S. Faroux, A. Boone, N.P. Hanan, L. Prihodko, 2011, *An improved characterization of the land surface heterogeneity over Africa for use in Land Surface Models*, Abstract B43F-0358, American Geophysical Union Fall Meeting, December, San Francisco, CA.

Hanan, N.P., L. Prihodko, F. Dembele, M. Karembé, M. Barry, I. Diarra, M. Telly, G. Tappan, 2011, *Transhumance, natural resources and conflict in the Sahel: a pilot project*, Livestock-Climate Change CRSP Annual Meeting, April, Golden, CO.

Prihodko, L., N.P. Hanan, B. McKeown, G. Bucini, A. Tredennick, 2011, *Fueling the source: Mapping and Modeling Carbon and Woody Resources for Continental Africa*, The 34<sup>th</sup> International Symposium on Remote Sensing of the Environment, April, Sydney, Australia.

Baker, I.T., A.S. Denning, A.B. Harper, L. Prihodko, 2009, *Is the Amazon Basin resilient to stress?* The 8<sup>th</sup> International Carbon Dioxide Conference, September, Jena, Germany.

Prihodko, L., N.P. Hanan, 2009, *Transport and deposition of pyrogenic nitrogen: What role does it play in regional biogeochemistry and fertility in Africa?* The 94<sup>th</sup> Annual Ecological Society of America Meeting, August, Albuquerque, NM.

Hanan, N.P., L. Prihodko, and C. A. Williams, 2009, *Challenging desertification paradigms: Towards an objective quantification of land degradation and the Charney effect in African ecosystems*. The 94<sup>th</sup> Annual Ecological Society of America Meeting, August, Albuquerque, NM.

Prihodko, L., N.P. Hanan, 2008, *Nitrogen subsidies and fire prone ecosystems: the case of African savannas*, EOS Transactions, AGU, 89(53), Fall Meeting Supplement, Abstract B31E-0348.

Hanan, N.P., L. Prihodko, 2008, *Hydrology, ecology and pastoralism in the Sahel: abrupt changes in surface water dynamics in a coupled natural-human system*, EOS Transactions, AGU, 89(53), Fall Meeting Supplement, Abstract H24A-08.

Hanan, N. P., Prihodko, L., Parton, W., Laporte, N. and Saatchi, S., 2008, *African Carbon Exchange II: a systems approach for diagnosis and prediction of carbon, vegetation and disturbance dynamics*, CarboAfrica Open Science Meeting, November, Accra, Ghana.

Hanan, N.P., L. Prihodko, 2007, *African savanna fires and nitrogen fertilization: functional and dysfunctional relationships among the eutrophic and dystrophic savannas?* The 5<sup>th</sup> Annual Kruger Network Meeting, April, Skukuza, South Africa.

Hanan, N.P., T. Peterson, L. Prihodko, 2007, *Measuring land use change impacts on carbon dynamics in the western Great Plains: The Curtis Ranch land use experiment*, U.S. North American Carbon Program Investigators Meeting, January, Colorado Springs, CO.

Baker, I.T., L. Prihodko, A.S. Denning, 2007, *Annual CO<sub>2</sub> flux across moisture and vegetation gradients in the Amazon*, Eos Transactions, AGU, 88(52), Fall Meeting Supplement, Abstract B43D-1596.

Baker, I.T., L. Prihodko, A. S Denning, M L Goulden, S D Miller, Humberto Ribeiro da Rocha, A O Manzi, A D Nobre, J dos Santos, 2007, *Regional carbon flux simulated using the Simple Biosphere Model (SiB3)*, LBA-ECO 11<sup>th</sup> Science Team Meeting, September, Salvador, Bahia, Brazil.

Baker, I.T., A.S. Denning, N. Hanan, J.A. Berry, G.J. Collatz, K.M. Schaefer, A.W. Philpott, L. Prihodko, N.S. Suits, 2006, *The next generation of the simple biosphere model (SiB3): model formulation and preliminary results*. International Land-Ecosystem-Atmosphere Process Study (ILEAPS) 1<sup>st</sup> Science Conference, January, Boulder, CO.

Baker, I.T., L. Prihodko, A.S. Denning, 2006, *Modeling the mechanisms that effect productivity and the exchange of CO<sub>2</sub> between the atmosphere and terrestrial biosphere in the seasonally –dry Amazon*, Eos Transactions, AGU, 87(52), Fall Meeting Supplement, Abstract B34B-05.

