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## Current Global Ecology Publication List (2005 to present)

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### 2011

Anderson, R. G., J.G. Canadell, J.T. Randerson, R.B. Jackson, B.A. Hungate, D.D. Baldocchi, G.A. Ban-Weiss, G.B. Bonan, **K. Caldeira**, **L. Cao**, N.S. Diffenbaugh, K.R. Gurney, L.M. Kueppers, B.E. Law, S. Luysaert, and T.L. O'Halloran (2011), Biophysical considerations in forestry for climate protection, *Frontiers in Ecology and the Environment*, 9(3), 174-182, doi:10.1890/090179

**Asner, G. P.** 2011. Painting the world REDD: addressing scientific barriers to monitoring emissions from tropical forests. *Environmental Research Letters* 6 021002 doi: 10.1088/1748-9326/6/2/021002

**Asner, G. P. R. E. Martin, R.** Tupayachi, R. Emerson, P. Martinez, F. Sinca, G. V. N. Powell, S. J. Wright and A. E. Lugo. 2011. Taxonomy and remote sensing of leaf mass per area (LMA) in humid tropical forests. *Ecological Applications* 21(1):85-98.

**Asner, G. P.**, R. F. Hughes, **J. Mascaro**, A. L. Uowolo, **D. E. Knapp**, **J. Jacobson**, **T. Kennedy-Bowdoin**<sup>1</sup>, and **J. K. Clark** 2011. High-resolution carbon mapping on the million-hectare Island of Hawaii. *Frontiers in Ecology and the Environment*. doi:10.1890/100179

Ban-Weiss, George A., **L. Cao**, G. Bala, **K. Caldeira**, Dependence of climate forcing and response on the altitude of black carbon aerosols, *Climate Dynamics*, April 13, 2011, DOI: 10.1007/s00382-011-1052-y

**Caldeira, K.** and **S. J. Davis**. 2011. Commentary: Accounting for carbon dioxide emissions: A matter of time. *Proceeding of the National Academy of Sciences*. doi:10.1073/pnas.1106517108

**Cao, L.**, G. Bala, and **K. Caldeira**, 2011. Why is there a short-term increase in global precipitation in response to diminished CO<sub>2</sub> forcing? *Geophysical Research Letters*, Vol. 38, L06703, 6 PP., 2011 doi:10.1029/2011GL046713.

**Davis, S. J.**, G. P. Peters, and **K. Caldeira**. 2011. The supply chain of CO<sub>2</sub> emissions PNAS 2011 : 1107409108v1-201107409.

**Feret, J-B.** and **G. P. Asner**. 2011. Spectroscopic classification of tropical forest species using radiative transfer modeling, *Remote Sensing of Environment*, 115(9):2415-2422, ISSN 0034-4257, DOI: 10.1016/j.rse.2011.05.004.

**Feret, J-B.**, C. Francois, A. Gitelson, **G. P. Asner**, K. M. Barry, C. Panigada, A. D. Richardson, S. Jacquemoud. 2011. Optimizing spectral indices and chemometric analysis of leaf chemical properties using radiative transfer modeling, *Remote Sensing of Environment*, Volume 115(10):2742-2750, ISSN 0034-4257, DOI: 10.1016/j.rse.2011.06.016.

Georgescu, M., D. B. Lobell, and **C. B. Field**. Direct climate effects of perennial bioenergy crops in the United States. *Proceedings of the National Academy of Sciences*. [www.pnas.org/cgi/doi/10.1073/pnas.1008779108](http://www.pnas.org/cgi/doi/10.1073/pnas.1008779108)

**Hernandez, R. R.** and D. R. Sandquist Disturbance of biological soil crust increases emergence of exotic vascular plants in California sage scrub. *Plant Ecology*. DOI 10.1007/s11258-011-9943-x

Knox, N. M., A. K. Skidmore, H. H.T. Prins, **G. P. Asner**, H. M.A. van der Werff, W. F. de Boer, C. van der Waal, H. J. de Knegt, E. M. Kohi, R. Slotow, and R. C. Grant. 2011. Dry season mapping of savanna forage quality, using the hyperspectral Carnegie Airborne Observatory sensor. *Remote Sensing of Environment*. 115(6):1478-1488. doi:10.1016/j.rse.2011.02.007

Ladefogeda, T. N., M.D. McCoy, **G. P. Asner**, P. V. Kirch, C. O. Pulestonf, O. A. Chadwick, and P. M. Vitousek. 2011. Agricultural potential and actualized development in Hawai'i: an airborne LiDAR survey of the leeward Kohala field system (Hawai'i Island). *Journal of Archeological Science* 38:3605-3619.

