

Jeffrey A. Hicke

Department of Geography
University of Idaho
Moscow, ID 83844-3021

208-885-6240
jhicke@uidaho.edu
www.uidaho.edu/~jhicke

Education

Ph.D.: University of Colorado, Boulder Atmospheric and Oceanic Sciences	January 2000 Advisor: Dr. Adrian Tuck
M.A.: University of California, Santa Barbara Department of Geography	December 1994 Advisor: Dr. Catherine Gautier
GIS/Remote Sensing Certificate, University of Denver	May 1991
B.S.: University of California, Los Angeles Mathematics/Computer Science	June 1985 Summa cum laude

Professional Experience

2006-present	Assistant Professor, Department of Geography and Environmental Science Program, University of Idaho, Moscow, ID.
2005-2006	Adjunct Faculty, Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins, CO.
2005-2006	Affiliate Faculty, Graduate Degree Program in Ecology, Colorado State University, Fort Collins, CO.
2004-2006	Adjunct Faculty, Department of Atmospheric Science, Colorado State University, Fort Collins, CO.
2003-2006	Research Scientist, Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO.
2000-2003	Postdoctoral Research Associate, Department of Global Ecology, Carnegie Institution of Washington, Stanford, CA and University of Colorado, Boulder, CO. Supervisor: Dr. Gregory Asner.
2000	Postdoctoral Research Associate, NOAA Aeronomy Lab, Boulder, CO. Supervisor: Dr. Adrian Tuck.
1995-1999	Graduate Research Assistant, NOAA Aeronomy Lab, Boulder, CO.
1993	Visiting Graduate Student, University of Alaska, Fairbanks, AK. Sponsor: Dr. K. Stamnes.
1991-1994	Graduate Research Assistant, University of California, Santa Barbara.
1985-1991	Computer Programmer/Analyst, IBM Corp., Boulder, CO.

Refereed Publications

Burton, P. J, M.-A. Parisien, J. A. Hicke, R. J. Hall, J. T. Freeburn, Large fires as agents of ecological diversity in the North American boreal forest, *International Journal of Wildland Fire*, in press.

Hicke, J. A., and J. A. Logan, Mapping whitebark pine mortality caused by a mountain pine beetle outbreak with high spatial resolution satellite imagery, *International Journal of Remote Sensing*, in press.

Hicke, J. A., J. Slusser, K. Lantz, and F. G. Pascual, Trends and interannual variability in surface UV-B radiation over 8 to 11 years observed across the United States, *Journal of Geophysical Research*, 113, D21302, doi:10.1029/2008JD009826, 2008.

Raffa, K. F., B. H. Aukema, B. J. Bentz, A. L. Carroll, J. A. Hicke, M. G. Turner, and W. H. Romme, Cross-scale drivers of natural disturbances prone to anthropogenic amplification: The dynamics of bark beetle eruptions, *BioScience*, 58, 501-517, 2008.