Harper, A.B., A.S. Denning, I.T. Baker, L. Prihodko, M. Branson, 2006, *Improving the Amazonian hydrologic cycle in a coupled land-atmosphere, single column model*, Eos Transactions, AGU, 87(52), Fall Meeting Supplement, Abstract B31C-1138.

Baker, I. T., D Zupanski, L Prihodko, K Schaefer, J Berry, A. S. Denning, 2005, *Leaf-to-canopy scaling of fluxes of energy, moisture and carbon in the Simple Biosphere Model (SiB)*, Eos Trans. AGU, 86(52), Fall Meet. Suppl., Abstract B51C-0228.

Schaefer, K, J Collatz, A. S. Denning, D. Zupanski, L. Prihodko, P. Tans, I. Baker, 2005, *Estimating biomass in a combined SiB and CASA model using data assimilation*, Eos Trans. AGU,

86(52), Fall Meet. Suppl., Abstract B51C-0224.

**Prihodko, L.**, A.S. Denning, I.T. Baker, *Modeling drought tolerance in Amazonia with SiB3*, 2005, The 7th International Carbon Dioxide Conference, September, Boulder, Colorado.

**Prihodko, L.**, A.S. Denning, I.T. Baker, 2005, *Modeling drought tolerance in Amazonia with SiB3*, Tenth Annual CCSM Workshop, June, Breckenridge, Colorado.

**Schaefer, K.**, P. Tans, A. S. Denning, J. Collatz, **L. Prihodko**, I. Baker, W. Peters, and L. Bruhwiler, 2005, *Estimating biophysical parameters from CO<sub>2</sub> flask and flux observations*, Transcom Annual Meeting, June, Paris, France.

**Gates, A.M.**, J.F. Burris, A.E. Andrews, M.A. Krainak, H. Riris, X. Sun, J.B. Abshire, G.J. Collatz, S. Denning, **L. Prihodko**, M. Nicholls, 2004, *A CO<sub>2</sub> differential absorption LIDAR system*. EOS Trans, AGU, 85 (46) Fall Meet. Suppl. Abstract B23A-0923.

**Corbin, K.**, A.S. Denning, **L. Prihodko**, and M. Nicholls, 2003, *Can satellite measurements represent regional scale CO<sub>2</sub> variability?* EOS Trans. AGU, 84(47), Fall Meet. Suppl., Abstract A52B-0781.

**Schaefer, K.**, A.S. Denning, N. Suits, J. Kaduk, I. Baker, S. Los, **L. Prihodko**, 2003, *The effect of climate on inter-annual variability of terrestrial CO<sub>2</sub> fluxes*. The 83<sup>rd</sup> Annual AMS Meeting, February, Long Beach, CA.

**Prihodko, L.**, A.S. Denning, M. Nicholls, 2003, *Climate models and landscape heterogeneity: Can we see the forest without the trees?* The 88th Annual Ecological Society of America Meeting, August, Savannah, Georgia.

**Baker, I.T.**, N. Hanan, P-L. Vidale, N. Suits, A.S. Denning, **L. Prihodko**, K. Schaefer, O. Leonard, 2002, *Simple Biosphere Model (SiB), version 3.0: Overview and preliminary results*, The Community Climate System Model (CCSM) Workshop, June, Breckenridge, CO.

**Prihodko, L.**, Denning, A.S., Hanan, N.P., Davis, K. and Bakwin, P., 2001, *Parameter sensitivity of a land surface model using Monte Carlo analysis and eddy-covariance measurements at the WLEF-TV tower site, Wisconsin*, The 86<sup>th</sup> Annual Ecological Society of America Meeting, August, Madison, WI.

**Prihodko, L.**, Denning, A.S., Nicholls, M., Baker, I. and Los, S.O., 2001, *Are regional predictions of NEE influenced by land surface heterogeneity?* The IGBP Global Change Open Science Conference, July, Amsterdam, The Netherlands.

**Baker, I.T.**, A.S. Denning, K. Davis, P. Bakwin, N. Hanan and **L. Prihodko**, 2001, *Modeled and observed fluxes at the WLEF-TV tower in North-Central Wisconsin*. American Geophysical Union Spring Meeting, May, Boston, MA.