**Loarie, S. R.**, D. B. Lobell, **G. P. Asner**, Q Mu, and **C. B. Field**. 2011. Direct impacts on local climate of sugar-cane expansion in Brazil. *Nature Climate Change*. DOI: doi:10.1038/nclimate1067

**MacMynowski, D. G.**, H.-J. Shin, and **K. Caldeira** (2011), The frequency response of temperature and precipitation in a climate model, *Geophys. Res. Lett.*, 38, L16711, doi:10.1029/2011GL048623.

**M. D. Mastrandrea** and **K. J. Mach**. 2011. Treatment of uncertainties in IPCC Assessment Reports: past approaches and considerations for the Fifth Assessment Report. *Climate Change*. DOI 10.1007/s10584-011-0177-7



- Mastrandrea, M. D., K. J. Mach**, G. Plattner, O. Edenhofer, T. F. Stocker, **C. B. Field, K. L. Ebi**, P. R. Matschoss. 2011. The IPCC AR5 guidance note on consistent treatment of uncertainties: a common approach across the working groups. *Climate Change*. DOI 10.1007/s10584-011-0178-6
- McCoy, M. D., **G. P. Asner**, and M. W. Graves. 2011. Airborne lidar survey of irrigated agricultural landscapes: an application of the slope contrast method, *Journal of Archaeological Science*, 38(9):2141-2154. Satellite remote sensing in archaeology: past, present and future perspectives. ISSN 0305-4403, DOI: 10.1016/j.jas.2011.02.033.
- Melillo, J. M., S. Butler, **J. Johnson**, J. Mohan, P. Steudler, H. Lux, E. Burrows, F. Bowles, R. Smith, L. Scott, C. Vario, T. Hill, A. Burton, Y. Zhou, and J. Tang. 2011. Soil warming, carbon–nitrogen interactions, and forest carbon budgets. *PNAS* 108: 9508-9512.
- Niboyet, A., X. Le Roux, P. Dijkstra, B. A. Hungate, L. Barthes, J. C. Blankinship, J. R. Brown, **C. B. Field**, and P. W. Leadley. 2011. Testing interactive effects of global environmental changes on soil nitrogen cycling. *Ecosphere* 2:art56. [doi:10.1890/ES10-00148.1]
- Niboyet A, Brown JR, Dijkstra P, Blankinship JC, Leadley PW, et al. 2011 Global Change Could Amplify Fire Effects on Soil Greenhouse Gas Emissions. *PLoS ONE* 6(6): e20105. doi:10.1371/journal.pone.0020105
- Ochoa-Hueso, R., **R. R. Hernandez**, J. J. Pueyo, E Manrique. 2011. Spatial distribution and physiology of biological soil crusts from semi-arid central Spain are related to soil chemistry and shrub cover, *Soil Biology & Biochemistry*, 43(9):1894-1901. doi:10.1016/j.soilbio.2011.05.010
- Pongratz, J., C. H. Reick, T. Raddatz, K. Caldeira, and M. Claussen (2011), Past land use decisions have increased mitigation potential of reforestation, *Geophys. Res. Lett.*, 38, L15701, doi:10.1029/2011GL047848.
- Somers, B., **G.P. Asner**, L. Tits, and P. Coppin. 2011. Endmember variability in Spectral Mixture Analysis: A review. *Remote Sensing of Environment*, 115:1603-1616.
- Takahashi, M., T.W. Giambelluca, R.C. Mudd, J.K. DeLay, M.A. Nullet, and **G.P. Asner**. 2011. Rainfall partitioning and cloud water interception in native forest and invaded forest in Hawai'i Volcanoes National Park. *Hydrological Processes* 25, 448-464.
- Wolf, A.**, P. Ciais, V. Bellassen, N. Delbart, **C. B. Field**, and **J. A. Berry**. 2011. Forest biomass allometry in global land surface models, *Global Biogeochem. Cycles*, 25, GB3015, doi:10.1029/2010GB003917.
- Wolf, A., C. B. Field**, and **J. A. Berry**. 2011. Allometric growth and allocation in forests: a perspective from FLUXNET. *Ecological Applications* 21:1546–1556. doi:10.1890/10-1201.1