- Hicke, J. A., and J. C. Jenkins, Mapping lodgepole pine stand structure susceptibility to mountain pine beetle attack across the western United States, *Forest Ecology and Management*, 255, 1536-1547, 2008.
- Hicke, J. A., J. C. Jenkins, D. S. Ojima, and M. Ducey, Spatial patterns of forest characteristics in the western United States derived from inventories, *Ecological Applications*, 17, 2387-2402, 2007.
- Hicke, J. A., J. A. Logan, J. Powell, and D. S. Ojima, Changing temperatures influence suitability for modeled mountain pine beetle (*Dendroctonus ponderosae*) outbreaks in the western United States, *Journal of Geophysical Research-Biogeosciences*, 111, G02019, doi:10.1029/2005JG000101, 2006.
- Peterson, D., R. Smith, S. Hager, J. Hicke, M. Dettinger, and K. Huber, Hydroclimate Monitoring in Yosemite National Park: River Chemistry, *Eos*, 86, 285-288, 2005.
- Bradford, J. B., J. A. Hicke, and W. K. Lauenroth, The relative importance of light-use efficiency modifications from environmental conditions and cultivation for estimation of large-scale net primary productivity, *Remote Sensing of Environment*, 96, 246-255, 2005.
- Hicke, J. A., NCEP and GISS solar radiation data sets available for ecosystem modeling: Description, differences, and impacts on net primary production, *Global Biogeochemical Cycles*, 19, GB2006, doi:10.1029/2004GB002391, 2005.
- Hicke, J. A., and D. B. Lobell, Spatiotemporal patterns of cropland area and net primary production in the central United States estimated from USDA agricultural information, *Geophysical Research Letters*, 31, L20502, doi:10.1029/2004GL020927, 2004.
- Hicke, J. A., D. B. Lobell, and G. P. Asner, Cropland area and net primary production computed from 30 years of USDA agricultural harvest data, *Earth Interactions*, 8, Paper No. 10, 2004b.
- Hicke, J. A., R. L. Sherriff, T. T. Veblen, and G. P. Asner, Carbon accumulation in Colorado ponderosa pine stands estimated with dendrochronology, *Canadian Journal of Forest Research*, 34, 1283-1295, 2004a.
- Hicke, J. A., G. P. Asner, E. S. Kasischke, N. H. F. French, J. T. Randerson, B. J. Stocks, C. J. Tucker, S. O. Los, and C. B. Field, Postfire response of North American net primary productivity analyzed with satellite observations, *Global Change Biology*, 9, 1145-1157, 2003.
- Asner, G. P., J. M. O. Scurlock, and J. A. Hicke, Global synthesis of leaf area index observations: implications for ecological and remote sensing studies, *Global Ecology and Biogeography*, 12, 191-205, 2003.
- Hicke, J. A., G. P. Asner, J. T. Randerson, S. Los, R. Birdsey, J. C. Jenkins, C. Tucker, C. Field, Trends in North American net primary productivity derived from satellite observations, 1982-1998, *Global Biogeochemical Cycles*, 16, 10.1029/2001GB001550, 2002a.
- Hicke, J. A., G. P. Asner, J. T. Randerson, C. Tucker, S. Los, R. Birdsey, J. C. Jenkins, C. Field, and E. Holland, Satellite-derived increases in net primary productivity across North America, 1982-1998, *Geophysical Research Letters*, 29, 1029/2001GL013578, 2002b.
- Lobell, D. B., J. A. Hicke, G. P. Asner, C. B. Field, C. J. Tucker, and S. O. Los, Satellite estimates of productivity and light use efficiency in United States agriculture, 1982-1998, *Global Change Biology*, 8, 722-735, 2002.
- Hicke, J., and A. Tuck, Polar stratospheric cloud impacts on Antarctic stratospheric heating rates, *Quarterly Journal of the Royal Meteorological Society*, 127, 1645-1658, 2001.
- Hicke, J., and A. Tuck, Tropospheric clouds and lower stratospheric heating rates: Results from late winter in the Southern Hemisphere, *Journal of Geophysical Research*, 104, 9309-9324, 1999a.
- Hicke, J., A. Tuck, and H. Vömel, Lower stratospheric radiative heating rates and sensitivities calculated from Antarctic balloon observations, *Journal of Geophysical Research*, 104, 9293-9308, 1999b.
- Hicke, J., A. Tuck, and W. Smith, A comparison of Antarctic stratospheric radiative heating rates calculated from HIS and UKMO data, *Journal of Geophysical Research*, 103, 19,691-19,707, 1998.

Book Chapters

- Ojima, Dennis S., T. Chuluun, B. Bolortsetseg, C. J. Tucker, and J. Hicke, Eurasian land use impacts on rangeland productivity, in *Ecosystems and Land Use Change*, edited by R. S. DeFries, G. P. Asner, and R. A. Houghton, pp. 293-301, American Geophysical Union, 2004.
- Asner, G. P., J. A. Hicke, and D. B. Lobell, Per-pixel analysis of forest structure: Vegetation indices, spectral mixture analysis and canopy reflectance modeling, in *Remote Sensing of Forest Environments: Concepts and Case Studies*, edited by M. Wulder and S. E. Franklin, pp. 209-254, Kluwer, Norwell, 2003.

Other Publications

- Bentz, B. J., C. J. Fettig, E. M. Hansen, J. L. Hayes, J. Hicke, R. Kelsey, J. Lundquist, J. F. Negrón, R. Progar, J. Régnière, S. J. Seybold, and J. Vandygriff, “Climate Change and Western Bark Beetles: Rapid Threat Assessment,” Report to the Western Wildland Environmental Threat Assessment Center, USDA Forest Service, 2008.
- Climate Change Science Program, *The effects of climate change on agriculture, land resources, water resources, and biodiversity*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. P. Backlund, A. Janetos, D. Schimel, J. Hatfield, K. Boote, P. Fay, L. Hahn, C. Izaurralde, B.A. Kimball, T. Mader, J. Morgan, D. Ort, W. Polley, A. Thomson, D. Wolfe, M. Ryan, S. Archer, R. Birdsey, C. Dahm, L. Heath, J. Hicke, D. Hollinger, T. Huxman, G. Okin, R. Oren, J. Randerson, W. Schlesinger, D. Lettenmaier, D. Major, L. Poff, S. Running, L. Hansen, D. Inouye, B.P. Kelly, L. Meyerson, B. Peterson, R. Shaw. U.S. Environmental Protection Agency, Washington, DC, USA, 362 pp, 2008.
- Romme, W. H., J. Clement, J. Hicke, D. Kulakowski, L. H. MacDonald, T. L. Schoennagel, and T. T. Veblen, “Recent Forest Insect Outbreaks and Fire Risk in Colorado Forests: A Brief Synthesis of Relevant Research,” Colorado Forest Restoration Institute, Colorado State University, 2006.