**Inazawa, E.E.**, A.S. Denning, M. Nicholls and **L. Prihodko**, 2000, *Simulations of physical climate and CO<sub>2</sub> exchange in Rondonia and Para (Amazonia)*. American Geophysical Union Fall Meeting, December, San Francisco, CA.

**Denning, A.S.**, K. Gurney, M. Uliasz, **L. Prihodko**, N. Suits, I. Baker and K. Davis, 2000, *Atmospheric trace gas data in an integrated strategy to diagnose and understand the global carbon*

*budget*. American Geophysical Union Spring Meeting, May, Washington, DC.

Denning, A.S., L. Prihodko, N. Suits, M. Uliasz, M. Nicholls, N. Hanan, E. Inazawa, and P.-L. Vidale, 2000, *Estimating the exchange of CO<sub>2</sub> and its stable isotopes between Amazonian ecosystems and the atmosphere at multiple spatial scales*. First LBA Scientific Conference, June, Belem, Brazil.

Prihodko, L., A.S. Denning, M.E. Nicholls, P.-L. Vidale, T. Krebs, 1999, *The effects of spatial scale on modeled surface fluxes*. American Geophysical Union Fall Meeting, December, San Francisco, CA.

Prihodko, L., A.S. Denning, N.P. Hanan, J.G. Collatz, P. Bakwin, K. Davis, 1998, *Simulation and sensitivity analysis of carbon and energy fluxes at the WLEF-TV tower site, Wisconsin*, American Geophysical Union Fall Meeting, December, San Francisco, CA.

Denning, A.S., P.-L. Vidale, L. Prihodko, N. P. Hanan, K. J. Davis and P. S. Bakwin, 1998, *Simulations and observations of forest-atmosphere interactions across spatial scales at the WLEF-TV tower in Wisconsin*. American Geophysical Union Fall Meeting, December, San Francisco, CA.

Denning, A.S., N.P. Hanan, P.-L. Vidale, L. Prihodko and N. Zhang, 1998, *Regional integration of forest-atmosphere CO<sub>2</sub> flux: a spatial hierarchy of atmospheric data and models*. The First International FluxNet Meeting, June, Polson, MT.

Prihodko, L., A. Begue and H. Dolman, 1996, *Investigating the effects of soil moisture and canopy conductance on the TVX relationship: A combined SVAT and radiative transfer approach*, European Geophysical Society Annual Meeting, May, The Hague, The Netherlands.

Knox, R. G., K. J. Ranson, J. F. Weishampel and L. Prihodko, 1995, *A vegetation context for scaling results within the BOREAS Southern Study Area*. Ecological Society of America Annual Meeting, July, Snow Bird, Utah.

Prihodko, L., T. Foresman and R.G. Knox, 1993, *Improving ecological field studies: Integrating GIS and stem mapping*, Second International Conference/Workshop on Integrating Geographic Information Systems and Environmental Modeling, October, Breckenridge, CO.

Prihodko, L., 1992, *The estimation of air temperature from NDVI and remotely sensed thermal observations*, Association of American Geographers Annual Meeting, San Diego, CA.

Goward, S.N., R. Dubayah, L. Prihodko and D. Pross, 1992, *Surface meteorological and moisture conditions observed at FIFE-87 by the AVHRR sensor*, American Geophysical Union Annual Spring Meeting, Baltimore, MD.

## TEACHING EXPERIENCE

- **2017 Guest Lecturer:** RGSC515: Range Science Graduate Seminar – *Transhumant Pastoralism in West Africa and Nepal*; RGSC294: Rangeland Resource Management - *Transhumant Pastoralism in West Africa and Nepal*; RGSC150: Rangeland Science Profession – *Career Trajectory*, all New Mexico State University.
- **2015 Guest Lecturer:** GEOG317: Geography of Africa, South Dakota State University, *Rural livelihoods in Mali, West Africa*.
- **2013 Co-Instructor:** GSE792 Special Topics: Readings in Coupled Natural-Human Systems,

South Dakota State University.