## 2010

- Almeyda Zambrano, A.M., E.N. Broadbent**, and W.H. Durham. 2010. Social and environmental effects of ecotourism in the Osa Peninsula of Costa Rica: the Lapa Rios case. *Journal of Ecotourism*, 9(1): 62-83.
- Almeyda Zambrano, A.M., Broadbent, E.N.**, Wyman, M. S. and W.H. Durham. 2010. Ecotourism Impacts in the Nicoya Peninsula, Costa Rica. *International Journal of Tourism Research*. DOI: 10.1002/jtr.797
- Anderegg, W.R.L.**, J. W. Prall, J. Harold, S.H. Schneider. 2010. Expert credibility in climate change. *PNAS*, doi/10.1073/pnas.1003187107.
- Asner, G. P.**, and Alencar, A. 2010. Drought impacts on the Amazon forest: the remote sensing perspective. *New Phytologist*. doi: 10.1111/j.1469-8137.2010.03310.x
- Asner, G.P.** and S. Archer. 2010. Livestock and the Global Carbon Cycle. pp. 69-82 in *Livestock in a Changing Landscape: Drivers, Consequences and Responses*. Eds: H. Steinfeld, H. Mooney, F. Schneider and L. E. Neville. Washington, D.C.: Island Press.
- Asner, G.P.**, M. Keller, M. Lentini, F. Merry, and C. Souza, Jr. 2009. Selective Logging and Its Relation to Deforestation. Amazonia and Global Change. *Geophysical Monograph Series* 186, pp. 25-42. doi: 10.1029/2008GM000723.
- Asner, G.P., Loarie, S. R.**, and Heyder, U. 2010. Combined effects of climate and land-use change on the future of humid tropical forests. doi: 10.1111/j.1755-263X.2010.00133.x
- Asner, G. P.**, Powell, G. V. N., Mascaro, J., **Knapp, D. E.**, **Clark, J. K.**, **Jacobson, J.**, **Kennedy-Bowdoin, T.**, **Balaji, A.**, **Paez-Acosta, G.**, Victoria, E., Secada, L., Valqui, M., and Hughes., R. F. 2010. High-resolution forest carbon stocks and emissions in the Amazon. *PNAS*. doi: 10.1073/pnas.1004875107
- Bala, G., **Caldeira, K.**, Nemani, R., **Cao, L.**, **Ban-Weiss, G.**, and **Shin, H.** 2010. Albedo enhancement of marine clouds to counteract global warming: impacts on the hydrological cycle. *Climate Dynamics*. DOI: 10.1007/s00382-010-0868-1
- Ban-Weiss., G. A.**, and **Caldeira, K.** 2010. Geoengineering as an optimization problem. *Environmental Research Letters* 5 034009. doi: 10.1088/1748-9326/5/3/034009
- Bendick, R., **Dahlin, K.M.**, Smoliak B V., Kumler, L., Jones, S. J., Aktipis, A., Fugate, E., Hertog, R., Moberg, C., Scott D. 2010. *Weather, Climate, and Society*. 2:140-147.
- Berry, J. A.**, Beerling, D. J. and Franks, P. J. 2010. Stomata: key players in the earth system, past and present. *Current Opinion in Plant Biology*. 13:223-240.
- Cao, L.**, Bala, G., **Caldeira, K.**, Nemanid, R., and **Ban-Weiss, G.** 2010. Importance of carbon dioxide physiological forcing to future climate change. *PNAS* 107(21):9513-9518. doi:10.1073/pnas.0913000107
- Cao, L.** and **Caldeira, K.** 2010. Atmospheric carbon dioxide removal: long-term consequences and commitment. *Environmental Research Letters*. doi: 10.1088/1748-9326/5/2/024011
- Davis, S.J.** and **K. Caldeira**. 2010. Supporting Information, Davis and Caldeira. *PNAS* (10.1073/pnas.0906974107):1-8.
- Davis, D. J.**, **Caldeira, K.**, and Matthews, H.D. 2010. Future CO2 Emissions and Climate Change from Existing Energy Infrastructure. *Science* 329 (5997):1330 - 1333. DOI: 10.1126/science.1188566
- Davis, S.J.**, **Caldeira, K.**, and Matthews, H.D. 2010. Consumption-based accounting of CO2 emissions. *PNAS* (doi/10.1073/pnas.0906974107):1-6.