Contracts and Grants: Awarded

- Hicke, J. A., and collaborators D. Lawrence (NCAR), P. Thornton (formally NCAR, now DOE ORNL), and D. Kashian (Wayne State U.), “Climate Change, Insect Outbreaks, and Carbon Fluxes: Using an Earth System Model to Study Interactions in the Western United States,” DOE National Institute for Climate Change Research, \$235,000, 2009-2011.
- Hicke, J. A., “Estimating Climate Suitability for Important Forest Insect Species in Washington and Oregon,” Research Joint Venture Agreement with the Western Wildland Environmental Threat Assessment Center, USDA Forest Service, \$49,990, 2008-2009.
- Hicke, J. A., “Estimating Climate Suitability for Insect Outbreaks in the Pacific Northwest,” subcontract to U. Washington, \$3000, 2008.
- Stephenson, N., et al. (Hicke a co-PI), “The Western Mountain Initiative: Vulnerability and Adaptation to Climate Change in Western Mountain Ecosystems,” USGS Global Change Research Program, \$7 million, 2008-2013.
- Holden, Z., J. A. Hicke, P. Morgan, “Evaluating Interactions Between Insect Infestations and Fire Extent and Fire Severity: A Preliminary Investigation in Washington and Oregon,” Research Joint Venture Agreement with the Western Wildland Environmental Threat Assessment Center, USDA Forest Service, \$35,966, 2008-2009.
- Shreeve, J., et al. (Hicke a participant), “Idaho EPSCoR RII: Water Resources in a Changing Climate,” National Science Foundation EPSCoR Research Infrastructure Improvement, \$15 million, 2008-2013.
- Hicke, J. A., “Landscape Risk Assessment of Climate Change on Bark Beetle Outbreaks and Forest Ecosystems,” Joint Venture Agreement with the USDA Forest Service, \$10,000, 2007-2008.
- Hicke, J. A., graduate student funding for work on climate change and vertebrate species distributions, USGS Gap Analysis Project, \$72,000, 2007-2009.
- Hicke, J. A., Idaho EPSCoR Faculty Startup Augmentation Request, \$7500, 2006.
- Hicke, J. A., “Biomass and NPP in the Delaware River Basin,” subcontract to U. Vermont, \$9600, 2005.
- Goodale, C., J. Jenkins, J. A. Hicke, R. Riemann, “Reconciling long-term estimates of forest productivity and wood accumulation across the northeastern U.S. from inventories, eddy flux towers, and remote sensing,” DOE National Institute for Global Environmental Change, \$56,500, 2004.
- Hicke, J. A., D. Ojima, “Evaluation of Remote Sensing for Estimating Mountain Pine Beetle-Caused Mortality in Whitebark Pine Ecosystems,” Joint Venture Agreement with the USDA Forest Service, \$25,000, 2003-2005.

Stephenson, N., et al. (Hicke a collaborator), "Response of Western Mountain Ecosystems to Climatic Variability and Change: The Western Mountain Initiative," USGS Global Change Research Program, \$6.7 million, 2003-2008.

Teaching Experience

Courses Taught: Global Carbon Cycle (Spring 2009), Grand Challenges in Environmental Sciences, Scientific Analysis with Computer Programming, Biogeography, Physical Geography; team-taught: What Will Climate Change Mean For Idaho And The Interior West?, Global Environmental Change, Spatial Ecology and Remote Sensing: Ecology from Afar, Insect Outbreaks and Forest Ecosystems, Research Methods

Graduate student advisees, University of Idaho: Eric Pfeifer, M.S., Forest Resources; Arjan Meddens, Ph.D., Environmental Science; Jason Trook, M.S., Geography

Graduate student committees:

University of Idaho: Steven Garrity, Ph.D., Rangeland Ecology; Daniel Joswiak, Ph.D., Geography; Javier Naupari, Ph.D., Rangeland Ecology; Meghan Calhoun, M.S., Rangeland Ecology; Heather Heward, M.S., Forest Resources; Andrea Kuchy, M.S., Rangeland Ecology; Jessica Murray, M.S., Environmental Science/Fish and Wildlife Resources; Jessica Xu, M.S., Rangeland Ecology.

Colorado State University: Amy Hawes, M.S., Atmospheric Science; Andrew Schuh, Ph.D., Graduate Degree Program in Ecology.