- **2011, 2012 Guest Lecturer:** GSE740 Introduction to Geospatial Science and Engineering, South Dakota State University, *Career arcs in science*.
- **2010-2011** Developed K-12 (for grades 9-12) climate change curriculum that incorporated geospatial data for NASA Global Climate Change Education project.
- **2010 Co-Instructor:** NR680 Ecological Careers I: Planning a Career Portfolio, Colorado State University, Graduate professional development course on career planning in Ecology.
- **2009 Professional Development:** EDUC696 College Science Teaching Methods, Colorado State University. Graduate professional development course that I completed to enhance my teaching capabilities.
- **2009 Guest Lecturer:** ECOL592 Ecology and Equity, Colorado State University, *Gender equity and ecology in West Africa*.
- **2008 Guest Lecturer:** NR120 Introduction to Environmental Conservation, Colorado State University, *The context for conservation in Mali*.
- **1990 Teaching assistant:** Introduction to Remote Sensing, University of Maryland, College Park.

#### ADVISING

- **Post Doctoral Advisees:** Armel Kaptue (2011-2015); Sanath Kumar Sathyachandaran (2017-2018); C. Wade Ross (2017-present), Qiuyan Yu (2018-present).
- **Graduate Student Advisees/Committees** (Degree, Program, Year Completed, Role): Sean DiStefano (Masters, Range Science NMSU, Fall 2018, member), Angela Yemma (Masters, Range Science NMSU, member)
- **Undergraduate student advisees:** Jessica Greenamayer (2017), Mitchell Manford (Spring 2018; Undergraduate Research Apprenticeship Program NMSU)
- Graduate Faculty advisor at South Dakota State University
- Mentor for Research Experience for Undergraduates in Bioenergy at South Dakota State University (Erika Jozwiak; Summer 2013)
- Mentor for international intern from the Ecole Nationale Supérieure Agronomique (ENSAT) in Toulouse, France (Maxence Lala Bouali; Summer 2013)
- International Graduate Committee Member, Amadou Diakite, Masters Student, Department of Physics, University of Bamako, Bamako, Mali (December 2011-December 2012).

#### HONORS, AWARDS, PROFESSIONAL INVOLVEMENT

- NASA Earth System Science Fellowship (September 1997 – September 2000)
- Co-organizer, Organized Oral Session on ‘Heralding change: How can plant phenology be used to facilitate sustainable natural resource management?’, 96<sup>th</sup> Ecological Society of America Annual Meeting, Austin, Texas, August 7-12, 2011.
- Co-Convener, Special Session on ‘Big Models in Ecology: the Good, the Bad, the Ugly are all Possible Outcomes’, 94<sup>th</sup> Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009.
- Session chair for NCAR Junior Faculty Forum on Future Scientific Directions: ‘Downscaling Climate Change: Extreme Events, Regional Impacts and Ecosystems’. July 27-29, 2005, NCAR Mesa Lab, Boulder, Colorado.

- Participant, Stable Isotope Ecology short course, University of Utah, June 16-28, 2002.
- Member - American Geophysical Union, Ecological Society of America

#### **SERVICE**

- NMSU: ACES Interdisciplinary Graduate Degree PhD Program Planning Committee (2018-Present)
- NMSU: NMSU Climate Change Education Series Committee (NMSUCCESS) (2018-Present)
- NMSU: Range Science Department Committee (2017-present)
- NMSU: ANRS department outreach activities
- NMSU: Judge for the Southwestern New Mexico Science and Engineering Fair (2017)
- SDSU: Search committee for Geospatial Analyst position for the Geospatial Science Center of Excellence (2015)
- SDSU: Search committee for multiple Assistant Research Professor positions for the Geographic Information Science Center of Excellence (2013)
- SDSU: Judge for the Undergraduate Research Scholarship and Creative Activity Day (2013, 2014)
- SDSU: Judge for the Eastern South Dakota Science and Engineering Fair (2012, 2013, 2014, 2016)
- CSU: Natural Resource Ecology Laboratory Curriculum Development Committee (2009-2010)
- CSU: Natural Resource Ecology Laboratory Clark and Ellis Scholarship Committee (2009, 2010)
- CSU: Student representative to the Graduate Degree Program in Ecology Executive Committee (2000/2001)
- Reviewer for *Journal of Geophysical Research-Biogeosciences*, *Journal of Climate*, *Journal of Geophysical Research-Atmospheres*, *Remote Sensing of the Environment*, *Water, Sustainability*.