- De Santis, A., **Asner, G. P.**, Vaughan, P. J., **Knapp, D. E.** 2010. Mapping burn severity and burning efficiency in California using simulation models and Landsat imagery. *Remote Sensing of Environment* 114:1535–1545
- Gonzalez, P., **Asner, G. P.**, Battles, J. J., Lefsky, M. A., Waring, K. M., Palace, M. 2010. Forest carbon densities and uncertainties from Lidar, QuickBird, and field measurements in California. *Remote Sensing of Environment*. 114:1561-1575.
- Huang, C., **Asner, G. P.**, Barger, N. N., Neff, J. C., Floyd, M. L. 2010. Regional aboveground live carbon losses due to drought-induced tree dieback in piñon–juniper ecosystems. *Remote Sensing of Environment* 114: 1471–1479
- Flaspohler, D. J., Giardina, C. P., **Asner, G. P.**, Hart, P., Price, J. Ka'apu Lyons, C., and Castaneda, X. 2010. Long-term effects of fragmentation and fragment properties on bird species richness in Hawaiian forests. *Biological Conservation* 143: 280–288.
- Kutschera, U. **R. Pieruschka, J. A. Berry.** 2010. Leaf development, gas exchange characteristics, and photorespiratory activity in maize seedlings. *Photosynthetica* 48 (4): 617-622
- Levick, S. R., Asner, G. P.,** Chadwick, O. A., Khomo, L. M., Rogers, K. H., Hartshorn, A. S., **Kennedy-Bowdoin, T., and Knapp, D. E.** 2010. Regional insight into savanna hydrogeomorphology from termite mounds. *Nature Communications*. 1:65. doi: 10.1038/ncomms1066 (2010)
- Pringle, E. G., Adams, R.I., **Broadbent, E.**, Busby, P. I., Donatti, C. I., Kurten, E. L., Renton, K., and Dirzo, R. 2010. Distinct Leaf-Trait Syndromes of Evergreen and Deciduous Trees in a Seasonally Dry Tropical Forest. *BIOTROPICA*. Doi: 10.1111/j.1744-7429.2010.00697.x
- Pieruschka, R.,** Hubera, G. and **Berry, J.A.** 2010. Control of transpiration by radiation. *PNAS* doi: 10.1073/pnas.0913177107
- Pongratz, J.,** C.H. Reick, T. Raddatz, and M. Claussen. 2010. Biogeophysical versus biogeochemical climate response to historical anthropogenic land cover change. *Geophysical Research Letters*, 37:L08702, doi: 10.1029/2010GL043010.
- Wessels, K.J., R. Mathieu, B.F.N. Erasmus, **G.P. Asner**, I.P.J. Smit, J.A.N. van Aardt, R. Main, J. Fisher, W. Marais, **T. Kennedy-Bowdoin, D.E. Knapp, R. Emerson, J. Jacobson.** 2010. Impact of communal land use and conservation on woody vegetation structure in the Lowveld savannas of South Africa. *Forest Ecology and Management* 261:19–29. doi:10.1016/j.foreco.2010.09.012.
- Wolf, A., J.A. Berry, and G.P. Asner.** 2010. Allometric constraints on sources of variability in multi-angle reflectance measurements. *Remote Sensing of Environment*, 114:1205-1219.

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