Student mentoring: Ryan Sheridan (Fall 2008; undergraduate); David Wolcott (Summer 2008; undergraduate); Robert Ebel (Spring 2006; undergraduate); Jeromye Gordon (Summer 2005; undergraduate); David Kindig (Spring 2004; graduate student); Rachel Puttmann (Fall 2004; undergraduate); Kelson Castain (Summer 2003; undergraduate); Kids as Global Scientists (1996; middle school).

Community Service Activities

Session Organizer together with R. Sherriff, D. Kulakowski, "Insect Outbreaks and Forest Ecosystems: Patterns, Causes, and Impacts," Association of American Geographers Annual Meeting, to be held 22-27 March 2009, Las Vegas, NV.

Forum Leader, Forestry Breakout Session, "Making the Nation Resilient to Severe Weather and Climate Change," University Corporation for Atmospheric Research Annual Members' Meeting, 15 October 2008, Boulder, CO.

Session Organizer together with A. Jain, J. Littell, D. McKenzie, P. Thornton, W. Post, "Role of Climate, Carbon and Limiting Nutrient Cycles, and Human Activities in Terrestrial Ecosystems," American Geophysical Union Fall Meeting, 10-14 December 2007, San Francisco, CA.

Co-Chair, Mountain Ecosystems Responses to Climate Working Group, Consortium for Integrated Climate Research in Western Mountains, 2005-present.

Invited Workshop Participant, "Modeling Wildfire and Forest Insect Disturbance in a Changing Climate," USDA Forest Service, 13 December 2007, Albany, CA.

Seminar Series Organizer together with P. Morgan, "What Will Climate Change Mean For Idaho And The Interior West?," Fall 2007, U. Idaho, www.uidaho.edu/~jhicke/courses/cc_fall07.htm.

Invited Workshop Participant, Western Wildlands Environmental Threat Assessment Center Workshop on "Climate Change, Insects, Pathogen, and Forests," 26-28 June 2007, Portland, OR.

Invited Workshop Participant, "Climate Change and Disturbance Regimes in Western North America," Western Mountain Initiative, 12-15 February 2007, Tucson, AZ.

Co-Organizer of Organized Oral Session, "Linking Species Level Processes to Ecosystem Level Change: Climate Change and Insect Pest Disturbance," Ecological Society of America Annual Meeting, 1-6 August 2004, Portland, OR.

Executive Committee, Graduate Degree Program in Ecology, Colorado State University, Fall 2005.

Participant, "San Juan Mountains 2nd Research Retreat," Mountain Studies Institute, 17 September 2005, Boulder, CO.

Web Sites (currently being migrated)

- “Climate Data Plotting Page,” plots historical temperatures in United States at specified locations or over specified ecoregions from various sources, www.nrel.colostate.edu/~jhicke/climate_data, 2005.
- “National Atlas of Cropland Production,” maps or plots cropland production by county, state, or US, www.nrel.colostate.edu/~jhicke/usda_croplands/usda_cropland_npp.php, 2004.

Other Publicity

- Press coverage on fire/insect interactions synthesis report: radio
(http://www.publicbroadcasting.net/kunc/news.newsmain?action=article&ARTICLE_ID=1008194), newspaper (e.g., Denver Post 11/28/06, Rocky Mountain News 11/29/06)
- Review of climate plotting web page (www.nrel.colostate.edu/~jhicke/climate_data), *Science*, 309, 27, 2005.
- Best of the Web: Ecology, for climate plotting web page (www.nrel.colostate.edu/~jhicke/climate_data), *Genetic Engineering News*, <http://www.genengnews.com/bestofweb/bestofweb.aspx?tid=8>.
- “New Study Shows Increased Rate of Carbon Absorption by Plants,” *The Forestry Source*, newspaper of the Society of American Foresters, August 2001, <http://www.safnet.org/archive/carbon801.cfm>.
- Press coverage on trends in North American net primary productivity, NASA Earth Observatory (earthobservatory.nasa.gov/Newsroom/NasaNews/2001/200105294790.html), University of Colorado (www.colorado.edu/NewsServices/NewsReleases/2001/1251.html).

Community Outreach

- Panelist, “Regional Climate Impacts and Solutions,” Focus the Nation, Washington State University, February 21, 2008.
- Panelist, Global Warming Panel Discussion, UI Ecology and Conservation Biology, April 18, 2007.
- Hicke, J. A., “Beetle Activity in the West,” Wild Idaho! 2007, Idaho Conservation League, 20 May 2007, Redfish Lake, ID.
- Hicke, J. A., “Bark Beetle Outbreaks in Colorado and the West,” “Know Your Valley” lecture series, 28 February 2006, Vail, CO.

Awards and Memberships

- Environmental Protection Agency STAR Graduate Student Fellow, 1996-1999
- NASA Graduate Student Fellow in Global Change Research, 1992-1994
- Member, Phi Beta Kappa
- Member, American Geophysical Union, Ecological Society of America, Association of American Geographers

Conference Proceedings/Extended Abstracts

- Hicke, J. A., and J. A. Logan, Bark beetle outbreaks in the West: Influences of past, current, and future climate change, in *Proceedings of the 55th Western International Forest Disease Work Conference*, Sedona, AZ, 15-19 October 2007.
- Burton, P. J., M.-A. Parisien, J. A. Hicke, A. Leduc, S. Gauthier, Y. Bergeron, and M. Flannigan, Large fires as agents of ecological diversity in the North American boreal forest, *3rd International Fire Ecology & Management Congress*, San Diego, California, 13-17 November 2006.
- Hicke, J. A., J. A. Logan, and D. S. Ojima, Insect outbreaks, forests, and climate: Effects on the North American carbon budget, *Proceedings of the 1st Integrated Land Ecosystem-Atmosphere Processes Study Science Conference*, Boulder, Colorado, Report Series in Aerosol Science, Number 79, edited by A. Reissell, A. Aarflot, 194-196, 2006.

- Ojima, D., D. Schimel, J. Hicke, S. Running, B. Stephens, and T. Hilinski, Estimation of regional carbon dynamics in complex landscapes of the Colorado Rockies by model-data fusion, Proceedings of the Open Science Conference: Global Change in Mountain Regions, Perth, Scotland, UK, 2-6 October 2005.
- Hicke, J. A., D. S. Ojima, J. A. Logan, D. Kashian, M. G. Ryan, and W. Romme, Comparing the impacts of different disturbances of western North American forests on carbon cycling, Seventh International Carbon Dioxide Conference, Broomfield, CO, 26-30 September 2005.
- Hicke, J. A., J. Slusser, and K. Lantz, Long-term variability in surface UV-B radiation across the United States, *Proceedings of SPIE*, Volume 5545, edited by James R. Slusser, Jay R. Herman, Wei Gao, and Germar Bernhard, 7-16, 2004.
- Hicke, J. A., A. Tuck, and K. Rosenlof, MM5 simulations of a stratospheric gravity wave observed during the WB57F Aerosol Mission, *Mesoscale Processes in the Stratosphere: Their Effect on Stratospheric Chemistry and Microphysics*, edited by K. S. Carslaw and G. T. Amanatidis, editors, European Commission, Bad Tölz, Bavaria, Germany, 115-120, 1998.

Invited Talks

- Hicke, J. A., "Insect Outbreaks in Western North America: Extent, Drivers, and Impacts," Bio-hydro-atmosphere Interactions of Energy, Aerosols, Carbon, H₂O, Organics, and Nitrogen (BEACHON) group, National Center for Atmospheric Research, 15 October 2008, Boulder, CO.
- Hicke, J. A., D. Lawrence, and P. Thornton, "Putting Bugs into CLM," National Center for Atmospheric Research 13th Annual Community Climate System Model Workshop, 17-19 June 2008, Breckenridge, CO.
- Hicke, J. A., "Climate Change and Insect Outbreaks: Implications for Forest Ecosystems," University of Idaho Fall Seminar Series on Climate Change, 26 October 2007, Moscow, ID.
- Hicke, J. A., "Climate Change: What Does It Mean For Idaho?," Lewis-Clark State College, 25 October 2007, Lewiston, ID.
- Hicke, J. A., and J. A. Logan, "Bark Beetle Outbreaks in the West: Influences of Past, Current, and Future Climate Change," Western International Forest Disease Work Conference, 16-18 October 2007, Sedona, AZ.
- Hicke, J. A., "Insect Outbreaks and Climate Change: Progress and Challenges," Western Wildlands Environmental Threat Assessment Center Workshop on Climate Change, Insects, Pathogen, and Forests, 26-28 June 2007, Portland, OR.
- Hicke, J. A., "Bark Beetle Outbreaks and Carbon Cycling," Fire and Carbon Workshop, 30 May 2007, Grand Teton National Park, WY.
- Hicke, J. A., "Bark Beetle Outbreaks in the West and Impacts on Ecosystems," Cornell University, 23 October 2006.
- Hicke, J. A., "Bark Beetle Outbreaks in the West and Impacts on Ecosystems," Soil and Water Quality Seminar, Department of Plant, Soil, and Entomological Sciences, University of Idaho, 6 October 2006, Moscow, ID.
- Hicke, J. A., and J. A. Logan, "Warming in the West: The Mountain Pine Beetle in Novel Environments," North American Forest Insect Work Conference, 23-25 May 2006, Asheville, NC.
- Hicke, J. A., D. Ojima, C. J. Tucker, and S. Running, "Meteorological Inputs and Large-Scale Estimates of Carbon Fluxes," American Geophysical Union Fall Meeting, 23-26 May 2006, Baltimore, MD.
- Hicke, J. A., "North American Carbon Fluxes in Recent Decades: Spatiotemporal Patterns and Drivers of Change," University of Idaho, 23 March 2006, Moscow, ID.
- Hicke, J. A., "Bark Beetle Outbreaks in the West: Impacts on Ecosystems and People," Natural Resource Ecology Laboratory, Colorado State University, 3 February 2006, Fort Collins, CO.
- Hicke, J. A., "Context, Characteristics, and Consequences of Recent Bark Beetle Outbreaks: Contributions of Landscape- to Regional-Scale Analyses," Bark Beetle Symposium, 15-18 November 2005, Snowbird, UT.
- Hicke, J. A., "Assessing Spatiotemporal Patterns of Vegetation Production with Two Decades of Satellite Observations," Monitoring Science & Technology Symposium, 22 September 2004, Denver, CO.
- Hicke, J. A., "Understanding Mechanisms Driving Carbon Sources and Sinks Using Satellite Remote Sensing," Global Connections between NREL and the World: Lessons Learned, Natural Resource Ecology Laboratory Symposium, 8 September 2004, Fort Collins, CO.

- Hicke, J. A., “Effects of North American Fires on Satellite-Derived Productivity,” University of Wyoming, 4 December 2002, Laramie, WY.
- Hicke, J. A., “Spatial Analysis of Trends in Satellite-derived Net Primary Productivity in North America,” National Center for Atmospheric Research, 14 November 2002, Boulder, CO.
- Hicke, J. A., G. Asner, J. Randerson, C. Field, S. Los, J. Tucker, R. Birdsey, J. Jenkins, E. Holland, and D. Lobell, “Trends in North American Net Primary Productivity Derived from Satellite Observations,” Carnegie Institution of Washington, 30 May 2002, Stanford, CA.
- Hicke, J. A., “Trends in North American Net Primary Productivity Derived from Satellite Observations,” Colorado State University, 23 April 2002, Fort Collins, CO.
- Hicke, J. A., A. Tuck, and K. Rosenlof, “Descent Rates in the Antarctic Stratosphere,” NOAA Aeronomy Laboratory, 18 January 2000, Boulder, CO.

Contributed Oral Presentations

- Hicke, J. A., and J. A. Logan, “Mapping a Mountain Pine Beetle Outbreak in a High-Elevation Whitebark Pine Ecosystem,” Association of American Geographers Annual Meeting, 18 April 2008, Boston, MA.
- Bachelet, D., B. Baker, J. Hicke, D. Conklin, and K. McKelvey, “Data Gathering and Simulation of Climate Change Impacts in Mountainous Areas,” American Geophysical Union Fall Meeting, 10-14 December 2007, San Francisco, CA.
- Hicke, J. A., “Using High-Resolution Satellite Imagery to Study Insect-Caused Tree Mortality in Central Idaho,” NASA Idaho Space Grant Consortium Research Symposium, 21 September 2007, Moscow, ID.
- Hicke, J. A., “Landscape Patterns of a Mountain Pine Beetle Outbreak in a Whitebark Pine Forest in Central Idaho,” Western Forest Insect Work Conference, 6-8 March 2007, Boise, ID.
- Hicke, J. A., “Climate Variability and Trends in Mountain Ecosystems of the Western United States: Effects on Outbreaks of Mountain Pine Beetle,” American Geophysical Union Fall Meeting, 11-15 December 2006, San Francisco, CA.
- Burton, P. J., M.-A. Parisien, J. A. Hicke, A. Leduc, S. Gauthier, Y. Bergeron, and M. Flannigan, “Large Fires as Agents of Ecological Diversity in the North American Boreal Forest,” 3rd International Fire Ecology & Management Congress, San Diego, California, 13-17 November 2006.
- Hicke, J. A., “Progress and Challenges of Using Satellite Remote Sensing for Studying Mountain Vegetation Responses to Climate,” MtnClim 2006, 19-22 September 2006, Timberline, OR.
- McKenzie, D., J. S. Baron, C. D. Allen, N. L. Stephenson, D. Fagre, D. L. Peterson, J. Hicke, J. S. Littell, P. J. van Mantgem, L. Christensen, and C. Tague, “Synthesis Activities of the Western Mountain Initiative,” MtnClim 2006, 19-22 September 2006, Timberline, OR.
- Hicke, J. A., J. A. Logan, and D. S. Ojima, “Insect outbreaks, forests, and climate: Effects on the North American carbon budget,” First Integrated Land Ecosystem-Atmosphere Processes Study Science Conference, Boulder, Colorado, 21-26 January 2006, Boulder, CO.
- Hicke, J. A., J. C. Jenkins, and M. J. Ducey, “Net Primary Productivity Estimated from Forest Inventories: Variability Among Environmental and Forest Conditions,” 7th Annual Forest Inventory and Analysis Symposium, 3-6 October 2005, Portland, ME.
- Hicke, J. A., J. A. Logan, J. Powell, and D. S. Ojima, “Increasing Temperatures in Mountainous Regions of the Western United States and Effects on Insect Outbreaks,” American Geophysical Union Fall Meeting, 13-17 December 2004, San Francisco, CA.
- Hicke, J. A., J. A. Logan, and D. S. Ojima, “Quantifying the Interaction Between Climate Change and Outbreak Frequency in Western North America,” Ecological Society of America Annual Meeting, 2-6 August 2004, Portland, OR.
- Hicke, J. A., J. Slusser, and K. O. Lantz, “Long-term Trends in Surface UV-B Radiation Across the United States,” SPIE Annual Meeting, 2-6 August 2004, Denver, CO.
- Hicke, J. A., “Changes in Eurasian Vegetation Productivity over 18 Years Derived from Remote Sensing Observations,” Natural Resource Ecology Laboratory, Colorado State University, 5 September 2003, Fort Collins, CO.

- Hicke, J. A., G. Asner, J. Randerson, D. Lobell, S. Los, R. Birdsey, J. Jenkins, J. Tucker, and C. Field, "North American NPP from 1982-1998 Using a New Satellite Record: Trends and Comparisons With Field Measurements," American Geophysical Union Spring Meeting, 29 May-2 June 2001, Boston, MA.
- Hicke, J. A., A. Tuck, and K. Rosenlof, "Lower Stratospheric Radiative Heating Rates in the Antarctic Vortex: Sensitivities and Implications for Dynamics," Program in Atmospheric and Oceanic Sciences, University of Colorado, 19 February 1999, Boulder, CO.
- Hicke, J. A., A. Tuck, and K. Rosenlof, "MM5 Simulations of a Stratospheric Gravity Wave Observed During the WB57F Aerosol Mission," American Geophysical Union Fall Meeting, 6-10 December 1998, San Francisco, CA.
- Hicke, J. A., A. Tuck, and W. Smith, "Radial Gradients in Diabatic Cooling Rates in the Southern Hemisphere Polar Vortex," American Meteorological Society Conference on the Middle Atmosphere, 23-27 June 1997, Tacoma, WA.
- Hicke, J. A., A. Tuck, and W. Smith, "Radiatively-Determined Diabatic Cooling Rates of the Antarctic Polar Vortex," 2-6 December 1996, First SPARC General Assembly, Melbourne, Australia.

Poster Presentations (* indicates Hicke graduate student)

- Hicke, J. A., and *A. J. Meddens, "Climate Influences on Plant Growth: Spatiotemporal Patterns in Mountain Ecosystems of the West," MtnClim 2008, 10-12 June 2008, Silverton, CO.
- Hicke, J. A., and J. C. Jenkins, "Bark Beetles as Significant Forest Disturbances: Estimating Susceptibility Based On Stand Structure," American Geophysical Union Fall Meeting, 10-14 December 2007, San Francisco, CA.
- *Pfeifer, E., and J. A. Hicke, "Recovery of Forest Productivity Following Mountain Pine Beetle Outbreaks," Society of American Foresters National Convention, 23-26 October 2007, Portland, OR.
- *Meddens, A. J. H., and J. A. Hicke, "Estimating Aboveground Biomass Mortality of Lodgepole Pine Caused by Mountain Pine Beetle (*Dendroctonus ponderosae*) in the Sawtooth Mountain Range, Idaho," NASA Idaho Space Grant Consortium Research Symposium, 21 September 2007, Moscow, ID.
- Hicke, J. A., and J. C. Jenkins, "Westwide Estimates of Lodgepole Pine Susceptibility to Mountain Pine Beetle Outbreak Using Forest Inventory Data," Western Forest Insect Work Conference, 6-8 March 2007, Boise, ID.
- *Pfeifer, E., and J. A. Hicke, "Mountain Pine Beetle Outbreak Effects on Forest Structure," Western Forest Insect Work Conference, 6-8 March 2007, Boise, ID.
- Hicke, J. A., R. Birdsey, J. Bradford, J. Jenkins, D. Lobell, S. Running, W. Sacks, and D. Schimel, "Validating Satellite-Derived Vegetation Products with Forest and Cropland Inventories and Eddy Flux Measurements," Global Vegetation Workshop, 8-10 August 2006, Missoula, MT.
- Hicke, J. A., and J. A. Logan, "Monitoring and Forecasting Mountain Pine Beetle Outbreaks in High-Elevation Whitebark Pine Forests," Advances in Threat Assessment and Their Application to Forest and Rangeland Management, 18-20 July 2006, Boulder, CO.
- Hicke, J. A., and J. A. Logan, "Monitoring and Forecasting Mountain Pine Beetle Outbreaks in High-elevation Whitebark Pine Forests," North American Forest Insect Work Conference, 23-25 May 2006, Asheville, NC.
- Hicke, J. A., "Means and Trends in Solar Radiation: Results From Two Global Data Sets and Effects on Estimated Net Primary Production," American Geophysical Union Fall Meeting, 4-9 December 2005, San Francisco, CA.
- Hicke, J. A., D. S. Ojima, J. A. Logan, D. Kashian, M. G. Ryan, and W. Romme, "Comparing the Impacts of Different Disturbances of Western North American Forests on Carbon Cycling," Seventh International Carbon Dioxide Conference, 26-30 September 2005, Broomfield, CO.
- Hicke, J. A., "Development of a Web Site for Analyzing Temperatures in Mountain Regions Over the Last 100 Years," MTNCLIM 2005, 1-4 March 2005, Pray, MT.
- Hicke, J. A., D. S. Ojima, S. Running, and D. Schimel, "Using Remote Sensing Products in Carbon Cycle Studies of the Mountainous Western US," MODIS Vegetation Workshop II, 17-19 August 2004, Missoula, MT.

- Hicke, J. A., and D. N. Kindig, “ENSO Influences on a 17-year Record of Satellite-derived Net Primary Production in Western North American Mountains,” Mountain Climate Sciences Symposium, 25-27 May 2004, Lake Tahoe, CA.
- Hicke, J. A., and D. S. Ojima, “Exploring 20 Years of Eurasia NPP Changes Associated with Land-Cover/Land-Use Change,” NASA Land-Cover/Land-Use Change Science Team Meeting, 20-22 January 2004, College Park, MD.
- Hicke, J. A., and D. S. Ojima, “Changes in Mongolia Vegetation Productivity (1982-1998) Derived From Satellite Observations,” American Geophysical Union Fall Meeting, 8-12 December 2003, San Francisco, CA.
- Hicke, J. A., D. B. Lobell, and G. P. Asner, “The Roles of Changing Crop Area and Yields in Driving Increases in Net Primary Productivity in the Central US,” American Geophysical Union Chapman Conference on Ecosystem Interactions with Land Use Change, 14-18 June 2003, Santa Fe, NM.
- Hicke, J. A., G. van der Werf, F. Mouillot, J. T. Randerson, C. B. Field, and G. P. Asner, “Spatial Patterns of Nitrogen Loss From Fire,” American Geophysical Union Fall Meeting, 6-10 December 2002, San Francisco, CA.
- Hicke, J. A., G. P. Asner, R. L. Sherriff, and T. T. Veblen, “Using Dendroecology to Assess the Impact of Forest Encroachment on the Carbon Budget,” Ecological Society of America Annual Meeting, 5-9 August 2002, Tucson, AZ.
- Hicke, J. A., G. Asner, E. Kasischke, N. French, B. Stocks, J. Randerson, C. Tucker, S. Los, and C. Field, “Postfire Response of North American Net Primary Productivity Derived from Satellite Observations,” American Geophysical Union Fall Meeting, 10-14 December 2001, San Francisco, CA.
- Hicke, J. A., and A. Tuck, “The Effect of Tropospheric Clouds on the Lower Stratospheric Radiative Heating Rate During the Southern Hemisphere Winter,” American Geophysical Union Spring Meeting, 26-29 May 1998, Boston, MA.

Reviews

Manuscripts: *Journal of Geophysical Research-Biogeosciences*, *Journal of Geophysical Research-Atmospheres*, *Global Biogeochemical Cycles*, *Earth Interactions*, *Geophysical Research Letters*, *Global and Planetary Change*, *Landscape Ecology*, *Ecological Applications*, *Ecosystems*, *Forest Ecology and Management*, *Applied Vegetation Science*, *Journal of Arid Environments*, *Journal of Ecology*, *Canadian Journal of Forest Research*, *Journal of Biogeography*, *Global Ecology and Biogeography*, *Bulletin of the American Meteorological Society*, *Geoscience and Remote Sensing Letters*, *Canadian Journal of Remote Sensing*, *Remote Sensing of Environment*, *Photogrammetric Engineering and Remote Sensing*

Proposals: DOE National Institute for Climate Change Research, National Science Foundation, NASA (including review panel in 2007), Alberta Ingenuity Fund (provincial government), GEOIDE Network (Canadian)

Updated November 2008